

2016

Bringing Demonstrative Evidence in from the Cold: The Academy's Role in Developing Model Rules

Maureen A. Howard
University of Washington School of Law

Jeffrey C. Barnum

Follow this and additional works at: <https://digitalcommons.law.uw.edu/faculty-articles>



Part of the [Evidence Commons](#)

Recommended Citation

Maureen A. Howard and Jeffrey C. Barnum, *Bringing Demonstrative Evidence in from the Cold: The Academy's Role in Developing Model Rules*, 88 *TEMPLE L. REV.* 513 (2016), <https://digitalcommons.law.uw.edu/faculty-articles/369>

This Article is brought to you for free and open access by the Faculty Publications at UW Law Digital Commons. It has been accepted for inclusion in Articles by an authorized administrator of UW Law Digital Commons. For more information, please contact cnyberg@uw.edu.

BRINGING DEMONSTRATIVE EVIDENCE IN FROM THE COLD: THE ACADEMY'S ROLE IN DEVELOPING MODEL RULES

Maureen A. Howard and Jeffery C. Barnum†*

To this day, judges and advocates struggle with the definition and use of “demonstrative evidence.” The ambiguity of this term (or its close cousins “illustrative evidence” and evidence offered “for illustrative purposes only”) infects the judicial process with uncertainty, hindering advocates when preparing for trial and, in some cases, producing erroneous verdicts. For example, the Seventh Circuit recently reversed a case for improper use of a demonstrative exhibit, and on retrial the result swung from a defense verdict to an \$11 million plaintiff's victory.

Uncertainty about the admission and use of demonstrative evidence has festered for decades. Lawyers innovate in presenting their cases, forcing judges to make case-by-case rulings. This is increasingly significant as technology becomes commonly used throughout trial practice. Law professors in turn solidify this unpredictable practice by teaching subsequent generations that the admission of demonstrative evidence is subject only to the unbounded discretion of the trial court.

While this confusion has been long acknowledged and ably documented, it has not galvanized reform. Trial advocacy and evidence professors should meet at this intersection of their respective areas of scholarship and teaching; they should capitalize on their collective knowledge and influence and propose to the Advisory Committee on the Federal Rules of Evidence a set of uniform, analytically sound

* Maureen A. Howard is an Associate Professor of Law and the Director of Trial Advocacy at the University of Washington School of Law in Seattle. Professor Howard coauthors the treatise, *The Law of Evidence in Washington*, and is a contributing author to the *Washington Pattern Jury Instructions*.

† Jeffery C. Barnum graduated with high honors from the University of Washington School of Law and serves as a judge advocate in the United States Coast Guard. The views expressed in this Article are those of the authors alone and do not reflect an official position of the United States Coast Guard, Department of Homeland Security, or any other U.S. government agency.

The authors were inspired to write this Article by the exceptional leadership of Professor Edward Ohlbaum of Temple University Beasley School of Law, who rallied trial advocacy teachers across the country to wrestle with the vagaries of mock trial practice and forge a set of Model Rules of Conduct for Mock Trial Competitions. The authors would like to thank Robert Aronson, The Honorable William L. Downing, Jeff Feldman, George Fisher, Christopher Howard, Andrew Murphy, Peter Murray, Peter Nicolas, The Honorable Marsha J. Pechman, Lish Whitson, and Ellen Yaroshefsky for their comments on earlier drafts. They also acknowledge the invaluable contributions of Mary Whisner and the rest of the dedicated staff at the University of Washington's Gallagher Law Library and the research assistance of Claire Carden, Jason Gelfand, Desiree Phair, Christopher Schafbuch, and Gregory Vernon.

Model Rules for Demonstrative Evidence. Until evidence rules are amended to address the problem, professors should teach the Model Rules alongside the current unpredictable, ad hoc practice. Exposure to such standardized criteria during law school will influence a generation of future lawyers and judges, promoting consistency in the handling of demonstrative evidence in the courtroom.

TABLE OF CONTENTS

INTRODUCTION.....	515
I. TODAY'S JURISDICTIONS ARE INCONSISTENT IN THEIR IDENTIFICATION AND USE OF DEMONSTRATIVE EVIDENCE.....	518
A. <i>Present-Day Judges Have Wide and Varied Definitions of Demonstrative Evidence</i>	519
B. <i>Contemporary Confusion About the Definition Results in Different Uses of Demonstrative Evidence</i>	521
C. <i>The Inconsistent Practice Risks Inconsistent Case Results in Today's Courts</i>	523
II. HOW THIS TANGLED WEB WAS WOVEN: THE EVOLUTION OF JUDGE-SPECIFIC, DISCRETION-BASED GUIDELINES.....	524
A. <i>Before "Demonstrative" There Was "Visual" Evidence—and Scholars Never Agreed on Rules for Its Use or Admission</i>	525
B. <i>Practitioners Creatively Expanded the Use of Demonstrative Evidence, Importing Lessons from Madison Avenue into the Courtroom</i>	526
C. <i>Judges Responded Using the Discretion Provided Under the Evidence Rules to Create a Judge-Specific "Law of Trial Advocacy"</i>	527
D. <i>The Snake Comes Full Circle: Law Professors Now Teach that Admissibility and Use of Demonstrative Evidence Is Judge-Dependent, Not Standard-Dependent</i>	530
III. THE DOCTRINAL CONFUSION, THOUGH SEEMINGLY MINOR, HAS REAL-WORLD NEGATIVE CONSEQUENCES.....	535
A. <i>The Relative Silence on the Issue Belies the Seriousness of the Situation</i>	536
B. <i>Pattern Jury Instructions Perpetuate the Problem by Implying a Standard</i>	537
C. <i>The Combination of Innovations in Both Jury Instructions and Trial Practice Produces Anomalous Results</i>	538
IV. LEADING THE WAY: EVIDENCE AND TRIAL ADVOCACY TEACHERS SHOULD DEBATE THE ISSUES AND ENDORSE A SET OF MODEL RULES.....	540

A. <i>Law Professors Were Contributing Architects of the Original Federal Rules of Evidence</i>	542
B. <i>A Case Study: Maine Rule of Evidence 616</i>	543
C. <i>Law Schools Market Leadership, Law Professors Should Deliver on This Promise</i>	546
CONCLUSION.....	549

INTRODUCTION

“You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete.”

-R. Buckminster Fuller

Sixty years ago, seeds of an evidence revolution were sown by mavericks in the trenches of trial practice. Chicago trial lawyer Joseph H. Hinshaw wrote:

Many texts have been written on rules of evidence, and our casebooks are full of decisions which have turned upon points of evidence alone. On the other hand, there is little in the books which furnishes a guide for the proper supervision of the introduction and use of many new forms of demonstrative evidence.¹

Hinshaw understood that clarification of the law of demonstrative evidence was necessary for trial lawyers to adequately evaluate and prepare their cases. Six decades later, however, litigants and their lawyers continue to face settlement negotiations and trials unprepared, having to gamble on the admissibility and use of evidence that may or may not be classified by a court as demonstrative. Too frequently, predicting a court’s ruling is tantamount to flipping a coin. In the 2015 case of plaintiff John Baugh, it was an \$11 million coin flip—and he ultimately won.

It was a products liability case. John Baugh was working on his house in the summer of 2006 and used his Cuprum ladder to reach the gutters. Or at least he tried. Baugh was found sitting in his driveway, bleeding, with his ladder lying dented beside him. Baugh sued Cuprum, alleging defective design, but, tragically, in his fall Baugh suffered severe brain injuries rendering him unable to testify. There were no other eyewitnesses to Baugh’s fall.²

The case proceeded to trial. Two years after discovery had closed, and only three months before trial, Cuprum informed Baugh that it intended to use an exemplar of the ladder used by Baugh, built to the exact specifications of Baugh’s ladder. Over the plaintiff’s objection, the ladder was marked as an exhibit “for demonstrative purposes.” Cuprum maintained that the ladder was “not substantive evidence,” and Cuprum’s expert used the ladder during his

1. Joseph H. Hinshaw, *Use and Abuse of Demonstrative Evidence: The Art of Jury Persuasion*, 40 A.B.A. J. 479, 479 (1954).

2. Baugh v. Cuprum S.A. De C.V., No. 08 C 4204, 2015 WL 9304338, at *1 (N.D. Ill. Dec. 22, 2015).

testimony at trial.³

At first, the ladder was not sent back to the jury room. Soon, however, the jury asked to see the exemplar ladder. The plaintiff renewed his objection based upon the demonstrative character of the evidence, and that he had developed his trial strategy on the basis that the exemplar ladder was not substantive evidence. Tellingly, he noted that “the practice in this courthouse, as far as [he had] known” was that demonstrative exhibits did not go back to the deliberation room.⁴ The judge initially agreed with plaintiff’s counsel, but, after a few days, permitted the ladder to go back to the jury room. A few hours after the ladder arrived in the jury room, the jury returned a verdict for the defendant.⁵ The Seventh Circuit reversed, noting that the ladder, as a demonstrative exhibit, should have never been permitted in the jury room.⁶ On retrial, the jury found for the plaintiff and awarded him over \$11 million in damages.⁷

The *Baugh* case is a cautionary tale, indeed. Despite Hinshaw’s prescience on the need for discourse and agreement on the subject of demonstrative evidence, little progress has been made. Scholars either ignored the concept of demonstrative evidence or greatly limited its definition to some version of derivatively relevant, nonsubstantive evidence.⁸ Demonstrative exhibits were acknowledged as permissible “assists” to witnesses’ oral testimonies, but scholars wrote little about the evidentiary status of such exhibits.

Notwithstanding scant academic discussion of the subject, trial lawyers began experimenting with the use of visual aids at trial, borrowing lessons learned from social science research used to good effect on Madison Avenue. Peer-to-peer teaching on the subject blossomed, with early pioneers of demonstrative aids sharing anecdotal data fresh from recent courtroom victories.⁹ In using this “new” tool, trial lawyers’ imaginations were boundless—both as to what could be used as a visual aid to maximize information transfer to jurors and to persuade them as to the significance of those facts. It was a grand experiment: the courtroom was the laboratory, the advocates were the scientists, the proposed use of the full spectrum of demonstrative evidence was the experiment, and the judges’ rulings were the data.

The data demonstrated that without a uniform lexicon and agreed-upon rules, trial judges arrived at vastly different conclusions about the categorization, admissibility, and use of demonstrative evidence. A number of inconsistent

3. *Baugh ex rel. Baugh v. Cuprum S.A. de C.V.*, 730 F.3d 701, 703 (7th Cir. 2013).

4. *Id.* at 704 (emphasis added).

5. *Id.*

6. *Id.* at 711.

7. *Baugh*, 2015 WL 9304338, at *1.

8. See, e.g., ME. R. EVID. 616 advisers’ note to 1976 amendment (“[Demonstrative exhibits] are not admissible in evidence because they themselves have no relevance to the issues in the case. Their utility lies in their ability to convey relevant information which must be provided directly from some actual evidentiary source . . .”).

9. A representative list of such articles may be found in Robert D. Brain & Daniel J. Broderick, *The Derivative Relevance of Demonstrative Evidence: Charting Its Proper Evidentiary Status*, 25 U.C. DAVIS L. REV. 957 nn.145–46 (1992).

judge-made “practice rules” developed over time whereby judges, faced with a new form of proof not addressed in the Federal Rules of Evidence or most state analogues,¹⁰ navigated the waters of admissibility and use by way of trial and error. In essence, judges were left to figure out the proper evidentiary treatment of demonstrative exhibits and hammer out common sense conclusions. They used the discretion allotted to them under federal rules of evidence and their state counterparts to put that conclusion into effect.

In articulating the rationale for these ad hoc “laws of trial advocacy,” judges employed language evocative of the various aspects of Federal Rules of Evidence 105, 403, and 611 that impart tremendous authority to trial judges over the presentation of evidence. Judges recognized that the probative value of demonstrative evidence validated its consideration by a jury, but they were concerned about delivering demonstrative exhibits to jurors during deliberations along with other admitted exhibits. These concerns centered on the risks that jurors would overvalue or misunderstand the demonstrative evidence.

Mounting inconsistencies in the definition and use of demonstrative evidence did not go unnoticed. Scholars and commentators wrote articles attempting to reconcile and explain these inconsistencies in an effort to decipher an orderly pattern that offered advocates some degree of predictability of judicial rulings.¹¹ Others called for modification of the evidence rules to create a uniform standard of admissibility.¹² The Advisory Committee on Rules of Evidence (Advisory Committee), however, has not considered any amendments to the Federal Rules of Evidence on this issue.¹³

Given this scholarly commentary, why this stagnation? Why do evidence and trial advocacy professors continue to teach the muddled status quo? Most evidence texts gloss over demonstrative evidence and its foundations, while trial advocacy texts perpetuate the existing confusion by teaching students that practice is inconsistent, varying from judge to judge, and jurisdiction to jurisdiction.¹⁴

10. *Id.* at 962 n.13. Many states have rules based on the Federal Rules of Evidence. Unless otherwise noted, references to the Federal Rules of Evidence encompass references to those state analogues.

11. See, e.g., Michael Sudman, Comment, *The Jury Trial: History, Jury Selection, and the Use of Demonstrative Evidence*, 1 J. LEGAL ADVOC. & PRAC. 172, 183–84 (1999) (discussing trends in judicial treatment of demonstrative evidence in trial courts).

12. See, e.g., Brain & Broderick, *supra* note 9, at 1018–19 (proposing that Rule 401 be revised to recognize different admissibility standards for what the authors term “primarily relevant evidence” and “derivatively relevant proof”).

13. A search of the archives of the Advisory Committee on the Federal Rules of Evidence reveals that not only has no one suggested revising the Federal Rules of Evidence to address demonstrative evidence, but also the issue has never been addressed in any comments. See *Archived Rules Comments*, U.S. COURTS, [http://www.uscourts.gov/rules-policies/records-and-archives-rules-committees/archived-rules-comments?committee=44&year\[value\]\[year\]=&page=3](http://www.uscourts.gov/rules-policies/records-and-archives-rules-committees/archived-rules-comments?committee=44&year[value][year]=&page=3) (last visited Apr. 1, 2016); *Archived Rules Suggestions*, U.S. COURTS, <http://www.uscourts.gov/rules-policies/records-and-archives-rules-committees/archived-rules-suggestions?committee=44&year%5Bvalue%5D%5Byear%5D=> (last visited Apr. 1, 2016).

14. See *infra* Part II.D for an analysis of the academic confusion surrounding demonstrative

Law professors should confer and agree on Model Rules for Demonstrative Evidence (Model Rules). They should present proposed amendments both to the Advisory Committee and to their state counterparts for consideration, debate, and adoption. This is not to suggest, however, that once Model Rules have been agreed upon and presented legal teachers should rest on their laurels.¹⁵ Law professors should straightaway introduce to their students these Model Rules along with the conventional understanding of practice that is the “law of trial advocacy.” In doing so, professors have an opportunity to explain the analytic and practical superiority of the Model Rules and engage the next generation of trial lawyers in a discussion of the issues. Exposure in law school to a set of model rules and the analytic justification for them would, in turn, influence a future generation of lawyers and judges. The goal would be to have an immediate positive impact on the consistency of judicial rulings regarding the admissibility and use of demonstrative evidence, and eventual clarification of the standards for admissibility in the rules of evidence.

Section I of this Article documents the current practice across jurisdictions, noting that differences in nomenclature lead to confusion as to practice, which results in unpredictable results. Section II traces the roots of this doctrinal confusion, paying particular attention to the role of professors in perpetuating the confusion. Section III documents the magnitude of the problem and illustrates why the issue will likely worsen. Finally, Section IV highlights the privileged position of professors to identify a solution by examining the role of the academy in developing the Federal Rules of Evidence. Section IV also examines Maine Rule of Evidence 616, which addresses demonstrative evidence directly, and the lessons gleaned from Maine’s experiment.

I. TODAY’S JURISDICTIONS ARE INCONSISTENT IN THEIR IDENTIFICATION AND USE OF DEMONSTRATIVE EVIDENCE

Judges are the masters of their courtrooms. They have broad discretion as to the conduct of trials and control over how lawyers present their cases.¹⁶ They also generally have great latitude when evaluating the probative value of offered evidence and balancing that against the risks of admission.¹⁷ Underlying this discretion of the trial court is a codified standard—be it a broad balancing test as in Federal Rule of Evidence 403 or a more strict restriction as in Federal Rule of Evidence 412. These standards, supplemented by case law, cabin a judge’s discretion and promote consistent evidentiary rulings.

evidence and law schools’ contributions to the lack of standards in this area.

15. The Advisory Committee has been criticized as taking an historically “hands off” approach to its oversight responsibilities such that “only the most egregious issues are addressed, leaving many other short-comings in the Rules intact.” See Paul R. Rice & Neals-Erik William Delker, *Federal Rules of Evidence Advisory Committee: A Short History of Too Little Consequence*, 191 F.R.D. 678, 682–83 (2000).

16. See FED. R. EVID. 611. The trial court’s broad discretion remains subject to due process and other constitutional principles, of course.

17. See, e.g., *id.* 403.

The admission and use of demonstrative evidence lacks these formal standards. The federal rules of evidence (and all state evidence rules except for Maine's) offer no direction, as they are silent. Other guidance—such as it is—in case law, jury instructions, academic writings, and textbooks is limited, piecemeal, and inconsistent, leading to unpredictable judge-specific rules of admission.

A. *Present-Day Judges Have Wide and Varied Definitions of Demonstrative Evidence*

That judges struggle with the term demonstrative evidence¹⁸ is not surprising: the Federal Rules of Evidence and state analogues, with the exception of Maine's, have not given rule-based guidance to judges regarding the use of such visual aids. Nor do legal dictionaries or scholars offer useful guidance.¹⁹ Black's Law Dictionary defines demonstrative evidence as "[p]hysical evidence that one can see and inspect," while noting that the physical object "does not play a direct part in the incident in question."²⁰ In the very next sentence, Black's notes that "[t]his term sometimes overlaps with and is used as a synonym of real evidence," and that this evidentiary universe may also be referred to as "illustrative evidence; autoptic evidence; autoptic proferrence; real evidence; [and] tangible evidence."²¹

Scholars acknowledge the confusion. For example, Professors Christopher Mueller and Laird Kirkpatrick highlight existing definitional confusion in their treatise, stating:

There are at least three definitions of demonstrative evidence in current use. One describes demonstrative evidence as anything that "appeals to the senses," but this definition seems too broad because it reaches essentially everything (even testimony must be heard to be understood). An intermediate definition says that evidence is demonstrative if it conveys a "firsthand sense impression," thus excluding testimony because it is a secondhand recounting of the witness'[s] perceptions. An even narrower definition equates demonstrative evidence with "illustrative evidence," thus limiting its scope to evidence used to explain or illustrate testimony (or other evidence) but lacking any substantive force of its own. Under such a definition, demonstrative evidence serves merely to add color, clarity, and interest to a party's proof.²²

18. Baugh *ex rel.* Baugh v. Cuprum S.A. de C.V., 730 F.3d 701, 706 (7th Cir. 2013) ("The term 'demonstrative' has been used in different ways that can be confusing . . .").

19. See, e.g., Brain & Broderick, *supra* note 9, at 960, n.7 ("[A]most all the academic commentary that has focused on demonstrative evidence has mischaracterized it."); *id.* at 1002–10 (discussing confusion over both the definition and use of demonstrative evidence); see also RICHARD D. FRIEDMAN, THE ELEMENTS OF EVIDENCE 153 (3d ed. 2004) ("The term *demonstrative* evidence is sometimes used to include pretty much all non-testimonial evidence. But the term is often used in a narrower sense, to distinguish it from *real* evidence.").

20. *Demonstrative Evidence*, BLACK'S LAW DICTIONARY (10th ed. 2014).

21. *Id.*

22. CHRISTOPHER B. MUELLER & LAIRD C. KIRKPATRICK, EVIDENCE § 9.32, at 1142 (5th ed.

This terminology turmoil unsurprisingly appears in judicial decisions. Some judges use the term demonstrative evidence to refer to any physical evidence,²³ while others restrict the term's use to any nonadmissible exhibit to aid in understanding testimony or argument,²⁴ and still others use the words demonstrative evidence to describe substantive physical evidence (such as the weapon in a murder trial).²⁵ To add to the confusion, some judges use the term "illustrative" to refer to an entire subset of this evidentiary universe,²⁶ sometimes using the terms demonstrative and illustrative interchangeably,²⁷ yet at other times to describe discrete subparts of this evidentiary universe.²⁸ Still other jurisdictions talk of "admitting" demonstrative evidence as shorthand for permitting its use at trial without formally admitting it into evidence.²⁹

In addition to definitional problems, there is disagreement on theories of admissibility and use. Federal courts seem to address demonstrative evidence through the lens of Federal Rule of Evidence 611(a), which permits a trial court to "exercise reasonable control over . . . presenting evidence so as to . . . make those procedures effective for determining the truth."³⁰ Some federal courts speak of "authorizing" the use of "pedagogical aids," as opposed to admitting these items into evidence.³¹ Other jurisdictions address demonstrative evidence

2012) (footnotes omitted) (first citing Melvin Belli, *Demonstrative Evidence: Seeing Is Believing*, 16 TRIAL 70 (1980); then citing *Demonstrative Evidence*, BLACK'S LAW DICTIONARY (6th ed. 1990); then citing Brain & Broderick, *supra* note 9, at 968–69; then citing Thomas R. Mulroy, Jr. & Ronald J. Rychlak, *Use of Real and Demonstrative Evidence at Trial*, 33 TRIAL LAW'S GUIDE 550, 555 (1989); and then citing 2 KENNETH S. BROUN, MCCORMICK ON EVIDENCE § 214 (6th ed. 2006)).

23. *E.g.*, *Finley v. Marathon Oil Co.*, 75 F.3d 1225, 1231 (7th Cir. 1996) ("Physical exhibits ('demonstrative evidence') are a very powerful form of evidence . . ." (emphasis added)).

24. *See, e.g.*, *Gomez v. Great Lakes Steel Div. Nat'l Steel Corp.*, 803 F.2d 250, 257 (6th Cir. 1986).

25. *See, e.g.*, *State v. Parks*, 977 So. 2d 1015, 1027–28 (La. Ct. App. 2008) ("Before it can be admitted at trial, demonstrative evidence must be properly identified. A sufficient foundation for the admission of evidence is established when the evidence as a whole shows it is more probable than not that the object is one connected with the crime charged." (citation omitted)); *see also* *State v. Mosner*, 969 A.2d 487, 500 (N.J. Super. Ct. App. Div. 2009).

26. *See, e.g.*, *Hinton v. Outboard Marine Corp.*, No. 1:09-cv-00554-JAW, 2012 WL 243210, at *2 (D. Me. Jan. 25, 2012) (referring to ME. R. EVID. 616, which regulates the use of illustrative aids).

27. *E.g.*, *Pierce v. State*, 718 So. 2d 806, 809 (Fla. Dist. Ct. App. 1997) ("Under Florida law, in order to admit a demonstrative exhibit, illustrating an expert's opinion, such as a computer animation, the proponent must establish the foundation requirements necessary to introduce the expert opinion."); *State v. Foster*, 967 P.2d 852, 859 (N.M. 1998) ("Demonstrative exhibits are likely to be merely illustrative of other evidence."); *State v. Lord*, 822 P.2d 177, 193 (Wash. 1991) ("The use of demonstrative or illustrative evidence is to be favored and the trial court is given wide latitude in determining whether or not to admit demonstrative evidence.").

28. *E.g.*, *State v. Swinton*, 847 A.2d 921, 936 n.20 (Conn. 2004) (differentiating between demonstrative and illustrative evidence).

29. *See, e.g.*, *State v. Pangborn*, 836 N.W.2d 790, 797 (Neb. 2013) ("We historically have discussed the use of demonstrative exhibits in terms of admissibility. . . . But the use of such terminology can be misleading.").

30. FED. R. EVID. 611.

31. *See, e.g.*, *United States v. Irvin*, 682 F.3d 1254, 1262–63 (10th Cir. 2012) (explaining that some circuits have construed Rule 611 to authorize summary exhibits for pedagogical purposes);

by focusing on its relevance.³² Other courts seem to conflate a showing of relevance with one of authenticity. In doing so, they address the authenticity of a demonstrative object, implicitly acknowledging its relevance, in that the evidence presented to establish authenticity would, in nearly every circumstance, serve to establish the object's relevance.³³

B. *Contemporary Confusion About the Definition Results in Different Uses of Demonstrative Evidence*

Confusion as to nomenclature, characterization, and admissibility adds to the uncertainty as to whether demonstrative evidence is formally admitted into evidence and whether jurors get to review the object in their deliberations.³⁴ If a demonstrative exhibit is admitted without limitation, then the advocate's use throughout the trial and the jury's use during deliberations presents no controversy. Confusion blossoms when the court permits some limited uses of the demonstrative exhibit short of admitting it in evidence for all purposes. This can happen, for example, when evidence is admitted for "illustrative purposes," or when evidence is *used* during the trial (presumably under the judge's authority to control presentation of evidence under rules such as Federal Rule of Evidence 611), and yet not formally admitted into evidence.³⁵ The approaches of jurisdictions vary widely, from barring such evidence from entering the jury room,³⁶ to permitting it if the evidence meets a certain evidentiary threshold of

United States v. Milkiewicz, 470 F.3d 390, 398 (1st Cir. 2006) (discussing permissible pedagogical aids under Rule 611); United States v. Taylor, 210 F.3d 311, 315 (5th Cir. 2000) (same); United States v. Salerno, 108 F.3d 730, 744 (7th Cir. 1997) (stating demonstrative aids are regularly permitted under Rule 611 "to clarify or illustrate testimony"); United States v. Johnson, 54 F.3d 1150, 1159–60 (4th Cir. 1995) (concluding that the trial court's admission of summary charts pursuant to Rule 611 did not constitute error); United States v. Pinto, 850 F.2d 927, 935 (2d Cir. 1988) (same); United States v. Possick, 849 F.2d 332, 339 (8th Cir. 1988) (same); United States v. Gardner, 611 F.2d 770, 776 (9th Cir. 1980) (same); *see also* Gomez v. Great Lakes Steel Div. Nat'l Steel Corp., 803 F.2d 250, 257 (6th Cir. 1986) (distinguishing summaries and charts admitted under Rule 1006 from those "used as pedagogical devices which organize or aid the jury's examination of testimony or documents which are themselves admitted into evidence").

32. *See, e.g.*, N.C. GEN. STAT. ANN. § 8-97 (West 2016) (permitting photographic representations after proper foundation); *Duncan v. State*, 827 So. 2d 838, 850–51 (Ala. Crim. App. 1999) (declaring the "reasonable tendency to prove or disprove some material fact in issue" as the ultimate consideration in admitting demonstrative evidence); *Mayes v. State*, 887 P.2d 1288, 1313 (Okla. Crim. App. 1994) (finding no error when relevant photographs were admitted); *Commonwealth v. Reid*, 811 A.2d 530, 552 (Pa. 2002) (permitting the admission of demonstrative evidence if its relevance outweighed its prejudicial effect).

33. *See, e.g.*, *State v. Parks*, 977 So. 2d 1015, 1027–28 (La. Ct. App. 2008).

34. Two Washington State Superior Court judges (one, a career public defender, and the other, a career prosecutor before ascending to the bench), team teaching a trial advocacy class this academic year, were surprised to discover that they disagreed on the definition and use of demonstrative evidence.

35. *E.g.*, *United States v. Bray*, 139 F.3d 1104, 1111–12 (6th Cir. 1998) ("We note in passing that in appropriate circumstances not only may such pedagogical-device summaries be used as illustrative aids in the presentation of the evidence, but they may also be admitted into evidence even though not within the specific scope of Rule 1006.").

36. *E.g.*, *Baugh ex rel. Baugh v. Cuprum S.A. de C.V.*, 730 F.3d 701, 708 (7th Cir. 2013)

probity and fairness,³⁷ to permitting it wholesale with only a limiting instruction.³⁸ Yet others provide no guidance to the trial court, leaving the matter completely within the trial court's discretion.³⁹

Differing standards for use of demonstrative evidence (in many cases without any criteria to guide a judge in her decision) are further complicated when trial and appellate courts conflate the concepts of admission and use. Admission of exhibits in evidence requires relevance,⁴⁰ authenticity,⁴¹ and reliability (through the hearsay⁴² and best evidence⁴³ rules). "Authorized for use" is theoretically a lower standard.⁴⁴ For example, a chart summarizing various criminal counts and the evidence therefore may not meet the voluminous requirement of Federal Rule of Evidence 1006 (and thus would be otherwise inadmissible as hearsay), but could still be "authorized for use" under Federal Rule of Evidence 611(a). Yet the reports are replete with appellate courts "admitting" demonstrative aids into evidence.⁴⁵ Moreover, many courts explicitly cite Federal Rule of Evidence Rule 611(a) (or a state equivalent) as the basis for "admitting" the evidence.⁴⁶ The inconsistency in lexicon and definition

("Demonstrative exhibits that are not admitted into evidence should not go to the jury during deliberation, at least not without consent of all parties."); cf. *Johnson*, 54 F.3d at 1161 n.11 (concluding that properly admitted evidence may be used by the jury during deliberations); *Scales*, 594 F.2d at 564 n.3 (noting that when demonstrative evidence is not admitted to the jury it is usually because such evidence was not properly admitted).

37. See, e.g., *United States v. Parker*, 491 F.2d 517, 522–23 (8th Cir. 1973) (permitting the jury to use a document written by a narcotics agent during deliberations because the defense vigorously cross-examined the agent on its contents); *People v. Manley*, 272 N.E.2d 411, 412 (Ill. App. Ct. 1971) (concluding that "[t]he taking of physical evidence into the jury room by the jury is within the sound discretion of the trial judge," but requiring close scrutiny because such a "procedure may be prejudicial to the defendant").

38. E.g., *United States v. Downen*, 496 F.2d 314, 321 (10th Cir. 1974); *Shane v. Warner Mfg. Corp.*, 229 F.2d 207, 209–10 (3d Cir. 1956); *In re Lucitte*, No. L-10-1136, 2012 WL 362002, at *17 (Ohio Ct. App. 2012).

39. E.g., *Commonwealth v. Walter*, 406 N.E.2d 1304, 1309 (Mass. App. Ct. 1980); *State v. Pangborn*, 836 N.W.2d 790, 801 (Neb. 2013); *Commonwealth v. Moore*, 279 A.2d 179, 184–85 (Pa. 1971).

40. See FED. R. EVID. 401–402.

41. See *id.* 901–903.

42. *Id.* 801–807.

43. *Id.* 1001–1008.

44. See 5 CHRISTOPHER B. MUELLER & LAIRD C. KIRKPATRICK, FEDERAL EVIDENCE § 9:22 (4th ed. 2012) (database updated June 2015) ("For illustrative evidence, the foundation may be easier to lay than for substantive evidence, because the proponent need only show that the item is a 'fair depiction' or 'reasonable facsimile.'").

45. See, e.g., *United States v. Salerno*, 108 F.3d 730, 744 (7th Cir. 1997) ("*Demonstrative aids* are regularly used to clarify or illustrate testimony." (emphasis added)). The *Salerno* court cited *Roland v. Langlois*, 945 F.2d 956, 963 (7th Cir. 1991), in which the Seventh Circuit confirmed the trial court's admission of a life-size model of an amusement park ride into evidence, and *United States v. Towns*, 913 F.2d 434, 445–46 (7th Cir. 1990), where the court confirmed the admission of a ski mask and gun for the demonstrative purpose of providing examples of the mask and gun used during a bank robbery, to support its conclusion.

46. See, e.g., *United States v. Scales*, 594 F.2d 558, 563–64 (6th Cir. 1979) ("Authority for [admitting] such summaries is not usually cited, but would certainly exist under Fed. R. Evid.

leads to further confusion as to admissibility and use because appellate courts' discussions of acceptable discretionary practice rules for one type of evidence labeled demonstrative often conflict with other courts' practice rules.

C. *The Inconsistent Practice Risks Inconsistent Case Results in Today's Courts*

There are at least three ways that the doctrinal confusion surrounding demonstrative evidence risks inconsistency and inaccuracy. The uncertainty as to nomenclature casts the status of the proffered evidence into doubt. This uncertainty is magnified when courts fail to enforce the barrier between exhibits admitted into evidence and aids authorized for use in the courtroom. The unpredictability is amplified when a judge charges a jury and determines which exhibits will accompany the jury: confusion about the status of the evidence makes it difficult to predict whether an admitted demonstrative exhibit will be available to the jurors during deliberations along with other admitted exhibits. In addition, as noted by the Seventh Circuit, it could actually affect the outcome of the case as previously inadmissible exhibits are physically present in the jury deliberation room.⁴⁷

The lack of a cognizable standard across these decision points undermines accurate pretrial settlement valuation of a case and an advocate's trial preparation and presentation strategy. How does a trial lawyer know the value of her case if she is unsure of the strength of her evidence? Is the evidence coming in at trial or not? How will the advocate be permitted to use the evidence? What technical foundation is called for admission? What persuasive foundation will be needed to convey the information to the jurors? A lawyer planning to show the jury a diagram, for example, will need to know in advance whether a diagram is admissible under any (and what) conditions or whether a diagram properly authenticated is admissible for purposes of sufficiency of the evidence only as an illustrative exhibit. The advocate's examination of the foundational witness in the former circumstance will be vastly different than that of the latter. In essence, differing approaches to the admission and use of demonstrative evidence increase the risk of inconsistent verdicts.⁴⁸

However, unlike a situation where the appellate court may disagree with the application of a particular rule (even a rule which leaves the trial court with

611(a)."); *United States v. Blackwell*, 954 F. Supp. 944, 971 (D.N.J. 1997) ("Charts that summarize documents or testimony, already admitted into evidence, *may be admissible under Rule 611(a) . . . as demonstrative evidence*, as opposed to Rule 1006, as substantive evidence." (emphasis added)). The issue, of course, is that Rule 611(a) is primarily a rule of procedure, in that it provides the judge control over the evidence presented in his courtroom. It is not a rule of admission. *See United States v. Irvin*, 682 F.3d 1254, 1263 (10th Cir. 2012) ("In short, resort to Rule 611(a) in no way resolves the hearsay problem that renders Exhibit 1–2 inadmissible.").

47. *Baugh ex rel. Baugh v. Cuprum S.A. de C.V.*, 730 F.3d 701, 711 (7th Cir. 2013). The prejudicial effect of a nonadmitted exhibit in the jury deliberation room was repeatedly raised (and rejected) by opposing counsel. *Id.* at 704–05.

48. Although, it is inevitable that different judges and different juries will produce individualized, and thus perhaps inconsistent, verdicts.

considerable discretion such as Federal Rule of Evidence 403),⁴⁹ leaving the admission and use of demonstrative exhibits solely to a trial court's discretion (without accompanying criteria) creates a criterion-less standard which makes advocacy or oversight nearly impossible.

II. HOW THIS TANGLED WEB WAS WOVEN: THE EVOLUTION OF JUDGE-SPECIFIC, DISCRETION-BASED GUIDELINES

Several factors contributed to the evolution and persistence of inconsistent practices within and across jurisdictions governing the use of demonstrative evidence at trial. The entering argument, of course, is that there are not any rules or standards governing the admissibility and use of demonstrative evidence.⁵⁰ Against this backdrop, scholars have failed to agree on the nomenclature and on the use and admissibility of various visual aids, using terms such as "demonstrative aid," "demonstrative exhibit," "illustrative exhibit," and "exhibit admitted for illustrative purposes only" to describe similar evidentiary objects.⁵¹ Advocates capitalized on this uncertainty by pushing the envelope. In the absence of an evidence rule or united scholarly direction, trial judges developed a "common-sense common law of trial advocacy." Lacking focused guidance from evidentiary rules and stymied by the contradictory direction from scholars of evidence and trial advocacy, judges created court-specific, discretion-based guidelines for the use of visual aids at trial that are inconsistent across jurisdictions and courtrooms. This confusion is perpetuated by evidence and trial advocacy teachers who teach that each jurisdiction (and each judge) is unique in its approach.

49. See, e.g., *United States v. McDermott*, 245 F.3d 133, 141 (2d Cir. 2001) ("While we may disagree with a district court's evidentiary ruling, our disagreement is not alone sufficient to reverse an otherwise rational, carefully considered and non-arbitrary decision."). Codified standards lead to a body of case law, which in turn guides advocates and trial courts. Federal Rule of Evidence 403 (or its state analogue) has broad language merely requiring the trial court to ensure the probative value is not substantially outweighed by other concerns, including unfair prejudice. This amorphous language requires trial courts to examine the entirety of the evidence before ruling on admission or to articulate their balancing on the record. E.g., *United States v. Loughry*, 660 F.3d 965, 971 (7th Cir. 2011) (requiring examination of the entirety of the evidence); *United States v. Moran*, 493 F.3d 1002, 1012 (9th Cir. 2007) (encouraging the trial court to state how it balanced the evidence). Case law also provides greater definition for vague terms such as "substantially outweighed" and "unfair prejudice." See, e.g., *People v. Quang Minh Tran*, 253 P.3d 239, 244 (Cal. 2011) (elaborating on the term "substantially outweighed"); *Swajian v. Gen. Motors Corp.*, 916 F.2d 31, 34-35 (1st Cir. 1990) (elaborating on the term "unfair prejudice").

50. The Federal Rules of Evidence and state analogues (with the exception of the state of Maine's) have not given rule-based guidance to judges regarding the use of such visual aids. The term "demonstrative evidence" is not found in the Federal Rules of Evidence, and it is mentioned only once in the Advisory Committee notes. See *infra* Part IV.B for a discussion of Maine's approach to the use of demonstrative evidence.

51. While some scholars use the terms "demonstrative evidence" and "illustrative evidence" interchangeably, others draw a distinction. See e.g., RONALD JAY ALLEN, RICHARD B. KUHN, ELEANOR SWIFT, DAVID S. SCHWARTZ & MICHAEL S. PARDO, *EVIDENCE: TEXT, PROBLEMS, AND CASES* 192 (5th ed. 2011) (demonstrative evidence is admitted and illustrative evidence is not admitted into evidence).

A. Before “Demonstrative” There Was “Visual” Evidence—and Scholars Never Agreed on Rules for Its Use or Admission

Early evidence scholars gave little attention to the concept of demonstrative evidence.⁵² This is unsurprising given that the history of evidence dating back to the common law recognized testimonial evidence (oral testimony from a competent witness with personal knowledge about the facts at issue in a case) and certain types of tangible evidence, commonly referred to as “real” evidence.⁵³ The nature of tangible, extratestimonial evidence was originally limited to documents at issue in a case (the contract, the lease, the bank note, the publication in a defamation suit) and other items involved in the events of the case (the gun, the knife, the stolen property).⁵⁴

The idea of something beyond either the oral testimony of a witness with personal knowledge or the production of a tangible item that itself played a part in the underlying dispute seems to have been little contemplated. One notable outlier of academics’ bimodal thinking about evidence was John Wigmore, who referred to visual aids used during testimony as “non-verbal testimony.”⁵⁵ For Wigmore, the concept of nonverbal testimony recognized that a witness could communicate to a jury wordlessly by using physical demonstrations, diagrams, maps, photographs, and models.⁵⁶

Meanwhile, in the courtroom, the concept of “real” evidence was expanded to include not just items that played a role in the case themselves, but items with independent “real” probative value vis-à-vis the issues in the case. While not “the thing” at issue in the case, the evidence was admitted as providing direct, independent value supporting a fact useful to the determination of the issues in the case.⁵⁷ These items came to be viewed as an extension of those tangible items—such as contracts, deeds, or guns—that had an active “role” in the underlying controversy.⁵⁸ For example, a map documenting property parcels, created by city engineers and filed with the city, where the underlying controversy concerned the ownership or use of the property (such as a boundary dispute underlying a cause of adverse possession or trespass), was now treated as “real” evidence worthy of unqualified admission and consideration by a jury.⁵⁹

This development invited advocates to try to further broaden the universe of items admissible as substantive evidence. This newly-substantive evidence

52. See Brain & Broderick, *supra* note 9, at 986–1018 (discussing the history of academic treatment of demonstrative evidence).

53. *Id.* at 960 n.7.

54. *Id.* at 988–89.

55. See 1 JOHN HENRY WIGMORE, A TREATISE ON THE SYSTEM OF EVIDENCE IN TRIALS AT COMMON LAW 932 (1904) (indexing certain evidence as “non-verbal testimony”).

56. *Id.* §§ 789, 791, 792, 794, 795, 797; see also Brain & Broderick, *supra* note 9, at 997.

57. 1 WIGMORE, *supra* note 55, §§ 789, 791, 792, 794, 795, 797.

58. *Id.*; see also Brain & Broderick, *supra* note 9, at 996.

59. 1 WIGMORE, *supra* note 55, § 791; see also Brain & Broderick, *supra* note 9, at 996 n.117; cf. GRAHAM C. LILLY, DANIEL J. CAPRA & STEPHEN A. SALTZBURG, PRINCIPLES OF EVIDENCE 57 (6th ed. 2012) (suggesting that such a map in a boundary dispute is demonstrative evidence).

could be used for all purposes, including establishing sufficiency of the evidence at all stages of the proceeding and on appeal. Over time, trial lawyers offered into evidence more varied tangible items that were not themselves involved in the controversy. Instead of city engineered maps in property disputes, advocates now offered hand-drawn diagrams of the layout of a living room in a domestic violence assault case.

Scholars were reluctant to draw a hard line or adopt a unified proposal for treatment of this expanding class of evidence. Instead, there was mostly silence or adherence to a general concept that only testimonial and “real” exhibit evidence—that which provided direct evidence in a matter—was admissible.

Later scholars faced with this explosion of nontestimonial evidence fell primarily into three categories: (1) those who ignored the topic; (2) those who used the term “demonstrative evidence” to describe any admissible, derivative evidence; and (3) those who used the term to refer to visual aids that assisted witness testimony but were not themselves evidence.⁶⁰ Scholars began to create various lexicons to describe similar items, inconsistently using the terms visual aids, demonstrative aids, illustrative aids, demonstrative evidence, illustrative evidence, and exhibits admitted for illustrative purposes. This variable labeling led, in part, to multiple, inconsistent formulae for evidentiary consideration and admission of such items at trial.⁶¹

B. Practitioners Creatively Expanded the Use of Demonstrative Evidence, Importing Lessons from Madison Avenue into the Courtroom

As trial lawyers began to experiment with the use of visual aids at trial, they lamented the lack of clarity surrounding the admissibility and use of demonstrative evidence.⁶² This call to the academy for help went largely unanswered.⁶³ Academics either ignored the concept of demonstrative evidence or greatly limited the definition to some version of “derivatively relevant evidence” that is admissible, but for the limited purpose of augmenting a witness’s oral testimony. The examination and analysis of the nature and use of such visual evidence by scholars in the area is quite cursory. A survey of

60. See Brain & Broderick, *supra* note 9, at 960–62.

61. See *infra* Part II.D for an analysis of the academic confusion about demonstrative evidence and law professors’ contributions to the lack of standards in this area.

62. See, e.g., Hinshaw, *supra* note 1, at 479–82, 539–43.

63. Conflicting definitions and sanctioned use of demonstrative evidence within and between academic circles and the practicing bar are a byproduct of the fact that the concept was developed as a utilitarian tool in courtrooms, with scholarly commentators reluctantly playing catch up.

[P]ractioners’ contribution to the study of the subject has largely been their consistent use of such proof at trial and their unfailing use of the term “demonstrative” to describe it. As a result, the idea of a separate branch of evidence known as “demonstrative evidence” eventually became so ingrained in our legal system that the academic writers could not ignore it. For the most part, however, practitioner-authored writings on the subject are devoid of detailed analysis of the attributes and proper role of demonstrative proof . . .

Brain & Broderick, *supra* note 9, at 960 n.7.

evidence textbooks reveals that none accord more than a few pages of text to the concept.⁶⁴

The transformation of trial practice in the 1960s, through the 1990s, and the 2010s was dramatic in terms of the type and quantity of visual material lawyers wanted to share with juries. Trial lawyers born after World War II grew with television as a source of both information and entertainment. They were also influenced by the advertising revolution spawned by postwar affluence that encouraged consumerism. Advocates were influenced by the social science data that followed the explosion of visual information delivery in mass media.⁶⁵ Early writing on the subject was generally found in professional journals, while later books like Robert Cialdini's *Influence: The Psychology of Persuasion* were national best sellers aimed at the general public.

Innovative trial lawyers, seeking an advocative advantage, began experimenting with the use of visual aids at trial, leveraging the social science lessons to deliver information in the same manner contemporary jurors were accustomed to receiving entertainment. The practice quickly spread, with early adopters of demonstrative aids, such as personal injury attorney Melvin Belli, sharing lessons from the trenches of trial and encouraging fellow practitioners to push the envelope as far as trial judges would permit.⁶⁶

Evolution of visual aids at trial went from the early days of two-dimensional charts, graphs, and diagrams,⁶⁷ to the use of three-dimensional anatomical displays and to-scale dioramas of intersections replete with model cars, to the use of comprehensive computer animations visually conveying facts about everything from product manufacture methods to car, train, and aviation accidents. Trial lawyers' imaginations as to what could be used as a visual aid both to maximize information transfer to jurors and to persuade them as to what those facts meant seemed without limit.

C. Judges Responded Using the Discretion Provided Under the Evidence Rules to Create a Judge-Specific "Law of Trial Advocacy"

Faced with this ever-expanding universe of evidentiary objects, judges were left to figure out the proper evidentiary treatment of such objects. Judges who ascended to the bench were poorly indoctrinated by their law school professors and early practice mentors on the expanding use of visual materials, if at all. Consequently, when faced with an onslaught of novel visual evidence, they used the discretion allotted them under the evidence rules to fashion court-specific

64. See *infra* note 81.

65. As early as the 1920s, psychologists such as Walter D. Scott applied psychological theory to the field of advertising. LUDY T. BENJAMIN, JR. & DAVID B. BAKER, FROM SÉANCE TO SCIENCE: A HISTORY OF THE PROFESSION OF PSYCHOLOGY IN AMERICA 118–21 (2004).

66. See, e.g., MELVIN M. BELLI, READY FOR THE PLAINTIFF (1956); Melvin M. Belli, *Demonstrative Evidence and the Adequate Award*, 22 MISS. L.J. 284 (1951); Melvin Belli, *Demonstrative Evidence: Seeing Is Believing*, TRIAL, July 1980, at 70.

67. A simple, but extremely impactful chart was used by John Gotti's defense attorney Bruce Cutler in 1987, whereby the defense illustrated the multiple convictions of the prosecution's witnesses.

guidelines.

The existing rules of evidence provided little assistance in this endeavor. Rule 402 provides that relevant evidence is admissible unless barred by the Constitution, federal statutes, or the rules of the Supreme Court, including the evidence rules. So, unless some valid bar exists, the court must admit relevant evidence. Relevant evidence is defined in Rule 401 as evidence that “has any tendency to make a fact more or less probable than it would be without the evidence” and “the fact is of consequence in determining the action.”⁶⁸ This definition provides an extremely low threshold for admissibility: no category of evidence is excluded, no particular characteristics are required.⁶⁹

Given the relatively low bar of relevance, judges were faced with an expanding universe of evidence without training or experience to guide them. For example, exhibits such as diagrams drawn by a testifying witness and not to scale met the low threshold of relevance under Rule 401 and so were presumptively admissible under Rule 402. There was, however, a discomfort among judges who had not received training about the admissibility and use of such evidence, either in law school or in practice. This discomfort led to a wariness about the evidence itself: yes, it was relevant, but it did not seem to fit historic categories of testimonial or real evidence as defined and discussed in the scholarly literature. Judges recognized that the probative value of such evidence validated its consideration by a jury, but they were concerned about delivering demonstrative exhibits to jurors during deliberations along with other admitted exhibits. These concerns centered on the risks that jurors would overvalue or misunderstand the demonstrative evidence.

Judges faced unattractive options under the rules. Judges could exclude a hand-drawn diagram under Rule 403 as cumulative, on the theory that a witness already testified to the scene; this rationale, however, would make a diagram of roadways in an automobile accident similarly inadmissible, even one produced by a city engineer. Judges could admit a diagram for a limited purpose and give a limiting instruction to a jury under Rule 105, but this would result in the diagram being delivered to the jury deliberation room with the other admitted exhibits. This also seemed like a wrong result: after all, a hand-drawn diagram was an

68. FED. R. EVID. 401. Facts “of consequence” are those that are material to the issues in the case and are determined by looking at the claims and defenses set forth in the pleadings, and the underlying law provides the rule of decision in the case. *See Rankin v. State*, 974 S.W.2d 707, 710 (Tex. Crim. App. 1996), *opinion withdrawn in part on reconsideration* (July 8, 1998) (“[I]t appears that ‘fact of consequence’ includes either an elemental fact or an evidentiary fact from which an elemental fact can be inferred. An evidentiary fact that stands wholly unconnected to an elemental fact, however, is not a ‘fact of consequence.’ A court that articulates the relevancy of evidence to an evidentiary fact but does not, in any way, draw the inference to an elemental fact has not completed the necessary relevancy inquiry because it has not shown how the evidence makes a ‘fact of consequence’ in the case more or less likely.”).

69. *See* FED. R. EVID. 402. While unsupported by the language of Rule 402 itself, some scholars, in analyzing the differential treatment of demonstrative evidence, have fashioned a concept of “derivative relevance.” *See, e.g., Brain & Broderick, supra* note 9, at 967. They concluded that only evidence that is “primarily relevant” is admissible under Federal Rule 402, and that demonstrative evidence is not admissible for all purposes because its relevance is “derivative.” *Id.*

extension of a witness's oral testimony, which was itself unavailable to the jurors for review during deliberations. In some jurisdictions, then, a practice developed that such exhibits would be "admitted," but for "illustrative purposes" only: the exhibits were "admitted" into evidence, the jury would see the exhibits during the trial, the exhibits were part of the evidentiary record both on appeal and at trial for a challenge to the sufficiency of evidence, the exhibits could be used in summation, but the exhibits would not be delivered to the jury deliberation room as were the other admitted exhibits in the case.⁷⁰

A common judicial analysis for admitting demonstrative exhibits into evidence but excluding them from the jury deliberation room seemed to be a form of Rule 403, applied as a secondary afterthought to "admission"—in essence, a "shadow Rule 403." The first round of Rule 403 balancing was applied to determine if the evidence should reach the jury at all. Having determined the answer to be "yes," judges admitted the evidence and then seemed to perform a second, "off-the-books" Rule 403 analysis to determine if the "admitted" evidence should be delivered to the jurors during deliberations.

In reaching this split-the-baby approach, some judges relied on the broad discretion afforded them to control courtroom proceedings, including discretionary regulation of the mode of presentation of evidence. The language underlying this reasoning reflected that of Federal Rule of Evidence 611.⁷¹ Additionally, some judges admitted the demonstrative evidence "for illustrative purposes only" and then instructed the jury as to the limited nature of the evidence. This language was similar to that of Federal Rule of Evidence 105.⁷² In essence, judges were left to figure out the proper evidentiary treatment of such visual aids and, having arrived at a commonsense conclusion, primarily used the

70. In allowing jurors to view and consider demonstrative evidence, judges implicitly seemed to have found that the evidence was (1) relevant, thus (2) presumptively admissible, and (3) not barred by any other rule of evidence or the Constitution. *See* FED. R. EVID. 402. For jurors to view demonstrative exhibits during the presentation of evidence with the approval of the court, the Federal Rules' (and state analogues') absolute prohibition of admitting (and thus juror consideration of) irrelevant evidence was presumptively overcome. Further, the balancing mandated by Federal Rule of Evidence 403 (requiring that the probative value of evidence outweigh the potential risks of misuse by jurors or other costs) must also implicitly have been conducted and found to weigh in favor of admissibility.

71. FED. R. EVID. 611(a)(1)–(3) ("The court should exercise reasonable control over the mode and order of examining witnesses and presenting evidence so as to: (1) make those procedures effective for determining the truth; (2) avoid wasting time; and (3) protect witnesses from harassment or undue embarrassment.").

72. Federal Rule of Evidence 105 provides that "[i]f the court admits evidence that is admissible against a party or for a purpose—but not against another party or for another purpose—the court, on timely request, must restrict the evidence to its proper scope and instruct the jury accordingly." *Id.* 105. Some judges also misguidedly rely on this rule to craft a "limited use" doctrine with respect to demonstrative evidence, allowing it to be admitted into evidence for a limited "illustrative purpose" that restricts the advocate's use of the exhibit to the direct examination of the foundational witness and prohibits the exhibit to go to the jury during deliberations with other admitted evidence. This misuse of Rule 105 misunderstands the rule's concept of admission for a "limited purpose." Such a limit is on the points of proof the jurors may apply the exhibit to, not a limit on the use of the evidence for the point of proof for which it was offered and admitted.

discretion allotted to them under Federal Rules of Evidence 403 and 611 and their state counterparts to put that conclusion into effect.⁷³

D. The Snake Comes Full Circle: Law Professors Now Teach that Admissibility and Use of Demonstrative Evidence Is Judge-Dependent, Not Standard-Dependent

The persistent, uncertain state of demonstrative evidence, which the Seventh Circuit stated “may have contributed to the error in the district court,”⁷⁴ is unsurprising, considering the array of scholarship on this topic. Evidence treatises are replete with resigned statements. Professors Mueller and Kirkpatrick note that “[t]here is no consensus on the proper definition or scope of demonstrative evidence,”⁷⁵ while Professor Kenneth McCormick cautions that “the use of any single term to denominate all such evidence can be at best confusing and at worst harmful to a clear analysis of what should be required to achieve its admission into evidence.”⁷⁶ Professor Wigmore refused to even use the term “demonstrative.”⁷⁷ As recently as 2012, one commentator lamented that “[a]s demonstrative exhibits have become increasingly more powerful, one might expect courts to have responded by becoming more vigilant about what the exhibits depict. This has not been the case.”⁷⁸

Most treatise and textbook authors do not address the landscape with a normative analysis, but rather identify the accepted trial procedure in their respective jurisdiction. They do not advocate for a particular approach, but rather acknowledge the lack of consensus across jurisdictions.⁷⁹ Some academics teach that demonstrative exhibits can constitute substantive evidence under certain circumstances,⁸⁰ some consider visual aids to be admissible as exhibits

73. See ALLEN ET AL., *supra* note 51, at 701 (“Although FRE 901 does not fully apply because these devices are not exhibits a foundation for the accuracy of illustrative evidence must be laid, and the use of illustrative aids at trial is regulated by FRE 611(a) and FRE 403. Many courts endorse the use of illustrative evidence as a trial management technique so long as an appropriate limiting instruction informs the jury that the chart itself is not evidence but is only an aid in evaluating the evidence.”).

74. *Baugh ex rel. Baugh v. Cuprum S.A. de C.V.*, 730 F.3d 701, 706 (7th Cir. 2013).

75. 5 MUELLER & KIRKPATRICK, *supra* note 44, § 9:22. Mueller and Kirkpatrick note that the term has referred to one of three possibilities: (1) evidence that “appeals to the senses,” (2) evidence that conveys a “firsthand sense impression,” or (3) evidence used to illustrate other evidence, but lacking any independent substantive force. *Id.* (first quoting Melvin Belli, *Demonstrative Evidence: Seeing is Believing*, 16 *Trial* 70 (1980); then quoting 2 JOHN W. STRONG, MCCORMICK ON EVIDENCE § 212 (4th ed. 1991)).

76. 2 KENNETH S. BROWN, MCCORMICK ON EVIDENCE § 212 (7th ed. 2013).

77. Brain & Broderick, *supra* note 9, at 997.

78. David S. Santee, *More than Words: Rethinking the Role of Modern Demonstrative Evidence*, 52 *SANTA CLARA L. REV.* 105, 112 (2012).

79. See, e.g., ROGER PARK, DAVID LEONARD, AVIVA ORENSTEIN & STEVEN GOLDBERG, *A STUDENT’S GUIDE TO THE LAW OF EVIDENCE AS APPLIED IN AMERICAN TRIALS* 583–84 (3d ed. 2011) (“Demonstrative evidence used for illustrative purposes is handled differently from jurisdiction to jurisdiction and sometimes from courtroom to courtroom.”).

80. See, e.g., LILLY ET AL., *supra* note 59, at 57–58 (“[T]here is an area of overlap between

with a limited use, for “illustrative purposes only,” while others argue that any visual evidence is derivative, and thus inadmissible, even where testimonial foundation has been laid establishing both its authenticity and relevance to the issues in the case. Some evidence textbooks do not list demonstrative evidence in either the table of contents or the index, and others reference it only in brief passing.⁸¹ Stanford Professor George Fisher and University of Washington Professor Peter Nicolas, for example, do not discuss demonstrative evidence in their texts, although each author includes a case that illustrates specific evidentiary issues that intersect with the concept of demonstrative evidence.⁸²

By 2010, authoritative academic works catalogued multiple evidentiary statuses of various tangible items, such as photographs or diagrams produced to scale.⁸³ A survey of evidence and trial advocacy texts and treatises reveals at least five differing characterizations of a photograph offered into evidence: “real

‘original’ real evidence and demonstrative evidence.”).

81. See, e.g., ALLEN ET AL., *supra* note 51, at 151–52, 192–95, 219 (“demonstrative evidence” mentioned in seven of 917 pages); CHRISTOPHER W. BEHAN, EVIDENCE AND THE ADVOCATE: A CONTEXTUAL APPROACH TO LEARNING EVIDENCE 49–50 (2012) (one paragraph of 695 pages); GEORGE FISHER, EVIDENCE 50–54 (3d ed. 2013) (four pages of 1085 pages); STEVEN I. FRIEDLAND, PAUL BERGMAN & ANDREW E. TASLITZ, EVIDENCE: LAW AND PRACTICE 743 (6th ed. 2014) [hereinafter FRIEDLAND ET AL., EVIDENCE: LAW AND PRACTICE] (one page of 823 pages); STEVEN I. FRIEDLAND & JACK P. SAHL, EVIDENCE PROBLEMS AND MATERIALS 14 (4th ed. 2012) [hereinafter FRIEDLAND & SAHL, EVIDENCE PROBLEMS AND MATERIALS] (one page of 570); ERIC D. GREEN, CHARLES R. NESSON & PETER L. MURRAY, PROBLEMS, CASES, AND MATERIALS ON EVIDENCE 1017–1018 (3d ed. 2000) (two pages of 1122); DEBORAH JONES MERRITT & RIC SIMMONS, LEARNING EVIDENCE: FROM THE FEDERAL RULES TO THE COURTROOM 10–13, 38 (2d ed. 2012) (five of 983 pages); DAVID P. LEONARD, VICTOR J. GOLD & GARY C. WILLIAMS, EVIDENCE: A STRUCTURED APPROACH 47, 51–52 (3d ed. 2012) (three of 647 pages); LILLY ET AL., *supra* note 59 (two of 456 pages); MUELLER & KIRKPATRICK, *supra* note 22, § 4.2 (sixteen of 1206 pages); PETER NICOLAS, EVIDENCE: A PROBLEM-BASED AND COMPARATIVE APPROACH 411–15 (3d ed. 2014) (four of 846 pages); ROGER C. PARK & RICHARD D. FRIEDMAN, EVIDENCE: CASES AND MATERIALS 36, 964–70 (12th ed. 2013) (seven of 1508 pages); PAUL R. RICE & ROY A. KATRIEL, EVIDENCE: COMMON LAW AND FEDERAL RULES OF EVIDENCE 14–15, 200–08 (6th ed. 2009) (ten of 1259 pages); OLIN GUY WELLBORN III, CASES AND MATERIALS ON THE RULES OF EVIDENCE 9, 477–79 (3d ed. 2005) (three of 606 pages); PAVEL WONSOWICZ, EVIDENCE: A CONTEXT AND PRACTICE CASEBOOK, 8, 10, 24 (2012) (three of 518 pages); IRVING YOUNGER, MICHAEL GOLDSMITH & DAVID A. SONENSHEIN, PRINCIPLES OF EVIDENCE 29–31 (3d ed. 1997) (three of 922 pages).

82. See FISHER, *supra* note 81, at 50–54 (noting that demonstrative evidence is discussed in the case of *Commonwealth v. Serge*, 896 A.2d 1170 (Pa. 2006), *cert. denied*, 549 U.S. 920 (2006), concerning expert opinion and computer-generated animation); NICOLAS, *supra* note 81, at 411–15 (noting that demonstrative evidence is mentioned in the case of *United States v. Bray*, 139 F.3d 1104 (6th Cir. 1998), concerning summaries authorized under Federal Rule of Evidence 1006). As discussed in Nicolas’s text, the *Bray* court distinguished 1006 summaries from both “illustrative aids,” which are *not* admitted and are *not* evidence, and “secondary evidence summaries,” which are a “combination” of 1006 summaries and illustrative aids that *are* admitted into evidence—despite failing to comply with the requirements of FRE 1006. *Id.* at 415. In its analysis, the *Bray* court notes that a jury should be told that the admitted evidence is *not* independent evidence of the underlying evidence summarized. *Id.*

83. See, e.g., CHRISTOPHER B. MUELLER & LAIRD C. KIRKPATRICK, EVIDENCE UNDER THE RULES: TEXT, CASES, AND PROBLEMS (8th ed. 2014); see also JACK B. WEINSTEIN, JOHN H. MANSFIELD, NORMAN ABRAMS & MARGARET A. BERGER, EVIDENCE: CASES AND MATERIALS 157–60 (9th ed. 1997) (surveying various scholarly and judicial approaches to the evidentiary status and admissibility of photographs).

evidence,”⁸⁴ “tantamount to real evidence,”⁸⁵ “substantive evidence,”⁸⁶ “representative evidence,”⁸⁷ and “demonstrative evidence.”⁸⁸ The different characterizations, in turn, produce different instruction as to the nature and use of a photograph at trial. This is particularly notable, given that “[s]ome students of photographic evidence estimate that photographs are used in roughly half the cases in the United States.”⁸⁹ One text highlights an Indiana case in which the court considered competing definitions and evidentiary uses of photographs.⁹⁰ The Indiana court noted that photographs fall within the “‘pictorial testimony theory’ of photographic evidence,” and, as such, are not evidence in themselves, as contrasted with the “silent witness theory” for the admission of photographs that qualifies the photo as substantive evidence.⁹¹ The text’s authors posit: “Given the impressive scientific evidence of the reliability of the photographic process, doesn’t it seem logical that a photograph should qualify as substantive evidence?”⁹²

Similarly, a survey of texts and treatises reveals conflicting characterizations of a hand-drawn diagram or map: it is described as a “visual aid” used for explanatory or illustrative purposes only;⁹³ “representative evidence” that represents another thing;⁹⁴ an “illustrative exhibit” that is “relevant so long as it fairly and accurately depicts the portrayed scene”;⁹⁵ “demonstrative evidence” that can be taken to the jury deliberation room if the judge finds “it is particularly helpful . . . and is not too argumentative.”⁹⁶ These conflicting characterizations have led to inconsistent conclusions with respect to relevance and admissibility: “the use of such evidence is usually left to the discretion of the trial court”;⁹⁷ a diagram is no different than a photograph, and like a photograph, should be admitted into evidence;⁹⁸ and a diagram need not be to

84. See, e.g., LEONARD ET AL., *supra* note 81, at 52.

85. E.g., STEVEN LUBET, *MODERN TRIAL ADVOCACY* 351 (4th ed. 2009).

86. See, e.g., ROBERT J. GOODWIN & JIMMY GURULE, *CRIMINAL AND FORENSIC EVIDENCE: CASES, MATERIALS, PROBLEMS* 991 (4th ed. 2014).

87. E.g., FRIEDLAND ET AL., *EVIDENCE: LAW AND PRACTICE*, *supra* note 81, at 743.

88. See, e.g., YOUNGER ET AL., *supra* note 81, at 30; see also ALLEN ET AL., *supra* note 51, at 191–92; KENNETH S. BROUN & WALTER J. BLAKELY, *EVIDENCE* 95 (2d ed. 1994); ANDRE A. MOENSSENS, BETTY LAYNE DESPORTES & CARL N. EDWARDS, *SCIENTIFIC EVIDENCE IN CIVIL AND CRIMINAL CASES* 67 (6th ed. 2013).

89. RONALD CARLSON, EDWARD IMWINKELRIED, JULIE SEAMAN & ERICA BEECHER-MONAS, *EVIDENCE: TEACHING MATERIALS FOR AN AGE OF SCIENCE AND STATUTES* 218 (7th ed. 2012).

90. *Id.* at 219–20 (reprinting *Bergner v. State*, 397 N.E.2d 1012 (Ind. Ct. App. 1979)).

91. *Id.* (reprinting *Bergner*, 397 N.E.2d at 1016).

92. *Id.* at 220.

93. See, e.g., PARK & FRIEDMAN, *supra* note 81, at 36.

94. See, e.g., FRIEDLAND & SAHL, *EVIDENCE PROBLEMS AND MATERIALS*, *supra* note 81, at 15.

95. See, e.g., BEHAN, *supra* note 81, at 294.

96. See, e.g., MERRITT & SIMMONS, *supra* note 81, at 38.

97. See, e.g., WELLBORN, *supra* note 81, at 485 (citing *Smith v. Ohio Oil Co.*, 134 N.E.2d 526 (Ill. App. Ct. 1956)).

98. See, e.g., L. TIMOTHY PERRIN, H. MITCHELL CALDWELL & CAROL A. CHASE, *THE ART & SCIENCE OF TRIAL ADVOCACY* 273 (2003).

scale and “the mere fact that the drawing is hand-drawn during the course of trial and fails to get the size and distance exactly right is ordinarily a matter that goes to the weight of the evidence and not its admissibility.”⁹⁹

Not only do definitions and uses of demonstrative evidence differ between texts, there exist inconsistencies within single sources. For example, one text categorizes photographs as demonstrative evidence, which the authors define as generally “ha[ving] no probative value,” but nonetheless states that such nonprobative evidence can be admitted into evidence.¹⁰⁰ This conflicts with the prohibition of Rule 402, which dictates that nonprobative evidence is irrelevant and inadmissible.¹⁰¹

Not only do scholars document the state of confusion, they also perpetuate it. Having left judges to their own devices to create court-specific discretionary guidelines for demonstrative evidence, professors have solidified the resulting confusion by teaching the next generation that demonstrative evidence lives outside the rules of evidence. In the classroom, in textbooks, and at continuing legal education seminars, those reared to accept the standardless status quo pass that acceptance to the next generation. The lack of uniform standards on admissibility and use of demonstrative evidence is particularly apparent when evidence professors, trial advocacy teachers, lawyers, and judges come together to teach trial skills in such programs as those sponsored by the National Institute of Trial Advocacy.¹⁰² When the question of how to use demonstrative evidence in the courtroom comes up, as it inevitably does at such training seminars, confusion reigns. Conflicting statements of “the law of trial advocacy” erupt, with the experts either disavowing any reliable practice or espousing contradictory views of “the way it’s done.” A sampling of current authoritative works and law school texts illustrate this:

While all jurisdictions allow the use of demonstrative aids throughout the trial, there is some diversity of judicial opinion concerning their precise evidentiary status. Some jurisdictions treat such items as admissible exhibits which may be reviewed on appeal and sometimes viewed by the jury during deliberations. Other courts treat them differently, either admitting them for “demonstrative purposes” only or refusing to admit them at all as exhibits. These courts then differ on

99. *Id.* at 272.

100. MOENSSENS ET AL., *supra* note 88, at 67.

101. FED. R. EVID. 402; *see id.* 401; *see also* STEVEN GOODE & OLIN GUY WELLBORN III, COURTROOM EVIDENCE HANDBOOK 2014–2015, at 51, 54 (2014) (stating that “demonstrative or illustrative evidence. . . [is] subject to the general relevancy requirements of Rules 401, 402, and 403,” and underscoring that Rule 401 requires probative value of admitted evidence); WONSOWICZ, *supra* note 81, at 10 (stating that demonstrative evidence may be used “as long as [it is] admissible pursuant to the rules of evidence”).

102. Professor Howard has taught trial advocacy programs coast-to-coast for over fifteen years with law professors, federal judges, state judges, federal and state prosecutors, defense lawyers, and “BigLaw” litigation partners.

whether to allow them into the jury room during deliberations.¹⁰³

Judges exercise discretion over what evidence, if any, the jurors may take to the jury room. Judges often allow the jury to take into the jury room real and documentary evidence that has been admitted into evidence. Sometimes they permit the jury to take demonstrative evidence, if it is particularly helpful in organizing the facts of a complex case and is not too argumentative.¹⁰⁴

The only limits on the use of demonstrative evidence are the trial judge's discretion and the trial attorney's imagination.¹⁰⁵

Despite the solid case support for visual evidence, lawyers often feel anxious about foundational and ethical questions. The concerns and questions feeding this discomfort include the following: . . . What category does this evidence fall in—real or demonstrative? . . . What is the potential for impeachment over foundation details?"¹⁰⁶

Most judges in exercising judicial discretion will permit the use of visual aids if it can be demonstrated in advance that these aids can properly be used.¹⁰⁷

Conflicting practices exist on whether jurors may take exhibits into deliberations. Explicit rules on the subject do not exist in many jurisdictions . . .¹⁰⁸

The introduction and use of demonstrative evidence is subject to a variety of approaches depending upon the practice in a jurisdiction and the preferences of the judge . . .¹⁰⁹

The status of diagrams . . . is somewhat uncertain in many jurisdictions. . . . [T]here are wide variations In some states, illustrations of a witness's testimony such as diagrams, models, and computer simulations are treated as visual testimony. . . . In other states, this kind of media is considered as "demonstrative evidence" and is admitted as a special category of evidence, sometimes with a limiting instruction to the effect that the diagram should be given no greater weight than the

103. KENNETH S. BROUN, GEORGE E. DIX, EDWARD J. IMWINKELRIED, D. H. KAYE, ROBERT P. MOSTELLER, E. F. ROBERTS & ELEANOR SWIFT, *MCCORMICK ON EVIDENCE* 485 (7th ed. 2014).

104. MERRITT & SIMMONS, *supra* note 81, at 38.

105. EDWARD J. IMWINKELRIED, *EVIDENTIARY FOUNDATIONS* 133 (8th ed. 2012).

106. WILLIAM S. BAILEY & ROBERT W. BAILEY, *SHOW THE STORY: THE POWER OF VISUAL ADVOCACY* 284 (2011).

107. *Id.* at 284 (citing ALAN E. MORRILL, *TRIAL DIPLOMACY* 26 (2d ed. 1973)). The authors do not identify, however, the standard for admission or the nature of a judge's discretion with respect to the use of such aids.

108. MICHAEL R. FONTHAM, *TRIAL TECHNIQUE & EVIDENCE* 403 (4th ed. 2013).

109. ROGER HAYDOCK & JOHN SONSTENG, *TRIAL: ADVOCACY BEFORE JUDGES, JURORS AND ARBITRATORS* 453 (4th ed. 2011).

supporting witness's testimony. In some states, diagrams seem to be treated as ordinary tangible evidence.¹¹⁰

The admissibility status of demonstrative exhibits varies. What does it mean when a judge "admits" the exhibit in evidence? . . . This difference in judicial views means that when a demonstrative exhibit is offered and "admitted" in evidence, a lawyer must determine if the judge will allow the exhibit to be used only with the witness, allow it to be used during closing arguments, and allow it to go to the jury during deliberations.¹¹¹

Even though scholars have ably identified the problem, they have not yet unified in an effort toward resolution. Some scholars have attempted to articulate the foundation required for demonstrative evidence,¹¹² although by doing so they serve to perpetuate the confusion as to the "admissibility" of demonstrative evidence.¹¹³ Other scholars attempted to define the universe of demonstrative evidence,¹¹⁴ yet their proposals have not gained universal or even grudging acceptance.

The result of such discord is that each generation of law students is indoctrinated into the "evidentiary rules of trial advocacy" through the prism of law school textbooks and by professors who impart their localized, anecdotal opinions on the "rules" regarding the use and admissibility of demonstrative evidence at trial. Students schooled on these principles, in turn, continue those definitions and terms of use when they enter practice and when they become judges.

III. THE DOCTRINAL CONFUSION, THOUGH SEEMINGLY MINOR, HAS REAL-WORLD NEGATIVE CONSEQUENCES

Although those who have been advocating within, administering, or teaching the status quo may downplay the impact of this confusion, it is already

110. GREEN ET AL., *supra* note 81, at 1017–18.

111. THOMAS A. MAUET & WARREN D. WOLFSON, TRIAL EVIDENCE 317–18 (6th ed. 2016).

112. *See, e.g., id.* at 317 (“[T]he proponent must call a competent witness, one having firsthand knowledge of the actual thing at the relevant dates to testify that the exhibit fairly represents or shows the actual thing. To be relevant, the exhibit must help the jury understand some fact of consequence to the case.”).

113. *Id.* (describing the foundation of diagrams and models and concluding that the exhibits are “admissible”). In fairness, Mauet and Wolfson examine the question: “What does it mean when a judge ‘admits’ the exhibit in evidence?” *Id.* Nonetheless, by misstating that demonstrative evidence is “admissible” the seeds of confusion have already been sown.

114. *See, e.g.,* 2 MCCORMICK ON EVIDENCE, *supra* note 76, § 212 (“The term ‘demonstrative aid’ will be employed here to identify these and other types of evidence whose relevance is illustrative, rather than substantive. Some courts refer to these aids as ‘pedagogic aids’ or ‘devices.’”); 2 MICHAEL H. GRAHAM, HANDBOOK OF FEDERAL EVIDENCE § 401:2 (7th ed. 2015) (“Demonstrative evidence . . . is distinguished from real evidence in that it has no probative value itself, but serves merely as a visual aid to the jury in comprehending the verbal testimony of a witness or other evidence.”).

having a negative effect on trial practice. Additionally, as the judge-made “law of trial advocacy” is solidified into pattern jury instructions, the potentially inconsistent practice is reinforced. Finally, multiple innovations in trial practice can combine with unintended and undesirable results.

A. *The Relative Silence on the Issue Belies the Seriousness of the Situation*

To some extent, the seeming acceptance of scholars, judges, lawyers, and rules drafters regarding the murky and inconsistent “rules” of demonstrative evidence might be chalked up to a collective ennui, expressed through inaction, amounting to “what’s the big deal?” It may be that this type of proof—whether referred to as a visual aid, demonstrative aid, illustrative aid, demonstrative exhibit, illustrative exhibit, or exhibit admitted for illustrative purposes only—is reflexively categorized and marginalized as a mere persuasive device in the tool box of the trial advocate. This classification as a trial technique may explain why demonstrative proof is often sidelined from rigorous evidentiary analysis. The oversimplification in definition produces an oversimplified and inconsistent approach to evaluating the relevance and admissibility of the proof.

This ennui appears to be borne out by the relative absence of this issue from appellate reports. But that absence is unsurprising, because there is a long error chain that must remain unbroken to have the issue reviewed and documented. First, the confusion about the admission or use of demonstrative evidence must result in some type of error.¹¹⁵ Second, this error must be of such a magnitude as to potentially affect the outcome of a trial, and a losing party must expend the resources to pursue an appeal. Additionally, there must be sufficient evidence in the record to demonstrate an abuse of discretion to make an appeal worthwhile. Third, the issue must be sufficiently identified (and not lost among other assignments of error) to merit an appellate court’s attention. If any of the links in this chain are broken, the demonstrative evidence issue will not see the light of day. While this may seem to diminish this problem, this long error chain in fact magnifies the importance of this predicament. And even with the relative difficulty of these issues coming to light, trial courts are still incorrectly admitting or using demonstrative exhibits, requiring appellate review, and, in some cases, reversal.¹¹⁶ Whatever the source of the hands-off approach, the potential for real-world, negative consequences exists, and the problem further develops with the calcification (if not codification) of this judge-made “law of trial advocacy” into pattern jury instructions.

115. See, e.g., *Baugh ex rel. Baugh v. Cuprum S.A. de C.V.*, 730 F.3d 701, 710 (7th Cir. 2013); *State v. Perea*, 322 P.3d 624, 637 (Utah 2013); *State v. Lord*, 822 P.2d 177, 194 (Wash. 1991).

116. See, e.g., *United States v. Hawkins*, 796 F.3d 843, 866 (8th Cir. 2015) (characterizing the district court’s erroneous admission of a demonstrative timeline as harmless error); *Baugh*, 730 F.3d at 711 (concluding that the district court had abused its discretion by overruling objections to the use of an exhibit, on the ground that its use would be limited to demonstrative purposes only, but then allowing the exhibit’s admission into evidence during jury deliberations).

B. Pattern Jury Instructions Perpetuate the Problem by Implying a Standard

Over the years, oral jury instructions were developed to notify jurors during trial that an “illustrative exhibit” being used with a witness would not be available to them during deliberations.¹¹⁷ This was to distinguish these visual aids from other exhibits admitted in the case, because in some jurisdictions judges instruct juries at the beginning of a trial that exhibits admitted into evidence will go back to the jury deliberation room at the conclusion of the trial for the jurors’ consideration. In Washington State, for example, one jury instruction reads:

I am allowing [this exhibit] [exhibit number] to be used for illustrative purposes only. This means that its status is different from that of other exhibits in the case. This exhibit is not itself evidence. Rather, it is one [party’s] [witness’s] [summary] [explanation] [illustration] [interpretation], offered to assist you in understanding and evaluating the evidence in the case. Keep in mind that actual evidence is the testimony of witnesses and the exhibits that are admitted into evidence.

Because it is not itself evidence, this exhibit will not go with you to the jury room when you deliberate. The lawyers and witnesses may use the exhibit now and later on during this trial. You may take notes from this exhibit if you wish, but you should remember that your decisions in the case must be based upon the evidence.¹¹⁸

The title of this instruction is “Exhibit Admitted for Illustrative Purposes,” even though the text of the instruction states that the exhibit “is not itself evidence.”¹¹⁹ The language of the instruction thus suggests contradictorily that the exhibit both is and is not admitted into evidence.¹²⁰ Not only does this codify the confusion, but also communicates to judges and practitioners alike the state of uncertainty in this area. This should, standing alone, provide sufficient impetus to address this issue; when combined with other developments in trial practice, this state of affairs can produce unintended and undesirable results.

117. See, e.g., COMM. ON PATTERN JURY INSTRUCTIONS, DIST. JUDGES ASS’N, FIFTH CIRCUIT, PATTERN JURY INSTRUCTIONS (CRIMINAL CASES) 1.43 (2015); FLA. BAR, FLORIDA STANDARD JURY INSTRUCTIONS 301.4 (2015); MINN. DIST. JUDGES ASS’N, COMM. ON CRIMINAL JURY INSTRUCTION GUIDES, JURY INSTRUCTION GUIDES—CRIMINAL 3.26 (6th ed. 2014); COMM. ON FED. CRIMINAL JURY INSTRUCTIONS OF THE SEVENTH CIRCUIT, FEDERAL CRIMINAL JURY INSTRUCTIONS 3.17 (2012); JUDICIAL COUNCIL OF CAL. ADVISORY COMM. ON CIVIL JURY INSTRUCTIONS, CIVIL JURY INSTRUCTIONS 5020 (2012).

118. WASH. STATE SUPREME COURT COMM. ON JURY INSTRUCTIONS, WASHINGTON PATTERN JURY INSTRUCTIONS—CIVIL 6.06 (2013).

119. *Id.*

120. At the Washington Pattern Instruction Committee meeting on November 7, 2015, Professor Howard proposed to modify the instruction title from “Exhibit *Admitted* for Illustrative Purposes” to “Exhibit *Used* for Illustrative Purposes” (emphasis added), in an effort to eliminate the internal linguistic inconsistency of the exhibit being referred to as both “admitted [into evidence]” and “not evidence,” and thereby reconcile the title with the substance of the instruction. The proposal was rejected. The committee members noted that the phrasing had long been the lexicon of trial practice and that judges and lawyers understood its meaning. The Seventh Circuit appears to disagree, noting that confusion in trial courts over such demonstrative evidence has resulted in the frustration of several of the goals of the evidence rules. See *Baugh*, 730 F.3d at 708–10.

C. *The Combination of Innovations in Both Jury Instructions and Trial Practice Produces Anomalous Results*

While jurisdictions developed approaches to demonstrative evidence (either judge by judge or through pattern jury instructions), there were other independent developments that few foresaw would produce anomalous, unknowable “shadow evidence” to be relied on by juries beyond the eyes of judges and lawyers. One such development was the advent of note taking by jurors.

All jurisdictions have addressed note taking by jurors during trial. There are thirteen states where note taking must be allowed during trial.¹²¹ There are twenty-six states where juror note taking lies in a judge’s discretion.¹²² There are six states where the language is ambiguous, but clearly note taking is allowed and preferred.¹²³ Finally, there are seven where the rule is currently unclear.¹²⁴

121. 725 ILL. COMP. STAT. 5/115-4 (West 2016); LA. CODE CIV. PROC. ANN. art 1794 (2015); NEB. REV. STAT. ANN. § 25-1107.01 (West 2016); NEV. REV. STAT. ANN. § 175.131 (West 2015); ARIZ. R. CIV. P. 39(p); ARIZ. R. CRIM. P. 18.6; CAL. R. CT. 2.1031 (“Jurors must be permitted to take written notes in all civil and criminal trials.”); HAW. R. CIV. P. 47(d) (“Except upon good cause articulated by the court, jurors shall be allowed to take notes during trial.”); HAW. R. CRIM. P. 24(e) (“Except upon good cause articulated by the court, jurors shall be allowed to take notes during trial.”); IOWA R. CIV. P. 1.926; IOWA R. CRIM. P. 2.19; MO. SUP. CT. R. 69.03 (“Upon the court’s own motion or upon the request of any party, the court shall permit jurors to take notes.”); PA. R. CIV. P. 223.2(a)(1) (permitting jurors to take notes “whenever a jury trial is expected to last more than two days”); PA. R. CRIM. P. 644(A) (permitting jurors to take notes “when a jury trial is expected to last more than two days”); TENN. R. CIV. P. 43A.01; TENN. R. CRIM. P. 24.1(a)(1); WASH. SUPER. CT. CRIM. R. 6.8; WASH. SUPER. CT. CIV. R. 47(j); WYO. R. CRIM. P. 24.1; WYO. R. CIV. P. 39.1(a); *Reece v. Simpson*, 437 So. 2d 68, 68 (Ala. 1983).

122. LA. CODE CRIM. PROC. ANN. art. 793 (2015); N.C. GEN. STAT. ANN. § 15A-1228 (West 2015); WIS. STAT. ANN. §§ 805.13, 972.10 (West 2015); CONN. SUPER. CT. CIV. R. § 16-7; ME. R. CIV. P. 47; ME. R. CRIM. P. 24; MASS. SUPER. CT. R. 8A; MICH. R. CIV. P. 2.513(H); MISS. CIR. & CTY. CT. R. 3.14; N.H. SUPER. CT. CRIM. R. 64-A; N.H. SUPER. CT. CIV. R. 38(3)(c); N.J. CT. R. 1:8-8(c); N.Y. CT. R. § 220.10; N.D. R. CT. 6.7; OHIO R. CIV. P. 47(E); OHIO R. CRIM. P. 24(I); VT. R. CIV. P. 39(e); VA. SUP. CT. R. 123.A; Alaska State Hous. Auth. v. Contento, 432 P.2d 117, 122 (Alaska 1967); *People v. Martinez*, 652 P.2d 174, 177 (Colo. App. 1981); *Williamson v. State*, 235 S.E.2d 643, 645 (Ga. 1977); *Johnson v. State Highway Comm’n*, 366 P.2d 282, 285 (Kan. 1961) (“It would seem to be true that there is authority that a trial judge in his discretion may allow the jury to take notes.”); *Travis v. Commonwealth*, 457 S.W.2d 481, 481 (Ky. 1970); *Wharton v. State*, 734 So. 2d 985 (Miss. 1998) (permitting juror note taking, but not allowing jurors to take notes into deliberations); *State v. Hage*, 853 P.2d 1251, 1254 (Mont. 1993); *Sligar v. Bartlett*, 916 P.2d 1383, 1387 (Okla. 1996); *Cohee v. State*, 942 P.2d 211, 214 (Okla. Crim. App. 1997); *State v. Rose*, 748 A.2d 1283, 1286–87 (R.I. 2000); *State v. Trent*, 106 S.E.2d 527, 530–31 (S.C. 1959); *Price v. State*, 887 S.W.2d 949, 954 (Tex. Crim. App. 1994); *State v. Triplett*, 421 S.E.2d 511, 520 (W. Va. 1992).

123. S.D. CODIFIED LAWS § 15-14-20 (2016) (allowing jurors in civil trials to take their notes into deliberations); ARK. R. CRIM. P. 33.5; IDAHO CRIM. R. 24.1; IND. JURY R. 20; MD. R. CIV. P. CIR. CT. 2-521(a) (“The court may, and on request of any party shall, provide paper notepads for use by sworn jurors, including any alternates, during trial and deliberations.”); MD. R. CRIM. P. 4-326 (same); OR. R. CIV. P. 59.C(4) (“Jurors may take notes of the testimony or other proceeding on the trial and may take such notes into the jury room.”).

124. S.D. CODIFIED LAWS § 23A-25-7 (remaining silent on juror note taking in criminal trials); see DEL. SUPER. CT. JUROR USE STANDARD 16; FLA. STANDARD CRIM. JURY INSTRUCTION 2.1(a); MINN. R. CRIM. P. 26.03 subdiv. 13; N.M. R. CRIM. UNIFORM JURY INSTRUCTION 14-9002, 14-7011, 14-

The rationale for these rules is well-founded: jurors have limited capacity to remember and a strong desire to render a just verdict based on the evidence. Note taking reduces anxiety in some jurors, knowing that they can record facts they find important without fear of forgetting them. Note taking also allows jurors to engage in a robust discussion in the jury deliberation room about the evidence presented to them. The soundness of juror note taking is widely accepted.

The combination of the common jury instruction regarding exhibits admitted for illustrative purposes only, discussed above, with the newly devised rules allowing jurors to take notes during trial produced several unforeseen and undesirable results. One example is when a witness—let’s say a domestic violence victim—is testifying to the events that occurred in her apartment. The prosecutor asks her to describe the apartment: the size, the furniture, and the distances. In the process of doing so, she indicates she could better explain the layout of her apartment to the jury if she could draw the apartment. With the court’s permission, the witness sketches a diagram—clearly not to scale—of her apartment. It is marked as an exhibit and offered into evidence. It is objected to by the defense counsel on the basis of foundation. It is, after all, not to scale. The prosecutor, having learned well at school, revises her offer and states: “We offer it for illustrative purposes only your honor.” The court accepts the offer and “admits” the exhibit.

It is at this point that a judge-made “law of trial advocacy” allowing use but not full admission of such a hand-drawn diagram, a pattern jury instruction regarding “exhibits admitted for illustrative purposes only,” and a court rule on juror note taking come together to risk an extremely odd and most unintended and undesirable evidentiary result. The prosecutor is allowed to share the witness’s diagram with the jury during her testimony; at that time the judge reads the jury instruction alerting the jury that this “exhibit,” unlike the other exhibits introduced at trial, will not be going back to the jury deliberation room; the jurors—recognizing the importance of the diagram and now knowing it will not later be available to them—pull out their note pads and start sketching the diagram. The jurors are incited to try to reproduce on the fly, with divided attention and no direct knowledge of the scene they reproduce, the floorplan drawn by the witness on the stand. So instead of receiving a single hand-drawn diagram in the jury deliberation room, one to which the witness has attested under oath to be accurate, the jurors now have up to twelve secondary iterations of a diagram to which they had limited temporal exposure and no knowledge of the underlying facts portrayed therein. This is exactly the type of anomalous result, contrary to the goals of the rules of evidence, that Seventh Circuit noted in its decision in *Baugh ex rel. Baugh v. Cuprum S.A. de C.V.*¹²⁵

7010; *Cooney-Koss v. McCracken*, No. 10C-10-230 WCC, 2012 WL 8962833 (Del. Super. Ct. 2012) (allowing jurors to take notes); *State v. Jeffs*, No. 061500526, 2007 WL 3033648 (Utah Dist. Ct. 2007) (“During this trial I will permit you to take notes. Many [c]ourts do not permit note-taking by jurors, and a word of caution is in order.”).

125. 730 F.3d 701, 708 (7th Cir. 2013).

There are scores of other anecdotal examples of chaotic and presumably unintended consequences of the lack of agreement on the nature and use of demonstrative evidence. There are, also, the documented facts of the *Baugh* case. In any event, the lack of data on the frequency of disparate rulings on admissibility and use of demonstrative evidence, or data quantifying harm resulting to parties or the system, is not reason for inaction.¹²⁶ Many of the federal rules of evidence were drafted not to solve in-court problems of admissibility left to judicial discretion under Rule 403, but to proactively ensure consistent, fair rulings. For example, Federal Rule 406's addressing of habit evidence was not necessitated by the mischaracterization or misuse of habit evidence by judges: on the contrary, the Advisory Committee's note to Rule 406 states that the rule "is consistent with prevailing views" and that there was general agreement "that habit evidence [was] highly persuasive as proof of conduct on a particular occasion."¹²⁷ There was no pressing corrective need for Rule 406, as habit by its terms is distinguishable from character evidence and is thus not subject to Rule 404. The drafters' decision to expressly include constitutional rights in the text of some evidence rules¹²⁸ is further confirmation that rules may be crafted as a prophylactic measure without documenting chaos in the courts. There is no evidence that there was empirical data that judges were depriving litigants of their constitutional rights in applying the rules of evidence; rather, the inclusion has been characterized as a congressional reminder that due process considerations may extend beyond those enumerated in the text of the rules.¹²⁹

IV. LEADING THE WAY: EVIDENCE AND TRIAL ADVOCACY TEACHERS SHOULD DEBATE THE ISSUES AND ENDORSE A SET OF MODEL RULES

Confusion as to the evidentiary status of demonstrative evidence has been long acknowledged by law professors. They have identified this confusion as a problem that needs to be addressed, although usually from their own discipline's point of view.¹³⁰ Trial advocacy professors and practitioners advance the Melvin Belli omnibus theory of demonstrative evidence: do what is necessary to employ this powerful communication tool.¹³¹ On the other hand, scholars, if they address

126. As a colleague in the University of Washington Computer Science Department, Dr. David Callahan, likes to say, "Multiple anecdotes are not data."

127. FED. R. EVID. 406 advisory committee's notes to 1972 proposed rules.

128. See, e.g., *id.* 402, 412, 501.

129. See, e.g., *id.* 412(b)(1)(C) (carving out a constitutional exception within the rape shield law for "evidence whose exclusion would violate the defendant's constitutional rights").

130. See *supra* Part II.A for a discussion regarding how law professors have attempted to define demonstrative evidence. See *supra* Part II.D for a discussion of how law professors now teach the permissibility of demonstrative evidence usage as within the discretion of the trial court.

131. See, e.g., Karen D. Butera, *Seeing Is Believing: A Practitioner's Guide to the Admissibility of Demonstrative Computer Evidence*, 46 CLEV. ST. L. REV. 511 (1998); Mary Quinn Cooper, *The Use of Demonstrative Exhibits at Trial*, 34 TULSA L.J. 567 (1999); Don Howarth, Suzelle M. Smith & Mary La Cesa, *Rules Governing Demonstrative Evidence at Trial: A Practitioner's Guide*, 20 W. ST. U. L. REV. 157 (1992); Richard J. Leighton, *The Use and Effectiveness of Demonstrative Evidence and Other*

demonstrative evidence at all, are more likely to focus on the distinction between real and substantive evidence, often addressed through the lens of relevance.¹³² Some professors have even proposed solutions, including modification of the definition of relevance set forth in the evidence rules.¹³³ Scholarly calls for action in law journals, however, have not been answered with reform, at least not by the Advisory Committee, or by the drafters of state evidence rules, with the notable exception of the state of Maine.¹³⁴

However, evidence and trial advocacy teachers are exceptionally well situated to pool their expertise and work together, taking an active role in shaping the future of demonstrative trial evidence. Their respective areas of scholarship and teaching intersect pointedly on the subject of demonstrative evidence. As scholars and teachers, they presumptively have the time, the motivation, and the resources to study this complex issue: they can survey and evaluate practices across jurisdictions and wrestle with the analytical and practical implication of various suggestions for reform. Academic institutions encourage and support such discussion and debate of issues relevant to law professors' areas of teaching and scholarship.

The relevant issues are also ripe for reform. The unrelenting interest of trial lawyers in using demonstrative exhibits,¹³⁵ the reasonable expectation of jurors to receive information via easily understood modalities,¹³⁶ as well as the rapidly expanding universe of digital and computer-assisted evidence,¹³⁷ all signal a need for clarifying the rules of evidence. A preliminary set of Model Rules could provide the needed impetus and basis for a wider, robust dialogue with lawyers and judges who would, in turn, bring their experiences and expertise to bear.

Illustrative Materials in Federal Agency Proceedings, 42 ADMIN. L. REV. 35 (1990).

132. See, e.g., 2 MCCORMICK ON EVIDENCE, *supra* note 76 § 214; LUBET, *supra* note 85, at 335; MERRITT & SIMMONS, *supra* note 81, at 12–13; Brain & Broderick, *supra* note 9; Michael H. Graham, *Real and Demonstrative Evidence, Experiments and Views*, 46 CRIM. L. BULL. 792 (2010); Santee, *supra* note 78.

133. See, e.g., Brain & Broderick, *supra* note 9, at 997–98.

134. See *infra* Part IV.B for a discussion of Maine Rule of Evidence 616.

135. See, e.g., Carrie Leonetti & Jeremy Bailenson, *High-Tech View: The Use of Immersive Virtual Environments in Jury Trials*, 93 MARQ. L. REV. 1073 (2010); Jennifer L. Mnookin, *Repeat Play Evidence: Jack Weinstein, "Pedagogical Devices," Technology, and Evidence*, 64 DEPAUL L. REV. 571, 578 (2015).

136. See John J. Delany III, David M. Governo & Mary Noffsinger, *The Generation X and Y Factors*, D.R.I. FOR DEF., Jan. 2013, at 74, 74 ("The same techniques Madison Avenue utilizes to sell products can be adopted by trial attorneys to convey effective trial themes. A trial theme should be a multi-sensual message . . .").

137. Fredric I. Lederer, *Courtroom Technology: For Trial Lawyers, the Future Is Now*, CRIM. JUST., Spring 2004, at 14, 15 (2004) (noting the availability of technology in federal courts and its use in a variety of cases, ultimately concluding that "[s]ooner than may seem possible, technology use at trial will be commonplace").

A. *Law Professors Were Contributing Architects of the Original Federal Rules of Evidence*

Law professors are particularly well equipped to wrestle with the issues presented by demonstrative evidence and help craft proposed rules for consideration by the Advisory Committee. They were integrally involved in the formation of the original Federal Rules of Evidence, enacted in 1975.¹³⁸ The creation of agreed-upon rules did not happen overnight: it took over thirty-five years. The history of the federal rules not only testifies to how long the road to a uniform set of evidence rules can be, but also highlights the critical importance of law professors in providing a foundational analysis and guidance on that journey.

In 1938, a year after the enactment of the Federal Rules of Civil Procedure, former Attorney General William D. Mitchell proposed that an advisory committee draft a set of uniform evidence rules.¹³⁹ Over the next twenty years, journals such as the *Vanderbilt* and *Harvard* law reviews published articles discussing the creation of uniform evidence rules.¹⁴⁰ Dean Ladd of the University of Iowa said that “[a]ll of the law of evidence needs clarification and simplification. . . . A review of the history of evidence, with its spotted and often accidental growth, is persuasive proof of the need of introspective study of the law of evidence with a view to far-reaching improvement.”¹⁴¹ Judges, too, advocated for uniform evidence rules.¹⁴² Several sets of rules were proposed over the years, but agreement took decades.

In 1961, the Judicial Conference created an advisory committee, which

138. “The Federal Rules of Evidence are little changed from the first proposed draft in 1969.” Josh Camson, *History of the Federal Rules of Evidence*, A.B.A. LITIG. NEWS (2010), https://apps.americanbar.org/litigation/litigationnews/trial_skills/061710-trial-evidence-federal-rules-of-evidence-history.html.

Absent from the proposed draft are Rules 412, 413, 414, and 415. These rules dealing with sex offense cases, sex assault cases, and child molestation cases weren’t enacted until after the initial adoption of the Federal Rules of Evidence. Rule 412 was added in 1978, and the others were added in 1994. Also missing from the proposed draft is Rule 807, the residual exception to the hearsay rule. This is because in the proposed draft, Rule 807 was the default rule. Amendments in the form of new rules, and changes in wording and meaning have all taken place over the last 35 years.

Id. In 2010, the Judicial Conference of the United States’ Committee on Rules of Practice and Procedure restyled the language of the rules to simplify and clarify their meaning. *Federal Rules of Evidence—2011 Amendment to Restyle the Federal Rules of Evidence*, FED. EVIDENCE REV., <http://federalevidence.com/Restyling> (last visited Apr. 1, 2016).

139. Comm. on Rules of Practice & Procedure of the Judicial Conference of the U.S., *A Preliminary Report on the Advisability and Feasibility of Developing Uniform Rules of Evidence for the U.S. District Courts*, 30 F.R.D. 73, 81 (1962) [hereinafter *Preliminary Report*].

140. 1 RICHARD FRIEDMAN & JOSHUA DEAHL, *FEDERAL RULES OF EVIDENCE: TEXT AND HISTORY* ix (2015); STEPHEN A. SALTZBURG, MICHAEL M. MARTIN & DANIEL J. CAPRA, *FEDERAL RULES OF EVIDENCE MANUAL* 1 (9th ed. 2006); Mason Ladd, *A Modern Code of Evidence*, 27 IOWA L. REV. 213, 214, 218 (1942); Camson, *supra* note 138 (citing Edmund M. Morgan, *Practical Difficulties Impeding Reforms in the Law of Evidence*, 14 VAND. L. REV. 725 (1961)).

141. Camson, *supra* note 138.

142. 1 FRIEDMAN & DEAHL, *supra* note 140, at ix.

formed a special committee to study the advisability and feasibility of uniform evidence rules.¹⁴³ Chief Justice Earl Warren included law professors on the committee.¹⁴⁴ The committee endorsed uniform rules as “both advisable and feasible.”¹⁴⁵ Lawyers, judges, and scholars then provided feedback on the committee’s report.¹⁴⁶ The feedback confirmed the special committee’s conclusions, and an advisory committee drafted the first uniform federal rules of evidence. The advisory committee consisted of trial lawyers, federal judges, and law professors, and met for the first time in June 1965.¹⁴⁷ It took almost four years to finish the first preliminary draft of the rules.¹⁴⁸ On completion, the committee acknowledged the valuable contributions of the American Law Institute Model Code of Evidence, the Uniform Rules of Evidence, and the state evidence rules of California and New Jersey.¹⁴⁹ Those model codes and rules provided a working template for the advisory committee as it began its work.¹⁵⁰

This history of the Federal Rules of Evidence underscores the importance of community discussion and debate on proposed evidence rules, and the value of legal scholars being actively engaged in that process. Moreover, the contributions of other entities and jurisdictions (such as the American Law Institute, California, and New Jersey) highlight the benefits of an iterative, deliberative process that builds upon previous attempts at solving this problem. And yet, on the topic of demonstrative evidence the state of Maine stands alone as having enacted a rule-based solution.

B. A Case Study: Maine Rule of Evidence 616

Maine is the first and only jurisdiction to have grappled with the murky status of demonstrative evidence and fashioned an evidence rule to provide guidance.¹⁵¹ While the rule is crisp in clarifying administrative aspects of use,¹⁵² it is less successful clarifying when and how these demonstrative exhibits may be

143. *Id.*

144. *Preliminary Report*, *supra* note 139, at 75; 1 FRIEDMAN & DEAHL, *supra* note 140, at x.

145. Comm. on Rules of Practice & Procedure of the Judicial Conference of the U.S., *Preliminary Draft of Proposed Rules of Evidence for the United States District Courts and Magistrates*, 46 F.R.D. 161, 177 (1969) [hereinafter *Proposed Rules for District Courts and Magistrates*].

146. Camson, *supra* note 138.

147. See 1 FRIEDMAN & DEAHL, *supra* note 140, at x.

148. There had been several prior reporter’s drafts, beginning in 1965, and several revised drafts afterward, preceding the enactment of the rules on January 2, 1975 and the discharge of the Advisory Committee. See *id.* at ix; see also *FRE Legislative History Overview Resource Page*, FED. EVIDENCE REV., <http://federalevidence.com/legislative-history-overview> (last visited Apr. 1, 2016).

149. *Proposed Rules for District Courts and Magistrates*, *supra* note 145, at 180.

150. Camson, *supra* note 138; see also 1 FRIEDMAN & DEAHL, *supra* note 140, at xi.

151. Maine Rule 616 nominally addresses the use of “illustrative aids,” although the advisers’ note to the rule acknowledges that these are also referred to as “demonstrative exhibits.” ME. R. EVID. 616 advisers’ note to 1976 amendment.

152. Rule 616 states that illustrative aids (1) shall be disclosed to opposing counsel in advance; (2) may be used by any party during trial; (3) shall remain the property of the proponent; (4) shall not go back to the jury during deliberations, absent consent of all parties and good cause; and (5) shall be preserved for appeal upon request. *Id.* 616(c)–(d).

used at trial. In the same way that analysis of the New Jersey and California rules of evidence aided the development of the Federal Rules of Evidence, analysis of Maine Rule 616 is helpful in constructing an agenda for scholars tackling the Model Rules of Demonstrative Evidence. Specifically, the Maine rule provides information as to the rule's placement in the evidence rules, the definition of demonstrative or illustrative evidence, and a judge's discretion in the use of illustrative evidence in a trial. The Maine rule provides:

RULE 616.

ILLUSTRATIVE AIDS

(a) Otherwise inadmissible objects or depictions may be used to illustrate witness testimony or counsel's arguments.

(b) The court may limit or prohibit the use of illustrative aids as necessary to avoid unfair prejudice, surprise, confusion, or waste of time.¹⁵³

Maine's demonstrative evidence rule is sited in close proximity to its Rule 611,¹⁵⁴ the rule that outlines a trial court's broad discretion to control courtroom proceedings in controlling the mode and order of presenting evidence.¹⁵⁵ Rule 611 requires that the control be "reasonable" and that it serve the general objectives of ascertaining the truth, avoiding needless consumption of time, and protecting witnesses from harassment and embarrassment.¹⁵⁶ Of course, any discretion exercised by a judge pursuant to Rule 611 cannot circumvent other rules of evidence.¹⁵⁷

The text of Maine Rule 616 does not provide affirmative definitions of "illustrative aids" or demonstrative exhibits.¹⁵⁸ Rather, the rule states what they are *not*: they are depictions and objects *not* admissible as evidence.¹⁵⁹ This definition appears unintentionally overbroad in that it facially includes *all* inadmissible objects, even when the bar to admissibility is relevance, authentication, best evidence, or unfair prejudice (or other bars under Rule 403). The advisory committee note (ACN) to the rule offers additional guidance on the definition, explaining that illustrative aids, or demonstrative exhibits, are those objects which do not carry probative force in themselves, but are used to assist in the communication of facts by a lay or expert witness testifying or by counsel arguing. . . . They are not admissible in

153. *Id.* The remainder of the rule addresses the administrative aspects of the rule, as discussed in *supra* note 152.

154. Maine's evidence rules are modeled on the Federal Rules of Evidence, sharing similar (if not identical) major subject headings. *State v. Williams*, 388 A.2d 500, 506 (Me. 1978) (observing that the Maine Rules of Evidence were modeled on the Federal Rules).

155. This discretion is, of course, subject to the requirements of due process and other constitutional considerations.

156. ME. R. EVID 611(a).

157. *See, e.g., United States v. Irvin*, 682 F.3d 1254, 1263 (10th Cir. 2012) ("In short, resort to Rule 611(a) in no way resolves the hearsay problem that renders Exhibit 1–2 inadmissible.").

158. The advisers' note to the rule acknowledges that "illustrative aids" are also referred to as "demonstrative exhibits." ME. R. EVID. 616 advisers' note to 1976 amendment.

159. *Id.* 616(a) (emphasis added).

evidence because they themselves have no relevance to the issues in the case.¹⁶⁰

Rule 616 states that this inadmissible, irrelevant nonevidence may be shared with a jury to illustrate the testimony of witnesses or the arguments of counsel unless a court, in its discretion, rules otherwise.¹⁶¹

Rule 616 addresses three areas of potential use by advocates of demonstrative exhibits at trial: (1) before the presentation of evidence (opening statements), (2) after the presentation of evidence (closing arguments), and (3) during the presentation of evidence (witness examinations). Rule 616's expansion of Rule 611-like discretion to expressly address the administrative aspects and use of demonstrative exhibits in opening statements and closing arguments is both helpful and consistent with the other rules of evidence. To the extent evidence is previewed in an opening statement, subject to constraints that there is a good faith basis for the admissibility of the facts previewed, or admitted evidence is reviewed and explained in a closing argument, the use of demonstrative exhibits under a court's supervision with the guidelines set forth in Rule 616 is analytically sound.

The rule is analytically infirm, however, when applied to the use of demonstrative exhibits during the presentation of evidence. Neither Rule 616 nor the ACN attempts to reconcile the requirements of Maine Rule 402¹⁶² with the discretionary authority granted a trial judge under Rule 616 when it comes to the presentation of exhibits to a jury during witness examination. Rule 402 prohibits the admission of irrelevant evidence, presumably for consideration by jurors, while Rule 616 permits the presentation of irrelevant, inadmissible evidence to jurors. For jurors to view demonstrative exhibits during the presentation of evidence with the approval of the court, the absolute prohibition of Rule 402 of admission (and juror consideration) of irrelevant evidence is presumptively overcome. However, that premise contradicts the core definition of "illustrative evidence" under Rule 616—that it is irrelevant.

The language of the rule, and the ACN confirming the rule's intention to give trial judges a form of Rule 403-like discretion in allowing jurors to view irrelevant and inadmissible evidence, seems to be an alternative version of the judge-made "shadow Rule 403" analysis adopted in other jurisdictions. As discussed above, some judges perform a first round of Rule 403 balancing to

160. *Id.* 616 advisers' note to 1976 amendment (emphases added).

161. *See id.* 616(a)–(b). The advisers' note to Rule 616 states:

Paragraph (b) of the proposed rule makes clear, however, that the court retains the discretion to condition, restrict or exclude the use of any illustrative aid in order to avoid the risk of unfair prejudice, surprise, confusion or waste of time. This is similar to the discretion exercised by the court under Rule 403 in dealing with objects which are admissible in evidence. Because of the multiplicity of potential problems which may be encountered, it is deemed wiser to allow the court a measure of discretion in applying general standards rather than to establish a legal test for utilization of these media.

Id. 616 advisers' note to 1976 amendment.

162. *Id.* 402 ("Irrelevant evidence is not admissible.").

determine if the evidence should reach the jury at all.¹⁶³ Having determined the answer to be “yes,” judges admit the evidence and then seem to perform a second, “off-the-books” Rule 403 analysis to determine if the “admitted” evidence should be delivered to jurors during deliberations. Under Maine Rule 616, the reverse seems to be the case: a judge first determines if the evidence is *inadmissible* because it is irrelevant and then proceeds to determine if this irrelevant, inadmissible evidence should be shared with the jury during the presentation of evidence.

Nonetheless, the state of Maine broke ground in drafting a rule of demonstrative evidence in 1993 and deserves credit for doing so. Peter L. Murray, an accomplished trial lawyer, visiting evidence professor at Harvard Law School, and coauthor of a treatise on Maine evidence,¹⁶⁴ was an architect of the rule.¹⁶⁵ Professor Murray was a visionary and an activist: he saw in his own trial practice the state of confusion when it came to the use of demonstrative exhibits and he set out to correct it.¹⁶⁶ He lent his considerable knowledge and experience, both in the courtroom and the classroom, to the work of the Maine advisory committee. Without this experience-based, scholarly input, the rule on demonstrative evidence might never have been proposed.

C. *Law Schools Market Leadership, Law Professors Should Deliver on This Promise*

A core value of most law schools, often prominently figured in their mission statements, is a commitment to cultivating public leadership.¹⁶⁷ Law schools tout that they educate leaders, creating “a bridge from scholarship and service to leadership and practice.”¹⁶⁸ Law professors have an opportunity to lead by example and build a set of Model Rules for Demonstrative Evidence to be submitted for consideration and debate by the Advisory Committee on the Federal Rules of Evidence. Progress may not be swift, but it can be steady, and without effort, the problem is likely to worsen as legal practice becomes increasingly digital and reliant on technology.

Evidence and trial advocacy teachers should exchange drafts and comments on proposed demonstrative evidence rules. Professors can post proposed rules on Social Science Research Network (SSRN) for comment, or they can circulate them by email, either directly or through the American Association of Law Schools, the Society of American Law Teachers, the American Bar Association,

163. See *supra* Part II.C for an in-depth discussion of the admissibility balancing test.

164. RICHARD H. FIELD & PETER L. MURRAY, *MAINE EVIDENCE* (6th ed. 2007).

165. Professor Murray and Professor Richard H. Field were co-consultants to the Maine Advisory Committee from its inception in 1973. See *Peter Murray*, MURRAY PLUMB & MURRAY, <http://www.mpmlaw.com/lawyer/peter-murray/> (last visited Apr. 1, 2016).

166. E-mail from Peter L. Murray, Visiting Professor of Law, Harvard Law Sch., to Maureen A. Howard, Assoc. Professor of Law, Univ. of Wash. Sch. of Law (Dec. 29, 2015) (on file with authors).

167. Susan Sturm, *Law Schools, Leadership, and Change*, 127 HARV. L. REV. F. 49, 49 (2013) (“Law schools’ rhetoric celebrates lawyers’ leadership role.”).

168. E.g., *Mission and History*, N.Y. L. SCH., http://www.nyls.edu/about_the_school/mission_and_history/ (last visited Apr. 1, 2016).

or other professional organizations. Professors can circulate draft rules to pattern jury instruction committees nationally, which commonly include judges and lawyers. Professors could come together for an academic conference to discuss model evidence rules for demonstrative evidence.¹⁶⁹ It may be that widespread discussion of a set of model rules ultimately produces only a modest proposed amendment to the Federal Rules of Evidence. On the other hand, a robust debate among judges, lawyers, and scholars on the many issues triggered by this subject could effectuate significant change.

When outlining this Article, the authors drafted a working proposal for Model Rules for Demonstrative Evidence. Our intention was to conclude the Article with our concise, analytically sound Model Rules and advocate for their adoption. Initially, we championed no change at all to the existing Federal Rules of Evidence. Rather, we proposed a new Advisory Committee note clarifying that the rules do not recognize or differentiate between various categories of evidence (e.g., real and demonstrative): all evidence is either admissible under the rules or it is not. This “light touch” is consistent with the overarching approach of the Federal Rules of Evidence:

The Federal Rules of Evidence do not form a *code* in the usual sense of that term. . . . [T]hey are neither lengthy nor comprehensive in coverage. The entire set of rules can be fit into a short pamphlet. A number of areas of evidence law are left to judicial development. Even where rules govern particular areas, they are often written in general, rather than specific, language.¹⁷⁰

However, after months of work on this Article, and deep discussion with lawyers, judges, and scholars who read drafts of our work and provided insightful feedback, our proposal has morphed and continues to evolve as this Article goes to press.

A continuing point of debate is whether the Federal Rules of Evidence should endeavor to define the term “evidence.” The California Evidence Code sets forth the following definition: “‘Evidence’ means testimony, writings, material objects, of other things presented to the senses that are offered to prove the existence or nonexistence of a fact.”¹⁷¹ A definition could clarify what fell within the reach of the rules, particularly Rules 401 to 403, in that there would be a single category of “evidence,” all of which would be subject to the same rules of use and admission. This should eliminate the artificial distinction that has developed in practice between real and demonstrative evidence based on a theory of “direct” versus “derivative” probative value. Evidence defined under the rules to include both real and demonstrative exhibits would then be subject to the same analysis under Rules 401, 402, and 403. There would not be differing

169. Professor Howard has proposed demonstrative evidence as a topic for an AALS Discussion Group at the January, 2017 annual meeting, and she is organizing a workshop at the University of Washington School of Law in autumn 2016.

170. LEONARD ET AL., *supra* note 81, at 5–6.

171. CAL. EVID. CODE § 140.

standards or an “off the books” shadow 403 determination by a court after admission but prior to submission to a jury.

While we do not have a set of Model Rules to propose at this time, the discussion going forward should include, at a minimum, the topics of terminology and juror use during deliberations. More specifically, the following items should be addressed in any model rule:

Clarifying terminology. Should visual aids bear different labels depending on whether they are employed during opening statement, during the presentation of evidence, or during closing argument? Perhaps jettisoning the terms “illustrative evidence” and “demonstrative evidence” entirely in favor of a new lexicon would be valuable, especially when used in reported appellate decisions. Perhaps items used during opening statements could be labeled “preview aids.” Items used during witness examinations could be called “nonverbal testimony” (if they are adopted by the witness as his testimony and merely communicate the content of that testimony to the jurors nonverbally) or “testimonial aids” otherwise. Items used during closing arguments might be called “argument aids.”

Clarifying what goes to the jury deliberation room. Current practice is built largely on the general premise that admitted exhibits are delivered to jurors for review during deliberations. Should this continue to be the rule? It made immense sense that early practice was to deliver admitted exhibits to the jurors and not testimony. After all, two hundred years ago, there were far fewer exhibits admitted than is the case today in a large commercial lawsuit. As such, those exhibits would have been quite easy to deliver to the jurors, and easy for the jurors to review. Conversely, recordation and retrieval of oral testimony was much more involved and cumbersome. Considering there is no more value in a written letter admitted into evidence than the testimony of its author as to the underlying facts contained therein, the mere logistical difficulty in delivering these separate pieces of evidence seems to have been the driver for differentiating between exhibits and testimony.¹⁷² Now that many courts have the capability of recording testimony and producing an easy-to-access DVD (replete with an index), the logistical challenges are all but obviated. This is particularly true in cases with hundreds or thousands of admitted exhibits.

Perhaps the ever-increasing volume of exhibits in modern litigation supports a wholesale change in the basic presumption that all admitted exhibits are delivered to a jury during deliberations.¹⁷³ It may better further the goals of

172. The BBC television series *Garrow's Law* illustrates this point in its portrayal of trials at the Old Bailey in Georgian London. In addition to being educational (it is based on real legal cases from the late eighteenth century), the drama is well scripted and boasts exceptional talent, including Rupert Graves. See Press Release, BBC, Award-Winning Drama *Garrow's Law* Starts Shooting Second Series in Scotland (Oct. 29, 2014), http://www.bbc.co.uk/pressoffice/pressreleases/stories/2010/07_july/07/garrow.shtml; see also *The Proceedings of the Old Bailey, 1674–1913*, OLD BAILEY PROCEEDINGS ONLINE, <http://www.oldbaileyonline.org/> (last visited Apr. 1, 2016).

173. Similarly, the burgeoning number of exhibits at trial provided the impetus for Rule 1006, which allows, under certain circumstances, the admission of summaries to prove content of voluminous writings, recordings, or photographs that cannot be conveniently examined in court. FED.

the evidence rules¹⁷⁴ to require parties to identify which exhibits (and perhaps testimony) they propose be delivered to jurors for consideration during deliberations. Opposing counsel could then object to the request, and a judge could perform a 403-like balancing test, weighing the value to jurors' deliberations against the risks of juror confusion, misuse, or overreliance. This would be similar to the "shadow 403" analysis currently conducted by many judges who allow demonstrative evidence to be shared with a jury during trial but prohibit its delivery to the deliberation room. Rule 403 could be divided into two parts: 403(a) would be the rule as currently drafted, allowing the exclusion of evidence otherwise admissible where the probative value is substantially outweighed by risks of harm. Rule 403(b) would provide a court a "second look" at evidence to determine, after performing a similar balancing test, if it should be submitted to the jury deliberation room.

CONCLUSION

The unsettled state of demonstrative evidence has caused problems for trial courts, practitioners, and academics alike. The confusion surrounding the characterization and use of demonstrative exhibits produces results that can undermine the aspiration underlying the Federal Rules of Evidence: to "administer every proceeding fairly, eliminate unjustifiable expense and delay, and promote the development of evidence law, to the end of ascertaining the truth and securing a just determination."¹⁷⁵ While jurors have changed how they accept and process information, the formal rules of evidence have not kept pace. This state of affairs promises to worsen as technology improves. A unified approach is needed: evidence rules should be amended to address demonstrative evidence, and trial advocacy and evidence teachers can lay the groundwork for reform. Law professors are in a unique and privileged position to be able to articulate and advocate for a unified solution because they can both understand the scope of the problem and have access to the next generation of lawyers, judges, and academics.

R. EVID. 1006.

174. *Id.* 102.

175. *Id.*
