
Bernd Ehle

Effective Use of Demonstrative Exhibits in International Arbitration

Key words:

International Arbitration
| *Demonstrative Exhibits* |
Presentation of Evidence |
Visual Aids | *Charts* |
Graphics | *Advocacy* |
Persuasion | *Hearings* |
Complex Technical Cases

Abstract | *This article discusses the use of visual aids, known as “demonstrative exhibits,” in international arbitration proceedings. This term refers to graphical representations and other illustrative material that enable parties’ counsel to introduce and communicate the evidence itself in a more effective manner to the arbitrators. The author references the origins of such tools of communication in U.S. criminal law and civil law proceedings, in which the overarching goal is to win over the jury, and then explains that such means of persuasion as are common practice in U.S. court rooms cannot be transposed to pleadings before arbitration panels and tribunals without further modifications (in that arbiters will, as a rule, come from a different background than jury members). The author discusses the degree to which the use of “demonstrative exhibits” may make sense (or even be advisable) in international arbitration proceedings, especially in cases with a high degree of technical complexity. He also stresses that the country of origin and the specific legal culture of arbitrators must always be taken into account, closing his paper with a number of practical considerations for parties’ counsel and arbitrators.*

Dr. Bernd Ehle, LL.M.
(Northwestern),
MCIArb, Avocat
(Geneva), Rechtsanwalt
(Germany), is a Partner
at LALIVE
(Geneva/Zurich). The
author specializes in
international disputes
and has acted as
counsel and arbitrator
in numerous
international arbitral
proceedings governed
by various procedural
and substantive laws.
He acts as co-chair of
the Geneva Group of
ASA, the Swiss
Arbitration
Association, and is a
committee member of
the European Branch
of the Chartered
Institute of Arbitrators
(CIArb).
e-mail: behle@lalive.ch

|||

I. Introduction

- 3.01.** Demonstrative exhibits are often an important tool for effective advocacy in international arbitration. In particular in fact-intensive cases involving complex factual matrices, large volumes of documentary evidence, or technical issues, demonstrative exhibits such as tables, charts, and graphics can be an effective way to summarize and highlight the key facts which a party wishes to convey to a tribunal. Although not evidence in themselves, such exhibits allow parties to clarify and present evidence already on record in a compelling way.
- 3.02.** However, international arbitration practitioners must be cognizant of the limitations of demonstrative exhibits, and use them cautiously. In particular, they should tailor any such exhibits to their audience, for example by taking into consideration the arbitrators' cultural and legal background. Indeed, some arbitrators will be more receptive than others to certain forms for demonstrative exhibits. In addition, practitioners must be careful to ensure that demonstrative exhibits fairly, accurately, and completely reflect the evidence which is already on record. Usually, counsel are also required to provide copies of any demonstrative exhibits they intend to use to opposing counsel and the arbitrators sufficiently in advance in order to give them the opportunity to verify their accuracy and the underlying evidence.
- 3.03.** This article provides a brief overview of the use of demonstrative exhibits in international arbitration. It first defines what demonstrative exhibits can consist of and their historical use in litigation in the United States, as well as the psychological aspects behind their effectiveness. It then turns to address the use of demonstrative exhibits in modern international arbitration practice, and in particular their admissibility in arbitration proceedings.

II. What Are “Demonstrative Exhibits”?

- 3.04.** Demonstrative exhibits present evidence through visual aids expressly created for the proceedings to assist the advocate in the art of persuasion.¹ Examples of demonstrative exhibits are charts, graphs, drawings, maps, scale models, photographs, computer animations, and documents enlarged so that everyone in the hearing room can focus on them.²

¹ Andrew Burr & Keith Pickavance, *The Use of Visualisations in Case Presentation and Evidence*, 26 (1) CONSTRUCTION LAW JOURNAL 3 (2010).

² Nicholas Fletcher, *The Use of Technology in the Production of Documents*, in DOCUMENT PRODUCTION IN INTERNATIONAL ARBITRATION – 2006 SPECIAL SUPPLEMENT,

Effective Use of Demonstrative Exhibits in International Arbitration

- 3.05. Black's Law Dictionary defines "demonstrative evidence" in the following terms:
- Physical evidence that one can see and inspect (*i.e.*, an explanatory aid, such as a chart, map, and some computer simulations) and that, while of probative value and usually offered to clarify testimony, does not play a direct part in the incident in question.³
- 3.06. More often than not, demonstrative exhibits do not constitute real or primary evidence, but so-called secondary or indirect evidence, *i.e.*, illustrations of existing primary evidence already part of the record such as documents or witness and expert testimony.⁴ Accordingly, demonstrative exhibits rarely have probative value. They can, however, form part of an effective persuasion strategy, visually stimulating the audience (*i.e.*, the members of the arbitral tribunal) and communicating the advocate's evidence and arguments.

III. The Origin of Demonstrative Evidence or Exhibits

- 3.07. Demonstrative exhibits appear to have their origins in United States criminal and civil litigation. Their use is inherent in the U.S. court system which involves juries consisting of non-lawyers and which requires a particular style of advocacy: important facts need to be "told" to the jury and "talked into the record." U.S. trial lawyers must therefore make sure to grab the jurors' attention, direct it to the key issues of their client's story and thereby increase the jury's level of understanding and retention of the arguments made.⁵ Demonstrative exhibits form part of every U.S. trial lawyer's "arsenal" to effectively

ICC INTERNATIONAL COURT OF ARBITRATION BULLETIN 107, 109 (2006); Andrew Burr & Keith Pickavance, *supra* note 1, at 3, 14-16; R. Doak Bishop & James H. Carter, *The United States Perspective and Practice of Advocacy, Chapter 22*, in THE ART OF ADVOCACY IN INTERNATIONAL ARBITRATION, New York: Juris Publishing, Inc. 519, 561 (R. D. Bishop ed., 2010).

³ BLACK'S LAW DICTIONARY, Saint Paul, Minnesota: Thomson-West (B.A. Garner ed., 8th ed. 2004).

⁴ See Christoph Liebscher, *Beweisaufnahme im Schiedsverfahren*, in PRAXISHANDBUCH SCHIEDSGERICHTSBARKEIT, Wien: Verlag Österreich 165, 185 (H. Torggler ed., 2007); Rodger D. Young & Steven Susser, *Effective Use of Demonstrative Exhibits and Demonstrative Aids*, 79 (11) MICHIGAN BAR JOURNAL (2000), available at: <http://www.michbar.org/journal/article.cfm?articleID=151&volumeID=13&viewType=archive> (accessed on November 9, 2011).

⁵ R. Doak Bishop, *Advocacy in International Commercial Arbitration: United States, Chapter 10*, in THE ART OF ADVOCACY IN INTERNATIONAL ARBITRATION, New York: Juris Publishing, Inc. 309, 351 (R. D. Bishop ed., 2004); R. Doak Bishop & James H. Carter, *supra* note 2, at *Chapter 22*, 519, 561 (2010).

communicate with the jury; for example, by turning complex information into interesting, persuasive graphics. Such evidence is admissible, provided the process adopted in deriving the evidence from the data used for the demonstrative exhibit may be officially traced and examined.⁶

- 3.08.** In the United States, modern courtrooms are often equipped with technology that facilitates the use of visual aids for jurors. These include video cameras that can provide close-up views of exhibits, witnesses' sketches, in addition to individual monitors provided for each juror to view documents. The latter can be particularly useful to counsel in assisting the jury in understanding witness testimony or when attempting to impeach a witness' credibility, considering that the documents can be called up instantly on the monitors, and each juror can have individual control over the information displayed on the screen.⁷
- 3.09.** Demonstrative evidence is even a subject taught at American law schools, and there is an entire market for the forensic animation business: companies such as *Courtroom Visuals*,⁸ *Trialtech*,⁹ *Executive Exhibits*,¹⁰ *Animators-at-Law*,¹¹ and *Litigation Graphics*¹² offer complete creative graphics and multi-media support for trial attorneys. Professionals in this field belong to the Demonstrative Evidence Specialists Association, which publishes an informational newsletter entitled "*Visual Persuasion*."¹³

⁶ Keith Pickavance, *The Use of Visualisations in Case Presentation and Evidence*, Lecture given at the Chartered Institute of Arbitrators European Branch Spring Meeting in Istanbul on May 2, 2008: See the test applied in *State of Connecticut v. Alfred Swinton*, SC 16548, May 11, 2004.

⁷ Debra Baker, *Electronic Future Is Now*, 84 ABA JOURNAL 93 (May 1998); RODERICK D. BLANCHARD & WILLIAM M. HART, *LITIGATION AND TRIAL PRACTICE*, Clifton Park, NY: Thomson Delmar Learning 552-553 (6th ed. 2006).

⁸ Courtroom Visuals Inc., available at: www.courtroomvisuals.com (accessed on November 9, 2011).

⁹ Trialtech Inc., available at: www.trialtech.com (accessed on November 9, 2011).

¹⁰ Executive Exhibits LLC, available at: www.executiveexhibits.com (accessed on November 9, 2011).

¹¹ Animators at Law Inc., available at: www.animators.com (accessed on November 9, 2011).

¹² Litigation Graphics, available at: www.litigraph.com (accessed on November 9, 2011).

¹³ Demonstrative Evidence Specialists Association, available at: <http://desa.org> (accessed on November 9, 2011).

IV. The Psychology behind the Use of Demonstrative Evidence

- 3.10. The idea behind the technique of using demonstrative evidence goes beyond the adage “a picture is worth a thousand words.” Scientific research in the United States has shown that people generally learn through hearing *and* seeing: 81% of the general public are so-called “visual learners” rather than “auditory learners,” *i.e.*, they better understand and retain information when it is not only conveyed through verbal explanation, but also through images. In particular, research done on jurors has shown that while they retain only 10% to 20% of new information presented to them orally, they retain 65% to 85% of the information presented visually or in a combination of oral testimony and visual aids.¹⁴
- 3.11. Interestingly, these statistics do not apply to practicing attorneys: psychologists have also determined that approximately 55% of all practicing lawyers are auditory learners as opposed to visual learners, *i.e.*, they tend to remember information more accurately when they hear it.¹⁵
- 3.12. There are further reasons for the use of visual aids to persuade juries: today’s society is a “show me” society, which means that it is particularly “visual,” having grown up with television replacing written and spoken words as vehicles of mass communication. More than previous generations, people today see events at the same time that they hear about them, with the result that they are more inclined to attach credibility to visual stimuli.¹⁶
- 3.13. Finally, charts, graphs, and computer animations facilitate the understanding of complex and potentially tedious information, by

¹⁴ Michael S. Kun, *Use Of Demonstrative Evidence In Employment Litigation: A Defense Counsel’s Perspective*, paper presented at the 2007 retreat of the LOS ANGELES COUNTY BAR ASSOCIATION on 13 April 2007, available at: www.ebglaw.com/showarticle.aspx?Show=6673 (accessed on November 9, 2011); KENNETH LOPEZ & THE ANIMATORS AT LAW, ATTORNEY COMMUNICATION STYLE STUDY, Washington: Animators at Law 2-7 (2007); Mary Quinn Cooper, *The Use of Demonstrative Exhibits at Trial*, 34 UNIVERSITY OF TULSA LAW JOURNAL 567, 568 (1999); John Selbak, *Digital Litigation: The Prejudicial Effects of Computer-Generated Animation in the Courtroom*, 9 (2) BERKELEY TECHNOLOGY LAW JOURNAL 338, 352 (1994) available at: <http://btlj.org/data/articles/vol9/Selbak.pdf> (accessed on November 9, 2011).

¹⁵ See, *e.g.*, Rodger D. Young & Steven Susser, *supra* note 4, at 1538; KENNETH LOPEZ, *supra* note 14, at 2-7.

¹⁶ Rodney Jew & Martin Q. Peterson, *Envisioning Persuasion: Painting the Picture for the Jury*, 31 (10) TRIAL 74(1995).

using interesting and comprehensible formats.¹⁷ If jurors are not listening to a lawyer's oral argument and lose interest, the lawyer will not be able to convey his client's version of the facts to them, let alone ensure that they retain it in deliberation.¹⁸

V. Are Demonstrative Exhibits Effective before Arbitral Tribunals?

- 3.14. While U.S. trial lawyers must persuade a jury – people from the general public – counsel in arbitration proceedings must effectively communicate with the arbitrators, mostly lawyers, who tend to be auditory learners.¹⁹ Therefore, the psychology behind demonstrative evidence described above cannot be applied directly to international arbitrators – it can even be counterproductive if overused.²⁰
- 3.15. Besides the fact that jurors and arbitrators may in many cases be different “learners,” there are other fundamental differences between the two that indicate that the U.S.-style litigation arsenal should not be fully employed in an international arbitration setting:
- Arbitrators are trained and practicing lawyers, and as such, have learned how to analyze a case, identify crucial issues and focus on them – in other words, they do not require the same level of guidance as jurors do to understand a case;
 - Due to their “legal sophistication,” arbitrators may not be as impressed as jurors are by dramatic three-dimensional computer-animated presentations which mainly aim at “hammering home” certain key issues;
 - Arbitrators will have worked through the parties’ written submissions before the hearing and prefer to be presented only with the important and relevant evidence and material in a succinct and well-reasoned manner rather than with each party’s entire case;
 - Arbitrators often ask counsel questions during pleadings; they can be inhibited from doing so if pleadings are dominated by

¹⁷ Edward M. Josiah, *The Use of Digital Demonstrative Exhibits and Presentations for International Arbitration*, GREYHAWK NEWSLETTER KEEPING TIME (June 2008): “The difference between winning and losing in international arbitration is oftentimes the ability to transpose complexity into simplicity [...]. In short, demonstrative exhibits are an extraordinary means of simplifying complex issues and, therefore, should be considered an integral part of any proceeding.”

¹⁸ Michael S. Kun, *supra* note 14.

¹⁹ See *supra* paragraph 3.11.

²⁰ See Nicolas Fletcher, *supra* note 2, at 108; Michael S. Kun, *supra* note 14.

visual aids, which tend to be very linear,²¹ and can become impatient if they have to follow a pre-established path paved with demonstrative exhibits;²²

- Arbitrators are regularly selected by parties due to specific qualifications, including familiarity and experience with the subject matter in dispute (e.g., construction or telecommunication); as a result, certain basic explanations are often unnecessary;
- Arbitrators are paid service providers for a professional resolution of a dispute, *i.e.*, they have both an incentive and a professional obligation to study the case and listen attentively to counsel's oral arguments and the witnesses' or experts' testimony; and
- Arbitrators are generally experienced "court-sitters" and, unlike most jury members who are called for jury duty and hope to never be called again, are not sitting in proceedings for their first time and indeed hope to be called upon again.²³

3.16. The differences between the audiences of U.S. court trials and arbitral proceedings do not however imply that counsel in arbitration should refrain from using demonstrative exhibits as part of their persuasion strategy.²⁴ The arbitral process has the potential of being used more creatively than court proceedings, and the procedural flexibility inherent to arbitral proceedings and their greater informality caters well to demonstrative evidence of a nature that may not be acceptable before state courts.²⁵

3.17. When it comes to presenting a client's case at a hearing, arbitration practitioners can indeed learn from their U.S. litigation counterparts: certain well-chosen visual aids may very well be effective in capturing the arbitrators' interest, in helping them focus on and clarify certain issues and thus in saving time in their assessment of the case that they

²¹ Jean-Georges Betto, Jason Fry, Marc Henry, Elie Kleiman & Philippe Pinsolle, *International Arbitration: New Trends*, (3) INTERNATIONAL BUSINESS LAW JOURNAL 371, 373 (2006).

²² JANE JENKINS & JAMES STEBBINGS, INTERNATIONAL CONSTRUCTION ARBITRATION LAW, Alphen aan den Rijn: Kluwer Law International 264 (2006).

²³ Michael S. Kun, *supra* note 14.

²⁴ Jeff Dasteel & Richard Jacobs, *American Werewolves in London*, 18 (2) ARB. INT'L 165, 182 (2002): "There is no reason to believe that multimedia presentations so typical in the US would not be effective in London as well"; Arthur H. Aufses III, *Thinking About ADR*, in THE LITIGATION MANUAL, Chicago, Illinois: American Bar Association 67, 74 (J. G. Koeltl & J. Kiernan eds., 1999): "Even if the setting is informal and the parties are at whispering distance, a lawyer should not abandon his attempt to communicate a sense of conviction and urgency. Graphics and demonstrative evidence are as effective with arbitrators as with a jury."

²⁵ JANE JENKINS & JAMES STEBBINGS, *supra* note 22; ROBERT F. CUSHMAN, JAMES J. MYERS, CONSTRUCTION LAW HANDBOOK, New York: Aspen Law & Business Publishers (1999).

would otherwise have to spend working through voluminous documents. Explaining issues while portraying them in a visual medium can also help reduce the overall time spent on oral arguments – a valuable achievement when hearings take place under time constraints, as they usually do.

- 3.18.** A survey of AAA construction arbitrators has indeed shown that the use of photos, pictures or videos, and the use of graphics or other visual aids were, respectively, the third and fourth types of presentation techniques that they found helpful or persuasive. Moreover, 89% of the arbitrators overwhelmingly replied “yes” to the question: “Do graphics and other forms of demonstrative evidence assist you in arriving at an appropriate award?”²⁶
- 3.19.** Similarly, as part of a comparative study on typical practices in conducting arbitration proceedings followed in various parts of the world, arbitration practitioners from diverse legal backgrounds, through a hypothetical case submitted to them, answered in the affirmative when asked whether demonstrative exhibits should be used in order to save hearing time and costs in the presence of voluminous and complicated data.²⁷

VI. Demonstrative Exhibits in Modern International Arbitration Practice

- 3.20.** There are few doctrinal references to the use of demonstrative exhibits in international arbitration. While some authors find that such use is not common outside the United States,²⁸ others take the view that employing a variety of different visual aids in presenting one’s case at the hearing has become commonplace in international arbitration and that most arbitral tribunals “are prepared to grant the parties considerable leeway in employing such aids, provided that the aids accurately reflect the evidence on record.”²⁹ Some authors relate the

²⁶ Dean B. Thomson, *Arbitration Theory and Practice: A Survey of AAA Construction Arbitrators*, 23 HOFSTRA LAW REVIEW 137, 164 (1994-1995).

²⁷ Judge Howard M. Holtzmann & Prof. Giorgio Bernini, *Hypothetical Case for Use in a Comparative Study of Arbitration Practice in Various Legal Systems*, 3 ICCA CONGRESS SERIES 19, 77 (1986).

²⁸ See, e.g., R. Doak Bishop, *Toward a Harmonized Approach to Advocacy in International Arbitration, Chapter 15*, in THE ART OF ADVOCACY IN INTERNATIONAL ARBITRATION, New York: Juris Publishing, Inc. 451, 451, 486 (R. D. Bishop ed., 2004); R. Doak Bishop & James H. Carter, *supra* note 2, at Chapter 22, 519, 561 (2010).

²⁹ David Roney & Anna Müller, *The Arbitral Procedure*, in ARBITRATION IN SWITZERLAND – A HANDBOOK FOR PRACTITIONERS, The Hague: Kluwer Law International 68 (G. Kaufmann-Kohler, B. Stucki eds., 2004); see also Pierre-Yves Tschanz, *Advocacy in*

increasingly frequent use of demonstrative exhibits in hearings to the “Americanization” of the arbitral process.³⁰

- 3.21. Especially in complex technical cases, such as disputes dealing with construction projects,³¹ those involving a factual background spanning a lengthy period, technology transfers,³² business valuation disputes,³³ and intellectual property disputes,³⁴ demonstrative techniques are frequently utilized to present a case in a user-friendly form to the arbitrators.³⁵ The most useful and common forms of demonstrative

International Commercial Arbitration: Switzerland, Chapter 7, in THE ART OF ADVOCACY IN INTERNATIONAL ARBITRATION, New York: Juris Publishing Inc. 195, 218 (R. D. Bishop ed., 2004): “Charts, tabulations, pictures and enlarged copies of key exhibits are often used at the witness hearing and during oral argument. The procedural rules usually allow demonstrative exhibits at the hearings, provided that no new evidence is contained therein and that copies are provided to opposing counsel and the arbitrators.”

³⁰ Michael Young & Larry Shore, *Procedural Issues in International Arbitration – a Cultural Battleground?*, IN-HOUSE PERSPECTIVE 5, 9 (2005): the “Americanisation” of the arbitral process “is attributed to the growing influence of US lawyers, often representing US companies that, in the past five to ten years, have come to be parties in a significant percentage.”

³¹ *Demonstrative Evidence in Construction Disputes*, in 10 VISUAL PERSUASION, available at: [www.campbelleboeuf.com/vispers\[1\].10.pdf](http://www.campbelleboeuf.com/vispers[1].10.pdf) (accessed on November 9, 2011). See also Dean B. Thomson, *supra* note 26, who states that AAA construction arbitrators listed photos, followed by summary or comparison charts, drawings, plans or details, various types of graphs, and time-related schedules as types of helpful visual evidence.

³² Pravin Anand, *Arbitration in the Context of Technology Transfer Agreements: The Case of India*, 7 J. INT’L ARB. 87, 89 (1990).

³³ Robert Wisner, J. William Rowley & Neil Campbell, *Chapter 8: Effective Use of Economic Experts in International Arbitration: Counsel’s Role and Perspective*, in EU AND US ANTITRUST ARBITRATION, Alphen aan den Rijn: Kluwer Law International paras. 8-056 to 8-057, 237, 248-249 (Gordon Blanke & Phillip Landolt eds., 2011).

³⁴ *Chapter 8: Organization and Conduct of Arbitral Proceedings and the Taking of Evidence*, in TREVOR COOK & ALEJANDRO I. GARCIA, INTERNATIONAL INTELLECTUAL PROPERTY ARBITRATION, Alphen aan den Rijn: Kluwer Law International 175, 211 (2010); see also Art. 51 of the WIPO Arbitration Rules (“Agreed Primers and Models”), whereby “the Tribunal may, where the parties so agree, determine that they shall jointly provide: (i) a technical primer setting out the background of the scientific, technical or other specialized information necessary to fully understand the matters in issue; and (ii) models, drawings or other materials that the Tribunal or the parties require for reference purposes at any hearing.”

³⁵ GARY BORN, INTERNATIONAL COMMERCIAL ARBITRATION, Alphen aan den Rijn: Wolters Kluwer 1782-1873 (2009): “Demonstrative evidence can be very useful in technically complex disputes, where the tribunal must understand and assess unfamiliar disciplines or a large body of evidence.” See also Werner Stieger, *Zum Umgang mit technischem Sachverhalt: Beweisführung und Beweiswürdigung in Schiedsverfahren*, (7/8) ZEITSCHRIFT FÜR IMMATERIALGÜTER, INFORMATIONEN - UND WETTBEWERBSRECHT 493, 505 (2010); Michael E. Schneider, *Commentary to Article 184 of the Swiss Private International Law Statute*, INTERNATIONAL ARBITRATION IN SWITZERLAND, The Hague: Kluwer Law International (S. V. Berti, H. Honsell, N. P. Vogt, Anton K. Schnyder eds., 2000) note 33;

exhibits are likely the following: (a) charts, for example illustrating the steps in a damage calculation, (b) timelines arranging a complex set of events in a chronological fashion, and (c) highlighting of extracts from a document on screen where the case turns on a close reading of that particular document.³⁶

3.22. Graphic evidence has also been used successfully at the United Nations Compensation Commission (UNCC) and the Iran-U.S. Claims Tribunal.³⁷ Maps play an important role not only in boundary and territorial disputes, where they can even amount to primary and not merely indirect evidence,³⁸ but also in energy cases (e.g., to depict pipelines trails).

3.23. In international arbitral proceedings where arbitral tribunals tend to be constituted of arbitrators from various countries and regions of the world, counsel should always bear in mind the arbitrators' cultural and legal background when deciding on the nature and scope of the demonstrative evidence to be applied.³⁹ The late Professor Thomas Wälde expressed the view on the OGEMID discussion forum he had created that "European notions seem to be more traditional and allow only a more narrow focus on what is a legitimate subject of professional discussion while in the US – most certainly due to the greater role of the jury and perhaps also greater curiosity about novel technologies – we have a wider scope for what is considered part of the professional skill arsenal."⁴⁰ This view is shared by Doak Bishop who stated that "[s]ome Continental and British arbitrators have indicated a disdain for such evidence. In this atmosphere, counsel should be careful and conservative about the introduction of such evidence."⁴¹ He concludes with an important piece of practical advice: "If in doubt, ask the

idem, *Kommentar zu Artikel 184 Bundesgesetz über das Internationale Privatrecht*, in *DAS INTERNATIONALE PRIVATRECHT (BASLER KOMMENTAR)* note 33 (H. Honsell, N.P. Vogt, A.Schnyder, eds., 2006).

³⁶ Nicolas Fletcher, *supra* note 2, at 107 et seq.; JANE JENKINS & JAMES STEBBINGS, *supra* note 22; R. Doak Bishop, *supra* note 28, at *Chapter 15*, 451, 486-487.

³⁷ Stanton Belland, *The Iran-United States Claims Tribunal: Some Reflections on Trying a Claim*, 1 J. INT'L ARB. 237, 249 (1984).

³⁸ Robert Pietrowski, *Evidence in International Arbitration*, 22 (3) ARB. INT'L 397-398 (2006).

³⁹ Pierre-Yves Tschanz, *supra* note 29, at 208. See also Charles R. Ragan, *Arbitration in Japan: Caveat Foreign Drafter and Other Lessons*, 7 (2) ARB. INT'L 93, 112 Fn 72 (1991) where the author suggests prudence even in the choice of colors in demonstrative aids, which may be considered offensive in some cultures.

⁴⁰ OGEMID, message by Professor Thomas Wälde, sent on 13 October 2005 at 10:47 a.m.

⁴¹ R. Doak Bishop, *supra* note 5, at *Chapter 10*, 309, 352 (2004); R. Doak Bishop & James H. Carter, *supra* note 2, at *Chapter 22*, 519, 562 (2010).

arbitrators at the preliminary hearing about their attitudes towards its use.”⁴²

VII. The Admissibility of Demonstrative Exhibits

- 3.24. To be admissible in U.S. civil procedure, a demonstrative exhibit must comply with standards of “authentication” (*i.e.*, it should convey what it is meant to convey), “representational accuracy” (*i.e.*, it should fairly depict the underlying evidence), and “identification” (*i.e.*, it must be an exact match of the underlying evidence or the testimony illustrated). Furthermore, demonstrative evidence before U.S. courts must pass the “three hurdles” of admissibility: relevancy, materiality, and competency.⁴³
- 3.25. In international arbitration, there are no such fixed rules. The introduction of demonstrative exhibits lies within the discretion of the arbitrators who are free to determine the admissibility, relevance, materiality and weight of evidence, as expressly recognized by several arbitration laws and rules.⁴⁴
- 3.26. In practice, international arbitral tribunals generally admit almost any kind of evidence submitted to them, but retain their discretion to assess its cogency and probative value.⁴⁵ In light of the fact that demonstrative

⁴² *Ibid.*

⁴³ See Rules 401 et seq. Federal Rules of Evidence; *Schuler v Mid-Central Cardiology*, 729 NE2d 536, 246 Ill Dec 163 (CA Ill, 4th Dist 2000); Rodger D. Young & Steven Susser, *supra* note 4, at 1538.

⁴⁴ See Article 9(1) of the 2010 IBA Rules on the Taking of Evidence in International Arbitration (“IBA Rules”). The IBA Rules quite permissively define “Document” as “writing, communication, picture, drawing, program or data of any kind, whether recorded or maintained on paper or by electronic, audio, visual or any other means.” See also, *e.g.*, Rule 34(1) of the ICSID Arbitration Rules; Section 34(2)(f) of the Arbitration Act 1996; Article 20(6) of the AAA ICDR Arbitration Rules; Articles 182 and 184 of the Swiss Private International Law Statute; JEAN-FRANÇOIS POUDRET & SÉBASTIEN BESSON, *COMPARATIVE LAW OF INTERNATIONAL ARBITRATION*, London: Sweet & Maxwell 642 (2nd ed. 2007); Robert Pietrowski, *supra* note 38, at 375, 378, 408.

⁴⁵ JULIAN LEW, LOUKAS A. MISTELIS & STEFAN KRÖLL, *COMPARATIVE INTERNATIONAL COMMERCIAL ARBITRATION*, The Hague: Kluwer Law International §§ 22-29, 22-45 (2003); Martin Hunter, *Modern Trends in the Presentation of Evidence in International Commercial Arbitration*, 3 AM. REV. INT’L ARB. 204, 211 (1992). See also PHILIPPE FOUCHARD, EMMANUEL GAILLARD & BERTHOLD GOLDMAN, *INTERNATIONAL COMMERCIAL ARBITRATION*, The Hague: Kluwer Law International §§ 1257, 1258 (2nd ed. 1999); ALAN REDFERN & MARTIN HUNTER, *LAW AND PRACTICE OF INTERNATIONAL COMMERCIAL ARBITRATION*, London: Sweet & Maxwell § 6-65 (4th ed. 2004); Martin Hunter in Judge Howard M. Holtzmann & Prof. Giorgio Bernini, *supra* note 27: “If a party wishes to present material in this form it would be unusual, and possibly improper (because a party must be given a proper opportunity to present his case) for the tribunal to refuse to accept it.”

evidence usually provides no real evidence, but merely substitutes for or complements counsel's spoken word and illustrates primary evidence,⁴⁶ it appears to be a common procedural standard in international arbitration that

- (1) demonstrative exhibits may not be used to introduce new primary evidence;⁴⁷ and
- (2) demonstrative exhibits must fairly, accurately and completely reflect the real evidence and be otherwise unobjectionable.⁴⁸

3.27. Out of caution not to violate rules of due process, arbitral tribunals will be careful to issue directions ensuring that parties have appropriate notice of the use of demonstrative evidence, in order to prevent unfair surprise and to guarantee an adequate opportunity for response to such evidence.⁴⁹ This avoids the possibility of one party benefitting from the opportunity to use demonstrative exhibits and later deciding against it with the expectation that the other party would be precluded from such use. Some arbitration practitioners also state that a party should not be prevented from using demonstrative exhibits on the grounds that another party to the proceedings lacks access to the same technology.⁵⁰

3.28. Moreover, out of regard for due process, copies of demonstrative exhibits to be used (such as print-outs of charts) should be provided to opposing counsel and the arbitrators sufficiently in advance, following the general rule that parties to an international arbitration are required to produce the documents upon which they rely to prove their case.⁵¹ This was expressly required by the arbitral tribunal in an arbitration involving the Bank for International Settlements, when it issued a procedural order whereby "demonstrative exhibits and other visual aids, including those using computer technology, could be used by the parties as long as the material was only based on evidence already in the

⁴⁶ GARY BORN, *supra* note 35, at 1860: "Demonstrative evidence is not, strictly speaking, factual evidence or probative of facts; rather, it is a way of explaining, depicting, or arranging evidence that has otherwise been properly submitted."

⁴⁷ Pierre-Yves Tschanz, *supra* note 47, at 218.

⁴⁸ Edward M. Josiah, *supra* note 17: for example, photographs must be authenticated as to the date taken, and it must be verified that no alterations have been made.

⁴⁹ Bernard Hanotiau, *Massive Productions of Documents and Demonstrative Exhibits in Written Evidence and Discovery*, in INTERNATIONAL ARBITRATION: NEW ISSUES AND TENDENCIES, Paris: ICC Publications 357, 361 (T. Giovannini & A. Mourre eds., 2009).

⁵⁰ GARY BORN, *supra* note 35, at 1860; Jean-Georges Betto, Jason Fry, Marc Henry, Elie Kleiman & Philippe Pinsolle, *supra* note 21.

⁵¹ See, e.g., Rule 24 of the ICSID Arbitration Rules and Article 20(4) of the 2010 UNCITRAL Arbitration Rules; see also Pierre-Yves Tschanz, *supra* note 29, at 218.

record and had been shown to the opposing party prior to the hearings for verification purposes.”⁵²

- 3.29. Arbitration practitioners further recommend that arbitrators grant opposing counsel the opportunity to review and verify the underlying data on which demonstrative evidence is based.⁵³ It is rightly suggested that if such an opportunity is not given and a doubt arises with respect to data presented by demonstrative evidence, the tribunal should order the production of the original data at the request of opposing counsel or at its own initiative.⁵⁴

VIII. Conclusion: Some Considerations for an Effective Use of Demonstrative Exhibits in Arbitration Proceedings

- 3.30. Demonstrative exhibits can be an effective tool of persuasion for counsel and there is no doubt that they will increasingly find their way into international arbitration hearings, given the sophistication and accessibility of computer animations and other technologies that facilitate the creation of graphics.
- 3.31. Besides complying with the abovementioned procedural rules, counsel in arbitral proceedings should however keep in mind a number of practical considerations when using visual aids:
- (1) Demonstrative exhibits are merely props that help illustrate the underlying evidence and cannot substitute for the principal means of evidence such as documents and witness testimony.
 - (2) Demonstrative exhibits should be used with caution; they cannot replace substance, precision, logic, and a well-argued case.⁵⁵ In addition, if demonstrative exhibits are overused, counsel risks sending the arbitrators an unwanted message, namely that he or she is trying to distract them from the weakness of his or her client’s case with the use of an

⁵² Scott Armstrong Spence, *Organizing an Arbitration Involving an International Organization and Multiple Private Parties – The Example of the Bank for International Settlements Arbitration*, 21 (4) J. INT’L ARB. 309, 322 (2004).

⁵³ Judge Howard M. Holtzmann & Prof. Giorgio Bernini, *supra* note 27.

⁵⁴ *Ibid.*

⁵⁵ Pierre-Yves Tschanz, *supra* note 29, at 205: “The arbitrators must think that the case is good, not that counsel is brilliant. The merits of the case must appear to owe as little as possible to counsel’s skills”; Nicolas Fletcher, *supra* note 2, at 108: “...care needs to be taken to ensure that presentational gimmicks do not prevail over substance and that time is not wasted on unnecessary attempts to deploy or demonstrate counsel’s full range of technological skills which do not advance the tribunal’s understanding of the case”; see also Michael S. Kun, *supra* note 14.

overwhelming high-tech presentation.⁵⁶ Doak Bishop described this in the following terms: “The style of presentation should be dignified and sincere. Bombastic oratory and wild gesticulations, as if playing to the audience in the last row of the theatre, are hardly ever effective in arbitration.”⁵⁷

- (3) The volume and complexity of information communicated through demonstrative exhibits should be balanced against the arbitrators’ capacity to absorb such information, otherwise counsel risks allowing visual aids to detract from the effectiveness of his or her oral pleadings.⁵⁸
- (4) The use of demonstrative exhibits should always be audience-driven with respect to the composition of the arbitral tribunal as well as the arbitrators’ personality and their cultural and legal background, in particular in an international setting.
- (5) When demonstrative exhibits are used to support witness or expert testimony, counsel should make sure to prepare the witnesses and experts on how and when to use them effectively and determine whether they are a true benefit or a dramatization of the issues.⁵⁹
- (6) Finally, on a more practical note, counsel should always keep track of demonstrative exhibits and give them exhibit numbers when produced at the hearing to facilitate referencing during the remainder of the proceedings. Furthermore, for maximum impact, counsel should select the type of exhibit and the presentation medium with care so that they work best within the particular presentation arena.⁶⁰

3.32. Arbitral tribunals, on their end, are well advised to give clear directions on the use of demonstrative exhibits so as to avoid any procedural

⁵⁶ R. Doak Bishop, *supra* note 28, at *Chapter 15*, 451, 486-487 (2004): “If it is just as easy to put a normal-sized photocopy of a document in front of the arbitrators as showing them an enlarged copy, then there is usually no significant benefit in “blowing up” the document to an enlarged size. A copy of the highlighted document that the arbitrators can keep is generally more useful anyway.” See also Rodger D. Young & Steven Susser, *supra* note 4, at 1538.

⁵⁷ R. Doak Bishop, *supra* note 28, at *Chapter 15*, 451, 479 (2004).

⁵⁸ Jean-Georges Betto, Jason Fry, Marc Henry, Elie Kleiman & Philippe Pinsolle, *supra* note 21.

⁵⁹ Richard H. Kreindler, *Benefiting from Oral Testimony of Expert Witnesses: Traditional and Emerging Techniques*, in 4 (3) *TRANSNATIONAL DISPUTE MANAGEMENT* 6, 13, 15, 17 (June 2007).

⁶⁰ Edward M. Josiah, *supra* note 17, who gives the example of a case where the best and most effective option would be to prepare an interactive time-phased two-dimensional site plan which would show the actual progression of work.

uncertainty in this respect.⁶¹ This is best done at the outset of the arbitration, for instance by establishing a specific procedural rule along the following lines:

“No new documents may be presented at the Hearing. However, demonstrative exhibits may be shown using documents or data on record previously submitted in accordance with the procedural timetable. A hard copy of any such demonstrative exhibit shall be provided [...] days in advance by the Party producing the exhibit to the other Party and to each member of the Arbitral Tribunal. The Arbitral Tribunal, at its own initiative or upon request by a Party, may order the production of the underlying data on which such demonstrative exhibits are based.”

|||

Summaries

DEU [Der wirkungsvolle Einsatz visueller Mittel in internationalen Schiedsverfahren]

Der Artikel bespricht den Einsatz visueller Mittel, sogenannter „demonstrative exhibits“, in internationalen Schiedsverfahren. Es geht dabei um graphische Darstellungen und andere Anschauungsmittel, anhand derer die Parteivertreter den Schiedsrichtern das eigentliche Beweismaterial eingängiger vermitteln können. Der Autor verweist auf die Ursprünge derartiger Kommunikationsmittel im US-amerikanischen Straf- und Zivilprozess, in dem es in erster Linie eine Jury zu überzeugen gilt. Er erklärt, dass die in amerikanischen Gerichtssälen praktizierten Überzeugungsmechanismen nicht ohne weiteres vor Schiedsgerichten zum Einsatz kommen sollten, weil Schiedsrichter in der Regel andere Voraussetzungen mit sich bringen als die Mitglieder einer Jury. Der Autor bespricht, inwiefern die Verwendung von „demonstrative exhibits“ im Rahmen internationaler Schiedsverfahren sinnvoll oder sogar geboten ist, insbesondere bei technisch komplexen Fällen. Er betont, dass dabei jeweils auf die Herkunft und Rechtskultur der Schiedsrichter Rücksicht zu nehmen ist, und schliesst seinen Beitrag mit einer Reihe praktischer Erwägungen für Parteivertreter und Schiedsrichter.

⁶¹ See, e.g., NAFTA Chapter 11/UNCITRAL Award of 28 January 2008, *Canadian Cattlemen for Fair Trade v. United States*, Digest by Charles H. Brower, ITA, citing Procedural Order n°1 regarding the Hearing on the Preliminary issue dated 20 October 2006.

CZE [*Účinné používání vizuálních prostředků v mezinárodním rozhodčím řízení*]

Článek pojednává o používání vizuálních prostředků, tzv. „demonstrative exhibits“, v mezinárodním rozhodčím řízení. Jedná se přitom o grafické znázornění a jiné názorné pomůcky, s jejichž pomocí mohou zástupci stran zprostředkovat rozhodcům vlastní důkazní materiál jednodušeji. Autor odkazuje na původy takových komunikačních prostředků v americkém trestním a občanskoprávním řízení, v němž jde v první řadě o to, přesvědčit porotu. Prohlašuje, že přesvědčovací mechanismy praktikované v amerických soudních síních by před rozhodčími soudy neměly být používány bez úpravy, protože rozhodci pocházejí z jiného prostředí (mají jiné předpoklady) než členové poroty. Autor pojednává o tom, do jaké míry má používání „demonstrative exhibits“ v rámci mezinárodního rozhodčího řízení smysl nebo je dokonce žádoucí, zejména u technicky komplexních případů. Zdůrazňuje, že je přitom vždy důležité mít na zřeteli původ a právní kulturu rozhodců, a končí svůj příspěvek řadou praktických úvah pro zástupce stran a rozhodce.

|||

POL [*Skuteczne stosowanie dowodów rzeczowych w arbitrażu międzynarodowym*]

Niniejszy artykuł przedstawia zarys zastosowania pomocy wizualnych czy też dowodów rzeczowych w postępowaniu w ramach arbitrażu międzynarodowego. Autor określa, co może składać się na dowody rzeczowe oraz bada ich zastosowanie w perspektywie historycznej w sporach sądowych w Stanach Zjednoczonych, a także rozważa psychologiczne aspekty ich skuteczności. Ponadto, artykuł podejmuje kwestię dopuszczalności i ograniczeń w stosunku do dowodów rzeczowych we współczesnej praktyce arbitrażu międzynarodowego, prezentując na zakończenie praktyczne wskazówki wykorzystywania tychże dowodów.

FRA [*L'emploi efficace des aides visuelles, ou demonstrative exhibits, dans l'arbitrage international*]

Le présent article livre un panorama de l'emploi des aides visuelles, ou «demonstrative exhibits» dans les procédures arbitrales internationales. L'auteur définit ce qui doit être entendu par «demonstrative exhibits,» examine l'usage qui en a été fait historiquement aux Etats-Unis en matière contentieuse et se penche sur les aspects psychologiques expliquant leur efficacité. L'article examine également la question de

l'admissibilité et des limites des demonstrative exhibits dans la pratique moderne de l'arbitrage international avant de conclure par quelques lignes directrices relatives à leur usage.

RUS [Эффективное применение наглядных материалов в международных арбитражных процессах]

В статье дается обзор применения визуальных средств, или наглядных материалов, в международных арбитражных процессах. Автор показывает, что могут собой представлять наглядные материалы, и изучает историю их применения в судебных процессах в США, а также рассматривает психологические аспекты эффективности таких материалов. Далее в статье рассматриваются вопросы допустимости применения наглядных материалов и ограничений на их использование в современной практике международного арбитража, а в заключение дается ряд практических рекомендаций по работе с такими материалами.

ESP [Uso efectivo de pruebas demostrativas en el arbitraje internacional]

Este artículo proporciona una visión general sobre el uso de ayudas visuales o pruebas demostrativas en los procedimientos de arbitraje internacional. El autor define en qué pueden consistir las pruebas demostrativas y examina su historial de uso en litigios de Estados Unidos, así como los aspectos psicológicos que concurren en el trasfondo de su efectividad. El artículo versa posteriormente sobre la admisibilidad y las limitaciones de las pruebas demostrativas en la práctica del arbitraje moderno internacional, para concluir con algunas indicaciones prácticas sobre su uso.