

DEMONSTRATIVE EVIDENCE

I. INTRODUCTION

- A. [§14.1] Importance Of Demonstrative Evidence
- B. [§14.2] Nature And Definition
- C. [§14.3] Demonstrative Aids

II. ADMISSIBILITY

- A. [§14.4] In General
- B. [§14.5] Discretion Of Court
- C. [§14.6] Pretrial Procedures
- D. [§14.7] Laying Foundation

III. TYPES

- A. [§14.8] In General
- B. [§14.9] Charts
- C. [§14.10] Models
- D. [§14.11] Demonstrations And Experiments
- E. Photographs
 - 1. [§14.12] Relevancy
 - 2. [§14.13] Foundational Issues
 - 3. [§14.14] Pictorial Testimony Or Silent Witness
- F. [§14.15] Videotapes
- G. [§14.16] Replicas
- H. [§14.17] Real Evidence
- I. Scientific Tests
 - 1. [§14.18] General Standard
 - 2. Particular Applications
 - a. [§14.19] X-Rays
 - b. [§14.20] Magnetic Resonance Imaging (MRI)
 - c. [§14.21] Liquid Thermography (LCT)
 - d. [§14.22] Polygraphs
 - e. [§14.23] DNA Evidence
 - f. [§14.24] Sexual Abuse Legitimacy Scale
 - g. [§14.25] Serum Blood Alcohol Test
 - h. [§14.26] Computer Animation

IV. PRACTICAL CONSIDERATIONS

- A. [§14.27] Logistics
- B. [§14.28] Videotape
- C. [§14.29] Graphics
- D. [§14.30] Real Evidence
- E. [§14.31] Computer Animation And Simulation
- F. [§14.32] Disk-Based Litigation (CD-Rom And

G. [§14.33] Laser Disk Presentation Devices)
Conclusions

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I. INTRODUCTION

A. [§14.1] Importance Of Demonstrative Evidence

Our contemporary society is visually oriented. Television and computers are the dominant transmitters of information. Research indicates that visual aids in conjunction with oral presentations can increase understanding and retention levels by as much as 65%. Butera, *Seeing Is Believing: A Practitioner's Guide to the Admissibility of Demonstrative Computer Evidence*, 46 Clev.St.L.Rev. 511, 513 (1998). Quite simply, “[s]uch evidence is generally more effective than a description given by a witness, for it enables the jury, or the court, to see and thereby better understand the question or issue involved.” *Alston v. Shiver*, 105 So.2d 785, 791 (Fla. 1958). Both judges and juries will remember more of what they see than what they hear. They will also understand more of what they hear when it is linked by visual images. This is especially true during tedious, technical, or complicated oral testimony. Some studies indicate that after 12 hours a person remembers only 10% of information received aurally; if that same information is accompanied by visual image, “retention rates rise up to 65% and 85%.” Note, *The Case for Disc-Based Litigation: Technology and the Cyber Courtroom*, 8 Harv.J.L.&Tech. 471, 476 (Spring 1995). But see Bennett, Leibman & Fetter, *Seeing Is Believing; Or Is It? An Empirical Study of Computer Simulations as Evidence*, 34 Wake Forest L. Rev. 257, 285 (Summer 1999) (concluding that “computer-generated evidence is not a ‘silver bullet’ which guarantees victory,” and warning that the “evidence could get lost in the ‘noise’ of a long and complex trial”).

Demonstrative evidence can also be a helpful tool in the art of public speaking. Lecturers, teachers, and other public speakers often rely on charts, pictures, graphs, and other visual aids in their speeches. The trial lawyer likewise may find such tools useful, not only for the orderly presentation of information, but as a “crutch” in remembering what information needs to be presented.

B. [§14.2] Nature And Definition

Demonstrative evidence is generally defined as evidence that appeals to the senses directly without the intervention of witness testimony. This evidence has also been referred to as real evidence, physical evidence, tangible evidence, and evidence by inspection. Some treatises distinguish real evidence from demonstrative evidence, defining real evidence as an object that has a direct part in the incident (*e.g.*, an injured body part), and demonstrative evidence as litigation-crafted “representative” evidence that has no probative value in itself but serves merely to aid in the comprehension of facts (*e.g.*, maps or charts). One commentator maintains that demonstrative evidence defies concrete definition, stating that “[p]erhaps the difficulty in defining demonstrative evidence results from the fact that it is a derivative form of the other three types. In other words, demonstrative evidence is a medium for presenting testimony, documentary, or real evidence.” Lipson, *Instant evidence, how to assess admissibility when every second counts*, Trial Magazine, Nov. 1, 1996, at 72. With the widespread use of technology, including video, digital, and computer-generated evidence, the distinctions among the general categories of evidence have a greater tendency to overlap. Counsel should be aware of this with regard to admissibility and proper foundations.

C. [§14.3] Demonstrative Aids

It is clear that courts distinguish demonstrative “evidence” from demonstrative or illustrative “aids.” As in other broadly defined categories of evidence that tend to overlap and become blurred, the demarcation between “evidence” and “aid” is not always apparent. Generally, however, the more accurate the exhibit, the more likely it is to be admitted into evidence. Rough handwritten notes, maps, charts or

drawings may be useful as aids but may not be admissible evidence. Nevertheless, they may still be used to illustrate a relevant point with the jury even though not offered in evidence. Categorizing evidence is a concern to trial lawyers, and the distinction between demonstrative evidence and demonstrative aids is practical and critical. Aids, unlike substantive evidence, are not allowed in the jury room during deliberations. Therefore, failure to properly distinguish between the two can lead to reversible error.

Gold, Vann & White, P.A. v. DeBerry by & through DeBerry, 639 So.2d 47 (Fla. 4th DCA 1994), involved a medical malpractice action arising from a child's development of brain damage after birth. The court found that it was a reversible error to allow charts and summaries filled in by the expert witness during his testimony to go to the jury room. The court issued the following advice:

While there is certainly no problem in such an expert witness writing down their figures as he or she testified . . . we believe the better practice is to mark such exhibits as "Court Exhibit _____, Not in Evidence." They can then be made part of the record, for appellate review, but should not be in evidence, nor given to the jury for their deliberations.

Id. at 57. See also *Newberry Square Development Corp. v. Southern Landmark, Inc.*, 578 So.2d 750 (Fla. 1st DCA 1991) (allowing jury back into courtroom to view chart of claimed damages, which then remained out of juror's view, was not reversible error); *Louisiana-Pacific Corp. v. Mims*, 453 So.2d 211 (Fla. 1st DCA 1984) (use of chart during argument is widely accepted practice, but when argument is over, chart must be promptly removed).

II. ADMISSIBILITY

A. [§14.4] In General

The power of visual image by way of demonstrative exhibits requires the court to carefully consider issues of admissibility. The fundamental preconditions for admitting a demonstrative exhibit as an aid to the jury's understanding are that it must be relevant and "constitute an accurate and reasonable reproduction of the object involved," *Taylor v. State*, 640 So.2d 1127, 1134 (Fla. 1st DCA 1994). If it is real evidence, it must of course be authentic, relevant, not hearsay or fall within an exception to the hearsay rule. It must not appear misleading. See generally 23 FLA.JUR.2d *Evidence and Witnesses* §349.

The proponent must distinguish between a demonstrative exhibit that illustrates an expert's opinion and one that does not. Quite simply, if the demonstrative exhibit is used to illustrate an expert's opinion, the proponent must lay the foundation requirements necessary to introduce the expert's opinion. A proponent may not shoehorn in an expert's opinion without laying the proper foundation. *Pierce v. State*, 718 So.2d 806 (Fla. 4th DCA 1997). In *Pierce*, the court explained the foundation necessary to introduce an expert's opinion through a demonstrative exhibit using computer animation. The court ruled, consistent with prior cases, that "(1) the opinion evidence must be helpful to the trier of fact; (2) the witness must be qualified as an expert; (3) the opinion evidence must be applied to evidence offered at trial; and (4) pursuant to [F.S. 90.403], the evidence, although technically relevant, must not present a substantial danger of unfair prejudice that outweighs its probative value."

B. [§14.5] Discretion Of Court

Whether to allow the use of a demonstrative exhibit is a matter strictly within the trial court's discretion. *First Fed. Sav. & Loan Ass'n of Miami v. Wylie*, 46 So.2d 396 (Fla. 1950); *Brown v. State*, 550

So.2d 527 (Fla. 1st DCA 1989). The last threshold for admissibility is *F.S.* 90.403, which states: “Relevant evidence is inadmissible if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of issues, misleading the jury, or needless presentation of cumulative evidence.” Appellate courts generally acknowledge that the trial court has a superior vantage point in ruling on the admissibility of demonstrative exhibits. Therefore, the trial court’s findings will not be disturbed absent a clear abuse of discretion. *Chamberlain v. State*, 881 So.2d 1087, 1102 (Fla. 2004) (citing *Harris v. State*, 843 So.2d 856, 863 (Fla. 2003).

C. [§14.6] Pretrial Procedures

Establishing the foundation for the admission of various demonstrative exhibits can be time-consuming, potentially boring, and distracting from the theme of the case. Therefore, it is best to obtain pretrial rulings on the admissibility of demonstrative exhibits through the use of pretrial conferences, motions in limine, and stipulations. Some state circuit courts will give advance rulings on admissibility, and many will insist that the parties identify all exhibits that they anticipate using at trial and indicate whether they have objections to each other’s proposed exhibits.

In addition to eliminating potentially boring and repetitive testimony, the obvious advantage of advance rulings is that it reduces the delay of the actual trial and the attorney does not face the uncertainty of proceeding at trial with a document with questionable admissibility. Also, if the admissibility of exhibits is determined before trial, the exhibit may be referred to in the opening statement, with witnesses, planned for and incorporated into the summation. See *F.S.* 90.901, 90.951.

D. [§14.7] Laying Foundation

Before a demonstrative exhibit may be used at trial, the witness should establish that the exhibit resembles and is substantially the same as the object or area in question. If a model is used, it must fairly and accurately represent the original and should be built to scale. This must be established before the use of the exhibit is allowed. A witness intending to use an exhibit as an aid should first explain that the use of the exhibit will facilitate the presentation of the testimony to the jury. Under *F.S.* 90.901, “[a]uthentication or identification of evidence is required as a condition precedent to its admissibility.” The requirements of this statute and evidentiary requirement are satisfied by evidence sufficient to support a finding that the matter in question is what its proponent claims. Demonstrative evidence must “constitute an accurate and reasonable reproduction of the object involved” in the actual case. *State v. Duncan*, 894 So.2d 817, 829-831 (citing *Brown v. State*, 550 So.2d 527, 528 (Fla. 1st DCA 1989).

When attempting to keep an exhibit from being entered into evidence, the trial attorney should argue that the exhibit does not truly and accurately portray what it purports to portray. The attorney may also argue that the exhibit is not necessary to assist the witness in explaining her testimony. A hearsay objection may also be made. Finally, if the exhibits is of the type that may mislead the jury or cause confusion or undue prejudice, a motion may be made under *F.S.* 90.403, arguing that the probative value of the model is greatly outweighed by its prejudicial effect.

III. TYPES

A. [§14.8] In General

The following are examples of demonstrative evidence, some of which are discussed in greater

detail below:

- Charts (inclusive of graphs and diagrams)
- Anatomical models
- Model of product, building, or materials or matter at issue
- Component parts of the subject of litigation
- Models
- Maps
- Videotapes, DVD, film, audiotapes, recordings
- Photographs
- Replicas
- Computer animations
- Blowups of deposition transcripts
- X-rays
- Handwriting exemplars
- Time lines
- Demonstrations and experiments
- Scientific tests
- Original objects (*e.g.*, weapons and defective products).

B. [§14.9] Charts

Charts, including graphs and diagrams, are probably the most versatile type of demonstrative exhibit. Charts can be used to summarize major points or list key facts. Businesses specializing in trial graphics can make velcro-attached overlays for use with foam boards that can be removed as each point or fact is discussed. If a particular fact or point is determined improper or inadmissible, the attorney simply removes or leaves in place that particular overlay and the chart remains usable. Charts can be used effectively by counsel during opening statement, testimony, and summation. Charts can also be used by witnesses to explain, supplement, and illustrate their oral testimony.

Assuming that the chart is relevant, most objections to its admissibility will involve issues of foundation. The attorney should make sure that the chart is not merely cumulative of other testimony, is not misleading, and does not contain inaccuracies, unfairly prejudicial captions, or otherwise inadmissible

statements (*e.g.*, hearsay). If the attorney encounters an apparently insurmountable objection, strategic maneuvering includes requesting a limiting instruction (*e.g.*, that the chart is not to scale or can be viewed for only a limited purpose) or using the chart solely as a demonstrative aid.

To set the foundation for the use of a chart, the witness must attest that it constitutes a fair and accurate representation. The following is an example of setting the foundation:

Attorney: Where did this happen?

Witness: In the lobby of the hotel.

A: Please let the record reflect that I am showing plaintiff's exhibit #1 to opposing counsel. Request permission to approach the witness.

Judge: You may.

A: I am handing you what has been marked as plaintiff's exhibit #1 for identification and ask whether you recognize it.

W: Yes.

A: What is it?

W: It's a diagram of the lobby of the hotel.

A: How do you know that?

W: I know the hotel very well. For over four years now I have eaten in the restaurant in the lobby at least three times a week and continue to do so at the present time.

A: Does this diagram fairly and accurately depict the relative positions of the restaurant, lounge, and elevators?

W: Yes, it does.

A: Is it drawn to scale?

W: Not exactly, but everything is roughly the right size. The relative positions of the restaurant, lounge, and elevators are all very accurate.

A. Your Honor, I offer into evidence plaintiff's exhibit #1, which is a diagram of the hotel lobby.

Opposing Counsel: Your Honor, I request a limiting instruction that the diagram is not to scale.

J: Yes. The exhibit will be received. Ladies and gentlemen of the jury, the attorney for the plaintiff is now going to show you a diagram of the hotel lobby. Although the witness has testified that the diagram is basically accurate, he has also

testified that the diagram is not to scale. Accordingly, in deciding what weight to attach to the diagram, you should consider the fact that the diagram is not to scale.

A: May I publish the diagram to the jury?

J: You may.

If the chart involves a drawing to scale, it may be necessary to call two witnesses: one who prepared the exhibit and will attest that it is to scale and another who can testify as to the relevant facts and circumstances in issue.

There are certain limitations on the use of charts. In *Louisiana-Pacific Corp. v. Mims*, 453 So.2d 211 (Fla. 1st DCA 1984), for example, the court held that allowing a chart prepared by plaintiff's counsel for closing arguments to remain with the jury during deliberations was error requiring a new trial. The judge had sent the chart back with the jury as a court's exhibit. The appellate court held that "[t]he designation of the chart as a court's exhibit, lending to it the sanction and influence of the judge, is an error far more grievous than leaving it in view of the jury during phases of the trial for which its use is unnecessary." *Id.* at 212–213. But see *Newberry Square Development Corp. v. Southern Landmark, Inc.*, 578 So.2d 750 (Fla. 1st DCA 1991) (allowing jury back into courtroom to view chart of claimed damages, which then remained out of jury's view, was not reversible error).

C. [§14.10] Models

Models can be particularly interesting and persuasive because of their multidimensional character. They can also be costly. Therefore, it usually benefits counsel to ensure, either by stipulation or pretrial ruling, that the model will be admissible. However, if that is not possible, the foundational elements are that (1) the model is helpful, or even necessary, to explain relevant testimony; (2) the model depicts a particular object; (3) the witness is familiar with the object being depicted; (4) the witness has a basis for such familiarity; and (5) the model fairly and accurately depicts what it purports to represent and does not prejudicially distort the object.

Skeletal and other anatomical models are particularly useful in conjunction with medical expert testimony. Medical models that are available for purchase by catalog companies include herniated intervertebral discs, life-size hearts with coronary bypasses, spinal columns with muscles and ligaments, and real-bone adult human skeletons.

An example for the admission of a medical model is as follows:

Attorney: You previously testified, Doctor, that after making an incision in the patient's nasal cavity, you started to insert a scalpel into his head, is that correct?

Doctor: Yes.

A: How were you able to regulate the movement of that scalpel?

D: This is a difficult procedure to explain without the use of a model.

A: Why is that?

D: There is a new procedure that was developed to minimize trauma on the patient during surgery. But it is impossible for me to explain it in words. I really need to use a model to make my testimony understandable.

A: May I approach the witness?

Judge: You may.

A: I am showing you what has been previously marked as defendant's exhibit #1 for identification. Doctor, do you know what this is?

D: Yes. As you can see, it is a replica of a human skull. It is used as a teaching aid at medical schools throughout the country. I routinely use it in my classes with surgical residents.

A: Is it an accurate model of the skull?

D: It is extremely accurate. It needs to be because it is used to teach residents.

A: Will this model help you explain your testimony about the specific surgery you performed on the patient?

D: Yes.

A: Your Honor, I move that defendant's exhibit #1 be entered into evidence.

Opposing Counsel: I object. The model is not to scale and is therefore prejudicial.

A: Your Honor, the model is to be used only for demonstrative evidence as an aid to help the witness explain his testimony and to help the jury understand it better.

J: Objection overruled.

A: Would you show us how you performed the operation on the patient using defendant's exhibit #1, Doctor?

D: Yes

In the face of an objection to the introduction of a model into evidence, it should be made clear that it is not the intent to equate the model with an identical replica of the object; the model is being used to facilitate an understanding of the witness's testimony and should be admitted on that basis. See *First Federal Savings & Loan Ass'n of Miami v. Wylie*, 46 So.2d 396 (Fla. 1950); see also, *Cloyd v. State*, 943 So.2d 149, 166 (Fla. 3d DCA 2006)(permitting fourteen mugs of beer as demonstrative evidence of number and size of beers consumed by pilots prior to flight in a prosecution for operating an aircraft while intoxicated). Even if the exhibit is not admitted in evidence, you may still use it as a demonstrative aid if the foundation is met.

D. [§14.11] Demonstrations And Experiments

Generally, courtroom demonstrations are the most dramatic type of evidence; they are also the riskiest. To reduce the risk, the attorney should consider presenting demonstrations by recorded videotape when feasible, especially when the demonstrations are complex. On the other hand, simple demonstrations such as exhibiting a plaintiff's range of motion in a personal injury case should be presented live in the courtroom. When attempting to introduce a demonstration or experiment, counsel should be prepared to argue against an *F.S.* 90.403 objection (see §14.5). Counsel should also be prepared to meet the argument that the demonstration is so dissimilar to what it purports to demonstrate that it is inadmissible. Generally, the response to such argument is that complete identity between the events giving rise to the litigation and the demonstration or experiment is not required. The only requirement is substantial similarity.

In *Rindfleisch v. Carnival Cruise Lines*, 498 So.2d 488, 492 (Fla. 3d DCA 1986), the court acknowledged the general rule enunciated in *Hisler v. State*, 52 Fla. 30, 42 So. 692, 695 (1906), that evidence of an experiment is not admissible "where the conditions attending the alleged occurrence and the experiment are not shown to be similar." The court noted that experimental evidence should be received with caution, and the party offering the evidence has the burden to lay a proper foundation for its admission by showing a similarity of the circumstances and conditions. *Rindfleisch* involved a slip-and-fall accident on a cruise ship. The defendant's expert, with regard to a coefficient of friction test, admitted that he did not know whether the step he tested was the step on which plaintiff slipped, whether the condition of the step he tested was similar to the condition of the step in issue, where on the ship the step he tested was located, or what had happened with regard to the step in the more than three years between the date of the accident and the date of the test. The trial court admitted the evidence and it was affirmed on appeal. The appellate court found that the rule of substantial similarity had been eroded and that dissimilarities between test conditions and conditions surrounding the actual event went to the weight, not the relevancy or materiality, of the evidence. Therefore, "[i]f enough of the obviously important factors are duplicated in the experiment, the court may conclude that the experiment is sufficiently edifying that it should come into evidence." *Id.* at 493.

In *Dempsey v. Shell Oil Co.*, 589 So.2d 373, 380 (Fla. 4th DCA 1991), the court reversed the trial court's exclusion of evidence and found no "factual basis to support the trial court's conclusion that the important circumstances involved in the accident and the experiment were dissimilar." The test in *Dempsey* involved a measurement of the distance headlights would project. The court found that although speed and other specific conditions at the scene of the accident logically would affect visibility, those matters would go to the weight, not the admissibility, of the evidence.

In *Brown v. State*, 550 So.2d 527 (Fla. 1st DCA 1989), the court found that the prosecutor did not commit fundamental error by inserting a knife into a model of the victim's head during closing argument. Defense counsel alleged that the prosecutor was inserting a knife into the styrofoam model with more force and pressure than was necessary. However, the record failed to demonstrate "such prejudice as would constitute fundamental error," *id.* at 528, and the defense attorney did not request a curative jury instruction or move for a mistrial.

Despite the foregoing cases, which indicate certain liberal treatment by the courts, the original conditions and circumstances at issue should be duplicated as closely as possible. It is preferable not to go beyond the scope of what is required because the admissibility of this type of evidence resides totally within the discretion of the court. To maximize the probability that the appropriate foundation will be laid, the expert who conducted the experiment or supervised the demonstration should be in court to

present the evidence. See generally 23 FLA.JUR.2d *Evidence and Witnesses* §389.

E. Photographs

1. [§14.12] Relevancy

Photographs are among the most readily available and common types of demonstrative evidence. They are also extremely powerful pieces of evidence. Photographs of victims or their body parts before and after receiving injuries can be poignant and persuasive. Aerial photographs are extremely useful when overviews of locations and scenes serve to aid the trier of fact in understanding the case.

The primary focus of the court in admitting photographs is relevancy. This is so even if the photograph is gory or gruesome. *Larkins v. State*, 655 So.2d 95 (Fla. 1995). In *Larkins*, the photograph depicted a person lying in a pool of blood, but it was admitted to help explain the medical examiner's testimony. The appellate court upheld its admissibility. If the photographs are helpful in showing the cause, type, extent, location, or mechanism of death or injury, or the intent of the defendant, they are relevant and should be admitted into evidence. See *Bruno v. Moore*, 838 So.2d 485 (Fla. 2003); *Philmore v. State*, 820 So.2d 919 (Fla. 2002); *Naylor v. State*, 748 So.2d 385 (Fla. 3d DCA 2000).

However, when the photograph is gory or gruesome and is only tangentially relevant to the case rather than being used to establish a material part of the case or corroborate a disputed factual issue, it may be reversible error to admit it. In *Gomaco Corp. v. Faith*, 550 So.2d 482 (Fla. 2d DCA 1989), the trial court admitted photographs, taken before surgery, of the victim's nearly severed foot. The surgeon testified that the photographs would assist him in describing the surgical procedure and extent of the injuries. The appellate court found that the photographs did not constitute a material part of the plaintiff's case and were so inflammatory and prejudicial that they conceivably tainted the entire jury trial, necessitating reversal and remand for a new trial. In *Johnson v. Florida Farm Bureau Casualty Insurance Co.*, 542 So.2d 367 (Fla. 4th DCA 1989), the appellate court held that if exclusion of a graphic photograph of a child who had been killed by a tractor-trailer was error, it was harmless error. The court noted that the photograph, although perhaps relevant to the mother's emotional pain and suffering, was cumulative evidence. The court stated that although trial courts should not "'sanitize' the facts" by excluding relevant evidence, relevant evidence is inadmissible if it fails an *F.S. 90.403* analysis (see §14.5). See also *Citrus County v. McQuillin*, 840 So.2d 343 (Fla. 5th DCA 2003) (allowing photograph of decedent in bodybag was not error because it tended to support expert witness's theory).

Although the key to admissibility is relevancy, a photograph of an object that was not the actual defective object, but still has bearing on another issue in the case, is relevant for the purpose of explaining testimony and aiding the jury in understanding the case. In *Simmons v. Roorda*, 601 So.2d 609 (Fla. 2d DCA 1992), a construction accident case, the court allowed the testimony of a witness regarding his inspection of a crack in the truss system, which he discovered after the accident but which was not in the same truss that had collapsed under the plaintiff. The trial court had refused to admit a photograph of this other crack discovered after the accident. The appellate court reversed, finding the photograph relevant to the issue of failure to inspect.

Although photographs made after an event may be admissible for some purposes, they are not admissible as proof of negligence. *F.S. 90.407* (admissibility of subsequent remedial measures). In *Pensacola Inn Ltd. v. Tuthill*, 404 So.2d 1173 (Fla. 1st DCA 1981), a premises liability case, the court found that the photographs impermissibly depicted subsequent remedial measures. The court acknowledged the general rule that "photographic evidence which is relevant for some legitimate purpose

does not become inadmissible in every instance simply because the photographs may depict some post-accident change in the scene surrounding the site of an accident.” *Id.* at 1175. However, the photographs showed, with great clarity, improvements made by the hotel owners four or five days after the accident. Accordingly, the court found that the probative value of the photographs was substantially outweighed by the danger of unfair prejudice, especially because they showed nothing unique or unusual in the physical layout of the hotel that would necessitate their use for explanatory purposes. Nonetheless, photographs made after an event may be admissible for reasons other than proof of negligence, “such as proving ownership, control, or the feasibility of precautionary measures, if controverted, or impeachment.” *F.S.* 90.407.

2. [§14.13] Foundational Issues

Relevancy aside, any photograph, whether gruesome or not, must be properly authenticated before it will be admitted into evidence. *F.S.* 90.901. To establish the authenticity of a photograph, the proponent must show that the photograph fairly and accurately represents the depicted condition, product, person, or scene. See *Dolan v. State*, 743 So.2d 544 (Fla. 4th DCA 1999) (computer enhancements of video surveillance tape). It is not a requirement that the actual photographer establish authenticity; any witness who has personal knowledge of the facts portrayed in the picture is sufficient. See *Hillsborough County v. Lovelace*, 673 So.2d 917 (Fla. 2d DCA 1996). If the photograph is being offered to prove that something occurred at a particular time rather than how it looked, opposing counsel must have an opportunity to cross-examine the photographer and explain or refute the genuineness of the photograph. See *Breeding’s Dania Drug Co. v. Runyon*, 147 Fla. 123, 2 So.2d 376 (1941).

Even when it is not necessary to call a photographer to authenticate a photograph, it is a good idea to employ a professional photographer to take any important photograph. What appears to be a relatively easy object to photograph can have focus, lighting, or composition problems. It is important to capture the desired scene or object while eliminating extraneous or misleading information. Photographs can be attacked as exaggerating or reducing distances, altering apparent height or other measurement, and showing more or less of a scene than is necessary to prevent a partial view from being misleading. If any of these objections are encountered, the attorney should emphasize that the objections are directed at the weight and credibility of the photograph but not its admissibility. Problems with photographic authenticity have greatly increased since the use of photographic computer programs become common. Now just about anyone with a computer can alter a photograph.

3. [§14.14] Pictorial Testimony Or Silent Witness

In *Hannewacker v. City of Jacksonville Beach*, 419 So.2d 308 (Fla. 1982), the Florida Supreme Court analyzed two theories under which photographs are admissible: the “pictorial testimony” theory and the “silent witness” theory. The former theory admits the photographs as nonverbal modes of expressing witnesses’ testimony but does not recognize pictures as having independent evidentiary value. In other words, it requires the testimony of a witness to establish that, based on the witness’s personal knowledge, the photographs fairly and accurately reflect the events or scenes. *Dolan v. State*, 743 So.2d 544 (Fla. 4th DCA 1999).

The “silent witness” theory recognizes that once properly authenticated, photographs have independent evidentiary value and can speak for themselves. The court in *Hannewacker* used the “silent witness” theory to acknowledge that a photograph standing alone can, under certain circumstances, provide a basis for an inference of time: “If the photograph portrays a condition that has some distinguishing feature which clearly shows that the defect has existed for a long period of time, it may

afford the jury a basis to infer that a significant period of time has passed.” *Id.* at 311.

D. [§14.15] Videotapes, DVD and film

Not that long ago, recorded depositions were usually reserved for out-of-town experts whose fees, travel costs, or scheduling problems justified their use. Today, however, the use of recordings has become increasingly pervasive in the courtroom as the availability and ease of operation continues to increase while the cost continues to decrease. Some attorneys routinely record all depositions; some use their own staff and equipment in conjunction with a court reporter and in compliance with *Fla.R.Civ.P.* 1.310(b)(4). In personal injury and medical malpractice cases, plaintiffs use day-in-the-life recordings for mediation as well as trial to depict the day-to-day activities of the plaintiff and the problems and difficulties suffered on a daily basis. Day-in-the-life recordings are best prepared by experts who are trained and experienced in forensic videography.

Videotape, DVD and film recordings can also be used for experiments and demonstrations and to show scenes of accidents or objects that cannot be brought into the court and for which a still photograph would not be effective or appropriate. For a complete discussion of all aspects of videotaping, see Kornblum & Short, *The Use of Videotape in Civil Trial Preparation and Discovery*, 23 AM.JUR. *Trials* 95 (2007 Supp.); Gruber, Nicholson & Reichel, *Video Technology*, 58 AM.JUR. *Trials* 481 (2007 Supp.). Like photographs, a videotape, film, or DVD may be authenticated by any witness who is familiar with what is portrayed. See generally *Dolan v. State*, 743 So.2d 544 (Fla. 4th DCA 1999). However, it becomes necessary to call the operator as a witness if special features were used, if the date of the filming is an issue, the videotape is enhanced, or in cases of remote taping when a foundation would need to include information on operating procedures as well as the condition of the equipment. See *Bryant v. State*, 810 So.2d 532 (Fla. 1st DCA 2002)(finding jury was entitled to compare original time lapse videotapes with edited fully enhanced version presented at trial). The attorney should be prepared to counter the argument that evidence presented by recording will have an unfairly prejudicial impact on the jury.

The lawyer should also be prepared to ensure that a videotaped deposition that is played during trial is admitted properly into evidence. In *Matson v. Wilco Office Supply & Equipment Co.*, 541 So.2d 767, 769 (Fla. 1st DCA 1989), the court stated that the

use of technology in court proceedings brings new issues to the judicial system. When a videotaped deposition is played in the trial court, it is evidence adduced at trial. What the jury saw and heard should be made a part of the record on appeal and no more. . . . [W]hen a videotape is played in the trial court, the court reporter should not cease reporting but continue so that a stenographic record is made of the evidence being presented to the court. When the videotape has ended, counsel should submit it to the court as an exhibit.

In *Matson*, the failure to transcribe the videotape and make it part of the record resulted in the granting of a motion to strike the appellant’s initial brief. See *Travieso v. Golden*, 643 So. 2d 1134 (Fla. 4th DCA 1994).

As with other forms of demonstrative evidence (see §14.9), even if a videotape had been properly admitted into evidence, it would still have been reversible error for the videotape to be sent to the jury room. *Campoamor v. Brandon Pest Control, Inc.*, 721 So.2d 333 (Fla. 2d DCA 1998).

G. [§14.16] Replicas

Replicas are useful when the original historical evidence is not available. However, unlike with models, “it is essential, in every case where demonstrative evidence is offered, that the object or thing offered for the jury to see be first shown to be the object in issue and that it is in substantially the same condition as at the pertinent time, or that it is such a reasonably exact reproduction or replica of the object involved that when viewed by the jury it causes them to see substantially the same object as the original.” *Alston v. Shiver*, 105 So.2d 785, 791 (Fla. 1958). See also *Chamberlain v. State*, 881 So.2d 1087, 1102 (Fla. 2004). A replica may be introduced as follows:

Attorney: Please take plaintiff’s exhibit #1 in your hand. Examine it and tell me when you finish your examination.

Witness: I have finished.

A: Is exhibit #1 similar to the club that defendant hit you with?

W: Yes.

A: Is it the same length?

W: Yes.

A: Is it the same width?

W: Yes.

A: Is it the same weight?

W: Yes.

A: Are there any differences between plaintiff’s exhibit #1 and the club with which you were beaten?

W: No. They are exactly alike.

Any deviation from reasonable exactitude in the replica could be fatal to its admissibility. *Alston* was an action for personal injuries sustained in an assault and battery. The plaintiff offered a replica of the ax handle into evidence. The actual ax handle was shorter than the replica and was slightly cracked on the corner. The trial court admitted the replica as demonstrative evidence. The Supreme Court found that the replica was longer than the actual weapon and should not have been admitted. In reversing and remanding for new trial, the Supreme Court stated that

it is essential, in every case where demonstrative evidence is offered, that the object or thing offered for the jury to see be first shown to be the object in issue and that it is in substantially the same condition as at the pertinent time, or that it is such a reasonably exact production or replica of the object involved that when viewed by the jury it causes them to see substantially the same object as the original.

The person offering such evidence should be required to give a good reason for

its acceptance into evidence, and this is particularly true if the object be not the original, but only a replica or a facsimile.

Id. at 791.

H. [§14.17] Real Evidence

Real evidence is evidence that actually played a role in the time and place of the issues in the case. Injured body parts, defective products, weapons, and jewelry are examples of real evidence. Although real evidence is still subject to relevancy requirements as well as *F.S.* 90.403, relevance is typically established by the context of the case. It is the evidence as the attorney finds it, not as the attorney creates it. The concern with real evidence is its authenticity. It is therefore important to remember that the foundational elements differ considerably from the other types of demonstrative evidence discussed in this chapter. If the object is unique and has a one-of-a-kind characteristic — as, for example, an heirloom, an oil painting, or a monogrammed watch — the foundation is complete as long as the witness (1) previously observed the characteristic; (2) presently recalls the characteristic; and (3) can identify the object based on the distinctive characteristic and otherwise.

If the object is not inherently identifiable, or if issues as to the condition of the object are at issue, a chain of custody must be established. The chain of custody must show that the object in the courtroom is the same one involved in the events of the case. *Gencorp, Inc. v. Wolfe*, 481 So.2d 109 (Fla. 1st DCA 1986). *Gencorp* involved a defective tire. An expert showed a tire to the jury and explained why it was defective. However, the plaintiff failed to show that the tire about which the expert testified was in substantially the same condition at trial as it was at the time of the accident or that it was, in fact, the same tire that was involved in the blowout. The court found that “[t]he lack of such evidence is fatal to the admissibility of demonstrative evidence.” *Id.* at 111.

Once it is established that the object is in substantially the same condition, the burden shifts to opposing counsel to prove that the object is untrustworthy. To prove the untrustworthiness of records, the party opposing their admission must show that a break in the chain of custody occurred or that the records probably were tampered with. If the objecting party is unable to carry this burden, the records will be admitted into evidence. *Love v. Garcia*, 634 So.2d 158 (Fla. 1994). The trial court’s decision to admit the object will not be overturned on appeal absent a finding of abuse of discretion. See *Jent v. State*, 408 So.2d 1024 (Fla. 1981); *Hellman v. State*, 492 So.2d 1368 (Fla. 4th DCA 1986).

The court in *Gavin v. Promo Brands USA, Inc.*, 578 So.2d 518, 519 (Fla. 4th DCA 1991), noted that “[a]t the outset, chain of custody presents a mixed question of law and fact in which the court determines whether a sufficient showing has been made of the item’s genuineness. Once admitted, however, it is the fact finder who determines its evidentiary weight.”

The foundation requirements for a chain of custody are that the witness (1) received the object at a certain time and place; (2) can document, step by step, the detailed method that was used to ensure that the object remained in the same condition as when it was first received and that the object was not substituted or altered; (3) can explain how the object got to the courtroom (if it was not retained by the witness but was transferred, another witness may need to be called to complete the chain); (4) can identify the object in court as the object he or she originally received; and (5) can state that the object is in the same condition as it was when he or she originally took possession of it.

Real evidence that has been transferred to many different individuals or has been subject to testing before it is brought into the courtroom requires a lengthier chain of custody foundation. Therefore,

it may be advisable to offer opposing counsel the opportunity to inspect the evidence to alleviate any concerns she may have as to its authenticity in exchange for a stipulation as to its admission into evidence.

I. Scientific Tests

1. [§14.18] General Standard

Frye v. United States, 293 F. 1013, 1014 (D.C. Cir. 1923), 34 A.L.R. 145, established the general standard for the admissibility of scientific tests, which is “general acceptance” within the scientific community. In 1993, the United States Supreme Court held that the “general acceptance” test of *Frye* was superseded by the Federal Rules of Evidence and the “liberal thrust” of those rules. *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993). The Court specifically addressed Fed.R.Evid. 702, on which F.S. 90.702 is based. However, in *Flanagan v. State*, 625 So.2d 827, 829 n.2 (Fla. 1993), the Florida Supreme Court stated that while the court was “mindful” of *Daubert*, “Florida continues to adhere to the *Frye* test for the admissibility of scientific opinions.” Therefore, the standard remains in Florida that a scientific test must be “sufficiently established to have gained general acceptance in the particular field in which it belongs.” *Hayes v. State*, 660 So.2d 257, 262 (Fla. 1995); see also *Ramirez v. State*, 542 So.2d 352 (Fla. 1989)(*Ramirez I*); *Ramirez v. State*, 651 So.2d 1164 (Fla.1995)(*Ramirez II*); *Ramirez v. State* 810 So.2d 836 (Fla. 2001)(*Ramirez III*)(reaffirming Florida’s adoption of *Frye*). See §9.29 of this manual for further discussion of *Frye* and *Daubert*. For an extensive examination of those cases, see Chapter 13 of BUSINESS LITIGATION IN FLORIDA (Fla. Bar CLE 4th ed. 2001).

2. Particular Applications

a. [§14.19] X-Rays

In most personal injury cases, x-rays form part of the evidence to be presented to the court. Technically, x-rays are nothing more than photographic negatives that should be subject to no more than the same objections and admissibility considerations as photographs. However, an expert is needed to explain what the x-ray represents, and therefore more foundational elements are required. X-rays clearly are admissible under the criterion of general acceptance in the scientific community. It should be noted that x-rays can be converted to “positive” prints that may be easier to use in the courtroom. It should also be noted that x-rays are subject to the best evidence rule. *Hernandez v. Pino*, 482 So.2d 450 (Fla. 3d DCA 1986).

b. [§14.20] Magnetic Resonance Imaging (MRI)

Like x-rays, magnetic resonance imagings (MRIs) are common in personal injury cases. They are also generally accepted in the scientific community and require an expert to interpret them. *Diamond R. Fertilizer v. Davis*, 567 So.2d 451 (Fla. 1st DCA 1990). MRI tests “image” the human body by producing photographic images of the body’s organs, including muscles and ligaments, through the use of a highly energized magnetic field.

c. [§14.21] Liquid Crystal Thermography (LCT)

Liquid Crystal Thermography (LCT) is an imaging process used to demonstrate the process of soft-tissue injuries such as sprains and neuralgia by measuring variations in the heat emitted by regions of

the body and transforming them into visible signals that can be recorded photographically for the purpose of diagnosing abnormal underlying conditions. The validity of thermography as a diagnostic tool is subject to dispute within the medical community, and courts are divided on its admissibility. See, e.g., *Farmer v. Protective Casualty Insurance Co.*, 530 So.2d 356 (Fla. 2d DCA 1988); *Palma v. State Farm Fire & Casualty Co.*, 489 So.2d 147 (Fla. 4th DCA 1986); *Crawford v. Shivashankar*, 474 So.2d 873 (Fla. 1st DCA 1985), 56 A.L.R.4th 1097; *Fay v. Mincey*, 454 So.2d 587 (Fla. 2d DCA 1984).

d. [§14.22] Polygraphs

Polygraph tests, also known as lie detector tests, have not been generally accepted in the scientific community and are inadmissible as evidence under Florida law. *Delap v. State*, 440 So.2d 1242 (Fla. 1983); *Radillo v. State*, 797 So.2d 23 (Fla. 3d DCA 2000). However, polygraph results are admissible upon stipulation by both parties. *Jenkins v. State*, 380 So.2d 1042 (Fla. 4th DCA 1980).

The District Courts of Appeal, Third and Fourth Districts, have certified to the Supreme Court the question of per se inadmissibility of polygraph tests. *State v. Narval Hardware*, 868 So.2d 574 (Fla. 3d DCA 2004); *State v. Santiago*, 679 So.2d 861 (Fla. 4th DCA 1996). In *Santiago*, the court stated: “It would seem that our courts have not been exposed to the advancements in polygraph reliability since the adoption of *Frye* forty years ago. . . . Several significant decisions since *Delap* have convinced us that our supreme court should be given the opportunity to reconsider the issue. The most significant and influential decision on polygraph testing was one in which the eleventh circuit, sitting en banc, receded from its rule of per se inadmissibility, in *United States v. Piccinonna*, 885 F.2d 1529 (11th Cir.1989).” *Id.* at 863. In *Santiago*, despite the certified question, the defendant decided not to pursue the case further. *Narval Hardware*, 868 So.2d at 575. In *Narval Hardware*, the Florida Supreme Court denied review. As such, the admission of polygraph tests are subject to review under *Frye*.

e. [§14.23] DNA Evidence

The Florida Supreme Court has opined several times about the admissibility of DNA (deoxyribonucleic acid) evidence. DNA evidence is admissible under the test established in *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923), 34 A.L.R. 145. *Everett v. State*, 893 So.2d 1278 (Fla. 2004); *Butler v. State*, 842 So.2d 817, 827 (Fla. 2003). The DNA testing process and probability and statistical analysis of DNA samples are used predominantly in criminal cases.

f. [§14.24] Sexual Abuse Legitimacy Scale

In *Page v. Zordan by & through Zordan*, 564 So.2d 500 (Fla. 2d DCA 1990), the court found no evidence to support recognition and acceptability within the scientific community of the sexual abuse legitimacy scale, and, therefore reversed the trial court because the court had allowed a clinical psychologist to testify concerning that test. As to other sexual abuse tests, see *Correia v. State*, 695 So.2d 461 (Fla. 4th DCA 1997).

g. [§14.25] Serum Blood Alcohol Test

Serum blood alcohol tests have been held by the Florida Supreme Court to meet the standard of general scientific acceptance. *Domino's Pizza v. Gibson*, 668 So.2d 593 (Fla. 1996).

h. [§14.26] Computer Animation

In *Pierce v. State*, 718 So.2d 806 (Fla. 4th DCA 1997), see §14.4, the court addressed the admission of computer animation as a demonstrative exhibit. The court found that as a demonstrative exhibit, used solely as an illustration of a witness's testimony, computer animations were not subject to the *Frye* test (see §14.18). The court allowed the computer animation as demonstrative evidence, finding that the same foundation requirements that must be established to admit any pictorial representation applied to computer animation as well; *i.e.*, that it is a fair and accurate depiction of what it purports to depict. See also *Campoamor v. Brandon Pest Control, Inc.*, 721 So.2d 333 (Fla. 2d DCA 1998). The court in *Pierce*, 718 So.2d at 809, quoted *People v. McHugh*, 476 N.Y.S.2d 721, 722–723 (Sup.Ct. 1984), which stated:

A computer is not a gimmick and the court should not be shy about its use, when proper. Computers are simply mechanical tools — receiving information and acting on instructions at lightning speed. When the results are useful, they should be accepted, when confusing, they should be rejected. What is important is that the presentation should be relevant . . . , that it fairly and accurately reflect the oral testimony offered and that it be an aid to the jury's understanding of the issue.

IV. PRACTICAL CONSIDERATIONS

A. [§14.27] Logistics

Whether an exhibit is to be used by counsel or by a witness, the attorney should consider how it is physically handled in the courtroom in relation to the bench and the jury box. Blowups that seem large enough in the attorney's office may not be viewable by the judge or the jury. The practitioner should be certain that the lighting in the courtroom will allow effective use of certain graphic presentations. If the lawyer intends to present demonstrative evidence through advanced technology that is not common practice before the presiding judge, he or she should raise the issue with the court and opposing counsel at a pretrial conference. If the lawyer decides to use computer animation or video, it is good practice to have a designated person responsible for the cuing of the video or animation and to operate the equipment.

C. [§14.28] Videotape/DVD

If videotape and/or DVD is an important part of the case, it is important to ensure that (1) the machine being used is in working order; (2) the machine can be used with a minimum amount of fast forwarding and rewinding to find the right section to be played; and (3) all the necessary wiring and electrical outlets are available in the courtroom. The attorney should consider bringing not only a backup monitor (television set), but also a backup videocassette/DVD recorder and an extension cord. The lawyer may also want to arrive early in the courtroom to establish the best place for the fact-finder's viewing of the videotape/DVD. If the videotape/DVD is of deposition testimony in which there are objections, there must be either an edited recording after the court has ruled on the objections or an agreement to turn the volume off as appropriate so the jury does not hear inadmissible testimony.

D. [§14.29] Graphics

Counsel should consider what kind of graphics best suit the evidence. For example, time lines work well in telling a story and are useful in personal injury, medical malpractice, commercial, and many other types of litigation. Pie charts are effective for explaining allocation of damages and other percentage type issues. Graphs and charts, on the other hand, may be most useful in explaining concepts and themes.

E. [§14.30] Real Evidence

When dealing with real evidence, it helps to be mindful of one's apparent attitude and physical movements with respect to particular objects. For example, the attorney should not hold or present a work of art or a diamond necklace in the same manner as a weapon or an automobile tire.

F. [§14.31] Computer Animation And Simulation

Computer animation and simulations are very effective in causing jurors to feel that they are having a first-hand experience. However, they are extremely expensive. Therefore, the lawyer should be as sure as possible of their admissibility, before spending the money to create the exhibits.

G. [§14.32] Disk-Based Litigation (CD-Rom And
 Laser Disk Presentation Devices)

Systems are now available that can store thousands of graphic images and provide immediate access to them. They enable the user to provide instant zooming and highlighting on any particular image. However, just because this can be done does not mean it should be done. Consider your budget and whether this method of presentation will truly assist the jury in understanding your case.

H. [§14.33] Conclusions

All too often the creation of demonstrative evidence becomes a last minute decision before trial. Fortunately, companies that specialize in trial graphics can usually accommodate an attorney's request within hours rather than days. However, properly developed and effective demonstrative evidence requires careful planning. In working on each phase of trial — whether the opening statement, fact witness testimony, expert witness testimony, or summation — analysis should include whether any demonstrative evidence would be necessary or advantageous.

It is first necessary to decide whether the use of demonstrative evidence is warranted for either proof, reinforcement, explanation, or illustration of an issue. Then counsel should decide the medium for presenting the evidence (*e.g.*, videotape or photograph, diagram or drawing, chart or time line, blowup poster, or original-size exhibit). Whatever medium is decided on will prompt admissibility and foundation analyses. Strategically, stipulations or pretrial rulings avoid the need for lengthy foundations. However, there are circumstances when the thoroughness of a foundation can play an important role in jury persuasion. For example, it may serve to emphasize the importance of a particular piece of evidence.

Although few deny the value and effectiveness of demonstrative exhibits, some people believe that too much technology in the courtroom and too much information in a sophisticated software-produced chart is counterproductive. See McElhaney, *Gizmos in the Courtroom*, 83 A.B.A.J. 74 (Nov. 1997). Professor McElhaney's anecdotes include lawyers who use only "plain vanilla" blowups that "don't go away when you turn off the switch," and lawyers who do not use blowups anymore but prefer "little snapshots" so none of the evidence seems "manipulated or contrived." *Id.* at 75. Exhibits that are too glitzy or too detailed may lack persuasive force. In the same vein, using too many demonstrative exhibits in trial may dilute the impact of all of them. Nevertheless, we are living in a high tech era, so the use of modern demonstrative aids are sometime essential.

