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Trial Aids in Highway Condemnation Cases

A report submitted under ongoing NCHRP Project 20-6, "Right-of-Way and Legal Problems Arising Out of Highway Programs," for which the Transportation Research Board is the agency conducting the research. The report was prepared by Delbert W. Johnson. Larry W. Thomas, TRB Counsel for Legal Research, is principal investigator, serving under the Special Technical Activities Division of the Board.

THE PROBLEM AND ITS SOLUTION

State highway departments and transportation agencies have a continuing need to keep abreast of operating practices and legal elements of special problems involving right-of-way acquisition and control, as well as highway law in general. This report deals with the use of trial aids in eminent domain litigation.

This paper is included in a three-volume text entitled, "Selected Studies in Highway Law." Volumes 1 and 2 were published by the Transportation Research Board in 1976 and Volume 3 in 1978. Together they include 45 papers and more than 2,000 pages. Copies have been distributed to NCHRP sponsors, other offices of state and federal governments, and selected university and state law libraries. The officials receiving copies in each state are: the Attorney General, the Highway Department Chief Counsel, and the Right-of-Way Director. Beyond this initial distribution, the text is available through the TRB publications office at a cost of $90.00 per set.

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INTRODUCTION

It long has been recognized by advocates and instructors that combining "things" with words can increase understanding, and trial lawyers have been among the most innovative in pursuing this technique. The benefits are not singular. Judicious use of aids in combination with oral communication, in addition to increasing audience understanding, can shorten the communication process, help keep the interest of the listener, and enhance the convincing power of an argument. Any object or visual process that combines with words can aid the trial attorney in a condemnation case. This paper is concerned with trial aids in this broad sense.

This paper is concerned, not primarily with trial techniques generally, but with use of various objects and devices to supplement oral testimony and argument in eminent domain cases. Because procedures as well as substantive law vary, sometimes significantly, with each jurisdiction and with the character of the trial body, the suggestions made here may not have universal application. Yet, some of the suggestions can be used or revised to aid value advocacy under most circumstances.

This paper is not intended as a treatise on admissibility of evidence. There are well established, generally recognized rules common to most jurisdictions and, occasionally in some, there are unique qualifications for receiving condemnation evidence. These general rules are not dissimilar in most instances to the rules of evidence in other types of trials. This paper treats some of these admissibility problems and suggests a course based on these general rules. The specific law of the jurisdiction where the evidence is to be used should be checked, however.

Another thought worthy of mention is that review of the reported appellate cases does not always give a valid impression of trial practice. For example, an appellate report may give the mistaken impression that some practices in condemnation cases are unique, little used or questionable, whereas in truth the practice is widespread. Appellate cases do not indicate the extensive use being made of exhibit evidence. In view of the general trial use of such evidence, there are relatively few appellate cases on admissibility, particularly cases which concern

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themselves with the *form* as distinguished from the substance of the evidence offered. In every day practice, few offered "things" for the aid of a jury or judge are actually refused. A great variety of visual objects are routinely admitted either as evidence of the facts, figures, or quality impressions they display or as "illustrative" of verbal testimony.

Traditionally, trial lawyers have subdivided their thoughts and related trial problems to the several stages of a trial—opening statement, evidence, and argument. This paper is organized to accommodate these stages. A second subdivision of the material is by type of exhibit or object considered for use.

OPENING STATEMENT

The opening statement in most jurisdictions will be limited to forecasting the issues and the evidence. Although a condemnation case narrows ultimately to a one-issue trial—what is the just compensation —necessarily there will be collateral or subissues which when developed will control the outcome of the trial. Successful resolution of these subissues will furnish the foundations for satisfactory disposition of the principal issue. To overlook these foundation details and fail to take an early opportunity to display the solid object evidence would be a mistake.

The impact of the liberal discovery rules that prevail in most jurisdictions has reduced the likelihood that at the start of the trial either party has any significant surprise in store for the other. It is also likely that the parties are substantially aware of each other's positions and evidence, including exhibits to be offered. Consequently, present day opening statements in most instances will be open as well as procedurally first, and the more evidence that counsel can expose to the court or jury the more helpful the opening statement will be. And in helping the court or jury, the trial lawyer helps himself if there is merit to his case.

As the sophistication and the cost of preparing condemnation evidence increased, the responding party, in most jurisdictions the landowner, has increasingly come to depend upon the condemning agency to provide the basic evidence that will explain the facts underlying the dispute. Almost always a highway agency has prepared the engineering evidence, a survey of subject property, scale drawings, and details of the highway plan which require the taking of property. Frequently there is also photography of all or part of the lands affected by the agency's plans. Regardless of form, such basic evidence is routinely admitted as it is needed and relied upon by both parties. The opening lawyer, ordinarily the highway lawyer, has the opportunity in his opening statement to show this evidence, claim it, and let it be known that this basic evidence is accepted by both parties.

In one way or another most trial procedures will permit use of this

basic exhibit evidence during and in aid of opening statements. Counsel may stipulate that it can be used, in which case the trial judge will not interfere; or the court may permit such use notwithstanding the fact that formal admission occurs later if counsel assures the court that the evidence will be such as is routinely admitted and its use in opening statement will aid the jury. In jurisdictions where pretrial orders govern the admissibility of exhibit evidence, there should be no impediment to a jury's viewing such basic evidence as an integral part of an opening statement.

Use of plans, drawings and maps, or aerial photographs is almost mandatory for orientation of the court or jury. The property location, its size and dimensions, the general outlines of the highway plans, the size and shape of any remainder, like basic, probably undisputed facts, are much more quickly and clearly explained with the aid of appropriate visual exhibits than with any amount of words alone. In most jurisdictions there are standard county or city maps in common use that are not objectionable for orientation purposes. These maps may also serve later in the trial to locate the comparable sales or other comparable economic data to be used by both parties. If a view of the property by the court or jury is anticipated, one can also relate the subject property to the place of trial and, sometimes, the likely route to be traveled. A few minutes of basic orientation with such visual aids will permit the court or jury to gain early, a grasp of the background to the specifics of the dispute to be resolved.

Jury or judicial reliance on counsel is a significant factor in resolution of seeming conflicts in the evidence, and the degree of reliance engendered affects the conclusions in a somewhat proportional manner. The lawyer who starts early in giving the court or jury the benefit of a simple, clear picture of the problems to be resolved will encourage that reliance which the trial lawyer seeks to build. Strategically, the condemning agency lawyer, accorded the privilege of opening in most jurisdictions, has the opportunity to steal the show by using not only his own but also the opposing parties' basic exhibit evidence in opening statement.

THE JURY VIEW

A view of the premises is the best of all trial aids for increasing the understanding of the problems, and it is permitted procedure in virtually every jurisdiction.[1] Whether the jury view is regarded as direct evidence or as simply permissible to aid the fact finder to understand the evidence,[2] the result is the same. The owner's exaggerations or the

[1] 5 Nichols, EMINENT DOMAIN, § 18.3; Annot., *Right to view by jury in condemnation proceedings*, 77 A.L.R.2d 548.

[2] See Annot., *Evidentiary effect of view by jury in condemnation proceedings*, 1 A.L.R.3d 1397; see also 5 Nichols, EMINENT DOMAIN, § 18.3.

condemning agency's depreciations become equally apparent. The vividly described "extremely valuable industrial tract," can become just another piece of land near the railroad tracks. The "wonderful place to live and raise a family" becomes the modest, economy dwelling that the owner could not afford to vacate until the public needed his property. More than any evidence introduced in the courtroom, and certainly far better than any possible utterances of the lawyer, the jury's understanding of the situation can be enhanced and aided by a view of the property. Although it is not so, a jury view ought to be mandatory in most cases.

It can be argued convincingly that a view of the premises is more helpful either when done at the close of the evidence or at the beginning. It has been the author's experience, however, that a view after having the benefit of brief orientation evidence satisfies the needs of the fact finder in the great majority of condemnation cases. With a view and a basic understanding of the premises, one has an ability to receive the expert witnesses' value evidence with an appreciation for its application to the property in question.

There are instances when a jury view of the premises would not aid the trier of the fact and other instances when a view would actively mislead. For example, when the subject property is a total take, and the improvements have been removed and the highway construction completed, a jury view is totally irrelevant. Where the property has been vacated and vandalized or otherwise substantially depreciated because of the influence of the highway activities, a view is likely to prejudice the owner's case. In a few other instances, a jury view should not be taken, but the decision is generally for the discretion of the trial judge.[3] When one party or the other argues against a jury view, the odds are there is a desire to conceal something about the premises.

The appearance of property like the appearance of people can be enhanced by grooming, and property is groomed for trial purposes. A certain amount of effort to that end and purpose is legitimate, as one cross-examining attorney learned after asking the farmer why he cut all the weeds, white-washed his fences, and parked his machinery in a row for the jury. The simple response was: "Why did you shave before court today?" In another case, where a log dump had been unused for 10 years, the jury discounted the effort as well as the integrity of the owner when several truck loads of logs and machinery, to work the dump, were moved in and an over-all facelifting was given the property the weekend before trial. The value of a private club will be enhanced in the eyes of the viewer when its dining halls are decked with its best linen, silver, and china which otherwise may be rarely used. Aging outbuildings to a stock ranch look much more useful and valuable with

[3] State Road Comm'n v. White, 22 Utah 2d 102, 449 P.2d 114 (1969); Commonwealth, Dept. of Highways v. Eberenz, 435 S.W.2d 753 (Ky. 1969); see also 5 Nichols, EMINENT DOMAIN, § 18.3 [3].

fresh straw on the floors, feed in the bins, and overrunning with cattle than when unoccupied and unused as they were when appraised by the condemning agency. It is a fair precaution for the highway trial lawyer to check the property immediately before trial for such efforts to groom the property for the benefit of the jury, legitimate and otherwise.

The appearance of the property will vary with the time of year. Pasture and croplands will look more nearly their claimed value when viewed with the lush growth of spring than when covered with snow in the winter, and the vine-covered cottage is more attractive when the vines are growing than when the leaves have fallen. Likewise, within the juror, after the confinement of winter, there is a feeling of exhilaration to be out on a warm spring day. This too can affect the valuation processes of the condemnation trial. The highway lawyer has some ability to control the time of trial, and he should not overlook an opportunity to keep the appearance of subject property in a proper perspective, including avoidance of such seasonal trial advantages to the owner.

After a jury view, the photos of the front of the residence with the flowers in full bloom are properly placed in perspective as the jurors will remember the railroad track behind, the junkyard next door, or the falling-down condition of the back porch. Each juror's silent comparisons of his own observation and recollections of the subject property with the description given by each witness, cross-examines more effectively than any question of counsel. Particularly in the case of residential property, it is a frequent experience for many people to value and compare residences. Most jurors have a good grasp of the price of their own residences and the cost of the ones they would like to have but cannot yet afford, and silently, each expert is cross-examined according to such basic knowledge held by jurors.

OFFERS, OBJECTIONS, AND ADMISSIBILITY

The rules of admissibility relating to object evidence are applied with essentially the same rationale as with oral testimony. Consequently, one is concerned primarily with basic questions of competence, materiality, and relevance. It is the author's experience that rejected offers of exhibits are much more frequently grounded on these basic principles than on the object form of the evidence.[4] For example, in showing the conditions of the condemned property at the time it is to be valued, a point of unquestioned relevancy, few admissibility problems can be anticipated even though offered exhibits may contain some extraneous, possibly erroneous material. But when the relevancy link

[4] In City of Pleasant Hill v. First Baptist Church of Pleasant Hill, 82 Cal. Rptr. 1, 1 Cal. App. 3d 384 (1969), admissibility of a development plan and three dimensional model was considered by the court on the grounds of competence and admissibility of future plans of the owner without any comment on the form of the evidence.

is stretched or obscure or where the offering is speculative, the stated reason for exclusion may be buttressed by an unwarranted comment on the form of the evidence. Thus, generally, admissibility of objects in condemnation trials is not a unique evidentiary question.

Assistance may be obtained on admissibility questions in the standard evidence treatises. Relatively little space is devoted to "nonverbal testimony" and the use of "maps, diagrams, and photographs" in 3 WIGMORE ON EVIDENCE (Chadbourn Rev., 1970), but see Sections 789–798, 3 JONES ON EVIDENCE (Gard, 6th ed., 1972), presents a generalized discussion of "demonstrative evidence" (Ch. 15) but does not relate the discussion particularly to eminent domain trials and use. 5 Nichols, EMINENT DOMAIN is primarily concerned with the admissibility of the substance of the evidence, but frequently there is some discussion and there are cases cited relating to the form of the evidence. Whitkin, CALIFORNIA EVIDENCE (2d ed., 1966), also has sections (629–47) on "demonstrative" or "real evidence." A resume of the law on admissibility of photographs and models in eminent domain trials is found in 23 A.L.R. 3rd 825.

The essential procedural difference in treatment of object evidence is that the object will not validate itself unless the parties agree on the authentication. Some witness must vouch for an object as reliable. The basic simplicity of this process is illustrated in the new federal rules of evidence. Rule 901(a) of the recently adopted Rules of Evidence for United States Court and Magistrates states simply that:

> The requirement of authentication or identification as a condition precedent to admissibility is satisfied by evidence sufficient to support a finding that the matter in question is what its proponent claims.

This procedural step in offering such evidence has been simplified under the pretrial rules practiced in the Federal courts and in many State courts, but without agreement on authentication some person must explain why the exhibit is reliable enough for use for the purpose for which it is offered.

In the case of a photograph showing the condition of the premises, common present practice has been reduced simply to asking a witness who has seen what the picture purports to portray in substance: "Is that what it looks like?" Other object evidence may require more explanation. A model, for example, should be vouched for by the maker or some qualified person who has checked it and can say that it is an accurate portrayal of what it represents.[5] A graph requires an explana-

[5] Arkansas State Highway Comm'n v. Rhodes, 240 Ark. 565, 401 S.W.2d 558 (1966); but accuracy may not be sufficient. *See* San Mateo County v. Christen, 22 Cal. App. 2d 375, 71 P.2d 88 (1937). On use of models generally, *see* Annot., *Propriety, in trial of civil action, of use of model of object or instrumentality, or of site or premises, involved in the accident or incidents,* 69 A.L.R.2d 424.

tion of the scheme and the origin and nature of the data that it displays. Thus, the vouching process varies only slightly with the nature of the offered object.

The vouching obligation is enlarged when the purpose of the offered evidence is experimental or "demonstrative" in which case one is trying to duplicate a result. Admissibility in such instances requires a showing of the presence of substantially the same conditions during the performance of the demonstration or experiment as those obtained at the relevant time in question.[6] Condemnation trials ordinarily do not encounter situations calling for demonstrations or the results of experiments, but such situations occasionally arise. In one trial the author recalls, although not a condemnation trial, but one having a noise damage question identical to a partial take or an inverse condemnation, the evidence included an in-court-performed highway noise demonstration. The purpose was to demonstrate that when the highway was completed and in operation this much of this kind of noise would interfere with and damage the hospital. Countering evidence was presented by the State that the existing hospital-generated noises result in greater patient disturbance than the highway noise.[7]

Motion pictures also may be demonstrative if they purport to show that a particular act or deed can be done in a particular way. Movies of cattle crossing over freeway structures or through culvert cattle passes are so classified because the purpose is to show that cattle will use such facilities. In the one instance the author recalls using such experimental evidence as affected by similarity or dissimilarity of conditions, he encountered but prevailed over the objection that the structure used for the experiment was not sufficiently similar to the one to be built. This problem is eliminated when the trial occurs after the highway has been built and put to use and the same structure as that in the experiment is used.

There is a fine line between *voir dire* and cross-examination. Both techniques may be used to discredit an offered exhibit. The principal distinction lies in the procedural sequence in which each occurs. If there is something significantly misleading or inaccurate about an exhibit offered by the opponent, appropriate *voir dire* examination may result in exclusion of the exhibit, but if one does not succeed in having it excluded, at least one can get early jury recognition of the unreliability of an exhibit by showing its defects. If the course of the examination lapses into premature cross-examination, the trial judge will tell counsel, and no harm is done. Even though an exhibit ultimately

[6] Annot., *Exclusion from courtroom of expert witnesses during taking of testimony in civil case,* 85 A.L.R.2d 479. Experimental evidence is affected by similarity or dissimilarity of conditions.

[7] Deaconess Hospital v. Washington State Highway Comm'n, 66 Wash. 2d 378, 403 P.2d 54 (1965). For an earlier comment on noise as evidence by this author, see Johnson, *Noise for the Highway Lawyer,* Proceedings of American Association of State Highway Officials (1964).

may be admitted, judges have a way of helping inadvertently in such situations by responding to an objection and saying something depreciatory about the offered exhibit, such as "it doesn't have to be absolutely accurate to be admissible" or "it can come in for what it's worth." Thus, counsel should not overlook an opportunity to put an exhibit into proper perspective even though it may be admitted.

USE OF AIDS IN CROSS-EXAMINATION

Trial aids may be employed in cross-examination as well as in direct testimony. If discovery has permitted the identification of comparable sales or even only "sales considered" by the opponent's appraiser, pictures of these may be obtained in advance of trial and used on cross-examination. Pictures of properties described as "comparable" by a witness frequently disclose the degree of comparability to be minimal and consequently depreciate that witness' credibility on his ultimate conclusion of just compensation.

Where location is a significant factor of value or comparability, an ordinary map of the city or county wherein the subject property is located can be used effectively by cross-examining counsel simply asking the witness to mark the map with each significant location. This author recalls vividly the devastating effect of the owner's attorney's cross-examination of his witness on the State's contention that the value of a restaurant was adversely affected by its location. With a standard city map as an exhibit, well known and popular restaurants were located one by one and marked in felt pen on the map. When a significant array of such prominent restaurants had been located on all areas of the map, upon request, the author's witness placed subject restaurant almost dead center on the exhibit. Location of the subject restaurant thereafter became a factor enhancing the value and the verdict rather than a liability.

The landowner's description of the rock on his lands as "hard riprap quality quarry stone" was shattered along with his exhibit when a young cross-examining lawyer with an engineering degree, some geological experience, and a bear cub's reaction detected a fault line in one of the two rocks admitted at the request of the landowner. As he struck the two rocks together and shattered the faulted one, the attorney's rhetorical question, "Do you call that hard rock?" need not have been answered.

A claimed shopping center site can lose some of its potential for such purposes when a witness locates the nearest market area a substantial distance away. The market value of lands for gravel, rock, topsoil, and the like, depreciates as markets are located more than an economic haul away. Income property may lose its luster in the light of the earning history of the property found in the owner's income tax returns used as exhibits, and pictures of cattle using crossing structures over or under freeways will cause even the most adamant witness

to admit the possibility that animals will use such damage-reducing crossing facilities.

If opposing witnesses have not been asked to put their appraisal outlines into visual form and counsel detects a weakness or error in the appraisal testimony, he can ask them to place their calculations on a tear sheet or do it himself as they testify on cross-examination. In this way any error can be emphasized and the jury can be easily reminded in final argument by placing the error visually before them again.

CLOSING ARGUMENT

If for some reason visual outlines of the principal steps of the appraisal testimony were not made by counsel's own witnesses during presentation of their oral testimony, he should prepare some. Counsel's closing argument should include such a visual summary. Without such an aid, there is little likelihood that jurors can be made to recall the significant details of the appraisal testimony long enough for the information to influence their verdict. Where there have been several appraisal witnesses, a visual summary of the significant features of all can be combined in a single chart. Highlighting the particular figure that the jury is asked to accept can be done by use of arrows, circles, contrasting color or size, or other such attention generating techniques.

In addition to review of the appraisal summaries, closing argument should include at least a brief revisit of the exhibit evidence that will support the position taken. Most jurors will respond to a lawyer's reasonable suggestions to look at or consider a particular piece of evidence. Service as a juror is not a familiar role to most people and jurors look for reasonable guidance from lawyers. Most will feel an obligation to look at the exhibits with a particular purpose in mind if asked to do so. It is in the deliberation of the jury or court that exhibit evidence is most valuable. Exhibit evidence is unlike oral testimony in that there may be several versions of the evidence dependent upon the memories of the jurors. The exhibit is present in the jury room to testify again and again, as often as there are eyes to view it. It is this repetitive capacity of the exhibit and the natural preference of people for the trustworthiness of objects over words that give extra convincing power to exhibit evidence. Ask the jurors to put the exhibits deemed significant before them while they deliberate. There is a good chance that they will feel obligated to do so.

Argument, like evidence, can be visually supplemented. Generally, unless some misrepresentation or unfairness results, counsel will be permitted wide latitude in use of visual aids in argument.[8] Where

[8] Annot., *Counsel's use, in trial of condemnation proceeding, of chart, diagram or blackboard, not introduced in evidence, relating to damages or the value of the property condemned,* 80 A.L.R.2d 1270; Belli, *Use of Blackboard and Related Visual Aids,* 5 Am. Jur., *Trials,* § 577.

there is time to do so, a tear sheet sequence of illustrations of the points to be emphasized can enhance the closing argument. A list of the qualifications of one's prize appraisal witness, the principal features of the comparable sales and the subject, a chart explaining the kinds and amounts of depreciation of the improvements, the capitalization formula used with the figures, the gross income, expenses and net income—any of these may help to remove the mystery and help the jury to understand and accept the approach to valuation urged as valid.

PREPARATION AND CHOICE OF EXHIBITS

As is sometimes the case in other fields of litigation, in condemnation trials it too frequently happens that choice and presentation of evidence is influenced more by habit or what is already available than by specific analysis of the issues. It cannot be overemphasized that as a first step to presentation of evidence, visual as well as oral, one must identify the point he wishes to make and anticipate the points that will be made by the opponent. A sound habit to acquire is to approach each trial preparation by answering the question almost invariably asked by a former trial judge greatly admired, if not loved, by attorneys practicing in his court: "What's your proposition, counsel?"

Presentation of the customary highway right-of-way map which shows subject property as well as several other parcels and data about each along with the highway plan in the total take of a residence undoubtedly would introduce more confusion than aid in such a simple case. In such cases, the size, age, condition, appearance, and location of the residence are of concern to one who must resolve the value differences. The nature of the highway project in such a case would be utterly irrelevant, inappropriate, and a hindrance rather than an aid in the trial.

Almost without exception a condemning agency will have prepared some basic scale drawing for multiple uses, most for purposes other than trial. This simple fact suggests that these multipurpose maps be skeptically reviewed to see if they are appropriate for the specific purposes of a particular trial. Several fundamental contemplated uses of such plans probably are inconsistent with trial use. For example, plans developed to the stage of construction contract specifications will exhibit an array of detail confusing even to the engineer. Needless to say, such drawings will also confuse jurors.

Fortunately, modern drafting and reproduction techniques are such that removal of superfluous details is not unduly time consuming or expensive. Another more frequently used technique to break through the accumulated detail of such maps for trial purposes is to emphasize the trial-important details by use of color, heavy lines, tape, shading, and the like. Developing a new exhibit map is almost always a better approach than trying to modify a multipurpose map because it removes the extraneous detail entirely from the trial and from possible

misinterpretation. It is not unusual to learn of some significant misunderstanding or confusion created by details shown on such exhibits that are completely unrelated to the trial. For example, a restored local circulation or frontage road may carry the words "county to maintain" on the multipurpose plan sheet. Jurors may be forgiven for thinking "what if it doesn't" when it is another agency in court promising to build the replacement, damage-reducing access road.

In addition to removing excess or confusing details, trial preparation should include the addition of other relevant details. There are many ways to do this. Some of the standard techniques follow:

Plastic Overlays

A basic engineering drawing or aerial photograph with successive clear plastic overlays can be a very versatile method of developing the evidence. Particularly, it accommodates differentiating the "before" and the "after" in partial takes. With a series of three exhibits—a base drawing or photograph, a first overlay showing the particulars of the property; its size, shape, and dimensions in the "before," and a second overlay with the highway in place, and similar information about subject property in the "after" can be qualified and admitted in stages. In this way the story can be built up before the jury in its logical sequence, with separate witnesses for each stage if necessary, and each stage can be viewed separately or in combination.

Where drainage, grade, or access patterns are to be altered and the altered condition is a possible source of a damage, a "before" drawing or color-accented aerial photograph can be supplemented with an "after" clear plastic overlay with the altered conditions.

In one trial where "special benefits" was the principal subissue, after using a color accented, scaled aerial photograph for a base before exhibit and one plastic overlay to illustrate the highway as it would be constructed across the property in the after situation, another multicolor plastic overlay was added to illustrate the highway appraiser's conception of where the benefits and the damages to the remainder fell. Benefited areas of heavy blue shaded off into lighter blues and ultimately to clear to illustrate the contour-like gradations of the special benefits. While not every witness will have so clear a picture of where and to what extent the remainder is benefited, when one is found with such a clear view, his ideas in this regard can be graphically and advantageously illustrated by plastic overlays.

Traffic patterns are readily illustrated by overlay techniques; and complex interchange drawings, with the use of such an overlay, change from hen scratchings to understandable, sometimes logical, schemes to the juror. There is a report of an intriguing and novel use of successive plastic overlays by the condemning agency upon the landowner's base map to illustrate the existence of platted streets, sewers, and railroad

rights as impediments to development of a great convention center scheme for which the property was otherwise ideally suited.[9]

It would not be an overstatement to say that whenever successive situations are relevant to an issue, whenever it is desirable to isolate certain visually representable facts from a greater number of facts, or whenever such additional facts are to be added in a condemnation trial, one should consider developing plastic overlay exhibits for trial use. Such exhibits are inexpensive and within the capability of every highway agency. Overlays should be made to be easily removed and replaced to accommodate examination or cross-examination of witnesses. They can be invaluable trial aids.

Scale Models

Three dimensional scale models have an ability to present a great many details in relation to each other. Where the fact situation is complex and the size of the trial will justify the expense, a scale model should be considered. Highway agencies and other project developers have used scale models for many years and the principal purpose in their use has been to show what the project will look like when complete. Models can do the same very effectively in a condemnation trial. Interchanges and urban highway sections frequently have been portrayed with models. Relationships of highways and nearby remainder properties are illustrated more clearly and simply in this way than by any other method of communication.

There are problems in the use of models that may outweigh their benefits: cost is one. Where the cost is high one is forced to consider early the related question of admissibility.[10] Scale model-making talents may not be found in most highway agencies. Depending upon the complexity and size, a model may be a relatively expensive undertaking. Many hours of detail work are required to produce the necessary accuracy. This entails close cooperation between the model maker and the engineers knowledgeable about the highway plans. In addition, model exhibits are awkward to transport, set up, and move in the courtroom, and court clerks dislike them because of storage problems and complications in preparation of appeal records.

Some trial problems virtually demand the use of models. One the author recalls resulted in both sides preparing and presenting models. There were problems of proximity highway noise that was different for each floor and each building of a large hospital adjacent to the planned interstate freeway. In addition, there were issues of local access resulting from severance of through streets, obstructions of

[9] Lichty, *Use of Demonstrative Evidence in Condemnation Trials,* Proceedings of the Eleventh Annual Workshop on Highway Laws, Highway Research Board (1972).

[10] See Thompson, *Use of Scale Models in Condemnation Trials,* Proceedings of the Tenth Annual Workshop on Highway Law (1971), for related problems of admissibility and cost.

view, and remedial rearrangement of subject in partial cure of the resulting problems. Each party produced its own model and both were admitted and used in trial and on appeal.

Sometimes models can be used effectively to show the subsurface conditions where the extent and feasibility of extraction of mineral or gravel deposits are issues. One model used in such a case consisted of contours of the surface made with papier-mache into which removable wooden dowels were fixed to represent the several locations on the property where core drilling explorations were carried out. Each dowel was separately colored to show stratification and classification of the subsurface materials into overburden, gravel, sand, and "unsuitable" corresponding to the samples taken in each test hole. This illustrated for the jury the amount and location of the gravel and supported the expert engineering testimony that some of the gravel could not be removed feasibly because of the extent of the overburden or the depth of the deposit. The price was lowered accordingly. Another type of model that would serve well in a materials case can be made with stirafoam with a different color for each type of deposit. When cross-sectioned, the layers can be viewed in relation to the others for a perspective of amount and location of the materials.

Construction and reconstruction of existing improvements to adjust the remainder to highway plans are readily shown by use of models. Readjustment of a substantial improvement on the remainder can be illustrated by a model constructed so that the before condition, by removal or addition of parts of the model, can be made to represent the after condition.[11] The appearance of the highway from the remainder property and other visual concerns also are depicted readily with models.

Diagrams, Charts, Graphs, and Maps

Graphic representation of relationships by charts and diagrams has been used in innumerable ways. Comparing and relating data frequently comprises the principal activity of a condemnation trial, and the party that does it more convincingly gets the judicial or jury approval. The visual exhibiting of ideas can be useful in several ways, and an infinite number and variety of drawings have been admitted to illustrate and explain verbal testimony.[12]

All but the complete novice in condemnation trial practice will have used a diagram or chart to supplement the testimony of the expert appraisal witness. Several techniques are employed, each giving em-

[11] City of Pleasant Hill v. First Baptist Church of Pleasant Hill, 82 Cal. Rptr. 1, 1 Cal. App. 3d 384 (1969).

[12] Annot., *Evidence: Use and admissibility of maps, plats, and other drawings to illustrate or express testimony,* 9 A.L.R. 2d 1044; Annot., *Counsel's use, in trial of condemnation proceeding, of chart, diagram, or blackboard, not introduced in evidence, relating to damages or the value of the property condemned,* 80 A.L.R.2d 1270.

phasis to subconclusions and conclusions of the witness, depending on the particular appraisal techniques used. For example, where the cost depreciation method of valuing an improved property has been employed one could chart the several major steps in the appraisal process. The land value from comparable sales, the cost new, separating the major subdivisions, the depreciation, including kind and amount, and the arithmetic employed, with the value conclusions, are arrayed on a placard or scratch pad. These visual summaries may be prepared in advance of trial, or they may be made by the witness as he testifies, or by the attorney writing the information as the witness testifies. Thus, the substance of the testimony is emphasized in the jurors' minds having both heard and seen the process and the figures. The tear sheets or placards are placed again before the jurors on final argument. Ordinarily, where objection is made these illustrated exhibits are not entitled to be taken into the jury room as other exhibits are because their admission would constitute undue emphasis of that evidence. In some jurisdictions, however, it is customary practice for the court to admit both sets of appraisal summaries to refresh the memory of the jury during deliberations.[13]

Where the appraisal is from comparable sales; the principal comparables, their dates of sale, sizes, ages, locations, and other comparability factors and their sales prices are arrayed with the same information about subject property. In this way, the jury is given a comparison chart to view while listening to the testimony. These permit quick valid visual comparisons. If the witness is to be asked to write these onto a placard or king-sized scratch pad during trial, he should be required to prepare a small version before trial to remind him and serve as a visual check during his trial performance. The uneasiness that most witnesses feel during trial gives rise to errors of all sorts including such distracting things as disproportionate use of the placard space.

Besides appraisal summaries, a chart or graph can be used to correlate numerous data into understandable perspectives. For example, the author recalls the owner's industrial engineering expert reading and offering as an exhibit four typewritten pages of figures arranged into columns identified as ambient air samples taken at several sites, some adjacent to the freeway and some at stop-and-go city street locations. These air samples were tested in the laboratory and the results, expressed in parts per million, were logged on the exhibit. He summarized the point "these tests prove that significant dangerous air pollution will result from freeway traffic." The witness had identified air quality standards for hydrocarbons and carbon monoxide in parts per millions accepted by the air quality professions. During an overnight recess these figures were rearranged to form simple line points on a chart with

[13] Wilson v. United States, 350 F.2d 901 (10th Cir. 1965).

the concentration arrayed vertically and the time of day horizontally. Then the ambient air standards were placed horizontally across the chart. The result showed clearly that only at the stop-and-go traffic sample sites did the concentration of pollution approach an amount considered deleterious to health. Thus, it was argued that construction of the freeway would cause less air pollution to the subject than the stop-and-go traffic facility then serving it.

Where the argument centers about access, particularly where the access pattern is complex, a traffic diagram will serve well. A simple scale drawing of subject property with adjacent streets and roads upon which a direction of travel line with arrows has been placed can illustrate the property's access much more quickly and understandably than the most exacting verbal description. In one case the landowner's attorney illustrated the old familiar saw attributed to the farmer who was having difficulty directing the tourist to a local point of interest and finally concluded: "you can't get there from here." In this particular case, to get to the remaining property from the adjacent traffic artery which previously served as its access, the motorist had to travel past the property two blocks, turn right for a block and a half, turn right onto a diagonal three-lane, one-way street, get into the left lane within a block and left turn onto a half-width, one-way street. Since the property was a retail commercial property before the partial taking, about all the condemning lawyer could say was that with a problem of getting into the local access street, the traffic volume would be small and at least one could expect to find a place to park.

Photography

Photographs and photography as evidence has been treated so thoroughly that all that need be done here is to cite the standard work on the subject, 2 Scott, PHOTOGRAPHIC EVIDENCE, and note that photographic evidence can be used in the condemnation trial fully as advantageously as it can be used in other trials.

Aerial photography has frequent and unique uses in condemnation trials that should be recognized. No other form of evidence can compare with aerial photography for giving a jury a basic comprehension of the nature, location, size, and appearance of real property; particularly valid, quick impressions of the larger properties—farms, cattle ranches, and timber tracts—can be gained from aerial photography.

All major highway agencies routinely obtain aerial photography for new highway location and development. Consequently, an enlarged, scalable print is produced for trial use much more cheaply and quickly than an engineer's drawing. Jurors understand these prints and prefer them to drawings. The limited detail information needed in the trial can be added by adhesive plastic tape and colored pen or pencil. Admissibility is rarely a problem.[14] The principal limitation in use of aerial photographs is that because of quality control problems in the process and the tendency to distort away from the center of the photo, scaling of distances gives less accuracy on photography than on drawings. Ordinarily this is not a problem because field surveying has provided the critical distance information and there is no need to find exact distances from the aerial photograph.

For a one-stop authoritative treatment of both law and technique in aerial photography, see 2 Scott, PHOTOGRAPHIC EVIDENCE. Chapter 25 is a thorough review of the types and techniques for obtaining aerial photographs, the equipment required, and suggestions for particular uses; Chapter 26 is a commentary on the nature, use, techniques, and reliability of photogrammetry and aerial maps.

Motion pictures offered for purposes of showing the condition of the property are subject to the same admissibility rules as are still photographs,[15] but trial courts seem to have a healthy skepticism about them. Consequently, one can expect the judge to view a motion picture out of the presence of the jury even though a witness has testified that the pictures fairly depict the conditions photographed.[16] Occasionally, this same judicial sophistication and suspicion will creep into the court's attitude toward any photograph.[17]

Renderings

Proportional visual representations of the appearance of a finished highway project can be very helpful to illustrate the after condition of a property. This technique is frequently suspect to both court and opposing counsel and doubly so when condemning agency witnesses persist in calling such evidence "artists portrayals," "artwork," and the like.[18]

A specially qualified group of technicians known generally as illustrators supply this type of evidence, but not all illustrators are qualified to produce accurate proportional visual illustrations. Most highway agencies are staffed with qualified artists but most are not staffed to produce renderings of sufficient accuracy to qualify over objection.

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[14] Annot., *Admissibility in evidence of aerial photographs*, 57 A.L.R.2d 1351; *see also* Moyer v. United States, 312 F.2d 302 (9th Cir. 1963) McLemore v. Alabama Power Co., 285 Ala. 20, 228 So.2d 780 (1969); Trachta v. Iowa State Highway Comm'n, 249 Iowa 374, 86 N.W.2d 849 (1957); State *ex rel.* City of Wichita Falls v. Wood, 467 S.W.2d 648 (Tex. Civ. App. 1971).

[15] Annot., *Use of motion pictures as evidence*, 62 A.L.R.2d 686; *see also* Department of Public Works, etc. v. Oberlaender, 92 Ill. App. 2d 174, 235 N.E.2d 3 (1968).

[16] Powell v. Industrial Comm., 4 Ariz. App. 172, 418 P.2d 602 (1966).

[17] Teagle v. City of Philadelphia, 430 Pa. 395, 243 A.2d 342 (1968). A personal injury case but with language reminiscent of many a condemnation case: ". . . [It] can also be said that while photographs do not lie, there can be pictorial legerdemain which transforms a ramshackle house into a mansion, a city dump into a panoramic vista, and an ugly duckling into a swan."

[18] Wair v. State, 349 S.W.2d 637 (Tex. Civ. App. 1961).

Renderings can fulfill many of the same purposes of photographs and models to depict appearance and relationship. Where the appearance to be shown does not yet exist, one is forced to consider a rendering or a model. By comparison, the drawing will be much less expensive but also, generally, less impressive to the juror. Qualification of proportional drawings involves the same problems as qualifying a model with the additional burden of the judicial skepticism aforementioned.

Video Tape

Today's novelty is video tape. Simultaneous presentation of picture and voice will have an appeal to trial lawyers, particularly for demonstrative evidence purposes. Video tape is but a logical extension of the motion picture and its use should be governed by the same standards—is it a fair representation in which substantially the same circumstances prevail.

There is an expanding source of information on the law, the techniques, and potential practice with this new device. See 21 DEFENSE LAW JOURNAL 253 (1972); and Symposium *First Video Tape Trial: Experiment in Ohio,* 21 DEFENSE LAW JOURNAL, 267 (1972), wherein the trial judge, and to a lesser extent both counsel, became enthusiastic converts to this new technique for presentation of the *whole* trial.

It remains for the condemnation practitioner to imagine practical uses for this new communication tool. A video-taped view of the property under condemnation will be recognized as a trial time-saver, particularly so when the property is some distance from the courthouse. A video-tape view of the comparables would be more informative than simple photographs. Where improvements will have been removed by the time of trial, a video tape tour of the premises will do a more thorough job than a collection of photographs, and it should be considered.

Probably the procedures for such "views," if voice is to accompany the pictures, will be substantially those applied to the taking and use of depositions as necessary precautions for the protection of the opposing party. Except for video taped materials combined with verbal testimony taken pursuant to deposition type rules, there would seem to be only the vouching for accurate representation now prevailing for photograph evidence as prerequisites to trial use. It should be recognized, however, that where the sound portion of the tape is intended as a quality or quantity representation of the sound on the tape, for instance, the loudness or quality of traffic noise, the vouching process that applied to demonstrative evidence will have to be shown to be substantially similar in volume and quality to the original as well as the visual representations of the tape.

SUMMARY

There are infinite ways to visually supplement verbal testimony. The law of evidence will be small hindrance to the fertile mind. The party who uses well-conceived exhibit evidence will enhance his presentation and his chances of producing a convincing case. Liberal use of exhibit evidence has become a way of trial life,[19] and the client who disdains such trial aids may pay an unnecessary increment for his lawyer's aloofness.

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[19] Commonwealth Dept. of Highways v. Merrill, 383 S.W.2d 327 (Ky. 1964). Charts, maps, and color slides were all presented, apparently with considerable success.

APPLICATIONS

The foregoing research should prove helpful to highway and transportation administrators, their legal counsel, and those responsible for land acquisition. Officials are urged to review their practices and procedures to determine how this research can effectively be incorporated in a meaningful way. Attorneys should find this paper especially useful in their work as an easy and concise reference document in condemnation cases.

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