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Replacement and Apportionment as Surveying Methods for Re-establishing Property Corners

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COMMENTS

RETRACEMENT AND APPORTIONMENT AS SURVEYING METHODS FOR RE-ESTABLISHING PROPERTY CORNERS

I. Introduction and Scope

Conservation and perpetuity of boundary lines is the primary aim of the law of boundaries. The location upon the ground of such lines is determined by re-survey, and re-surveys may be classified according to method.

Retracement is a surveying method for resurrecting evidence of the location of a once established property corner. Its aim is to follow, as closely as possible, in the footsteps of the original surveyor and re-establish property corners in the exact position in which he originally placed them.[1] When a retracement fails to uncover satisfactory evidence of the exact, original location of a property corner, and detects discrepancies of course[2] and distance of the original survey as compared with those derived in the process of retracement, the applicability of the surveying method of apportionment arises. Apportionment is the method of distributing the excess or deficiency between two existent corners in such a manner that the amount given to each increment along the line will bear the same proportion to the whole difference as the record length of the increment bears to the whole record distance. It is a method of allocating the deficiency or surplus in the whole tract to the several parcels which comprise the whole.[3]

This article will categorize cases of boundary dispute according to surveying method, and will compare the applicability of the surveying method of *retracement* to that of *apportionment.* It will attempt to explain the general rules and principles of *retracement* but will not give a detailed analysis of the legal sufficiency of evidence necessary for the re-establishment of missing property corners by retracement. Attempt will, however, be made to explain *apportionment,* to state the conditions necessary for its application and to set forth its limitations, all in relation to and as distinguished from *retracement.*

II. Rules and Principles of Retracement

A. *Intention is Paramount in Determining Location*

The purpose of a re-survey of land is to locate and mark upon the ground the boundaries of the parcel of land evidenced by the descrip-

[1] Clark, Surveying and Boundaries, §9-13 (2d ed. 1939).

[2] *Course* is the direction of a line in relation to some known or assumed direction of a previous line. *Id.* §6.

[3] *Id.*, §174 1 Patton, Titles, 158 (2d ed. 1957), 3 Am. Law of Property, §12.123 (Casner ed. 1952); 11 C.J.S. *Boundaries.* §124, p. 737 (1938); 8 Am. ship. The grantor transferred property by metes and bounds description pur-

tion given in a particular deed. The legal description fails as a complete protection of the boundaries, however, because it merely describes what they are and how they are to be determined.[4] The extent of the parcel actually transferred by the deed is resolved by the intention of the grantor, so far as that intention is effectively expressed in the deed interpreted in the light of then existing conditions and circumstances.[5] This presupposes, of course, that the grantor's *intention* does not extend beyond the reaches of his own ownership. The expression of this intention in the deed may be incomplete and ambiguous; but, regardless of how bunglingly expressed, there is a strong presumption that the grantor intended a certain encompassing boundary to define the lands granted. The fact that uncertainties or ambiguities appear in the legal description does not nullify the rule of intention, but rather makes its application even more pertinent. Perhaps the most striking illustration of presumed intention is the "Texas parallelogram" case:[6] The plaintiffs contended the deed from their predecessors was void because the legal description contained a patent ambiguity and did not describe any encompassing boundary for the lands sought to be transferred; that, since the ambiguity was patent, no extrinsic evidence was admissible to cure the defect. The description in controversy read as follows:

> Lying and being situated in Tyler County, said state, on the waters of Billums creek: Beginning at the S.W. corner of William Pool land; thence east 1,220 varas[7] to the Lewis league; thence south 1,050 varas to the beginning, containing 226 acres, more or less.

The description commences at a definite, known point, then goes east for a specified distance; then south a specified distance "to the beginning." Only two boundary lines are described, which, obviously, do not enclose a particular tract of land. There is no doubt but that the deed on its face contained a patent ambiguity. But, said the court:

> An inspection of the deed shows an obvious omission of two calls which may be supplied with reasonable certainty. There are only two lines given in the recorded deed . . . forming a right angle at the corner. It would suggest itself to a reasonable mind that the land conveyed is included in the interior angle, rather than on the exterior. We are certain that more

[4] SKELTON, THE LEGAL ELEMENTS OF BOUNDARIES AND ADJACENT PROPERTIES, §2, 26 (1930).

[5] Perry v. Buswell, 113 Maine 399, 94 Atl. 483, 484 (1915). "The cardinal rule for the interpretation of deeds and other written instruments is the expressed intention of the parties gathered from all parts of the instrument, giving each word its due force, and read in the light of existing conditions and circumstances. It is the intention effectually expressed, and merely surmised. This rule controls all others."

[6] Fortenberry et al v. Cruse et al, (Tex. Civ. App.) 199 S.W. 523 (1917). See also, 1 PATTON, TITLES, §74 (2d ed. 1957).

[7] One *vara* = thirty-three and one-third inches.

> than one line is omitted, because to draw a line from the point of beginning to the end of the second line, forming a triangle, would not give the acreage called for in the deed, giving only half of the acreage. This right angle triangle, as suggested, containing only half of the acreage called for, is convincing that the land conveyed in the deed is in the shape of a parallelogram, taking the two lines as given, recurring to the beginning point and running south a distance equal in length to the second line, and closing this third line by a straight line, and thus constructing a parallelogram containing exactly 226 acres called for in the deed.
>
> We think the calls of the description in question correct themselves, and show the land intended to be described, to a reasonable certainty.[8]

The intention of the original grantor, as expressed and as inferred from the deed, is the paramount consideration in determining the location of property lines and corners.[9]

When a deed is interpreted in the light of then existing conditions and circumstances, the interpreter considers the original survey which marked the boundaries.[10] The highest and best proof of intention lies, not in the words of expression, but in the work performed upon the ground itself. Lines actually run and corners actually established upon the ground prior to the conveyance are the most certain evidence of intention. "It is by the work as executed upon the ground, not as projected before execution or represented on a plan afterward, that actual boundaries are determined.[11] The United States Congress recognized and adopted this principle in its enactment of the method of rectangular division of government lands, "The boundary lines, actually run and marked in the surveys returned by the Director, shall be established as the proper boundary lines of the sections or subdivisions for which they were intended. . . ."[12] When the monuments or marks

[8] See Fortenberry et al v. Cruse et al, *supra* note 6, p. 525.

[9] Pike v. Munroe, 36 Maine 309, 58 Am. Dec. 751, 755 (1853); Derham v. Hill, 57 Colo. 345, 142 Pac. 181, 182 (1914); Co-Operative Bldg. Bank v. Hawkins, 30 R.I. 171, 73 Atl. 617, 621 (1909); Parkinson v. McQuaid, 54 Wis. 473, 11 N.W. 682, 684 (1882), citing: Johnson v. Simpson, 36 N.H. 91; Railroad v. Steleger, 61 N.Y. 348; Jackson v. Dunsbaugh, 1 Johns. Cases 91; Jackson v. Myers, 3 Johns 388; Church v. Steel, 42 Conn. 69; Wright v. Day, 33 Wis. 260; Bridge v. Wellington, 1 Mass. 219; Worthington v. Hylyer, 4 Mass. 106; Lane v. Thompson, 43 N.H. 320; Reed v. Proprietors of Locks, etc., 8 How. (U.S.) 274; Jackson v. Moore, 6 Cow. 706; Drew v. Drew, 8 Foster 495; TYLER, BOUNDARIES, §121; Wolfe v. Scarbarough, 2 Ohio St. 361; Peyton v. Ayers, 2 Md. Ch. 64.

[10] Wells v. Lagorio, 112 Va. 522, 71 S.E. 713, 714 (1859), Wisconsin Realty v. Lull, 177 Wis. 53, 187 N.W. 978 (1922).

[11] Oven v. Davidson, 10 U.C.C.P. 302, 310 (1859). Exceptions to the rule as quoted: It has no application where: 1. the lines were never located and definitely fixed upon the ground. Nissley v. Moeslein, 23 Pa. Super. Ct. 119; (1903); 2. the monuments or stakes of the original survey are not referred to in the deed or on the plat. Warren Powers v. Henry Jackson, 50 Cal. 429 (1875). Long continued acquiesence might render unnecessary a call for the monument. Wolpert v. Chicago, 280 Ill. 187, 117 N.E. 447, 450 (1917).

[12] 43 U.S.C. 752 (1946).

of the original survey are found and they lie wholly within the original grantor's ownership,[13] the resurvey is complete and the boundaries conclusively established.[14]

Statement of the principle is simple, but application often difficult. How does one know that a particular mark or monument found is the one established by the original survey? If no such monument is found existing, has its location been preserved? If not preserved, how may its location be ascertained within a reasonable degree of accuracy? These are evidentiary questions. The greatest difficulty lies in accumulating the evidence, weighing it carefully, and analyzing its import.

Retracement is a process for gathering evidence. It seeks to accumulate evidence of intended location of property corners when they have become lost, obscured, confused or obliterated. The evidentiary sufficiency of a retracement depends upon the observance of accepted principles which govern the process.

B. *Accepted Principles Governing the Process of Retracement*

1. FIRST PRINCIPLE

Location of a Boundary Line is Determined as of the Time of its Creation

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[13] Parkinson v. McQuaid, 54 Wis. 473, 11 N.W. 682 (1882), where the stakes of the original survey did not lie wholly within the original grantor's ownership. The grantor transferred property by metes and bounds description purporting to convey 20 chains of land in an east-west direction. He owned only 20 chains, east-west. The description commenced at the northwest corner of the northeast one quarter of the northwest one quarter of section 31, which was on the west boundary of the grantor's property. The original surveyor established this point of commencement four rods too far west into the adjoining property. He then laid out 20 chains to the east of this point and set stakes on what he thought to be the grantor's east boundary line. Of course, his stakes fell four rods short of this line. The parcel as staked encroached by four rods into the property adjoining on the west and was short by four rods of meeting the grantor's east line.

The grantor, as plaintiff in this action, contended that the parcel as staked was the land actually conveyed; that he retained ownership in the east four rods lying between the stakes and his original east boundary.

The grantor's *intention* was found to be inconsistent with the limits of the parcel as surveyed and staked. The fact that the plaintiff owned only 20 chains in an east-west direction, and that the deed purported to convey 20 chains, permitted the court to infer that he intended to convey all that he owned. The court could not conclude that the grantor intended to convey land he did not own and exclude some which he did own. Since some of the stakes were not within the grantor's original tract, the rule that lines as survey and staked determine intention, could not be applied.

The defendant won the suit obtaining a determination that the east four rods belonged to him.

[14] Hall et al v. Tanner, 4 Pa. 244, 45 Am. Dec. 686 (1846); Diehl v. Zanger, 39 Mich. 601 (1878); Tomlinson v. Golden, 157 Iowa 237, 138 N.W. 448 (1912); Gordon v. Booker, 97 Cal. 586, 32 N.W. 593 (1893); Shufeldt v. Spaulding, 37 Wis. 662 (1875); Lampe v. Kennedy, 56 Wis. 249, 14 N.W. 43 (1882); Miner v. Brader, 65 Wis. 537, 27 N.W. 313 (1886); Brew v. Nugent, 136 Wis. 336, 117 N.W. 813 (1908); Fehrman v. Bissell Lumber Co., 188 Wis. 82, 204 N.W. 582 (1925).

A boundary line once established should remain fixed in its original position through any series of mesne conveyances.[15] A grantee who purchases the entire extent of particular lands owned by the grantor determines the boundaries of his purchase as of the time that the particular parcel was carved out of some larger tract. He takes to the bounds of the estate of his grantor, who in turn took to the limits of his grantor's estate, etc., to the time of creation of the boundary. A grantee purchasing only a part of the lands of his grantor will determine the common boundaries as of the time of the conveyance, while he will determine boundaries on the perimeter of the grantor's original tract with reference to the time that they were created. Each line of the same parcel must be considered separately, and a determination of the proper surveying method to be used must be made with respect to each line of the parcel.

The time of creation principle is closely related to the original government survey of public lands, since private boundary lines often run along lines established by this first survey or are described and located in relation to the original survey corners.

(a) *Government Survey as the First Determinant of Many Locations*

A great many title questions are associated with the survey of "public lands," which are lands that were turned over to the Federal Government by the Colonial States, or lands that were acquired by purchase or treaty from the Indians or from foreign powers. Title to vacant lands within their jurisdiction, not granted to the U.S., was retained by the Colonial States, the other New England and Atlantic Coast States (except Florida), and by West Virginia, Kentucky, Tennessee and Texas. In these areas the United States public land laws are not applicable.[16] In 1785, the Continental Congress passed an act inaugurating the rectangular system of division of public lands. The

[15] Diehl v. Zanger, 39 Mich. 601, 604-605 (1878). "This litigation grows out of a new survey recently made by the City Engineer. According to this survey the practical location of the whole plat is wrong, and all the lines should be moved four or five feet east. . . . When an officer proposes thus dogmatically to unsettle the landmarks of the whole community, it becomes of highest importance to know what was the basis of his opinion. The record in this case fails to give an explanation.

Nothing is better understood than that few of our early plats will stand the test of a careful and accurate survey without disclosing errors. This is true of the government surveys as of any others, and if all the lines were now subject to correction on new surveys, the confusion of the lines and titles that follow would cause consternation in many communities. Indeed the mischiefs that must follow would be incalcuable, and the visitation of the surveyor might well be set down as a great public calamity.

But no law can sanction this course. The surveyor has mistaken entirely the point to which his attention should have been directed. The question is not how an entirely accurate survey would locate these lots, but how the original stakes located them."

[16] U.S. Bureau of Land Management, Manual of Instructions for the Survey of Public Lands of the United States, §2 (1947).

ordinance provided for the division of public lands into townships six miles square, containing thirty-six sections of one mile square.[17] Many subsequent acts were passed modifying and perfecting this basic system of division, and providing for the administration and disposal of such lands. The lands (the bulk of lands within the United States) were actually surveyed and monumented under the authority of the Surveyor General, and were then sold or granted by the United States to others. The indicia of ownership of this first sale or grant by the United States is called a patent. A title search on properties which were once public lands is ordinarily carried back to this U.S. patent, and the several tracts are described in relation to the survey and monuments made and established according to the system of rectangular division. The monuments set by the original U.S. survey establish township, section and quarter section lines; and, the method prescribed by Congress for the division of quarter sections into fractional parts controls the location of such fractional lines.[18] The location of any boundary line created by Government grant was fixed by the original survey, and any attempt to relocate such a line must be governed by the rules for the division of public lands. The retracement should "follow in the footsteps" of the original surveyor and re-establish corners and monuments in the exact position upon the ground in which they were originally established. The location of the line is determined as of the time of its creation in the position in which it was established upon the ground by the original surveyor.[19]

(b) *Senior Conveyance Rule for Determining Location of Boundary Lines Created by Private Division*

A party who conveys an absolute fee interest in particular lands to one grantee cannot later convey title to the same lands to another. No title to those particular lands remains in the grantor which he may convey by the second transaction.[20] Though elementary, this is an important principle in the relocation of boundary lines where the lines have been created by successive divisions and conveyances by the same grantor. The first conveyance by its description, and more important, by its location upon the ground, fixes the position of the boundary lines for all time. If the later division and conveyance should encroach upon the first in any manner, either by description or by location upon the ground, the rule of prior right of the senior grantee becomes operative, and the position of the common boundary between the successive conveyances is determined by considering only the senior conveyance.[21] "Where there is a dispute of boundaries in

[17] *Id.*, Appendix I, p. 460.
[18] 43 U.S.C. 752, (1946).
[19] See *supra*, note 16, §8.
[20] BROWN, BOUNDARY CONTROL AND LEGAL PRINCIPLES, §3 & 81 (1957).
[21] Bryant v. Terry, 189 Ky. 489, 225 S.W. 242, 244 (1920).

two conveyances from the same grantor, the calls of the senior grant must control, and no language contained in the junior grant can in the case of conflict extend or change the lines of the elder grant."[22]

This rule has application, however, only when the divisions, as well as the conveyances, are successive. For example, we may assume that the original Government survey made a division of lands in southeastern Wisconsin at one time and that the land was later sold in small parcels by successive conveyances. Since the division was made at one time and all conveyances made later with respect to this single division, the rule giving the senior grantee prior rights has no application. The conveyances, only, were successive, not the divisons. The same limitations hold true with respect to subdivisions where streets, blocks and lots are carved out of a single tract at one time and sold off successively at later dates. In a subdivision, the re-survey of property lines is performed without reference to the chronological order of the several conveyances, because the whole plan of division was conceived, organized and defined prior to the first conveyance, and all lots sold in relation to that plan.[23] The senior conveyance rule might have application only with respect to boundaries on the exterior of the subdivision, since these lines were created prior to the division on the tract into streets, blocks and lots.[24]

This rule is but an application of the principle that a boundary line is determined as of the time of its creation, with the qualification that "the time of creation" is retroactive to the time when the details of division became certain.

(c) *Adverse Possession in Relation to the "Time of Creation" Principle*

The doctrine of adverse possession does not defile the principle that location of a boundary line reverts to the time of its creation. When the disseisor owning adjacent property takes and holds a portion of his neighbor's lands, he is not extending or expanding the boundaries of his own property, but rather, is creating an entirely new line dividing his neighbor's land. The boundary of the disseisor's property remains in the position fixed at the time of its creation. By holding

[22] See Skelton, *supra*, note 4, §210.

[23] O'Brien v. McGrane, 27 Wis. 446, 449 (1871). "We are of the opinion that it is quite immaterial that the plaintiff was the first purchaser. . . . of a lot in such subdivision. The rule for locating lines of the lots is, we think, to be applied without reference to the order of the several conveyances of such lots."

[24] See Brown, *supra*, note 20, §121. "The exterior boundaries of a subdivision may or may not have senior conveyance considerations, depending upon the original deed of the subdivided. If the deed defining the boundary of the subdivision is junior to the adjoiner, then all lots adjoining the senior deed are junior in character to the adjoiner. Lots within a subdivision may be junior to an adjoiner of the subdivision, but never to another lot within the same subdivision." See also, Westphal v. Schultz, 48 Wis. 75, 4 N.W. 136 (1879).

actual, open and notorious, exclusive, hostile and continuous possession of a part of his neighbor's land for the statutory period, he carves a new parcel out of the neighboring tract and creates an entirely new boundary line.[25]

This principle then, that the determination of the location of any boundary line must be made as of the time of its creation, has no exceptions, and is inescapably involved in every boundary dispute whether or not it is obviously apparent from the arguments of counsel or decisions of judges.

2. SECOND PRINCIPLE GOVERNING THE PROCESS OF RETRACEMENT
Retracement Should Proceed From a Known Location to Hypothecate the Unknown

Retracement is the process of uncovering physical evidence of monuments and corners by intelligent search on the ground for the calls of the description and field notes of the original survey, guided by the controlling influence of known points. It should proceed from a known location to hypothecate the unknown. In public land states, those in which the land was once under Federal domain, the known starting point is almost invariably some section or quarter section corner, accepted and recognized as having been established by the original Government survey. When such starting point called for by the legal description is missing, it must first be re-established in its original position before the retracement may proceed. Such location, too, is governed by the rules of retracement which are here under discussion.[26]

The retracement, commencing at some known point which was recognized and accepted by the original survey, is run in accordance with the plan of the original survey to ascertain the probable position of each succeeding point. An intensified search for evidence of the original location of each succeeding point is made in the vicinity hypothecated by retracement. The search may uncover the actual monument in its undisturbed position, which may be identified by its conformity in character to that described in the record (legal description, field notes and plat or map) and by its physical appearance as mellowed by age and elements.[27] Or, the search may uncover record accessories or witness marks, which, if not greatly at variance with record ties, may satisfactorily establish the exact location of the original monument. Accessories or witness marks to section and quarter section corners may be such things as bearing trees (trees blazed and marked), bearing objects, mounds of stone, or pits dug in the sod or soil.[28]

[25] See *supra*, note 1, ch. 24; note 4, ch. VII; note 20, §63-70.
[26] See *supra*, note 16, §348.
[27] *Id.*, §351.
[28] *Id., ch. IV*, for a complete discussion of the identification of existent corners and accessories.

Accessories to private survey corners may be such things as discs set in trees or poles, offset pipes or stakes driven into the ground, nails, tacks or cross-cuts in pavement or sidewalk, or the corner of some permanent object such as a house or other building. The record may disclose distances between such accessories and the missing survey corner. The missing corner may be re-established by intersecting two or more such known distances.

When there are no remaining traces of the monument (or its accessories), its location may yet have been preserved. This is known as an *obliterated* corner. The point has been perpetuated by collateral evidence. Its location may be recovered by recourse to the acts and testimony of interested landowners, competent surveyors, or witnesses who observed where the corner was originally established.[29] In this area courts often accept hearsay testimony as matters of public interest or, in the proper situation, as declarations against interest.[30] A location that depends solely upon such collateral evidence can be accepted as the true location, however, only when it bears a proper relation to known corners and is in substantial agreement with the field notes regarding distances to natural objects, brush lines, water courses, etc., or when the testimony is impeccable.[31]

A *lost* corner is a point of survey whose exact location cannot be determined to a reasonable certainty either from traces of the original monument or its accessories, or from acceptable evidence or testimony that bears upon the original location. Original location can be restored only by reference to one or more interdependent corners. Restoration of a corner as *lost* should not be considered until every other means of identifying its original position has been exhausted. The legal description may afford sufficient evidence of the position of the lost corner if it is not ambiguous and will yield but one location for the lost corner; and must check our favorably with field measurements between either known or ascertainable, interdependent corners recognized and accepted by the original survey.[32]

[29] *Id.*, §355; see also *supra*, note 1, ch. 16.

[30] CONRAD, MODERN TRIAL EVIDENCE, (1956). See §313, *Matters of Public Interest;* §515, *Vicarious Declarations of Former Owners and Possessors;* §788, *The Best Evidence Rule with particular application to Title, Ownership and Possession.*

[31] See *supra*, note 16, §355. "The testimony of individuals may relate to knowledge of the original monument or the accessories, prior to their destruction, or to any other marks fixing the locus of the original survey, and the value of such testimony may be weighed in proportion to its completeness and agreement with the calls of the field notes of the original survey, also upon the steps taken to preserve the location of the original marks. All such evidence should be put to the severest possible test by confirmation relating to known original corners and other calls of the original field notes . . ."

[32] *Id.*, §360-361. It should be noted that the primary authority relied upon for this section was the Manual of Instructions for the Survey of Public Lands of the United States (1947). Although it is not statutory authority for the restoration of private property lines and corners, its good sense and technical outline of proper surveying techniques make it an excellent work for general

When the record distance from one such interdependent corner to another varies substantially with the field measurement obtained in the re-survey, the surveying method of apportionment may yield the most probable correct location of the lost corner.

3. THIRD PRINCIPLE GOVERNING THE PROCESS OF RETRACEMENT

Retracement Should Apply Rules of Construction to Contradictory Evidences of Intention

When ambiguities appear in the description, and when discrepancies arise between adjoining descriptions or between the description and the physical evidence of the boundaries as it exists on the ground, rules of construction are applied to determine intention.[33] The rules, which are based on reason, experience and observation, and pertain to the weight of evidence, state the order of preference and relative importance of calls in a grant. This order of priority[34] is as follows: (1) Lines actually surveyed and marked prior to the original conveyance control over calls for monuments.[35]

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application to private as well as public lands. The Iowa court commended prototype instructions given by the Surveyor General of Wisconsin and Iowa, as follows: "We deem the principles contained in the instructions, the true principles recognized by law in like cases." Moreland v. Page, 2 Clarke (Iowa) 139, 152 (1855). In cases concerning the subdivision of sections, the Wisconsin court offers further confirmation of this opinion. Neff v. Paddock, 26 Wis. 546 (1870). Gerhardt v. Swaty, 57 Wis. 24, 14 N.W. 851 (1883).

[33] When intention is otherwise obvious, or if it is clear in a particular case that the order of preference as stated will not best effecuate intention, the rules should not be applied. Moran v. Lezotte, 54 Mich. 83, 19 N.W. 757, 759 (1884).

[34] Outline of the rules is given in City of Racine v. J. I. Case Plow Co., 56 Wis. 539, 14 N.W. 599 (1883).

[35] Requirements for the Control of Lines Marked and Surveyed:

(a) Lines must be marked prior to or at the time of the conveyance. Woodbury v. Venia, 114 Mich. 251, 72 N.W. 189 (1897).

(b) Lines marked must be adopted by the grantor, either directly, or indirectly through reference to a plat or map showing them, or by incorporating them into deeds. Missouri, K.&T. Ry. Co. of Texas v. Anderson, 36 Tex. Civ. App. 121, 81 S.W. 781 (1904).

(c) Must be identifiable, otherwise they lack the essential qualifications of monuments. City of Eldora v. Edgington, 130 Iowa 151, 106 N.W. 503 (1906).

(d) Where they do not agree with course and distance, evidence of their actual location must be clear and convincing. Albert v. City of Salem *et al*, 39 Ore. 466, 65 Pac. 1068 (1901).

EXAMPLE: Stefanick v. Fortona *et al*, 222 Mass. 83, 109 N.E. 878 (191 One Cohen owned a rectangular parcel of land 198 feet in length along Mill Street on the west and 66 feet wide along Hoosac Street on the south. One P. Connors owned land abutting on the east and on the north. Cohen conveyed a portion of his parcel by the following description:

"Beginning at a point in line between lands of grantor and those of P. Connors, distant ninety-one (91) feet from a stone monument standing in the northerly line of Hoosac street, thence in the east line of grantor's land one hundred and seven (107) feet to the lands of P. Connors; thence turning at right angle left and running in southerly line of said Connors' land sixty-six (66) feet to an iron pin driven in the approximate east line of Mill street; thence turning at an angle of 90 and running one

(2) Calls for fixed monuments control over calls for adjoinders.[36]
(3) Calls for adjoinders control over calls for course and distance.
(4) Calls for course and distance control over calls for quantity.[37]

The first rule of construction is but an abbreviated phraseology of the principle discussed previously that the highest and best proof of intention lies in the work performed upon the ground. A re-survey should normally apply these accepted rules of construction to contra-

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hundred and seven (107) feet in approximate east line of Mill street to iron pin driven; thence turning left at an angle of 90 and running sixty-six (66) feet to place of beginning. Meaning to convey the northerly part of the Busby lot 107x66."

The point of beginning stated in the deed is 91 feet north of "a stone monument standing in the northerly line of Hoosac street." The surveyor measured 91 feet north from the stone monument; then turned a right angle and measured west 66 feet to the east line of Mill Street, and drove an iron pin in the ground. Thus, as surveyed, the south line of the parcel conveyed to Stefanick was 91 feet north of the stone.

After Cohen had conveyed the remaining portion of the 198 foot parcel to Fortona, it was discovered that the stone monument was actually one and one-half feet north of the line of Hoosac Street. The distance from the north line of Hoosac Street to the south line of the Stefanick parcel, as surveyed, was 92.5 feet, rather than the supposed 91 feet. Stefanick took possession to the lines as surveyed, and occupied only 105.5 feet, rather than the 107 feet called for by his deed. When the discrepancy was discovered, Stefanick made claim to the foot and one-half south of the line as surveyed.

The court found in favor of Fortona against Stefanicrk, deciding that the parcel as surveyed and marked controlled the call for the monument, namely the north line of Hoosac Street.

Martin v. Carlin, 19 Wis. 454 (1865). Where lines of the original survey can be run from well ascertained and established monuments, they should govern, notwithstanding calls in the description for natural objects as boundaries, such as a river, the location of which is incorrectly portrayed in the field notes.

[36] Gove v. White, 20 Wis. 425 (1866). Artificial monuments control a call for distance. Dupont v. Davis, 30 Wis. 170 (1872). Course and distance yield to fixed monuments and natural objects referred to. Lampe v. Kennedy, 49 Wis. 601, 6 N.W. 311 (1880). Stake referred to in the description controlled over course and distance. Zuleger v. Zeh, 160 Wis. 600, 150 N.W. 406 (1915). Where there are no monuments contradicting the measurements on a parcel of land, and no substantial reason to establish their inaccuracy, course and distance control.

Considering the problem from a different point of view, mention of adjoiners could be dropped from the rules of construction. A call for an adjoiner unequivocally exhibits an intention that the property described extends only to the line of abutting property called for as an adjoiner. Hence, no need to apply the rules to construct intention. The problem then, is resolved to the question: Where is the boundary line of the adjoining property? The best proof of its location lies in its monumentation and delination upon the ground. The rules of construction, absent adjoiners, should then be applied to the description of the adjoining property. Transfer of concentration from the property primarily concerned, to the property called for as the adjoiner seems to the author to be the key to the solution. I would omit the last phrase of the second rule and replace it with the last phrase of the third rule, making the rules three in number, rather than four.

[37] Fortenbury et al v. Cruse et al, see *supra,* note 6, where the description was incomplete, a call for quantity played a large part in determining the location of boundaries. Rioux v. Cormier, 75 Wis. 566, 44 N.W. 654 (1890): Where it is clear that intention is to convey a certain quantity of land, that intention is decisive and controlling.

dictory evidences of intention, absent any circumstances suggesting their inapplicability.[38]

C. *Summary on Retracement*

Intention of the grantor as recited in the deed and as interpreted with the aid of the rules of construction is the controlling determination to be made in locating boundaries by re-survey. The highest and best proof of this intention, ordinarily, lies not in the words of expression in the deed, but rather, in the work upon the ground itself, where the survey was made prior to the conveyance. The surveying method of retracement is applied to locate these points upon the ground. In conducting the retracement, care should be exercised to retrace the lines as they were originally run, and not where subsequently and erroneously re-established by some intermediate owner or holder. The location of a boundary line must be determined as of the time of its creation. The retracement should proceed from some known point recognized and accepted by the original survey to hypothecate the unknown location of the property corner. When the corner is *lost* and cannot be re-established from traces of the original monument of its accessories, or from acceptable collateral evidence of the original position, the surveying method of apportionment is considered.[39]

III. Rules and Principles of Apportionment

A. *Reason and Necessity for Apportionment*

Apportionment is applied when retracement fails to yield sufficient evidence of the exact location of a lost property corner. The rule has been stated by the Supreme Court of the State of Wisconsin substantially as follows:

> When the whole length of the line between ascertained corners varies from the record length called for, and intermediate property corners are lost, it must be presumed in the absence of evidence indicating the contrary, that the variance arose from an imperfect measurement of the whole line. The variance then is distributed between the several subdivisions of the whole line in proportion to their respective lengths.[40]

This definition suggests the reason for the rule: "it must be presumed in the absence of evidence indicating the contrary that the variance arose from an imperfect measurement of the whole line."

[38] See Skelton *supra,* note 4, ch. II for a thorough, well organized discussion of the relative importance of conflicting elements in descriptions.

[39] For a review of the principles of retracement and their relationships to apportionment see the leading case of Moreland v. Page, 2 Clarke (Iowa) 139 (1855).

[40] Jones v. Kimble, 19 Wis. 430, 432 (1865). This was an action oncerned with the location of a lost quarter corner on the west side of section 2 where there was a deficiency in the length of the west line of the section. Citing, Moreland v. Page, *Id.* See also: Brooks v. Stanley, 66 Neb. 826, 92 N.W. 1013 (1902); Miller v. Topeka Land Co., 44 Kan. 354, 24 Pac. 420 (1890); O'Brien v. McGrane, 27 Wis. 446 (1871); 97 A.L.R. 1227.

Surveying is not an exact science. The length of the chain or metal tape used by surveyors for measuring distances varies slightly with changes in temperature and with tension or pull applied when a measurement is being made. Slight variations from its one hundred foot length would cause a substantial error in the measurement of a line, say, half a mile long. Other factors, such as the force of the wind, or failure to keep the chain at right angles to the pull of gravity, cause slight errors substantially constant throughout measurement of the whole line. Apportionment of variances due to such factors will, from a mathematical standpoint, yield the correct position of intermediate points along the line.

Where it is discovered that a gross blunder in the original survey causes the deficiency or surplus, the variance should not be distributed, but the correction applied at the location where the error was made, if its position can be determined. However, where small discrepancies are due to careless surveying and there are no circumstances suggesting the position of the error, the law of probabilities supports the appointment rule.

Apportionment may be necessary to stabilize the location of intermediate parcels. When the variance occurs between two known corners recognized and accepted by the original survey, re-establishing the boundary lines of an intermediate parcel by using the record distance from one corner will produce a different location for the parcel than would re-establishment by using the record distance from the other corner. Stability of location is demanded in the public interest and can, very often, be obtained only by application of the rule of apportionment.[41]

B. *Conditions for the Rule to Apply*

FIRST CONDITION—Failure of Retracement

As before stated, apportionment is applied only after retracement fails to discover the location of the original corner. Where tangible evidence of the original lines exists, the rule has no basis and does not apply.[42]

SECOND CONDITION—Predominant Intention

A predominant intention of the divider may justify application of the rule of apportionment even where no mathematical basis exists.[43]

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[41] See Skelton *supra*, note 4, §216.

[42] See PATTON, TITLES, §158, n. 23 (2d ed. 1957). Alos see the section of article dealing with Rules and Principles of Retracement.

[43] Clayton v. Feig, 179 Ill. 534, 54 N.E. 149 (1899); McAlpine v. Reicheneker, 27 Kan. 257 (1882). Partition proceedings originated the division; Bennett v. Simon, 152 Ind. 490, 53 N.E. 649 (1899). Tract divided into two or more parts of a designated area; Marsh v. Stephenson, 7 Ohio St. 265, 70 Am. Dec. 72 (1857). Whole tract intended to be conveyed by two or more deeds executed at the same time but the boundaries were not established upon the ground.

The plan of division of the whole tract may indicate the intention of the grantor to divide it into a specified number of parcels equal or relative in size. Such an intention might be evident from deeds describing the several parcels as fractional parts of the whole tract, or from a plan of division making all parcels equal in size and therefore relative in dimension with respect to the whole. Such an intention might easily be presumed when conveyance of the parcels preceded the actual ground survey and staking. Field work performed after conveyances made in accordance with some theoretical plan of division affords no reliable basis for the assumption that the parties intended to transfer to lines marked and surveyed. Thus, retracement could uncover only dubious evidence of intention at the time of the conveyance. Absent retracement as evidence of intention, the legal description, and map or plat, provide the best evidence of the predominant intention. The rule of apportionment is applied as a last resort for distributing discrepancies to determine intention in the mest equitable way possible.

THIRD CONDITION—Parcels Created Simultaneously

Boundary lines of parcels created successively are determined according to the seniority of title doctrine. Any excess or deficiency over the whole tract is borne by the parcel last to be surveyed. The apportionment rule applies only when the several parcels comprising the whole tract have been created simultaneously. This does not require that the conveyances be simultaneous, but rather, that the plan of division be organized prior to the first conveyance and that the surveying work no each subdivision of the plan be performed at substantially at the same time.[44]

C. *Limitations Upon Application of the Apportionment Rule*

1. THE EFFECT OF AN INTERMEDIATE KNOWN CORNER

An error once located should be placed in the position in which it originally occurred. An excess or deficiency cannot be prorated beyond an undisturbed original monument[45] although that monument is an intermediate corner marking a boundary line between parcels carved out of the same parent tract. Where there is an excess or deficiency between known block corners, it should be distributed proportionately among all the lots in the block, *but only if* no intermediate

[44] See O'Brien v. McGrane, *supra* note 23. See also, 97 A.L.R. 1227, which states that apportionment is the general rule concerning the rights as between grantees in severalty of lots or parts of the same tract where measurements vary from the dimensions given in the record. 97 A.L.R. 1230. Gives as exceptions to the general rule: (a) where parts are conveyed without reference to a plan or without anything in the deeds to indicate a purpose to divide in some definite proportion, and (b) where the tract is divided by separate and distinct surveys at different times.

[45] Lewis v. Prien, 98 Wis. 93, 73 N.W. 654 (1897). A discrepency between one known monument and another can be apportioned to intervening tracts only.

lot corners are found existing in their original, undisturbed position. When one or more original lot corners are found existing, distribution of excess or deficiency is governed by the known intermediate corner; apportionment must be performed so as to retain the intermediate corner in its known, fixed position.[46]

> The unvarying rule to be following in such a case is to start at the nearest known point on one side of the lost corner, on the line on which it was originally established; to then measure to the nearest known corner on the other side of the same line; then if the length of the line is in excess of that called for by the original survey, to divide it between the tracts connecting two known points, in proportion to the lengths of the boundaries of such tracts on such line, as given in the survey. . . .[47]

2. THE EFFECT OF STREETS

Public streets opened in supposed conformity with some plan of division and long acquiesced in are considered as natural monuments in themselves, and proportioning should be limited to the blocks between such streets although the whole length of the line which carries the discrepancy extends much further.[48] Where streets have acquired a fixed position by continued use, they limit the apportionment of excess and deficiency because: (1) it is essential, from a practical viewpoint, that their location remain undisturbed, as relocation of the traveled way would entail great expense and cause confusion of boundary lines; and, (2) the street long used and acquiesced in is some evidence of original intention—there is a presumption that its present location commenced with respect to the actual ground location of the boundaries of abutting properties.[49] When an excess or deficiency exists on a line extending over several blocks and streets, the streets may serve as natural monuments indicating the particular portion of excess or deficiency that should be borne by each block. The streets are evidence of the location of the discrepancy.

No portion of the excess or deficiency should be allocated to the streets within a tract. This is contrary to the supposition that the discrepancy was caused by the use of a tape too short or too long, but

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[46] This is an extension of the principle developed previously that lines as originally surveyed and marked are the best proof of intention. The known ground location of boundaries of nearby parcels may have an effect upon the location of the boundaries of the lot or parcel in question. As was said by the court in Moreland v. Page, see *supra,* note 39, p. 153: "The second principle, we understand to be, that all ascertained surrounding monuments shall have their due weight, in determining the locality of the unascertained, under the system by which the survey was originally made."

[47] See Lewis v. Prien, *supra* note 45, at 93.

[48] Pere Marquette R. Co. v. Graham, 150 Mich. 219, 114 N.W. 58 (1907). Citing: Van Den Brooks v. Correon, 48 Mich. 283, 12 N.W. 206 (1882). Twogood v. Hoyt, 42 Mich. 612, 4 N.W. 445 (1880). Hoffman v. Port Huron, 102 Mich. 432, 60 N.W. 831 (1894), also see, *supra,* note 4, §219.

[49] See Skelton, *supra* note 4, §255, 256.

predominant intention is deemed to control. Street widths are usually determined before division into lots is begun, and the widths accepted as representing the requirements of the municipality which sets the class of streets. The divider has a tendency to keep street dimensions as small as possible, so it is reasonable to assume that he gave much thought to such widths, intending them as shown. Had he known of any deficiency he would have allocated it to the abutting blocks.[50]

Treating streets as natural monuments controlling the distribution of a discrepancy is not without its problems. The traveled way may be well defined but the right-of-way lines unsettled. It is, for instance, normal to center a twenty-eight foot pavement within a sixty foot right of way. It may be naive to presume that even a paved way with a well defined centerline was constructed in the exact center of the right-of-way throughout its entire length; but, at least, this is a reasonable presumption which should prevail in the absence of any evidence to the contrary. Other improvements, such as fences or buildings, set by owners along the right-of-way, constructed according to the stakes of the original survey and maintained for a number of years, are competent evidence to prove the location of streets.[51]

3. The Effect of Improvements

Apportionment is applied when there is a discrepancy between the record and measured distances between two known corners. Property improvements such as fences, buildings, driveways, curbs, sidewalks and earth grading, maintenance and occupation may be evidence of the location of the discrepancy. Once an error is located, there is no logical basis for distributing it beyond the location in which it occurred. Since the surveyor's function is to re-locate property corners in the exact position upon the ground where established by the first surveyor, when it is ascertained that existing improvements were made soon after the original lines were established and in conformance thereto, these improvements become evidentiary of the original location of the property lines and corners.[52] But, "practical location or use and occupation to be evidentiary of original location must be at least open

[50] *Id.*, §219.

[51] Village of Galesville v. Parker, 107 Wis. 365, 366, 83 N.W. 646 (1900); City of Racine v. J. I. Case Plow Co., 56 Wis. 539, 14 N.W. 539 (1883); City of Racine v. Emerson, 85 Wis. 80, 55 N.W. 117 (1893); City of Madison v. Mayers, 97 Wis. 399, 73 N.W. 43, 40 L.R.A. 635 (1897).

[52] City of Racine v. Emerson, 85 Wis. 80, 55 N.W. 117 (1893). For a history of previous Wisconsin decisions concerning practical location (occupation and improvements) and its effect upon apportionment. City of Madison v. Mayers, 97 Wis. 399, 73 N.W. 43, 40 L.R.A. 635 (1897); Gilman v. Brown, 115 Wis. 1, 91 N.W. 227 (1902); Smith v. City of Beloit, 122 Wis. 396, 100 N.W. 877 (1904); Lawler v. Brennan, 150 Wis. 115, 134 N.W. 154, 136 N.W. 1158 (1912); Wunnike v. Dedrich, 160 Wis. 462, 152 N.W. 139 (1915); Hillside Cotton Mills v. Bartley, 156 Ga. 271, 119 S.E. 404 (1923); Brewster v. Buloy, 296 S.W. 372 (Mo. 1927).

to the inference that it commenced with some reference to the original survey lines or markings."[53]

The evidentiary value of improvements depends upon the probability that their builders had, at the time of construction, a better means of knowing where the original lines were located than is now available. This probability increases with the quantity of concordant evidence presented.[54] If the shortage or surplus occurred between two known block corners, evidence of improvements on only one of the lots would carry little weight bearing upon original length of the lot lines. But improvements on many of the lots, bearing a uniform relationship to the plat or plan of division, would effectively rebut the argument that the improvements were made either with no relation to the original lot lines or erroneously in relation thereto. The effect of the error could be segregated and borne by the lot or lots across which it originally occurred.[55]

4. The Effect of an End Run

Where a conflict arises between record and measured distances and all subdivisions of the parent tract are given definite, precise dimensions, it is difficult to apply the rule giving control to intention as effectively expressed in the map or plat; since the subdivider evidently anticipated no excess or deficiency. There is some basis, however, for inferring that he anticipated future discovery of some unknown, present error when: (1) all lots but one in the block are uniformly dimensioned and the one is given the remaining odd difference between the overall block dimension and the sum of the uniformly dimensioned lots, and (2) all lots are dimensioned except one which is left either completely undimensioned or qualifiedly dimensioned with a "more or less" figure. The odd-dimensioned or undimensioned lot invariably occurs at the end of a block. Existence of such an end remnant might indicate that the divider realized the possibility of a discrepancy and provided for its allocation by intending that it be borne by the end, irregularly dimensioned lot.

Where all lots are definitely dimensioned, but one which is irregclarly in shape or proportion, a few jurisdictions recognize this as sufficient evidence that the subdivider intended any discrepancy to be borne by the irregular lot. The theory was developed in *Barrett v. Perkins*.[56]

One side of a block contained twenty-two lots. The first twenty-one lots were rectangular in shape and twenty-five feet wide at the front; lot twenty-two was triangular in shape having a record dimen-

[53] Pereles v. Gross, 126 Wis. 122, 130, 105 N.W. 217 (1905).
[54] *Id.* at 131.
[55] For the effect of fences see 170 A.L.R. 1144.
[56] 113 Minn. 480, 130 N.W. 67 (1911).

sion of 75.38 feet across the front. A surveyor attempted to relocate the boundary line between lots eighteen and nineteen by laying-off the record distances from the block corner at the end of lot twenty-two. This method was found to be in conflict with improvements on other lots and failed to account for a deficiency which actually existed in the overall block dimension. The appellate court held that the survey was in error because it failed to take proper account of the deficiency. The court recognized the rule requiring apportionment of excess and deficiency but held that it did not apply in this case. The court stated, "the owner of the plat must be deemed to have intended to constitute the irregular remnant a lot by itself, regardless of its dimensions, and a purchaser thereof takes the whole remnant, whether of greater or less area than that indicated on the plat," and that the irregular lot, "cannot be enlarged at the expense of the owners of the other lots, nor, if of greater area than shown by the plat, diminished in their favor."[57]

This rationale is rejected by the majority of courts deciding the issue, who do not on such little evidence infer an overriding intention of the subdivider to throw an excess or deficiency into one irregularly shaped or dimensioned lot.[58] Similar cases have proceeded to the same decision, without creating an additional limitation on the apportionment rule, by applying the rules regarding the control of streets and plats as monuments, and by giving weight to improvements and occupation as evidence of original location of boundary lines.[59] In the case of *Mechler v. Dehn*[60] the New York Supreme Court applied the rule as laid down in the *Barrett* case; but, the Appellate Division specifically rejected the *Barrett* rule:

> I do not believe that this rule is sound principle. A party who maps a plot of land into lots, whether regular or irregular, in size, and gives them certain dimensions on the map, believed by him to be accurate, cannot, in my opinion, be held by any such strained construction to intend the irregular lots as a remnant, regardless of its dimensions. On the contrary, I think he believes and intends that each lot shown on the map, regular or irregular, has, or should have, the dimensions ascribed to it.[61]

Where one lot in a block or row of lots is left undimensioned or qualifiedly dimensioned with a "more or less" indication, there is substantial basis for inferring that the developer intended this lot to carry any surplus or shortage. In the case of an undimensioned lot, not only is the assumption of intention strong, but application of the

[57] Barrett v. Perkins, 113 Minn. 480, 130 N.W. 67, 69 (1911).
[58] Quinnin v. Reimers, 46 Mich. 605, 10 N.W. 35 (1881); Pereles v. Magoon, 78 Wis. 27, 46 N.W. 1047, 23 Am. St. 389 (1890); Cited approvingly in 6 THOMPSON, REAL PROPERTY 3391 (Perm. ed.).
[59] Goldsmith v. Fillman, 33 Pa. Super Ct. 44 ( ), see Skelton, note 4, §223.
[60] 203 App. Div. 128, 196 N.Y.S. 460 (1922).
[61] *Id.* at 463.

apportionment rule becomes impractical. To apportion a discrepancy among several lots it is necessary to know the frontage of each lot, and where one lot is undimensioned it is impossible from a mathematical standpoint to apply the apportionment rule. What proportion of the discrepancy should the undimensioned lot bear when one of the factors of the proportion is an unknown? Because of the strong evidence of intention and of the impracticability of proration, an undimensioned lot, or one conditionally dimensioned should bear all of the surplus or shortage in the block when retracement, properly performed, does not yield the original location of property lines.[62]

5. EXTENT OF THE PARENT PARCEL

Proportioning excess or deficiency among a group of parcels cannot be extended beyond the reaches of the parent tract. The apportionment rule stating, "When the whole length of the line between ascertained corners varies from the record length called for . . .", refers to the corners of the parent tract. Efforts to relocate the boundary lines of one parcel may sometimes include tracing the ancestry of that parcel through several prior divisions. A separate determination must be made of the proper surveying method to be applied, retracement or apportionment, with respect to each step on the family tree. Apportioning may be done only between corners utilized by the original surveyor in making that particular division.[63]

IV. SUMMARY AND CONCLUSION

The intention of the grantor is paramount in determining the location of boundary lines of any particular conveyance. The best proof of that intention lies in the work performed upon the ground, and retracement is the method for gathering evidence of property lines as located upon the ground. Re-survey, or retracement, should proceed upon the principle that a boundary line once established must remain fixed in its original position *ad infinitum,* and should gather evidence bearing upon original location only, disregarding subsequent, erroneous attempts at retracement. Lines established by prior division and conveyance cannot be altered by subsequent conveyances encroaching upon the prior. Retracement begins at some known point which was recognized and accepted by the original survey. It proceeds with the aid of the deed, plat or map, and field notes of the original survey, to hypothecate each succeeding survey point and gather evidence of its

[62] Baldwin v. Shannon, 43 N.J.L. 596 (1881), where the report of the decision is ambiguous as to whether all lots in the block were undimensioned or whether a notation on the plat called for a specified dimension of twenty-five feet on all regular lots. It is the authors interpretation that the plat called for the twenty-five foot dimension. Entire deficiency was borne by the two end, fractional lots which were undimensioned. Toudouze v. Keller, (Tex. Civ. App.), 118 S.W. 185 (1909); Pereles v. Gross, 126 Wis. 122, 105 N.W. 217, 110 Am. St. 901 (1905).

[63] See Clark, *supra* note 1, 195; 6 THOMPSON, REAL PROPERTY §3391 (Perm. ed.).

original location. When physical and corroborative evidence is insufficent to establish the exact location of the original corner, resort must be had to other interdependent corners found existing. When field measurement between known or ascertainable, interdependent corners varies materially from the record distance, the apportionment rule, with its many ramifications, becomes operative.

The proportionment of surplus or shortage over the whole line among the many units comprising the whole is the practical effect of the realization that surveying is the *art* of measurement and not an exact *science.* Changes in nature generally as well as in human nature preclude exact duplication of original measurements, and insignificant unit differences soon accumulate to substantial discrepancies. This practical realization, or some sufficiently expressed intention of the grantor, may indicate that proportionment closely approximates the original work and distributes the excess or deficiency as equitably as possible. The limitations on the surveying method of apportionment are but particular instances of the applicability of the surveying method of retracement. In the final analysis, apportionment is but a rule of last resort; it is applied only in absence of any markings upon the ground of the division lines between parcels carved out of the same tract.

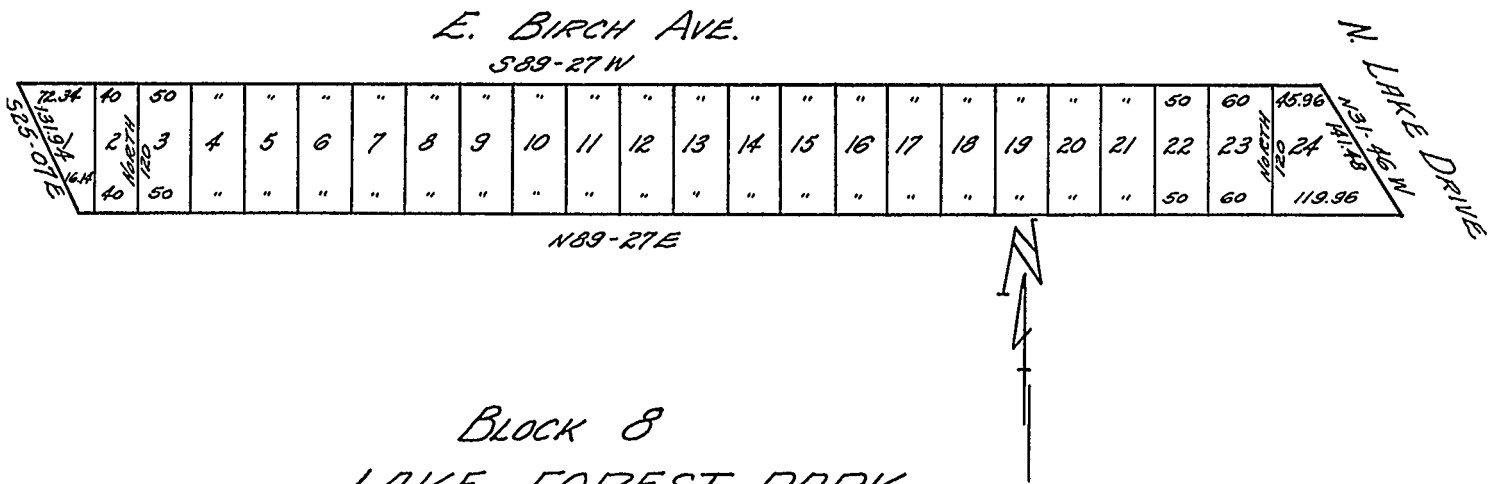
V. Recent Decision

After completion of the foregoing comment, there was handed down by the Wisconsin court a decision[64] dealing directly with the principles of apportionment discussed in this paper, and providing an excellent illustration of the problems which can be encountered in applying those principles. This addendum will therefore attempt to relate the case to the foregoing discussion.

The case involved a boundary dispute arising out of a surplus in one block of a platted subdivision. (See the attached figure for a pictorial representation of the block and its division into lots.) The division was made and the plat recorded in 1892. The plaintiffs were owners of lot 23 and the defendants owners of lot 24. The total record distance from northwest to northeast corners of the block is 1218.30 feet; the actual measured distance between monuments existing at the respective corners is 1219.72 feet. Subtraction of the record distance from the measured one produces the amount of surplus, 1.42 feet. To these facts both parties agreed.

The plaintiffs, owners of lot 23, contended that the surplus should be distributed among all lots in the block, so as to locate the east line of lot 23 only a fraction of an inch over the record distance from the *northeast* corner of the block, 45.96 feet plus the small portion of

[64] VanDeven v. Harvey, 100 N.W. 2d 587 (1960).



BLOCK 8

LAKE FOREST PARK

surplus they would allocate to lot 24. The defendants contended that the entire surplus should be thrown into lot 24, and the boundary between lots 23 and 24 located 45.96 feet plus 1.42, or 47.38, feet from the *northeast* corner of the block.

Upon trial the defendants produced the original drawing of the subdivision from which the recorded plat was made. Lot dimensions shown thereon in black ink corresponded exactly with dimensions shown on the recorded plat. But just beneath the figure 45.96 on the original drawing, along the front line of lot 24, the figure 47.38 appeared in red ink. Field notes of the original surveyor were also produced indicating a change of the dimension from 45.96 to 47.38. Neither the drawing nor the field notes were dated, and the original surveyor was deceased. The drawing and field notes were authenticated by affidavit of the son of the original surveyor, who had worked with his father until 1915, when the father retired from business. The affidavit was received under stipulation and stated that the figures in red ink on the original drawing were in the handwriting of the original surveyor, also that the affiant did not know when the figures were written. Since the physical condition of the drawing indicated its antiquity, and since it was found in the possession of the successor in business of the original surveyor, a natural and proper place for its custody, the drawing was admitted into evidence under the ancient document rule.

The defendants, by testimony of a surveyor, showed that improvements and occupation lines (fences, hedges and other physical evidence) between various lots in the block corresponded with record distances from the *northwest* corner of the block. He found crosses chipped in the sidewalk on the side lot line extensions which corresponded with record dimensions as measured from the *northwest* corner of the block. He found a fence along the west line of lot 23 which was located, almost exactly, in the same position as shown on the recorded plat when measured from the *west.*

The defendants argued that the original surveyor intended to place the excess in lot 24 rather than distribute it among all lots in the block. The trial court sustained the defendants' position upon the following findings:

(1) that the stone monuments at the northeast and northwest corners of the block marked the original location of the block corners;

(2) that an overage of 1.42 feet existed along the north line of the block;

(3) that the original surveyor intended to place the overage in lot 24, such intention being inferred from the evidence that the original drawing showed the figure 47.38 in red ink written in the handwriting of the original surveyor;

(4) that all lots in the block with the exception of lots 1 and 24 were of even dimensions, supporting the inference that it was the intention to give even dimensioned lots the exact frontage called for, and distribute any deficiency or surplus in the odd dimensioned end remnants;
(5) that since most lot owners made improvements according to record distances as measured from the northwest corner of the block, it would be impossible to apply the apportionment rules—its application would involve changes in many occupational lines.

The Supreme Court challenged the validity and completeness of the inference drawn from the red ink figures shown on the original drawing, that the intention of the original surveyor and *subdivider* was to place the entire overage in lot 24. Said the appellate court:

> We cannot agree with the trial court that the exhibit supports an inference that the surveyor effectively placed the overage in lot 24. There is no testimony that the subdivider ever knew of the mistake in the measurement. Any inference as to the intention of the original subdivider is based upon the inference as to the intention of the surveyor. When we speak of subdivider we refer to the owner of the tract that was subdivided. If the mistake had been discovered in 1892 or soon thereafter and had been called to the attention of the subdivider, the matter of the overage could have been settled very easily at that time.[65]

Upon this determination the Supreme Court reversed the judgment.

The Supreme Court accepted apportionment as a general rule when variance occurs between record and measured distances in a block of a platted subdivision, and denied that the facts of this case presented an exception. Application of the rule was, however, modified,

> Because of the time element involved, because the lots are improved and occupied, and because of evidence of the establishment of the boundaries up to the division between lots 23 and 24, a strict application of the apportionment rule would be inequitable . . . we can only apply the apportionment rule as between the parties to this action, alloting one-half of the overage to the plaintiffs and the remaining half to the defendants.[66]

The case emphasizes the importance of the principle that it is the intention of the owner or grantor which controls the location of boundary lines, and not the intention of the surveyor. It is what the surveyor actually and effectively does, not what he intends to do, that forms the vital connecting link between field location of boundaries and the intention of the grantor. The appellate court, however, considered that the only evidence bearing upon what the surveyor actually did was the red ink figures on the original drawing.

[65] *Id.* 588-590.
[66] *Id.* 591-592.

The case only remotely recognizes the possibility that the surveying method of retracement might be involved in its facts. The appellate court, applying apportionment as a general rule establishing the true location of boundary lines, considered evidence of improvements and occupation, however consistent with record dimensions, as bearing upon establishment of lines only by adverse possession or by agreement. Neither counsel, trial court, nor appellate court mentioned any possible relationship between occupational lines and the original ground location of boundaries.

The decision cites *Pereles v. Magoon*[67] as the leading Wisconsin case on appointment. The *Pereles* decision cited approvingly *McAlpine v. Reicheneker*,[68] and quoted therefrom:

> *if no monuments were set, except theoretically on paper, the* proper location of these monuments will be determined by prorating the distances as given in the records, according to the length of frontage of the several allotments.[69] (emphasis supplied)

The *Pereles* case decided that no inference of intention that end remnants bear all surplus or deficiency could be drawn from the mere fact that end lots were odd dimensioned and intermediate ones even; but it did not decide, nor intimate, that the apportionment rule would prevail over satisfactory evidence of original ground location of boundary lines. Cited also in the *Pereles* case were: *Westphal v. Schultz*,[70] which concerned the location of a one-sixteenth corner of a section (such corners were not established by the original government survey); *O'Brien v. McGrane*,[71] where controversy arose between the seniority of title doctrine and the apportionment rule as applied between lots of the same subdivision (available evidence located block corners only); *Jones v. Kimble*,[72] which concerned the location of a quarter-section corner of a fractional section (no evidence as to original field location was presented). The great weight of authority in Wisconsin and elsewhere limits application of the apportionment rule to those situations where intermediate corners were not located on the ground prior to conveyances by the original subdivider and common grantor, and to those situations where the original ground location of intermediate corners is lost and cannot be ascertained by satisfactory evidence bearing upon the original location.

It is this author's firm conviction that from evidence presented, and from other evidence easily obtainable,[73] the inference could readily

[67] 78 Wis. 27, 46 N.W. 1047 (1890).
[68] 27 Kan. 257.
[69] *Id.* 264 (1882).
[70] 48 Wis. 75, 4 N.W. 136 (1879).
[71] 27 Wis. 446 (1871).
[72] 19 Wis. 429 (1865).
[73] Public tax records would devulge the approximate year during which improve-

be drawn in the principal case that the original surveyor surveyed and staked all of the lots in the block prior to any conveyance by the subdivider, and that the location of boundary lines as surveyed and staked has been preserved. If these propositions can be sustained by the evidence, then it follows that the location of such lines as ascertained should be deemed the true lines, and apportionment would have no application to the case.

Only block corners, not intermediate lot corners, were marked prior to recording the plat in 1892. This conclusion is deducible from the face of the plat. The plat indicates that stakes were placed at each of the four block corners. The surveyor's certificate thereon recites that it was surveyed, divided and mapped in accordance with the requirements of Chapter 101 of the Revised Statutes. Chapter 101, Section 2260 of the Revised Statutes of 1878, required block corners to be marked on the ground, and Section 2261 required that all monuments erected in the field be represented on the plat offered for record. Assuming compliance with the law, intermediate lot corners were *not* staked prior to recording. No conveyances were made of the lots in block 8 until 1910, and the east seventeen lots were conveyed before 1915; the west seven lots were transferred between the years 1919 and 1922.[74] Since purchasers ordinarily demand to see the product before buying, it seems reasonable to assume that all lots in the block were staked shortly before the first sale in 1910. Since it was proven that the red ink figures shown on the original drawing were in the handwriting of the original surveyor, and that he retired from business in 1915, it does not seem unlikely that he discovered the surplus at the time the lots were staked in the supposed 1910 survey, and placed the entire surplus in lot 24 by driving a stake in the ground at the northwest corner of such lot, 47.38 feet from the northeast corner of the block.

It was shown upon trial that improvements and occupation on most of the lots in the block were in substantial agreement with record dimensions as measured from the northwest corner of the block. This condition existed up to the west line of lot 23, where a fence agreed, almost exactly, with record distance from the west. This seems to establish that the lots were staked according to a plan of division using record distances from the west. In *Moreland v. Page*,[75] the only

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ments were made on the several properties. Records of the zoning department and building inspector might well contain original surveys of the individual lots showing where the surveyor actually and effectively located the boundaries, and might disclose the relationship of improvements and occupation to the lines as surveyed and marked upon the ground.

[74] This information was obtained by the author's search of records in the register of deeds office.

[75] 2 Clarke (Iowa) 139 (1855).

authority cited in *Jones v. Kimble*[76] and cited as a leading case in *Westphal v. Schultz*,[77] it was stated:

> unknown corners must be found by the corroborative testimony of *all*, with as little departure as may be from the system adopted on the original survey, without giving any preponderance to the testimony of any one monument above another. In doing this, courses and distances, which are elements of superficial *measure*, must yield to the facts, namely, the established monuments. In other words, to use a homely adage, the several garments must be cut according to the cloth . . . all ascertained surrounding monuments shall have their due weight in determining the locality of the unascertained, under the system by which the survey was originally made.[78]

When shown that the lot lines were staked up to the west line of lot 23 measuring from the west, the system of the survey is established and should be extended to include the last interior lot line in the block. By this method the surplus is effectively allocated to lot 24 by retracement of the original survey.

Admittedly, evidence is thin that the intermediate lot corners were actually staked prior to the first conveyance in the block. But there is Wisconsin authority to the effect that long continued occupation is, itself, prima facie evidence of the original ground location of boundary lines:

> If there be no original monuments in existence, but it appears that there has been occupation and that fences have been maintained for many years, it will be assumed that the lines of such occupation agree with original occupation taken in accordance with the original survey soon after it was made while the stakes or monuments were in existence.[79]

Establishing lot lines in accordance with even slight evidence by retracement seems superior to establishment by arbitration—giving one-half of the disputed area to each litigant. Certainly, a concerted effort

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[76] *Supra*, note 67.
[77] *Supra*, note 70.
[78] *Supra*, note 75, p. 152.
[79] Lawler v. Brennan, 150 Wis. 115, 141, 134 N.W. 154, 136 N.W. 1058 (1912). See also Thiel v. Damrau, 268 Wis. 76, 66 N.W. 2d 747 (1954), where a boundary line as surveyed and staked was held to prevail over record dimensions shown on a plat; the location of the line as surveyed and marked was preserved by a fence which had been constructed at a time when the original stakes were in existence. For an apparent conflict see, Shimmel v. Dundon, 1 Wis. 2d 98, 83 N.W. 2d 143 (1956), where the line as surveyed and staked was held not to control over course and distance stated in the deeds. The court distinguished the case from the Thiel decision on the grounds that the Thiel rule applied only to divisions described by lot and block, whereas this case dwelt with a division by metes and bounds description. The author finds it difficult to understand the practical basis upon which this distinction is founded.

should be made to establish lines as they were originally surveyed and marked before the surveyor, or the court, should undertake to set an entirely new boundary line by application of a variant of the apportionment rule, when evident in a particular case that the reasons upon which the rule is based do not exist.

ROBERT J. GRIFFIN