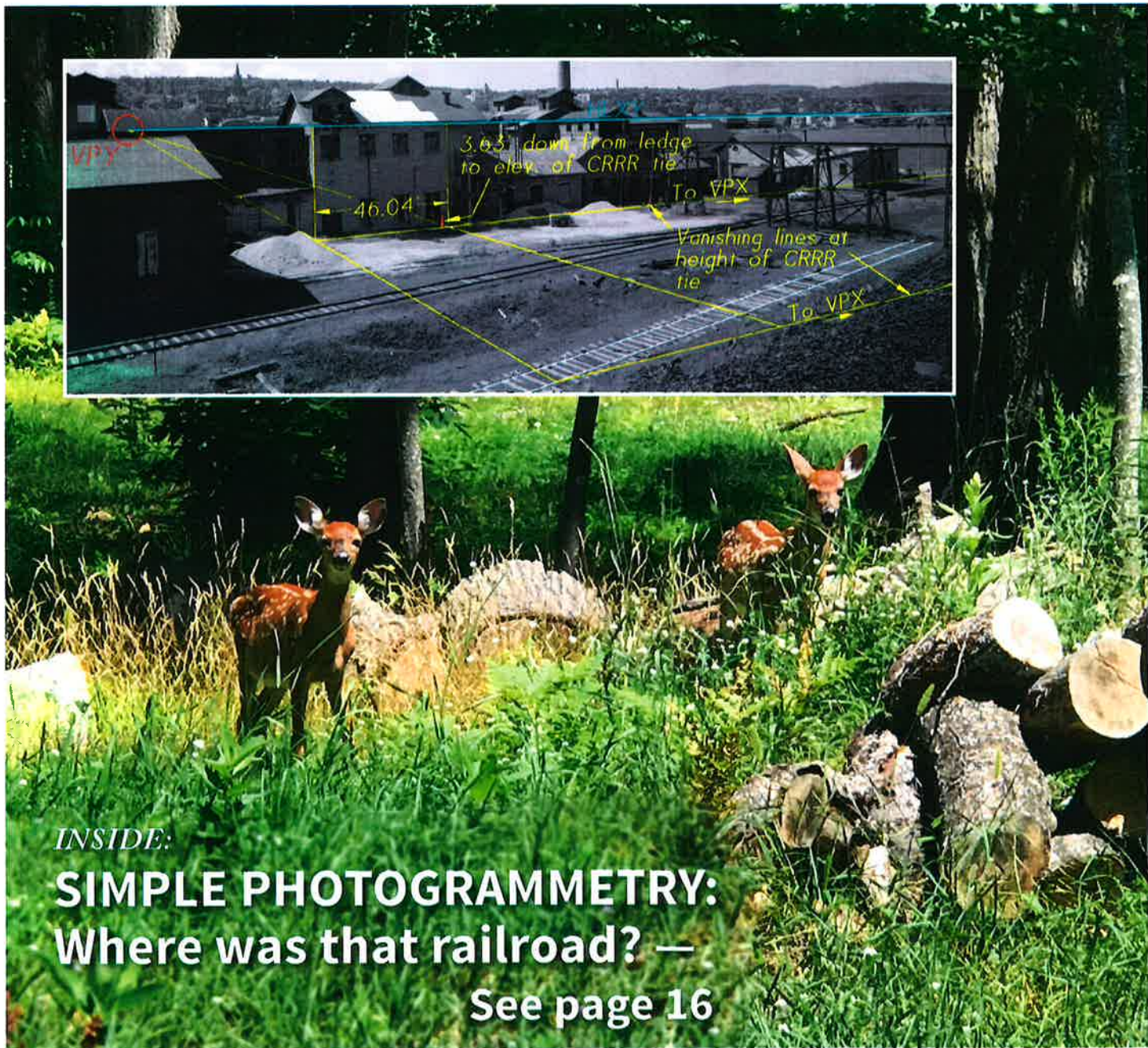
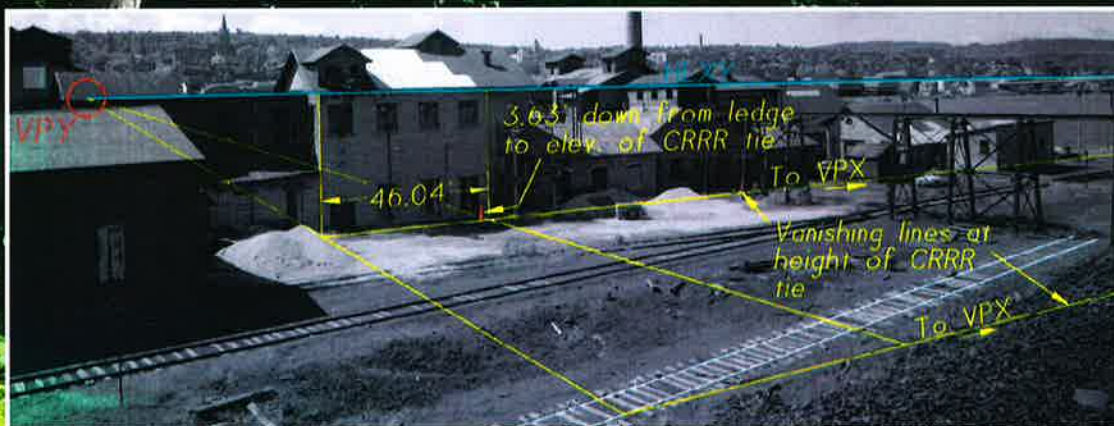




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**PROTECT
PROMOTE
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WHEN WRONG IS RIGHT

BY: RICHARD M. WILSON, JR.

One of the more difficult ideas to convey to persons unschooled in the law or practice of surveying is the supremacy of the original United States General Land Office (“GLO”) surveys. I know this because I have had to do it on more than one occasion. The concept of ‘supremacy’ in this context, is as opaque to most people as Thomistic Philosophy, because no matter how you phrase it, the explanation involves the use of morally absolutist terms, such as ‘right’, ‘correct’ and ‘true’, that in the end have nothing to do with ethics or morality, but are simply legal precepts that, upon examination, have a firm basis in logic and public benefit. In application to real life situations, it can often seem to be both wrong and unjust.

Most people experience surveys from the retail end. They may have commissioned a survey when they bought their home, or the seller had an existing survey that was passed down at closing; they may or may not have located most of the survey marks shown on the plat. The sense of security in ownership of a parcel of land with defined boundaries that a survey provides to its owner is hard to quantify, but it is real. Consequently, understanding the supremacy of the GLO survey is often impeded by the implied challenge it presents to the landowner’s sense of security of ownership. Even people who regularly deal with surveys as part of their profession or business just see the final results of the surveyor’s work because that is all that is relevant to their tasks. Unlike the dissonance felt by a homeowner, a survey that is inconsistent with the GLO that is relied upon to plan, finance and construct a multi-million-dollar real estate development, can unsettle more than a developer’s sense of ownership and for that reason is avoided at all cost, often considerable.

Surveys used in business aside, beyond the survey of the family home, most people have no reason or need for anything else in the way of surveys, and certainly no reason to know what a GLO survey is. And then one day a survey crew shows up in the neighborhood, as happened to my first client with a GLO survey issue. The crew was working for the United States Forest Service, and as they worked new survey marks, lath and flags began to appear along the road right-of-way. My client’s home was located in an area largely surrounded by the Manistee National Forest and he had lived there with his family for many years. He had a survey from around the time he bought it—more than 15 years ago – and knew where the monuments were located, at least the ones marking his boundaries. He described how one day he came home from work and the flags began appearing in places that were not consistent with what the law refers to as the lines of practical occupation. As he described it, things had become confusing for him quickly. Although not depicted on the survey, he knew from the location of the iron stakes shown on it that his house

and garage were located correctly on the land described in the surveyed metes and bounds description that was also used in his warranty. When he spoke to the surveyors, he was told the marks were the boundary of the federal lands and one of the lines established by the crew ran through his garage. The skills that the field staff needed to effectively deal with confused and irate landowners were apparently not taught at the survey school they had attended, and emotions become strained. In an ironic reversal of its original meaning, Justice Cooley’s famous aphorism that the “visitation of the surveyor” would become a “great public calamity”¹, was exactly what drove this homeowner to my office.

My client’s predicament has played out more than a few times in the forests of northern Michigan. For some years the United States Forest Service (USFS) had been surveying the national forests we are blessed with in Michigan, including the Manistee National Forest. In many cases, these USFS surveys have conflicted with long held lines of occupation and private surveys. When I contacted the engineering company performing the survey near my client’s property, it advised me that it was required by the USFS to resurvey the boundaries of the forest by tying in to original GLO corners. My client’s survey had, as a starting point, an established interior 1/16 corner, as I recall, set by a previous surveyor. In other similar cases I have since been involved in, the corner of a platted lot, or some other hitherto reliable monument had been the basis of the owner’s survey. In my client’s case, because the adjoining lands were owned by the federal government, establishing adverse possession of the property in question was not a viable option. The client, naturally, also wanted to know how it was that the surveyors working for the government could just come along, reset his lines and ‘take’ his property? He knew where the monuments of his survey were located on the ground, and his deed said that is what he owned, or at least he thought he had, until the surveyors told him that the line running through his property marked the boundary of the national forest owned by their employer. It was at this point that I knew I had to explain why the USFS survey was likely “right” and his might not be. But, at the time, I did not really know why it was right myself, so I told my client I would do some research and get back to him.²

The system by which public lands were first surveyed for purpose of sale in this country predates the establishment of the Republic itself, although its authors were instrumental in the creation of both. While the colonies were still governed by the Articles of Confederation, the Continental Congress appointed Thomas Jefferson and two other representatives from the Carolinas, and two from New England to a committee that drafted an ordinance requiring the lands of the western territories, which

¹ *Diehl v Zanger, 39 Mich 601, 605 (1878) (Cooley, J. concurring)*

² *In the end, it turned out that my client’s survey was not “right” in respect to the GLO monuments relied on by the USFS, but that story is for a different time.*



at that time meant what is now Ohio³, be surveyed and divided into squares ten miles on a side, and further subdivided into lots one mile square. After debate and amendment in committee, the ordinance that was reported to Congress on April 26, 1785 called for the surveyors to divide certain parts of the territories into squares seven miles on a side, by running lines due north and south seven miles apart, and others crossing at right angles also seven miles apart, with the “townships” so created to be further divided into one mile “sections.”⁴ A few days later, James Monroe, who would become the fifth president of the United States, seconded a motion to change the size of the townships from seven miles square to six miles on a side, with sections numbered starting at 1 in the southeast corner and running south to north with section 36 in the northwest corner of the township. And thus, the Land Ordinance of 1785 was born. The system of numbering sections established by the Land Ordinance, version 1.0, lasted until the current system – with section 1 in the northeast corner of the township and running east to west and back, with section 36 in the southeast corner—was adopted in 1796. The Land Ordinance of 1785 has been amended many times since the 18th Century, but the principles for surveying and dividing public land remain essentially intact.⁵

Michigan was surveyed in accordance with these early federal acts, and its townships laid out at various times during the early

and mid-1800s. The plats are available online⁶ in their original form and are filled with historical information of landmarks long gone and even a few quirks. One of these is that the names of the surveyor who surveyed the township lines, and the surveyor who did the interior subdivisions, as well as the dates of their separate contracts, are different and set apart distinctly on the face of the plat. At first it seemed curious to me that the survey crew that laid out the township lines would not also complete the interior subdivision. They were “in the neighborhood”, after all, and given the wilderness conditions that existed across most of the state at the time, sending out two separate crews was doubly expensive and inflicted twice the misery on the poor souls forced to travel with equipment and provisions overland through the vast expanses of black fly and mosquito infested swamps and dense forests that made up much of early Michigan. In fact, the use of separate surveyors to run the township lines entirely independent of their subdivision was a federal requirement and an early quality control measure.⁷ And that fact, as I learned, played an interesting role in the story of the supremacy of the GLO surveys and what exactly that means.

As Justice Cooley observed early on, “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 as true of the government surveys as of any others, and if all

³ *The survey commenced under what became the act of 1785 started at the intersection of the Ohio River with the western boundary of Pennsylvania (known as Endicott’s line).* 1 Patton and Palomar on Land Titles 116 (3d ed.)

⁴ *This foundational ordinance is the first recorded use of the terms “township” and “section” in relation to land surveys.* Higgins, Jerome S. (1887). *Subdivisions of the Public Lands, Described and Illustrated, with Diagrams and Maps.* pp 33-34, 78-82.

⁵ See 43 USC §751, 752.

⁶ http://www.michigan.gov/som/0,4669,7-192-78943_78944_78955-31058--,00.html

⁷ *Hess v Meyer*, 73 Mich 259 (1889)

When Wrong is Right continued

the lines were now subject to correction on new surveys, the confusion of lines and titles that would follow would cause consternation in many communities.”⁸ Which is not to say that the GLO survey, if long ignored for nearly two centuries, cannot sometimes be the “new survey” creating “the confusion of lines and titles” and causing “consternation in many communities.” It was certainly the “new kid” on the block when my client was presented with it decades after he had first occupied his land. It was not from errors in the GLO survey, however, that my client’s fear, confusion and consternation arose, for, as it turns out, GLO surveys, like the gods, are without error. Let that sink in, and then try to explain it to a client who just wants to know if he’s going to have to move his garage and is anyone going to pay him for it?

To see how we got to this point, and explain it to our clients, we need to examine some of the rules the law has established to deal with these issues. The ‘golden rule’, of course, is this: “If the stakes or monuments placed by the government in making the [GLO] survey to indicate the section corners and the quarter posts can be found, or the place where they originally were placed can be identified, they are to control in all cases.”⁹ “All cases” means pretty much “all cases”. There are no loopholes or exceptions that I can name. Anything as inflexible as the “in all cases” rule can be easily applied, but is sometimes harsh in its results, just as many inflexible rules are. On the other hand, the questions that arise—and the rules intended to resolve them—when the original monument is missing or “lost” are not so absolute. How then is a lost corner to be restored? The Michigan Supreme Court’s answer to that question is one of a lawyer’s favorites: It depends.

On the evidence, that is. When faced with a missing GLO monument the surveyor must do what he would do if looking for his missing car keys. His first task is not to look where the monument “should be”, but to where the guy whose name is at the bottom of the GLO plat, in fact, left it. “No rule in real estate law is more inflexible than that monuments control course and distance. . . .”¹⁰ Therefore, the question “is not how an entirely accurate survey would locate” the missing GLO marks; rather, “the question is where were they located” that is, where is “the actual location of the original landmarks” set by the original government surveyor? “If they are no longer discoverable, the question is where they were located, and upon that question the best possible evidence is usually to be found in the practical location of the lines, made at a time when the original monuments were presumably in existence and well known.”¹¹ Sounds simple, right?



In the eyes of the law, the question to be answered in cases of missing GLO marks is factual, that is, geographical, not geometrical. Any relevant evidence is admissible to prove a missing corner. The obvious exhibits, like the field notes of the surveyors, and witness marks, are given great weight. Over the last 150 years, locating original section and quarter section corners by reverse surveying from the “practical location” of existing occupation lines, as suggested by Justice Cooley, has only become more difficult than it was when the GLO monuments were at most only a few decades old. Read narrowly, Cooley’s reliance on ‘practical locations’ as evidence of a missing mark is based only on the rebuttable presumption that the location of the original monument was known when the lines of occupation were first established. In a dispute where the location of a missing corner is advanced in reliance on the ‘practical location’ of an existing or previously found line, if contrary evidence is present, the proponent, as in the case of any rebuttable presumption, has the burden to prove by a preponderance of the evidence that those lines existed when the location of the original monument was known. The Legislature eventually stepped in and adopted Act 149 of 1883 authorizing the county boards of supervisors across the state “to provide for ascertaining, preserving and maintaining the original section corners and quarter posts, as surveyed and recorded by the original survey.”¹² Presently, many of these issues are resolved by application of the Corner Recordation Act¹³ and Survey and Re-monumentation Act¹⁴. When holding to reliable lines of occupation or other reliable evidence is impossible, missing GLO corner and quarter section monuments should be placed at the intersection of a

⁸ Diehl, *supra*

⁹ *Hess v Meyer*, 73 Mich 259, 264 (1889)

¹⁰ Diehl, 39 Mich at 605

¹¹ *Id*, citing, *Stewart v Carlton*, 31 Mich 270 (1875)

¹² MCL 54.221, *et seq.*

¹³ 1970 PA 74, MCL 54.201, *et seq.*

¹⁴ 1990 PA 345, MCL 54.261, *et seq.*

north and south and east and west line, surveyed between the nearest known government monuments. Properly located, the restored monuments have the same inviolability as the originals, that is, they control 'in all cases.'

Natural features like lakes and rivers that may advance or recede, or change their course over time present an interesting twist on the rule that government marks rule in all cases. Of course, these features are surveyed in such a way as to surround them with government "lots" of varying acreage depending on the relative location of the subdivision lines of the section that do not intersect the lake or river. Lots then, by definition, have as one of their boundaries a body of water or other natural feature that impeded the government surveyors' job of placing permanent marks on the surface of the earth. Because of the supremacy of the GLO, it has to follow that "even if the location is incorrectly described in the survey, the boundary is nevertheless conclusively set to be the body of water wherever it actually lies."¹⁵ This is a corollary of the broader principle that "courses and distances must give way to natural boundaries."¹⁶ But even the federal government surveys cannot hold back Mother Nature, and so, if a lake recedes and pulls its shoreline across a section line as it does, the original lot boundary nevertheless remains the shoreline and is pulled into the next section with it, for it is equally well established that "section lines, not being physical, are not monuments of any sort."¹⁷ Thus, following a recent case, the western boundary of government lot 4 in section 26 of Summit Township in Mason County, is now located in what the Court of Appeals described as "the theoretical square of what should be Section 25" as the result of the historical recession of Bass Lake.

In the end, the supremacy of the GLO survey that caused my client so much consternation comes from the laws enacted by Congress for the division and sale of the public lands of the nation. In the words of the 1805 version of the Land Ordinance of 1785, "The boundary lines actually run and marked in the surveys . . . shall be established as the proper boundary lines of the section or subdivisions for which they were intended."¹⁸ But, as Justice Cooley emphasized, the supremacy of the GLO surveys come also from the practical public benefit that is derived from having consistency in the settled lines that first laid out the lands of the State of Michigan, most if not all of which was originally granted or patented by the federal government by reference to the GLO. He knew that the United States Supreme Court considered it:

...a well settled principle that when lands are granted according to an official plat of the survey of such lands, the plat itself, with all its notes, lines, descriptions and landmarks, becomes as much a part of the grant or deed by which they are conveyed, and controls so far as limits are concerned, as if such descriptive features were written out upon the face of the deed or the grant itself. *Cragin v. Powell*, 128 U.S. 691, 696, 9 S. Ct. 203, 205 (1888)

¹⁵ *Wanzer Jonkers v Summit Township*, 278 Mich App 263, 270 (2008)

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Palmer v Montgomery*, 59 Mich 338, 340 (1886)

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When Wrong is Right continued

Much of the land in the state is still conveyed by reference to the original government townships, ranges and subdivided sections, and as Justice Cooley clearly foretold, the supremacy issue has always been with us. Because of his guidance, and because we continue to follow it, the “consternation” and “simply incalculable” “mischief” caused by confused lines and titles that would otherwise arise, have not come to pass and the visitation of the surveyor has not been “set down as a great public calamity.”¹⁹

But there is an even more subtle ‘supremacy’ hiding in the general law of supremacy that flows from GLO monuments controlling “in all cases.” If the rule only went so far as to say that lines run from these marks were the “proper boundary”, over time, and as monuments disappeared, even the supreme GLO lines could move as small errors in the re-setting of lost marks moved like waves maliciously rippling through the process of re-setting the surrounding marks as they too became lost over time. In short, saying that the GLO marks control “in all cases” is not enough, by itself, to prevent “the confusion of lines and titles” that it was intended to prevent. In order to achieve the practical public ends that Justice Cooley sought, there had to be what philosophers call the unmoved or prime mover, the spot that did not move under any circumstances, that stopped the progression of relativity among marks *ad infinitum*, and that could serve as the immovable mark upon which all other marks were dependent, and against which all errors in the placement of marks, even GLO marks, were judged.

The ‘immovable’ marks used in the federal system are the section corners and quarter posts that lay on the township lines, the east-west lines laying six miles apart, and that mark the north and south boundaries of the townships. The best description of their special status I have run across is the description given by Justice Champlin of the Michigan Supreme Court in the 1889 case of *Hess v Meyer*.

The town lines are run due east and west, and section corner posts are placed, with the appropriate witnesses, at intervals on the line 80 chains apart. Quarter section posts are also set along the line 40 chains from the section corners. These exterior lines of the township are entirely independent of the interior subdivisions, and are to be made by different surveyors; the regulation of the department of the interior, which has the force of law, not allowing the same surveyor who runs the exterior township lines to subdivide it. The chains used in making the government surveys, although intended to be of standard length, are not always so, from wear in use, from climatic or other causes, and hence it is that surveys made by different surveyors, at different times, seldom correspond exactly as to distances between known monuments. Township lines are required to be straight lines a distance of 480 chains. Therefore when any two known monuments are found to exist on such line a right line between these monuments would represent the location of the town line; and *although the section corners on an east and west town line may, through error in the chain-men, be located*

and placed by the government survey either east or west of where it should properly have been placed, and must so remain, there is no such liability to error as to placing them either north or south of the proper place on such line. They are not dependent upon section corners or quarter posts placed when the interior of the sections are surveyed, because, as before stated, they are placed in position anterior to and independently of such interior surveys. It follows that, where a section corner on an east and west township line is lost, the proper method would be to run a straight line from the nearest known monument on the town line on either side of the lost corner or corners, and replace the post, according to the field-notes of the government survey, upon the straight line connecting the two known monuments. Such town line cannot be swerved from a right line by measuring from a known quarter section corner north of the line to one south of such line, and dividing the distance. To do so would make the survey of the town line subordinate to the survey of the subdivision of the township, when the contrary is not only the rule, but the fact.²⁰

When it comes to the town line, the question of where it “should be”, east and west along the line, is a valid question, although a more accurate location will not alter the supremacy of the original location. But as to a town line’s relation, north or south, to some other mark or line, the question of where it “should be” or where its “proper location” is, are meaningless questions. Where they are in fact is where they should be in law, and where they should be in law is where they are in fact. In this respect, the township line is always right because it is “without error”; or, in the words of Justice Champlin, “there is no such liability to error as to placing them either north or south of the proper place.” Thus the ‘supremacy’ of the town line marks over all other lines and marks is a consequence of their independence from all other marks except those with equal supremacy, that is, those marks also located on the town line. And this is not only by law, “but the fact”, because that is how and why they were established in the first place, by independent surveyors, working at different times and under different contracts with the government. The quality control measures I mentioned earlier. If the GLO is supreme, it is because the town lines are king. And it is this king that, in the end, underpins not only the legal supremacy of the GLO surveys, but also their practical supremacy as providing, in the town line corners, the ultimate spot on the ground from which errors in other surveys and measurements can be calculated and judged for accuracy.

From my client’s perspective, of course, this survey king was more like a tyrant than a prince, as it plundered its way through the neighborhood upsetting lines of occupation that have existed for many years, although whether they were established in relation to the original government marks, set over 150 years ago, was an open question. Fortunately, surveys do not establish or confirm titles to land, only courts and people can do that, so the end of the story for my client was not as bad as it could have been. All these many years later, he is, so far as I know, still living on the same property he was when he came to see me, garage and all.

19 Diehl, 39 Mich at 605.

20 Hess v Meyer, 73 Mich 259 (1889)