



Journal of the Vermont Society of Land Surveyors
Volume 53, Number 1 | Spring 2022

The Cornerpost

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The Cornerpost

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SEND IN YOUR NEWS

Have you ever contributed to *The Cornerpost*? Its success depends on all of our members. Please consider making a contribution to an upcoming issue. Send your articles, news and photos to kelly@vsls.org. Everything is welcome that may be of interest to your fellow surveying professionals.



ON THE COVER

This month's cover photograph comes from Trudell Consulting Engineers. TCE Survey Crew Chief Brad Perry took the photo of Boone Meeden, Land Surveyor Technician II, after the two discovered a possible lot corner in Hartland, Vt. The rare monument sported flags that had been left by another company. "It was located at a barbed wire corner," Boone says, "and was one of the more unusual monuments I've found in Vermont."

If you see anything interesting in your travels, please snap a shot and send it to kelly@vsls.org.

PRESIDENT'S CORNER

VSLs PRESIDENT RANDY OTIS, L.S.



AS WINTER WINDS DOWN and spring approaches, I'm looking forward to the new energy and warmer weather it brings. The last two years have been some of the more challenging in my career, thanks to Covid. This year is poised to be another challenging one, with the conflict we're seeing globally, high fuel prices, the risk of recession, and hiring struggles. In the face of these challenges, I am thankful for those who have helped me to get here, and hopeful of a good year despite the tough times.

One of the reasons I volunteered to be president of VSLs was the hope of helping people get excited about surveying. Specifically, to try and make a difference in getting younger people involved in the profession. I too often hear the phrase "dying profession" used to describe surveying, yet surveying is needed for so many things around us, from the roads we drive on to the buildings we work in to the boundaries of ownership that we hold dear to our hearts. We need to be more in the public eye, advocating for our profession and the colleges that prepared us, in order to bring new surveyors into the fold. I wouldn't be here, licensed in two states and serving as the president of VSLs, if it weren't for a lot of good people who encouraged me along the way. I encourage all of you to be a mentor to younger surveyors, to bring prospective surveyors to some of our conferences, and to volunteer.

One opportunity to volunteer includes the Vermont Historical Society's research project on James Wilson, the first American globemaker, who lived in Bradford, Vermont, more than 200 years ago (article on page 6). Several members have volunteered to work with Amanda Gustin from the Historical Society to have hands-on mapping and surveying activities this summer. This is a great way to introduce young people to the profession. If you'd like to get involved in an activity near you, please send Kelly Collar a note at kelly@vsls.org.

In other news, there is much to be excited about with new developments in the surveying profession. New technology is changing many aspects of how we do our jobs, including the types of jobs we do. I recently started operating a stationary 3D laser scanner, as well as a sonar probe for bathymetry. Each of these new pieces of equipment has opened the door to new ways to get outside, or just out of the office, that I never guessed would exist when I first started surveying.

Speaking of technology, I'll see you online for our Spring Seminar on April 29, which will take place over GoToWebinar. I look forward to seeing you in person later in the year, and I hope you'll encourage your techs to join us at one of our events. Until then, stay safe and positive, everyone. 🌱

Randy Otis

VSLs PRESIDENT

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A NEW AMERICAN GLOBE: GEOGRAPHY, IDENTITY & CRAFT IN EARLY VERMONT

In December of 1827, members of Congress received an invitation to examine a new American product on display at the Library of Congress: a pair of 13-inch globes. James Wilson, who issued the invitation, flattered the members “as friends of American production and ingenuity” and boasted he had brought the manufacturing of globes “to such degree of perfection as to supersede altogether the necessity of importation of that article from abroad.”

1 James Wilson finished his first globe in 1810, and only four examples of this early globe remain. The 1810 globe pictured here is in the collections of the Vermont Historical Society (VHS).

2 VHS staff have traveled across New England examining as many examples of Wilson’s Vermont-made globes as possible; here, Collections Manager Teresa Greene examines an 1811 globe in UVM’s Silver Special Collections Library.

3 Wilson, who lived to the age of 92, is pictured here in a copy of a daguerreotype made toward the end of his life, from the collections of the Bradford Historical Society.



Who was Wilson? How did he reach the point of sharing his products on a national stage? The answers to those questions start in Vermont – and are the subject of a new research project by the Vermont Historical Society.

Established, concrete facts about James Wilson are surprisingly difficult to find. He was born in Londonderry, New Hampshire in 1763, and in his thirties, moved to Bradford, Vermont. He was primarily a farmer and worked and identified as such for most of his life.

How exactly he gained education and training is unclear; some sources claim he spent a brief time apprenticed as a blacksmith as a young man, and others suggest his early circle of friends included those studying at Dartmouth. One of the few documents we have in his hand makes it clear he was articulate and possessed firm opinions about religion and business.

By the 1790s, Wilson was well-established in Bradford, owning a large

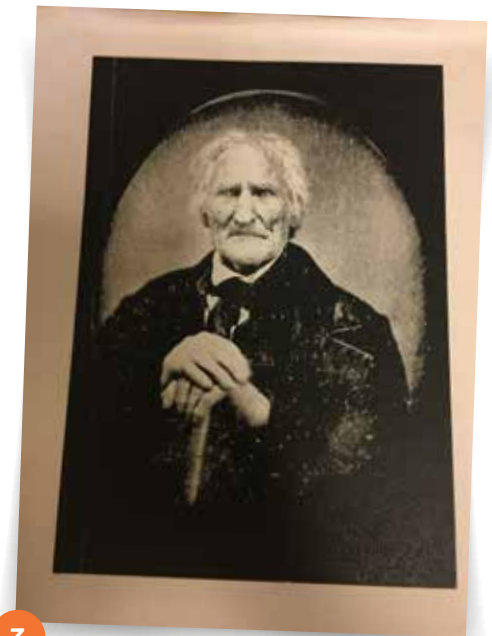
acreage of land that fronted the Connecticut River. It was during a reputed trip to Dartmouth College to visit a friend, when he first viewed a set of terrestrial and celestial globes on display. Supposedly, from that moment on, Wilson became obsessed with making globes. He purchased a set of the Encyclopedia Britannica (1797) and began experimenting with simple wooden balls. Eventually, he developed a process that closely followed steps laid out in the encyclopedia.

First, Wilson turned a wooden sphere to be used as template. Onto that template, he laid a thick mix of papier-mache. Once that dried, Wilson cut the ball across the center, peeling off the two halves. The two halves were attached to a wooden dowel, and then re-sealed at the equator line. Wilson then applied a layer of plaster top of the papier-mache, and when it dried, turned the resulting sphere on a lathe to smooth and even it out.

Once the ball itself was ready, globe-making turned from craft to intellectual exercise. Globes are printed onto flat sheets of paper in sections called “gores” that resemble orange peels. Each of Wilson’s 13-inch globes required six gores and two additional circles for the poles. Translating maps to gores was a mathematical challenge: essentially, a globe cartographer had to reverse the projection work that a flat map cartographer would do, instead translating the flat to the spherical.

It is in the creation of these maps that our biggest remaining questions lie. While the traditional account is rife with rich stories, the actual historical record is mostly silent.

Did Wilson draw his own maps, or did he copy them from another source? We know that he engraved his own plates, but we don’t know how he learned the art of engraving. Did he



3

print his own gores, or did he produce a plate that he then turned over to another collaborator? To what extent did he produce the other necessary parts of the globes (the wooden globe stand, the brass meridian ring, and other small parts) and when did he commission that other work from other producers in his area?

These and other process questions remain elusive, and are still the subject of active inquiry. The Vermont Historical Society has examined over two dozen remaining Wilson globes spanning thirty years of production, as well as archives in both public institutions and private collections across New England. We continue to add to our body of proven knowledge about Wilson, revealing the story of a strikingly intelligent and resourceful man who was deeply embedded in an intellectual and handcraft community.

However Wilson made the leap from enthusiastic amateur to polished globemaker, he had completed that arc by 1810, and likely sold his first globes early in that year: a terrestrial model



It was during a reputed trip to Dartmouth College to visit a friend that James Wilson first viewed a set of terrestrial and celestial globes on display. From that moment on, he became obsessed with making globes.

4 At the end of his life, Wilson created a handful of orreries, or models of the solar system. Only one still survives in the collections of the University of Vermont, pictured here with VHS Director of Collections & Access Amanda Kay Gustin.



The Vermont Historical Society's exhibition "A New American Globe," featuring three Wilson globes and other related material, will open on July 2, 2022 at the Vermont History Museum. This summer, VHS will partner with land surveyors and historical societies across Vermont in a series of programs to explore the history of surveying, mapmaking, and geography. If you would like to be involved with these programs, or contribute to the project in any other way, please contact Amanda Kay Gustin, Director of Collections and Access, at amanda.gustin@vermonthistory.org.

that today only exists in four examples. Production ramped up quickly and an 1811 model followed in short order, with a celestial version, showing the position of the stars in the sky, emerging in 1812.

By the mid-1810s, Wilson's globes were sold as far away as New York City and Boston, as well as locally. Whether intentionally or accidentally, Wilson entered a market with high demand. To that point, there were no globes made in America available for purchase. Schools, wealthy individuals, scholars, and others who wanted to have a globe had to purchase imported English models, often at great expense.

Sometime between 1815 and 1818, Wilson decided to move production of the globes from his farm workshop in Bradford to Albany, New York. By this point, at least two of his sons (John and Samuel) were involved in the day to day running of the business, with a third son, David, eventually moving to take up work on the globes.

The new "J. Wilson & Sons" company issued an updated terrestrial globe in 1819 and an updated celestial globe in 1821, and commenced selling the new globes in earnest. By 1822, when Samuel Wilson wrote to his father with business updates, the company was producing globe balls several hundred at a time, and had firmly cornered the American-made globe market.

Thus, the company arrived at their moment on the national stage in 1827, seventeen years out from James Wilson's first polished globe in 1810.

By 1833 all three of his globemaking sons had passed away, and that year he sold his

company to a longtime family friend and company employee named Cyrus Lancaster. Lancaster kept most of the Wilson hallmarks – the same style of globe stand, the thirteen-inch size, the advertising bent toward emphasizing the American-made – and continued to produce globes for at least two decades. The last globe marked "J. Wilson & Sons" (Lancaster kept the original company name) known is dated 1850, and Lancaster himself passed away in 1855, having moved to New York City in the intervening years.

As for James Wilson himself, he continued to live on his Bradford farm while the company he had founded thrived in Albany. He traveled occasionally to support a new line of production or to offer advice and expertise to his sons, but generally stayed out of the globe business after the early 1820s.

Wilson had one final creative obsession toward the end of his life. In his late eighties, he designed and produced three orreries, or models of the solar system. He gave one to Bradford Academy, one to Thetford Academy, and kept one within the family. The last of these is now in the collections of the University of Vermont, and it is a remarkable example of Wilson's work. It shares many stylistic similarities with his early globes, but it also shows, both symbolically and literally, how his mind had expanded in the decades since.

James Wilson died in Bradford in 1855 at the age of 92, and on his gravestone he was identified with his most famous endeavor: globemaker. 🌐



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SHEDDING LIGHT ON THE PATENT OF FINCASTLE

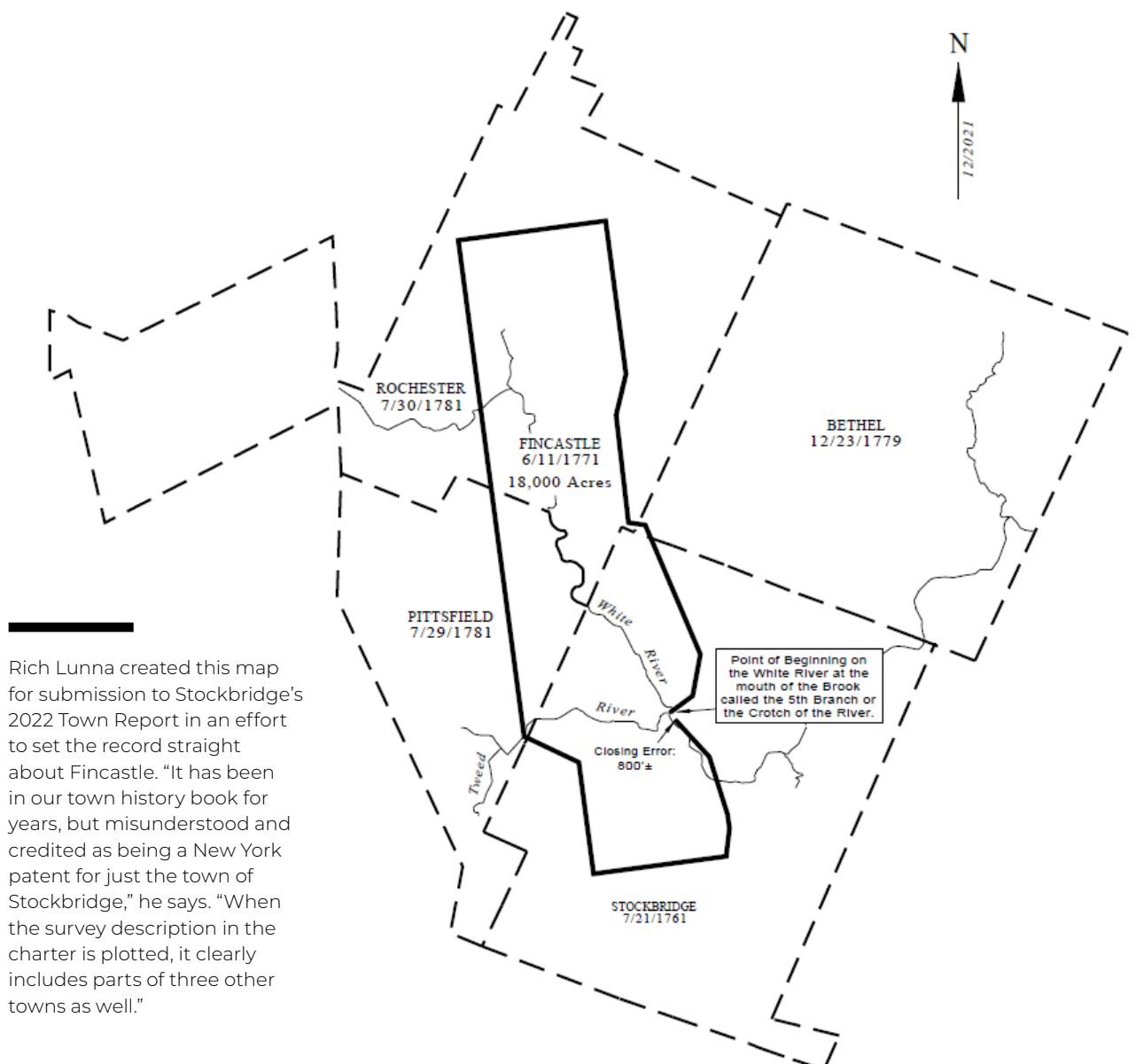
NEW YORK issued 107 “patents” in what is now Vermont, the majority of which were created between 1765 and 1775. A patent was New York’s version of a land charter.

The patent for a tract of land called “Fincastle” was issued by the Governor of New York with the blessing of King George III on June 11, 1771. The patent was granted ten years after the New Hampshire charter of Stockbridge and about ten years prior the Vermont charters of Pittsfield and Rochester. There has been conflicting information in various sources about Fincastle’s

location, but according to its survey it overlapped a considerable amount of Stockbridge and extended into part of the forthcoming towns of Pittsfield and Rochester and possibly a small part of Bethel.

Fincastle was essentially a “paper town,” as it was never settled. Reasons may have included its encroachment onto the existing town of Stockbridge and the growing hostility between the Colonists and the New Yorkers during that period.

— RICHARD LUNNA, L.S. #480



Rich Lunna created this map for submission to Stockbridge’s 2022 Town Report in an effort to set the record straight about Fincastle. “It has been in our town history book for years, but misunderstood and credited as being a New York patent for just the town of Stockbridge,” he says. “When the survey description in the charter is plotted, it clearly includes parts of three other towns as well.”



BY GAYLE BURCHARD, VERMONT NSPS DIRECTOR

This year's Lobby Day will be a virtual event, with NSPS directors having online meetings with their state representatives.



NSPS Spring Meeting Coming Up

The 2022 NSPS Spring Business Meeting is taking place from March 29 to April 2 in Arlington, Va. This annual event brings together NSPS directors from around the United States for committee meetings and business affecting the profession as a whole.

One of the highlights of the meeting is Lobby Day, which is set for March 30. This year, rather than visiting Capitol Hill in person, we will have a virtual event in which each state director has meetings with their state legislators and senators and presents "asks" for them to consider. We will focus on three issues:

- Design professional licensing.
- Corps of Engineers surveying, mapping, and geospatial engineering in the 2022 Water Resources Development Act.
- Reform of surveying and mapping in FEMA's National Flood Insurance Program reauthorization.

Following Lobby Day will be the NSPS Spring Meeting and the Student Competition in Arlington.

You may know that Tim Burch was recently appointed as the new executive director of NSPS. Therefore in February, he resigned his position as NSPS president-elect. In accordance with the organization's by-laws, Amanda Allred will complete Tim's term as president-elect and then be inducted as NSPS president at the General Membership meeting on April 2.

At that same meeting, Vice President Bob Akins, who was elected to the position of vice president, will be inducted as president-elect.

This year Nolan Mark will be taking over as chair of the Public Relations Committee, which I think is a great fit. Mark leads the Young Surveyors Network in Indiana, and who better to educate the general public about the profession of surveying than a young surveyor?

I will be attending the Certified Floodplain Surveyor Committee Meeting and hopefully will have more information for everyone who is interested in becoming certified.

Every year on March 21, a professional surveying association is tasked with picking a Global Surveyor of the Year. For 2022, NSPS was selected to choose a person with a historical surveying background to be named with this prestigious honor. After thorough consideration, NSPS chose Benjamin Banneker (1731-1806) as the 2022 Global Surveyor of the Year. Banneker was an African-American naturalist, mathematician, astronomer and almanac author. He was a landowner who also worked as a surveyor and farmer.

Holt Gilmour Survey Associates will be the first Vermont company to sponsor a coffee break at the NSPS meeting. It's so nice to see a Vermont company looking at surveying as a national profession.

Have a great spring, everyone!! 🌱



Tim Burch, NSPS's new executive director, has been involved with the organization for more than 20 years. He is a professional land surveyor and is licensed in Illinois and Wisconsin.

FS Exam as a Student Graduation Requirement

» BY KNUD E. HERMANSEN, P.L.S., P.E., PH.D., ESQ.



This is my second article focusing on professional practice and education. While I suspect there is support for the thoughts I am going to reveal among the profession, many academic administrators and faculty will disagree with what I am about to say. Agreement of all is never possible. Even the best of advice is often dismissed. (Not that my advice is always the best.) There is an old Jewish saying “If God lived on earth, people would break His windows.”

BY WAY of introduction and upon which my thoughts will be measured, I introduce myself briefly. I taught surveying for more than 30 years and still do contract teaching for surveying and engineering programs. I was a surveyor and engineer for over 20 years in the military before retiring. I have been licensed in several states as a surveyor, engineer, and attorney – almost 50 years as a surveyor. I still have an active license for each profession in at least one state.

“I believe a graduate who has passed the FS exam and placed this achievement on their resume at graduation has many more opportunities for employment and advancement upon graduation than a graduate who has not taken the FS exam.”

The focus for this article will be to advocate requiring the fundamentals of surveying exam in order for a student to graduate from a surveying or geomatics program. Note and I emphasize that I am not advocating the student pass the exam in order to graduate, merely be required to take the exam.

I suspect those reading this article are familiar with the three exams required for licensure. Briefly, the first exam is the fundamentals of surveying (FS) exam. The second exam is the professional surveyor's (PS) exam. The third exam is the state specific exam. The FS exam tests the examinee on topics that a quality surveying program should cover in its curriculum. Most states, if not all states, allow senior college students to take the FS exam. Therefore, there is no barrier to prevent a surveying program from requiring students take the exam as a pre-requisite for graduation.

I provide three arguments for a surveying program to require students take the FS exam.

First, I believe a primary purpose for any surveying program is to provide graduates to feed the needs of employers and the profession. Whether the graduate seeks employment in the private or public sector, licensing is generally required to achieve more pay and higher positions. Licensing is required to own or manage surveying firms offering services to the public. What better way to begin the transition from academics to a professional stature than require the first professional exam while still involved in academic learning?

Second, the breadth and depth of surveying knowledge will never be more retentive than at or near graduation. After graduation, the graduate tends to increase their depth of knowledge in limited topic areas of surveying while forgetting knowledge in other topic areas. By way of example, the new employee that spends the next four years

after graduation doing drone mapping is likely to have forgotten a great deal of knowledge they once possessed on boundary law, measurement adjustment, and so on. Therefore, the best chance for passing the FS exam that tests on a broad range of surveying topics is immediately prior to or shortly after graduation.

I have heard students claim they will be better able to study for the FS exam later, after they are employed and without the academic burdens of course attendance, homework, and course exams. I caution otherwise. My experience shows that the new graduate is often immersed in long hours at work and is soon distracted with marriage, home ownership, child raising, and family commitments. All too often the graduate who has not taken and passed the FS exam while in college fails to pass the exam later or can't commit the time to prepare and take the FS exam later.

For a third reason, I believe a graduate who has passed the FS exam and placed this achievement on their resume at graduation, has many more opportunities for employment and advancement upon graduation than a graduate who has not taken the FS exam. An employer will seek out graduates and pay a higher wage to those that have already passed the FS exam. These students have proven a mastery of topics deemed necessary for professional practice and advancement.


While other compelling arguments can be made, I believe these three arguments are sufficient for those reading this article to understand the basis for my opinion. So why don't all survey programs incorporate the requirement that students take the FS exam as a pre-requisite for graduation?

I will give two reasons that seem to be prevalent reasons told to me. The first reason is that some programs rely on large number of foreign nationals

to increase enrollment numbers and finance university coffers that rely on tuition money. Foreign nationals have no interest or need to pass any professional exam that is not recognized or necessary in their counties of residence. Such is their disdain for this requirement that when forced to take the exam, they select answers without contemplation. These programs fear the foreign student will switch their studies to another program that does not require the FS exam for graduation.

The second reason, perhaps partnering with the first reason, is that program administrators do not want the FS scores to be used to judge the extent of their graduate's knowledge and ultimately the quality of the surveying program. It is no secret among the profession that many surveying programs are on tenuous grounds due to low enrollment or faculty deficiencies. Often students that should not be in college, let alone a surveying program, are admitted and moved along much as many public schools move students along to graduation. Perhaps this happenstance is the eventual outcome of a society that gives a trophy to all participants, not just the winners. I will say no more as rational arguments sometimes get lost or ambushed when placed in this arena.

Having given my opinion, I now offer advice. My advice is for professional societies to press their local surveying programs to initiate this requirement if the requirement is not already a mandate. If the program seeks the support of the profession than the profession should seek the commitment of the program toward the profession by demanding students take the FS exam. 🌱

 Find other books and articles by Knud at <https://umaine.edu/svt/faculty/hermansen-articles>



THE

Riparian

BOUNDARY CHALLENGE

Exploring Why the Riparian Boundary
Isn't Your Typical Boundary



BY DR. RICHARD L. ELGIN, PS, PE

IN THE UNITED STATES, rivers, streams and lakes provide a natural boundary for millions of parcels along thousands of miles of boundary line. As boundaries, rivers are a natural monument, holding the highest priority in the order of conflicting title elements. Visible, their identity certain, they have been used by man as boundaries for millennia. However convenient, and as natural, visible, substantial and inviting as they are for governments, treaties, and owners, they have one huge, troublesome characteristic: *They move!*

There are many other issues related to using waterbodies as boundaries, but their ambulatory nature is what makes riparian boundaries different from all others. This boundary movement, influenced by the whims and vicissitudes of Mother Nature and the designs and construction of man, brings uncertainty. With movement, the extent of title and tract acreage changes; even small differences in fluvial processes can result in large differences in ownership. Landowners face uncertainty in something they desire to be firm and absolute: The location of the boundaries of their real property.

Generally, owners do not like their boundaries to change, their acreages decreasing or increasing, their lands perhaps vanishing altogether. These boundaries can change by forces of nature that are not within the riparian's control. Or one's riparian boundary may be changed by others without the riparian owner's knowledge or permission, such as by artificially-induced river movements. Riparian boundaries frequently bring conjecture to the landowner, consternation to the surveyor, confusion to attorneys, confoundment to the courts and they have conflated commentators.

Additionally troublesome is that riparian boundaries can be four-dimensional: In a plane, their North/East horizontal position can be affected by vertical movement of the waterbody. And time can affect the riparian/littoral boundary location.

(If the river moved slowly or quickly can have an effect.) Four dimensions, very unlike its usual twodimensional boundary brethren.

And most boundary disputes between adjoiners are personal and are based on emotions. The cost of litigating a boundary almost always far exceeds the value of the land in dispute. Not so in some riparian boundary disputes. At stake can be thousands of acres of land or issues worth tens of millions of dollars. The most epic boundary litigation matter in United States history was a riparian boundary dispute: The famous "Red River Litigation" between Oklahoma and Texas. That litigation spent the 1920s in and out of the U.S. Supreme Court and even at this date there remains an ongoing kerfuffle concerning the boundary. Another example is the current "Is it a river or is it a lake" question in Lake Catahoula in Louisiana (with huge ownership and other consequences).

Lex Aquae

With its foundation in English Common Law, courts and legislatures (both state and federal) have proclaimed "lex aquae," the law of the water. Riparian (river) and littoral (lake or seashore) boundaries are part of that law. Riparian boundary law is complex, largely buried in court decisions that set precedents, and, like the shifting sands in a river, it has and will continue to evolve. But it establishes the rules and principles to

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be followed by the Professional Surveyor when determining the location of a riparian boundary.

Boundary control legal principles are fairly uniform nationwide, hence there are books by Skelton, Clark, Brown, Robillard, Wilson and others that do a good job of stating and explaining them. Some legal principles are broadly applicable nationwide. The general riparian rules for erosion, accretion and avulsion are examples and they are adequately covered by the authors listed above. Under the Equal Footing Doctrine, the federal government left most riparian issues to the states (while reserving federal interests). Because states can (and have) developed their own law and rules relative to water law and riparian boundaries, there are differences. Some riparian boundary issues are very state-specific. One doesn't have to dig too deeply into riparian boundary subjects to find rules that are very different state-to-state: If a state owns the bed of a river that is navigable for title (not all states do), what is the title boundary between the state and the upland owner? If you said Ordinary High Water Line, you'd be correct for less than half the states. So, books by the authors listed above don't delve too deeply into riparian boundaries...as they shouldn't.

Some Examples

To illustrate how state-specific some riparian/littoral boundary issues can be, here are some questions or hypothetical situations. For your jurisdiction, state the applicable legal principle, along with any qualifying statements or explanations necessary. No answers are supplied with this quiz because there is not one answer that will be correct for all 50 states and federal lands. One or two will be close to the same nationwide, but even they will need a qualifying note or two.

If you've not accomplished many surveys of riparian tracts, you may not have thought of or encountered some of these circumstances. All of these issues have been before the courts. It is likely these issues are settled for your state. (Perhaps not to the specificity desired by the Professional Surveyor, but the general principle can be stated.)

1. For a non-navigable stream, what line is the boundary between opposite landowners? Define, exactly, that line and how it is located.
2. Who owns the bed of a waterbody that is navigable for title? Is it the State in trust for the public? Is it the upland landowner but subject to an easement in the public for commerce and recreation? Or is it in some other entity?
3. Suppose the bed of a river is navigable for title and is owned by the State. Where is the boundary between the State and the upland owner? Define, exactly, that line and how is it located.
4. Who owns an island that forms in a navigable river?
5. On a navigable river that has barge and commercial traffic, for the states on opposite sides of the river, where is the state boundary? Define, exactly, that line, and how is it located.
6. Suppose a non-navigable lake is not meandered by the GLO and slowly goes dry. The littoral owners hire you to survey their lakebed ownership. First, do these upland littoral owners have any rights in the now dry lakebed? Describe how you proceed.
7. Suppose that post-avulsion on a navigable river, there's a cutoff lake, formed from the abandoned channel. The cutoff lake partially fills in. Who owns the bed of this cutoff lake?
8. Owner A conveys to B "all lands north of the river," then Owner A conveys to C, "all lands south of the north bank of the river." Based on those facts what is C's northerly title line?
9. For your state, are the legal principles different for a river as compared to a lake? If so, define or distinguish the difference between a river and a lake.
10. The GLO meander line is practically never the upland owner's boundary. As the successor to the patentee, the patent being a lot made fractional by a waterbody, the waterbody is the boundary, not the meander line. Can there be an exception, the meander line being the boundary?
11. Suppose in the deed of a riparian tract, its acreage is given. A current survey shows that the acreage mentioned does not include the accretions to the tract that have been added since the deed was written (but has been used in subsequent conveyances for many years). Are the accretions conveyed by the later deeds?
12. Does your jurisdiction embrace or reject re-emergence? That is, suppose that by erosion an advancing river completely erodes and washes away a parcel. The river then retreats, accretions forming where the parcel formerly was located. Who gets title to the "re-emerged" parcel? Does the original owner's title "re-emerge," or, does it accrete and inure to the benefit of the owner of the last mainland the river touched (who could have been previously non-riparian)?
13. On a stream that is non-navigable for title (the upland owner(s) holding title to the bed) does the public have the right to float-fish or canoe through the property? Camp on its banks?
14. Suppose artificial improvements to the banks or in the channel of a river create changes downstream by erosion and accretion. Do the usual legal principles of riparian boundaries still apply?
15. When does the apportionment of an accretion stop, the apportionment becoming fixed? That is, as an accretion grows and changes shape its apportioned lines move as well. When do those lines become fixed?

"Because states can develop their own law relative to riparian and littoral boundaries, some riparian boundary issues are very state-specific."

Is there a difference between navigability for title and regulatory navigability? Is there a nexus between the two? Who decides if a river is navigable for title? Who decides regulatory navigability?

Is, or can there be a difference between federal navigability and state navigability? Can a river be navigable for title under the state test, but non-navigable under the federal test? Can the state test and federal test be different?

Is the river adjoining the tract you are surveying navigable or non-navigable for title? How do you know? Will it make a difference in the survey? Yes! For your state, who determines if a river is navigable for title? [By the way, is there a difference between navigability for title and regulatory navigability? The answer is yes. I know of no state where they are identical. But, in riparian boundaries, statements such as this are dangerous. It seems there is always an exception.]

Note that these questions/situations are focused on inland, nontidal rivers and lakes. Just as many questions could be posed for tidal boundaries.

The Challenge

Each state needs its own manual that addresses its riparian and littoral boundary location principles. Coastal states should include its tidal boundaries. To accomplish this, all riparian/littoral decisions related to boundaries need to be discovered, indexed by topic, read, abstracted, then summarized. With these summaries and aided by learned articles on the subjects, publications and statutes, the legal principles can be stated. The product will be a book on riparian/littoral boundaries specific to the jurisdiction. This has been done for only one state, Arkansas. See "Riparian Boundaries for Arkansas" by the author of this article. Pages: 288. Tables: 30. Figures: 12. Within that book, the answers for each question given above can be found.

To start your state's manual, for the questions/circumstances in the examples given above, do the case law and statute law research necessary to state the legal principle or provide guidance on the matter, specific for your jurisdiction. Cite the applicable decisions and summarize them. Once this is accomplished for each state and the federal lands, someone with high professional knowledge of and experience with riparian/littoral boundaries and who is an excellent writer with lots of energy and unlimited time and resources can edit the resulting tome about inland, nontidal riparian and littoral boundaries and coastal tidal boundaries. It would be a herculean task. That's why no one has done this to date.

This "challenge" is made somewhat in jest, but posing the questions/situations is not. They illustrate how complex riparian boundaries can be, and how state-specific they can be.

Dr. Richard Elgin, PS, PE is a surveying practitioner, educator, researcher, collector and author. He codeveloped the "ASTRO" software products and coauthored the Lietz/Sokkia ephemeris. He wrote *The U.S. Public Land Survey System for Missouri and Riparian Boundaries for Arkansas, Shoulda Played the Flute* (a memoir of his year flying helicopters in Vietnam) and *Riparian Boundaries for Missouri*. He owns a large collection of early American surveying equipment, rides a Moots bicycle and drives an Alfa Romeo 1600 GT Junior. Dick's articles have appeared in "American Surveyor" for many years. He may be reached at: elgin@rollanet.org

◀ This photo illustrates past complex river movements. Today's boundary position will depend on the area's fluvial and title history.



Lawrence Donna ❖ Vermont AOT Rail Section ❖ Dec. 31, 1956 - July 27, 2021



Lawrence (Larry) Donna, loving uncle, sibling, and friend, passed away on July 27, 2021, with family by his side. Larry, a proud life-long Vermonter, was born on December 31, 1956 in St. Johnsbury, Vermont, to Roger and Jane (Wilkins) Donna. He attended Catholic Central School for

all eight grades. He graduated from St. Johnsbury Academy as a proud member of the fun-loving class of 1974. He always enjoyed reconnecting with his classmates at reunions. Larry appreciated the education he received and maintained strong relationships with many members of his Academy class and was a member of the 1842 Circle.

Nick-named “Lumpy” by his friends and co-workers, Larry began working in the grocery business in 1972. He obtained his real estate license in 1982 and became an active member of the Realtor organization. In 1995, and two subsequent times after that, Larry received the Realtor of the Year award from the Northeast Kingdom Board. Two years later in 1997, he served as President of the Vermont Association of Realtors and later as Director for the National Association of Realtors. He also received the Omega Tau Rho award for lifetime recognition.

Following his career in real estate, Larry started work for the Vermont Agency of Transportation in the Rail Section as a Property Management Specialist. In 2010, Governor

Jim Douglas gave Larry’s office an award for demonstrating commitment, talent, and leadership in public service. After a severe stroke in 2010, Larry returned to work at the State in 2011, where he worked until his retirement in 2019.

Larry volunteered for several organizations, often taking leadership roles when called upon, including the Waterford Volunteer Fire Department, The Lyndon State College Foundation, St. Johnsbury Chamber of Commerce, and Northeastern Vermont Development Association. A proud member for over 35 years, he frequented and supported the St. Johnsbury Elks Lodge in his spare time where everyone knew him as “LR”.

Larry enjoyed spending time at hunting camp with family and friends (even when he could not remember to bring his gun). Hunting at camp was optional for him; socializing and a good debate were preferred.

Even after his retirement, he maintained his love for Vermont Railroad history, often spending his free time analyzing his collection of maps and memorabilia. He spoke about railway issues at the Vermont Society of Land Surveyors’ 2016 Spring Seminar and became a VSLS member afterward.

A Funeral Mass was celebrated on August 2, 2021, at St. John the Evangelist Church in St. Johnsbury. Memorial contributions may be made to Mt. Norris Scout Reservation Alumni Association, 113 Center R., Essex Junction, VT 05452, or to Silver Towers Camp, P.O. Box 166, Ripton, VT 05766.

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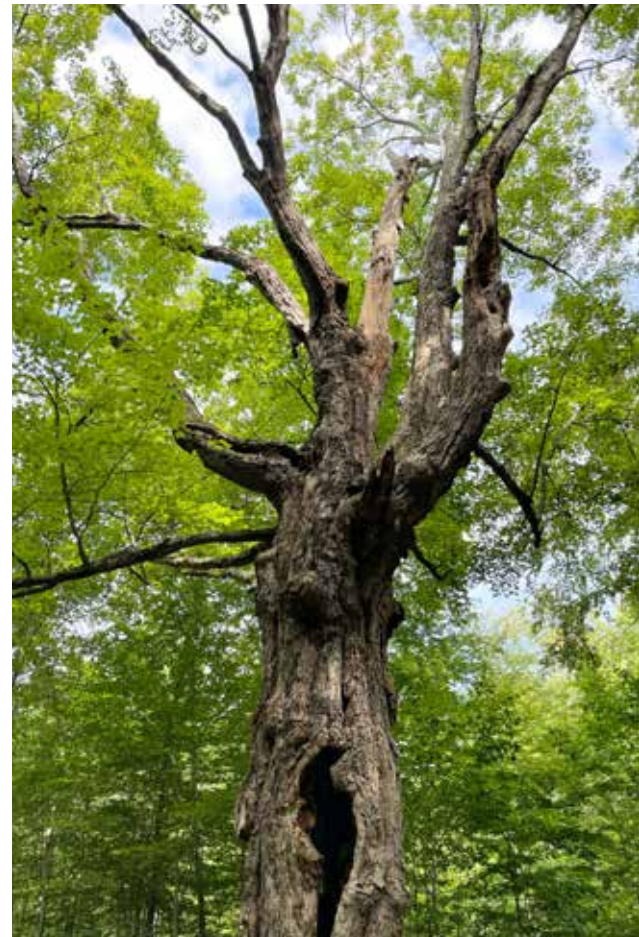
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A STRANGE PHENOMENON

Pete Chase, L.S., sent in these photos of a huge sugar maple that's been slowly dying on his property in Center Rutland for as long as he's owned it — about 30 years. "I even tapped it for a few years when I was sugaring several years back," Pete (pictured above) says. "I've expected it to fall over anytime, especially since I live on the top of a ridge that sees some pretty strong wind gusts."

There's little left holding up the tree, and parts have broken off, as shown in the pictures, but there are still many huge limbs that continue to leaf out every year ... a testimony to perseverance. Pete notes that several of his local friends who spend time in the woods — surveyors, hunters, etc. — have seen the tree recently and remarked that they've never seen anything like it.

"I'm sure there's room to stand up inside, but I'll not be the one to confirm that," Pete says. "I don't run anymore."



ACCIDENTAL DISCOVERIES

Scott Taylor, L.S., sent these photos from his rambles in the woods. The stone wall is on a trail in Westford. “Someone put a lot of time in to building it,” Scott says. “Not just trying to clear a field of stones and piling stones up like you see on older walls.”

He came across the old stone boundary deep in the woods while hiking in the Town Forest in Milton. The snow was about 6–8 inches deep and so covers the lower portion of the marker.



BLAST FROM THE PAST

We recently received a few photos featuring Emeritus Member George Butts, Vermont L.S. #11. George has been a VSLS member since 1965 and will celebrate his 92nd birthday in April. In the photos on the left, George hosts a table for VSLS at the 2010 Vermont History Expo in Tunbridge. At right, George stands on the “Adams Apple” of Mount Mansfield in 2006, at the age of 76. That’s quite a climb!

PHOTOS CONTRIBUTED BY HARRIS ABBOTT, L.S.
MT. MANSFIELD PHOTO TAKEN BY JOHN COLLINS, ESQ.

October 21, 2021, 6 p.m., McCain Consulting, Waterbury

This meeting was held on October 21, 2021 in the conference room at McCain Consulting in Waterbury. The meeting was called to order at 6:11 P.M. In attendance were, Mark Day, Nate Yager, Lisa Ginett, Keith Van Iderstine, Becky Gilson, Paul Hannan and our Administrator: Kelly Cochrane-Collar. Absent: Randy Otis

Secretary's Minutes

Minutes for the Executive Committee meeting for August 19, 2021 were reviewed. The motion was duly made and seconded and the vote was unanimously: to approve the minutes of the August 19, 2021 Executive Committee meeting.

Treasurer's Report

Treasurer's report for the period of Jan 1st to October 20th 2021: Total income for the period is \$43,315.24, total expenses were \$36,478.41, for a net income of \$5,624.82. Bank account total = \$61,423.46. Keith noted that so far our budget is doing okay and he reminded the group that the Round Tables conference will cost about \$4,500.00, but due to the lateness of the conference in the year, it will likely not be paid out of the budget until 2022. Keith also noted that our dues are about 91% paid.

Administrator's Report

Kelly reports that the Round Tables will take place at the Capitol Plaza on Friday December 17. There are 8 tables planned, which include: new tools from VTrans, landowner confrontations presented by a friend of Aaron Fuller's who is a sheriff, GPS capabilities and workflow, online land records presented by Gerald Stockman, old lotting plans presented by Tim Terway of VCGI, Equipment & Calibration presented by Aaron Fuller and tentatively VT Board Issues presented by Joe Flynn. Paul had an alternate request for a table on finding and downloading VT AOT plans online. In the afternoon, there may be a mock trial for one or two hours or one of those hours may be filled by Rebecca Pfeiffer speaking on FEMA issues if she is available. Suggestions for future topics were a seminar on building a portfolio, for young surveyors to prepare for their licensure and also parole evidence. It was noted that Mark Day will be done as president at the December meeting and Randy Otis will be taking over that position.

The Spring Seminar is planned to take place on April 29, 2022 at Lake Morey, though the Program Committee has not decided on the program for that seminar.

Kelly reported on the topic of promoting and perpetuating the profession. Kelly got in touch with a Burlington Technical Center Director Jason Gingold and asked for ideas. The group thought that we should contact local tech directors, send a link to and ask them to promote our video. We wonder if they give out any physical materials anymore? We also discussed whether we could ask the membership to sign a sheet at the conference if they had any interest in having a summer intern or if anyone would be willing to have someone doing a job shadow for a day. Several Executive Committee members' firms utilize summer interns in their businesses.

The group also discussed investing the VSLS savings. The VSLS Education Foundation made the switch to investing their funds about 3 years ago. The initial investment was around \$70,000.00 and even with the initial 5% fee taken by the investment company, those funds are now worth about \$97,000.00. Because North Country Savings already handles those investments, they would open another account for us and allow our CDs (held by them) to be invested without any penalty for withdrawing the CDs early. We are currently losing money from our CDs, when you consider the rate of inflation. Even a very conservative investment program should be better than our CDs and it was decided that we should ask North Country to prepare some information about various investment possibilities, perhaps to be presented as a brief Zoom during our next meeting.

Budget 2022

Kelly prepared several Budget vs. Actual sheets for us, for 2019, 2020 and 2021. The group discussed the budget for next year keeping these reports in mind. Using the 2021 sheet the group made some minor revisions to last year's budget. We agreed that as AIV is no longer able to provide us with a meeting space, we have let the expense of paying AIV dues go. Based on Kelly's ability to get "The Cornerpost" printed for less expense, that line item was reduced. On the whole the budget has been minimally reduced for 2022.

Other Business

Currently about one fifth of Terry Harris's maps are in Mark Day's Office. They were originally going to be picked up by and reside in the office of Len Amblo, after being scanned into the VSLS plat database for use by our membership. Mark thinks that there are around 1,000 maps but that maybe half or less are actual boundary surveys. No reason to store topo maps. Originally Terry's widow Mary Beth wanted to donate the maps to VSLS but now she is allowing us to scan them but wants them back. She also asked if we might provide a receipt for their worth so that she can take the donation off of her taxes. There was some discussion about how to get them scanned and indexed. Nate will check with Repro to see what they would charge to scan and possibly name the files of Terry's maps. They will have to be sorted to boundary surveys only before they are scanned. The group had no idea how to assign a worth to the plans for a receipt. It is known that Steve Fraser at Vermont Survey and Engineering has collected several former surveyors' maps and Kelly said that she would check with Steve to see if he can assist us in assigning a value to this donation.

Keith has graciously invited the Executive Committee to have our meetings at the Berlin Fire Station, though he indicated that we might need to have more flexibility as to our meeting time.

There being no other business, the meeting was adjourned at 7:27 PM.

Respectfully submitted,

Lisa Ginett
VSLS Secretary

November 18, 2021, 6 p.m., Montpelier City Hall

This meeting was held on November 18, 2021 at the conference room at Montpelier City Hall. The meeting was called to order at 6:00 P.M. In attendance were Mark Day, Randy Otis, Nate Yager, Becky Gilson, Paul Hannan and our Administrator: Kelly Cochran-Collar. Attending by Zoom were Keith Van Iderstine and Lisa Ginett.

Secretary's Minutes

Minutes for the Executive Committee meeting for October 21, 2021 were reviewed. The motion was duly made and seconded and the vote was unanimously: to approve the minutes of the October 21, 2021 Executive Committee meeting.

Treasurer's Report

Treasurer's report for the period of Jan. 1 to Nov. 17, 2021: total income for the period is \$45,780.86, total expenses are \$38,983.66, for a net income of \$6,797.20. Bank Account Total = \$ 61,436.85. Keith noted that our dues are still about 91% paid.

Guest from Vermont Historical Society

Amanda Kay Gustin, Public Program Manager for the Vermont Historical Society, came to speak about one of VHS's new projects regarding the first globes made in early America. The globes were produced by James Wilson in his farm workshop in Bradford, Vermont. He produced the globes almost individually from the year 1810 through 1818. James Wilson's sons opened a shop in Albany, NY, where they produced roughly 1,000 globes between 1820 and 1851. Although there are several globes found at Dartmouth dated 1796, they are from England, and the Wilson globes were the first made in this country. Ms. Gustin informed the group that on the first week of July 2022 the globes will go on exhibit in the Back Hall of the VHS along with a display about maps in historic Vermont. They are hoping the VSLS might help them present some outdoor programs about these globes along with some of James Whitelaw's surveying tools. This program would need some volunteer help and might include a collection of surveying and mapping instruments and tools of different eras. We invited Amanda to attend the Round Tables to speak about the event and see if we could encourage members to volunteer.

Guest from NHSLA

Mark Condodemetraky spoke to the group via Zoom about the Certified Flood Surveyor Program in New England. Mark is attempting to get representation from the various state surveying societies, plus engineers from the NE states, to come together and make it possible to present a Certified Flood Surveyor Program in New England. The program would help those professionals that work regularly with FEMA to provide LOMAs. FEMA has put out new technical guidance which allows for "Certified Floodplain Managers" who do not need to be licensed surveyors or engineers. FEMA is allowing unlicensed CFM's to provide data for a LOMA by relying on Lidar. The suggested program would allow surveyors to become expert in preparing LOMAs and other relevant documentation to FEMA. He asked if VSLS would be willing to participate in regional program. We are the first New England Society that he has contacted so far. We would need to help to develop a curriculum for the program. NSPS will do the testing.

Mark Day agreed to poll the membership about the program at the Round Tables. Keith noted that there are new premium requirements for flood insurance that do not require an Elevation Certificate. Mark Condodemetraky mentioned that the program has been successfully established in Tennessee, where the cost per person to take the 24-hour class is \$600 to \$800. The class teaches you to read the flood maps and flood insurance studies and how to interpolate correctly from the FIS to the subject cross section. The course would go into the differences between a LOMA and an LOMC as well as what role the surveyor plays in obtaining flood insurance. Mark C. is hoping to find one interested party from VSLS who would help coordinate the effort for Vermont in New England. He hopes for at least one member from every state to plan the process, and then we would get one instructor to teach the class. Once you get credentialed you are done.

Administrator's Report

Kelly reports that we still have not received the bill from Okemo for the cost of the Fall Conference, which she hopes to pay this year for bookkeeping reasons. So far Kelly has 20 people registered for the Round Tables on Friday December 17. The tables are the same reported in the last minutes and the afternoon session will be a panel discussion on the life cycle of a surveying business presented by Harris Abbott, Aaron Fuller, Kevin LaRose and Doug Hensen, and a short program regarding the Wilson globes by VHS.

Kelly has sent out a PDF of "The Cornerpost" for our review and will be printing it tomorrow. She notes that we now have a number of full-page advertisers, and in fact we've had to increase the number of pages of the magazine to accommodate all the ads. The result is that the printing and mailing costs go up. Kelly wondered whether we should increase the cost of advertising to cover these additional costs. Currently the rate for a full-page ad is \$300.00 per year for members, which is far below other state societies' rates. Kelly will suggest specific rate increases at a later meeting. On another note, she will be sending out membership renewal letters in early December.

Other Business

We received a letter from Byron Kidder about some valuable and very large maps along the entire Connecticut River in VT that he would like to see the society preserve as part of our scanning work. Can VCGI do this type of scanning? Could we get some financial aid from VHS to help preserve them? We might ask either of these organizations for recommendations. They would be huge files which might be an issue. Kelly will also talk to Repro about any options they might provide.

Nate volunteered to take the position of Vice President this coming year.

There being no other business the meeting was adjourned at 7:44 PM.

Respectfully submitted,

Lisa Ginett
VSLS Secretary

January 20, 2022, 6 p.m., Zoom Conference Call

The meeting was called to order at 6:02 P.M. In attendance were Mark Day, Randy Otis, Paul Hannan, Keith Van Iderstine, Lisa Ginett and our Administrator: Kelly Cochrane-Collar. Absent: Nate Yager and Becky Gilson

Secretary's Minutes

Minutes for the November 18, 2021 meeting were reviewed. The motion was duly made and seconded and the vote was unanimously: to approve the minutes of the November 18, 2021 Executive Committee meeting.

Treasurer's Report

Treasurer's report for year-end 2021 as well as January 1-18, 2022: Total income for 2021 was \$53,948.56, total expenses were \$49,727.79, leaving a net income for the year of \$4,220.77. It should be noted that although these figures reflect the payment of the invoice for the December Round Tables, it does not reflect payment to Okemo for the Fall Conference as we haven't yet received that invoice. Kelly has requested the invoice various times to no avail. That cost will be approximately \$5,000.00; if it had been paid the Society would be slightly over budget. Total bank balance for the year is \$73,538.02. For 2022 to date: total income for January 1-18 is \$16,870.00, total expenses are \$843.91, for a net income of \$16,026.09. The total bank balance is \$73,538.02, and our dues are 72% paid.

The group discussed that we have had lower attendance than normal for the last two seminars, around 75 people compared to a more normal approximately 90 people. We also discussed how to attempt to recoup the cost charged by PayPal for processing online payments, which have grown as members become more familiar with paying online. Kelly says the Society pays about a 3.4% fee for payments processed through PayPal. Various options were discussed and the outcome is that Kelly will figure out what seminar fees should be and add a few percent to cover the fee.

There was a discussion about the tabled proposal to take some of our savings and CD and invest them in a mutual fund with North Country Federal Credit Union, where the VSLs Education Foundation Funds have been invested. That subject was re-opened. It was agreed that Kelly and Keith would talk with North Country about investing some of the money in the VSLs bank account with them. Our Education Foundation funds have done well: we started with \$70,000.00 around four years ago and, even with the 5% management fee taken by North County, the fund is now worth almost \$100,000.00. Kelly says that investing the society funds is a decision for the Executive Committee and does not require a vote by the General Membership.

Administrator's Report

Kelly reports that we she has been working on membership renewals and that next week she will work on tax information, mostly related to her employment.

She has met with the Program Committee, which discussed plans for the Spring Seminar at Lake Morey on April 29. The speaker will be Jeff Lucas and the program will be "What Went Wrong? A Study on Surveyor Errors and Omissions." The program Committee has decided that they will make the decision whether to have the program in person or as a virtual meeting within 6 weeks of the program date. Jeff Lucas is happy to present the program either in person or online. A GotoWebinar conference might be advised due

to Covid numbers, but also because the last two seminars have been in person and some members prefer the program being online as it saves both travel time and expense. The Society tends to earn more for online programs as there is much less expensed involved.

The Fall Conference date has not been set and the Program Committee is planning to have the event in Chittenden County, so Kelly is looking into costs and amenities at Delta Hotels or the Double Tree. This conference is planned as a two-day event with vendors and it is our year to host the NESS meeting. Kelly is checking to see what hosting the NESS entails. Kelly mentioned that she felt we needed to help ensure some interaction with the vendors as attempts in the past, having a vendors' reception at the end of the seminar but before the banquet, did not work out as at least 80% of attendees left the hall. Randy mentioned that when he last attended a NH seminar with vendors, there were vendor demos right after lunch and continuing education credits awarded for attending the demos. The request to give CEU's for attending vendor demos would have to be sent in writing to the Board of Land Surveyors. The group had a brief discussion about having a banquet as part of the program. It appears that most of the group were in favor of offering a banquet as a separate line item in the sign up and cost for the seminar. Randy wondered about the possibility of dinner on one of the Lake Champlain dinner cruises.

Update On Licensing Issues with OPR

Paul reports that he had trouble with his email account and after several exchanges with Chris Winters of the OPR the matter was dropped for that time. Paul will see when the next Board of Land Surveyors meeting is and will ask Chris Winters to attend. Paul also feels that it would help the case if there was a delegation from VSLs to attend the meeting. He is uncertain whether Chris will agree to attend but plans to invite him repeatedly until he agrees to attend, if possible.

Bill On Way of Necessity Fix H474

The Way of Necessity Bill would in part exempt common law ways of necessity from the Marketable Title Act. Right now, courts are citing the Marketable Title Act to disallow use of common law ways of necessity from being used by the owners of the otherwise landlocked parcels if the landlocked owner has not used the way of necessity for over 40 years. This bill is similar to the Ancient Roads Legislation except that it is regarding ways of necessity and not town highways.

Paul Hannan, our resident Executive Committee member who is the most knowledgeable about legislative affairs, has provided the group with links to the legislators who are on the Judiciary Committee. Paul says that this important bill is posted in the Judiciary Committee for review along with many other bills. He tells us that someone on that committee has to sponsor or at least agree to take up this bill or it will languish in committee. Paul has asked that all of us see if anyone on the Judiciary Committee is one of our representatives or that we ask our representative to talk with someone on the Judiciary Committee about this Bill. It was suggested that we contact Bob Krebs about this matter and that Kelly might, through a slight relationship with Maxine Grad who is the chair of this committee, see if she can get her interested in this bill to get it moving forward.

Follow-up on Past Meeting Topics

We discussed the Vermont Historical Society's project on James Wilson, the globe maker. While the presentation at the Round Tables was excellent, it did not glean much response. As the James Wilson globes were produced in

Bradford and it might be the best place for the VHS to create an outdoor program for a summer event perhaps Byron Kidder, a resident and long-time surveyor in Bradford, might be interested in volunteering to help with the program.

At the Round Tables, Randy mentioned the Certified Flood Surveyor Program that may be started in New England. Mark Condodemetra was hoping to have involvement of one member of each of the New England Surveying Societies to help put together this program, but no one volunteered. The group suggested that Kelly contact Tim Rockwood, as he ran a Round Table a few years back on the subject of FEMA surveys and might be interested in being our representative.

On the scanning front, Mark Day says he has gone through half of Terry Harris' plans and that it appears that about two thirds of those plans are boundary plats and thus subject to scanning. He believes that he will complete reviewing and sorting them in another month. Repro will scan 18" by 24"

plats for \$1.00 per page and 24" by 36" plats for \$1.50 per page. Having them name the files will add a cost of \$1.00 per page. Scott Taylor agreed to update the database. To date there has not been any way found to scan the Connecticut River maps, which are 43" wide and some as long as 30'. They cannot be run through a roller as they are fragile. The group suggested asking Byron Kidder to research scanning options.

Other Business

The group voted to donate \$100.00 to a gofundme page benefitting Mike Patterson, who recently lost his home and possessions in a fire.

There being no other business the meeting was adjourned at 7:15 PM.

Respectfully submitted,
Lisa Ginett, VSLs Secretary

General Membership Meeting Minutes • Friday, December 17, 2021 Capitol Plaza Hotel • Montpelier, Vermont

This meeting was called to order at 12:51 P.M. In attendance were Mark Day, Lisa Ginett, Becky Gilson, Paul Hannan, Randy Otis, Keith Van Iderstine and VSLs Administrator: Kelly Cochran-Collar along with the general membership. Absent: Nate Yager

Secretary's Minutes

Minutes for the prior General Business meeting dated December 11, 2020 were reviewed. Upon motion duly made and seconded it was unanimously RESOLVED: to approve the minutes of the December 11, 2020 General Business meeting.

Treasurer's Report

Treasurer's report for the period of January 1 to December 15, 2021: total income for the period was \$53,081.94, total expenses were \$42,675.05, for a net income of \$10,406.89. Bank Account Total = \$66,007.10. The treasurer reminded us that we had not been invoiced yet by Okemo Mountain for the Fall Conference.

2022 Budget

The 2021 Budget was warned in "The Cornerpost" in early December and was approved with no comment.

2022 Slate of Officers

The 2022 slate of officers was also warned in "The Cornerpost." There were no nominations from the floor and no comments. There was a vote from the floor that the secretary cast one ballot for the entire slate of officers which was done and the slate of officers for 2022 was approved. It was also mentioned that the vote had included the members for the Education Foundation Committee.

At this point the meeting was taken over by our new president, Randy Otis. Randy thanked Mark Day for his many years of service as president and gave him an award. Randy also thanked Joe Flynn for pushing him to take a role in the VSLs Executive Committee with a plea for other members to get involved. Randy also asked Paul Hannan to the front to receive an award for his recent "Cornerpost"

article about searching for an old road in the NEK which won the NSPS Journalism Award for 2021.

Other Business

Randy briefly discussed the visit that we had during the November Executive Committee meeting by Mark Condodemetra of NHLA, who is looking to other New England surveying societies for help organizing a Certified Flood Surveyors Program which is offered by NSPS. See last month's minutes for more on this program.

We also discussed the relaxing standards for licensure. Andy Dussault brought to the ExComm's attention an article in the Caledonian-Record written by Chris Winters speaking for the OPR and the Secretary of State's Office. Andy wondered if any other papers had run the article, which discusses how the OPR is doing a great job speeding up licensure, again see last month's minutes. Paul Hannan undertook to email Chris and the Secretary of State to see what this means for surveying licensure.

Mr. Winters answered Paul's query (by email) saying that this is not true for surveyors. Right now the Vermont licensing test is a take-home test with no time limit and no proctoring. This new testing method was instituted during Covid as a way to get those waiting for licensure through the testing process. The change in the test format was made without any consultation with the Board. Although Chris Winters' email suggests that the OPR and the Board are working together, this is not accurate. Most members who expressed an opinion felt the test should go back to a proctored, timed test. It would not be hard to require masks and social distancing, as there are not many taking the State test at any given time.

It was briefly mentioned that the Spring Seminar, planned for Lake Morey on April 29, might end up being virtual.

There being no other business the meeting was adjourned at 1:15 P.M.

Respectfully submitted,
Lisa Ginett, VSLs Secretary

The Invention of **Wheel-Traps**



Small rocks could be dug up and replaced with dirt, but what about the big boulders and ledges? This required some innovation and “Yankee ingenuity.”

“Wheel-traps” was a term we adopted when we were working on the survey of Interstate 91. We had the primary contract for the section from Barnet to Lyndon, and did some sub-contract work on the sections North and South of our contract. We had about 6, four-man crews on the project, and that was about all the work that we were involved in at the time.

I worked on the North-bound centerline going North from Barnet, and Bob Smith ran the North-bound centerline South from Lyndon. Bob and I came together on the old Gilman Farm, which is now the middle St. Johnsbury interchange. There were other crews running the South-bound centerline, working on setting benchmarks, doing cross-sections, and doing topographical work. This was a really big project for us and had our concentration for many, many months.

Mike Hemond and I were talking about the project recently and together we tried to remember the men that worked with us. We remembered men like Bill Evans, Jimmy Forbes, Roger Legendre, Bob Hallas, Jerry Rowe, Danny Scott, Al Roy, Linwood Smith, Bob Hovey, Dwane Rose, Leonard Lamoureux, Winston Adams, and the list goes on.

The centerline work involved the setting of points every 50 feet throughout the project. This included setting a stake about 16 inches long, flush with the ground with a nail in it at the point. Also we were to set a similar stake at an angle with the top over the point, and also

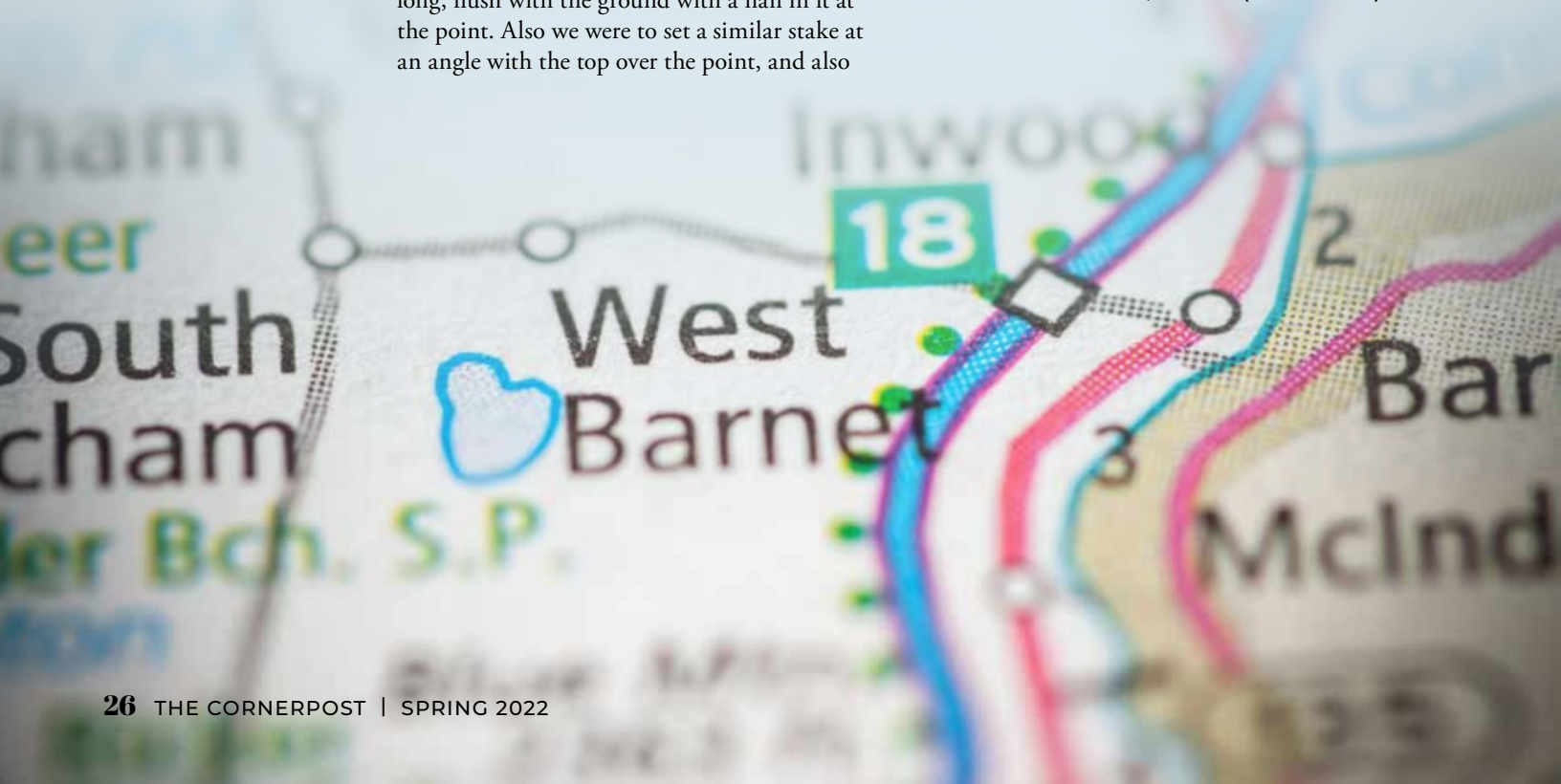
a 4-foot witness stake to the right of the point as you faced up the line. This witness stake was to have the stationing or location of the point written on it for identification purposes.

This was all very good procedure when we were working where we had sufficient dirt, but what about roots, stumps, rocks and ledge? The roots gave us something to drive a nail in; and we could nail the angle stake somewhere as was the case with the witness. Small rocks could be dug up and replaced with dirt, but what about the big boulders and ledges? This required some innovation and “Yankee ingenuity.”

We had stakes and witnesses with us, and I remember cutting down small trees for lumber to work with. I also recall that Linwood Smith worked some with me, and he always had every size nail “known to man” in his apron! Those rocky points sometimes involved quite a construction project to get some wood at the point to get a centerline nail into, and a witness set at vertical!

We imagined the officials of the State and National Government walking the line with the road plans in their hands, and reading the stationing on the witnesses as they went. These fellows were truly the “wheels,” and those contraptions we built at the rocky points came to be known as “wheel-traps.”

— DICK BOHLEN, L.S.#7 (1926-2020)





Spring Seminar

Presented Virtually with GoToWebinar
Friday, April 29, 2022



7 PDH

SCHEDULE

8:00 AM - Noon

What Went Wrong? A Study in
Surveyor Errors and Omissions **Part 1**

12:00 - 1:00 PM

Lunch Break

1:00 - 4:00 PM

What Went Wrong? **Part 2**

PRESENTER

Jeffery N. Lucas, JD, PLS, Esq.



Jeff Lucas is a licensed land surveyor in Alabama, Florida, Georgia, Mississippi and Tennessee. He is also a licensed attorney in the State of Alabama. Jeff is a recognized expert in land boundary law, riparian rights, and land surveying liability issues. He has practiced land surveying throughout the five southeastern states in which he is licensed. Jeff is also an author, columnist, lecturer and seminar presenter. He has authored three books on surveying, has over 100 nationally published articles and over 30 titles in his seminar library. Jeff has presented continuing education seminars at conferences from Alaska to Florida, from California to Nova Scotia, and most places in between.

SEMINAR DESCRIPTION

What Went Wrong? A Study in Surveyor Errors and Omissions

As I continue "Traversing the Law," studying and writing about court cases involving boundary disputes and land surveyors, I have found everything from the ridiculous to the sublime. In some cases, I had to shake my head in disbelief over what I was reading, leaving me with just one question: What went wrong? This seminar will investigate the answer to this question by a detailed study of relevant court decisions involving surveyors and surveys that went terribly wrong. The painful lessons learned by others through the school of hard knocks can be painlessly explored and appreciated without the accompanying liability and damages that attach to boundary disputes and negligence actions. These cases will be studied and discussed through a Power Point presentation. **Course objective:** Enhance professional competency and improve the practitioner's knowledge of the law as it relates to practicing land surveying.

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