

Cornerpost

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The Cornerpost

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SEND IN YOUR NEWS

The success of The Cornerpost 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.

ON THE COVER

"Whose land is this, really?" Tim Cowan, L.S., sent in this photo of a blazed line-tree that had been cut down by a beaver. He snapped the shot in Fairfield, Vermont, early this past winter. Tim receives a \$50 gift certificate to the restaurant of his choice for having his image selected for the cover (the gift certificate will be put to good use once restaurants reopen!). Please send your photo for the next issue to kelly@vsls.org.

PRESIDENT'S CORNER



We have a number of projects in the works this year to provide resources to our members.



Updating the **Vermont Survey Law** Manual, which will be available to members on our website.



Organizing thousands of survey plats that were scanned for the society several years ago and making them available to members.



Updating our website to better promote the profession and allow the public to find surveyors easily.



hile the global health crisis has monopolized our attention for many weeks and temporarily changed life as we know it, this issue of The Cornerpost

has just one goal: to share news of interest to land surveyors. We'll let the other media focus on COVID-19. I will only say, stay safe and be well.

t the beginning of this new decade, I took some time to reflect back on the last ten years and the changes our society has seen and accomplishments we have made. We have seen only three new VSLS presidents during that period, but there have been a lot of new faces on the Executive Committee and many new (and even young) members. Additionally, we welcomed a new Administrator, Kelly Collar, and said farewell to Meg Shields after 13 years of service. Kelly has done amazing things for the society, including leading us to national recognition for our very own Cornerpost Magazine. I'm sure most would agree that this was the number one achievement for the VSLS in recent history. Nice work, Kelly!

I had the opportunity to attend the Maine Society of Land Surveyors Annual Meeting at the end of January. The meeting was well attended and they had a great venue. It was well worth the trip! I was able to catch up with a couple fellow surveyors and make some new acquaintances, too.

Back in Vermont, we have quite a bit in the works for this year. Scott Taylor is working hard on organizing and indexing the plats we scanned several years ago, numbering well into the thousands. Thanks to Scott for taking on the task that has eluded us for a very long time. Additionally, the EXCOMM has met with the Board of Land Surveyors to make some minor adjustments to the "Guidance Paper" that was prepared to direct surveyors on submitting digital files of plats to VCGI. The board members were very receptive to making a minor adjustment that will give surveyors some flexibility in whether or not, and how, they choose to put a disclaimer on the plat. The idea being that by keeping the process as straightforward as possible, more surveyors will be willing to participate. Keep an eye out for a revised version of the document from the Board.

I give all of you my best wishes for your good health over the next few months. If the current efforts to manage the coronavirus are successful, it will be wonderful to see you at the Spring Seminar on June 26!

Sincerely,

Mark

MARK DAY, VSLS PRESIDENT

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DO YOU KNOW SOMEONE WHO QUALIFIES?

VSLS Education Foundation Scholarship

APPLICATIONS DUE ON **JUNE 1, 2020**

Scholarship Recipients Over the Years

-	*
1973-74	Michael Raboin, VTC
	Paul Harrington, VTC
1975-76	No award
1976-77	William Giel, VTC
1977-78	Patrick Kirby, VTC
1978-79	Frank Lamson, VTC
1979-80	Alec Hastings, VTC
1980-81	Blake Thomsen, VTC
1981-82	Robert Snively, VTC
1982-89	No award
1989-90	Carl Beattie, Paul Smith's
	Jason Hatch, Paul Smith's
1990-91	Timothy Patch, UMaine at Orono
1991-92	Arjay West, Paul Smith's
1992-93	Darren Smith, N.H. Vo-Tec
1993-94	Stephen Burnham, SUNY-Alfred
1994-95	Chris Peck, Ferris State University
1995-98	No award
1999-2000	Joseph DiBernardo, Ranger School
2001-02	Michael Gervais, Paul Smith's
2002-03	No award
2004-05	Jason Leach, N.H. Technical College
2005-06	No award
2006-07	Jason Riley, Paul Smith's
	Andrew Paradee, UMaine at Orono
2007-08	Asa White, Paul Smith's
2008-09	
2009-10	Jacob Bartlett, UMaine at Orono
2010-11	
2011-12	Jared Serpico, UMaine at Orono
2012-13	
	Michael Huyler, Paul Smith's
	Lance Elithorpe, Alfred State
2015-18	
2018-19	Connor Hill, UMaine at Orono
	Nathan Warren, Paul Smith's

Scott Taylor, L.S., with Nathan Warren, one of the 2019 VSLS scholarship recipients.



The VSLS Education Foundation offers a scholarship each year to a student nearing graduation from an accredited land surveying program. The goal is to support the development of talented new surveyors as they enter the profession.

Who is eligible to apply

Vermont residents who have resided in Vermont for a minimum of two years during completion of a high school education or equivalent, and, who are in their final year and about to graduate from an educational institution offering an ABET accredited land or geodetic surveying program.

How much is the award? \$2,000 maximum

When is the deadline? June 1, 2020

How can a student apply?

Go to vsls.org/scholarship to learn more and to download the application form.



Did You Notice?

by DONALD WILSON, L.S.

Looking at the Effect of Notice in a Chain of Title

and surveyors everywhere pride themselves on their detective work, being able to find ancient evidence, mostly by "thinking outside the box." And rightly so: we are good at what we do. It is astonishing how often non-surveyors don't see something, even when they are looking right at it.

SHERLOCK HOLMES raised the issue numerous times in stories by Sir Arthur Conan Doyle. In response to Dr. Watson's comment, "Holmes, you see everything," Sherlock replies, "I see no more than you do, but I notice what I see." Concerning the world at large, the detective concludes that the world is full of obvious things which nobody by any chance ever observes.

Observations from The Law of Real Property

TIFFANY'S The Law of Real Property contains a concise treatment of the effect of notice in a chain of title. It states, supported by references to decisions in a variety of jurisdictions:

"In so far as a purchaser has actual or constructive notice of a conveyance or other instrument executed by one previously owning or claiming to own the land, he is charged with notice of all matters stated or referred to in such conveyance, which may possibly affect the title, and he is bound to make any inquiries or researches suggested by such statements or references. For this purpose, a purchaser is charged with notice of any conveyance which occurs in the chain of title under which he claims, that is, he is charged with notice of all matters stated or referred to in any conveyance which is essential to support his claim, without reference to whether he has actual notice of such conveyance.

"And the fact that such conveyance in the chain of title is not of record, or is improperly recorded is ordinarily immaterial in this regard. And he is charged with notice of the contents, not only of instruments in his chain of title, but also of other instruments referred to in such instruments, although not of record, in so far, at least, as it is reasonably possible for him to acquire knowledge thereof. And it follows that notice of a prior conveyance thus acquired by reference thereto in the chain of title is

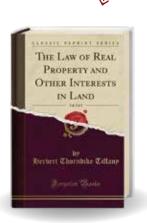
sufficient to defeat any claim of priority based on the failure to record such conveyance.

"Being put upon inquiry by the recital or statement in a conveyance in the chain of title, the purchaser 'is bound to follow up this inquiry, step by step, from one discovery to another and from one instrument to another. until the whole series of title deeds is exhausted and a complete knowledge of all the matters referred to and affecting the estate is obtained.' Being thus put on inquiry, the purchaser is presumed to have prosecuted the inquiry until its final result and with ultimate success. Likewise, if a purchaser is charged with notice of an instrument, as being of record, or in his chain of title, and such instrument refers to a judicial proceeding, he is chargeable with notice of the character and validity of such proceeding, so far as the title is dependent

"A purchaser has been regarded as charged with notice of a provision contained in a conveyance of neighboring land, made by one in his chain of title, when the purpose and effect of such provision was to create an easement or other servitude upon the land which he is purchasing."

Definition

Black's Law Dictionary states that "notice" is information; the result of observation, whether by the senses or the mind; knowledge of a state of a fact or state of affairs; the means of knowledge. It quotes from several decisions, "knowledge of facts which would naturally lead an honest and prudent person to make inquiry constitutes "notice" of everything which such inquiry pursued in good faith would disclose."



This latter statement focuses on why it is important to examine abutting parcels, especially when they are mentioned in a description, thereby being classed as, and equivalent to, a monument.

In Maine

A Maine decision summarizes nicely:

"Implied actual notice is that which one who is put on a trail is in duty bound to seek to know, even though the track or scent lead to knowledge of unpleasant and unwelcome facts." Hopkins v. McCarthy, 121 Me. 27, 29, 115 A. 513, 515 (1921).

In New Hampshire

In 2013, the Supreme Court of New Hampshire, in the case of Bilden Props., LLC v. Birin, 165 N.H. 253 (2013) stated that Notice may be of three types: (1) actual; (2) record; and (3) inquiry.

- → Actual notice refers to "information concerning the fact—as, for example, concerning the prior interest, claim, or right—directly and personally communicated to the party."
- → **Record notice** is "notice arising solely from the record" and sometimes referred to as "constructive notice." "A subsequent purchaser ... is on constructive notice of all claims revealed by the record, regardless of whether he or she ever looks at the record or ever sees the information contained there." "A real estate purchaser will be charged with constructive knowledge of what may be revealed by an examination of the record." Record notice is "notice inferred from the record."
- → **Inquiry notice** is notice that arises from a legal inference. It is notice of a fact that is "sufficiently curious or suspicious, according to normal human experience, that the purchaser should, as a matter of law, make an investigation into it." "If upon making the investigation into this first fact a second fact, namely that another person has a claim to the title of the property, is revealed, then the purchaser is considered to have inquiry notice of the claim itself."

"In other words, because of the nature of the first fact, of which the purchaser has actual or constructive notice, a rebuttable inference is made that the purchaser has notice of the second fact. However, if a reasonable inquiry would not reveal the second fact, then the inference is rebutted."

In Vermont

Some court decisions are noteworthy:

"Equity recognizes both actual and implied, or inquiry, notice. Thus, if a party has 'sufficient facts concerning [another's] interest in the property to call upon him to inquire, he is charged with notice of such facts as diligent inquiry would disclose.' Black River Assocs. v. Koehler, 126 Vt. 394, 233 A.2d 175, (1967); see also Fed. Land Bank v. Pollender, 137 Vt. 42, 399 A.2d 512, (1979). Here, defendants' title to the now-landlocked land was of record, and a reasonable inquiry would have shown that its only road access was through the mortgaged property. Indeed, the obligation of the mortgagee to inquire and learn of the potential way of necessity is implied in our decision in *Traders*, Inc. See William Dahm Realty Corp. v. Cardel, 128 N.J. Eq. 222, 16 A.2d 69, (Ch.1940) (subsequent grantee of land burdened by easement of necessity charged with notice thereof because examination of land records and inspection of area would have revealed landlocked character of land in favor of which easement was implied). Myers v. LaCasse, 176 Vt. 29, 838 A.2d 50 (Vt. 2003)."

The Vermont standards for title examination contain the following:

Standard 2.2: The Concept of the Chain Of Title and Its Relationship to the Rule Of Record Notice and the Scope of the Title Searcher's Obligation

"Comment 8. There is an additional circumstance which the title examiner must consider. It is derived from the rule of law announced in the line of cases that includes Clearwater Realty Company v. Bouchard, 146 Vt. 359 (1985), Crabbe & Sweeney v. Veve Associates, 150 Vt. 53 (1988), and Lalonde v. Renaud, 157 Vt. 281 (1989) and the applicable provisions of the Vermont Marketable Title Act. The rule of law in the Clearwater line of cases may be stated concisely as—rights of way, easements, and the designation of areas as common space on a recorded plan used as the basis of the description in connection with the conveyance of one or more of the lots shown on the plan vests rights in the grantee and the grantee's successors in title rights in those areas designated on the plan as rights of way, easements, and common space. In deciding the Clearwater line of cases, the issue of the provisions of the Marketable Title Act has not arisen. The provisions of 27 V.S.A. 604 exempt easements granted, reserved or retained in a deed from the provisions of the Marketable Title Act that would otherwise extinguish such rights, and therefore the rights of way shown on very old plans that are outside the chain of title may still be encumbrances on the title."

In General ...

A review of court decisions across the country results in some strong principles. The court system has been very consistent concerning the role of notice. In summary, there are several principles that can be derived from the study of the decisions:

- · When a person has sufficient information to lead him to a fact, he shall be deemed conversant of it.
- · Reasonable diligence requires that a person make inquiry when it is reasonable and prudent to do so, and a person is charged with notice of all facts that a reasonable inquiry would reveal.
- · Notice of facts and circumstances is equivalent to knowledge of all of the facts.
- The inquiry notice maxim is that the means of knowledge is equivalent to knowledge.
- · Inquiry notice arises when a party becomes aware or should have become aware.

When in the field, or in the records, pay attention... close attention. And when in doubt, check it out.

Pondering some of the unusual What's in names encountered in Vermont's 19th- and 20th-century land records Vame:

HEN I GREW UP in the suburban Albany, N.Y., area in the '50s and '60s, my best pals were Bobby Kelleher, Steve Sullivan, **Eugene Dimenico, Anthony Tuzzolo** and his brother Richie ... see a pattern here? A bunch of Irish/Italian kids. all of whose names I could pronounce and sounded-what?-I guess you'd say "normal" to my ear.

I went off to college and maybe a hint of some slightly more aristocratic New England names cropped up. I remember asking J. Kimball Hobbs what the "J" stood for. It turns out his parents thought having a "J" in front of his name seemed like it just might raise his stature in the business world or wherever his education found him later in life; it didn't "stand" for anything.

Sewell Hopkins Corkran III—my freshman roommate —ok, I admit that got my attention a bit, but honestly I just figured he was named for some Brahmin branch of the family and each generation needed to punish the next for having been saddled with such high falootin' naming. I wondered what it was like getting called in to dinner from stick ball in the street by a Mom yelling "SUE-e-l-l" at the top of her voice. (It wasn't until immersing myself in more rural, agricultural environs

> that I cringed even more on his behalf over its similarity to a common hog-calling sound.) But still, there was not a single name in my college graduating class that I stumbled to pronounce or whose origin seemed from another historical time or geographic region.

No, I needed to start down the path of land surveying deed research to get a real eye-opening about just how sheltered my childhood exposure to the wide and varied sea of naming children was, certainly worldwide, but especially in those dusty tomes we surveyors pore over on a regular basis. I won't go into professional sports names, some of which I'm convinced are made up out of whole cloth. Nor the intentionally convoluted spelling of relatively common names; a "Dylan" checked me out at Shaw's a while back, but her nametag read "Dyllyann" or something like that...but I digress.

The 19th- and early-20th-century land records of Vermont proved to be such fertile ground for attention-grabbing names that early on in my surveying career I started a collection. Sure, some may be into stamps or

coins or baseball cards, but only a surveyor could get



Do you suppose growing up with garrulous sisters had anything to do with Calais' Thomas McKnight embarking on the courtship of his eventual wife: "Silence"?

excited when stumbling across the likes of "Leafy Lacoss" (I decided she would not have needed a stage name if she embarked on a clothing-removal-for-male-stimulation career) or those Montgomery brothers, Lemon and Lemual Robbins – twins perhaps? Did their folks call them both "Lemmie"?

Do you suppose growing up with garrulous sisters had anything to do with Calais' Thomas McKnight embarking on the courtship of his eventual wife: "Silence"?

We still hear what I call "virtue" names bestowed on women: Faith, Hope, Charity. We all recall Remember Baker, but as you'll see below, male virtue names were all the rage in 19th-century Vermont: Experience, Thankfull, Increase, Preserved, Pardon, Prosper. What if Increase Moseley hooked up with Freelove Cutler – they might have ended up needing to spend as much time naming as "increasing."

As you can tell, my imagination can run rampant as I ponder the list of names in the list shown here. It gets really crazy when I contemplate nicknames for some of these: Did they call Socrates Udall "Sock" for short? Was Friend Blood always "Friend" or did his pals call him, well, "Pal"?

Surely some show a distinct sense of humor—something we don't always ascribe to our Vermont forebears who admittedly didn't have it easy on the frontier—but I double-checked the spelling on "Merrily Rushfore," thinking maybe the more common surname, Rushford, was the case. But, no, it really was RushFORE. What a great way to send a child off into the world—I hope she did! And please, absent the modern-day face make-up employed by a certain prominent U.S. political figure, what motivates one to name an infant "Orange"?—two sets of parents, two decades apart, separated by the width of Vermont apparently thought it was a splendid idea.

Enjoy. I can't be the only collector of names like this, so, if you want, send them along to me. Or, better yet, maybe Kelly will devote one of those small side boxes each Cornerpost to whatever names you send her. I tried, but sometimes failed, to get dates and book, page and town where I found them. As researchers we really should strive for full documentation.

— PAUL (HOW BORING!) HANNAN, L.S.

UNUSUAL NAMES FROM 19TH- AND 20TH-CENTURY TOWN RECORDS RESEARCH

Name, Town, Book/Page, Date

- Albany Papillon, Brownington, 18/169, 1936
- Americus Shiple, Moretown, 7/52, 1844
- Azubah J. Dow. Albanv. 15/295. 1899
- Calixte Champigny, Holland, 14/30, 1943
- Desire D. Orcutt, Barton, 1850
- Diamond Stone, Brighton, 4/502, 1860
- Eliphalet Carter, Holland, 12/549, 1918
- Exeas Casavant, Brownington, 17/485, 1933
- Exilpair Chamigny, Holland, 14/30, 1943
- Experience Fish, Newport, 16/37
- Freelove Cutler (F), Calais, 15/77, 1880
- Friend Blood, Plainfield, 5/13, 1847
- Goodyear Bassett, Montpelier, 7/467, 1830
- Holland Thrasher, Newport, 11/15, 1866
- Increase Moseley, Derby
- Ivorey Cobb, Colebrook NH, 1950
- Leafy Lacoss, Holland, 10/176, 1908
- Lemon Robbins, Montgomery
- Mehitable Mansur, Brighton, 9/581, 1866
- Merrily Rushfore, Montgomery, 12/164, 1894
- Orange Foote, Cambridge, 1869
- Orange W. May, Lyndon, 1848
- Pardon Bennett Wilcox, Morgan, b. 1813
- Philistia Udall, Greensboro, 1881
- Pilgrim Bortolot, 47/312, Derby
- Preserved Wright, Calais, 1833
- Prosper A. Pierce, Moretown, 5/264, 1835
- Recompence Hall, Burke, 4/227, 1825
- Relief Hull (F), Fairfield, d. 1844
- Retire Trask, Rochester, 1797
- Riverious Burt, Burke, 2/183, 1807
- Salmon Nye, Brownington, 2/116, 1825
- Scholasticque Boutin, Norton, 2/295, 1921
- Shadrack Osborn, Derby, 10/224, mid-1800's
- Silence McKnight, Calais, 10/81, 1850
- **Silvanius Burt**
- Socrates Udall, Craftsbury
- Sophronia Fogg, Derby, 18/220, 1888
- Thankfull Kellum, Brownington, 2/481, 1829
- Theophilus Grout, Newport, 16/35
- Ultruda Kitredge, Brighton, 37/198
- Valentine Going, Brownington, 13/350, d. 1917
- Xenophon Udall, Greensboro, 1881

Have you run across any interesting names in your research? Send them to kelly@vsls.org, and we'll put them in the next issue of The Cornerpost.



behind THE LINES

THE FIGHTING FOR AACHEN WAS FIERCE.

American planes and artillery pounded the Nazi defenses for days. Tanks then rolled into the narrow streets of the ancient city, the imperial seat of Charlemagne, which Hitler had ordered defended at all costs. Bloody building-to-building combat ensued until, finally, on October 21, 1944, Aachen became the first German city to fall into Allied hands.

Rubble still clogged the streets when U.S. Army Maj. Floyd W. Hough and two of his men arrived in early November. "The city appears to be 98% destroyed," Hough wrote in a memo to Washington. A short, serious man of 46 with receding red hair and wire-rimmed glasses, Hough had a degree in civil engineering from Cornell, and before the war he led surveying expeditions in the American West for the U.S. government and charted the rainforests of South America for oil companies. Now he was the leader of a military intelligence team wielding special blue passes, issued by Supreme Headquarters Allied Expeditionary Force, that allowed Hough and his team to move freely

in the combat zone. Their mission was such a closely guarded secret that one member later recalled he was told not to open the envelope containing his orders until two hours after his plane departed for Europe.

In Aachen, their target was a library.

HOUGHTEAM, as the unit was known, was made up of 19 carefully selected individuals. Four were highly educated civilians: an engineer, a geographer who had worked as a map curator at the University of Chicago, a linguist who spoke five languages, and the dapper son of an prominent Kentucky family who'd

BY GREG MILLER Reprinted with permission Smithsonian Magazine November 2019



Major Floyd Hough in an undated passport photo

grown up mostly in Europe as the son of a brigadier general posted to various capitals as a military attaché. There were also ten enlisted men. One was a Japanese interpreter on loan from the Office of Strategic Services, the spy agency precursor to the CIA. Others had been through the secret Military Intelligence Training Center at Camp Ritchie, Maryland. Among the Ritchie Boys, as they were known, were European immigrants who had fled to the United States to escape Nazi persecution. At Camp Ritchie they received training in interrogation and other psychological operations. Their job was to question European civilians about the movement of enemy troops, translate captured documents and interrogate prisoners of war. For the refugees among them, it was a chance to leverage their language skills and cultural familiarity to defeat the enemy that had uprooted their lives.

Along with 1,800 pounds of cameras and other equipment for creating microfilm records, HOUGHTEAM also carried 11,000 index cards detailing the holdings of the Army Map Service as well as numerous target lists of technical universities, government institutes, libraries and other places likely to have the materials they had been sent to capture. The lists also named German scientists who seemed likely to cooperate, and some who were not to be trusted.

In Aachen, the library that Hough was looking for was at the Technische Hochschule, or technical university. Though it had been nearly wrecked by American bombs, thousands of books remained. But what caught Hough's attention were the bundles of folders stacked outside. It appeared as if the Germans "had left a number of files all roped up ready to load onto trucks when they made a hasty exit," Hough wrote. The abandoned documents included tables of exceptionally precise survey data covering German territory that the Allies had yet to reach—just what Hough was looking for. His team quickly microfilmed the material and sent it to the front, where Allied artillery units could immediately use it to improve their targeting.

The Aachen seizure was the first in a series of remarkable successes for HOUGHTEAM that promised not only to hasten the end of the war but also to shape the world order for decades to come. Little is publicly known about the true scope of the information that Hough and his team captured, or the ingenuity they displayed in securing it, because their mission was conducted in secret, and the technical material they seized circulated only among military intelligence experts and academics. But it was a vast scientific treasure—likely the largest cache of geographic data the United States ever obtained from an enemy power in wartime. Relying on Hough's memos to his superiors in Washington and other declassified records about the mission, which are stored at the National Archives, in addition to private letters and other materials provided by the families of several team members, I have pieced together the outlines of this historic military feat. The operation seems all the more astonishing because it was executed by an unlikely band of academics, refugees, clerks and soldiers, all led by Hough, an Ivy League-trained engineer with a passion for geodesy, the centuries-old science of measuring the Earth with utmost mathematical precision.

In 20th-century warfare, men and machines could achieve only so much without exact location data to guide them. The Americans knew that the Germans had a trove of this material, and had most likely captured even more of it from the countries they had invaded, including the Soviet Union. If Hough and his team could exploit the chaos of war to hunt down this prize, they would not only help to finish off the Nazis but could give the Americans an incalculable advantage in any global conflict to come.

Hough's orders, then, were to follow the front, and ride the first tank into Berlin.

THESE DAYS, WHEN THE PHONE in your pocket pinpoints your location in seconds, it's easy to forget just how new that technology is—the U.S. military launched its first GPS satellite only in 1978—and just how laborious it used to be to gather and synthesize definitive geographic data. Unlike a traditional survey used to determine property lines or mark the route for a new road, a geodetic survey of a region accounts for the curvature of the Earth and even variations in this curvature. That extra precision becomes more critical over long distances. The nature of combat in World War II gave geodesy new urgency, as it required coordinating air, ground and naval forces across far larger areas than ever before.

Captured data could give the Americans a pivotal advantage in realizing what would become one of geodesy's ultimate goals—creating a unified geodetic network that covered the entire globe. In such a system, any point on Earth's surface could be defined by numerical coordinates, and its distance and direction from any other point calculated with precision. This capability would prove incredibly useful for any long-distance human endeavor, including guiding missiles to a target

CAPTURED DATA COULD GIVE THE AMERICANS A PIVOTAL ADVANTAGE IN REALIZING

WHAT WOULD BECOME ONE OF GEODESY'S ULTIMATE GOALS—CREATING A UNIFIED GEODETIC NETWORK THAT COVERED THE ENTIRE GLOBE.



Map of the occupation zones in postwar Germany (Guilbert Gates)

on another continent, as the Cold War would soon demand.

Not long after the fall of Aachen, the Allies' military situation worsened. In December of 1944, the Germans mounted a counteroffensive, pushing through the Allied line in southern Belgium and Luxembourg in what became known as the Battle of the Bulge. Foul weather initially grounded the Allies' superior air power, and the fighting dragged on into January.

Hough waited in Paris. The weather was miserable. Electricity was intermittent. The enlisted men relied on fireplaces for heat—when they could find coal or wood to burn. Everyone seemed to have a cold they couldn't shake. HOUGHTEAM did what research they could in France and other friendly or neutral countries. They worked six days a week, mostly nibbling at the edges of the real mission, but made the most of their downtime.

Raymond Johnson, a 24-year-old telephone company lineman from Chicago, explored the movies and cabarets of Paris and practiced a few words of French with local women, as he later wrote in an unpublished memoir his daughters shared with Smithsonian for this article. Berthold Friedl, a 46-year-old linguist who struggled to make small talk with the enlisted men when the group gathered in the evenings to drink wine, wrote a book in French about Soviet military strategy and philosophy of war that was published in 1945. "Dr. Friedl was not capable of idle chit-chat," Johnson recalled.

Martin Shallenberger, 32, the Kentucky blue blood, spoke fluent German and French, and though he could be charming, the G.I.s found him arrogant, according to Johnson. They bristled when he made them wait while he paused to capture some scene with his Leica camera or the watercolor paint set he carried around.

David Mills, a mild-mannered geodetic engineer, and Edward Espenshade, the geographer, were more at ease with the G.I.s. Espenshade collected rare books, especially pornographic ones, which he left out for all to inspect, including Mildred Smith, one of two Women's Army Corps members on the team. A geography teacher from Illinois, Smith was brought on for clerical support, but Hough took note of her initiative and intelligence and assigned her to search the map shops of Paris, and later sent her on a research trip to London. The enlisted men called her Smitty. Some, like Johnson, had never met such a woman. "Up to this point in my life I had had little personal contact with the liberated type of woman who could read our underground books and discuss them with the men with perfect composure," he wrote.

Hough remained busy. When the Belgians requested help microfilming some survey data and secret lists of artillery coordinates, he was happy to oblige—and saw to it that an extra copy was sent to Washington without the Belgians' knowledge. When the French city of Strasbourg was recaptured by the Allies, his men removed a cache of top-quality German survey equipment before the French had a chance to claim the gear for themselves.

If an obstacle arose, Hough was willing to get creative. After several neutral countries balked at letting Espenshade and Shallenberger search their institutes and libraries, Hough procured letters from the Library of Congress certifying the men as its representatives engaged in bibliographic research. A similar ploy got Shallenberger into the pope's private library at the Vatican, which was strictly off-limits to members of any military, owing to the Vatican's status of neutrality.

Finally, by early March, the Allied forces resumed their eastward progress and were poised to cross the Rhine into the German heartland. HOUGHTEAM's window of opportunity was opening.

N MARCH 4, HOUGH LEFT PARIS with Mills, his fellow engineer, and three enlisted men. They entered Cologne on March 7, and, the next day, toured the captured city's massive Gothic cathedral, seemingly the only building to have escaped Allied bombing. On March 9, they received word that Bonn had been captured, and they made it there by nightfall. There they interrogated the director of the local geodetic institute, who led them to a hidden alcove that held a box of valuable books. The man claimed he'd stashed the materials there despite orders to evacuate them across the Rhine. "It is surprising that these Germans cooperate as they do," Hough wrote in his daily memo to his superiors in Washington. Whether the scientist was anti-Nazi or was simply afraid of what the Americans might do to him, Hough wasn't sure.

Hough and his men entered Frankfurt at the end of March, the day after it was captured, taking shelter in one of the few

structures still standing in the business district. Buildings were still burning. Water was scarce. They found some in two bathtubs the Germans hadn't drained before fleeing. But HOUGHTEAM's target institutions in Frankfurt had been reduced to rubble. In the basement of one building, the men saw what looked like books, but they disintegrated into fine ash in their hands

In Wiesbaden, a city just to the west, their luck began to improve. In the basement of one building, they found 18 bundles of survey data, hidden behind a pile of rubbish. Marked "Secret" or "Confidential" in German, the sheets covered thousands of survey points in southwestern Germany. The data had immediate operational value for the U.S. Seventh Army, which was beginning to push its way across the Rhine into that area. Hough decided to shortcut the chain of command to get the information directly to the artillery units that could use it.

Hough and his team also got a tip from a captured officer of the Reichsamt für Landesaufnahme, or RfL, the German national survey agency; he revealed the names of two small towns, about 140 miles to the east in Thuringia, a hilly, forested region dotted with medieval villages, which had not been on any of Hough's target lists.

The U.S. Third Army was just moving into the area, which was famed for its artisanal bisque dolls, named for the unglazed porcelain that gave them a lifelike appearance. On April 10, Hough headed east with four enlisted men. In the small towns of Friedrichroda and Waltershausen, dispersed among three doll factories, private homes, a ranch house and a stable, the

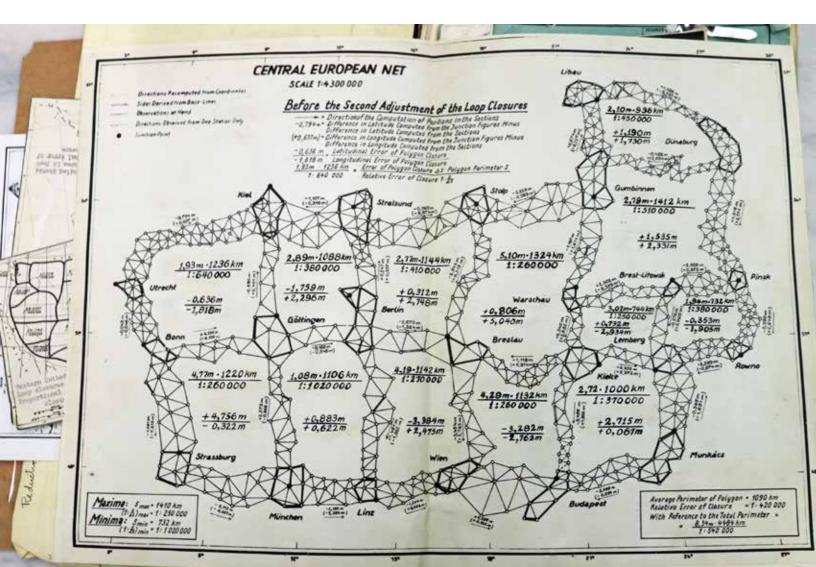
team found the entire archive of the RfL, which represented the German government's best survey data of its own territory. The documents had been spirited from Berlin and hidden. It was by far the team's biggest haul to date. "Cannot begin to estimate yet what is here but it is plenty," Hough wrote.

On April 12, Hough and several of his men visited Ohrdruf, a subcamp of the infamous Buchenwald complex, and the first Nazi concentration camp liberated by American forces, just eight days earlier. Generals Dwight Eisenhower and George Patton visited Ohrdruf on the same day as Hough. "There are no words capable of expressing the horrible scenes on every hand," Hough wrote. "It was revolting and we were left almost speechless."

That night, Johnson and a few other HOUGHTEAM enlisted men stayed in a home in the nearby city of Gotha. In that stage of the war it was common practice for the Army to billet the troops in commandeered civilian homes. Johnson was struck by how familiar they felt. "They were charming and comfortable," he recalled in his memoir. "Plants in the windows, closets full of clothes, children's rooms with toys in them, sewing articles, cabinets full of good china and silver." It seemed impossible to reconcile these cozy scenes of German domestic



Captured German scientists created the Central European geodetic network at Hough's request. Later the network expanded to cover all of Europe.



life with the horrors they had witnessed. One of the men sat vacantly burning holes in the upholstered arm of a chair. "There was nothing we could do that could measure up to the enormity of what we had seen," Johnson wrote.

Days later Hough and his men interrogated several captured RfL officials, including the institute's president, Wilhelm Vollmar, who tried the Americans' patience and spent a night in jail as a result. Erwin Gigas, the chief geodesist, was more cooperative. A third German, whom Hough identifies only as "the real man we were interested in," proved of more immediate value. They'd been searching for him since Wiesbaden.

One of the Ritchie Boys, Hans Jacob Meier, the team's ace German interrogator, led the questioning. Meier was a gregarious immigrant in his late 30s who ran a deli in New York City. But he also had a reputation among the team as a shadowy figure, who would disappear for days on mysterious errands only to show up at exactly the agreed-upon time and place. For German-born Ritchie Boys, returning to their homeland came with the risk of running into someone they'd known in their previous life, so Hough and the other men referred to him as "Corporal Liford" to conceal his identity.

The captive was reluctant to cooperate. When the questioning grew pointed, the subject "turned several colors and refused to answer," Hough wrote. They waited in silence. Meier threatened to have the man arrested on the spot. If more explicit threats were made or more aggressive tactics employed, Hough makes no mention of it. At long last, the captive blurted out a name: Saalfeld.

SAALFELD WAS ABOUT 50 MILES to the southeast of HOUGHTEAM's position. Hough, Mills and five enlisted men arrived on April 17, four days after the U.S. 87th Infantry Division captured the town. The train station and nearby factories had been bombed, and several fully loaded freight cars were in the process of being looted. Some of the dead had yet to be buried. The 87th had kept on rolling to the east without pausing to set up a military government.

Hough and his men assumed authority for the town and met with the mayor and three other leaders, who, Hough wrote, "seemed to be delighted to see some Allied uniforms around." Hough wasted little time in bringing up the information his team had received about a possible stash of data. They were led down an alley to a warehouse. Inside was a room 30 feet long by 50 feet wide. Shelves nearly reaching the ceiling were filled with stacks of paper.

They had found nothing less than the central map and geodetic data repository for the German Army—the mother lode. The records of the German military, unlike those of the mostly civilian RfL, extended well beyond Germany's pre-war borders, into Eastern Europe and the Soviet Union. The material had been moved from Berlin to save it from Allied bombs.

Hough wrote an urgent letter to an Army corps chief of staff. "A dangerous situation exists in the city of Saalfeld," he began. "There have been found some dozen or more truckloads of documents, much of it irreplaceable, of extreme value to the War Department." He requested the immediate dispatch of at least 150 men to secure the town—not only to protect his men and their captured material but for the benefit of the townspeople as well. There was barely time to take stock of everything. Hough and his men spent the night in the warehouse to safeguard their discovery. The immediate concern was roaming bands of Soviet and Polish refugees, recently liberated from nearby forced labor camps and now taking revenge by looting homes and buildings and setting fires. Hough estimated there were 4,000 of them, many of them drunk, some of them armed. If they got to the warehouse, Hough and his men would be poorly equipped to defend it.

By now the Red Army was attacking Berlin. The war would soon be over, and another problem for Hough was that Saalfeld was well inside the soon-to-be-Soviet occupation zone, as previously agreed upon by the Allied nations. In other words, the town would have to be turned over to the Soviets at the end of the war. If Hough didn't get the maps and data out quickly, the Americans would never see them again. In the following days, Hough and his men put together a major transport operation. He borrowed trucks, small planes and enlisted men from U.S. Army units in the area, and conscripted dozens of German civilians to help with the loading. By May 8, the day Germany officially surrendered, they had shipped 35 two-anda-half-ton capacity truckloads of maps, data and instruments 75 miles south, to Bamberg, a town safely within the American occupation zone. By June 1, they'd moved 250 tons of captured material safely out of Saalfeld and elsewhere in Thuringia.

In Bamberg's city hall, Hough established a new headquarters for the team, and commandeered nearly an acre of storage space for sorting the captured material. The team culled this to 90 tons of maps, aerial photographs, high-quality geodetic survey instruments and reams of printed data, which they packed into 1,200 boxes to be shipped to the Army Map Service in Washington.

The haul included complete geodetic coverage of more than a dozen European countries and states, including Russia, and several more in North Africa and the Middle East. Hough later

Hough's team shipped 371 boxes of captured German equipment to the U.S., including this stereoplanigraph made by renowned German optics firm Zeiss. (The National Archives)



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estimated that 95 percent of this data was new to the U.S. military. It also included approximately 100,000 maps covering all of Europe, Asiatic Russia, parts of North Africa, and scattered coverage of other parts of the world. The Soviets took possession of Saalfeld on July 2. HOUGHTEAM was still moving material out of the region on July 1.

The team also captured seven giant contraptions called stereoplanigraphs—cutting-edge technology used to create topographic maps from aerial photos. Bristling with knobs and adjustable arms, each machine was big enough to fill a room and required two people to operate. A complex interior system of lenses and filters combined images from overlapping aerial photos to make high-precision measurements of elevation differences between hills and valleys and other features of the terrain. The models captured in Saalfeld were made by Zeiss, the renowned German optics firm; Hough estimated their combined value at \$500,000 (nearly \$7 million today).

He ordered a furniture factory in Saalfeld to build shipping crates, and sent one of his officers to fetch an engineer from Zeiss headquarters to oversee the disassembly and safe packing

These photographs, taken by an Army officer, document some of the discoveries made by Hough's team in and around Saalfeld, the German city where the Americans located the major map and data repository of the German Army. The Germans had hastily moved the invaluable materials from Berlin, stashing them in warehouses and other buildings lest they be destroyed by Allied bombs targeting the capital city. (The National Archives)

of the precious optical equipment.

One Sunday in late May, with most of the material from Saalfeld safely relocated to the American zone, Hough finally gave his men a day off. It was their first since March. After the intense rush of the past few weeks, Hough, too, must have needed a chance to rest. In his memos, he noted that they'd had a stretch of pleasant spring weather, and the countryside of southern Germany looked beautiful. German soldiers could be seen on the streets, shuffling their way home, still wearing their uniforms and carrying their packs.

THE END OF THE WAR did not slow Hough down. L He already had a vision for what to do with the captured material, and in Bamberg he quickly got to work. Geodesists had recently begun to aspire to an ambitious new goal: creating a geodetic network, or "datum," covering the entire world. In 1945, this was still a distant dream. Europe alone was a patchwork of roughly 20 datums. Each country, sometimes even individual regions within a single country, had performed its own surveys, often using different mathematical methods.

Yet the raw data needed to create a Europe-wide datum existed—and Hough now had much of it. Massive number-crunching would be required to make it useful. So in mid-May, Hough moved RfL geodesist Erwin Gigas to Bamberg, along with several of his former computational staff. There the Germans performed the thousands of calculations required to integrate survey data covering a vast swath of Central Europe into a single geodetic datum. Hough arranged for the geodesists to receive room and board in German homes and paid them the salary they'd been receiving from the German government. As the group grew, Allied counter-intelligence officers vetted each new member, barring anyone suspected of Nazi sympathies.

The rest of HOUGHTEAM kept at it. Shallenberger and Espenshade uncovered maps and data hidden inside salt mines and castles and even buried amid human bones in the graveyard of a monastery. They discovered the map collection of the German state department, the aerial photo archives of the Luftwaffe, and various innovative German devices and processes related to mapmaking.

Shallenberger also captured the German general in charge of maps and surveys for the Nazi military, Gerlach Hemmerich. The U.S. Army had commandeered Hemmerich's home, in Berlin, but on a hunch Shallenberger paid a visit. He noticed that the German cook used the formal version of the language, usually spoken only by highly educated people. After questioning, the woman admitted that she was Hemmerich's wife, and said that she and her husband had been living in the house all along. The general had recently taken a job stoking furnaces at a U.S. Army installation; when he returned home from work, Shallenberger and an armed escort took him into custody.

With their mission winding down, Hough made time to draft letters recommending his team members for promotions and new jobs. He recommended Meier, the German-born interrogator, for a two-grade promotion, and later a Bronze Star, crediting him with uncovering information that led directly to many of the team's greatest discoveries. "It is known through German sources that much of this work was done at considerable risk to his life, both at the time and in the future," Hough wrote.

Hough finally returned to Washington in September 1945 and resumed his position as head of the Geodetic Division of the Army Map Service. By the time Gigas and his group completed their work on the Central European datum, in 1947, Hough, who'd continued to travel to international conferences to meet with foreign geodesists, had laid the diplomatic groundwork for connecting the rest of Europe to the geodetic network. When several countries that had been invaded by the Nazis understandably refused to turn over their national survey data to the German geodesists, Hough persuaded the

Army Map Service to take over the project. The work reached a culmination in 1951, with the completion of the European Datum, or ED50, which united the continent in a common geodetic network for the first time.

The ED50, in turn, became part of the foundation for a new global coordinate system known as the Universal Transverse Mercator, the standard coordinate system used by the U.S. military and NATO. It soon proved equally useful for civilian operations, and was adopted for applications as varied as economic development projects, ecological research and oil prospecting. William Rankin, a historian of science at Yale and author of the 2016 book After the Map: Cartography, Navigation, and the Transformation of Territory in the Twentieth Century, says the Universal Transverse Mercator was a crucial step along the path from old-fashioned maps, which represented territory in an intuitively visual way, to coordinate systems such as GPS, which define locations with much greater numerical precision. UTM showed "how to think differently about space and location using mathematics," Rankin says. "It was like GPS—before GPS."

Despite their accomplishments, the exploits of HOUGH-TEAM have been only briefly noted by a handful of historians, and their story has been largely forgotten even within the military geospatial community. "We're used to working in secret and going unrecognized for our contributions to national security," says Thom Kaye, a military cartographer who only learned of Hough's story a few years ago, after he happened upon a reference in a history of Cold War cartography. Kaye began lobbying for Hough to be inducted into the Hall of Fame of the National Geospatial-Intelligence Agency. Hough, who died in 1976 at age 77, received this posthumous honor last year.

According to Gary Weir, the agency's official historian, the data captured by HOUGHTEAM was an enormous boon to the U.S. during the Cold War. The ability to target Red Square with an intercontinental ballistic missile launched from a silo in Montana requires a level of precision that can only come from geodesy. As it happened, the Saalfeld haul included Russian geodetic survey data the Germans had in their possession data that HOUGHTEAM moved to the U.S. "If we wanted to put ordnance on target, this is exactly the data you needed to do it," Weir says. Perhaps not surprisingly, Hough played an early role in developing the Army's program of research for guided missile systems.

In the paranoid days of mutually assured destruction, it mattered not only that we had this data, Weir says, but also that the Soviets knew we had it. And they did. In 1957, according to an article published the following year in Life magazine, Hough met a number of leading Soviet geodesists at a conference in Toronto. Upon being introduced by colleagues, one of the Russian delegates eyed Hough coolly and said, "We have heard a lot about you, Mr. Hough."

ABOUT THE AUTHOR: Greg Miller is a science journalist and co-author of All Over the Map: A Cartographic Odyssey (National Geographic, 2018).

Thank you to the VSLS member who brought this article to our attention at the December Round Tables. Your identity has been lost in the memory of our Administrator, but we appreciate the suggestion. Keep them coming!

A WARNING ABOUT SCAM EMAILS

We've received reports recently about two types of bogus emails:

- A "prospective client" contacts a surveyor and makes some excuse about why they can't speak on the phone (they're hearingimpaired, for example), and immediately asks if the surveyor accepts credit cards.
- An email that's supposedly from VSLS, asking for donations for a particular charity.

If you have a reason to doubt the veracity of any emails, it's best to simply delete them. You can also look at the email address and see if it matches who the person is claiming to be.

It goes without saying, but just in case, never provide any financial information to someone you don't know.

OFFICE OF PROFESSIONAL **REGULATION**

POLICY FOR CONTINUING EDUCATION AND IMPACTS OF COVID-19

Vermont's Office of Professional Regulation will allow a continuing education renewal extension of up to 180 days and accept alternatives to face-to-face continuing educational opportunities impacted by COVID-19.

Online courses and training will be allowed.

To see the criteria for the extension, go to the VSLS website >> COVID-19 Updates page.

www.e-topo.com 603-569-2400

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MAPPING EXPERTS MANY PROJECT TYPES HIGHEST ACCURACY **FASTEST DELIVERY**





CALS



MALSCE



MSLS



NHLSA



NYSAPLS



RISPLS



Random Notes



APRÈS SKI BREAKFAST?

Malcolm Moore, L.S., sent in this photo of Bill Fitzgerald, L.S. (left), and Eric Morse, L.S., after the Windham County land surveyors had breakfast at Eric's home on Dec. 5. Malcolm notes that it was a very cold morning, which is easy to believe given all the snow.

→ If you'd like to arrange a breakfast for surveyors in your area (once we're done with social distancing), email kelly@vsls.org to get the contact information.



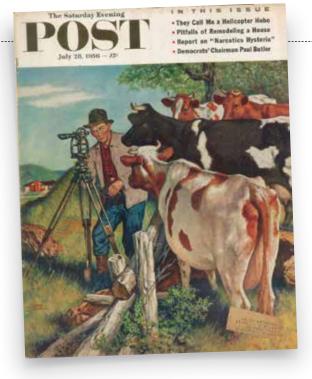






POSTCARDS FROM AFRICA

Harris Abbott, L.S., shared a few photos from his February trip to South Africa, Botswana, Namibia and Zimbabwe. "We were on a 14-room river boat for four days and got to see the animals mostly from the water. The elephant and lion were free-range, with no more than 15 to 20 feet from us with no fencing. We could have been lunch if the lion was hungry, as we were seated in the back of the open bed of a pickup truck."



SPECTATOR SPORT

Joe Flynn, L.S., sent in this cover from the Saturday Evening Post edition dated July 23, 1956. Featured is a scene that may be familiar to many land surveyors. Note the 15¢ pricetag for the issue.



Send in your photos for the next issue: kelly@vsls.org



JOHN MAXWELL | Indiana Department of Natural Resources

At 102, he says it's time to retire

Bob Vollmer, 102, Indiana's oldest state employee, is retiring after nearly six decades on the job. Vollmer plans to report to work for the last time on Feb. 6 as a surveyor for the Indiana Department of Natural Resources. The southern Indiana man, whose mother lived to be 108, joined the state agency in 1962. The World War II veteran still travels Indiana collecting technical field data, but he says his body finally is telling him it's time to retire. "I guess your body tells you when it's time to go," Vollmer told WXIN-TV. Vollmer plans to spend his retirement reading and farming. He also plans to take trips to South Pacific islands he was on during his wartime service with the U.S. Navy.

THE NEW RETIREMENT AGE?

William Johnson, L.S., sent in this notice from the Tampa Bay Times, about a surveyor finally retiring at the age of 102. Though Bob Vollmer still travels Indiana to collect field data, his body is telling him it's finally time to slow down. What an inspiration to those who are already feeling a little creaky in their first century.



FREE FRIDEN CALCULATOR. Rich Lunna, L.S., is offering a Friden Model STW-10 calculator that was formerly owned by Mert Burns, one of the first editors of The Cornerpost. "It was given to me by Mert's mother about 45 years ago, after Mert passed away," Rich says. "It has been stored quietly in my attic ever since. It turns on but does not work, as some of the function keys are stuck. I hate to throw it out and it's hardly worth listing on Ebay. These calculators were amazing machines in their day and were produced from 1949 to 1966. It weighs a little over 40 pounds (that's not a typo). If someone has the mechanical aptitude, lots of patience and is up for a challenge, this would make for a satisfying restoration—a chance to get even with all the techies and their fancy computers. However, be aware that it has hundreds of moving parts and is not a task for the faint hearted. I have the instruction manual, Methods For Surveyors Manual, and the cover. A repair manual is available on the Internet."

→ Are you up to the challenge? Email rflunna@gmail.com

IN MEMORIAM

Gary H. Croteau Vermont L.S. #166



Gary Croteau passed away suddenly on Feb. 10, 2020, at his home in Bonita Springs, Florida, with

his loving wife, Sharon, by his side. Gary was born on March 22, 1940. He graduated from Spaulding High School and Vermont Technical College in Civil Engineering. His career included work with the State of Vermont Highway Department, his own company, Surveyors Inc., EF Wall, and Bombardier Inc.

One of his most satisfying career accomplishments was building the Bonsai Pavilion and Herb Garden at the National Arboretum in Washington, D.C.

Gary proudly served his country in the Air National Guard in Burlington, Vt., and was discharged in 1969 after six years of service. He was a past president of the Mutuo Inc. and Kiwanis Club of Barre. Gary and his high school sweetheart, Sharon Wildbur, shared 59 wonderful years of marriage together and enjoyed gardening, boating and wine making.

Services will be held later in the summer in Barre.



Attention Members

Executive Committee meetings are held on the third Thursday of every month, and all members are welcome to attend. Email kelly@vsls.org for information.

November 21, 2019, 6 p.m. AIV Building, Montpelier

In attendance were Mark Day, Nate Yager, Paul Hannan, Gayle Burchard, Becky Gilson, Lisa Ginett, Randy Otis, our Administrator Kelly Collar, and guest Joe Flynn. Absent: Keith Van Iderstine. The meeting was called to order at 6:02 PM. The group welcomed Randy Otis, who will replace Nate Yager as our Vice President. Nate will fill the director's spot that Gayle Burchard is vacating at the end of the year.

Secretary's Minutes

The committee reviewed minutes for the Executive Committee Meeting dated Oct. 17, 2019 and noted that the Secretary needs to add some language to the budget portion of the report to reflect the raise that the group resolved to give Kelly for her wonderful work on our behalf. Kelly has not had a raise in three years and it was voted to give her a raise of \$3.00 per hour for a total of \$28.00 per hour. Upon motion duly made and seconded it was unanimously RESOLVED: to approve, with the above revision, the minutes of the Executive Committee Meeting dated Oct. 17, 2019.

Treasurer's Report

As our treasurer was unable to attend the meeting, Kelly read the Treasurer's report from the period Jan. 1 to Nov. 20, 2019. Total year-to-date income is \$60,293.38, expenses are \$59.907.59, for a net income of \$385.79. The fall conference netted \$4,787.25 and our total assets are \$56,913.81.

Administrator's Report

Kelly reminded us that the December Round Tables will take place in three weeks and that only 35 people have signed up so far. Mark Sargent, the new president of NSPS, will be at the meeting to install our slate of officers. Kelly reported that the Spring Seminar will take place at Lake Morey and that part of the seminar will be a presentation about small business practices by Rick and Patti Brooks. The Program Committee will meet soon to fill in the remaining presenters. The fall conference will be for one day at Okemo or Killington, possibly on Sept. 11, 2020. Kelly also mentioned that the dues renewal notices will go out Dec. 1.

Board of Land Surveyors -Statute Changes to the Rules

Joe Flynn's committee has been tasked with looking at rule changes to add some standards to the rules regarding survey work other than boundary surveys, which is the only type of survey currently assigned

Statute Standards. Joe reports that 37 states are all-encompassing in their standards for surveyors, but Vermont only has standards for boundary surveys. Joe reported that the Office of Professional Regulation attorneys will not support changing the rules, as they say that it is the wrong political climate to accept rule changes. Joe met with George Till, the legislator from Jericho who agreed to sponsor the bill. Joe asked whether the VSLS Executive Committee would support the changes to the rules. Mark Day asked to see the standards defined, and Paul Hannan expressed some reservations as to the wording of the proposed changes. Paul felt and the group agreed that there should be more definite language to clarify that these new standards are not creating exclusivity for surveyors and would not affect other peoples' ability to work on topographic, construction lay-out or hydrographic surveys if they normally do so as part of their own work. It was suggested that some language go into the Bill to distinguish between the definition of Land Surveying and other things that surveyors can do. Paul volunteered to help create the proper language to clarify this difference.

Other Business

Dan Martin will be awarded an honorary membership to VSLS at the Round Tables meeting. Mark will make a 24 x 36-inch certificate on poster board to present to Dan.

The group reviewed a "Boundary Line Adjustment" form put out by the ANR, which needs to be revised to reflect the new Bill regarding filing subdivision or boundary line adjustment surveys with VCGI. The ANR needs to be informed that they need to revise this form.

The Town of Worcester was trying to find Paul Harrington, who no longer works as a surveyor, to let him know that many of his plats in their plat files have transferred their ink from the plat to the sleeve. It is not known how many plats statewide might have this problem or how to deal with the issue. Paul Hannan said that the plats were copies produced by Reprographics, who advertised them as permanent, and perhaps they can be persuaded to assist in fixing the problem. We need to see, perhaps through the League of Cities and Towns, how many record plats are affected.

There being no further business, the meeting was adjourned at 7:33 PM

Respectfully submitted, Lisa Ginett, VSLS Secretary

December 12, 2019, 1 p.m. Capitol Plaza Hotel, Montpelier

The General Membership meeting took place during the December Round Tables, held at the Capitol Plaza Hotel in Montpelier, VT. In attendance were Mark Day, Paul Hannan, Randy Otis, Keith Van Iderstine, and the VSLS membership. Absent: Becky Gilson, Lisa Ginett and Nate Yager.

Secretary's Minutes

The general membership reviewed minutes from the Sept. 6, 2019 Business Meeting, held during the annual conference in Colchester. Upon motion duly made and seconded it was unanimously RESOLVED: to approve the minutes of the General Membership Meeting dated Sept. 6, 2019.

Treasurer's Report

VSLS Treasurer Keith Van Iderstine read the treasurer's report for the period dated Jan. 1 to Dec. 11, 2019. Total yearto-date income is \$65,326.38, expenses are \$62,438.84, for a net income of \$2,922.54. Keith noted that the dues increase implemented this year has helped us be in a positive position at year-end, rather than being in the red every year.

NSPS Update

NSPS President-Elect Mark Sargent attended the meeting to install the VSLS officers and provide an update about NSPS activities over the year. He noted the dues increase from \$40 to \$50 per member and said that updated MOUs had been sent to the 48 states with 100% participation in NSPS. They have been working on outreach and have replaced the NSPS Radio Hour with a new podcast named "Surveyor Says!"

NSPS also hosted a booth at the national school counselors conference to introduce counselors and thus students to the field of surveying. They're also sending a letter to AOTs around the country about the Certified Survey Technician Program. Mark encouraged members to take advantage of all the benefits that NSPS offers.

Presentation of Honorary Membership

VSLS President Mark Day, on behalf of the Executive Committee and entire VSLS membership, awarded Dan Martin with an Honorary Membership (and an oversized certificate) in recognition of his commitment to the society and his tireless efforts on behalf of the land surveying profession. Dan has been an Associate Member since 1991 and, since that time, has willingly presented at dozens of VSLS events and been an advisor and valued member to the society. Dan said a few words in accepting the honor.

Installing Slate of Officers for 2020

NSPS President-Elect Mark Sargent formally installed the members of the VSLS Executive Committee for the coming year, with the assistance of all the members present. The entire slate of officers was not able to attend, but the full list includes: Mark Day, President; Randy Otis, Vice President; Lisa Ginett, Secretary; Keith Van Iderstine, Treasurer; and Directors Becky Gilson, Paul Hannan, and Nate Yager.

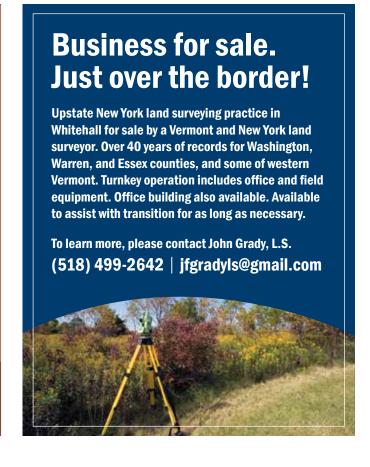
There being no further business, the meeting was adjourned at 1:21 p.m.

Respectfully submitted, Kelly Collar, VSLS Administrator



Attorneys with extensive experience in survey related issues including land and water boundaries, rights of way, easements, lakeshore protection and other land ownership and use issues.

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January 16, 2020, 6 p.m. Conference Call

This meeting was scheduled to be held at the AIV building in Montpelier, but due to bad weather was held by conference call. In attendance were Mark Day, Nate Yager, Paul Hannan, Becky Gilson, Lisa Ginett, Randy Otis and our Administrator, Kelly Collar. Also in attendance was David Fox of VCGI. Absent: Keith Van Iderstine. The meeting was called to order at 6:05 PM.

Update on Land Survey Library

David Fox attended this meeting to update us on the Vermont Land Survey Library. David reports that the survey library is up and working well. He says that since January 1, there have been 22 submissions and they are coming in at around 1 or 2 per day. The roll out appears to have gone smoothly, and people have used the instruction form with no problems. Mark Day asked whether we should go ahead and upload all surveys. David responded that the Land Survey Library will take surveys even if they do not show any new lines. The question came up as to what happens if we do a survey for a subdivision or Boundary Line Adjustment, upload it, and the deeds don't get executed. David said VCGI could ask the pertinent town clerk and reserve the right to pull the record if the deeds were not executed, but it is a gray area at this time. We discussed whether unsold lots in subdivisions might be shaded or otherwise shown to be different than those sold, like some towns which have an inactive parcel layer for these unsold lots.

Paul Hannan and David Fox also discussed with the group the just-announced requirement by the Board of Land Surveyors to add language to the plat copies sent to the VCGI Land Survey Library stating that the original copy rests with the town clerk's records. Paul feels and David agrees that the Board is overstepping its bounds, as the bill did not specify any requirements for separate language to be put on plat copies submitted to the library and that the requirement might be a hardship to some surveyors who might not be able to produce a .pdf copy in house. David will write a small article for "The Cornerpost" about the issue, and he and Paul plan to attend the next Board meeting to discuss why the special language requirement should be removed.

Introduction of Bill Amending Definition of Land Surveying

As the group discussed at its last meeting, the language of the new Bill regarding revisions to the Definition of Land Surveying seems overly broad in that it could be construed as limiting what other professionals can do. There was no opportunity to vet the bill before its introduction and the overly broad definition now needs to be amended. George Hill introduced the bill in its earlier draft, unbeknownst to the VSLS Executive Committee. The hearing on the bill in the Government Operations Committee was scheduled for today. It is known that the Board of Land Surveying's counsel is not behind the bill as written. Paul explained that there is plenty of time in the process for language revision before the bill goes to a final vote, and he would be willing to talk to the Government Operations Committee regarding the language revisions necessary to make the Bill state what it should. In its current configuration it does not send the correct message out.

Secretary's Minutes

Minutes for the Executive Committee Meeting dated November 21, 2019 were reviewed. Upon motion duly made and seconded it was unanimously RESOLVED: to approve the minutes of the Executive Committee Meeting dated November 21, 2019.

Treasurer's Report

Treasurer's report for the period of Jan 1 to Jan. 16, 2020: As our Treasurer was unable to attend the meeting, we were asked to review the report on our own. Total expenses were \$3,993.20, total income was \$13,682.50 and our total assets are \$67,925.51.

Administrator's Report

Kelly reports that she is busy with membership renewals and that she has collected 56% of expected dues to date. She has a small pile of dues that have not yet been deposited.

The Spring Seminar will be held at lake Morey on April 17. Rick and Patti Brooks will present a four-hour seminar on business practices for land surveyors. This is the first time that the Board has been willing to give education credits for a business course. The afternoon seminars include one hour on liability by Cameron Poole and 2 hours on ethics by Bob Dahn. The Fall conference will be one day only at Okemo on Friday, Sept. 11, with a four-hour presentation on floodplain issues and a two-hour presentation on working with realtors. The remaining time has not yet been filled.

Kelly also asked the group to think about goals that we might want to reach for 2020.

Other Business

A brief discussion occurred regarding Matt Reed's request for Associate Membership. There had been some mild complaints about Matt Reed completing surveys without a license. Mark looked at his website and it appeared that everything was in order. The site clearly states that the surveyor in charge is Ron Stancliff. The committee decided that it is in the best interest of VSLS and the public if we are as inclusive as possible and award the Associate Membership to Matt as he is working to fulfill requirements to become licensed.

Paul had a question for the group as to who might have the survey records of L. Beck or Les Newell. No one knew but it was suggested that Paul post the question on the VSLS listserv.

Mark Day will be attending the second day of Maine's surveying society, and Randy Otis will be attending the entire NYSAPLS meeting.

It was discussed that generally everyone prefers meeting in person, and the next meeting is scheduled to take place at 6:00 PM on February 20 at the AIV building in Montpelier.

There being no further business, the meeting was adjourned at 7:00 PM.

Respectfully submitted, Lisa Ginett VSLS Executive Committee Secretary

February 20, 2020, 6 p.m. AIV Building, Montpelier

This meeting was held at the AIV building in Montpelier, VT and was called to order at 6:14 P.M. In attendance were Mark Day, Nate Yager, Lisa Ginett (by phone), Randy Otis, Keith Van Iderstine, Paul Hannan and our Administrator: Kelly Collar. Absent: Becky Gilson

Secretary's Minutes

Minutes for the Executive Committee meeting dated January 16, 2020 were reviewed. Upon making one correction; changing the name of the representative sponsoring Bill H616 from "Hill" to "Till," the motion was duly made and seconded unanimously: to approve the revised minutes of the January 16, 2020 Executive Committee meeting.

Treasurer's Report

Treasurer's report for the period of Jan. 1 to Feb. 17, 2020: Total income for the period is \$17,157.50. Total expenses were \$8,627.93 for a Net Income of \$8,529.57. Bank Account Total = \$66,051.32. Membership dues collected to date for the year include 69% of members.

Administrator's Report

Kelly confirmed that the Spring Seminar will be held at Lake Morey on April 17. There will be a 4-hour presentation by Patti and Rick Brooks on business practices for the survey office, a 2-hour presentation by Bob Dahn on ethics and a 1-hour presentation by Cameron Poole on liability. The Fall Conference will be one day only at Okemo Mountain on September 11. There will be a 4-hour presentation by Jim Nadeau on flood plain issues, a 2-hour presentation also by Jim Nadeau on the surveyor's relationship with realtors, and the remaining time to be announced when known. The December Round Tables are scheduled for Thursday, December 10, as there were no available Fridays in December.

We discussed goals for 2020. Kelly would like to refresh the website in order to keep people's interest. Mark has reviewed our resource documents, which we had agreed long ago needed refreshing and updating. Keith was going to scan the resource documents into pdf format and turn them into editable files, but he became too busy to proceed with the project. Randy volunteered to scan the documents and get them to Keith. Becky had agreed to do the editing. Once the files are edited and updated, they will be made available on our website to be downloaded, and VSLS will no longer have printed copies available. We discussed the possibility of our members downloading the documents for free but charging a nominal fee to non-members.

Kelly mentioned that we could look in to educating high school students about the profession and we discussed various ways to do that. Perhaps we could contact high school counselors with a brochure or information package, or more directly by an e-mail blast. We should look into social media, including a link to the video produced by the society last year (which has received good reviews from other state societies). Kelly noted that the society's Macbook is 11 years old and malfunctioning, and the committee authorized her to price out a new one.

VCGI Guidance Document

The committee discussed the guidance document at its last meeting, and Mark Day and Paul Hannan attended the last Vermont Board of Land Surveyors meeting to discuss the issue with them. VSLS members felt the Board had overstepped its bounds with the wording in the document. The Board agreed to change the wording to say that surveyors "may" include language that scans are unofficial copies, rather than that they "must" include this language.

Bill H 616

We had discussed previously that this Bill as written and sponsored in the Legislature needed a great deal of work. Tim Short asked that VSLS withdraw the Bill for several reasons. It seems that some feel Joe Flynn had jumped the gun by finding a sponsor for the Bill before the Board had reviewed the language or agreed to the Bill. Tim felt that the geodesy portion of the Bill would mean that all surveyors would need to provide geo-referencing for their plats. Members of the Executive Committee felt the final Bill should clarify that, while the definition of a land surveyor provides standards for work we do, such as work in topographic, bathymetric, road lay out, building lay out and geodetic surveying, it should not necessarily exclude other professional from performing similar work. Paul reminded us that this Bill would only be modifying 2506 VSA, not replacing it.

The group decided to let things lie and hope that the Bill does not move forward; however, we will watch to see if the Bill does appear to be moving, so we have a chance to modify the language.

Other Business

National Surveyors week is March 15 -21. NSPS begins to promote the event two weeks ahead of time. We had discussed putting up a small display about surveying in the Card Room of the Legislature, but apparently we would have needed to apply for the space over a year ahead of the event in order to reserve it. It was too late when Kelly called last year after our discussion. She has asked once again for the Governor to prepare a Proclamation about the event and he has agreed to do so.

We had a brief discussion about the difference between the VCGI Parcel viewer and the Survey Library. It was also discussed that we might use the Survey Library to accept the many scans that VSLS has, once they are indexed. However there was no consensus as this would put them in the public realm, which was not the originally-stated mission. The question also came up whether we needed to ask our clients if we could send in their plats to the Library if they were not officially recorded. The question of who owns your work product, you or the client, is answered based on contract stipulation. Keith mentioned and we all agreed that we should draft a policy for the scans.

There being no other business, the meeting was adjourned at 7:25 PM.

Respectfully submitted, Lisa Ginett **VSLS Secretary**



In the late '60s, we were retained by an engineering outfit from "down country" to accomplish some topographical survey work in Beecher Falls.

I think the name of the engineering company was Teeder Dobbins. Topographical survey work involves establishing a baseline along the center or edge of certain roads and then locating the physical features in relationship to the baseline.

Cold Day in Beecher Falls

"I recall that I was shocked to look at my thermometer that morning at about 5:30 and read 35-below...Wow! But you know how it is...the work must go on!"



This work is used to produce a scale drawing which forms the basis for the design of a water line, or a sewer line.

My office at the time was on Rocky Ridge in St. Johnsbury, and there were a number of men working with me. This particular project came in the winter, and our practice in those days was to work out every day, regardless of the weather, unless the day brought heavy, steady rain or heavy, steady snow. So we set the date for the work and hoped for good weather.

I recall that I was shocked to look at my thermometer that morning at about 5:30 and read 35-below. Wow! But you know how it is... the work must go on! The men gathered at 7 a.m., and we climbed in the rig and set off. This was an International Scout, and it was christened by one of the men. He had noted the beard that I sported at the time, and painted on the back of the Scout, "Bearded Leader's Buggy." Good old Al Roy!

I remember making myself drive slowly up Rt. 2 and then Rt. 3 in anticipation of the day warming up by the time we got to the job. Some help that was; we stopped for coffee at a little store in Stratford, and the temperature there was 38-below! We got into North Stratford and a sharp right turn almost ended the day. I couldn't make the turn ... the steering box was too stiff

with the cold, and we traveled across the road into the snowbank. Lucky, nobody was coming, so I backed her out and on we went. The work must go on!

Believe it or not, we worked all that day on the road in Beecher Falls. I do remember that we had plenty of clothes on, in several layers, and we were used to working outside. Also there was no wind, and the sun was out, giving out heat even with the haze. I also remember that we swapped jobs pretty often, so that no man was standing still taking field notes.

When I now grumble at the temperature when it gets below zero, I think back to that day in Beecher Falls, and it doesn't seem so cold! One other note: about that time we were visited by my brother-in-law from Maine. He spent the night with us, and the morning temperature that day was also in the 35-below range. He came in from starting his car, grumbled about the cold, and said that he thought that his head would explode! Those folks from the Maine coast live in the "banana belt" compared to Vermont's Northeast Kingdom.



ABOUT THE AUTHOR: After serving in the U.S. Navy (1944-46) during World War II, Richard "Dick" Bohlen enrolled in the civil engineering program at UVM. Following graduation in 1950, he and Bob Morrison, of Waterford, Vt., started Truline Land Surveyors in St. Johnsbury. Dick is a registered land surveyor (#7) and a registered professional engineer (#707). He was a founding member of the Vermont Society of Land Surveyors and a member of the first Board of Registration. This past winter, Dick joined his St. Johnsbury colleagues for their monthly land surveyors/engineers breakfast. He is 93.

Spring Seminar

NEW DATE DUE TO
COVID-19. WE WILL
CONTINUE TO MONITOR
THE SITUATION AND
MAKE CHANGES,
AS NEEDED.

Friday, June 26, 2020 Lake Morey Resort • Fairlee, VT

7 PDH APPROVED



Program Schedule

7:15 AM	Registration and Breakfast
8:00 AM	Business Practices for Land Surveyors
12:00 PM	Lunch and Business Meeting
1:30 PM	Seven Deadly Sins of Email and Eight Essential Contract Provisions
2:30 PM	The Professional and Ethics
4:30 PM	Concluding Remarks

Registration Fee	Through June 12	After June 12
Member in Good Standing*	\$145.00	\$170.00
Non-Member	\$245.00	\$270.00
Life Member	\$108.75	\$133.75
Non-member technical staff attending with member	\$123.25	\$148.25
Three attendees from same firm (one must be member)	\$123.25	\$148.25

^{*}Must be current with dues to qualify for the member rate. Members of kindred associations qualify for the member rate. No refunds after June 19, 2020 unless the event is postponed or canceled.

Dietary Restrictions

Seminars

Business Practices for Land Surveyors

Presenters: Rick and Patti Brooks, Brooks & Brooks, PC
This seminar will cover best practices for land surveying businesses. We'll discuss employee relations and employee benefits and how they impact running a successful business. And we'll get into the nuts and bolts of crucial administrative tasks like communication, client relations, billing, and many more. We'll cover how to set up business practices to optimize tax benefits.

7 Deadly Sins of Email & 8 Essential Contract Provisions

Presenter: Cameron Poole, Associate, Poole Professional

This program will examine the eight contract provisions that matter most to Land Surveyors, including indemnification, standard of care, and others. It will then outline the seven deadly sins of email practices for design professionals, concluding with steps to take to keep you out of email hell.

The Professional and Ethics

Presenter: Robert Dahn, Surveyor and Partner, Meehan & Goodin
This seminar will explore the ethical roles and responsibilities
of the surveying professional in modern practice.
Included is a brief introduction to the history and the
evolution of ethics, the relationship between surveying
and its allied professions, and the duties and obligations
professionals owe to their clients and the public at large.

Overnight rooms: \$149/night plus tax. To reserve, call (800) 423-1211 and mention the VSLS Seminar.

Montpelier, VT 05601-0248. Questions? kelly@vsls.org

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