The UCLS Newsletter

Volume 5 Issue 7

November 2019

Who is it?

The hair and wardrobe may have changed but the focus and integrity of our "who is it" candidate has never wavered. Who is this outstanding UCLS member?

The first UCLS member that correctly identifies the location of this monument is eligible for a free lunch at their next chapter meeting.

Answers may be emailed to Susan at srmerrill@ucls.org. The earliest date and time of response will determine the winner.

In this issue: Read about the changes the National Council of Examiners for Engineering Surveying, with the help of volunteers, are implementing for those taking the Principles & Practices of Land Surveying exam.

Try to understand the wit and wisdom of cartographers who incorrectly mapped water boundaries and/or perpetuated the location of some of the most sad and lonely places on the earth.

Be entertained with a classical Robert Frost poem, enlightened with trivia and tidbits, and educated by a non-dastardly deed.

We invite you to share charismatic photos of yourself and/or a coworker, panoramic images of Utah's scenic wonders, or pictures of survey related tools and equipment. Additionally, we need interesting and unique descriptions or survey related stories to share with our membership. Remember, if you do not participate you have no right to complain. Please let us know your thoughts, recommendations, suggestions, or complaints.

The UCLS Newsletter
is published monthly by the

Utah Council of Land Surveyors
PO Box 1032
Salt Lake City, UT 84110

Phone/Fax:
801-964-6192

Website:
www.ucls.org

INDEX TO PAGES:

"Develop an attitude of gratitude, and give thanks for everything that happens to you, knowing that every step forward is a step toward achieving something bigger and better than your current situation."
-Brian Tracy

UCLS Executive Board 2019

State Chair
Jefferson Searle
Avenue Consultants
4975 W. 6440 S.
West Jordan, UT 84084
Business: (801) 569-1315
JSearle@avenueconsultants.com

State Chair Elect
Doug Kinsman
Ensign Engineering
169 N. Main Street
Tooele, UT 84074
Business: (435) 843-3590
dkinsman@ensignutah.com

Past State Chair
James Couts
ECI
4229 W. 5825 S.
Roy, UT 84067
Business: (801) 292-9954
james.couts@ecislc.com

NSPS Director
Dale Robinson
Sunrise Engineering, Inc
6875 S. 900 E.
Salt Lake City, UT 84047
Business: (801) 838-8322
drobinson@sunrise-eng.com

WFPS Director
Michael W. Nadeau (SL)
5226 W. Ashland Rose Dr.
Herriman, UT 84065
Business: (801) 569-1315
mikenadeau.ucls@gmail.com

Book Cliffs Chapter President
Harold Marshall
85 S. 200 E.
Vernal, UT 84078
Business: (435) 789-1017
hmarshall@uintahgroup.com

Book Cliffs Chapter Representative
Brock Slaugh
P.O. Box 1580
Vernal, UT 84078
Business: (435) 789-1365
bjs@timberlinels.com

Color Country President
Todd Jacobsen
175 E. 200 N.
Business: (435) 627-4124
todd.jacobsen@sgcity.org

Color Country Chapter Representative
Rick Snyder
11 North 300 West
Washington, UT 84780
Business: (435) 652-8450
rsnyder@sunrise-eng.com

Golden Spike President
Andy Hubbard
5746 S 1475 E
Ogden, UT 84403
Business: (801) 394-4515
andyh@greatbasineng.com

Golden Spike Chapter Representative
Von Hill
2096 W. 5750 S.
Roy, UT 84067
Business: (801) 399-8018
hillvon@gmail.com

Salt Lake Chapter President
Brian Linam
3724 Hot Springs Lane
Lehi, UT 84043
Business: (801) 608-6108
brian@benchmarkcivil.com

Salt Lake Chapter Representative
Brian Mitchell
2001 S. State St. #N1-400
Salt Lake City, UT 84114
Business: (435) 468-8240
E-mail: bmitchell@slco.org

Timpanogos President
Chad Hill
1377 S. 350 E.
Provo, UT 84606
Business: (801) 852-6746
cjhill@provo.org

Timpanogos Chapter Representative
Jim Kaiserman
1020 Sage Circle
Heber City, UT 84032
Business: (435) 657-3222
jkaiserman@co.wasatch.ut.us

Administrative Secretary
Susan Merrill
PO Box 1032
Salt Lake City, UT 84110
(801) 964-6192
srmerrill@ucls.org

Treasurer
Brad Mortensen (SL)
3268 S. 930 W.
Syracuse, UT 84075
Business: (385) 272-8106
bmortensen@meiamerica.com

Chapter Vice Presidents:

Book Cliffs Brandon Bowthorpe
bbowthorpe@uintahgroup.com
Color Country Brad Petersen
brad2765@gmail.com
Golden Spike Ken Hawkes
kenh@awagreatbasin.com
Salt Lake Christopher Donoghue
christopher.donoghue@slcgov.com
Timpanogos Travis Warren
twarren@spanishforl.org

Chapter Secretary/Treasurer

Book Cliffs Paul Hawkes
paul@trisatesurvey.com
Color Country Mike Draper
snow-md@hotmail.com
Golden Spike Matthew Murdock
matt@wasatchcivil.com
Salt Lake Kevin Despain
kevin@benchmarkcivil.com
Timpanogos Travis Anderson
tjanderson@springville.org

Committees & Committee Chairs

Legislation David Hawkes
dave@boundarycosultants.biz
Education Steve Collier
scollier@co.weber.ut.us
Publication Steve Keisel
svkeisel@gmail.com
Standards & Ethics Evan Wood
ewood@focusutah.com
Membership Vacant

Public Relations Vacant

Testing Darryl Fenn
dfenn@merid-eng.com
Workshop & Convention
Todd Jacobsen
tjacobsen@sgcity.org
Historical Charles Heaton
charles.heaton@esieng.com
Construction Survey
David Mortensen
dmortensen@civilscience.com

PS EXAM CHANGES

Article from the January 2019 publication of xyHt

The Principles & Practice of Land Surveying exam has upcoming changes, effective January 2019.

Almost every land surveyor who has gained professional licensure in the past 50 years has likely taken two exams created and administered by The National Council of Examiners for Engineering and Surveying (NCEES). NCEES is a "nonprofit organization dedicated to advancing professional licensure for engineers and surveyors," primarily by administering licensing exams, among other roles.

Land surveyors recognize NCEES for administering the Fundamentals of Land Surveying (FS) and Principles & Practice of Land Surveying (PS) exams. While both of these exams have been administered by NCEES for several decades, the content, scope, and delivery methods have drastically changed since many current licensed surveyors took the exams early in their careers.

I wrote this article primarily to educate soon-to-be test takers about the upcoming changes to the PS exam effective January 2019. But many lessons discussed here are applicable to all NCEES exams because how the NCEES exams are created and how they are graded - two important topics for any surveying or engineering examinee - are also explained. As I tell my students, "The more you know about an exam, the less you have to fear from it."

Why the Tests are Changing

The first question to be addressed is why NCEES is changing the PS exam content, which is referred to as the exam blueprint. Every six to eight years, each NCEES exam undergoes a thorough review to determine what changes have occurred in a particular industry (civil, structural, surveying, etc.) since the latest version of the exam blueprint was published. The PS was last updated in April 2013, so the PS exam blueprint was scheduled to be updated between 2019 and 2021.

NCEES leadership pushed for the PS exam blueprint to be updated at the earliest time possible - January 2019 - because of the rapid adoption of unmanned aerial systems, laser scanning, and other new technologies by the surveying community.

Revision Process

The process of revising an existing NCEES exam occurs in five phases and typically takes about one and a half years to complete.

First, a team of subject matter experts (SMEs) is assembled by combining the existing exam-development committee with a group of new volunteers. This committee creates a questionnaire to quiz the surveying/engineering community about what types of surveying they perform, what technologies they are currently using to collect measurements and the principles they use to complete their everyday tasks.

Second, this newly created questionnaire is sent to many individual volunteers who are currently practicing, as well as every state society, the National Society of Professional Surveyors, and other stakeholders in the surveying community. The more participants who rate an idea, theory, or concept as "important," the more likely that concept will be included in the updated exam blueprint. The goal is to define a minimally competent surveyor in order to protect the health, safety, and welfare of the public.

Third, the questionnaire results are reviewed by a second committee of SMEs. This committee transforms the results into a hierarchy of subjects (i.e. geodetic, boundary, topographic) and further subdivides the list into subcategories (boundary: priority of calls, junior/senior rights, accuracy standards). This yields the blueprint that is published for the exam.

Fourth, SMEs who are practicing surveyors are given the blueprint and asked to write questions, answers, and explanations for the relevant concepts. These questions are entered into a pool of potential exam questions and reviewed by other SMEs on the exam development committee.

Fifth, current examinees are given a few of the newly written items, and the results are used to verify that these questions are correct and proper.

The process described above is used for every update of an NCEES computer-based exam question pool, including surveying and engineering exams. Unlike many state-specific surveying exams, NCEES applies a statistical rigor and formal process that are second to none when updating the exams. Therefore, the likelihood of "bad questions" being introduced during and exam update is quite rare.

Content Changes

Let's consider how the content of the PS exam has changed from the April 2013 version to the updated January 2019 version of the exam. The short answer is: "Not very much at all." The exam is still seven-hours long, with 100 questions, and closed-book with an electronic reference.

The updated PS exam has the same five subject categories, with somewhat updated sub-categories which account for the biggest change in the updated exam blueprint. But the subcategories within each category are very similar to previous exams.

In the first subject category, Legal Principles, the number of subcategories has shrunk from ten to five. But now, under each subcategory, there are sub-subcategories that fully explain the expectations from each subject. This is a great improvement because specific expectations are set for each subcategory.

Furthermore, the number of questions in the Legal Principles category has been slightly shrunk from 22-33 to 18-27 questions, with the focus shifted from definitions and terms to the careful analysis of what surveyors must do ("how to evaluate data," "how to search for...physical evidence," etc.) This is a welcome change.

The second subject category, Professional Survey Practices, tests the applicant on his or her practical surveying knowledge: how to plan surveys, find record documents, conduct field surveys using conventional and GNSS instruments, and apply the necessary theories to complete such surveys.

Again, the number of subcategories has decreased, and the number of sub-categories, which clearly explain expectations, has increased. Monument standards, GIS data collection and development practices are welcome additions to the category. The number of questions in this category has not changed.

PS Exam Changes Continued...

The third subject category, Standards and Specifications, has been severely reduced, both in terms of the number of questions (from 17-25 to 8-12) and the scope of the category (from nine subcategories to three).

On the old PS exam blueprint, any number of surveying standards could have been tested, including ALTA/NSPS, BLM/PLSS, FEMA, FGDC, and geodetic standards. Concepts about local, state, and federal laws, rules, and regulations were also tested. In the new PS exam blueprint, Standards from 1) the BLM Manual of 2009, 2) ALTA Land Title Standards, and 3) FEMA flood mapping standards are the focus of this subject category.

Some of the topics previously covered were moved to other sections of the exam blueprint. This is probably the most significant change in exam content from the 2013 to the 2019 exam.

The fourth subject category, Business/Professional Practices, has changed very little. Still tested are business concepts, communication (oral and written), and risk management. But each of these subcategories has been more fully explained.

For example, under risk management, the examinee is expected to understand safety procedures, quality control methods, and how much and what type of insurance a surveying business likely needs. The number of questions in this category has been slightly reduced from 17-25 to 13-19 questions.

The fifth and final subject category, Areas of Practice, formerly known as Types of Surveys, has been substantially expanded from 14-21 to 24-36 questions. While the core knowledge areas of topographic, boundary, geodetic, flood mapping, and subdivision have not been expanded, consulting services, a very lucrative and growing market, has been added as a subcategory.

In the old PS exam blueprint, none of the subcategories were explained at all. But now, each of the nine subcategories has complete descriptions of the concepts and theories the examinee is required to know. This deep explanation of each type of survey removes much of the mystery associated with past versions of the PS exam blueprint.

Two things are clear from this discussion on changes. First, the exam has not changed much in terms of the content or material that examinees are required to master before undertaking the final step towards professional licensure.

But, NCEES has become much more open about what exactly surveyors should study, and NCEES has conveyed these areas of knowledge by greatly expanding the number of sub-sub-categories listed within the PS Exam Specifications. Listing specific concepts under each topic allows the examinees to focus on learning important concepts instead of guessing what they might be tested on.

PASSING SCORE

The last topic is what number of correctly answered questions constitutes a "passing score" for either the FS or PS exams. Among university students preparing for the FS exam, this is the question that they always ask me. The simple answer is that "it depends," because NCEES uses advanced statistical techniques to build a custom, unique exam for every applicant.

First, during the creation or revision of an exam question pool, each question is calibrated using known statistics. Then, a unique, but statically equivalent, exam is generated for each applicant. If a unique exam is composed of many difficult questions, the applicant is required to get a lower number of questions correct. Conversely, if an applicant is given a relatively "easy" exam, then the applicant must get a higher number of questions correct in order to pass the exam.

This method of determining the number of questions for a passing score uses a methodology known as Item Response Theory (IRT) testing and is also used on all of NCEE's large computer-based exams. While this method may not feel fulfilling because examinees will never know the exact number of items they must get correct to pass, the IRT system is statistically defensible and creates a more fair, robust exam for all the applicants.

Article by Charles "Tony" Nettleman III, Esq, PhD, PSM

Tony is a land surveying engineer and attorney who teaches continuing education courses for attorneys and land surveyors; provides online test preparation modules to help surveyors become licensed in all 50 states; and serves as an expert witness in boundary, easement, title, and riparian disputes. Contact him at tn@cnettleman.net.

Five Little Turkeys

Five little turkeys standing at the door,
One waddled off, and then there were four.

Four little turkeys sitting near a tree,
One waddled off, and then thee were three.

Three little turkeys with nothing to do,
One waddled off, and then there were two.

Two little turkeys in the morning sun,
One waddled off, and then there was one.

One little turkey better run away,
For soon it will be Thanksgiving Day.

What is a Hundred?

A hundred is an old English subdivision of a county. Although the origin is somewhat shrouded in mystery, basically it was a tract of land large enough to provide a hundred men to serve the king's wars. In American colonies that hundred men would have been known as militiamen. The name was used in many colonies but survived in America only in Delaware, probably because there the counties were all established so early-by 1680- that little reorganization was needed. In New England, the newer English term, town, replaced hundred, and in Pennsylvania and New Jersey, the term township was adopted. Most states today are divided into counties, then into Ward, Township, Parish, Precinct, or District.

For Delaware, the origin is cited in a letter written in 1682 by William Penn, the newly appointed Lord proprietor of the province of Pennsylvania and the bounties on the Delaware. Penn directed that from this point forward, settlements be divided into sections of 100 families; each family would have an average of about ten members (including servants). The first use of the term Hundred in official records relating to the Delaware colony dates to 1687, when reference is made to "a list of taxables of north side of Duck Creek Hundred."

Whatever its origin or intended significance, Delaware is the only state in which hundred exist in the United States and possibly in the world. Other states such as Pennsylvania, Maryland and Virginia once used hundreds as a county division but the only remaining evidence would be an occasional location with its name ending in "hundred". Maryland had stopped using the hundred by 1825.

October Where is It?

The publication committee stumped the membership of the Utah Council of Land Surveyors. There were no guesses submitted for our October "Where is it" competition.

This transit is found in the Blanding Utah visitor center, tucked among other interesting exhibits and artifacts. It was first owned by Peter Allen who, with Walter C. Lyman, first surveyed the townsite of Grayson (later Blanding) and before that the townsite of Bluff. Additionally, he surveyed the road down Peter's Hill, north of Monticello and other improvement projects.

In 1929, Peter gave the transit to his son-in-law, Frank Redd, who used it to survey many of the ditches and property lines in the town of Blanding.

Frank Redd sold the transit to Marvin Lyman, who used it to establish a tunnel through the mountain to obtain a permanent water supply for Blanding City.

The transit was donated to the Blanding Visitor's Center by Mr. Lyman's daughter, Caroline Christensen.

The World's Saddest Spots

by: Natasha Frost

https://www.atlasobscura.com/articles/sad-topographies-maps

There are many routes to Misery. From the north, you can take the Rue du Jeu de Paume; from the east, the Rue de Licourt; and from the south, the Rue de Billy, a meandering asphalt track that winds past bare fields, under an open sky. Any of these will lead to this French village of around 140 residents, 90 miles north of Paris.

Misery is one of more than 150 places with a desperately sad name, chronicled by the Australian artist Damien Rudd on his Instagram account, Sad Topographies. In British Columbia, Canada, the remote Sorrow Islands look out over miles and miles of empty ocean; Terrible Mountain can be found in Vermont; in Las Vegas, a wrong turn off Hearts Desire Avenue will leave you on Broken Heart Street, a lonely stretch of road 177 feet long. Each one has been lovingly screen shot from Google Maps and put on display - the world's most joyless places, laid out in a feast of wretchedness, despair, and general disappointment.

It all started, Rudd says, when he learned about the Australian expedition of the explorers Rober O'Hara Burke and William John Wills, in which the men attempted to lead a party of 19 approximately 2,000 miles across Australia in 1861. Along the way, they sought to reach a place called Mount Hopeless, a 420-foot elevation in South Australia, but ran out of food and water and died in the Outback. The peak had been named some 20 years earlier by the English explorer Edward Eyre, Rudd says. On a similar cross-Australian journey in 1840, "he got to this hill, and he looked out, and there were these salt water plains. Basically, the expedition had to end, and it had only just begun," Rudd says. In his expedition journal, Eyre wrote of that day: "Cheerless and hopeless indeed was the prospect before us ... This closed all my dreams as to the expedition."

This was Rudd's first sad toponym. Inspired, he began searching for other examples of locations with desperate names on Google Maps. He started in Australia, where the places often carried the same ghosts of failed colonial exploration, and then looked farther afield, screen shotting them on his phone as he went, until he had "a small collection of places." These initial sites eventually became the starting seeds for an Instagram account that today has well over 85,000 followers.

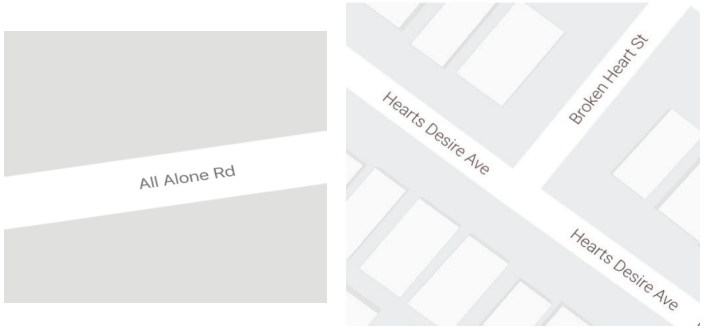
To find each spot, Rudd painstakingly searches sad terms on Google Maps - a fertile semantic field of woebegone words. After a while, people began to send him the places they'd found themselves, the best of which later found their way onto the account. As time's gone on, Rudd says, he's been able to deviate a little from the form, with the implicit message that any place posted on the account is very sad: A post from the day of Donald Trump's inauguration as president, for instance, simply features the entirety of America.

Now, after a few years of operation, Rudd might post one new place a month. Each has a similar format - a close crop on a Google Map, with its familiar flat shades of blue, gray, and green. (Occasionally, Rudd will edit away any topographical detritus - nearby places and other needless information - that might distract from the sadness of the chosen site.) Some of these places, Rudd says, have haunting back stories like that of Mount Hopeless. With others, it's harder to say whether something horrible happened, or the person given naming privileges simply had a very dark sense of humor.

Either way, certain patterns emerge. There's a whole archipelago of ill-fated watery spots: Agony Island; the Island of Tears; Mistake Island; Misery Island; Lonely Island; Despair Island; Broken Island; Useless Islands; Solitude Island. On their own, each place seems poignant. But as a group, there's a kind of baroque comedy to them. Is it supposed to be funny? "It is," Rudd says, "What makes it funny is the combination of these two conflicting ideas - about landscape and maps as being something kind of very serious and austere, and then landscape itself as being something romantic and beautiful. And then you have these very sad names: Depression Island, that sort of thing. That combination is where the humor comes in."

He wonders too if there may have been an element of self-awareness behind some of these early explorers; choices of name. "They surely must have been aware of how bleakly funny that is," he says, "to name a mountain for how disappointing it is."

Sad Topographies' popularity - it has since inspired two books - perhaps speaks to these places' universal appeal. In the comments on the Road to Misery in Maine, someone stakes out a claim to "the little cottage at the end," while another person wonders whether Grief Island, in Alaska, will let newcomers move in. "People align themselves with these places," Rudd says. The tiny atoll of Agony Island, in the middle of the Pacific, doesn't have any permanent residents - but it's not so hard to imagine why, from time to time, it might seem appropriate to relocate. The project's tagline says it all: "Somewhere to go, when you're feeling low."



Trivia and Tidbits

- The duffle (sometimes spelled duffel) bag gets its name from the town of Duffel, Belgium, where the cloth used in the bags was originally sold in the 1600's. The fabric was a coarse, thick woolen cloth that was originally used to repair ship sails. It's been suggested that the bags were made out of scraps for sailors and explorers on their way out to sea.
- The Eiffel Tower was going to be demolished in 1909, but was saved because it was repurposed as a giant radio antenna.
- Blackberries and raspberries are among a class of fruits called "bramble fruits," or fruits that are produced by any rough, tangled, prickly shrub. Bramble fruits are aggregate fruits, meaning they're made up of a bunch of smaller units. And those units - the little tiny bumps you see on these berries - are called drupelets.
- When Gustave Eiffel designed the tower which bears his name, he added a hidden apartment on the third level of the landmark - but he never lived there, no one did. Instead, Eiffel used the special space to entertain distinguished guests such a Thomas Edison. Although it wasn't big, the apartment was decorated with wallpaper furnished with wooden cabinets, and even featured a grand piano. These days, you can get a peek at the unique abode through a window if you purchase a ticket for a ride up the tower.
- "SWIMS" is still "SWIMS" when turned upside down. Go on, flip whatever device you're reading this on upside down (except of course your PC). Or even try writing the word out yourself. If you use all uppercase letters (and write them properly instead of scrawling them out in some indecipherable text) you'll find the same word whether you're looking at it right-side up or upside down.
- The 50 states of America come in all shapes and sizes, which means that some are bigger than others. Actually, some are a lot bigger than others. For instance, Alaska is not only one-fifth the size of the lower 48 states and larger than Texas, California, and Montana combined, but you could also fit Rhode Island into Alaska a whopping 425 times, according to the state's official state website.
- If you tried a new variety of apple every day, it would take more than 20 years to try them all.
- The old Farmer's Almanac says that you count the number of cricket chirps in 14 seconds and add 40 to get the temperature in Fahrenheit.
- Everyone knows that the letter "F" on a test means you failed. But have you ever wondered why the scores go "A," "B," "C," "D," and then skip "E" and go straight to "F"? Turns out, in the earliest record of a letter-grade system, which was implemented at Mount Holyoke College in Massachusetts in 1897, an "E" used to mean you failed. But just one year later, it was changed to an "F". That's because some professors worried that students would think "E" stood for excellent, whereas "F" more clearly meant "fail."

I had a wooden whistle, but it wouldn't whistle so - I got a steel whistle and it steel wouldn't whistle so- I got a tin whistle, and now I tin whistle!

Mending Wall
By: Robert Frost (1875)

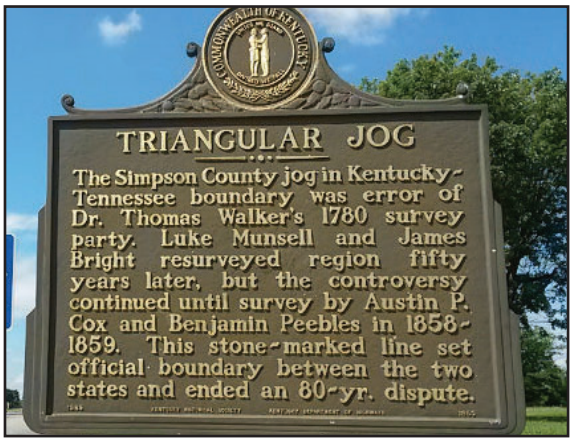
Something there is that doesn't love a wall,
That sends the frozen-ground-swell under it,
And spills the upper boulders in the sun;
And makes gaps even two can pass abreast.
The work of hunters is another thing:
I have come after them and made repair,
Where they have left not one stone on a stone
But they would have the rabbit out of hiding,
To please the yelping dogs. The gaps I mean,
No one has seen them made or heard them made,
But at spring mending-time we find them there.
I let my neighbour know beyond the hill;
And on a day we meet to walk the line
And set the wall between us once again.
We keep the wall between us as we go.
To each the boulders that have fallen to each.
And some are loaves and some so nearly balls
We have to use a spell to make them balance:
"Stay where you are until our backs are turned!"
We wear our fingers rough with handling them.
Oh, just another kind of out-door game,
One on a side. It comes to little more:
There where it is we do not need the wall:
He is all pine and I am apple orchard.
My apple trees will never get across
And eat the cones under his pines, I tell him.
He only says, "Good fences make good neighbours."
Spring is the mischief in me, and I wonder
If I could put a notion in his head:
"Why do they make good neighbours? Isn't it
Where there are cows? But here there are no cows.
Before I built a wall I'd ask to know
What I was walling in or walling out,
And to whom I was like to give offence.

Something there is that doesn't love a wall,
That wants it down!" I could say "Elves" to him,
But it's not elves exactly, and I'd rather
He said it for himself. I see him there
Bringing a stone grasped firmly by the top
In each hand, like an old-stone savage armed.
He moves in darkness as it seems to me,
Not of woods only and the shade of trees.
He will not go behind his father's saying,
And he likes having thought of it so well
He says again, "Good fences make good neighbours."

ACYROLOGIA

An incorrect use of words - particulately replacing one word with another word that sounds similar but has a different meaning - possibly fuelled by a deep-seeded desire to sound more educated, whitch results in an attempt to pawn off an incorrect word in place of a correct one. In academia, such flaunting of common social morays is seen as almost sorted and might result in the offender becoming a piranha, in the Monday world, after all is set and done, such a miner era will often leave normal people unphased. This is just as well sense people of that elk are unlikely to tow the line irregardless of any attempt to better educate them. A small percentage, however, suffer from sever acyrologiaphbia, and it is their upmost desire to see English used properly. Exposure may cause them symptoms that may resemble post-dramatic stress disorder and, eventually, descend into whole-scale outrage as they go star-craving mad. Eventually, they will succumb to the stings and arros of such a barrage, and suffer a complete metal breakdown, leaving them curled up in the feeble position.

(How many words or incorrectly used are spelled in this article?)



Not a Dastardly Deed - but an interesting Bill of Sale

BILL OF SALE

KNOW ALL MEN BY THESE PRESENTS that, John Thomas Gerrard of Murray Salt Lake County, Utah, the first party for and in consideration for the sum of Twenty nine hundred and sixty-four dollars ($2,900.64) to him in hand paid by D. W. Jones of the same place, the second party the receipt whereof is hereby acknowledged has granted, bargained, sold and conveyed and by these presents does grant, bargain, sell and convey unto the said second party his executors administrators and assigns the following described personal property :

1 bone grinder, 1 grind-stone, 1 beet slicer, 1 grain grinder, 1 spray pump, 1 hay rake, 1 harrow, 1 mowing machine, 1 cultivator, 1 new wagon tongue, 1 log chain, one wheel barrow, 1 wood saw, 1 garden cultivator, 1 new farm wagon and hay rake, all hay in barn 1 set double harness, 1 lawn mower, all chickens, lumber, 1 double harness, collars and bridles, 1 tongue scraper, 1 hand plow, extra doubletree, 2 spring seats, chicken and brewed stove, 1 role combination fence, grain sacks, 1 second-hand buggy, 1 new buggy, and harness, new farm wagon, 1 sulky plow, feed chopper, buggy tongue, horse blanket, 1 saddle, 1 electric washer, tin egg cases, pair rubber boots, tub and boiler, 3 work mares, 1 driving mare, 1 yearling colt, 2 milch cows, 3 brood sows, 1 boar, 8 shotes, 1 calf, 4 hen turkeys 1 gobbler and all young ones.

HOUSE-HOLD FURNITURE

Up-stairs

1 bed-stead, 1 dresser, 1 wash stand, 1 chair, 1 rug, 1 hall carpet, 1 combination dresser, 1 bed-stead, 1 rug, 1 carpet.

Down stairs

1 carpet, 1 book case, 1 extension table, 1 couch, 1/2 doz leather bottom chairs, 1 rocker, 1 set of curtains, electric fixtures, window curtains, rug, 3 rockers, 1 morris chair, 1 sanitary couch, 1 sewing machine (new), 2 small rugs, kitchen range, cabinet table, 2 kitchen chairs, kitchen table, large heating stove, linoleum.

IN WITNESS WHEREOF, I have hereunto set my hand this 5th day of August, 1918, A.D.

The Cartographers Who Put Water Where It Didn't Belong

From a distance, European mapmakers documenting North America often perpetuated strategic myths of oceans, lakes, and rivers.

By: Jessica Leigh Hester

Cartographer Antonio Zatta included the Lake de Fonte on this 1776 map.

To hear Admiral Bartholomew de Fonte tell it, his voyage was full of serendipity and promise. In a 1708 edition of the English periodical The Monthly Miscellany or Memoirs for the Curious, de Fonte recounted a journey, some five decades prior, "to find out if there was any North West Passage from the Atlantick Ocean into the South hand Tartarian Sea." He had shoved off from Lima, he wrote, and navigated to the present-day Pacific Northwest, where he entered an intricate system of watery arteries that beckoned him inland.

He chronicled one fortuitous scene after another. Nudged along by gentle wind, he floated into a lake he christened Lake de Fonte. It was 60 fathom deep (roughly 360 feet), and "abounds with excellent cod and ling, very large and well fed." The water was also speckled with islands thick with cherries, strawberries, and wild currants. The land was shaggy with "shrubby Woods" and moss, which fattened hers of moose.

His tales were full of plenty - lush land, well-stocked seas - and they were also totally apocryphal. There's no proof of the voyage, or of the character of de Fonte himself. The whole sage excerpted in the historian Glyndwr Williams's book, Voyages of Delusion: The Quest for the Northwest Passage, was later attributed to the magazine's editor.

When plotting out their maps of North America, many 18th-century European cartographers relied on accounts that drifted across their desks. These were a collage of nautical references, local lore, missionary dispatches, and more. Since it wasn't always possible to fact-check these observations, even maps by the most conscientious makers could be sprinkled with errors. Some of these incorrect annotations were aspirational - and many of them had to do with waterways.

Say that de Fonte had indeed, as he claimed, passed a ship that had sailed inland from Boston. That would have been proof of a viable route through the Northwest Passage, which would have been a major boon to British and French traders. This type of passageway, or other interior waterways like it, would have been so convenient, in fact, that a number of cartographers seemed to will it into being by putting it on paper.

Kevin James Brown, the founder of Geographicus Antique Maps, traces the notion of an inland sea to the 1500s, when the Italian navigator Giovanni da Verrazzano spotted the sounds abutting North Carolina's Outer Banks and assumed he was looking at an ocean. This sea dried up from maps within a few centuries - just in time to make way for an inlet or strait described in another (potentially fabricated) narrative of the explorer Juan de Fuca's voyage. The sea of the West (or Mer de la Ouest), a later and larger speculative sea occupying much of the present-day West Coast, gained traction in the work of the cartographers Guillaume de l'Isle and Philippe Buache.

By the early 18th century, writes Brown, cartographers were combating the problem of patchwork knowledge by pugging in best guesses - drawn from science and geographic patters - "to fill in blank spaces when little else was known." The Sea of the West "is the perfect example," Brown writes. "Though a salt water inlet from the Pacific had long been speculated upon and hoped for, Buache and de l'Isle embraced the theory because it supported both the ambitions of the French crown in the New World and the theoretical geographic theory that Buache was developing." It was speculative addition - and a strategic one.

Ditto the River of the West, an apocryphal route that meandered from the middle of the continent to its western edge. Two different potential routes are suggested on this 1794 double-hemisphere map by Samuel Dunn.

These features disappeared from maps soon after, as expeditions got an in-person look at the geography and dismissed the more fanciful additions. Now, they linger as reminders that maps don't only recount geographic traits, but also the aspirations (politically, economically, and otherwise) of the people who plot them.