

Winter 2-23-2016

# Stone Walls of New York and New England

John W. Delano PhD

*University at Albany, State University of New York, jdelano@albany.edu*

Follow this and additional works at: [http://scholarsarchive.library.albany.edu/cas\\_daes\\_scholar](http://scholarsarchive.library.albany.edu/cas_daes_scholar)



Part of the [Physical Sciences and Mathematics Commons](#), and the [Remote Sensing Commons](#)

---

## Recommended Citation

Delano, John W. PhD, "Stone Walls of New York and New England" (2016). *Atmospheric and Environmental Science Faculty Scholarship*.  
3.  
[http://scholarsarchive.library.albany.edu/cas\\_daes\\_scholar/3](http://scholarsarchive.library.albany.edu/cas_daes_scholar/3)

This Presentation is brought to you for free and open access by the Atmospheric and Environmental Sciences at Scholars Archive. It has been accepted for inclusion in Atmospheric and Environmental Science Faculty Scholarship by an authorized administrator of Scholars Archive. For more information, please contact [scholarsarchive@albany.edu](mailto:scholarsarchive@albany.edu).

# **If walls could talk:**

## ***Stone walls of New York and New England***



**John W. Delano, Ph.D.**  
**Distinguished Teaching Professor Emeritus**  
**Associate Dean, College of Arts and Sciences**  
**University at Albany (State University of New York)**  
**Albany, NY**  
***[jdelano@albany.edu](mailto:jdelano@albany.edu)***



*'Brown Autumn'* by Eric Sloane



*“... rural farmstead walls have become cultural icons to the origin of America as a nation, as well as a reminder of the slower, simpler life before the modern era.”*

**Prof. Robert M. Thorson, University of Connecticut, Storrs, CT**

*'Charley Smith  
and His Barn'*  
by Francis Colburn

*"... the consummate  
Vermont farmer: serious,  
proud, strong, and hard at  
work ... the artist glorifies  
Smith, recognizing his  
hard work and the  
important role of the  
farmer in Vermont's  
history and economy."*

*The Bennington  
Museum*



*'Family Group'*  
by Francis Colburn

*"The Vermont hill farmers lived a hardscrabble life, struggling against poor agricultural conditions including rocky, nutrient poor soil and often harsh weather ... Colburn has painted them with great dignity and compassion."*

**The Bennington  
Museum**





**South Road, South Deerfield, NH**







**South Road, South Deerfield, NH**

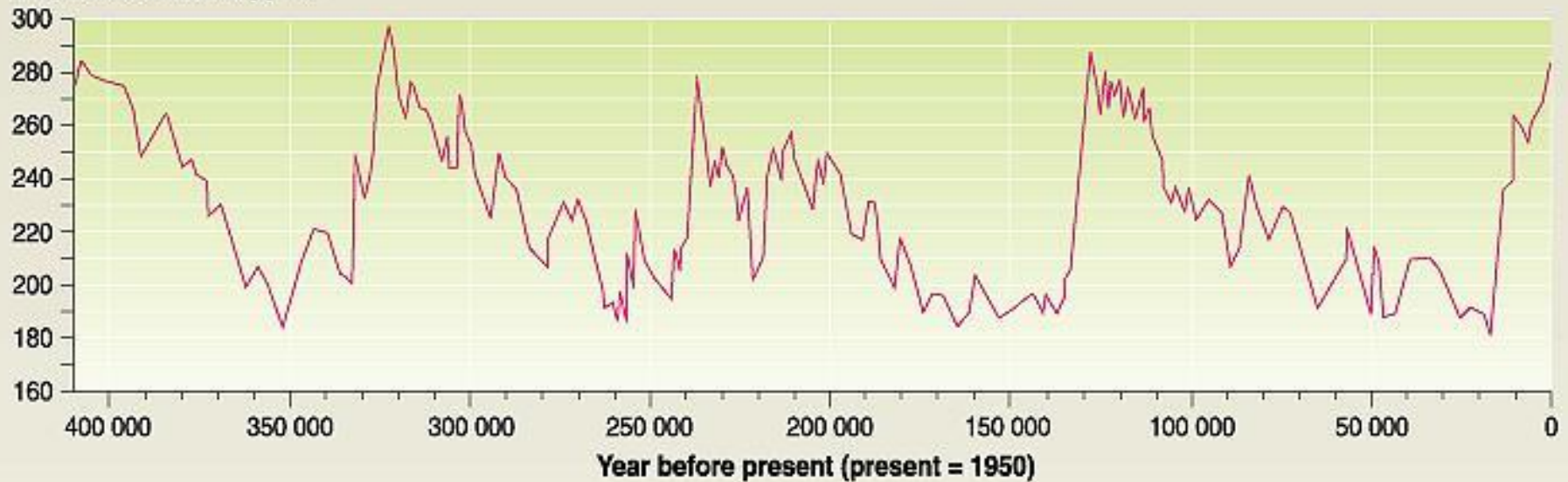


Cordilleran  
Ice Sheet

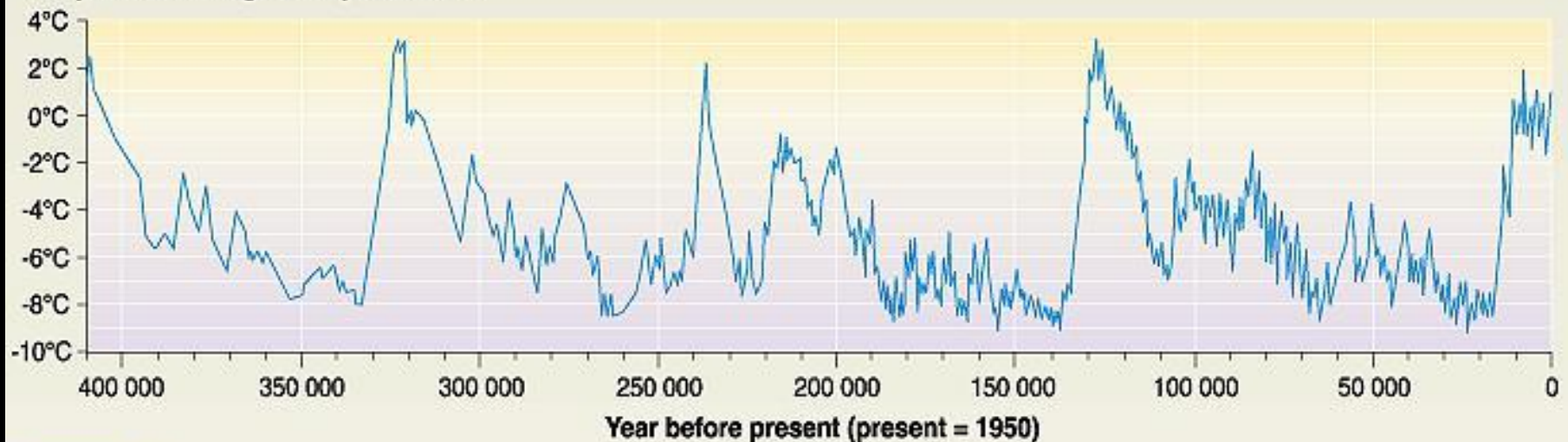
Laurentide Ice Sheet

# Temperature and CO<sub>2</sub> concentration in the atmosphere over the past 400 000 years (from the Vostok ice core)

CO<sub>2</sub> concentration, ppmv



Temperature change from present, °C





## **Stump wall**

(<http://enclosuretakerefuge.files.wordpress.com/2012/08/4a08059v.jpg>)



## **Zig-zag fence**

(<http://www.potsdampublicmuseum.org/>)



**Stump  
pullers**



*Men building a stone wall  
using a team of oxen and a rock sled*





**Photograph by James F. Cowee  
Little Hoosick Valley, Berlin , NY**





# Changes in New England hill towns: 1790 - 1930

## 1790 - 1830

Increasing number of farms

Merino sheep arrive in 1810

Local commerce

Poor roads

## 1830 - 1870

Migration to West + cities

Sheep mania in 1840

Railroads in 1846

Western grain to New England

Wood for railroads

Poor roads

## 1870 - 1900

Migration to West + cities

Sheep farming declines

Railroad branch-lines

Increased dairy farming

Western grain, cheese, butter

Railroads change to coal

## 1900 - 1930

Migration to West + cities

Milk, eggs, apples, potatoes

Growing tourism

Publicity bureaus

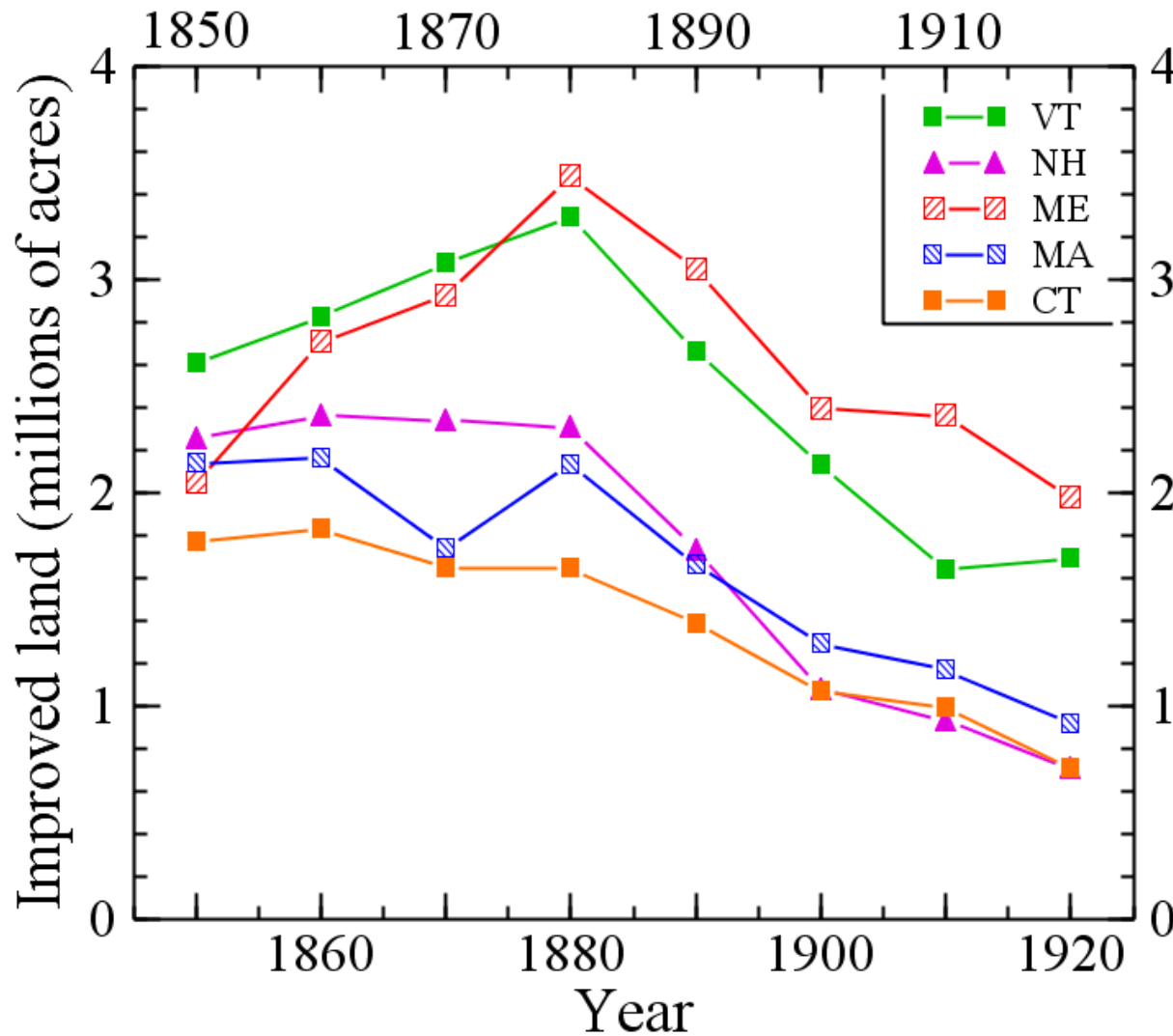
More cows than people

Improved roads

Subsistence

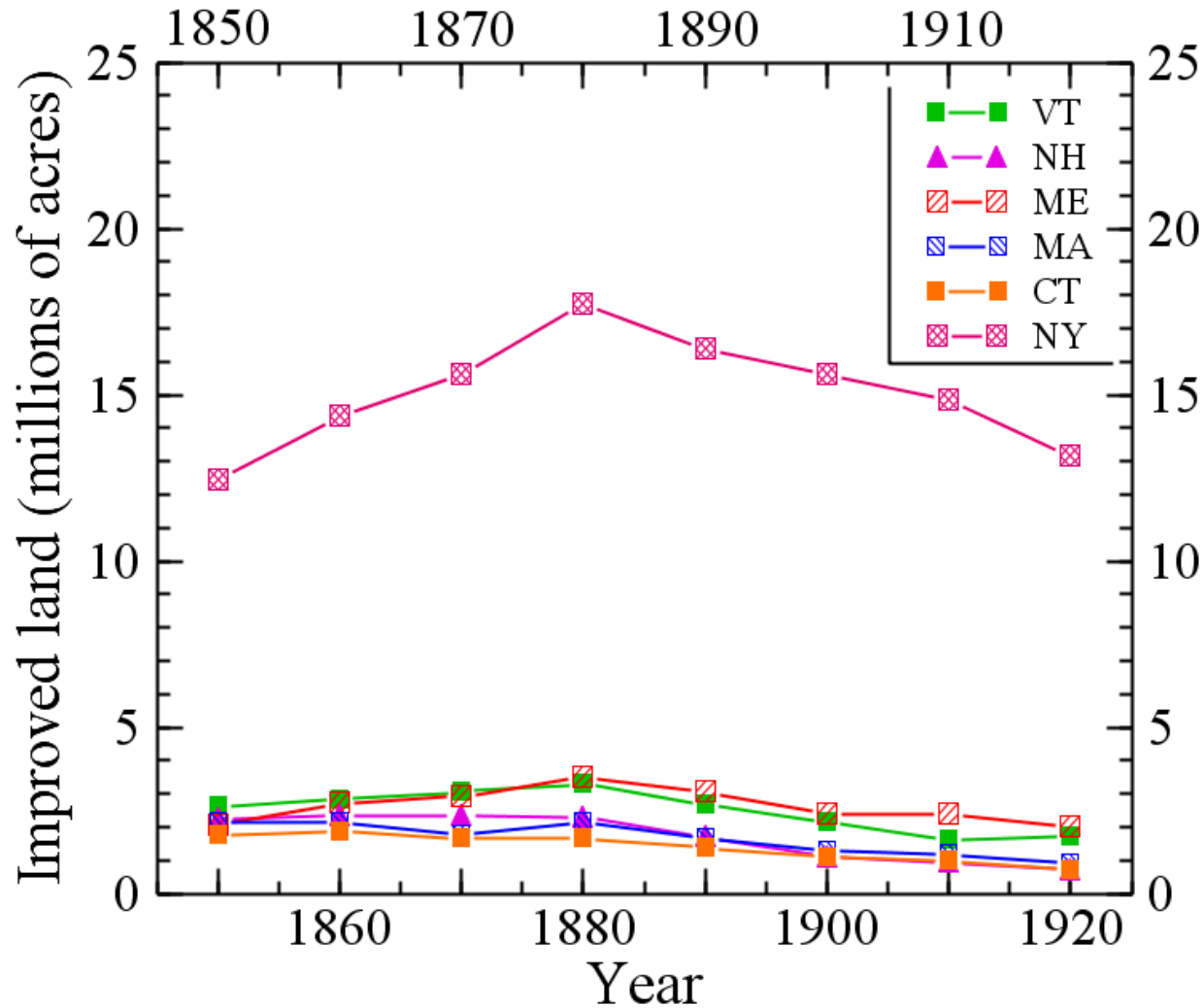
Commercial

# Acres of improved land (New England)

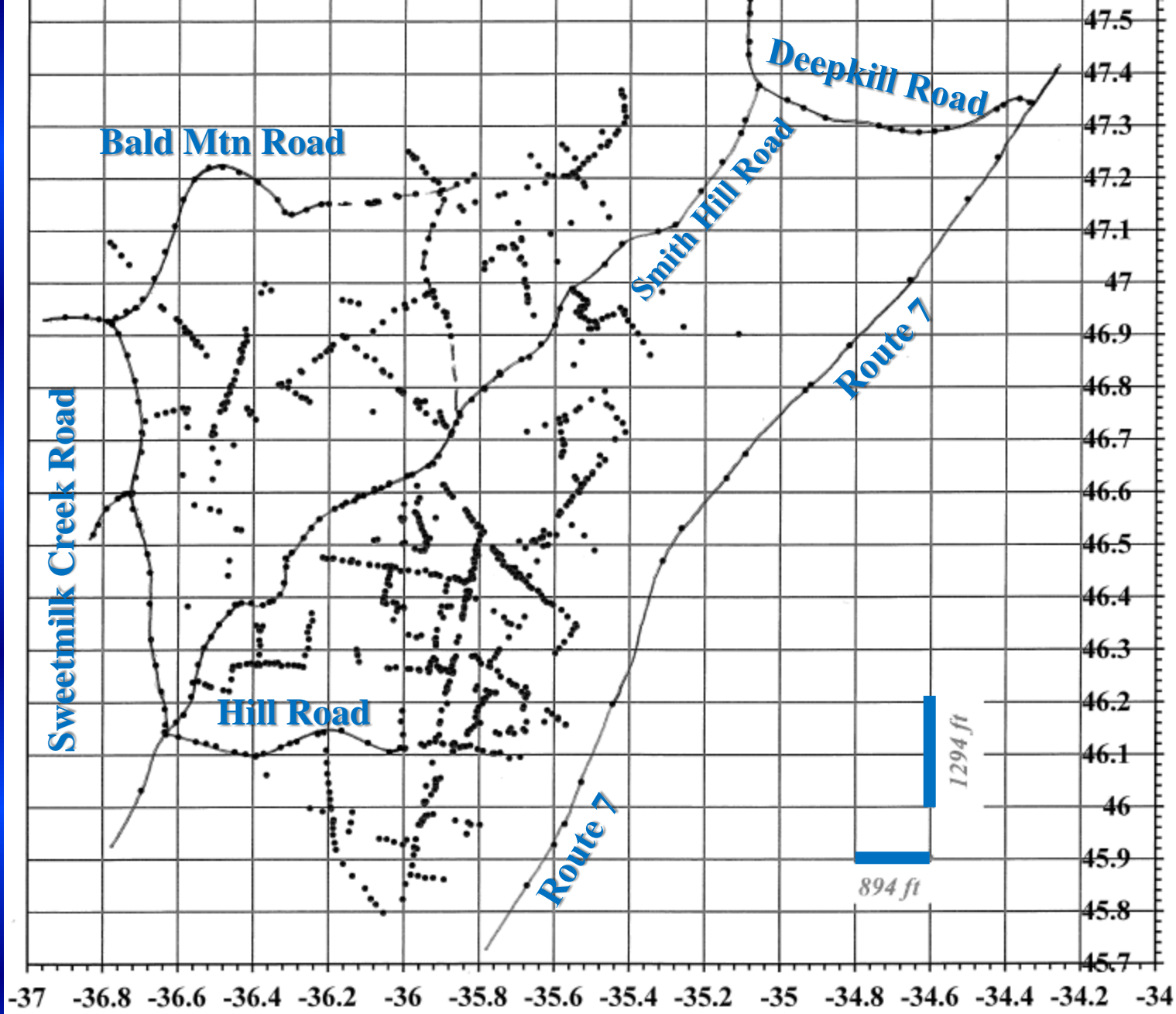


Data from ... W. M. Steuart (1920) *Reports of the Fourteenth Census, Vol. V, Agriculture: General Report and Analytical Tables*. 164 pp.

# Acres of improved land (New England and New York)



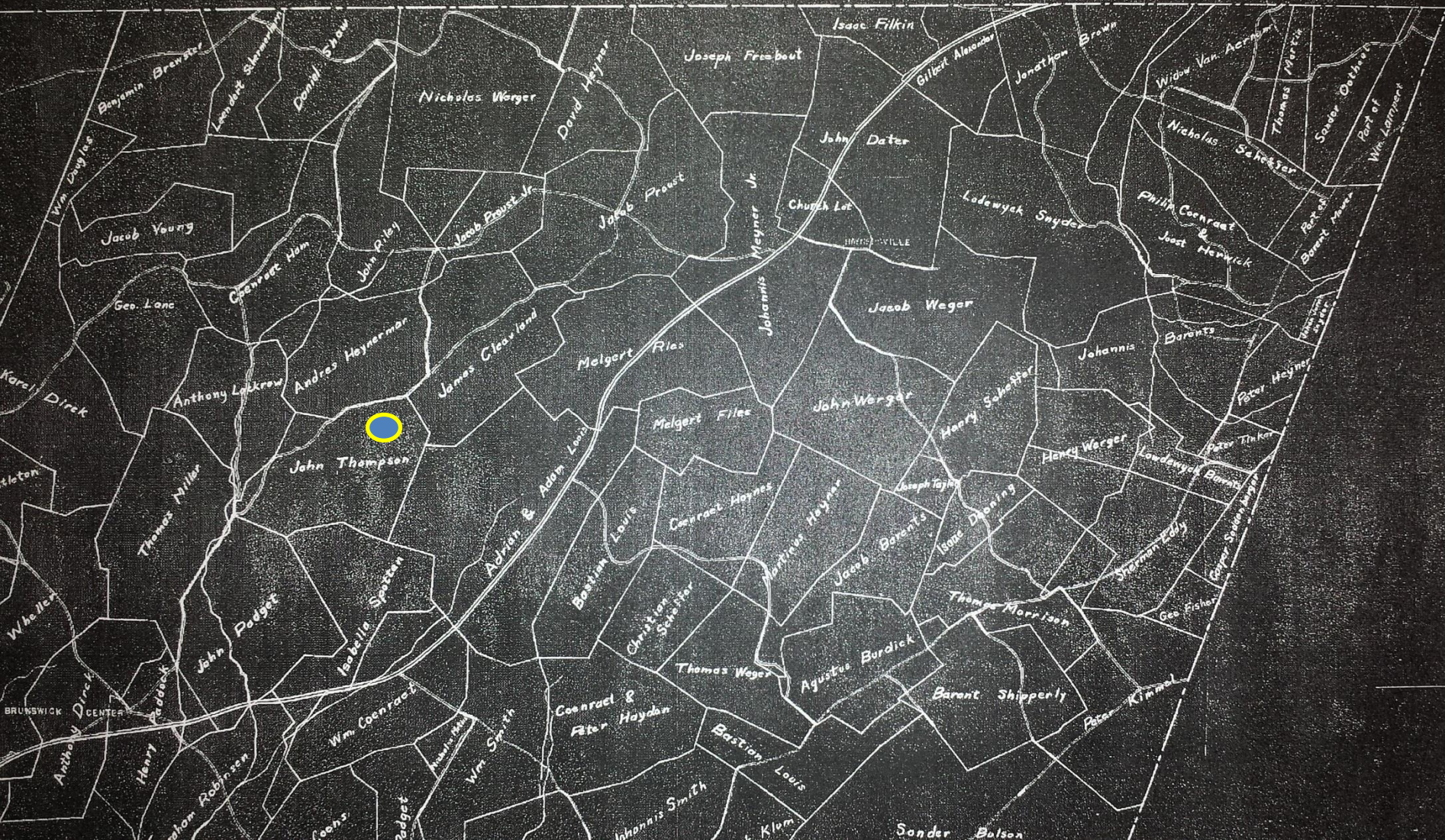
Data from ... W. M. Steuart (1920) *Reports of the Fourteenth Census, Vol. V, Agriculture: General Report and Analytical Tables*. 164 pp.



42° North Latitude (Minutes)

73° West Longitude (Minutes)

# Van Rensselaer Map #4 (1938) showing 1790 property boundaries in northern Rensselaer Cty.





**TOWN OF BRUNSWICK**

COPY OF

**VAN RENSSELAER MAP NUMBER FOUR**

ON FILE IN NEW YORK STATE LIBRARY  
SHOWING SUBDIVISION OF LAND ABOUT 1790

PRESENT ROAD SYSTEM AS SHOWN ON GEOLOGICAL SHEET  
SUPERIMPOSED IN ITS APPROXIMATE RELATION TO LAND BOUNDARIES

SCALE 1" = 20 CHAINS

MAY 1938



## Surveyor's Chain

**1 link = 7.92 inches**

**1 link = 0.66 ft**

**1 chain = 100 links**

**1 chain = 66 feet**

**20 chains = 1320 feet**

**20 chains = 0.25 mile**

**80 chains = 1 mile**

Surveyor's chain used to establish horizontal distances along compass sight lines.

One link equals .66 ft. or 7.92 inches

One chain equals 66 ft. or 100 links



**1760 theodolite of Colonel Franz Pfister,  
who died at the Battle of Bennington.  
(The Bennington Museum)**



**Westerly view of stonewall along ~1790 boundary between  
lands of Andreas Haynerman and Coonradt Ham  
(~42°46.90' N, ~73°36.45' W)**



**Northerly view of stonewall (quarried quartzite) at 1790 triple junction among James Cleveland, Jacob Brust Jr, and Jacob Brust lands**



**42°47.210'N, 73°35.548'W  
(12 April 2014)**

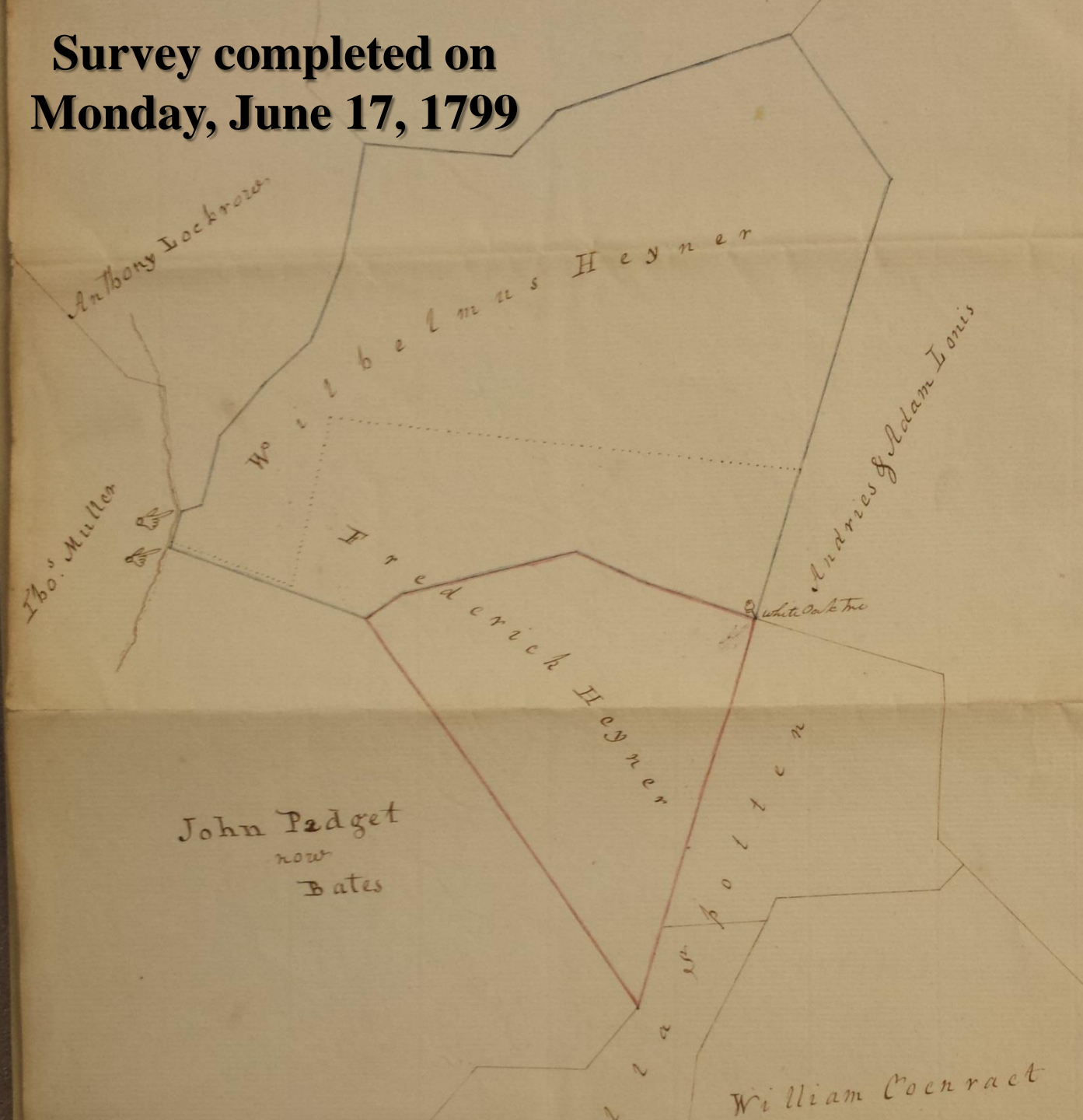
# Portion of land survey for Mr. Frederick Hayner (111 acres) on Monday, June 17, 1799

milk brook in the east line of the  
-inally surveyed for Thomas Miller and at the  
most Northern Point of the Farm surveyed for  
John Padget and runs thence -

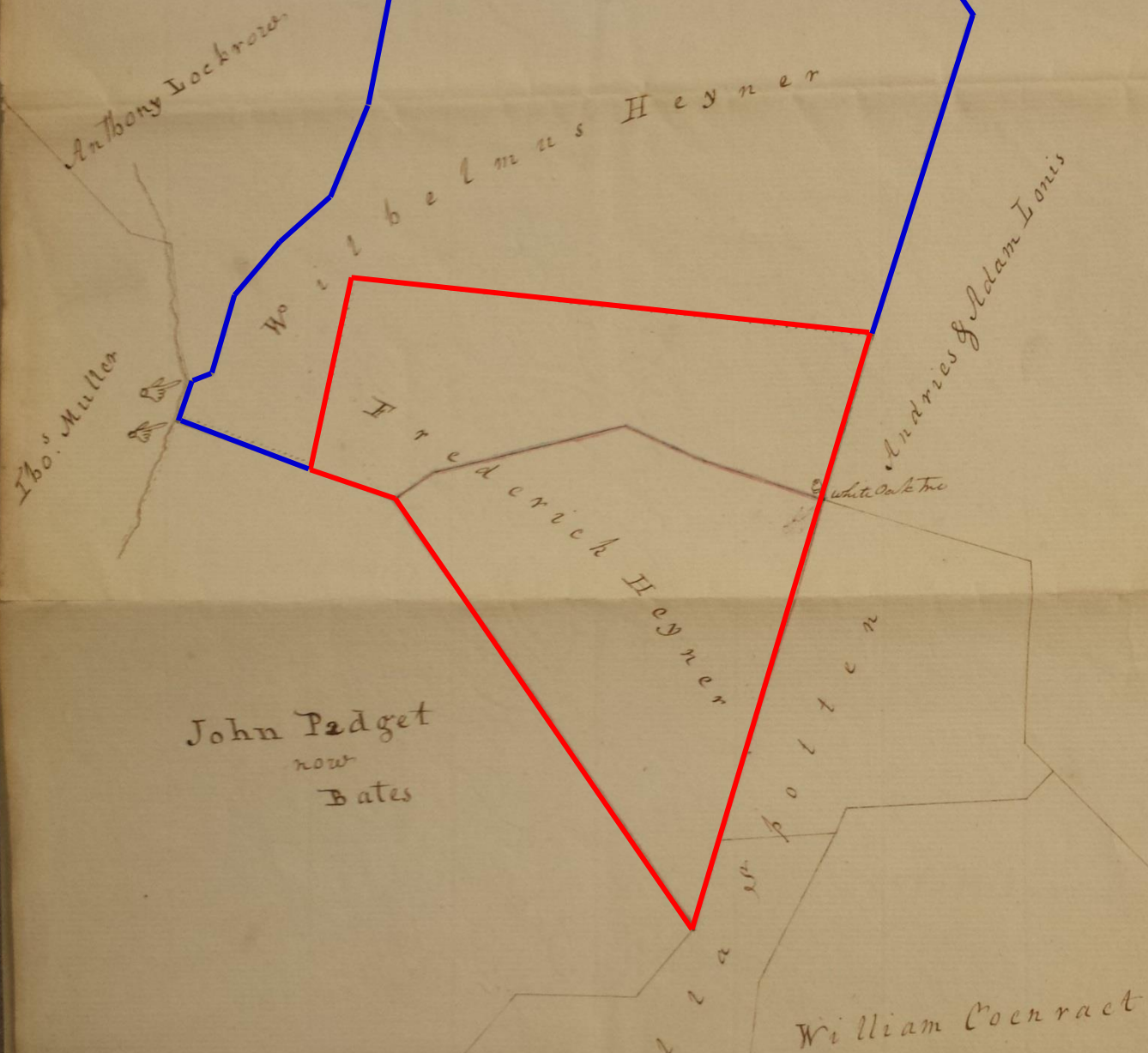
- 1-- S<sup>m</sup> 40° - E 17.56 to a Chesnut Stake & Stones then
- 2 -- S<sup>m</sup> 35° - E 40, --- to a marked white oak tree
- 3 N 16° - E 34.10 to a marked white oak tree then
- 4 - N 17° - E 12.70 to a marked white oak Straddle & Stones
- 5 N 03° - W 39.30 to a Chesnut Stake & Stones then
- 6 S<sup>m</sup> 13° - W - 14.50 to a stake then
- 7

Lee

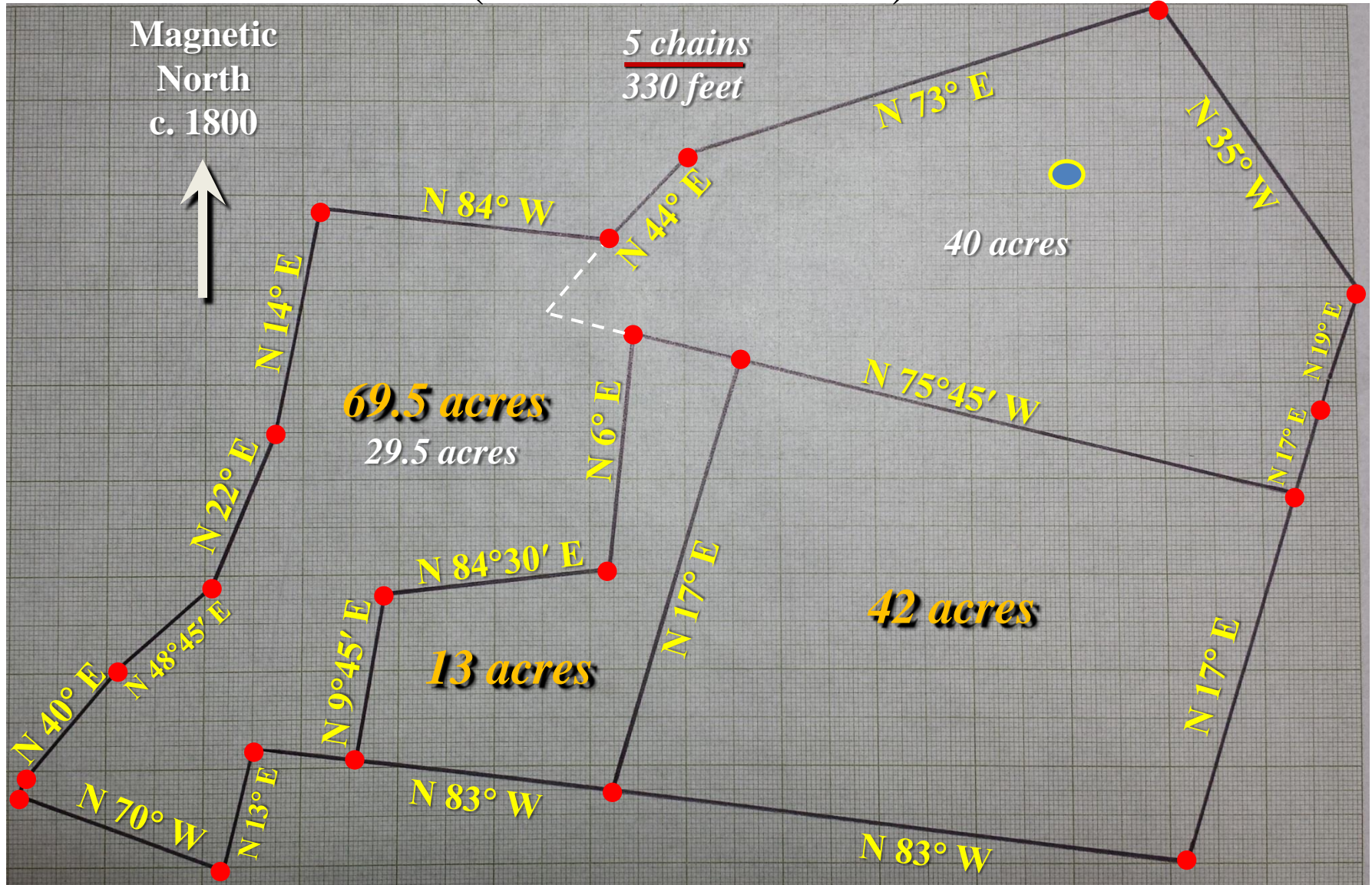
**Survey completed on  
Monday, June 17, 1799**



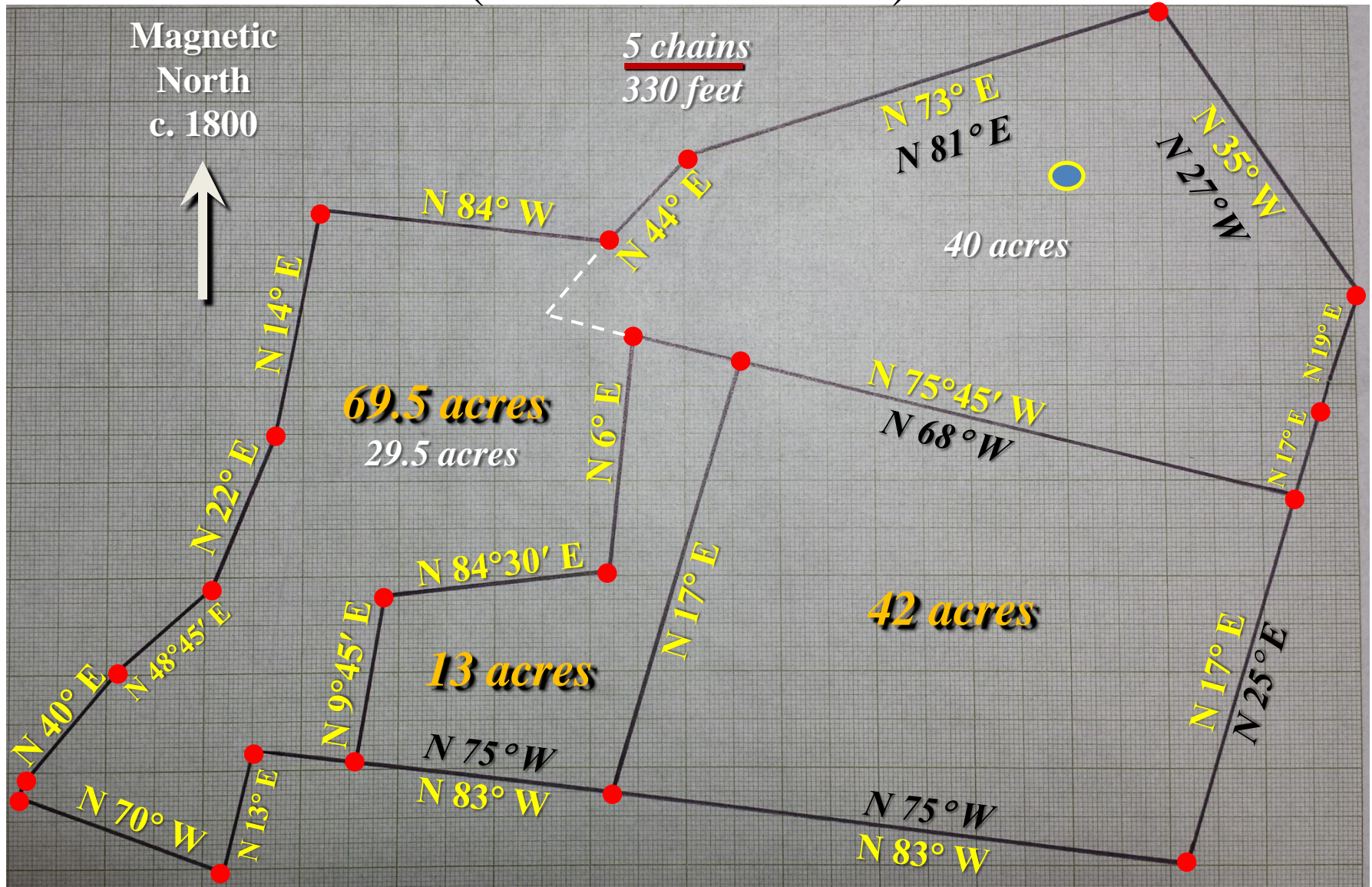
**Survey completed on  
Monday, June 17, 1799**



# ~1800 survey-lines for 3 parcels of land along Smith Hill Road (Total = 124.5 acres)

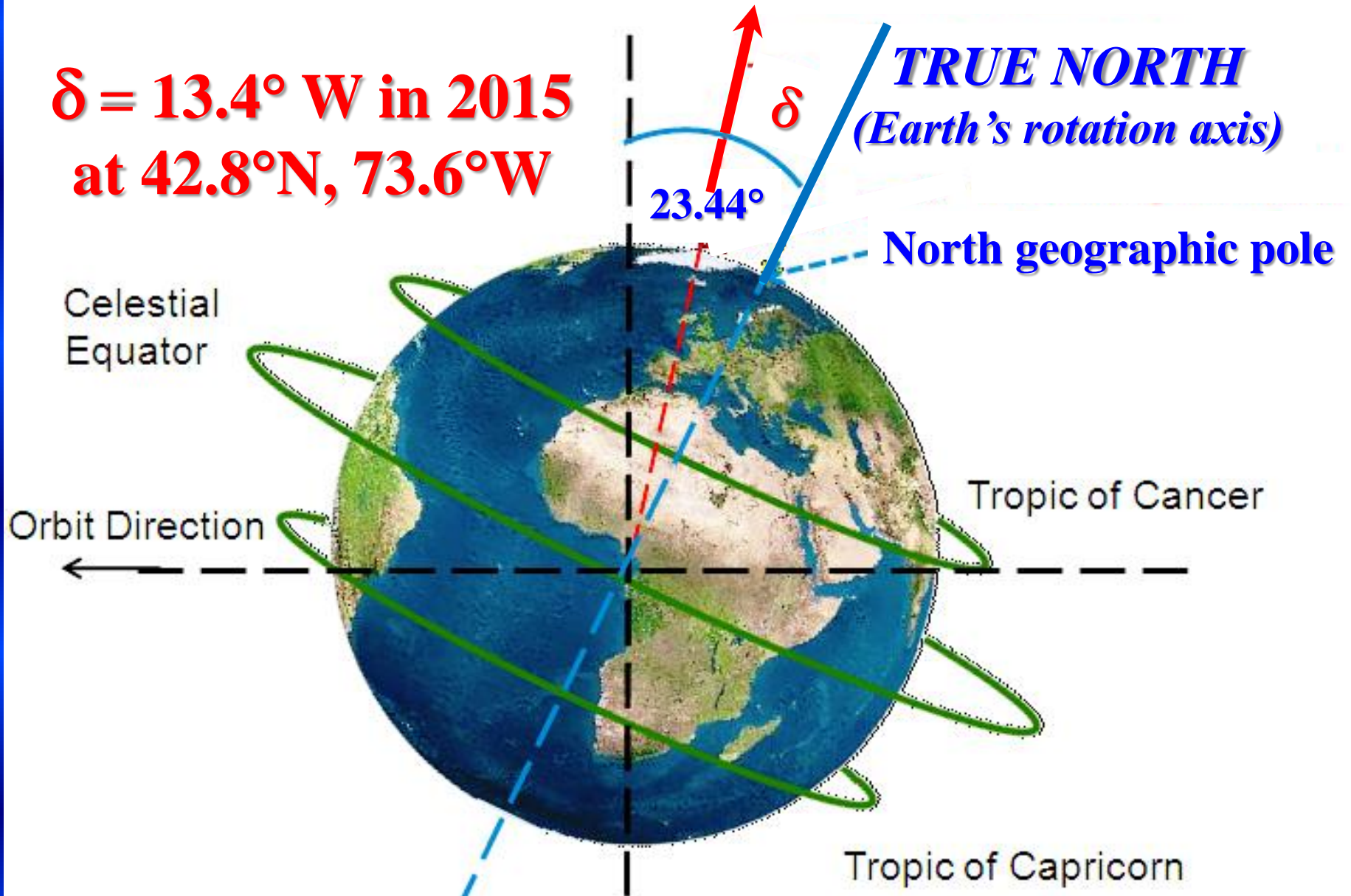


# ~1800 survey-lines for 3 parcels of land along Smith Hill Road (Total = 124.5 acres)



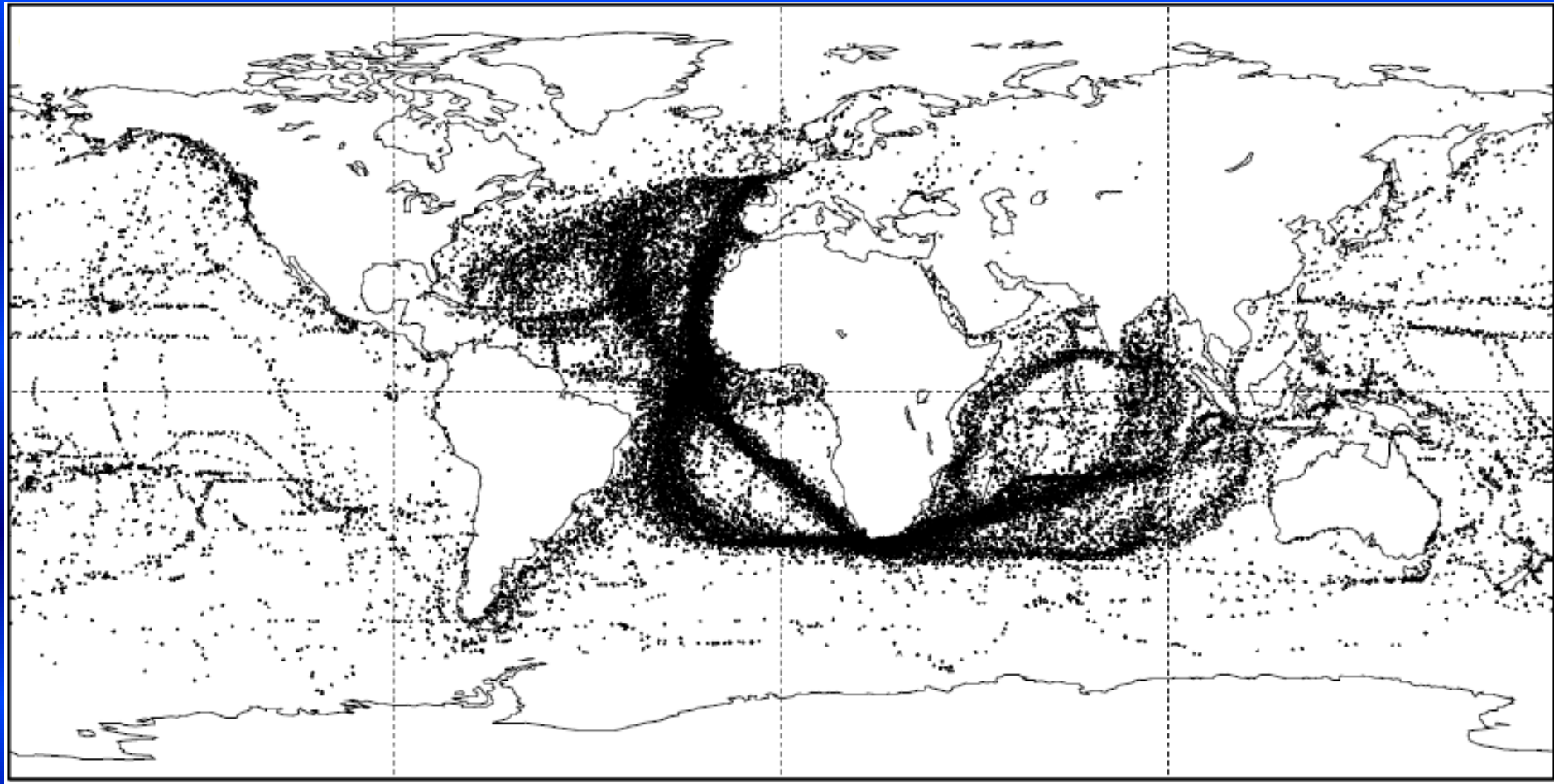
# MAGNETIC NORTH

$\delta = 13.4^\circ \text{ W}$  in 2015  
at  $42.8^\circ \text{ N}$ ,  $73.6^\circ \text{ W}$





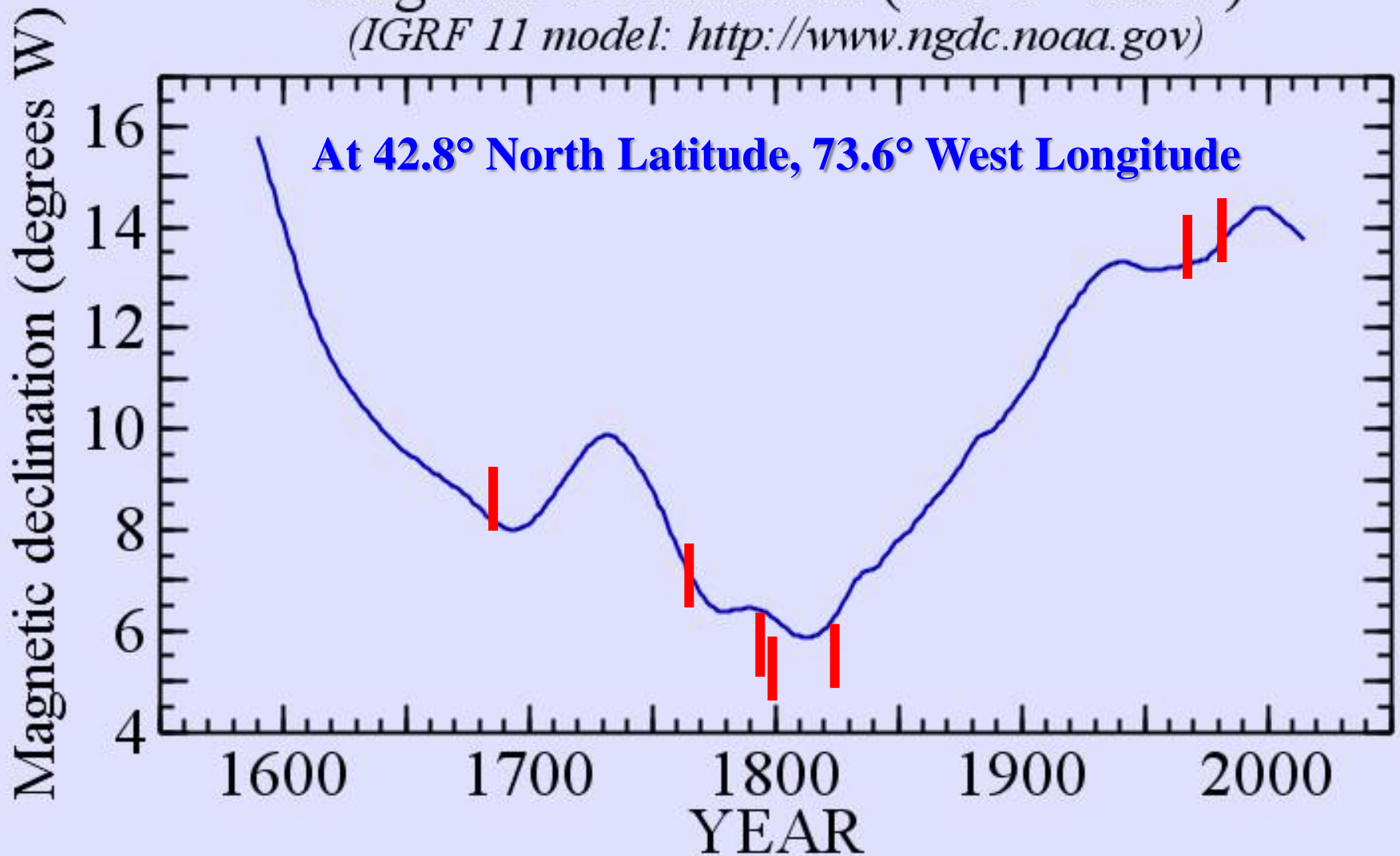
# Measurements of magnetic declination in 1750-1799



**A. Jackson, et al. (2000) *Four centuries of geomagnetic secular variation from historical records.*  
Phil. Trans. R. Soc. London, 358, 957-990.**

# Magnetic Declination (1590 - 2015)

(IGRF 11 model: <http://www.ngdc.noaa.gov>)



Jackson, et al. (2000) *Four centuries of geomagnetic secular variation from historical records*. *Phil. Trans. Royal Soc. London A*, vol. 358, p. 957-990.



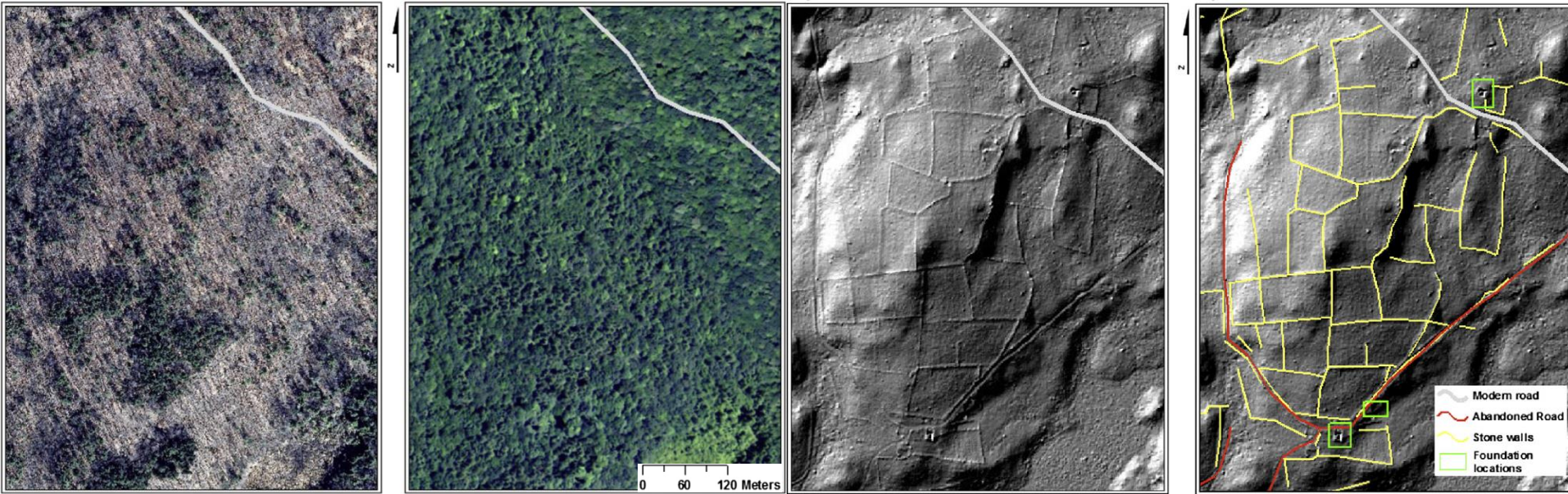
# *Visible imaging and LiDAR*

Visible (winter)

Visible (summer)

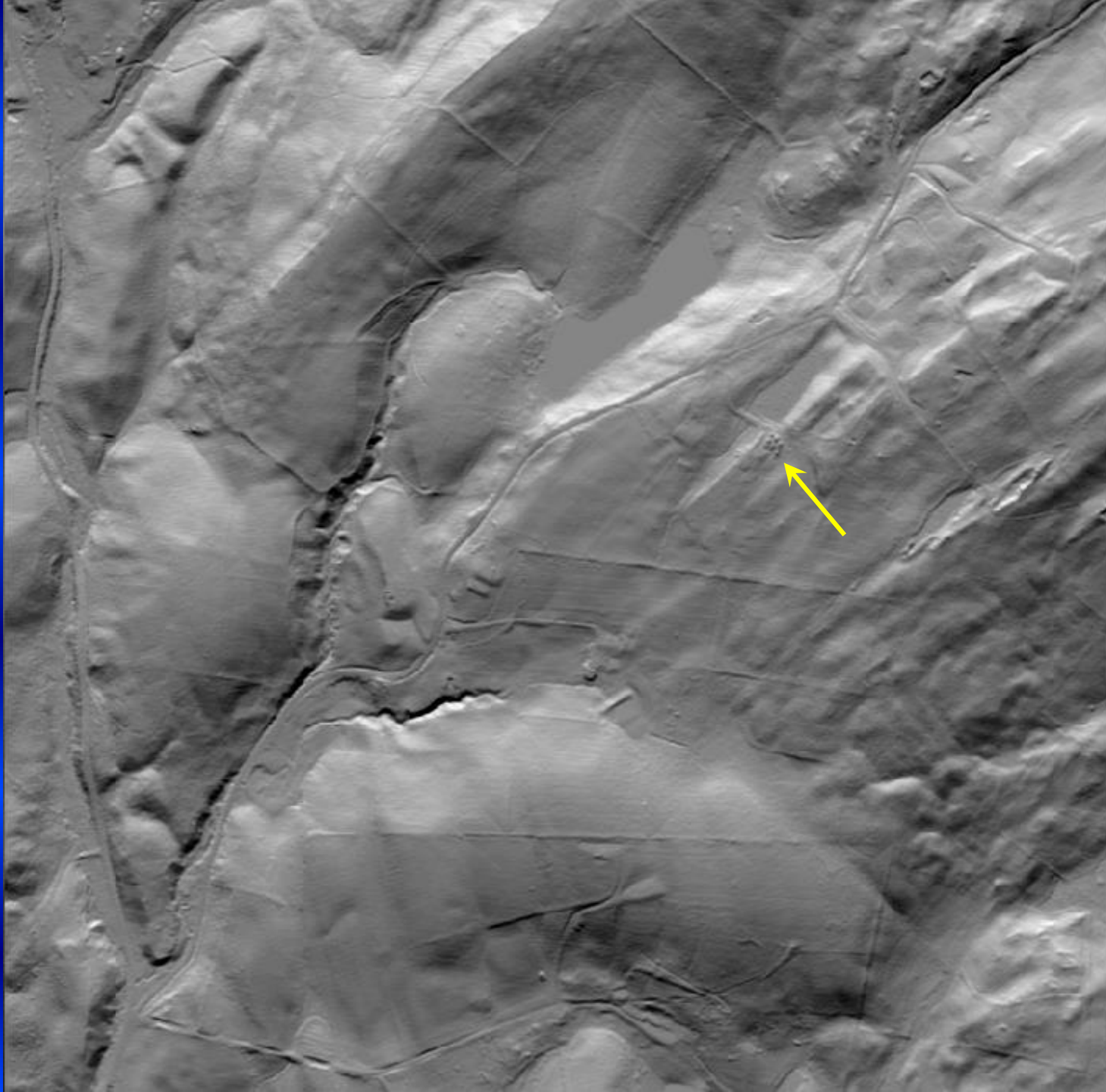
LiDAR

LiDAR



**K. M. Johnson and W. B. Ouimet (2014) *Rediscovering the lost archaeological landscape of southern New England using airborne light detection and ranging (LiDAR)*. J. Archaeological Science, 43, p. 9-20.**

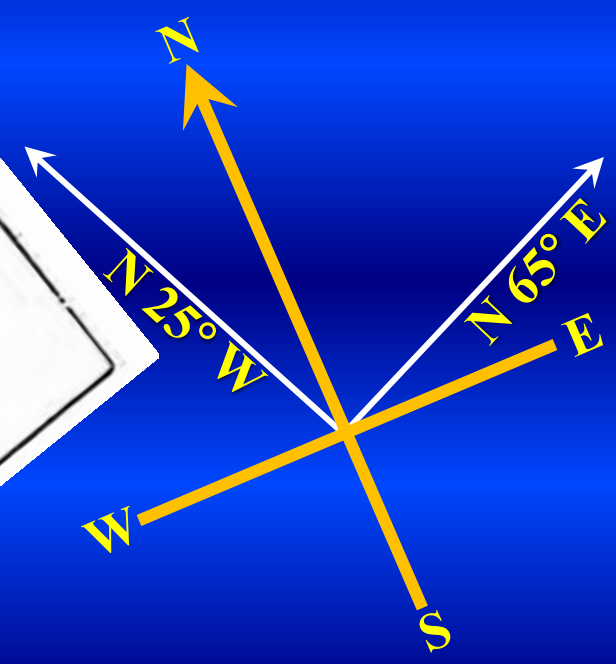
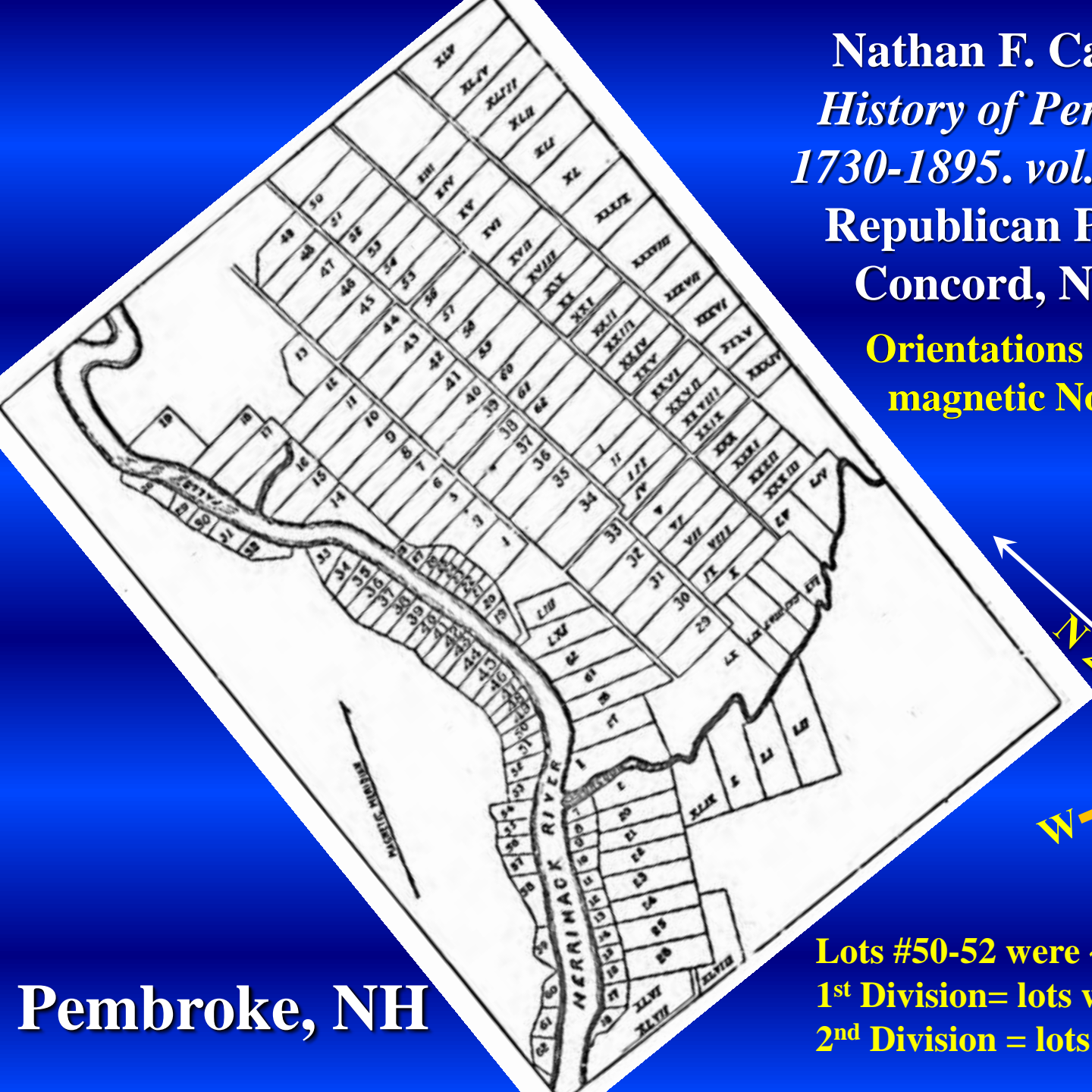
18TXN135360 Az355 E30



1 mile

Nathan F. Carter (1895)  
*History of Pembroke, NH.*  
1730-1895. vol. 1, Historical.  
Republican Press Assoc.,  
Concord, NH. 483 pp.

**Orientations of lots relative to  
magnetic North in 1728-30.**



**Lots #50-52 were ~160 rods in length.**  
**1<sup>st</sup> Division= lots with numbers**  
**2<sup>nd</sup> Division = lots with Roman numerals**

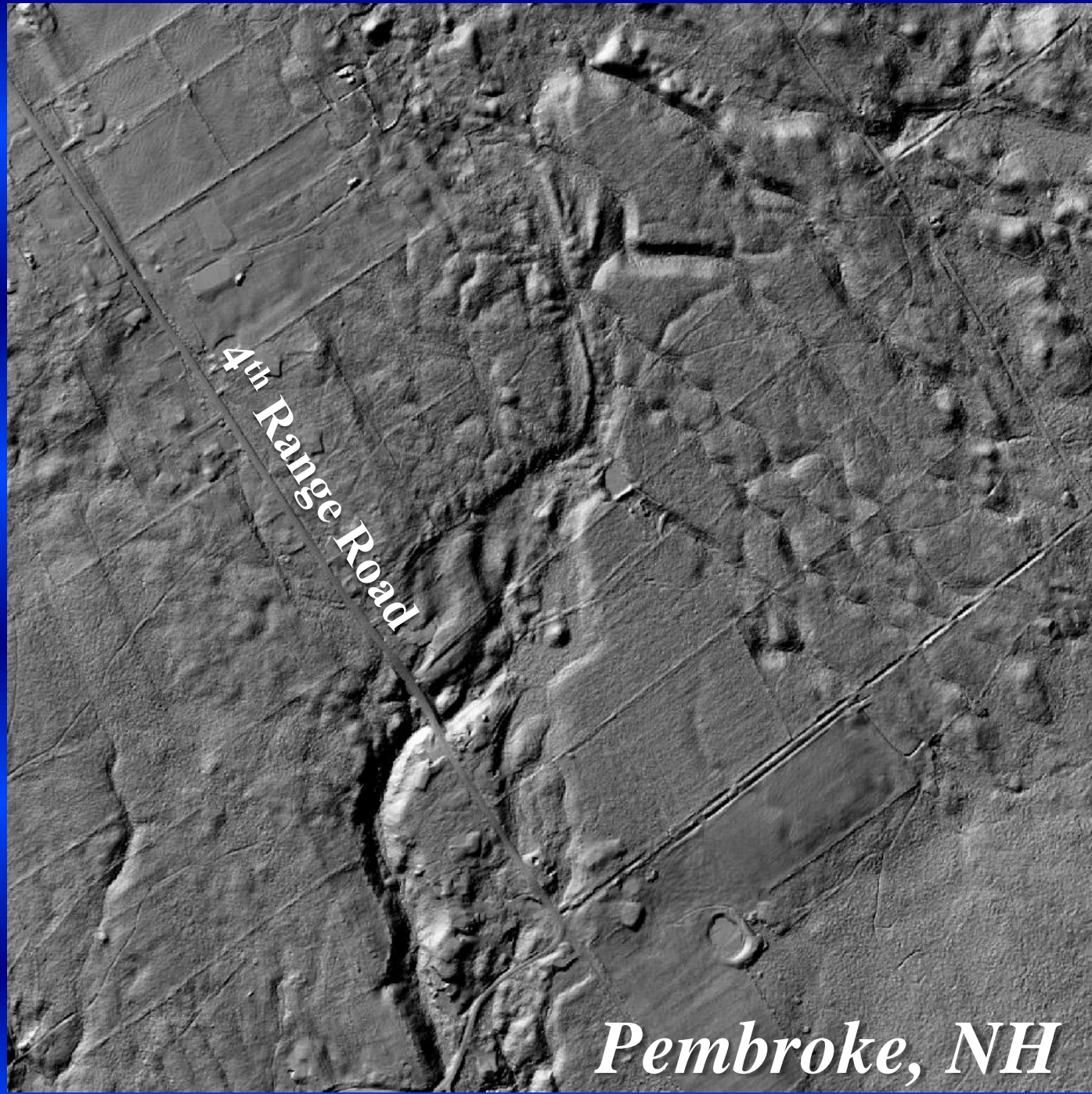
**Pembroke, NH**

# *Pembroke, NH*

Pembroke Pembroke

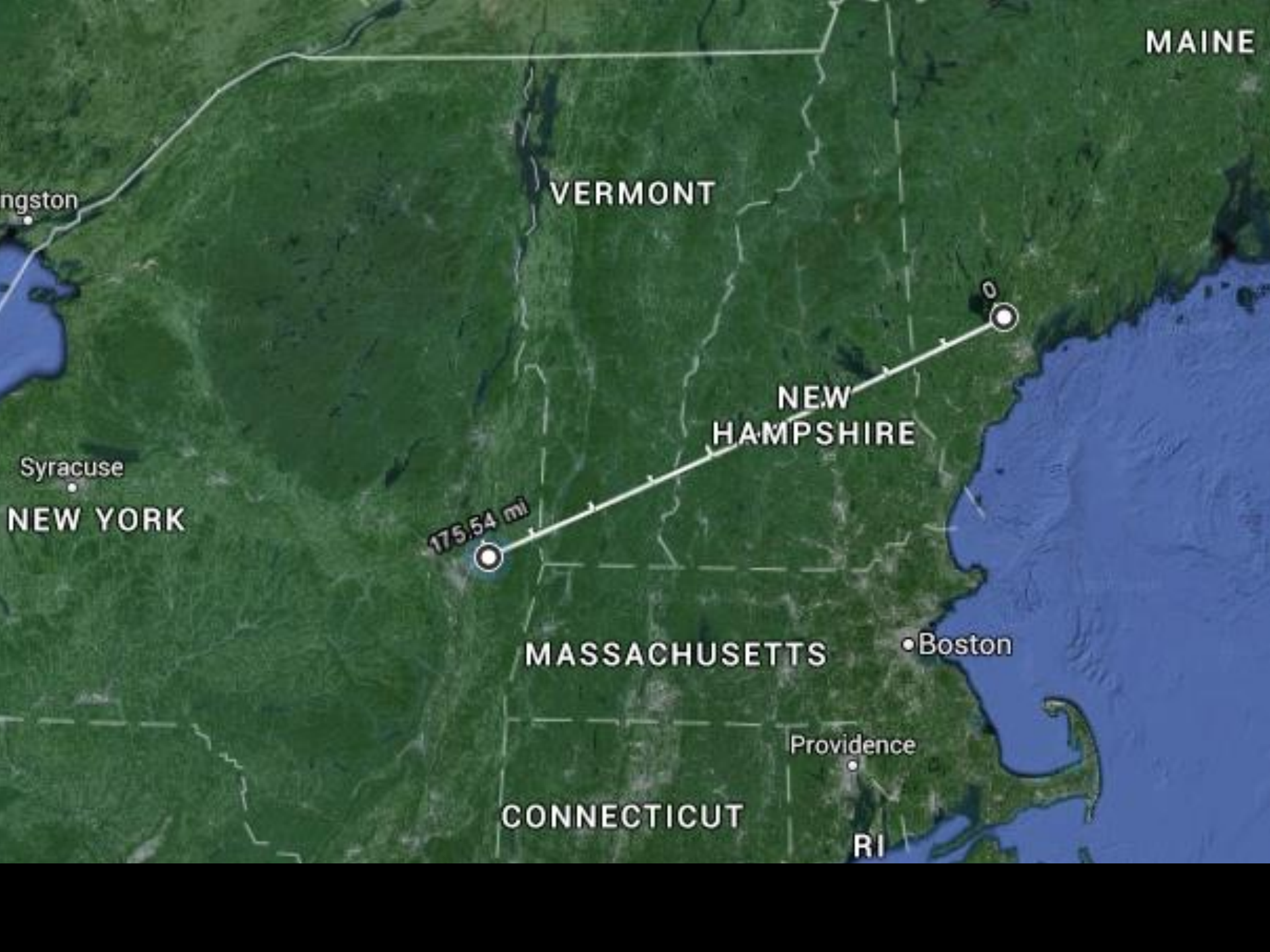
*4th Range Road*

19\_03004782 Az315 E30



*Pembroke, NH*





MAINE

VERMONT

NEW HAMPSHIRE

ngston

Syracuse

NEW YORK

175.54 mi

MASSACHUSETTS

Boston

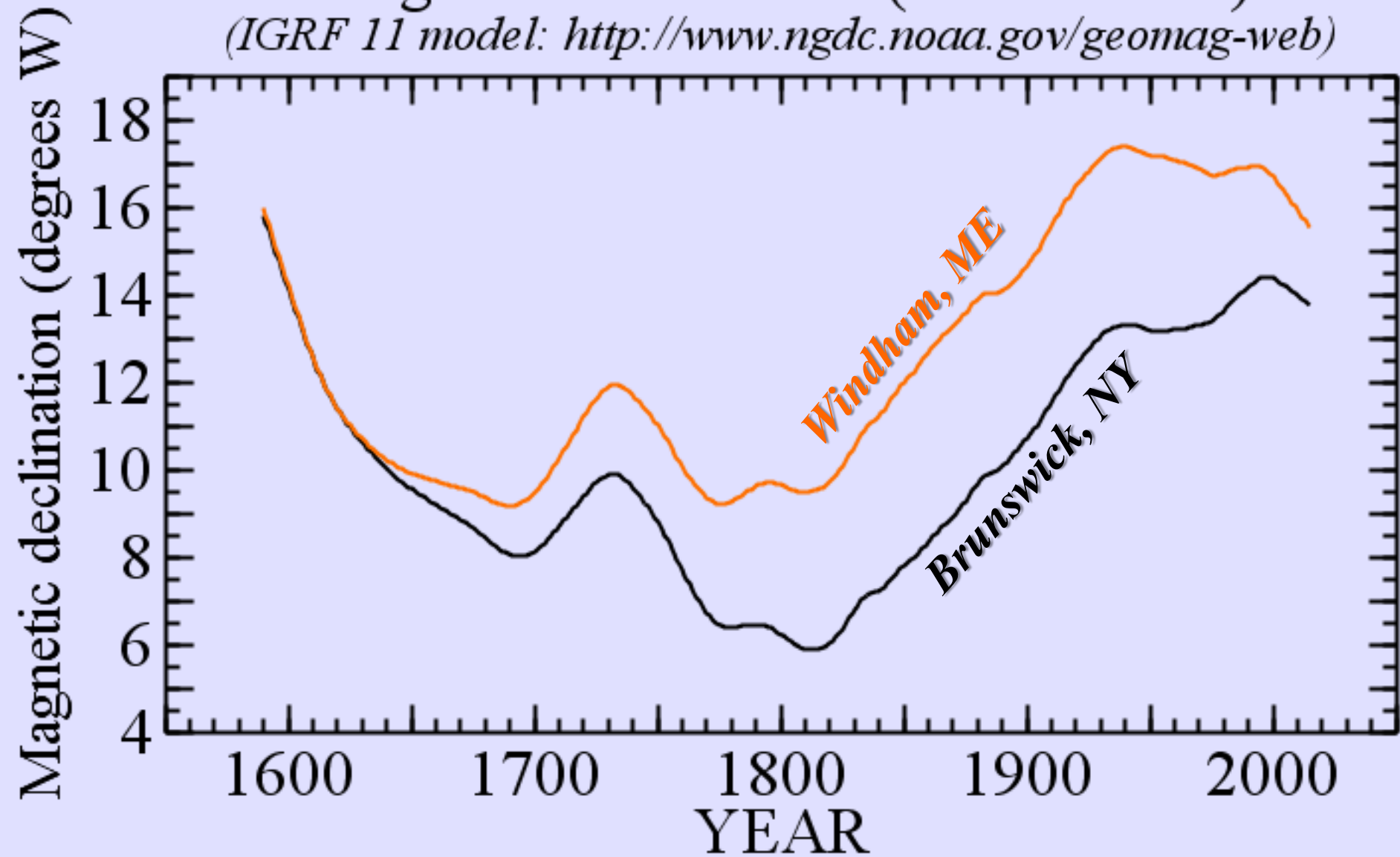
CONNECTICUT

Providence

RI

# Magnetic Declination (1590 - 2015)

(IGRF 11 model: <http://www.ngdc.noaa.gov/geomag-web>)







**South Road, South Deerfield, NH**

# Stone wall in Grafton Lakes State Park, New York on land leased to Thomas West on March 29, 1793

*1 foot*

---





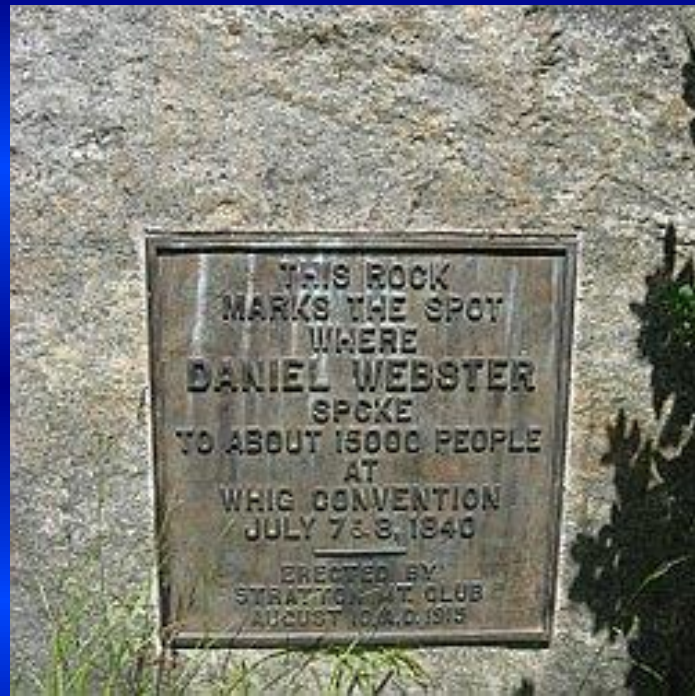
**Addison County, Vermont**

# **If walls could talk:**

## ***Stone walls of New York and New England***



**John W. Delano, Ph.D.**  
**Distinguished Teaching Professor Emeritus**  
**Associate Dean, College of Arts and Sciences**  
**University at Albany (State University of New York)**  
**Albany, NY**  
***[jdelano@albany.edu](mailto:jdelano@albany.edu)***



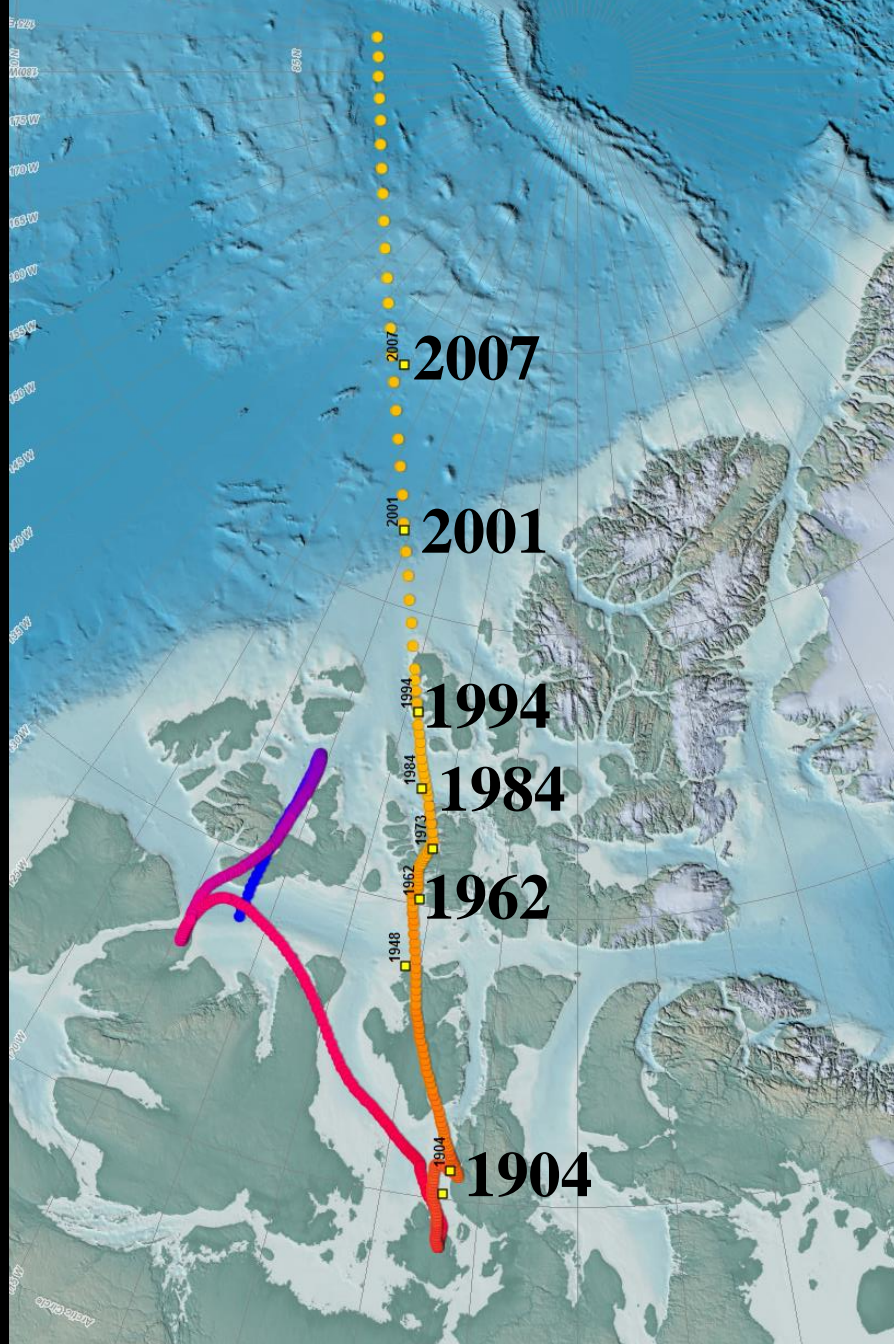
**Campaign speech by Senator Daniel Webster occurred along Kelly Stand Road in Stratton, VT on July 7-8, 1840 (Tuesday-Wednesday) in support of William Henry Harrison for President (Whigs party)**





# Star trails around North Star (Polaris) as viewed from Indonesia





<http://www.ngdc.noaa.gov/geomag/GeomagneticPoles.shtml>

# Reasons for leaving New England farms (1906 survey)

## Financial

Farming does not pay

Farmer cannot control prices for produce

Farming requires too much capital

## Physical

Too much hard work

Hours are too long

Farming is drudgery

## Social and Intellectual

More opportunity for advancement elsewhere

Farming is physical labor only

Life is monotonous

Farmers are often held in low esteem by others

Harold F. Wilson (1936) *The Hill Country of Northern New England: Its Social and Economic History*. Columbia University Press, 455 pp.

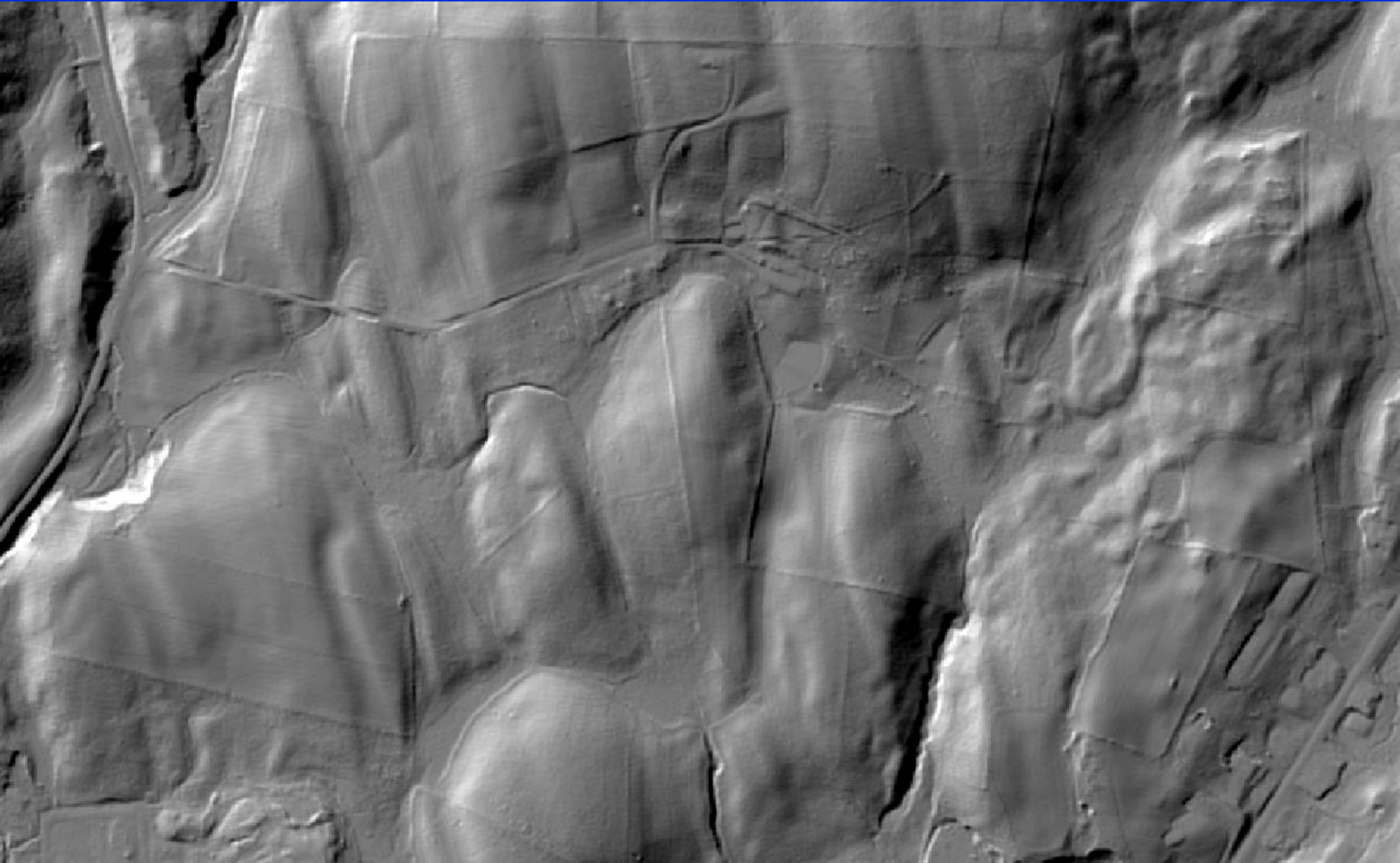
## **Additional reading**

**Susan Allport (1990) *Sermons in Stone: The Stone Walls of New England and New York.* W. W. Norton & Co., New York. 205pp.**

**Robert M. Thorson (2002) *Stone by Stone: The Magnificent History in New England's Stone Walls.* Walker & Co., New York. 287pp.**

**Hal S. Barron (1984) *Those Who Stayed Behind: Rural Society in Nineteenth-Century New England.* Cambridge University Press, New York. 184pp.**

**Area near intersection of Smith Hill Road, Hill Road, and Sweetmilk Creek Road showing stone walls associated with Jacob F. and Henry F. Hayner lands**



**Lanna (Lany) Ann (Bulson) Hayner**  
**Born: October 25, 1818**  
**Died: August 9, 1847 following**  
**births and deaths of twin boys,**  
**Andrew (July 31, 1847) and Abram**  
**(August 2, 1847).**

Wife of  
SEBASTIAN A. HAYNER  
DIED  
Aug. 9, 1847  
aged 28 years 9 mo  
& 11 days

ANDREW  
DIED  
July 31, 1847  
aged 2  
weeks 4  
days  
ABRAM  
DIED  
Aug. 2, 1847  
aged 2  
weeks 4  
days  
Sons of  
Sebastian A. &  
Lanny Ann  
HAYNER

This Indenture made this Twenty Ninth Day of June in the  
year of our Lord one thousand Seven hundred and Eighty Seven Between Stephen Van Rensselaer  
Esquire Lord and Proprietor of the Mannor of Rensselaerwyck and Margaret his Wife of the one part  
and Lodowyc Snyder of the East District of the Mannor of Rensselaerwyck in the County of Albany  
Farmer of the other part Witnesseth that the said Stephen Van Rensselaer and Margaret his Wife  
and in Consideration of the Sum of Two hundred and Ninety Six Pounds Lawfull Money of the  
State of New York to them in hand paid by the said Lodowyc Snyder at and before the en sealing  
and delivery of these Presents the Receipt whereof they do hereby acknowledge and thier of and of every  
part and parcell thereof do acquit release and discharge him the said Lodowyc Snyder his Heirs  
and Assigns for ever by these Presents Have Granted bargained sold aliened remised released and  
confirmed and by these Presents DO Grant bargain sell aliene remise release and confirm unto the  
said Lodowyc Snyder in his actual possession now being and to his Heirs and Assigns for ever All  
that certain Farm Piece or Parcell of Land situate lying and being in a Place called Files Town  
on the East Side of Hudsons River in the Mannor of Rensselaerwyck beginning at a White Elm  
the West Side of a Brook called Tomlanick Twenty five Links distant from the Edge