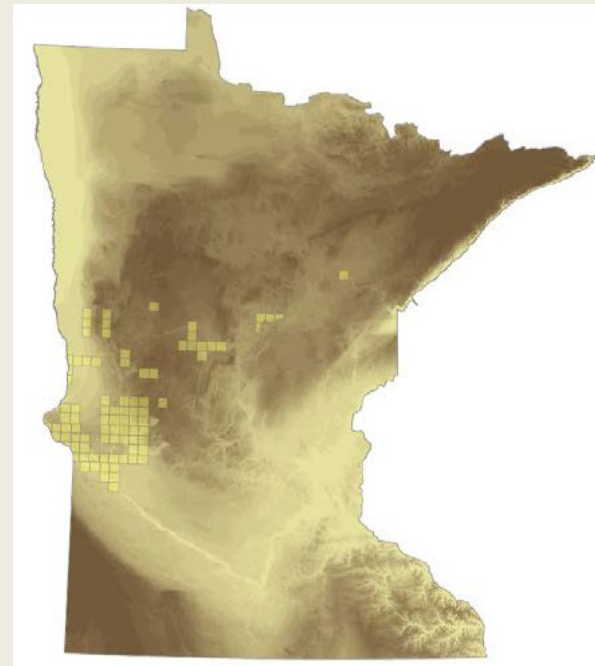
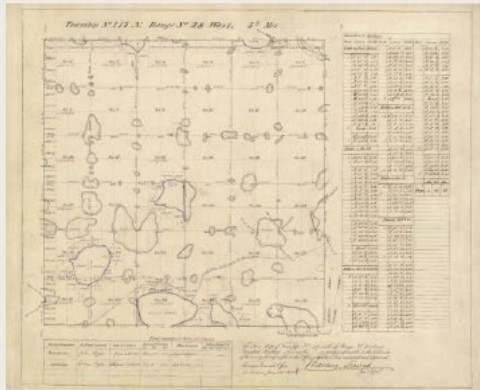
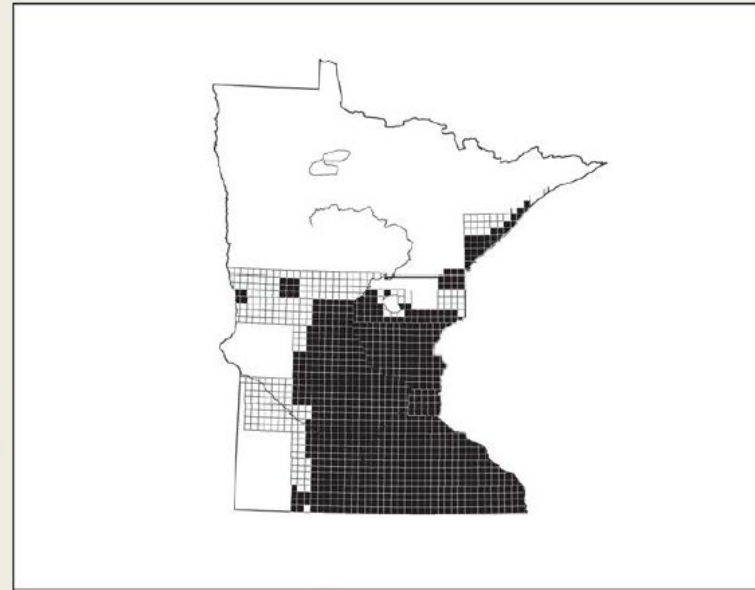
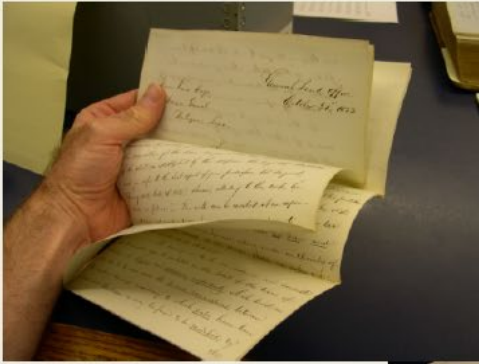


The Rectangular Surveys in the Minnesota Territory 1847-1858 (revisited)

Rectangular Land Surveys in Territorial Minnesota 1847-1858

Will the story ever end?



An Internal Dialog(ue)

Thoughts on organizing a book describing how the rectangular land surveys spread across only a small portion of the United States – Minnesota – in a very short period of time – 1847-1858

- To connect the various spatial scales that have occupied my attention
- Provide an overview of the public land surveys in Minnesota 1847-1858
- Give the surveys in Minnesota an appropriate context

An Internal Dialog(ue)

Detail necessary to describe and explain the rectangular land surveying process to my primary audience – land surveyors of Minnesota – of limited geographical applicability

An Internal Dialog(ue)

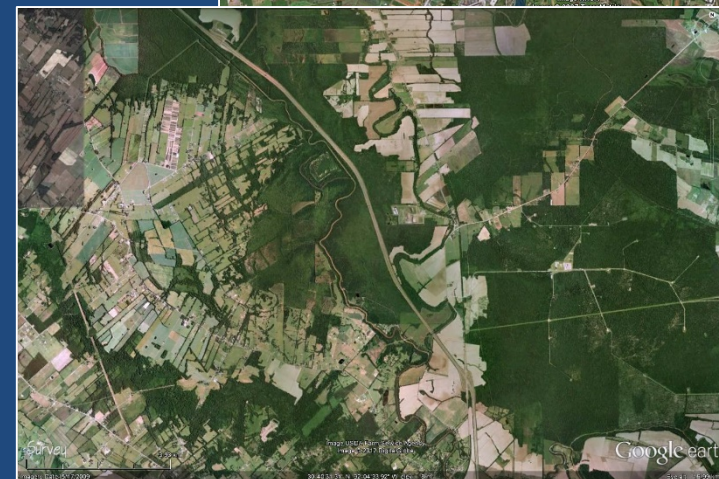
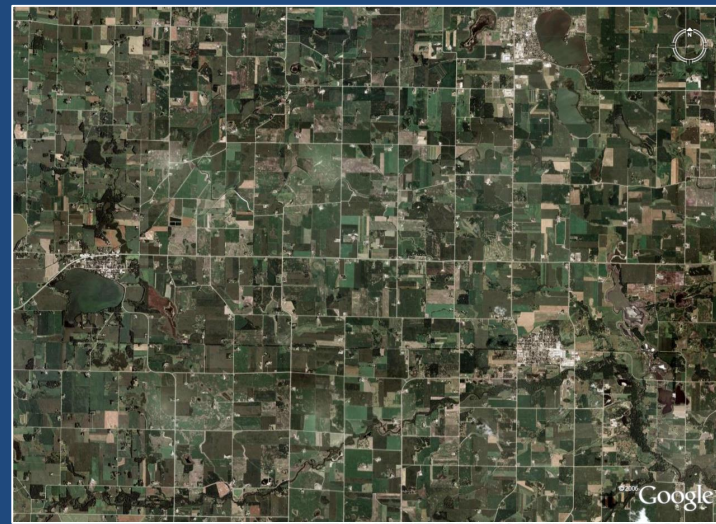
Detail necessary to describe and explain the rectangular land surveying process to my primary audience – land surveyors of Minnesota – of limited geographical applicability

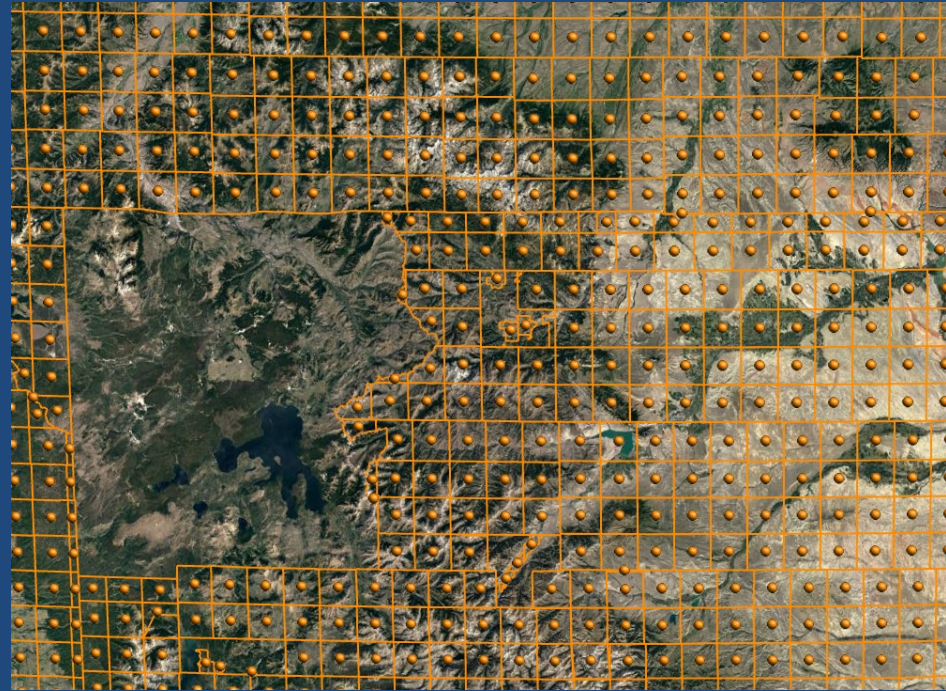
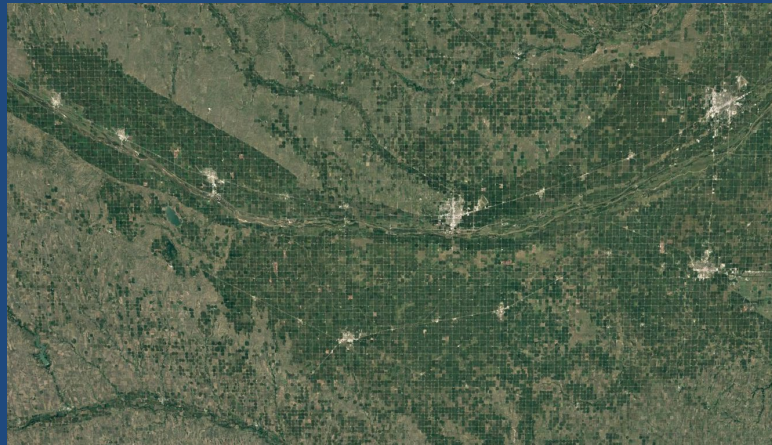
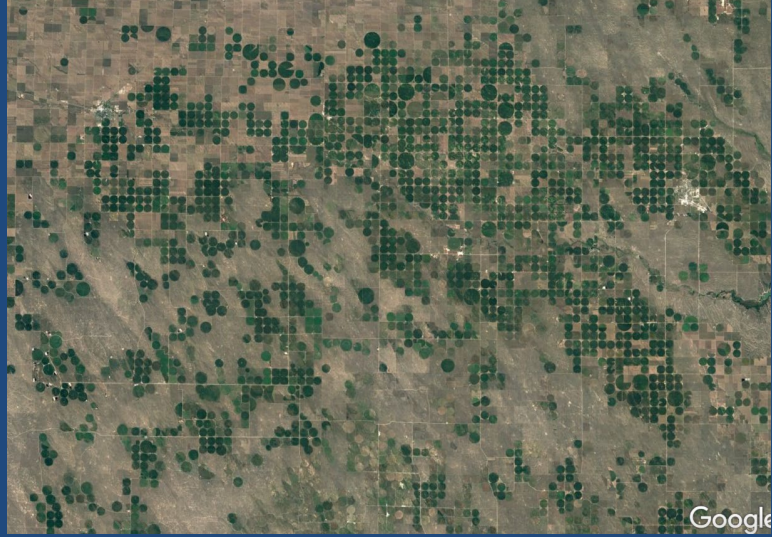
Generalizations to provide an overview of the surveying effort throughout the United States 1785-1925 to non-surveyors

- many of whom take the surveying efforts for granted
- many of whom are only interested in the outcomes of the surveys

Some of which should be useful to the professional surveyor

The rectangular public land survey net is one of the most visible yet least understood cultural landscape feature in the United States



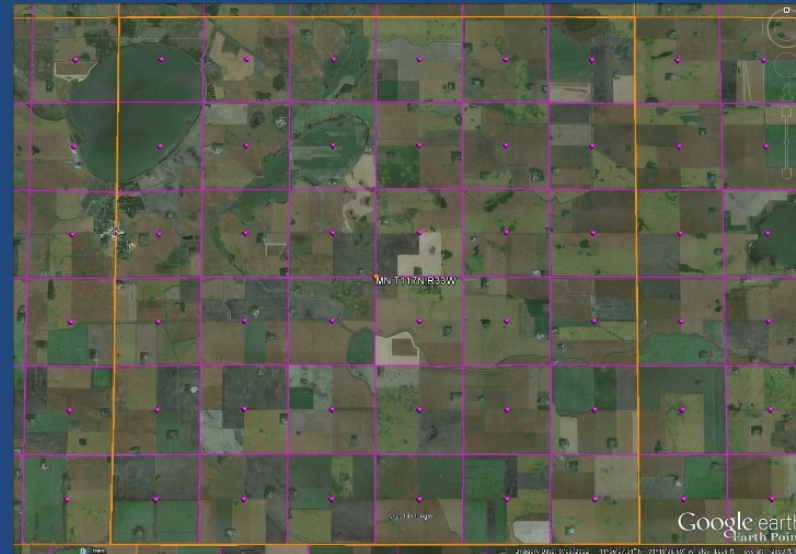


The Rectangular Land Surveys

Transformed "formless wilderness into a remarkable national geometry of squares and rectangles"



Imposed a particular spatial frame of reference on virtually all human activities in the United States – it formed part of a democratizing effort (Linklater, Measuring America)

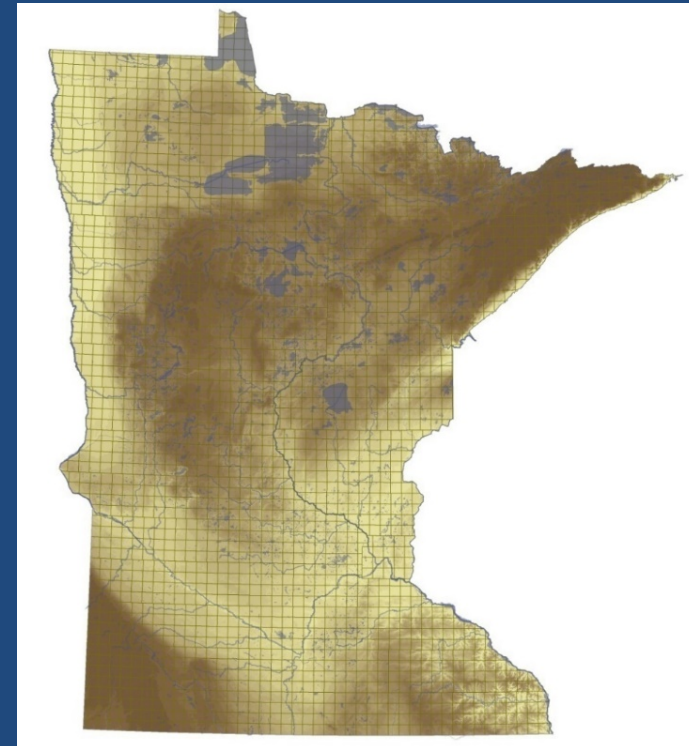
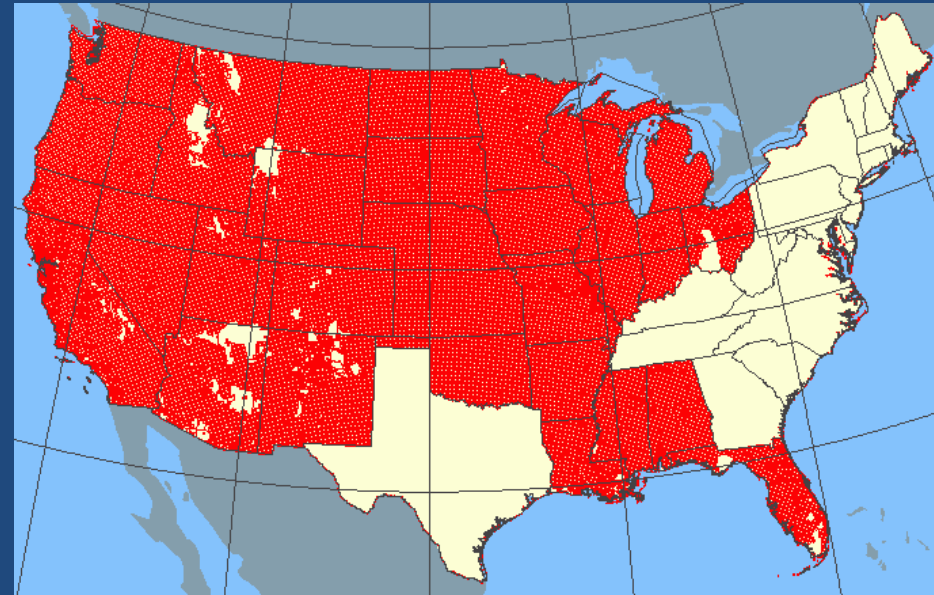


How did the rectangular land survey lines spread?

- Throughout the United States 1796-1910
- In Minnesota 1847-1908

What geographies can be constructed?

When the survey lines spread west of the St Croix River – the Wisconsin Territory at the time – the surveying process had been in operation for 50 years



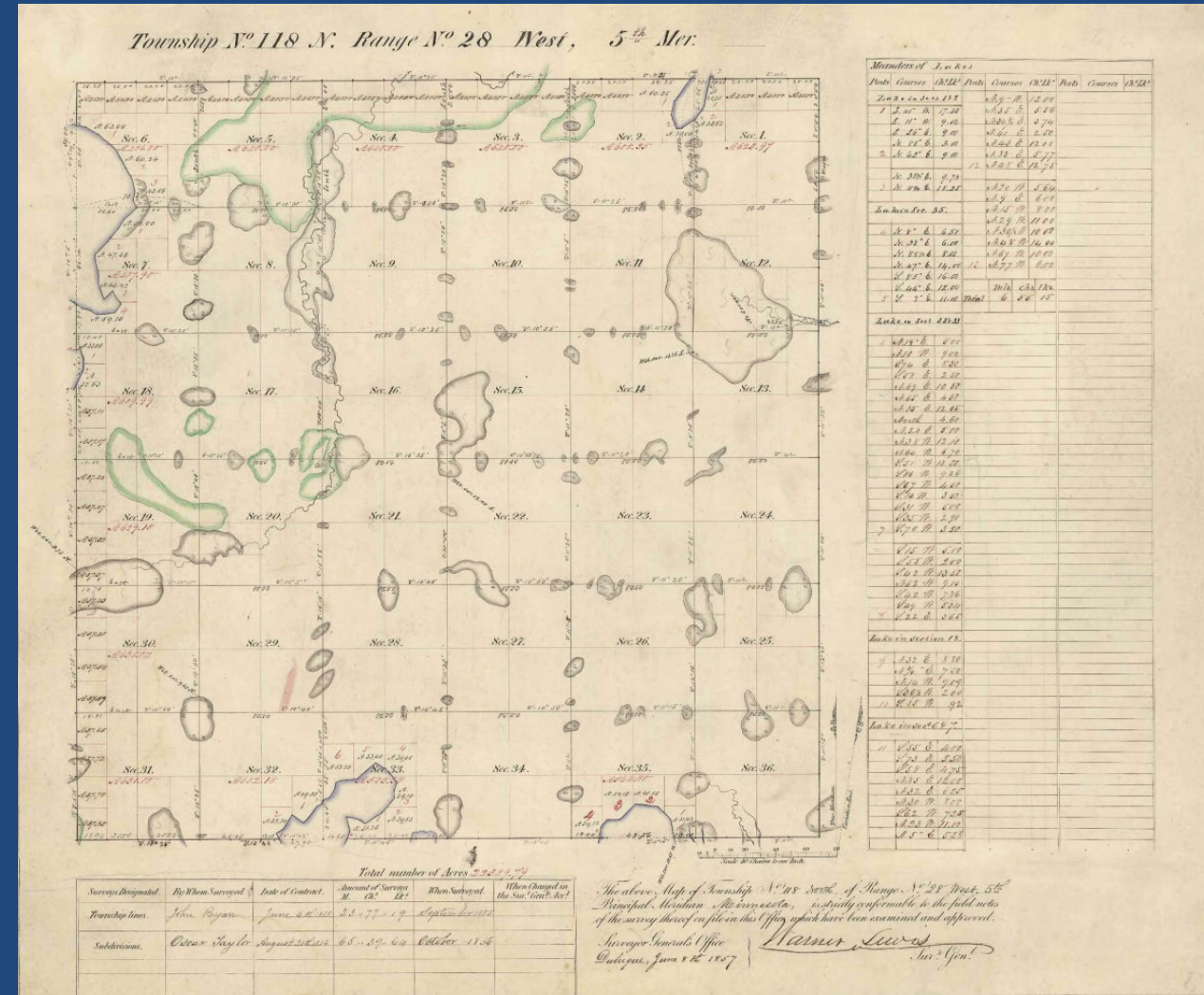
The Rectangular Land Surveys (in Minnesota)

Their cadastral importance

Created legal descriptions – place from space – in the Minnesota Territory

- established **boundaries** of a parcel of land to be privatized
- established **the location** of a parcel of land to be privatized
- both of which are depicted on the township plat

Enabled the United States government to privatize landownership



The Rectangular Land Surveys (in Minnesota)

A key to the privatization of the lands over which the United States acquired jurisdiction

- Indigenous peoples cessions
- Land system – surveys and conveying titles
- Territorial & state government

A key to a new geography based on private land ownership

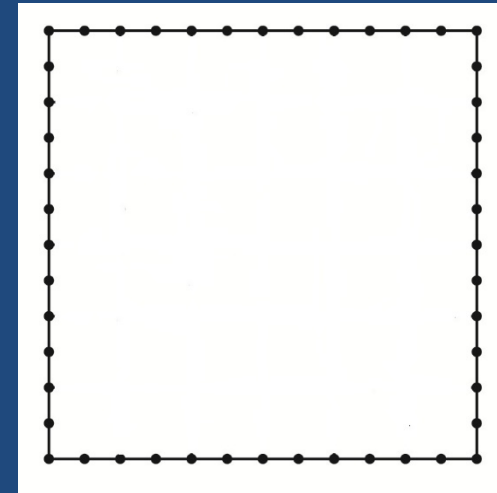


The Rectangular Land Surveys (in Minnesota)

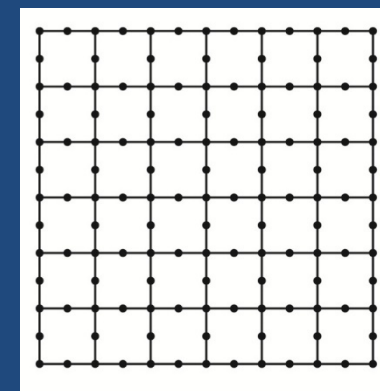
Established **boundaries** of a parcel of land to be privatized

- township lines run first followed by subdivision lines – different contracts
- lines generally run in one mile segments beginning and ending in a monument set in the ground – township, section
- additional monument set between section corners – $\frac{1}{4}$ section
- witness corners, meander corners set where appropriate
- lines protracted between all monuments

A relative locational system

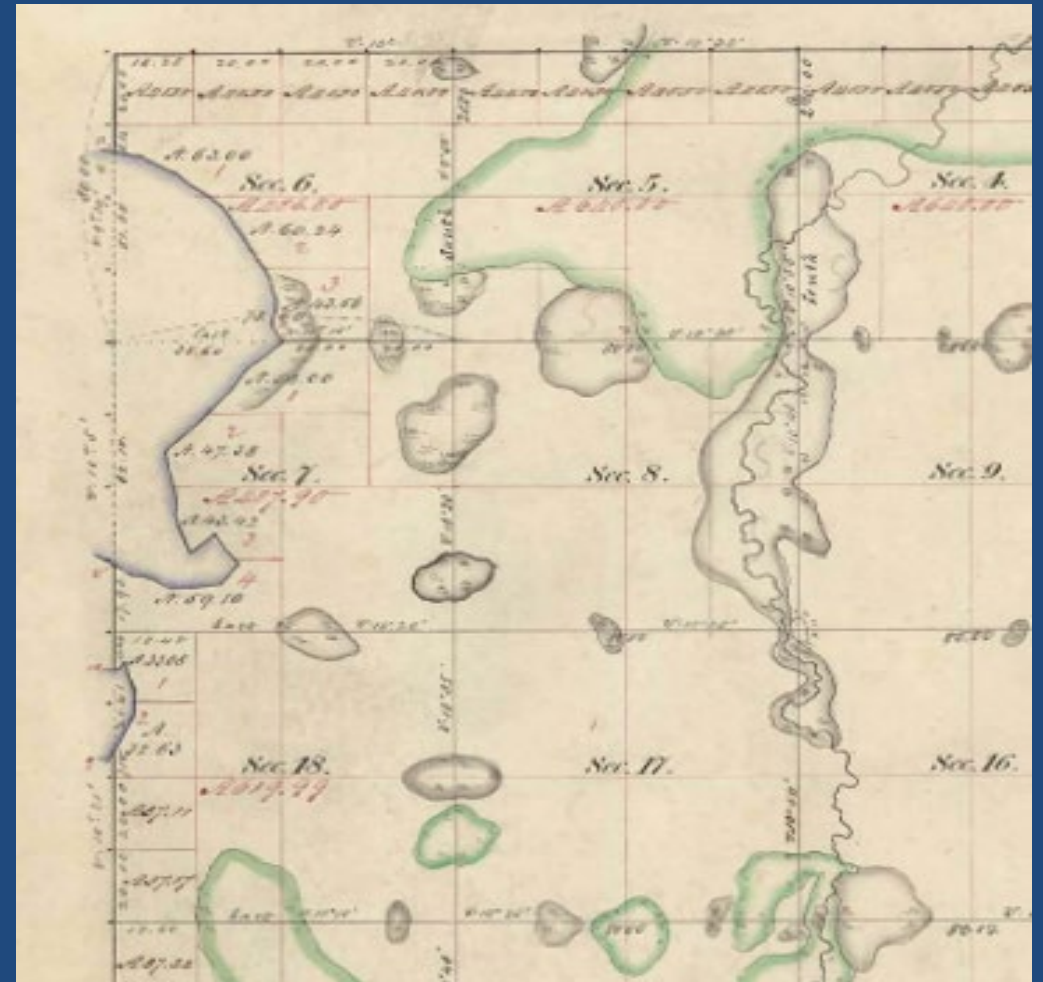


Township



Section

- lines protracted between all monuments



“The sequence in which the line segments were run and the corners established by individual deputies, each operating under instructions contained in their contracts, is a neglected feature of the historical geography of the rectangular land surveys in Minnesota.

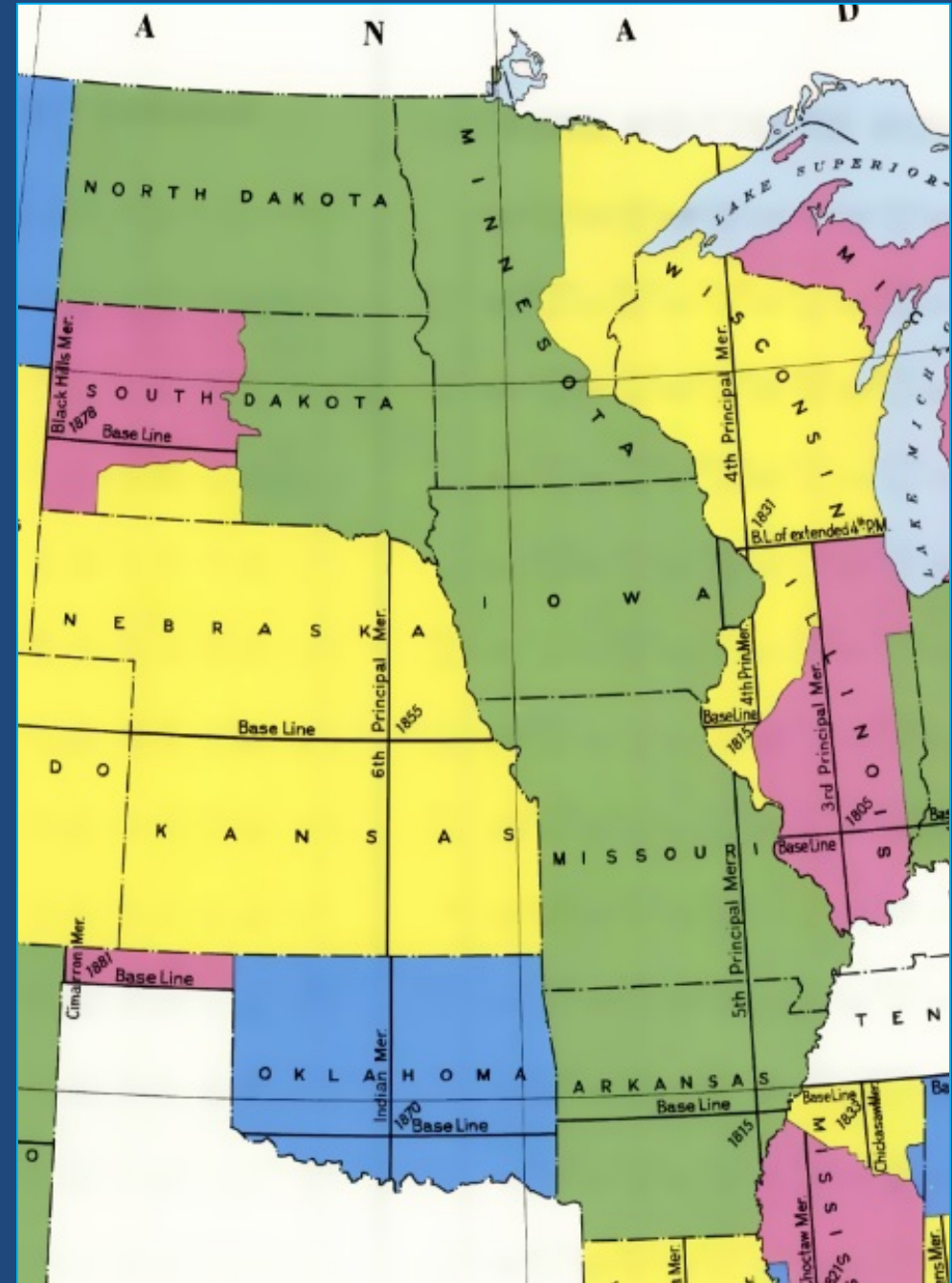
Anyone interested in the lines and corners in an area, or even a particular line segment or corner, should be aware of the sequence in which the lines were run and the corners monumented.”

[The Public Land Survey Lines in Carver County; Township Exteriors](#) 19

Each line segment initiated a new geography

Location of a parcel of land to be privatized

- a principal meridian – north-south
- an intersecting east-west baseline
- an initial point



A Spatial Framework

Two characteristics allowed the surveys to be carried in widely separated localities while ensuring the lines would form a national geometric net

1. **A technical element – a locational system**, independent of the other details of the rectangular net that provided basic surveying and locational control – **established when necessary**

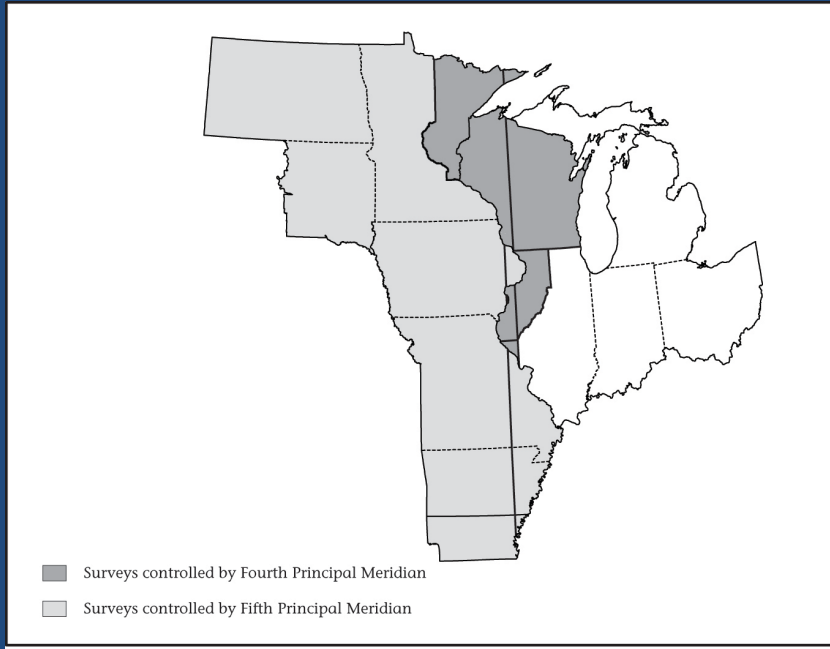
A Relative Locational System

Throughout the United States;

Each initial point – intersection of a Principal Meridian and its Baseline – somewhat arbitrary

Meridian ↕	Longitude ↕	Associated Baseline ↕	Latitude ↕	Adopted ↕
First principal	84°48'11"W		40°59'22"N	1819 ^[2]
Second principal	86°27'21"W		38°28'14"N	1805 ^[2]
Third principal	89°08'54"W	Centralia	38°28'27"N	1805 ^[2]
Fourth principal	90°27'11"W	Beardstown	40°00'50"N	1815 ^[2]
Fourth principal (extended)	90°25'37"W	Illinois–Wisconsin border	42°30'27"N	1831 ^[2]
Fifth principal	91°03'07"W		34°38'45"N	1815 ^[3]
Copper River	145°18'37"W		61°49'04"N	1905 ^[8]
Fairbanks	147°38'25.949"W		64°51'50.048"N	1910 ^[8]
Gila and Salt River	112°18'19"W		33°22'38"N	1865 ^[9]
Humboldt	124°07'10"W		40°25'02"N	1853 ^[10]
Huntsville	86°34'16"W		34°59'27"N	1807 ^[6]
Indian	97°14'49"W		34°29'32"N	1870
Kateel River	158°45'31.014"W		65°26'16.374"N	1956

Characteristics of all Principal Meridians and Baselines



The Principal Meridian and its associated Baseline were independent of other such lines

Where did the lines start and finish?

What direction was each run?

When was each run?

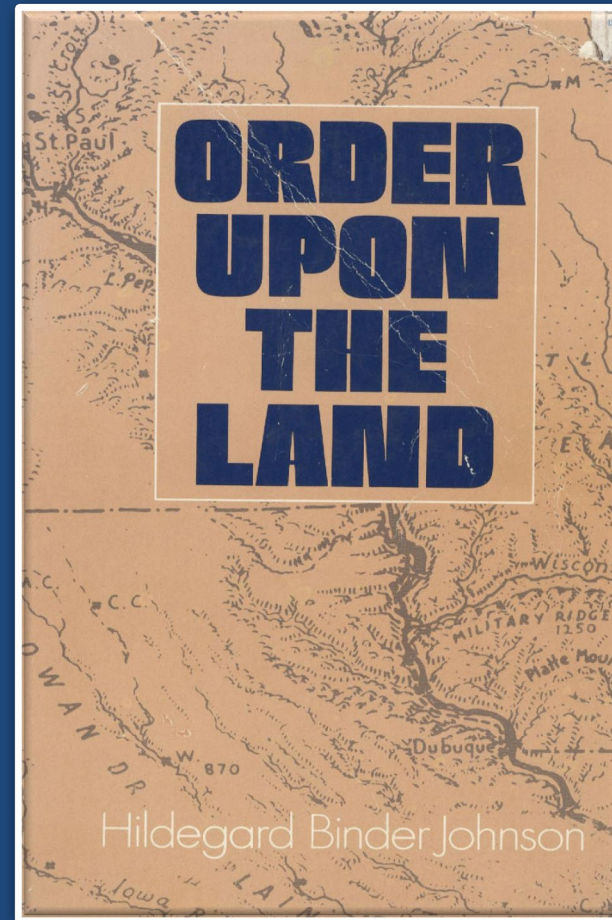
How was each run?

Where did they intersect?

What area did they control?

Where did the lines using particular P.M. and B.L. close?

"the distribution of principal meridians and baselines in the United States reflects **no system** but is the result of historical and geographical forces, such as settlement before the survey(s), westward migration along certain routes, and the cession of Indian lands"



A Spatial Framework

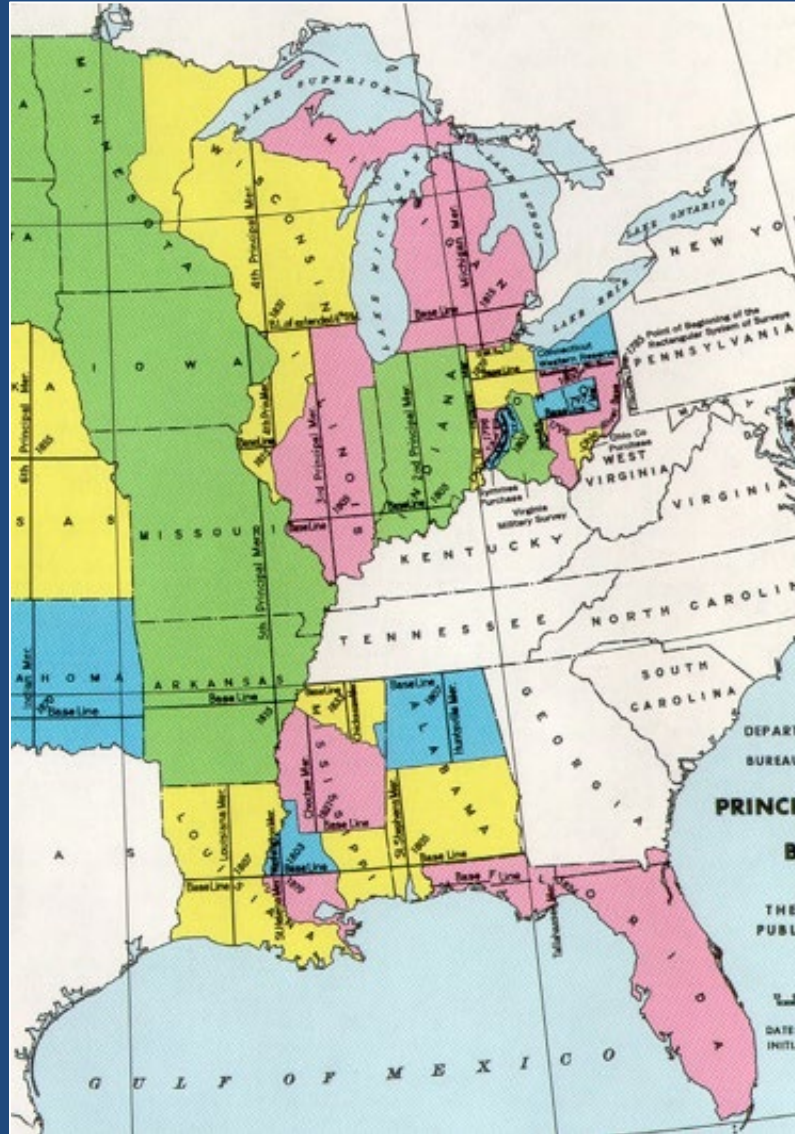
Two characteristics allowed the surveys to be carried in widely separated localities while ensuring the lines would form a national geometric net

2. An administrative system comprising statutorily defined surveying districts and Presidentially appointed surveyors general – **established when necessary**

- Considerable independence from each other
- Annual appropriations from Congress
- Funds apportioned by the Commissioner of the General Land Office to each surveyor general, along with “annual instructions”

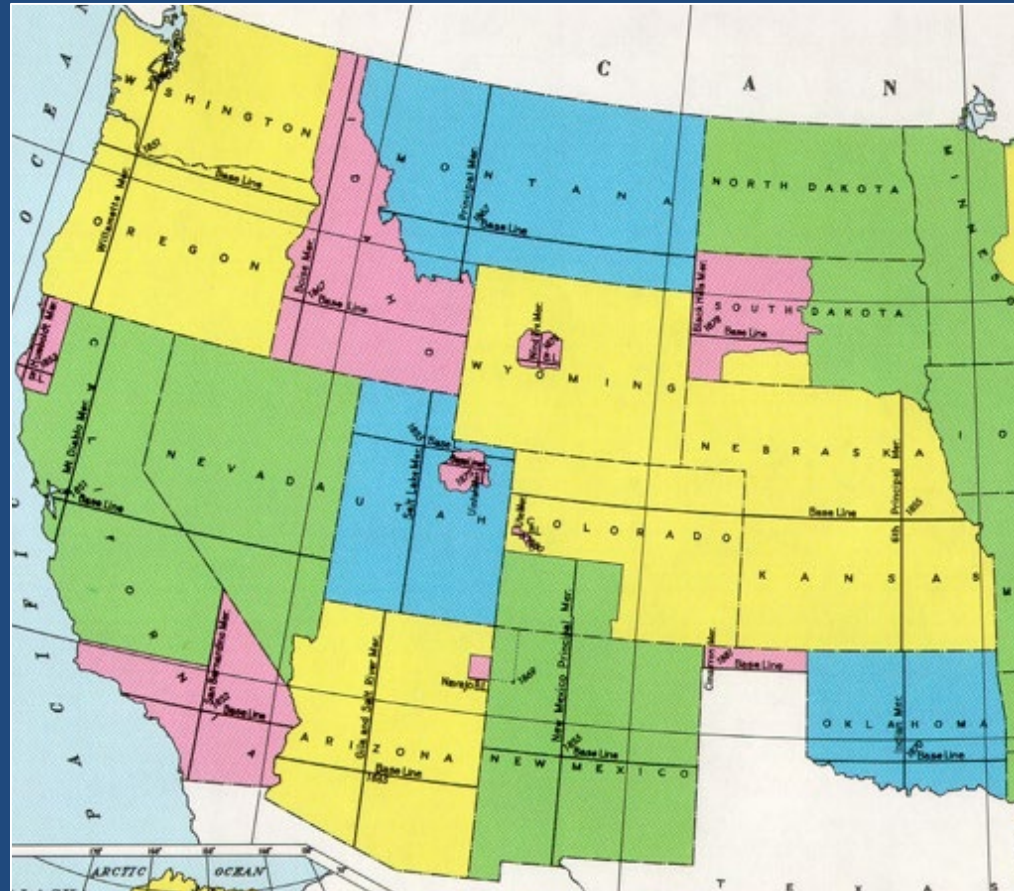
A Spatial Framework

Atlantic Surveys 1785-1851

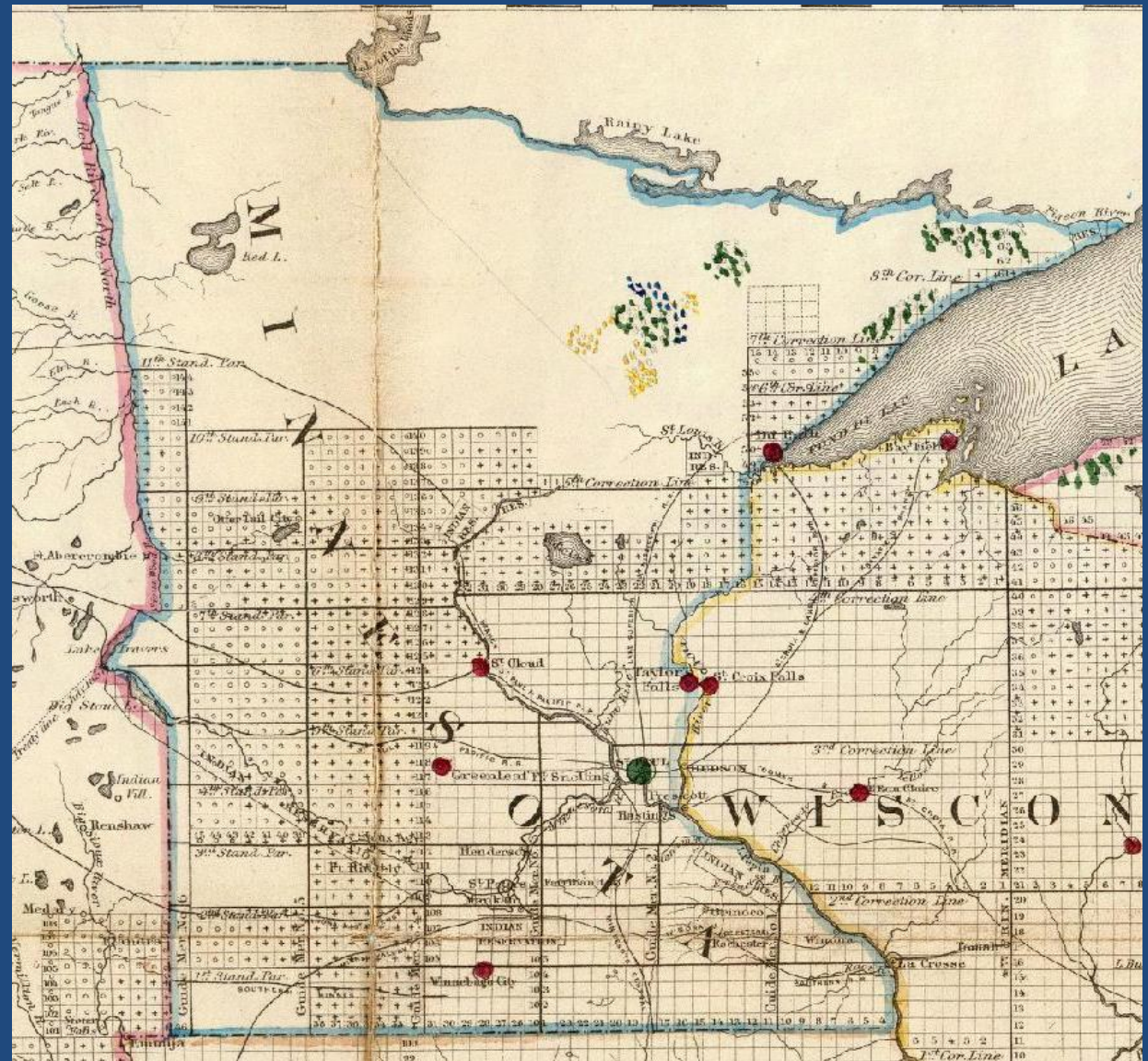


A Spatial Framework

Pacific Surveys 1851-1925



Minnesota only state to show characteristics of Atlantic and Pacific surveys



A Spatial Framework

North Atlantic

Surveyor General of the Northwest (1796-1857)

Surveyor General of Illinois and Missouri (1803-1863)

Surveyor General of Arkansas (1832-1859)

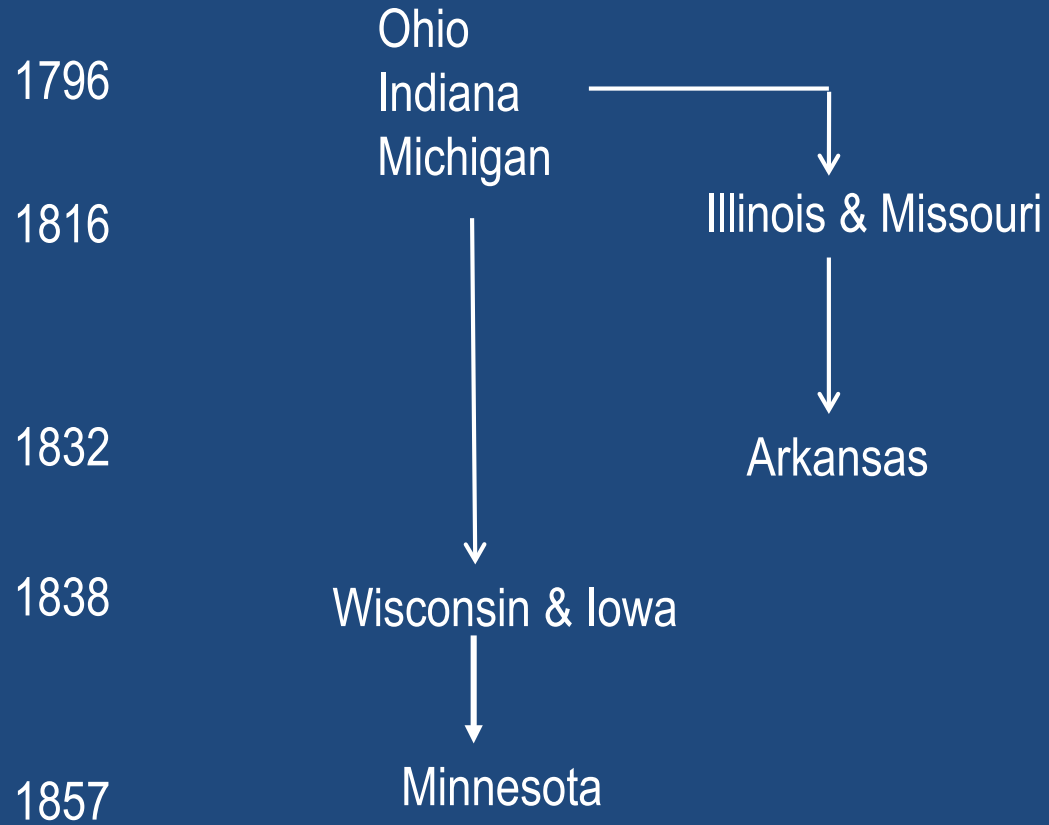
Surveyor General of Wisconsin and Iowa (1838-1866)

Surveyor General of Minnesota (1857-1908)



North Atlantic Surveys

Related administratively through the Office Surveyor General of the Northwest



A Spatial Framework

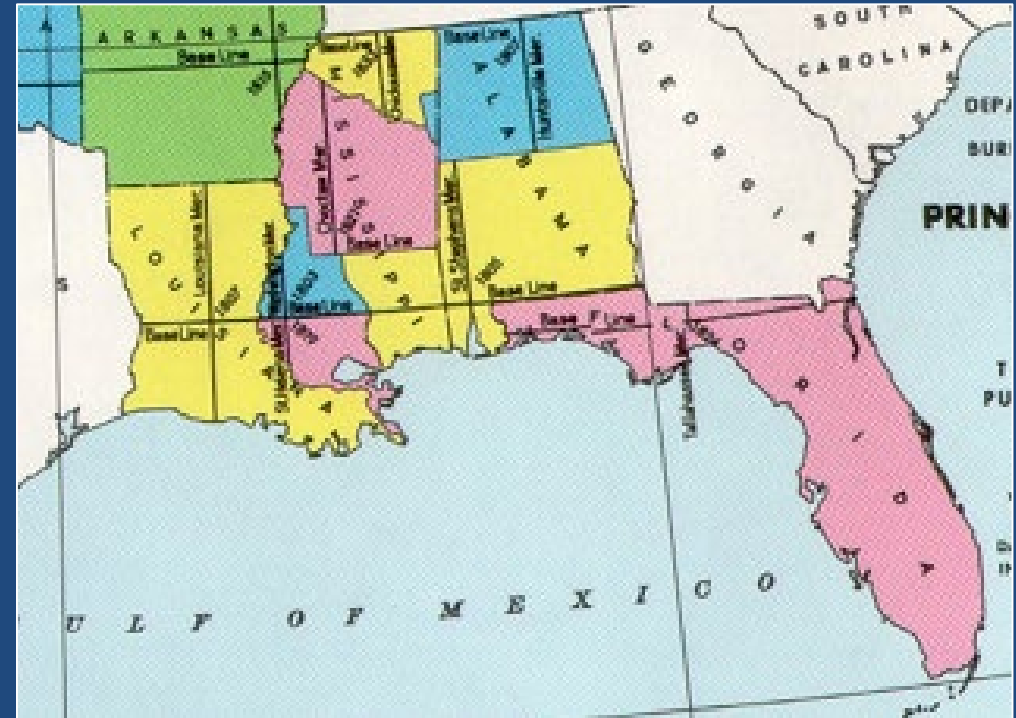
South Atlantic

Surveyor Lands South of the State of Tennessee (1803-1849)

Surveyor General of Alabama (1817-1849)

Surveyor General of Florida (1824-1908)

Surveyor General of Louisiana (1831-1909)



A Temporal Framework

Period A. Surveys under the administration of the Secretary of the Treasury

1785-1796. Early efforts under the provisions of the Land Ordinance

1796-1812. Surveyor General and contracted deputies

A Temporal Framework

Period A. Surveys under the administration of the Secretary of the Treasury

1785-1796. Early efforts under the provisions of the Land Ordinance

1796-1812. Surveyor General and contracted deputies

Period B. Surveys under the administration of the General Land Office

1812-1831. Autonomous surveyors general – separate instructions on how to survey

1831-1851. General Land Office exerting control – surveys under the administration of the Surveyor General of Wisconsin & Iowa after 1838

1851-1908. General Land Office issued instructions on how to survey

Surveys in the Minnesota Territory 1847-1858

- A. 1836 -1851. General Land Office exerting more control – surveys under the administration of the Surveyor General of Wisconsin & Iowa
 - 1847-1849 Surveys in western Wisconsin Territory – 1846 instructions on how to survey
 - 1849-1852 Surveys in Minnesota East

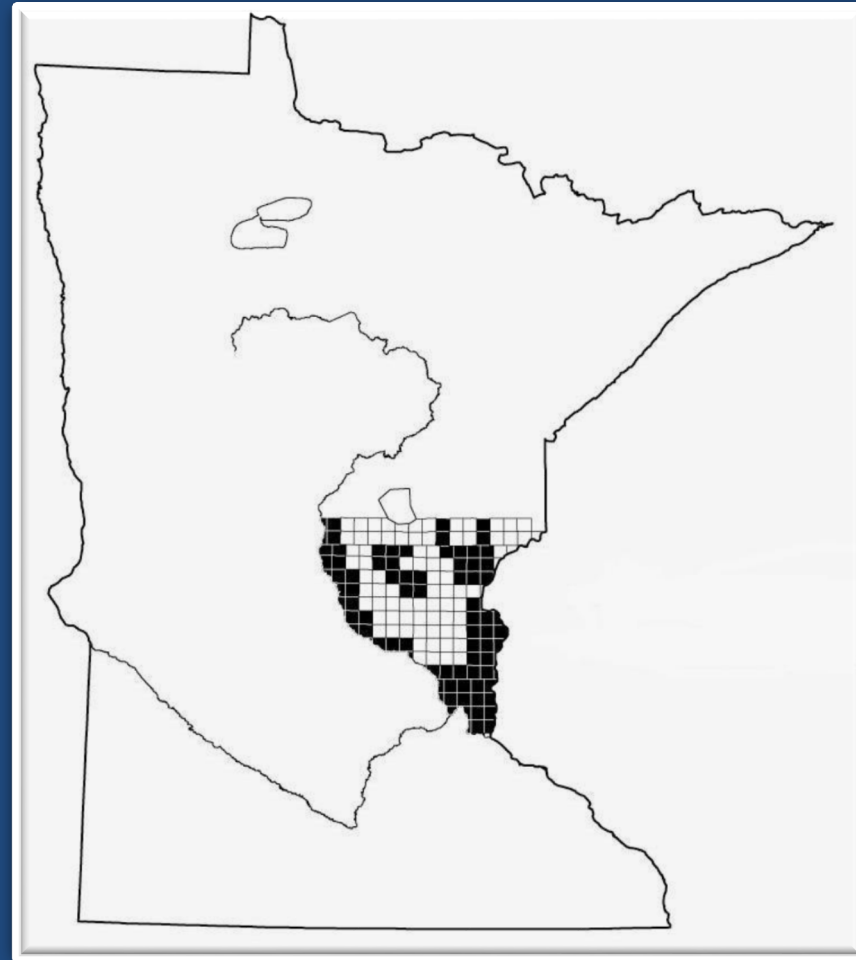
- B. 1851-1908. General Land Office issued instructions on how to survey
 - 1852-1857 Surveys in Minnesota East and Minnesota West
 - 1857-1908 Surveys under the administration of the Surveyor General of Minnesota

Surveys 1847-1852

1847-1852 survey lines run across area

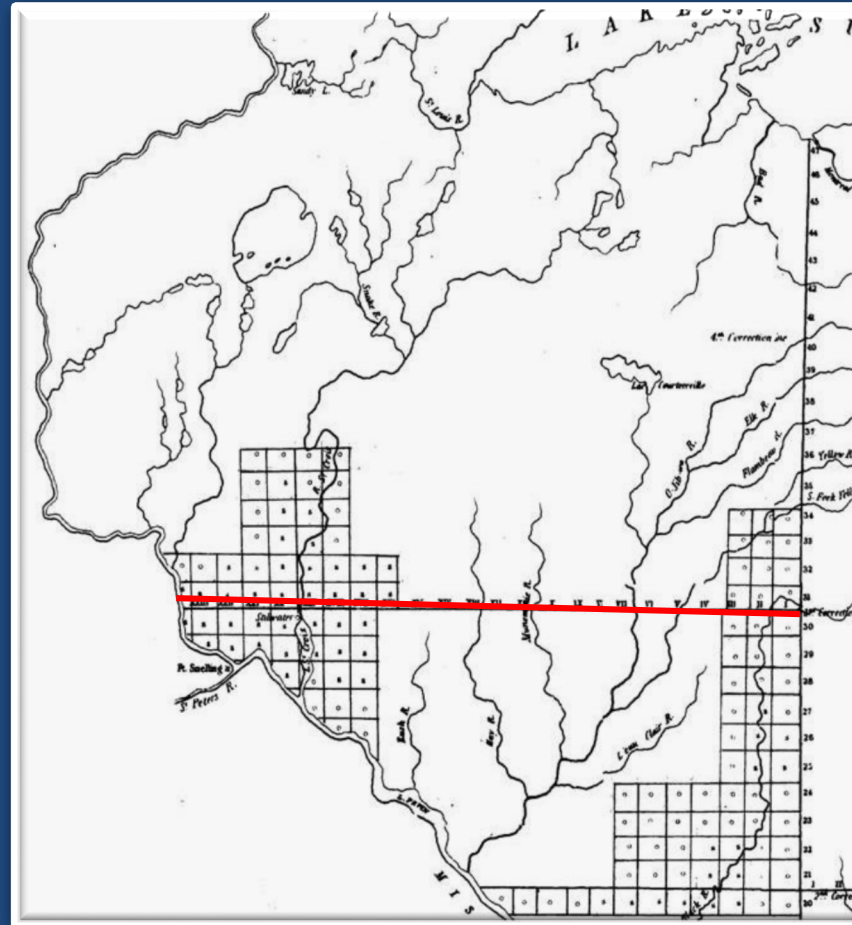
- Ceded in 1837 between the St. Croix and Mississippi rivers
- Using 4th Principal Meridian
- Under instructions issued in 1846

Extension of the surveys that spread across Wisconsin

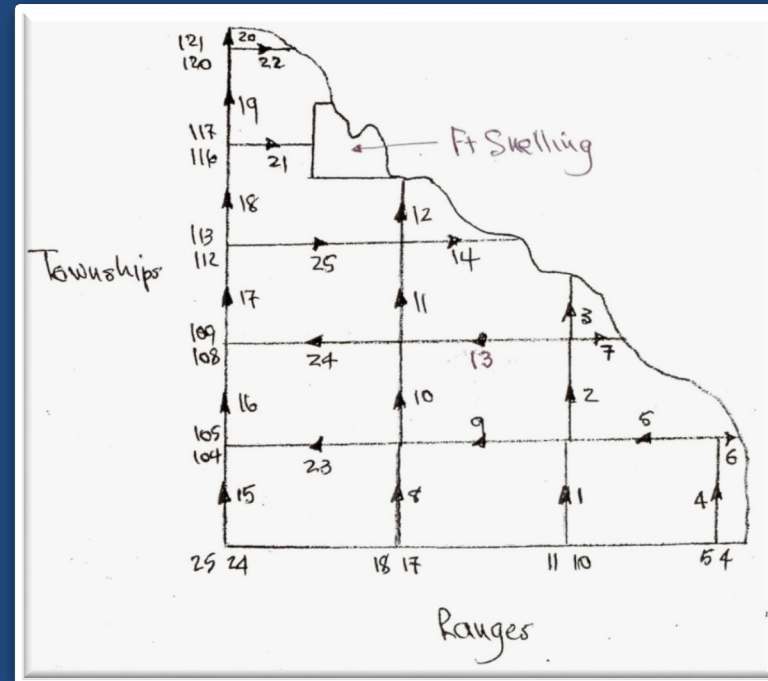
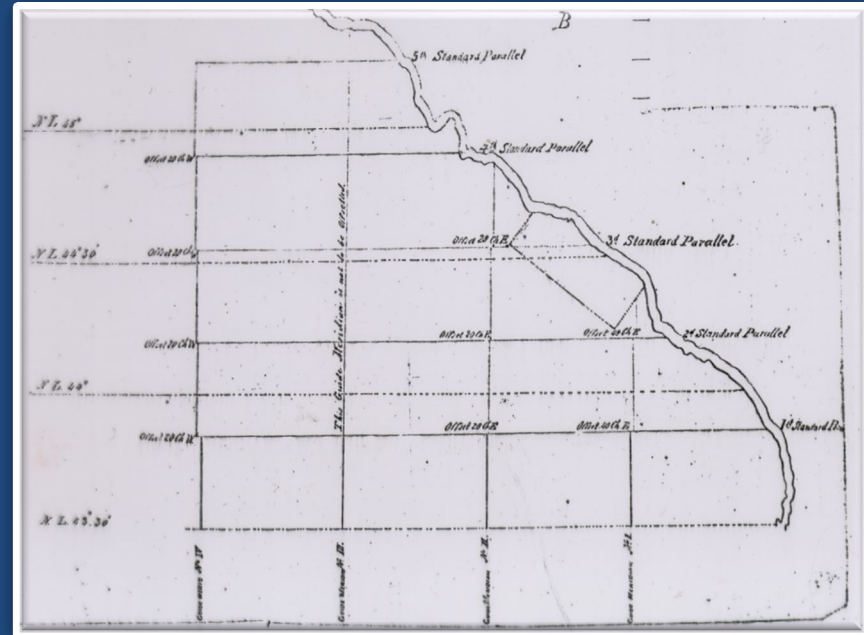
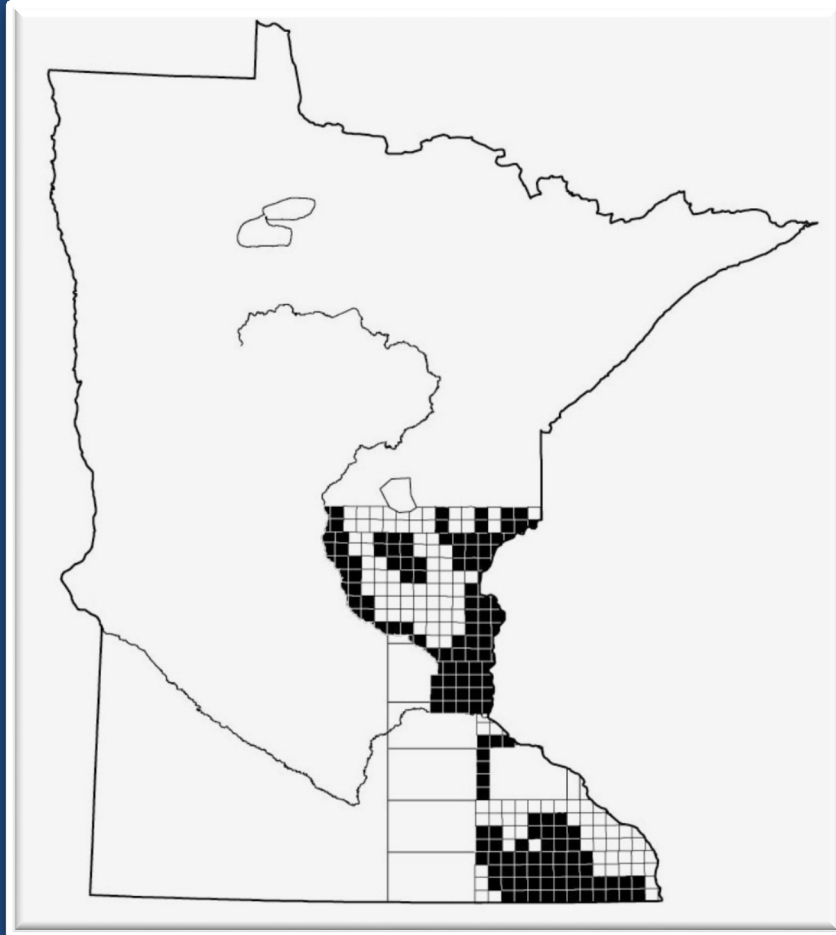


3rd Correction Line - initiated a new geography

Henry A Wiltse contract May 28, 1847

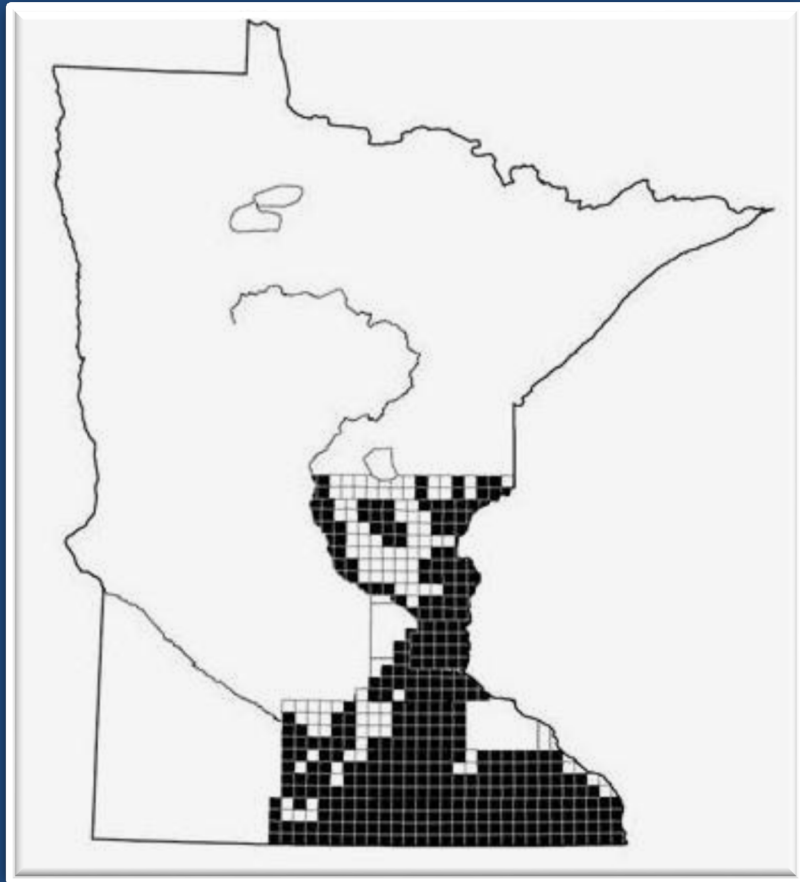


1853

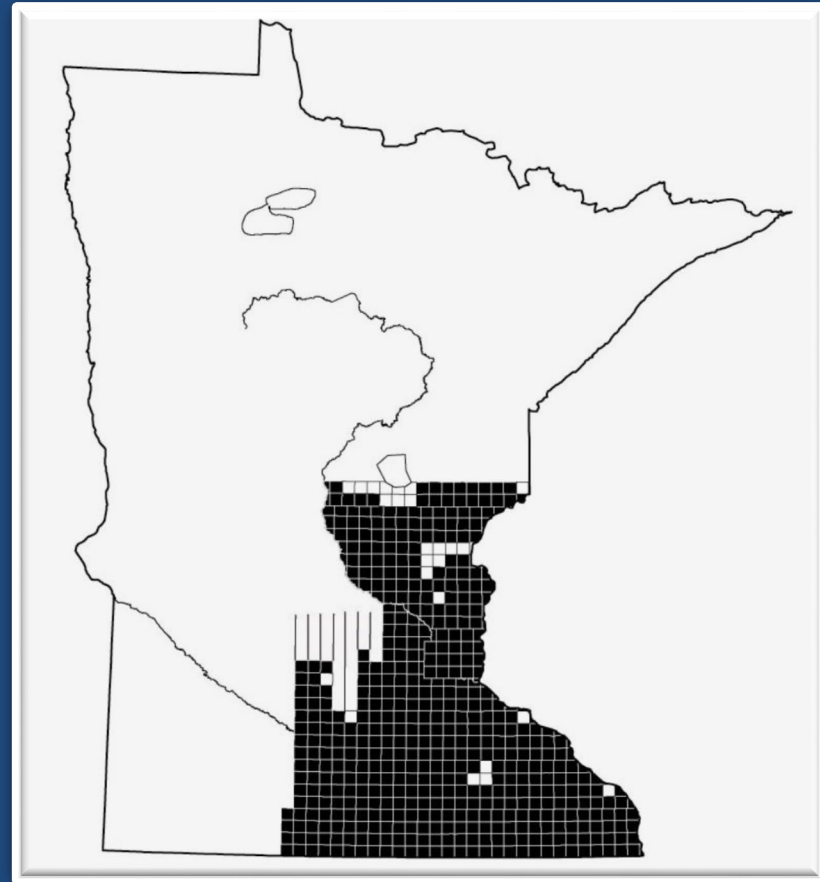


Commissioner John Wilson to SG Warner Lewis May 16th 1853
Commissioner John Wilson to SG Warner Lewis June 16th 1853
SG Warner Lewis to Deputy Elisha Norris July 28th 1853

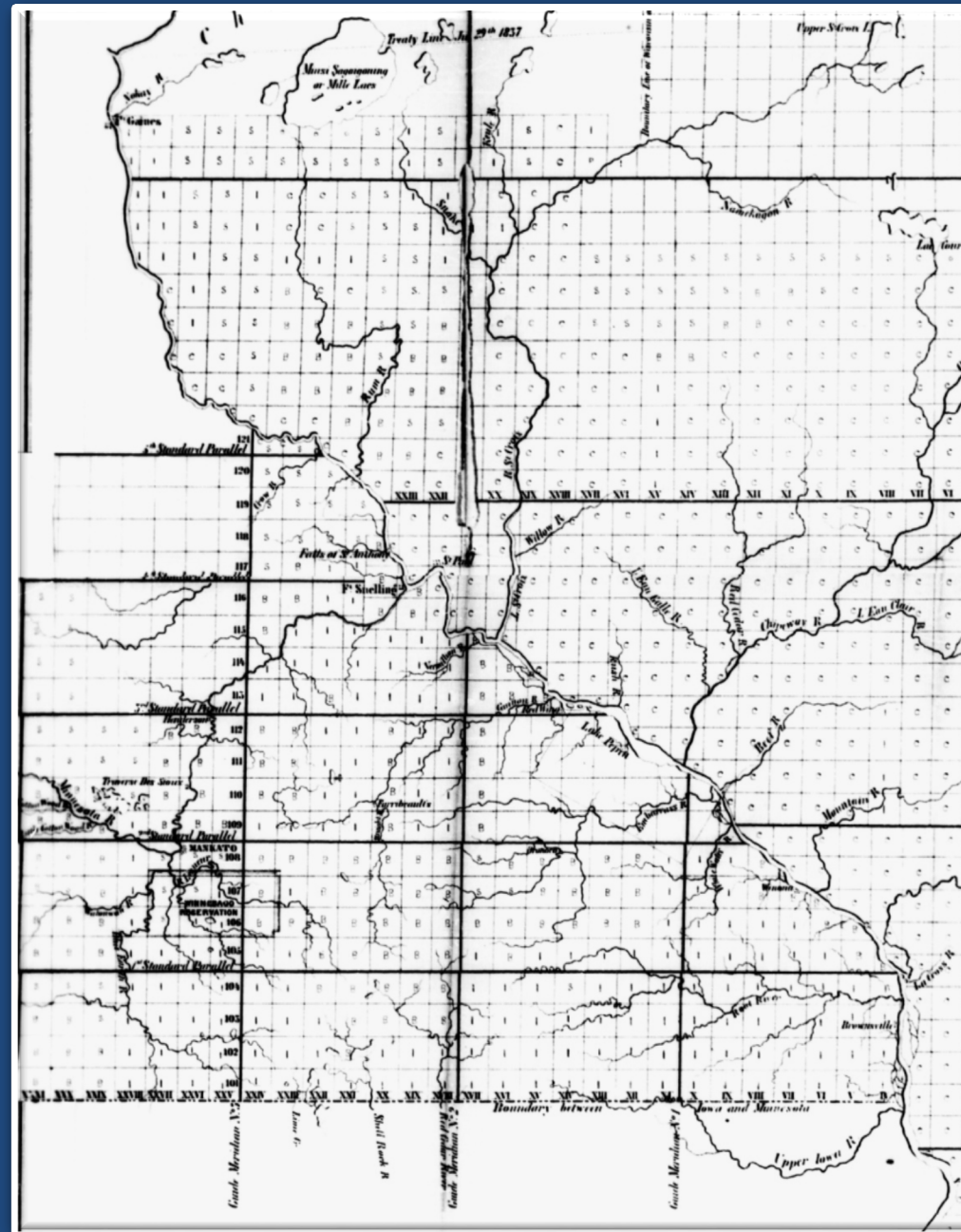
1854



1855



1855



Surveying Process in Minnesota

Annual report for a calendar year, request for funds from Surveyor General and suggestions for surveying the following year

Appropriations from Congress to the Commissioner of the General Land Office for surveying operations during the following fiscal year (July 1-June 30)

Commissioner allocates funds to each Surveyor General with annual instructions on where to survey

Surveyor General awards contracts for township exteriors and instructions on how to survey

Deputies complete contract township lines survey, submits notes and diagrams, some checking

Draftsmen prepare township exteriors diagrams

Surveyor General awards contracts for township subdivisions and instructions on how to survey

Deputies complete surveys, submits notes and diagrams, some checking

Notes of exterior and subdivisions for each township transcribed

Township plat drafted to include lines run and lines protracted

Plats and transcribed notes sent to Washington D.C

Plats and descriptive lists sent to appropriate land office

Annual report for a calendar year, request for funds from Surveyor General and suggestions for surveying the following year

Annual report of the Commissioner of the General ... 1848/1849.

PLAN FOR CONDUCTING THE SURVEYS IN MINNESOTA, WEST OF THE MISSISSIPPI RIVER.

It has been in contemplation to establish a new meridian, to be styled the sixth principal meridian, commencing at some central point in the boundary of Iowa and Minnesota. The fifth principal meridian ceases sixty miles south of this boundary, being subsequently determined by offset. The accuracy and uniformity of the surveys demand a principal meridian. Upon examination, however, it has been found, for two important reasons, impracticable either to adopt the fifth principal meridian in, or to establish a sixth principal meridian for, the surveys of Minnesota west of the Mississippi river.

NORTHERN BOUNDARY OF IOWA.

By your communication of September 26, 1849, I was advised that Captain Thomas J. Lee had been detailed to fix the point of the intersection of the parallel of $43^{\circ} 30'$ north latitude with the Mississippi river, preliminary to the establishment of the northern boundary of Iowa upon this parallel; and I was further advised that, for the execution of this work, full instructions would be given me early next season.

LANDS RECOMMENDED FOR SURVEY NEXT SEASON.

In Minnesota.

The surveys in this Territory will consist in subdividing such townships (the boundaries of which are now being run) as are settled, or which are covered by valuable timber. Should the report of the deputies engaged upon these township lines sustain the representations which

No. 8.

Estimate of appropriations for continuing the public surveys in the States of Wisconsin and Iowa and the Territory of Minnesota, and for promiscuous surveys and boundary lines, during the year ending June 30, 1851.

For township lines and subdividing in the Menomonee cession of October 18, 1848, under the \$5 per mile maximum	\$28,000 00	
For 700 miles of township lines and the subdividing of 100 townships in Iowa, at \$3 per mile	19,300 00	
For subdividing in the Territory of Minnesota, under the \$5 per mile maximum	10,000 00	
	<hr/>	\$57,300 00
For running and marking the parallel of 43° 30' of north latitude as the northern boundary of the State of Iowa, conformably to the act of 3d of March, 1849	15,000 00	
For running and marking the meridian boundary line between Wisconsin and Minnesota	600 00	
For closing the existing surveys to the south boundary of the State of Iowa, as established under the decree of the Supreme Court of the United States	1,200 00	
	<hr/>	16,800 00
	<hr/>	74,100 00
Total	-	<hr/> <hr/>

C. H. BOOTH,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Dubuque, October 18, 1849.

Estimate for appropriation for salary of surveyor general and regular clerks, and for compensation of extra clerks, for the year ending June 30, 1851.

For salary of surveyor general and clerks in his office, as per act of 10th August, 1846	\$8,300 00
For compensation to clerks for recording plats, recording and transcribing field-notes, and making out lists descriptive of corners	6,000 00
	<hr/>
Total	<hr/> <hr/> 14,300 00

C. H. BOOTH,
Surveyor General.

SURVEYOR GENERAL'S OFFICE,
Dubuque, October 18, 1849.

Appropriations from Congress to the Commissioner of the General Land Office for surveying operations during the following fiscal year (July 1-June 30)

“An Act making Appropriations for the civil and diplomatic Expenses of Government for the Year ending the thirtieth Day of June, one thousand eight hundred and forty-eight, and for other Purposes”

<i>Surveys of Public Lands.</i> — For salary of an assistant surveyor, to have charge and oversight of the resurveys in the Greensburg District, (late St. Helena,) under the direction and supervision of the surveyor-general of Louisiana, one thousand dollars.	sions. Assistant surveyor in Greensburg District.
For salary of an assistant surveyor, to survey the private claims in Florida, under the direction and supervision of the surveyor-general of Florida, one thousand dollars.	Assistant Surveyor, &c., in Florida.
For pay of chain-carriers, markers, transportation, provisions, &c., one thousand five hundred dollars.	Chain-carriers, &c.
For surveying, in addition to the unexpended balances of former appropriations, viz. :	Surveying.
For surveying the public lands, including incidental expenses, to be apportioned to the several districts according to the exigencies of the public service, one hundred thousand dollars.	Surveying public lands.
For surveying the copper regions of Michigan, Wisconsin, and Iowa, with reference to mines and minerals, at a rate not exceeding six dollars per mile, fifty thousand dollars.	Surveying copper regions.

Detached surveys	For detached surveys in Missouri, at a rate not exceeding five dollars per mile, on account of the difficulties in surveying lakes, swamps; &c., four thousand five hundred dollars.
Surveys in Missouri. 1824, ch. 184.	For surveys of towns and villages in Missouri, named in the act of twenty-sixth May, eighteen hundred and twenty-four, including office rent, two thousand dollars.
Surveying in Arkansas.	For surveying in that part of Arkansas where, in consequence of local attraction, the ordinary compass cannot be used, at a rate not exceeding eight dollars per mile, nine hundred dollars.
Surveying in Mississippi, &c.	For surveying the islands in the Mississippi, Arkansas, White, Red, Black, and St. Francis Rivers, and detached fractional townships in Arkansas, at a rate not exceeding six dollars per mile, three thousand dollars.
Surveys at augmented rates.	For surveys, at augmented rates, in Louisiana, sixteen thousand six hundred and ninety dollars.
Surveying in Louisiana.	For surveying the public lands in the State of Louisiana to meet the liabilities of the surveyor-general's office, on contracts now in the course of execution, twenty-one thousand dollars.

Commissioner allocates funds to each Surveyor General with annual instructions on where to survey

By the act of Congress entitled "an act making appropriations for the Civil and Diplomatic expenses of the Government for the year ending the thirtieth day of June One thousand eight hundred and forty eight, and for other purposes," approved 3rd March 1847, fifty thousand dollars were appropriated "for surveying the copper regions of Michigan, Wisconsin and Iowa, with reference to mines and Minerals;" of which seventeen thousand dollars have been appropriated to your District; and of the one hundred thousand dollars appropriated by the same act "for surveying the public lands, including incidental expenses" the sum of twenty eight thousand dollars has been apportioned to your district for surveying and two thousand five hundred dollars for incidental expenses.

The Fourth Principal Meridian should be completed as early as practicable, as directed by the instructions of the 31st August last. (?) has not yet been contracted for, you will detail in that service one of your most competent deputies, in whose integrity the most implied confidence can be placed, and instruct him to survey it with the greatest care, both as to course and measurement. This line should be double chained and very clearly and distinctly marked, as it will be the guide, in all future operations, in this region of the country through which it passes. The appointment of the geological

Under this appropriation you will also detail four of your most faithful and experienced Deputies, for the survey of the sections and Township lines, along this meridian, as soon as it is sufficiently advanced for that purposed. In contracting with each of these Deputies in addition to the usual stipulations of the number of miles, and tract of country to be surveyed, you will insert a provision, to the effect, that if the tract of country thus specified should not, in the opinion of the geologist, be the most advantageous to be surveyed, that the Deputy shall survey the same number of Townships in such tract as may be designated by the geologist. You will also stipulate that the geological surveyor

One of the deputies detailed as above directed, should be instructed to survey the Third correction parallel to the Mississippi River and complete his contract by the survey of the lands adjacent to the river and Lake St, Croix, and the balance of the \$17,000 of the appropriation apportioned to your District, with the balance that may remain after surveying the Fourth Meridian, of the \$5000 apportioned to your District last year, for that service, may also be used on continuing and

No. 10.

*Statement of surveys contracted for out of the appropriation of March 3,
1849.*

Date of contract.	Style of work.	Name of contractor.	State or Territory.
1849.			
July 9	Township lines.....	John M. Smith.....	Minnesota.
9	do.....	James E. Freeman.....	Wisconsin and Minnesota.
9	do.....	James M. Marsh.....	Iowa.
12	Subdivision.....	Alexander Anderson.....	Wisconsin.
12	do.....	A. K. Eaton.....	Iowa.
13	do.....	H. B. Welsh.....	Wisconsin.
16	Township lines.....	John Ball.....	Iowa.
17	Subdivision.....	Jesse T. Jarrett.....	Wisconsin.
18	do.....	George R. Stantz.....	do.
18	do.....	Thomas J. McKean.....	Iowa.
19	do.....	John Parker.....	do.
August 6	Township lines.....	Theodore Conkey.....	Minnesota.
7	Subdivision.....	Louis V. Davis.....	Iowa.
8	do.....	Henry Maddin.....	Wisconsin.
10	do.....	Samuel D. Woodworth.....	Iowa.
11	do.....	Edwin James, jr.....	do.
13	Township lines.....	John W. Ellis.....	do.
20	Subdividing.....	S. W. Durham.....	Wisconsin.
Sept. 22	do.....	E. S. Norris.....	Iowa.
22	do.....	J. J. E. Norman.....	do.
22	do.....	W. H. Henderson.....	do.
24	do.....	John D. Evans.....	do.
24	do.....	James Jackson, jr.....	do.
24	do.....	S. C. Wiltse.....	do.
24	do.....	W. J. Neely.....	do.
25	do.....	John G. McDonald.....	do.
27	do.....	William Leffler.....	do.
29	do.....	W. Albert Patterson.....	do.

Surveyor General awards contracts for township exteriors and instructions on how to survey

FORM OF COMMISSION.

The United States of America.

To all to whom these presents shall come, greeting:

Know ye, that, reposing special trust and confidence in the integrity, ability, and discretion of _____, I do appoint him to be deputy surveyor of the United States for the district of _____, and do authorize and empower him to execute and fulfill the duties of that office according to law, and to hold the said office with all the rights and emoluments thereunto legally appertaining to him, the said _____, during the pleasure of the surveyor-general of the United States for the district of _____ for the time being.

In testimony whereof I have hereunto affixed my signature.

Given under my hand at _____, the _____ day of _____, 18____, in the year of our Lord one thousand eight hundred and _____, and of the Independence of the United States of America the one hundred and _____.

_____,
United States Surveyor General for _____.

1-280.

OATH.

I, John E. Mulligan comparator for Bear and Keegan

do solemnly swear that I will support and defend the Constitution of the United States against all enemies, foreign and domestic; that I will bear true faith and allegiance to the same; that I take this obligation freely, without any mental reservation or purpose of evasion; and that I will well and faithfully discharge the duties of the office on which I am about to enter: So help me God.

Sworn to and subscribed before me this _____ day of June 12, A. D. 1902

John E. Mulligan

E. S. Warner
U. S. Surveyor General

124935m12-99

filed in the General Land Office.

understood and agreed by and between the parties to this agreement that the said surveys will not _____ in his official capacity aforesaid, (or by his official capacity,) unless they shall be found to be in exact accordance with the instructions provided, also, that no member of Congress or sub-contractor shall have any part or interest at no payment shall be made for any surveys not executed by the said deputy surveyor _____ in his own proper person.

whereof The parties to these articles of agreement have hereunto set their hands and seals the _____ day of _____, 1887.

General at St. Paul, County of Ramsey, of Minnesota, the thirtieth day of _____, 1887.

Surveyor at St. Paul, County of Ramsey, of Minnesota, the sixth day of _____, 1887.

and acknowledged before us:

Waldwin
Paul Mann
E. Davis
Paul Mann
B. Curry
Paul Mann
E. Baldwin

J. H. Stewart
U. S. Surveyor-General
for Minnesota

George F. Hamilton
U. S. Deputy Surveyor

4-666.

CONTRACT AND BOND.

No. 111

Office of U. S. Surveyor General,
St. Paul Minnesota
May 14, 1903
Eli S. Warner
U. S. Surveyor General.

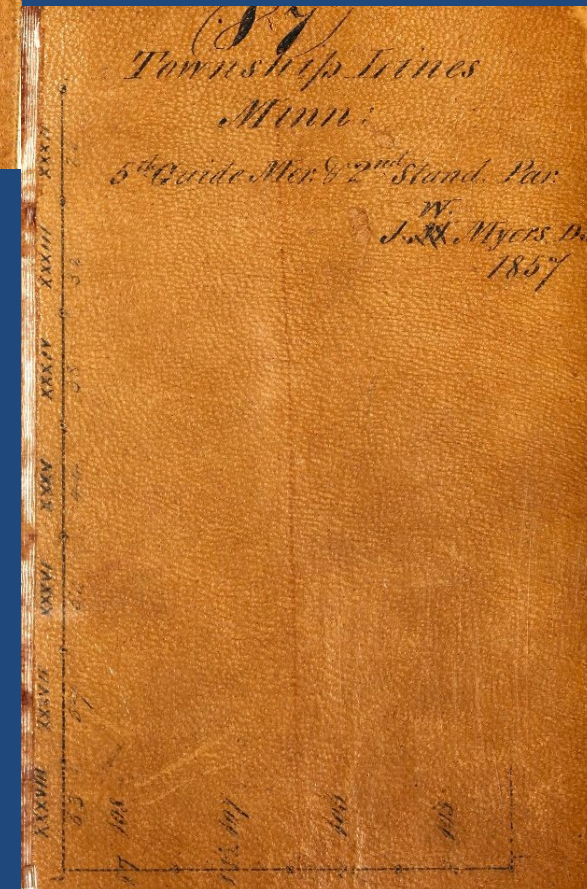
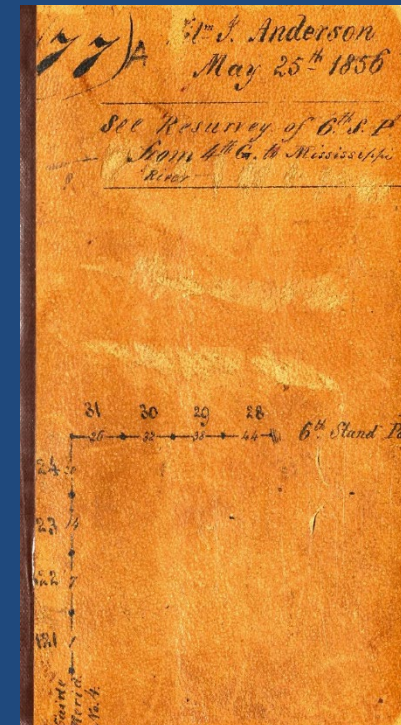
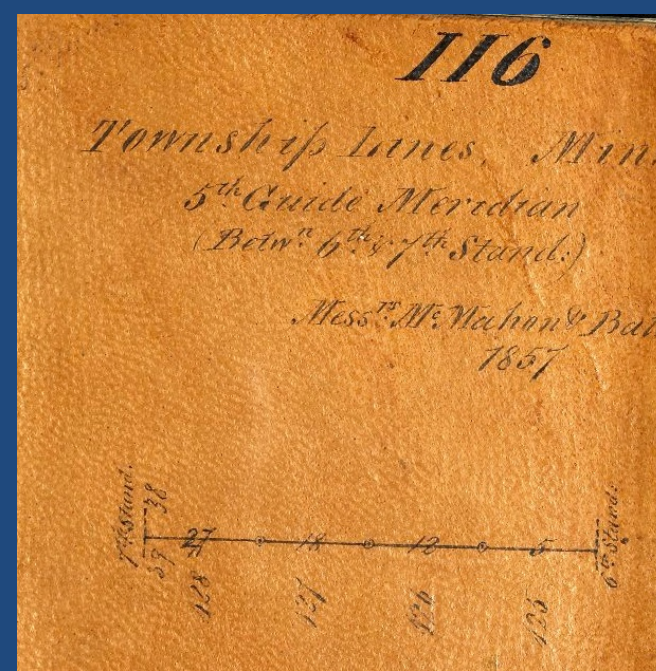
Charles H. Armstrong
U. S. Deputy Surveyor.

\$ 1900.

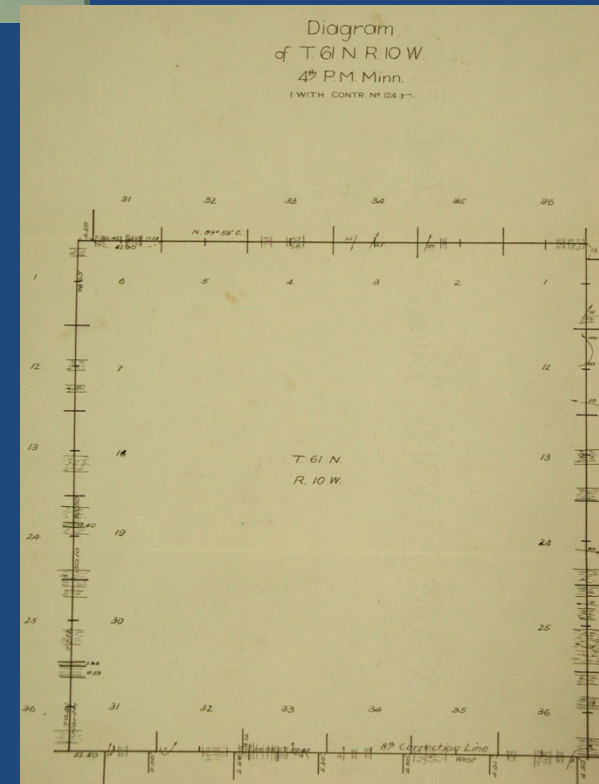
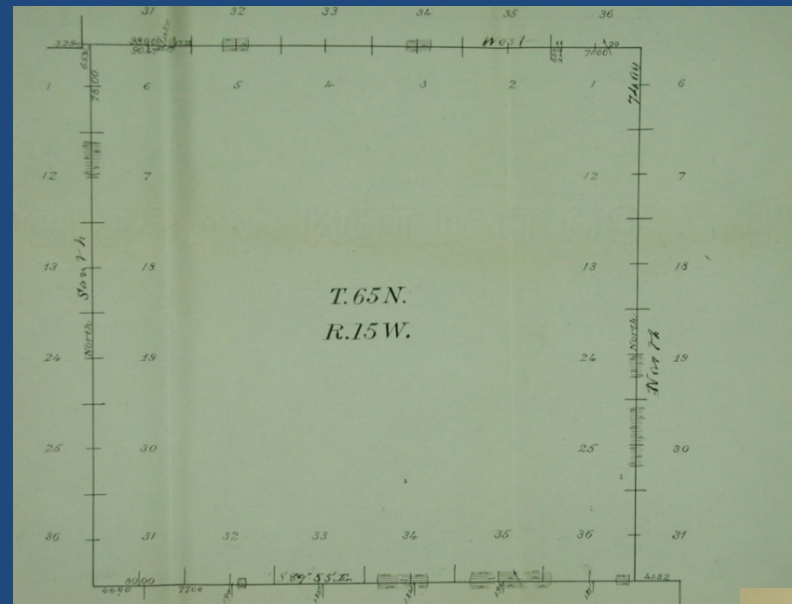
Payable from the Appropriation
for the survey of public lands
for the fiscal year ending
June 30, 1903

Approved May 28, 1903
Commissioner of the General Land Office.

Deputies completes contract township lines survey,
submits notes and diagrams, some checking



Draftsmen prepare township exteriors diagrams

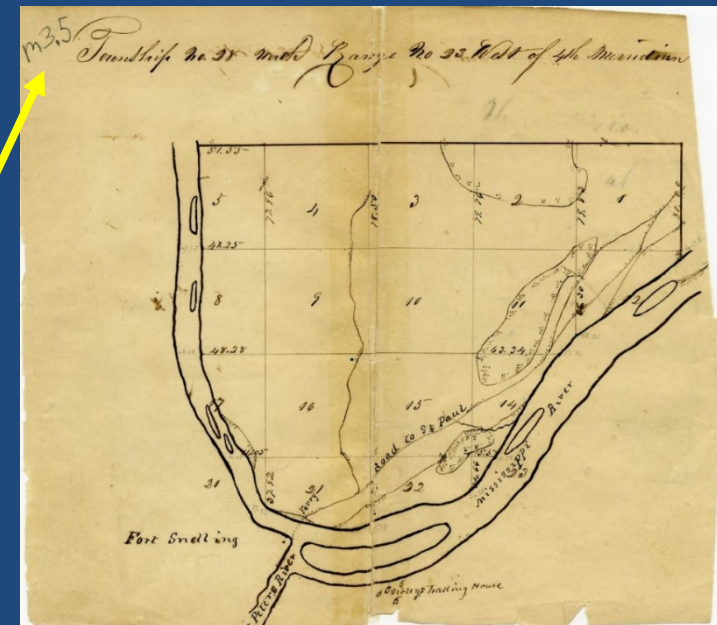
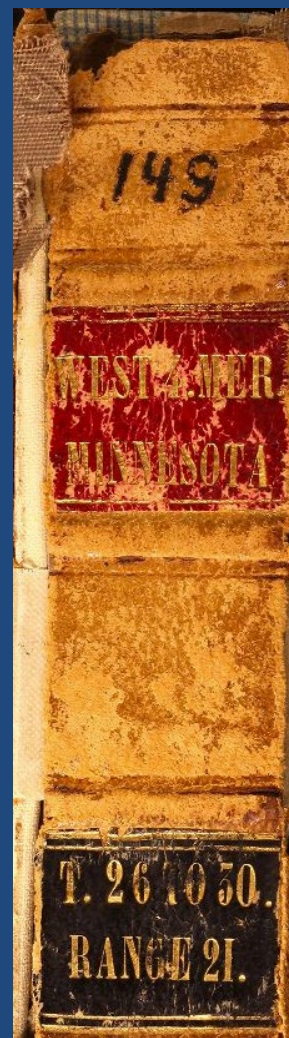


*Statement of surveys contracted for out of the appropriation of March 3,
1849.*

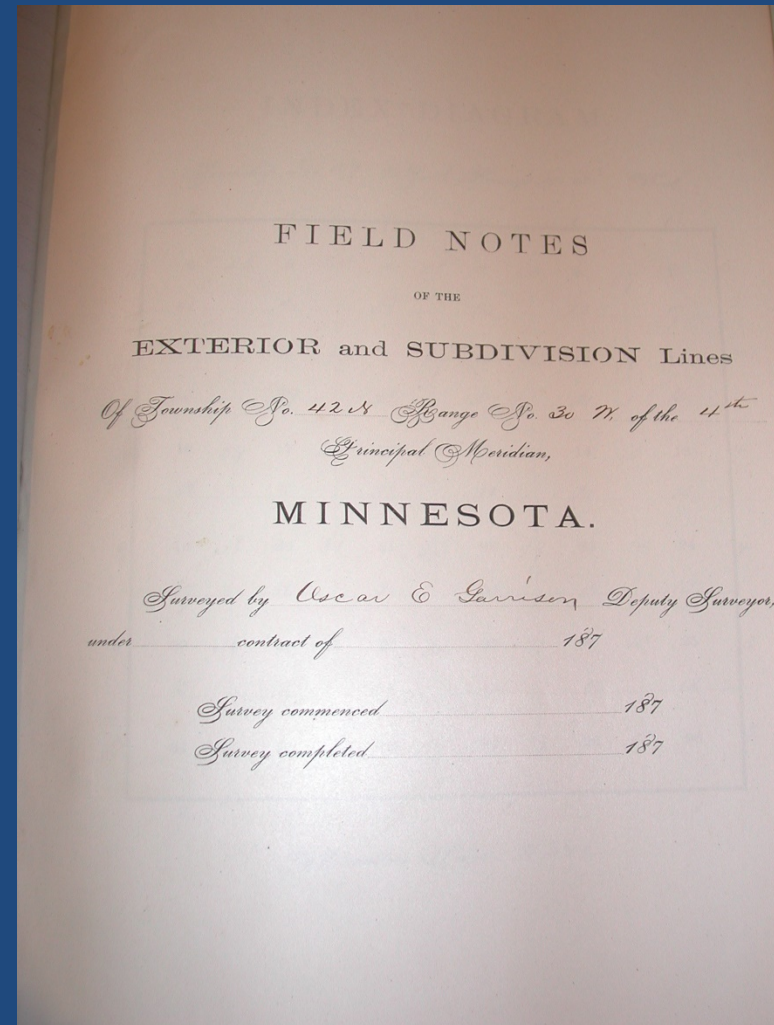
Date of contract.	Style of work.	Name of contractor.	State or Territory.
1849.			
July 9	Township lines.....	John M. Smith.....	Minnesota.
9	.....do.....	James E. Freemar.....	Wisconsin and Minnesota.
9	.....do.....	James M. Marsh.....	Iowa.
12	Subdivision.....	Alexander Anderson.....	Wisconsin.
12	.....do.....	A. K. Eaton.....	Iowa.
13	.....do.....	H. B. Welsh.....	Wisconsin.
16	Township lines.....	John Ball.....	Iowa.
17	Subdivision.....	Jesse T. Jarrett.....	Wisconsin.
18	.....do.....	George R. Stantz.....	do.
18	.....do.....	Thomas J. McKean.....	Iowa.
19	.....do.....	John Parker.....	do.
August 6	Township lines.....	Theodore Conkey.....	Minnesota.
7	Subdivision.....	Louis V. Davis.....	Iowa.
8	.....do.....	Henry Maddin.....	Wisconsin.
10	.....do.....	Samuel D. Woodworth.....	Iowa.
11	.....do.....	Edwin James, jr.....	do.
13	Township lines.....	John W. Ellis.....	do.
20	Subdividing.....	S. W. Durham.....	Wisconsin.
Sept. 22	.....do.....	E. S. Norris.....	Iowa.
22	.....do.....	J. J. E. Norman.....	do.
22	.....do.....	W. H. Henderson.....	do.
24	.....do.....	John D. Evans.....	do.
24	.....do.....	James Jackson, jr.....	do.
24	.....do.....	S. C. Wiltse.....	do.
24	.....do.....	W. J. Neely.....	do.
25	.....do.....	John G. McDonald.....	do.
27	.....do.....	William Leffler.....	do.
29	.....do.....	W. Albert Patterson.....	do.

Surveyor General awards contracts for township subdivisions and instructions on how to survey

Deputies complete surveys, submits notes and diagrams, some checking



Notes of exterior and subdivisions for each township
transcribed



Commissioner's plats and transcribed notes of each township sent to Washington D.C

Township plats drafted to include lines run and lines protracted



Register's township plats and township descriptive lists sent to appropriate land office

Township No. *24 North*..... Range No. *24 West*..... Meridian, *Michigan*.....

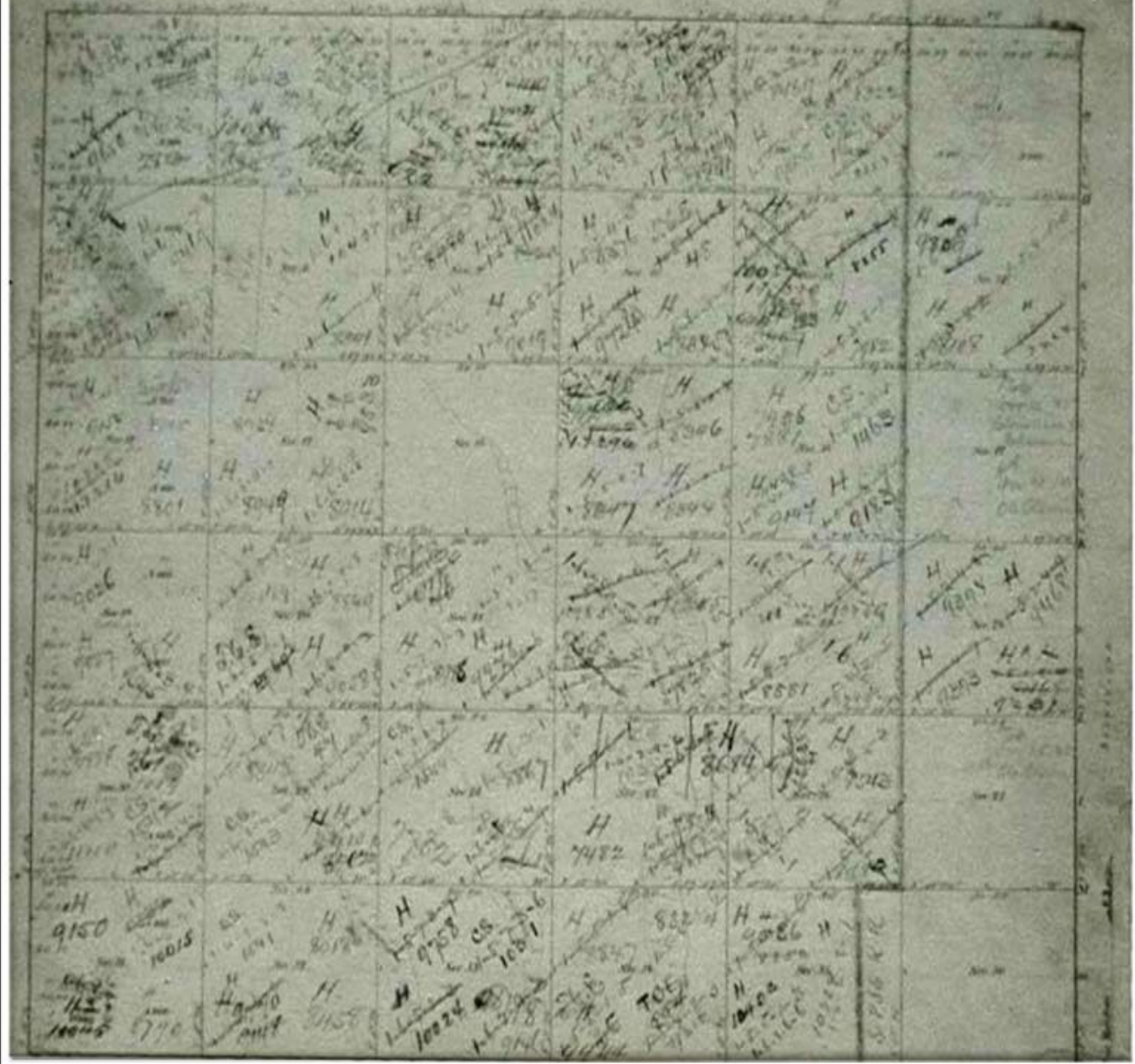
Description of Section and Quarter Section Corners on Township Lines—on Township Plat.

From	Section	Section	Section	Section	Section	Section	Section	Section	Section	Section	Section	Section	Section	Section	Section	Section	Section	Section	Section	Section
A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<p><i>Handwritten entries describing section corners, bearings, and distances. Includes a central diagram of a township grid with a meandering line.</i></p>																				

Meander Posts on.....

POSTS.	BEARING TREES.	INCHES DIAMET'S	COURSES THEY BEAR.	LINE'S DISTANT.	POSTS.	BEARING TREES.	INCHES DIAMET'S.	COURSES THEY BEAR.	LINE'S DISTANT.
1	B. oak	8	86 3/4 to	102	27	Line	10	04 1/2 to	10
2	B. oak	10	080 to	79.6	28	Line	6	north	42
3	B. oak	17	758 to	200	29	B. oak	9	712 to	62
4	B. oak	10	089 to	688	30	B. oak	10	022 to	47
5	B. oak	18	741 to	46	31	B. oak	10	053 to	46
6	B. oak	15	089 to	780	32	Line	4	014 to	60
7	B. oak	15	088 to	782	33	Line	12	075 to	53
	B. oak	12	014 to	575		B. oak	6	020 to	42

Township N^o 101 N. Range N^o 40 W. 5th Mer.

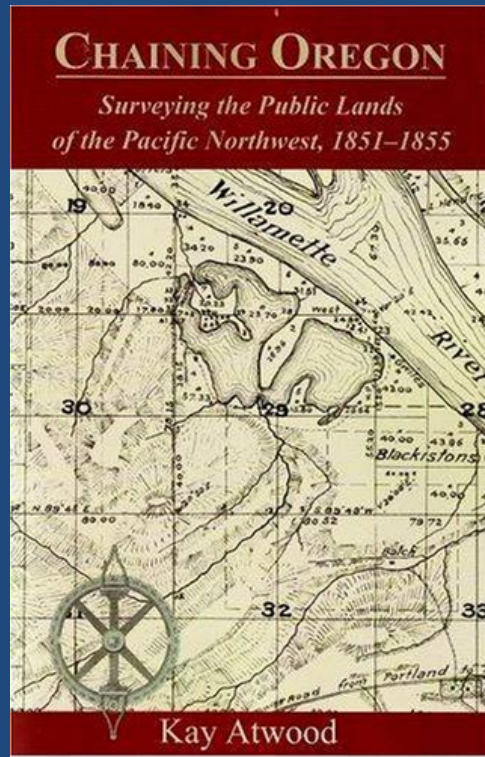


Uncomfortable “Truths”

The surveys spread across the lands owned by the United States expediently

Some characteristics of the surveys makes no geographical sense today

Concatenating geographies of the public land surveys in the United States



[Open Books, 2009: Kay Atwood, Chaining Oregon](#)

