



## Seen Through Indian Eyes

**Strand Identification:** V - Geography

### A. Concepts of Location

**Standard 2:** The Student will identify and locate major physical and cultural features that played an important role in the history of Minnesota.

**Benchmark: 1.** Students will locate major Minnesota ecosystems, topographic features, continental divides, river valleys, and cities.

### C. Physical Features and Process

**Standard 3:** The student will identify and locate geographic features associated with the development of Minnesota.

**Benchmark : 2.** Students will identify physical features that shaped settlement and the life ways of the Dakota and the Ojibwe and analyze their impact.

**Grade Levels:** 4 - 9

**Overview:** Joseph N. Nicollet, the first scientifically trained cartographer and geographer, surveyed the Upper Mississippi River 1836-39 and produced the finest map of North America in the 19<sup>th</sup> century. He took particular interest in Native American culture and made great effort to preserve their place names on his map. This lesson helps students to compare his map with earlier and later maps to see what happened to Native American place names.

**Time:** 2-3 class periods. (At least one prior to visiting the exhibit)

**Subjects/Topics:** Geography, History

**Required Material:** Use this website to preview the maps before visiting the museum.  
<http://www.maclester.edu/geography/mage/curriculum/mapsofmn/mapindex/index.htm>

1. 1683, Father Louis Hennepin, Carte de la Nouvelle France: et de la Louisiane Nououellement Decouverte Dediee au Roy L'an 1683 par le Reuerend Pere Louis Hennepin, Missionaire Recollect et Notaire Apostolique
2. 1810, Nicholas King, Map of the Mississippi River: From its source to the Mouth of Missouri Laid Down, from the Notes of Lieut. Z. Pike
3. 1843, J.N. Nicollet, Hydrographical Basin of the Upper Mississippi River: From Astronomical and Barometrical Observations, Surveys, and Information
4. 1852, J.H. Young, Map of Minnesota Territory

**Optional Material:** (Helpful for extension activities found at end of lesson).

5. Minnesota Official Road Map (Enough for 1 map per 2 students. These can be acquired From the MDT) They are not needed for lesson, but can be used for extensions.
6. County, state, national, and world outline maps (to be used for extension activities)

7. Study Guides to be used at the exhibit
8. A computer lab. Each student could then access the website and use the Maps individually and the Minnesota Place Names Geographical Encyclopedia to research many more place names.

**Optional Technologies:**

Listen to podcasts created for some of the maps in the exhibit. See the website:  
<http://www.macalester.edu/geography/mage/curriculum/mapsofmn/mapindex/index.htm>

**Objectives:**

1. The student will be able to locate physical features that have been identified with place names by both Native Americans, Europeans and Americans.
2. The student will become aware of the change of Native American place names over time and arrive with an understanding of the impact that place names have on groups of people who have lived and are living in Minnesota.
3. Students will identify how places get named, who does it, and the power of naming places.

**Suggested Procedure:**

**Day 1** (Before the trip to the History Center)

Introduce terms. Ask students if they know the meaning of these terms by the end of the next several days.

hachure  
toponym  
barometer  
chronometer  
tributary  
confluence

1. Put the class in groups of two or three. The larger group may allow for richer responses, but require more time and more social skills. Using three helps if one of the students is absent the next day.

Begin the discussion by asking students how they would feel if the name of their school mascot were to change? *Example:* Minneapolis Southwest high school's name was changed from the Indians to the Lakers. Why do you think that was done?

Ask how they would feel if the name of their city was reverted to an older name that was once used by earlier inhabitants of the area?

If they could rename their neighborhood or community what would the name be?

Who do students think get to name places?

Should a country have only one official language? What might be gained or lost if one were established?

2. After students have reported the results of their discussion to the whole class, write this quote on the board.

“When people change the toponym (name) of a place they have the power to wipe out the past and call forth a new”. Yi-fu-Tuan

What does the class think this quote means? Again have them answer this with their partner and report back to the whole class.

Explain that being aware of changes in place-names (toponyms) gives us an idea of the layers of history, the layers of cultural landscape of a place. In Minnesota the languages which were used to name places in the landscape were Ojibwe, Dakota, French, and English.

Will the newly arrived (Hispanic, Hmong, Somali) be asked to name places? Have they already done so?

Ask the students if they know of some examples of places that have been in the news that have changed names in recent times. *Example:* a city that’s name was once Bombay, given by the British is now (Mumbai) Can they name other cities? (An extension activity might be to locate those cities and places on a map and even further explain the history behind the change)

3. REVOLUTIONS can bring about name changes. St. Petersburg was once the capital of Russia under the Czars. When the Communist Revolution occurred in 1917, the city was named Leningrad. With the fall of the Soviet Union in 1998 the city was again renamed St. Petersburg. The city, Stalingrad, was named after the ruler during the Soviet Era and was renamed Volgograd after Volga River.

What were the rulers of the former Soviet Union attempting to do? What was the new government of Russia attempting to do?

4. Some place names are MEMORIALS. For example, many streets in the United States and particularly in the South were renamed after Martin Luther King. This occurred after the Civil Rights Movement in the 1960’s and 1970’s.

Have any streets in your town or city been named after MLK?

Can your students name any places in their town or city named after an individual? *Examples:* Harriet Island in St. Paul was named for Harriet Bishop who opened the first school in St. Paul. The Eloise Butler Wild Flower Gardens in Minneapolis was named for Ms. Butler, a Minneapolis Botany teacher. Lake Calhoun in Minneapolis was named after John C. Calhoun, a southerner who was secretary of war, Vice President, a secretary of state, and senator all prior to the Civil

War. The previous name of the lake was given by the Dakota –“Mde Medoza, Lake of the Loons”. Which name do you think is more descriptive?

Ask if students know of places memorialized in their community and even better if they know the history behind the place name.

5. At times place names can be COMMERCIALIZED. Examples of these in Minnesota: The Target Center in Minneapolis, the new University of Minnesota football stadium (Twin City Federal Stadium), the hockey arena in St. Paul, (Excel Energy Center) the new Twins baseball field (Target Field)

This part of the lesson might be extended to national and international venues place names. Students might also locate these on local, state, national and world maps.

6. As certain languages such as English and Chinese are spoken by more and more people, other languages become extinct. What those languages meant to speakers of the language and their cultures is also pushed into history. Some would argue that countries should have only one “official” language.

What are the pros and cons to this argument? Ask students to turn to one another and discuss, then report back to the whole class. (This is open ended question and should not take up much time)

Can the students name a nearby country that has two “official” languages and can they name them (Canada has two official languages, English and French. Another native language, Inuktitut, is spoken by the Inuit in the recently organized territory of Nunavut)

7. Students should read the short biography of Joseph N. Nicollet before their field trip to the History museum. (See attached biography)

Note: Days 1 and 2 could be collapsed into one day depending on how quickly the teacher wishes to move.

**Day 2 or 3** (At the Minnesota History Center)

Before arriving at the museum, assign students to groups of 2 or 3. Use the same groups as the day before. Each student should have a role. The groups should complete the study guide together, using a cooperative group strategy outlined below.

*Recorder: writes the answers that have been agreed upon by the group*

*Checker: assures that the answer is what has been agreed upon. At the end of the period collects and turns in the study guide*

*Encourager: congratulates group when they have agreed with affirming statements such as “good job or cool, way to go” (this role can be shared if only 2 in group)*

**Procedure:** Students will use the maps of the exhibit to complete the study guide.

Use the following maps:

1. 1683, Father Louis Hennepin, Carte de la Nouvelle France: et de la Louisiane Nououellement Decouverte Dediee au Roy L'an 1683 par le Reuerend Pere Louis Hennepin, Missionnaire Recollect et Notaire Apostolique
2. 1810, Nicholas King, Map of the Mississippi River: from its Source to the Mouth of the Missouri Laid Down from the Notes of Lieut. Z. M. Pike
3. 1843, Joseph N. Nicollet, Hydrographical Basin of the Upper Mississippi River: From Astronomical and Barometrical Observations, Surveys, and Information
4. 1852, J.H. Young, Map of Minnesota Territory
5. 1874, Alfred T. Andreas, An Illustrated Historical Atlas of the State of Minnesota

More maps and journals can be included if there is time to study Native American place names.

Suggested maps:

6. Partie Occidentale du Canada ou de la Nouvelle France.... 1668 Vincenzo Coronelli
7. Cart de la Louisiane et du Mississipi 1718 Gullaume de l' Isle 1718
8. A Map of Lewis and Clark's Track Across the Western Portion of North America 1819
9. Narrative of an Expedition Though the Upper Mississippi to Itasca Lake... Schoolcraft 1834
10. John Farmer Improved Map of Territories of Michigan and Ouisconsin on a Scale of 30 Geographical Miles to an Inch. 4F G4060 1836

**Assessment:**

**Study Guide: Answers**

1. Minisotah R. ("water white") and St. Peters R.
2. Many possible answers.
3. Kichi Gumi("Great Water")
4. Minsi Sagaigon(Ojibwe – great lake in Dakota "Mde Wakan or Spirit Lake) and Mille Lacs
5. Iskode Wabo (Ojibwe taken from the English corruption of an ancient Dakota Mde Wakan or Spirit Water". It was named for the beverage) Rum R.
6. a) Redwood –Tchanshayapi, b) Yellow Medicine-Pejuta Zizi, c) Cottonwood-Waraju, d) Little Cottonwood - Little Waraju
7. Mahkahto
8. Re Ipahah or Head of Coteau des Prairies (Coteau-plateau)
9. Changed it to Minnesota R. and dropped St. Peter's R.
10. Many have been dropped
11. Vermillion – same name, Cannon – same name, Zumbro, Wazi Oju, White Water – Minnisha
12. Root Hokah R. and Root R.
13. Now Mille Lacs or Spirit
14. The Rum R.
15. L. Superior
16. All the Native American names have been dropped

17. Mankato “Mahkato”
18. Answers may vary. Economic use for the land had not been found. In the Red River Valley the land could be farmed. Lumbering had not yet taken off.
19. Most have been dropped and replaced by English

► ► ► RESOURCES

Minnesota on the Map, A Historical Atlas, David A. Lanegran, Minnesota Historical Press, Saint Paul, 2008

The Journals of Joseph N. Nicollet, a Scientist on the Mississippi Headquarters With Notes on the Indian Life, 1836-37, Edited Martha C. Bray, Minnesota Historical Society, St. Paul, 1970

Joseph N. Nicollet on the Plains and Prairies: The Expedition of 1838 – 1839 and Notes on Dakota Indians, Edmund C. Bray and Martha C. Bray, Minnesota Historical Society, St. Paul, 1976

Joseph N. Nicollet and His Map, Martha Coleman Bray, The American Philosophical Society, Independence Square, Philadelphia, 1980

The Itasca Story, John Dobie, Ross and Haines, Inc. Minneapolis, 1959

Minnesota Place Names: A Geographical Encyclopedia, 3<sup>rd</sup> ed., Warren Upham, Minnesota Historical Press, St. Paul, 2001

David and Roger Johnson’s extensive research and books at <http://www.co-operation.org>

► ► ► EXTENSIONS

**Extension 1:** Mapping Your School by Using Observation -- A Walk About

**Grade Levels:** 4-8

**Objectives:** Use observation to become aware of their environment. Learn the elements of a map and gain an appreciation for early map making.

**Required Materials:** Rulers, pencils, paper on which to take notes and to draw a map on.

**Suggested Procedure:**

**Day 1**

Point out that all thinking begins with observation.

Assign pairs. Each pair use one piece of paper folded into fourths. Students will take their notes on this paper. One student will be the recorder and the other the observer. Have the students meet at a door to the outside of the building. The class will proceed around the building in pairs. The observer will tell the recorder what they are passing by and the recorder will take notes. Tell the students that they are to record only what they see as they look out from the building. Examples: parking lot, flag pole, tree (if they can be specific – white oak ) any landforms. The more detailed the observation, the better.

At a half way point students switch roles. Recorder becomes the observer etc.  
Return to point the walk about began.

Turn in notes with both names so that if one partner is absent the next day the notes are secure.

### **Day 2-3**

Explain they are to use their notes to make a map.

On a paper with an outline of the school building, they are to transfer their notes from what they have observed into a map using the basic elements of a map making (described below).

Begin the map with a NEAT LINE (the border within which the map will be completed -- 1/4" should be plenty.

### **Elements of a Map**

Each map should have the following all inside the NEATLINE:

Title (top of map)

Orientation (cardinal direction)

Date (self explanatory)

Author (self explanatory)

Legend (what any symbols represent)

Help students with cardinal direction. Hint: Where does the sun shine in the windows in the morning?

### **Extension 2:** Walk About Though Indian Eyes

Instruct the students to use the same *Elements of a Map* as above to make a map of their neighborhood or a near by park. Do not include any human made elements i.e., buildings, telephone poles.

Use names to describe the landscape as a Native American might see it like "A fork in the trail," "a grove of trees," "lake of the loons," "mini akipan kaduza" (water running in two directions, in Dakota). This was what the Europeans named the Des Moines River and Blue Earth River in southern Minnesota.

Have the students locate these rivers on the Nicollet map.

**Extension 3:** Native American Place Names

Using the Official Minnesota Highway map, have students locate present day Native American place names, i.e., Wabasha County. Keep a running list.

**Extension 4:**

Use the Minnesota Place Name Geographical Encyclopedia on the Minnesota Historical Society website at: <http://mnplaces.mnhs.org/upham/> to look up the county in which they live. Find Native American place names and their meanings. Record this information and then locate on a Minnesota Highway map. Have students transfer information to a blank county map where they live.

*Example:* In Hennepin County, Wayzata from a Dakota name, "Waziyata" Wazi, pines and Waziya, the northern god, or god of the north. The common Dakota word for waterfall is "ha-ha". An example is "mine-hah-hah" or "laughing waters", as described by Mary Eastman in her book, Dakotah, Or Life and Legends of the Sioux around Fort Snelling, 1855.

**Extension 5:** Native American Place Name Field Work

Have students visit some of the locations that have Native American place names and describe what they see now. What might Native Americans have seen?

**Extension 6:**

Have students view maps online at

<http://www.macalester.edu/geography/mage/curriculum/mapsofmn/mapindex/index.htm>

and record Native American place names. Then instruct students to use the Minnesota Place Name Geographical Encyclopedia at <http://mnplaces.mnhs.org/upham/> to look up the place names they have recorded and their history.

Locate some of the Native American place names as they appeared on maps in the exhibit. Look to see how they were later changed. Which names survived?

*Examples:* The following are examples of Native American names in the Twin City area.

Dakota Name	Translation	English Name
Haha Wakpa	Falls River	Mississippi River
Haha Wakpadan	Little Falls River	Bassett Creek
Mde Maka Ska	White Earth Lake	Lake Calhoun
Mde Unma	Other Lake	Lake Harriet
Mdote Minisota	Clouded Water	Mouth of the Minnesota River in Mendota
Mini Haha	Curling Water or Water Fall	Minnehaha Falls
Omnina Wakan Wakpadan	Spirit Refuge Creek	Shingle Creek
Owamniyomni	The Whirlpool	St. Anthony Falls

Wakpa Cistinna	Little River	Minnehaha Creek
Wanagi Wita	Spirit of Ghost Island	Spirit Island (no longer exists)
Wita Tomna	Four Islands (Lake)	Lake of the Isles
Wita Washte	Lovely Island	Nicollet Island

**Extension 7: Presentation of Historical Figure**

Students may research one of the historical figures below and design a biographical presentation which includes their contributions to the mapping of Minnesota.

- Father Louis Hennepin
- Lt. Zebulon Pike
- Major Stephen Long
- Governor Lewis Cass
- Jonathan Carver
- Henry Schoolcraft
- Joseph N. Nicollet

**Credits:** Tom Egan, St. Louis Park Geography teacher, retired. Cooperative Learning trainer, Eganx021@umn.edu



## Study Guide: Though Indian Eyes: The Use of Place Names

Names in Group: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

### Use the following maps.

- 1683, Father Louis Hennepin, Carte de la Nouvelle France: et de la Louisiane Nououellement Decouverte Dediee au Roy L'an 1683 par le Reuerend Pere Louis Hennepin, Missionaire Recollect et Notaire Apostolique
- 1810, Nicholas King, Map of the Mississippi River: from its Source to the Mouth of the Missouri Laid Down from the Notes of Lieut. Z. M. Pike
- 1843, Joseph N. Nicollet, Hydrographical Basin of the Upper Mississippi River: From Astronomical and Barometrical Observations, Surveys, and Information
- 1852, J.H. Young, Map of Minnesota Territory
- 1874, Alfred T. Andreas, An Illustrated Historical Atlas of the State of Minnesota

### More maps and journals can be included if there is time to study Native American place names. Suggested maps:

- Partie Occidentale du Canada ou de la Nouvelle France.... 1668 Vincenzo Coronelli
- Cart de la Louisiane et du Mississippi 1718 Gullaume de l' Isle 1718
- A Map of Lewis and Clark's Track Across the Western Portion of North America 1819
- Narrative of an Expedition Though the Upper Mississippi to Itasca Lake... Schoolcraft 1834
- John Farmer Improved Map of Territories of Michigan and Ouisconsin on a Scale of 30 Geographical Miles to an Inch. 4F G4060 1836

### For questions 1 – 8, use the 1843, Joseph N. Nicollet Map:

1. What two names does Nicollet give on his map for the present day Minnesota River?

\_\_\_\_\_ and \_\_\_\_\_

2. List some Dakota place names given on the map along with their English names.

Dakota Name	English Name

3. What Ojibwe name did Nicollet use to name Lake Superior? Hint: see notes on Native American place names.

---

4. What two names did Nicollet give to Lake Mille Lac?

\_\_\_\_\_ and \_\_\_\_\_

5. What two names did Nicollet gave to the Rum River flowing south from Lake Mille Lacs.

\_\_\_\_\_ and \_\_\_\_\_

**For questions 6 and 7, locate the following Dakota place names for rivers.** Hint: Follow the Minnesota River upstream toward its source the Big Stone River.

6. These rivers are tributaries of the Minnesota River. What Dakota name does Nicollet give to them? They flow from the south and southwest into the Minnesota River.

a) Redwood - \_\_\_\_\_

b) Yellow Medicine - \_\_\_\_\_

c) Cottonwood - \_\_\_\_\_ Hint: Look near present day New Ulm

d) Little Cottonwood - \_\_\_\_\_

7. There is only one river in the Minnesota River watershed that still retains a Dakota name. It flows into the Blue Earth River near present day Garden City, located just southwest of present day Mankato. Find it on the map. What was the Dakota name for this river? Hint: The city of Mankato shares this name for the Blue Earth River.

\_\_\_\_\_

8. Look at the western portion of Nicollet's map. Find examples of where he used the mapping technique of HACHURE to indicate a rise in elevation. At 40 degrees north latitude and 97.30 degrees west longitude, what two names did he give this place, which is now in South Dakota?

\_\_\_\_\_ and \_\_\_\_\_

**For questions 9 - 12, use the Young 1852 map:**

9. Young used Nicollet's map as a base map. It was not uncommon for map makers to use other cartographers' work when making their own maps. When compared with Nicollet's map, what has Young done with Nicollet's name for the Minnesota River?

---

10. The Young 1852 map shows the transition from Europeanized Dakota/Ojibwe and French, to English. What has happened to Dakota place names?

---

11. Find the following rivers on the map: Vermillion, Cannon, Zumbro, and White Water. Are their names Indian or English? (Hint: Look at the southeastern corner of Minnesota.)

River	Indian or English
Vermillion	
Cannon	
Zumbro	
White Water	

12. The Root River has two names. What are they?

\_\_\_\_\_ and \_\_\_\_\_

**For questions 13 - 16, use the 1843, Joseph N. Nicollet Map:**

13. What has happened to the name of Lake Mille Lacs?

\_\_\_\_\_

14. What has happened to the name of the Rum River which flows south from Mille Lacs?

\_\_\_\_\_

15. What has happened to the name of Lake Superior?

\_\_\_\_\_

16. Describe what has happened to the Dakota name of the Yellow Medicine River, the Redwood River, and other names in the Minnesota watershed?

\_\_\_\_\_

**For questions 17 use various maps to draw your conclusion.**

17. What city is located at the large bend of the Minnesota River? How is it named on different maps?

\_\_\_\_\_

**Use the 1874 Andreas Atlas Map of Northern Minnesota to answer questions 14 and 15.**

18. Except for the area along the Red River and the symbols showing the height of the land, why do you think there is so little information about the northern part of the state?

\_\_\_\_\_

19. In general, what could be said about the use of Ojibwe place names on this later map as compared to Nicollet's map in 1843?

\_\_\_\_\_

\_\_\_\_\_

## A Short Biography of Joseph N. Nicollet



Joseph N. Nicollet was born in France. His father was an innkeeper who was also a watch maker. Joseph received a good education, was good at math, and eventually became an astronomer at the Bureau of Longitudes in the Royal Observatory, Paris. He was a talented violinist. At the age of 46 he had to leave France and arrived in Washington D.C in 1832 with little financial support, but with a few letters of introduction. He met several people who were impressed with his knowledge and likable character. Soon he became involved with a plan to increase the knowledge of the physical geography of North America and especially the Mississippi River.

Nicollet thought of geography in its most inclusive sense: the climate, the watercourses, the soil, the terrain, and the plant and animal life. He was also intensely interested in the human uses of the region.

It had been 30 years since Lewis and Clark (1803) and Zebulon Pike (1805) had journeyed to the region. Stephen Long after traveling up the Red River to the 49 degree of latitude on the Canadian border determined that the area between the Mississippi and Missouri Rivers was a wasteland. He was followed by Lewis Cass, governor of Michigan Territory who along with Henry R. Schoolcraft in 1820 explored the region of the upper Mississippi River. Cass claimed to have discovered the source of the Mississippi as a lake to which he gave his name. Suspecting that Cass lake was not the real source, Schoolcraft made a return trip to the region in 1832. Schoolcraft determined that Lake Itasca was the true source. The name was actually decided upon before hand as Schoolcraft was crossing Lake Superior. He asked his traveling companion, Reverend Boutwell, for a Latin or Greek word that would identify the place of the true source. His companion replied Veritas Caput from which Schoolcraft dropped the first three letters of the first word and the last three letters of the second with the result being Itasca. The Objibwe name for this lake was Omushkos Sogaigun meaning Elk Lake because they thought it was shaped like the antlers of an elk.

At the time of Nicollet's arrival, Cass was secretary of War under President Andrew Jackson Both men were anxious to further extend the knowledge of the region. Jackson authorized further exploration. Nicollet had read Lt. James Allen's (Schoolcraft's cartographer), account of the report on Lake Itasca. Nicollet determined that he would conduct a detailed survey of the Upper Mississippi River. His education and background in mathematics, astronomy and geography made him the first really prepared explorer to begin mapping the America interior. His methods and attention to detail became the standard for surveys in the future.

Nicollet left for St. Louis in 1832. He had no direct help from the government other than letters of recommendation to commanding officers in St. Louis and Fort Snelling. He had been given a barometer with which he could determine altitude and a chronometer to help in determining longitude. Latitude would be determined by celestial measurements. Nicollet left for Fort Snelling in 1835. Traveling up the Mississippi he was stricken with malaria. Never a robust individual, it was an illness that continued to follow him and provided some grim times. Nicollet was well received at Fort Snelling, a place he claimed as the "finest site on the Mississippi". He made some lasting friends who became invaluable to him in the future.

In St. Louis he met George Catlin, an artist who recorded Native American life. Nicollet had read extensively on the Native Americans, a subject that he pursued with an intense interest. It was reflected in his map and his writings. He was perhaps the last traveler in the region to try to understand the landscape through Native American eyes. On his map when ever possible he gave names in both Native American and European languages.

Nicollet made three trips mapping the upper Mississippi. The first trip in 1836 was up the river to its source to confirm Schoolcraft's findings. He made corrections to Lieutenant Allen's work. Nicollet also took 2,000 astronomical and barometrical observations and identified 300 unreported rivers and several lakes. He was guided by Ojibwe Indians, who knew the landscape well. In his journal he gave significant praise to their knowledge and skill. His ability to connect with Native Americans was astounding even in areas that other white men were not anxious to travel. On later trips he brought along medicine to inoculate Dakotas for protection from small pox. He recorded their culture in his journal with great detail.

Nicollet made two other surveying trips to the west. In 1838 he surveyed the valley of the Minnesota River. He was offered military help, which he declined. He wanted to go alone. He was offered the services of Lt. John C. Fremont, who later carried out extensive exploration of the far west, along with Charles Geyler, a German botanist, and seventeen year old Eugene Flandin. Flandin came from a wealthy Baltimore family. It was not uncommon in those times for families of wealth to send their sons off for adventure and learning. Along with several others in his small group, Nicollet journeyed to dangerous Dakota Territory by way of the St. Peter River (Minnesota) valley. He was advised not to make this trip but went anyway. The trip took him to the famous pipestone quarry, which was known for the dark red stone from which calumets and pipes were made and traded widely by the Dakota. Nicollet recorded the location of the Mdewakanton and three other tribes in the region. He traveled as far as the Head of the Coteau de Praires in now South Dakota. He measured the height of the land and later used the technique of hachures to show elevation on his map. The return trip was along what is now the Minnesota and Iowa border and back to Fort Snelling. The next trip, in 1839, carried him up the Missouri River from St. Louis to Devil's Lake (now North Dakota) and back to Fort Snelling by way of the Red River Valley and through present day New Ulm. He had now made a complete hydrological survey of the Missouri and Mississippi watershed basin. It was time to make a map.

After 11 years of traveling, Nicollet returned to Washington D.C. not a well man. Nevertheless, he went to work on putting his survey findings onto a map. It was painstaking work producing a map from his thousands of observations, notes, and sketch maps. At that time the technology was not available to show the height of the land using contour lines. Nicollet used a technique known as hachure, which are heavily shaded marks to show places of elevation.

He showed respect for Native American by identifying rivers and lakes, and giving them both English and Native American names. His way of seeing the country as the Native American saw it, made him the last of a kind. Nicollet never saw his finished map. He died in 1843.