

Henry Shaw's Garden:

Part 1: History of the St. Louis region and

Part 2: Development of the Missouri Botanical Garden

David Bogler



“To discover and share knowledge about plants and their environment in order to preserve and enrich life”

—*mission of the Missouri Botanical Garden*

A place for quiet reflection, peace, nature, and intellectual stimulation



Photo: D. Bogler

Part 1: History of the St. Louis Region

From earliest times to the Civil War

PHYSIOGRAPHIC REGIONS OF MISSOURI

Source: Missouri Department
of Natural Resources'
Division of
Geology
and Land Survey



Iceland's Múlajökull Glacier with its surrounding drumlins

<http://iowapublicradio.org/term/pleistocene-epoch>



How St. Louis may have looked in the Illinoian glacial advance

Missouri in the Pleistocene



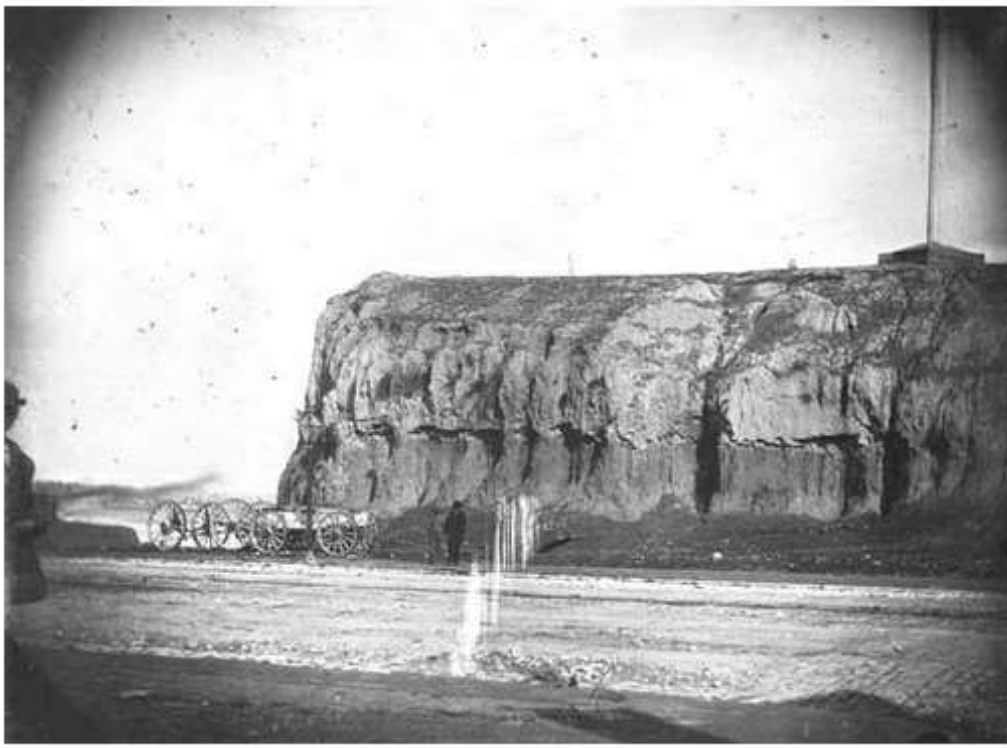
Cahokia Mounds



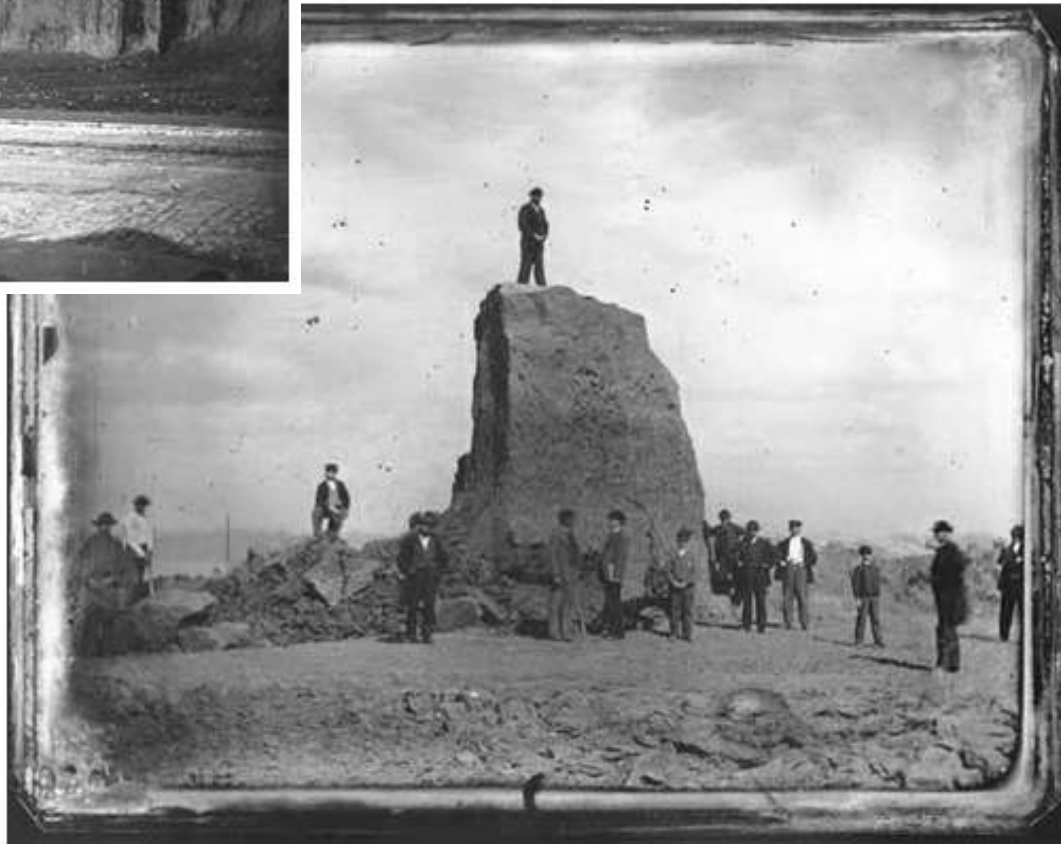
Cahokia



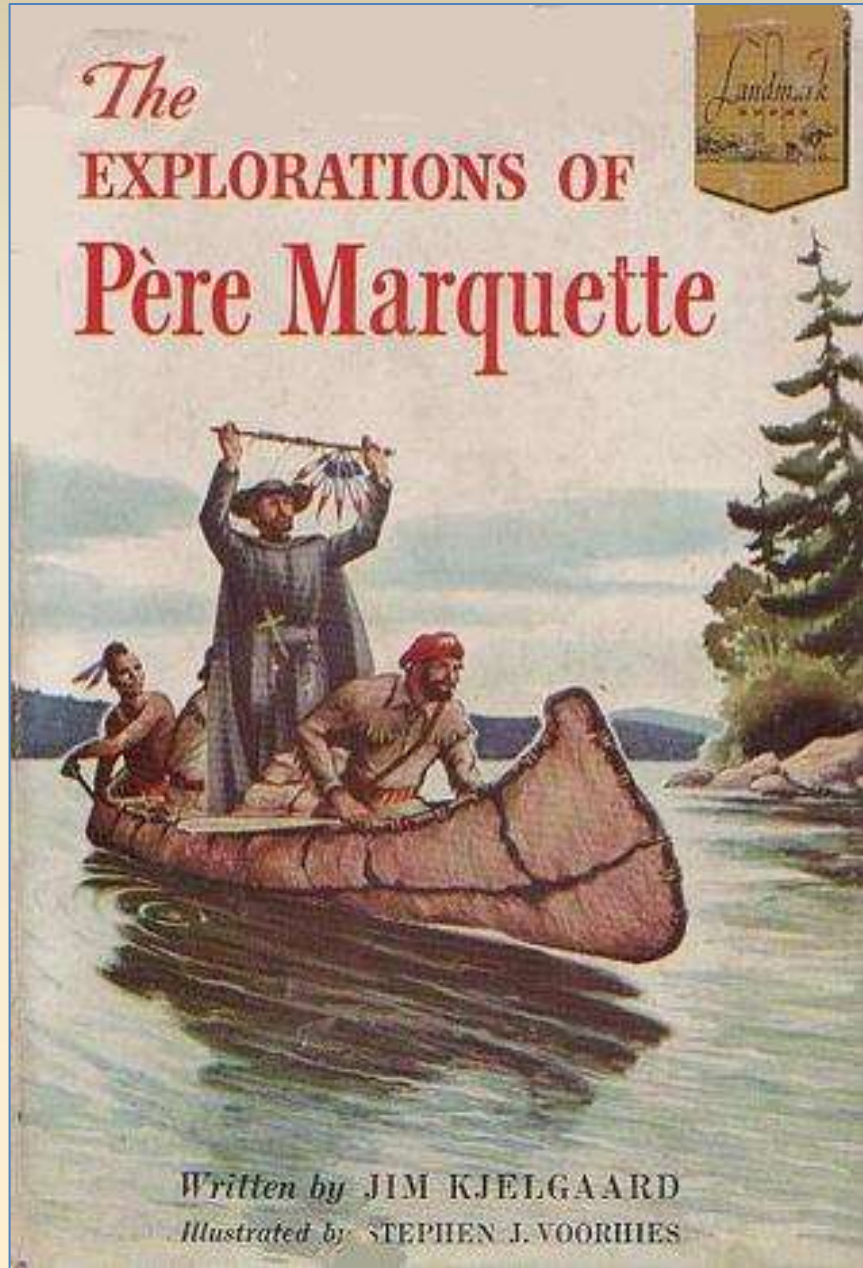
The Big Mound in St. Louis, leveled in 1869



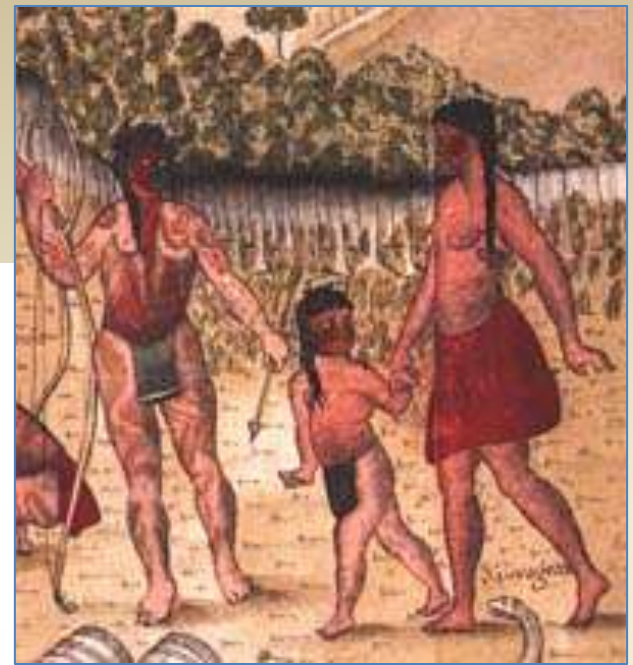
These mounds were
built by the
Mississippian culture
that thrived in this
area between 900
A.D. and 1300 A.D.



French Explorers



Native Americans



Founding of St. Louis, Feb. 15, 1764

- Pierre Laclede, born in France
- Marie Chouteau, had 4 children with Laclede
- Auguste Chouteau, Laclede's stepson
- Established St. Louis as a fur trading post in 1764
- Named in honor of the French King, Louis IX



Pierre



Maria



Auguste



Fur Trading



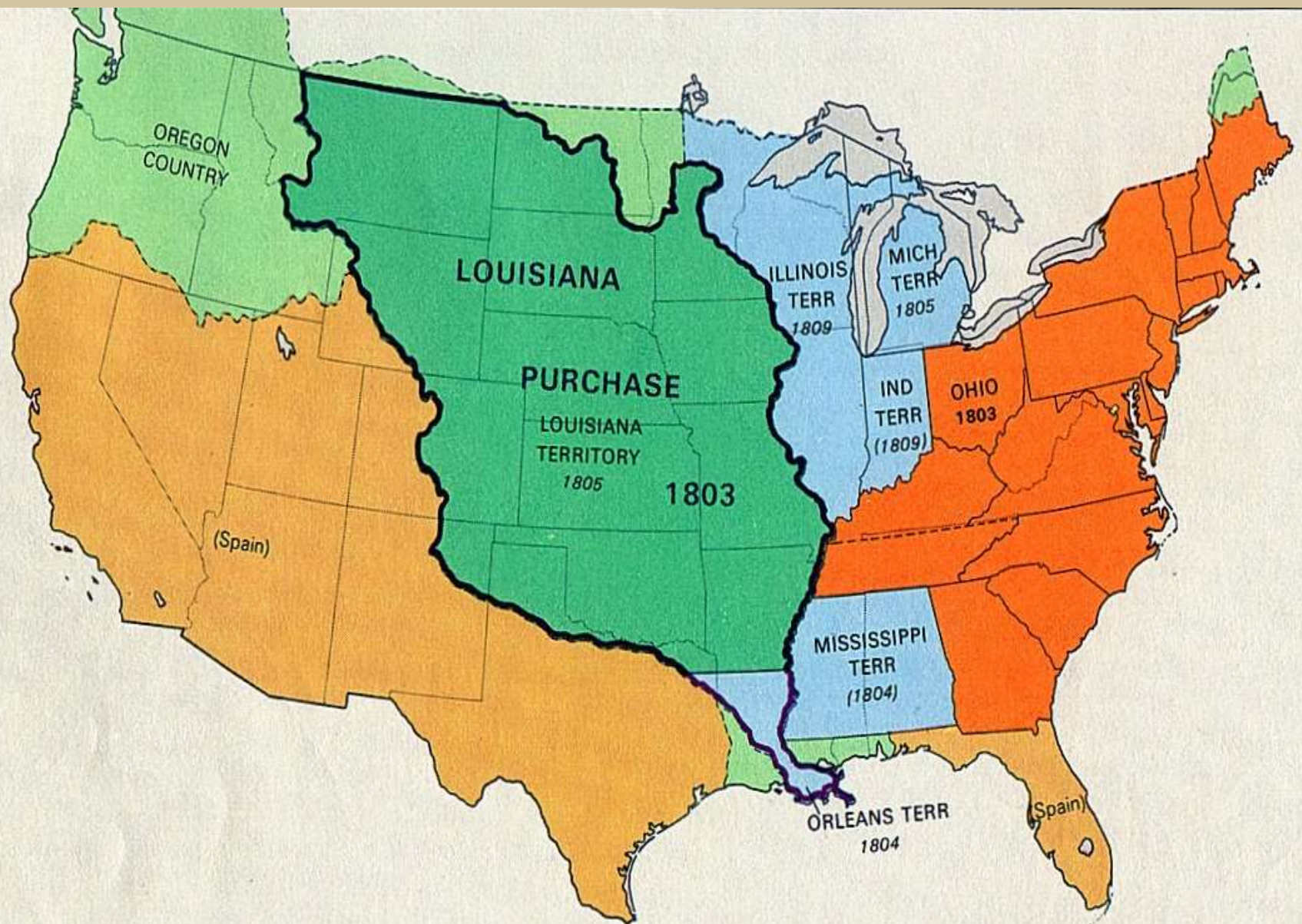
Soulard Market – since 1779



Area in St. Louis given to Antoine Soulard, surveyor general of Upper Louisiana, by the Spanish governor in the 1790s, as payment for his services. Soulard's widow, Julia, stipulated in her will that two city blocks be given to the City of St. Louis for use as a public market. She died on May 9, 1845. Her bequest survives today in the form of the Soulard Market.



REU 2014

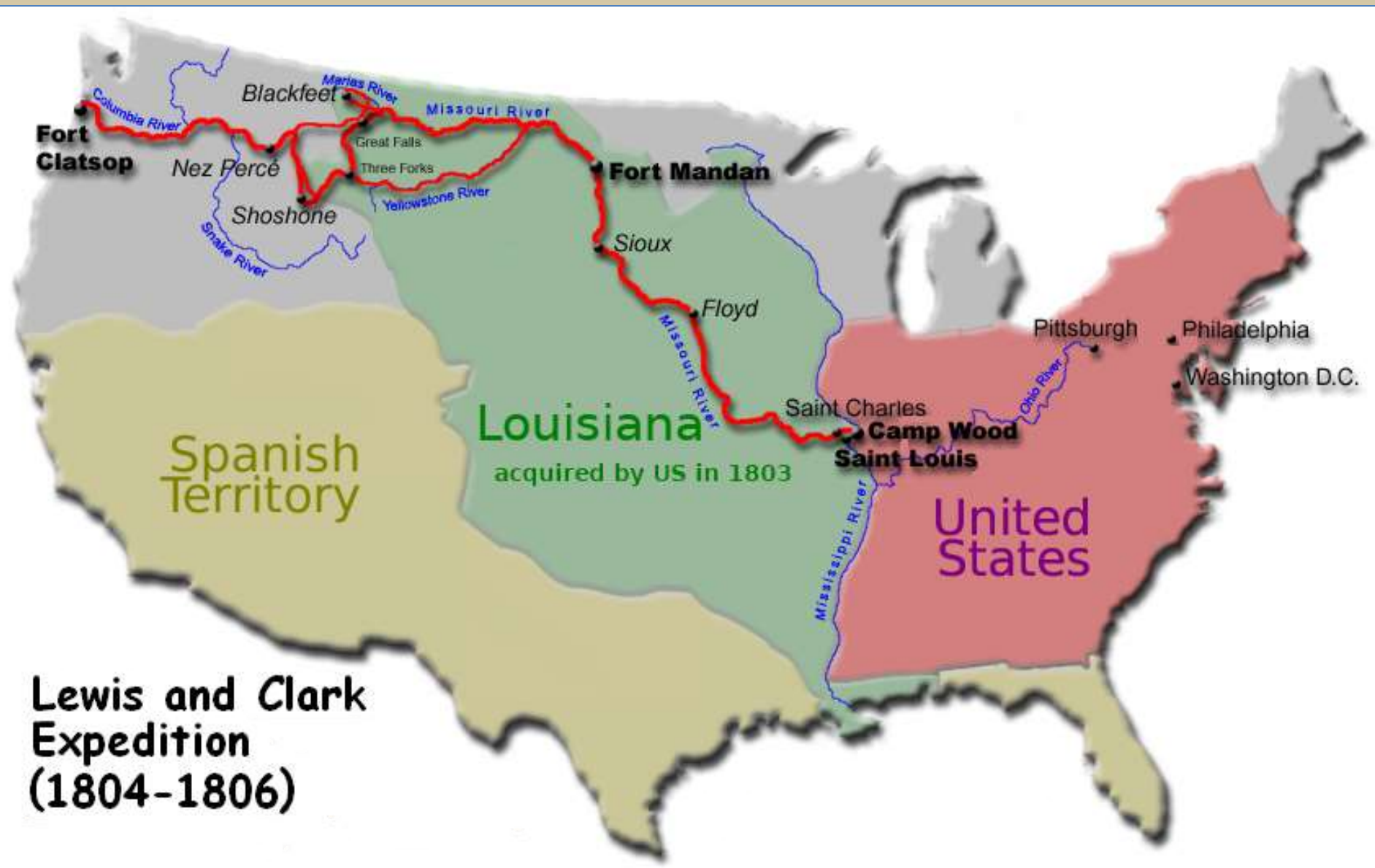


Louisiana purchased from France



Lewis and Clark Expedition, 1804-1806 Corps of Discovery Expedition





Lewis and Clark Expedition (1804-1806)

St. Louis Riverfront in 1804



A watercolor depicting the settlement of St. Louis in 1804, showing the small frame houses spread across the village. The tower of Fort San Carlos, St. Louis' only form of military protection, can be seen flying the French flag in the distance. Missouri History Museum

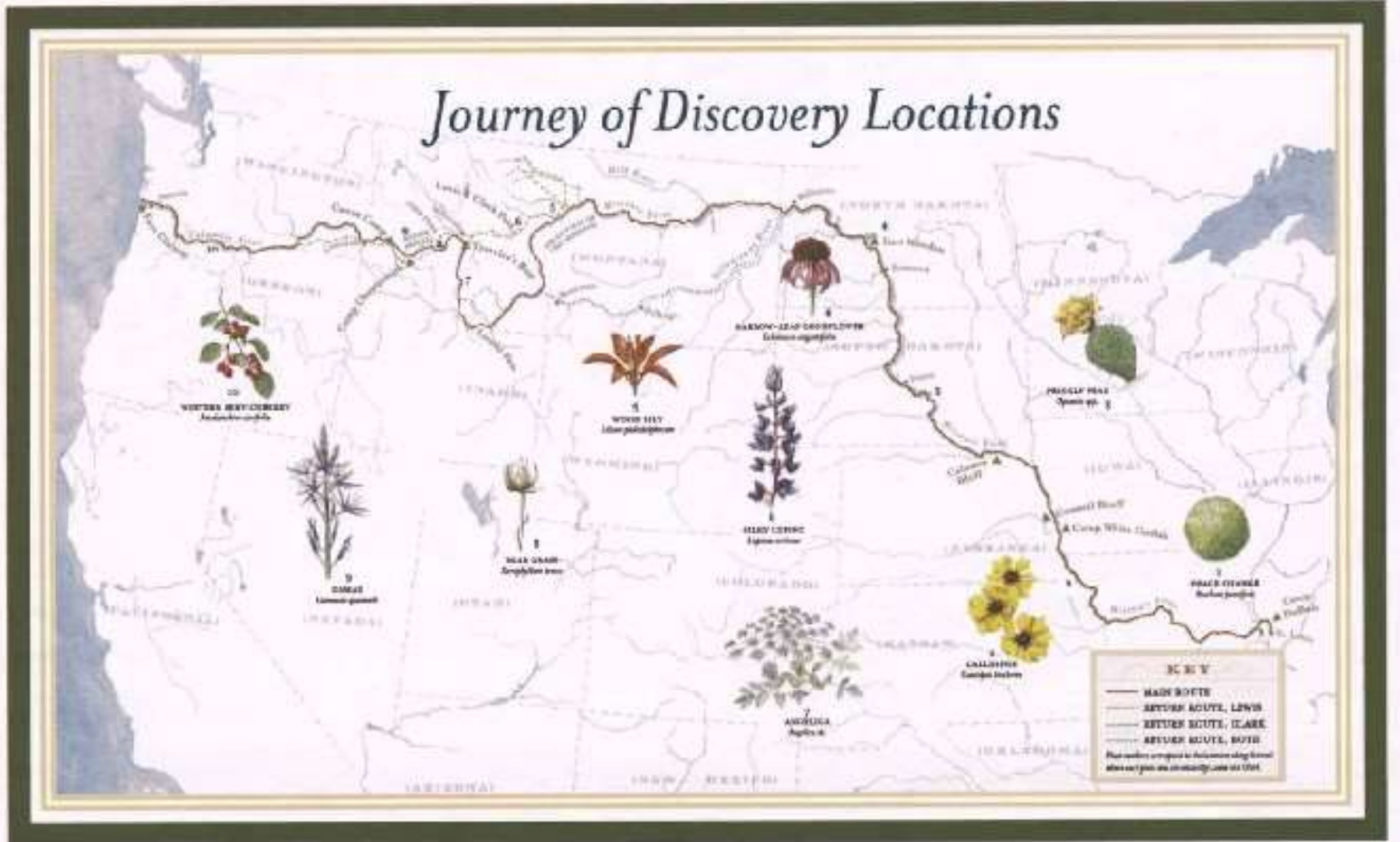
Captain William Clark Meeting with the Indians of the Northwest Painting by Charles Russell, 1897



Lewis and Clark Reach the Pacific



Lewis and Clark collected and described over two hundred types of plants in perfect detail, many of them unknown outside Native American culture.



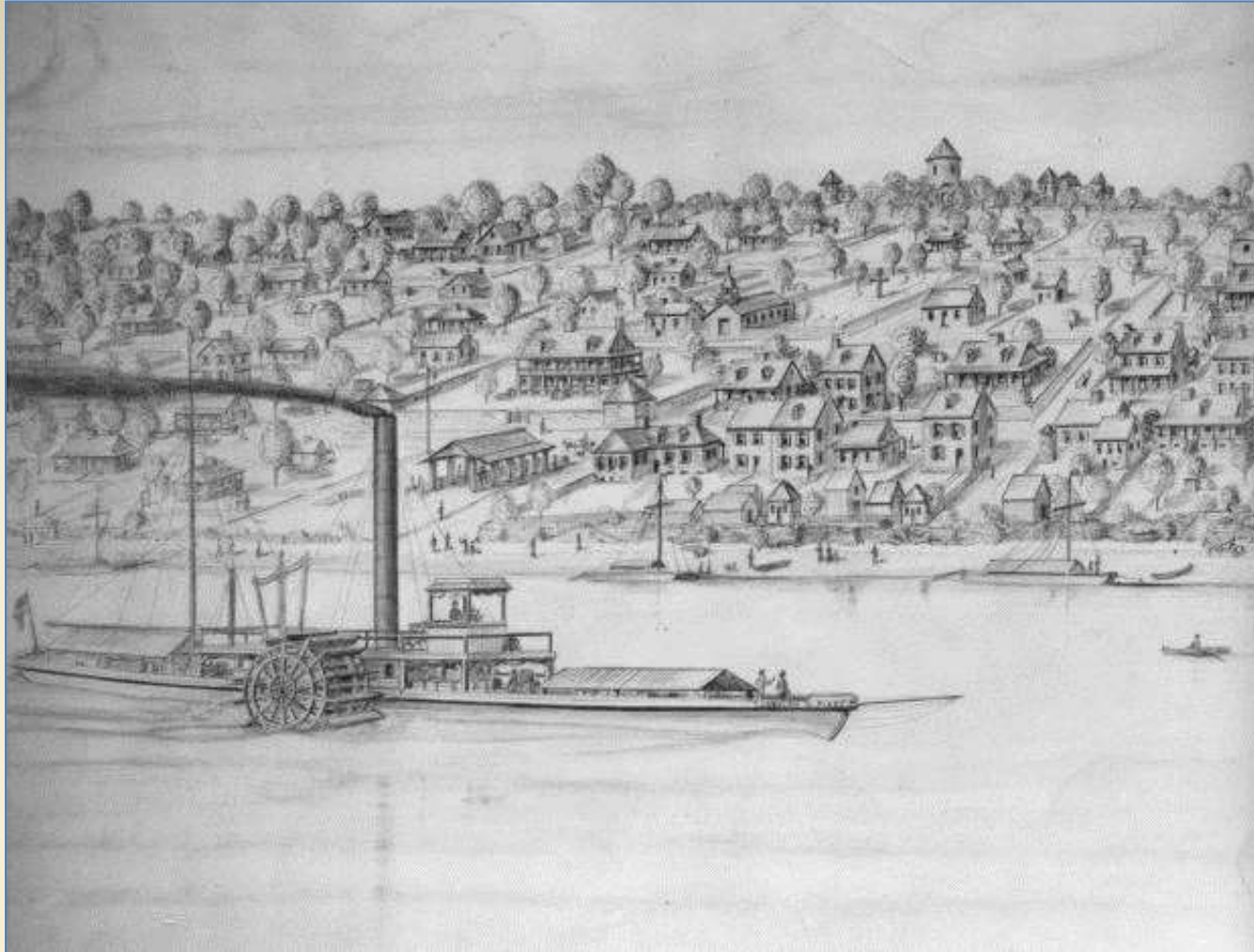
Statue on Riverfront Moved to higher location near Arch



Great Flood of 1993

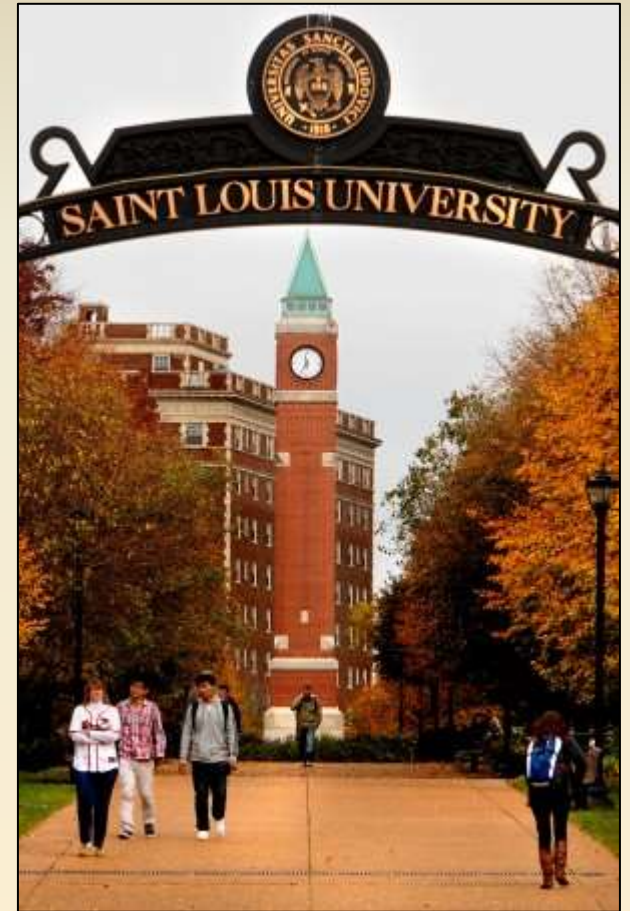
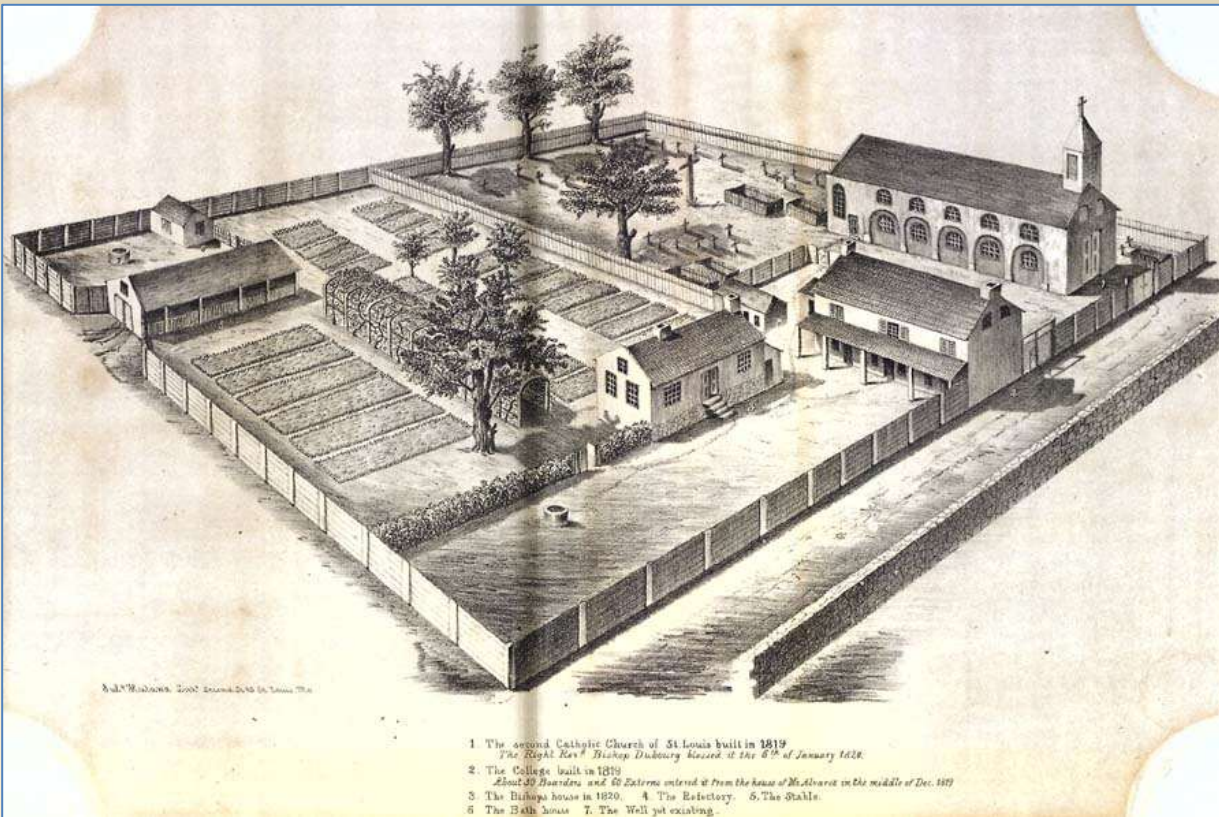


The Zebulon Pike, the first steamboat to reach St. Louis, labors up the Mississippi River for its inaugural landing here on Aug. 2, 1817



Henry Shaw arrived one year later, in 1818, from New Orleans. Transported goods by ship from England, to St. Louis by boat

1818 – Jesuits come to town, Bishop DuBourg Establish St. Louis College, which becomes St. Louis University



Yellow Stone at St. Louis, 1832, by George Catlin

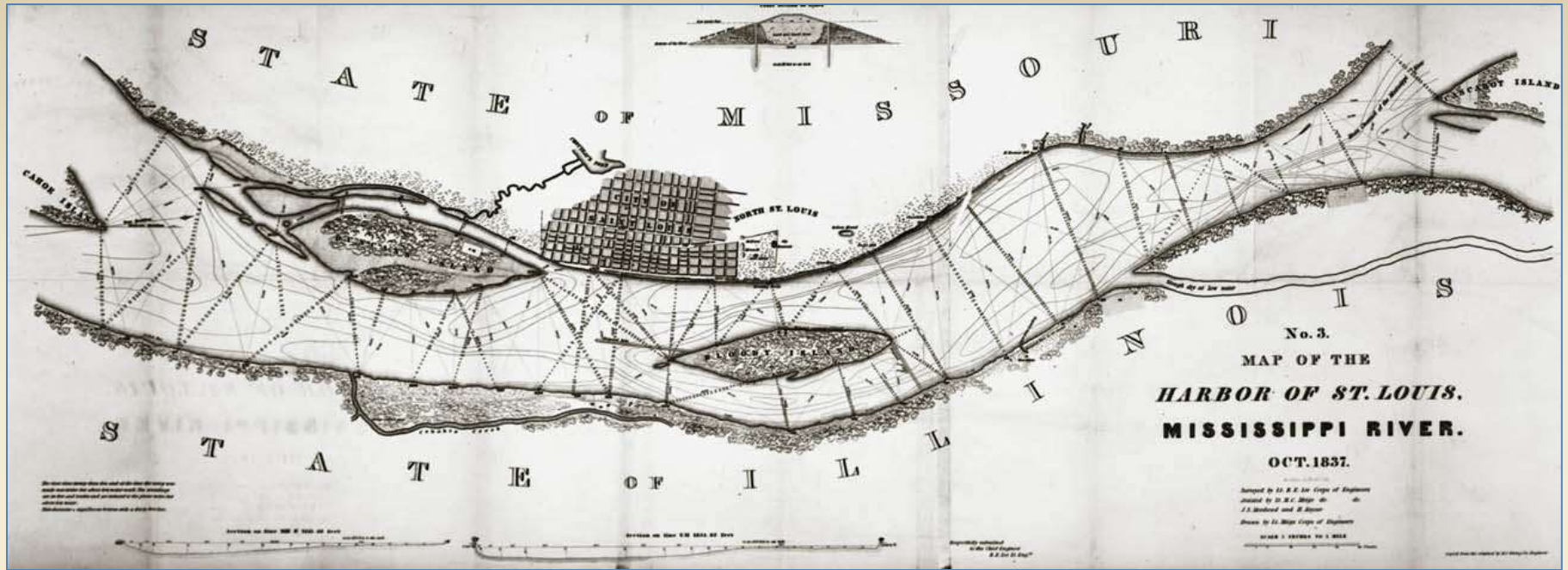


The first steamboat to ascend the Missouri to the mouth of the Yellowstone River. On separate expeditions up the Missouri she carried leading artists George Catlin and Karl Bodmer who chronicled Indian life and the disappearing frontier.

Karl Bodmer – Sioux Indians Racing, 1832

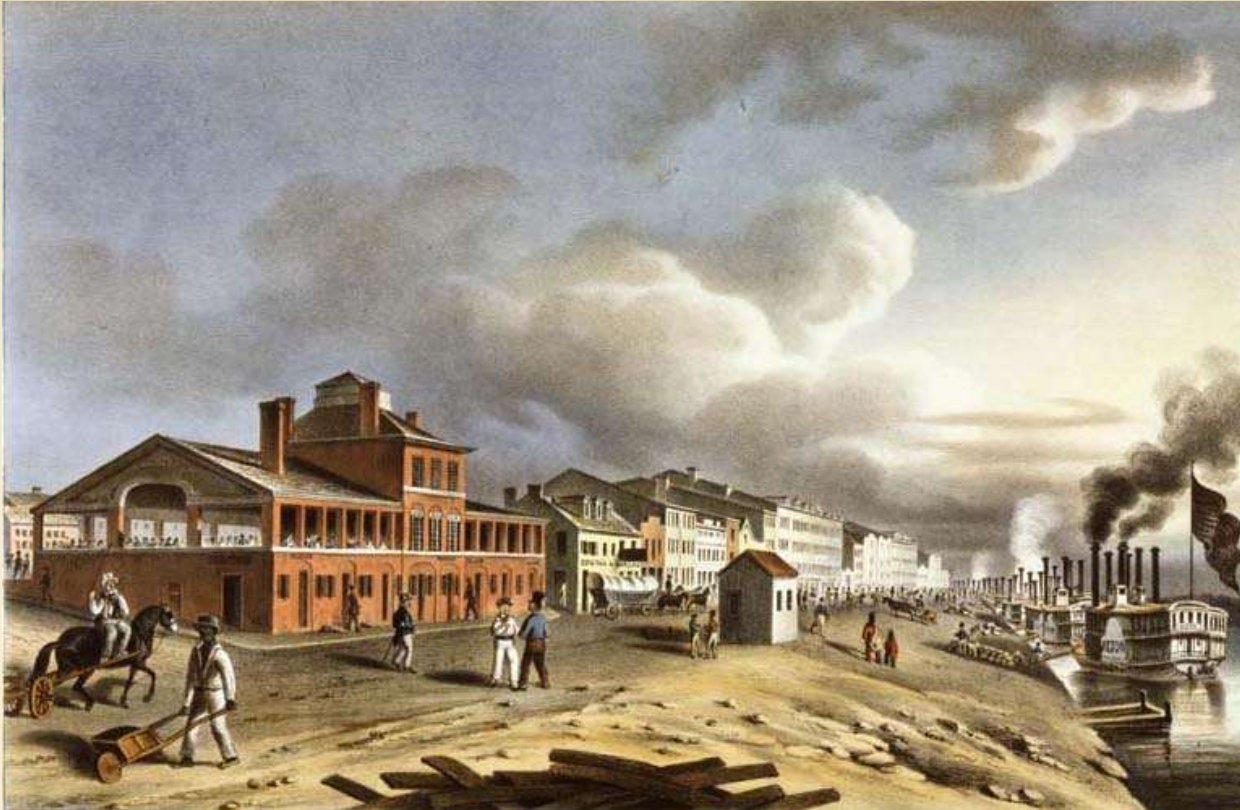


St. Louis, 1830s



An 1837 map showing the development of St. Louis along the Mississippi River. The river was the lifeblood of 1830s St. Louis, with steamboats bringing and taking away merchandise from the busy levee. Missouri History Museum.

John Caspar Wild's lithograph "View of Front Street, 1840."



1849 – A very bad year for St. Louis



The Great Fire

- Engulfed 23 steamboats
- 400 building destroyed, 15 blocks leveled
- Law passed that all future buildings made from brick



Cholera Epidemic

- Decimated the immigrant areas on the north and south sides of the city
- 4,547 cholera victims buried.

St. Louis, 1865



Published by Charles Maguire, 12 Broadway, N.Y.

ST. LOUIS.

George Engelmann, 1809-1884

- Born in Frankfurt, Germany
- Studied at Universities in Heidelberg, Berlin, and Würzburg
- Got MD degree, but had strong interests in botany, phyllotaxy
- 1832 – visits America, St. Louis, sets up successful medical practice
- 1856 – a founder and president of St. Louis Academy of Science
- Encouraged Henry Shaw to develop gardens for scientific research



Henry Shaw, 1800-1889

Founder of Missouri Botanical Garden

- Born in Sheffield, England
- Father ran iron factory
- Schooled at Mill Hill, education in classics, math, science, interest in gardens
- Acquired outlook of a British gentleman
- 1818 - Traveled with father to America
- 1819 – Henry landed in St. Louis, set up a hardware store
- Goods were purchased by Shaw's uncle in Sheffield, shipped via New Orleans to St. Louis
- Business boomed, retired at age 39
- Toured in Europe for 10 years
- Acquired land west of St. Louis

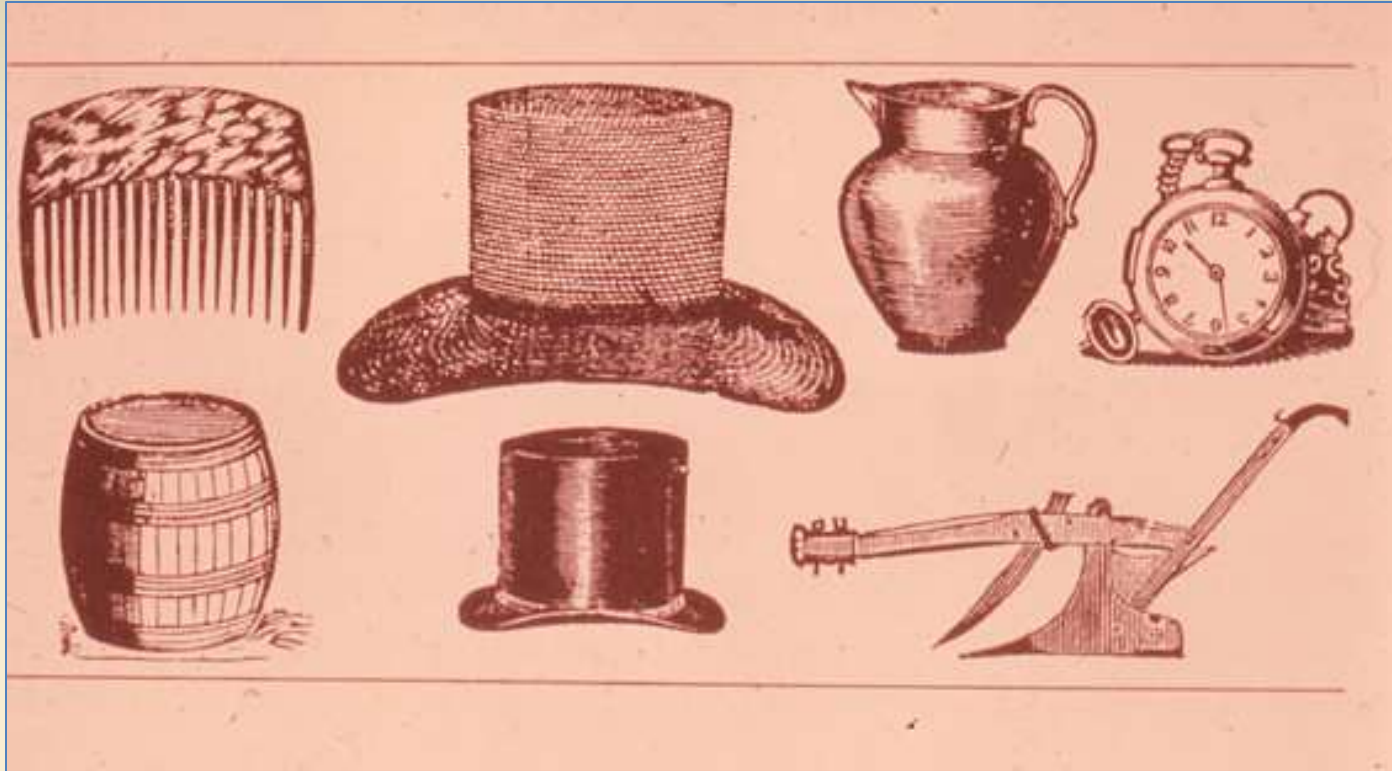


Henry Shaw's private school at Mill Hill, former residence of botanist Peter Collinson



Peter Collinson (1694-1768)
Connections with John Bartram in America
Landscaped with exotic plants

Articles sold by Shaw in hardware store, 1819-1839



Shaw had the kind of hardware, tools and cutlery pioneers would need to make the trip west and set up a new homestead.

Henry Shaw's Townhouse located at 7th & Locust,
constructed in 1850.



A city house
Lavishly furnished on the inside
Henry lived there alone
Entertained visitors

- In the south-central part of today's city lay the **Prairie des Noyers** (noyer = walnut)
- Tower Grove Park and the Missouri Botanical Garden are within this prairie, which was also subdivided into common-field lots.

EARLY PRAIRIES of ST. LOUIS CITY

COMMONFIELDS

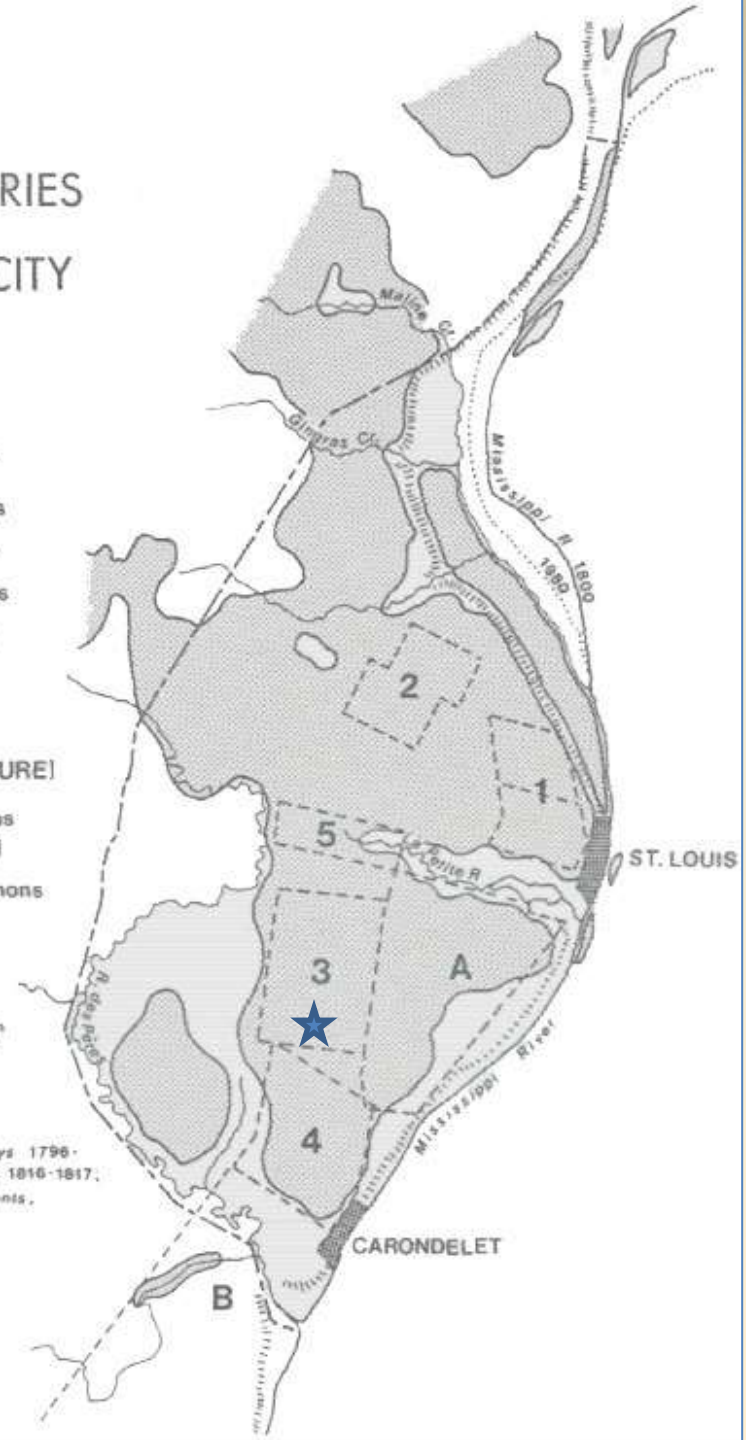
- 1 Prairie de St. Louis
- 2 La Grande Prairie
- 3 Prairie des Noyers
- 4 Prairie à Catalan
- 5 Cul de Sac

COMMONS (PASTURE)

- A St. Louis Commons
[La Petite Prairie]
- B Carondelet Commons



Sources: Soulard surveys 1796-1806; US GLO surveys 1816-1817, and contemporary accounts.



Tower Grove House – original east wing



Tower Grove House – new east wing

Enlarged for Trelease family



Tower Grove House in Winter



Photo: D. Bogler

Tower Grove House

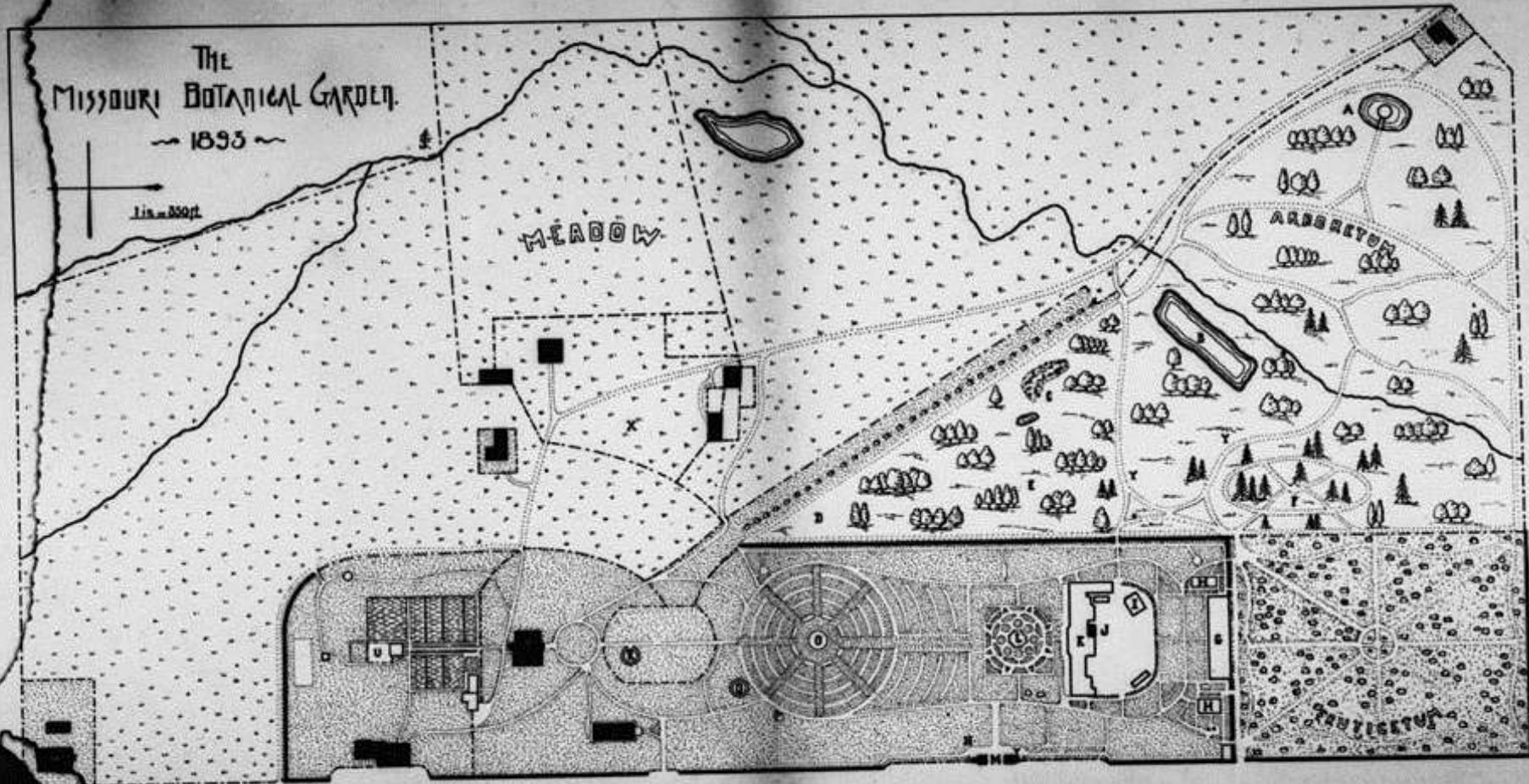


Photo: D. Bogler



Photo: D. Bogler

MBG Map, 1855

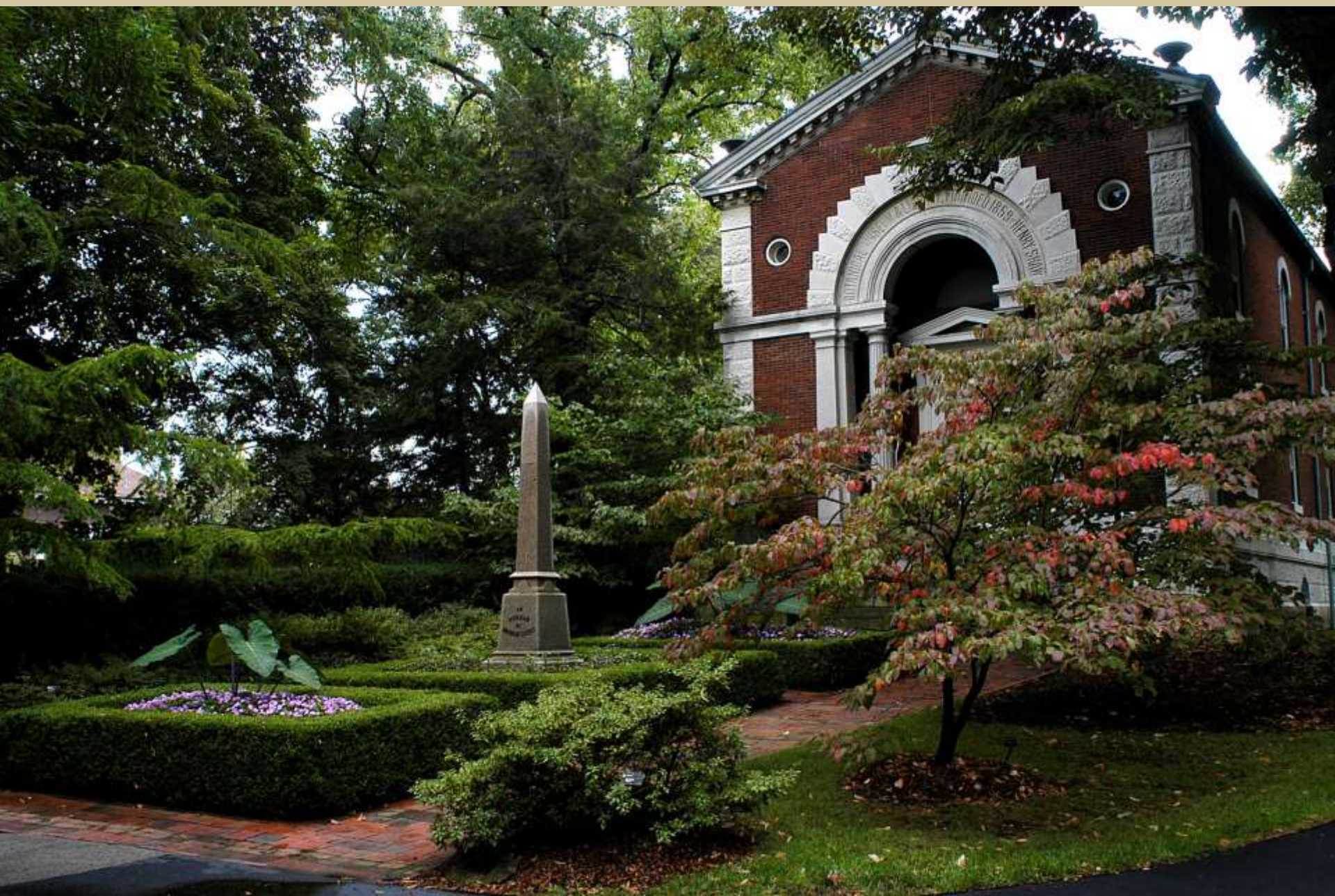


Museum Building, 1859



Built at Shaw's direction according to plans by prominent St. Louis architect George I. Barnett, for the purpose of housing the Garden's original library, herbarium and natural history specimens





Inside of the Museum Building Today



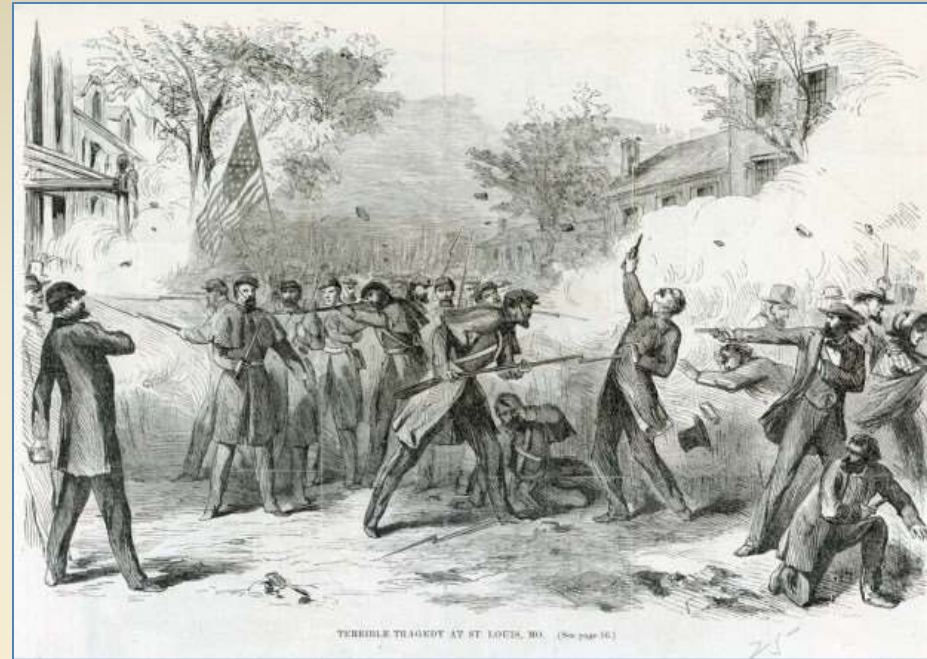
1859 – MBG Opens to the Public



While the garden has always been known informally as "Shaw's Garden," Shaw officially named it The Missouri Botanical Garden.

Interlude - Civil War in Missouri and St. Louis

- Population 160,000 in 1860, mostly German and Irish immigrants, mostly pro-Union
- Strong federal arsenal, troop presence at Jefferson Barracks
- St. Louis stayed pro-Union, Confederate sympathizers were rounded up by
- State government was pro-Southern, rural population pro-Southern or mixed.
- Many skirmishes and a few major battles in Missouri, but no major battles near St. Louis
- Governor fled to Arkansas, General Price raised Confederate army, invaded from Arkansas in 1864



Camp Jackson Affair, rounding up Confederates led to violence, death of 28 people

Battle of Wilson's Creek, 1861, SW Missouri



Sterling Price Raid in 1864



FINAL CIVIL WAR EVENTS IN MISSOURI



St. Louis in 1865



Published by Charles M. Whittier, 12 Broadway, N.Y.

ST. LOUIS.

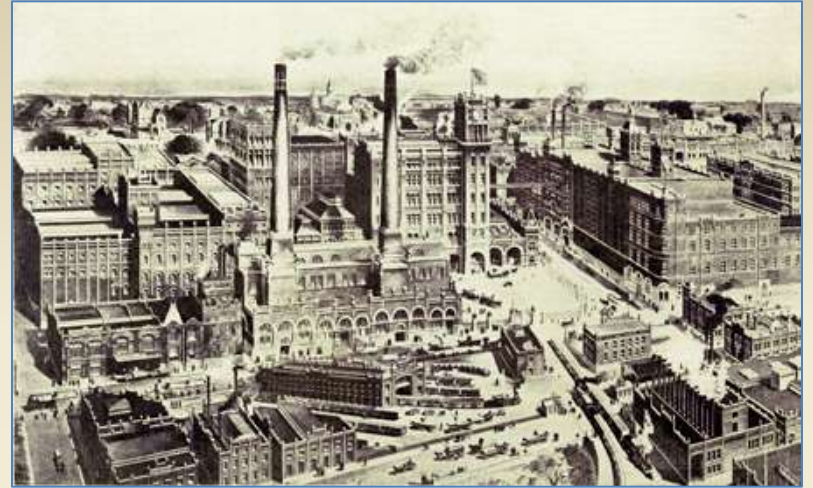
A birds-eye illustration of St. Louis in 1865. Missouri History Museum.

Part 2: Development of the Missouri Botanical Garden

From the Civil War to the Present Day

St. Louis – 1870s-1900

- People flocked to St. Louis, population quadrupled from 1850 to 1870
- By 1900 St. Louis was fourth largest city in U.S.
- Rich got richer
- Big Companies start-up
 - Liggett and Meyers Tobacco
 - Anheuser-Busch
 - Lambert Pharmacal (Listerine)
 - Emerson
 - Ralston-Purina
 - Monsanto

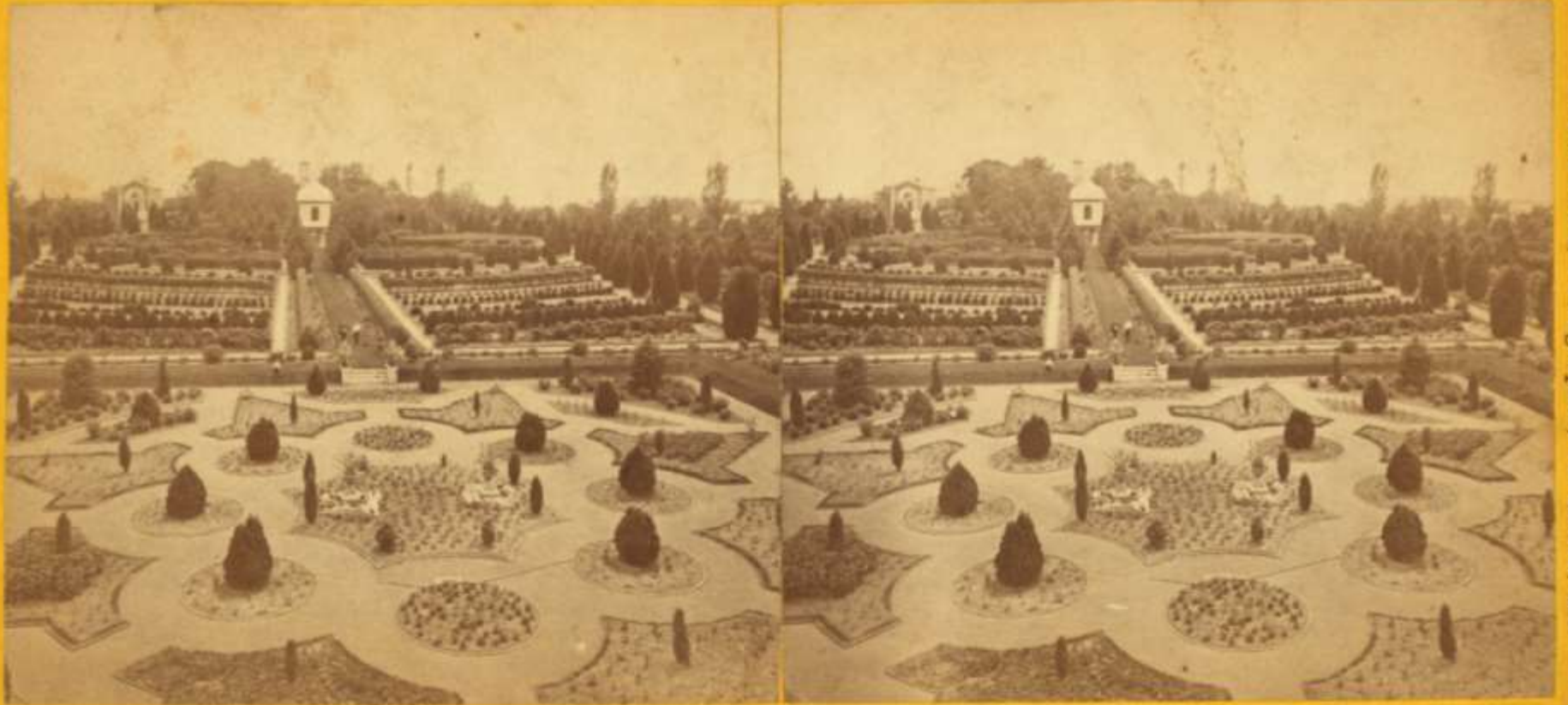


Anheuser-Busch



Eads bridge - 1874

Shaw's Garden Postcard 1870



Note the Pavilion and formal layout

Statue of 'Juno' in the parterre in the 1890's



Juno Today, in the Victorian Garden



Photo: D. Bogler

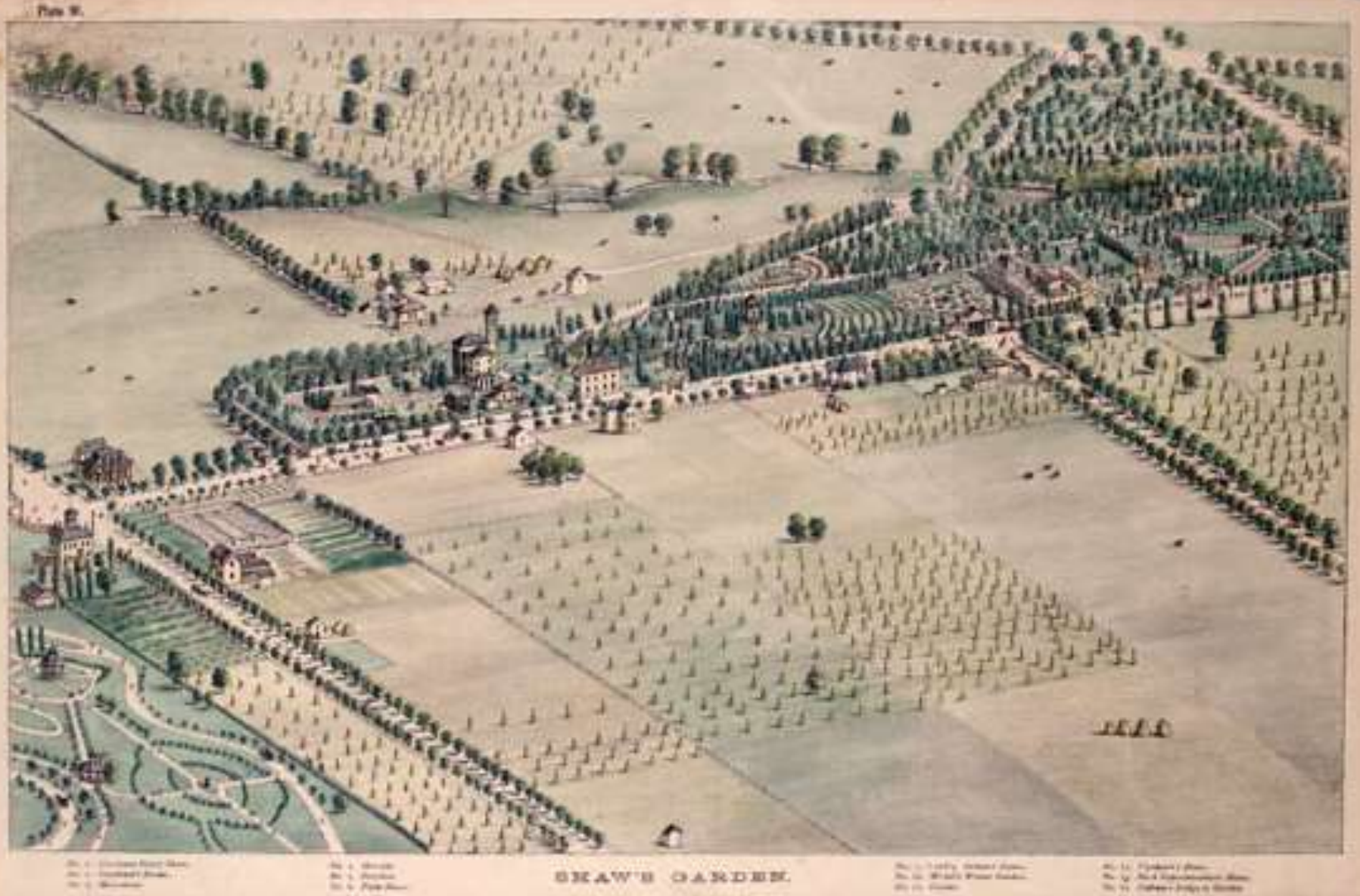
Observatory, 1890





Photo: D. Bogler

1875 Aerial View of the Missouri Botanical Garden



Arboretum Planted by Henry Shaw, 1866



The view is to the south east looking from what is now the corner of Vandeventer and Shaw Ave. Tower Grove House, Museum, and the Main Gate are visible in the background, about 1866.

Linnaean House, 1890



Designed by George Barnett, erected in 1882
Brick and stone, English models
Orangery, allowed overwintering of sensitive plants

Linnaean House



Photo: D. Bogler

Linnaean House Interior



Shaw's Conservatory, from 1859, interconnected display houses



New Palm House, 1912-1959



Reflecting Pools



Note mismatch with gate

Reflecting Pools



Photo: D. Bogler

Henry Shaw, 1800-1889



Henry Shaw School of Botany



Isabel Mulford (1848-1943)
First PhD at Washington
University. "A Preliminary Study
of the Agaves of the United
States..." 1895

School of Gardening, 1917

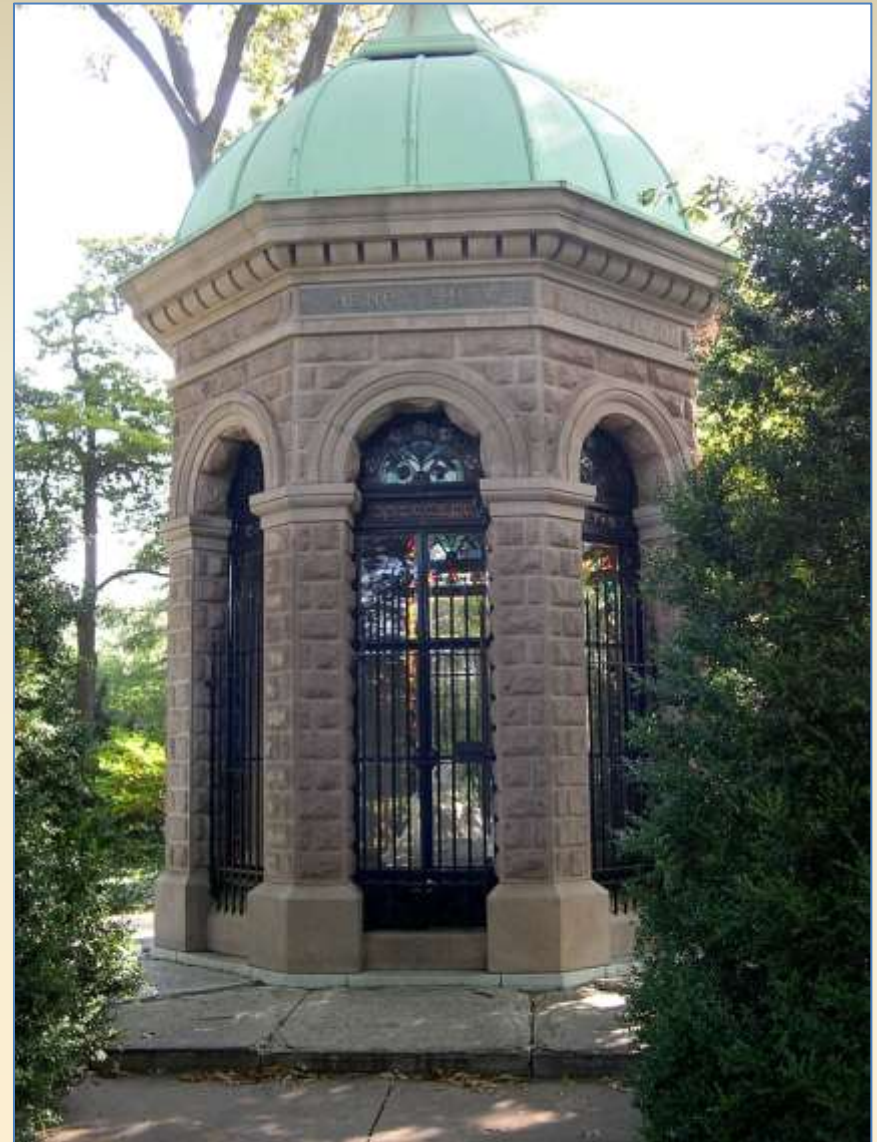


Shaw's first mausoleum, later rejected because of discoloration
Victory, symbolized the Victory of Science over Ignorance



Photo: D. Bogler

Henry Shaw, 1800-1889



August 25, 1889, died of Malarial Fever

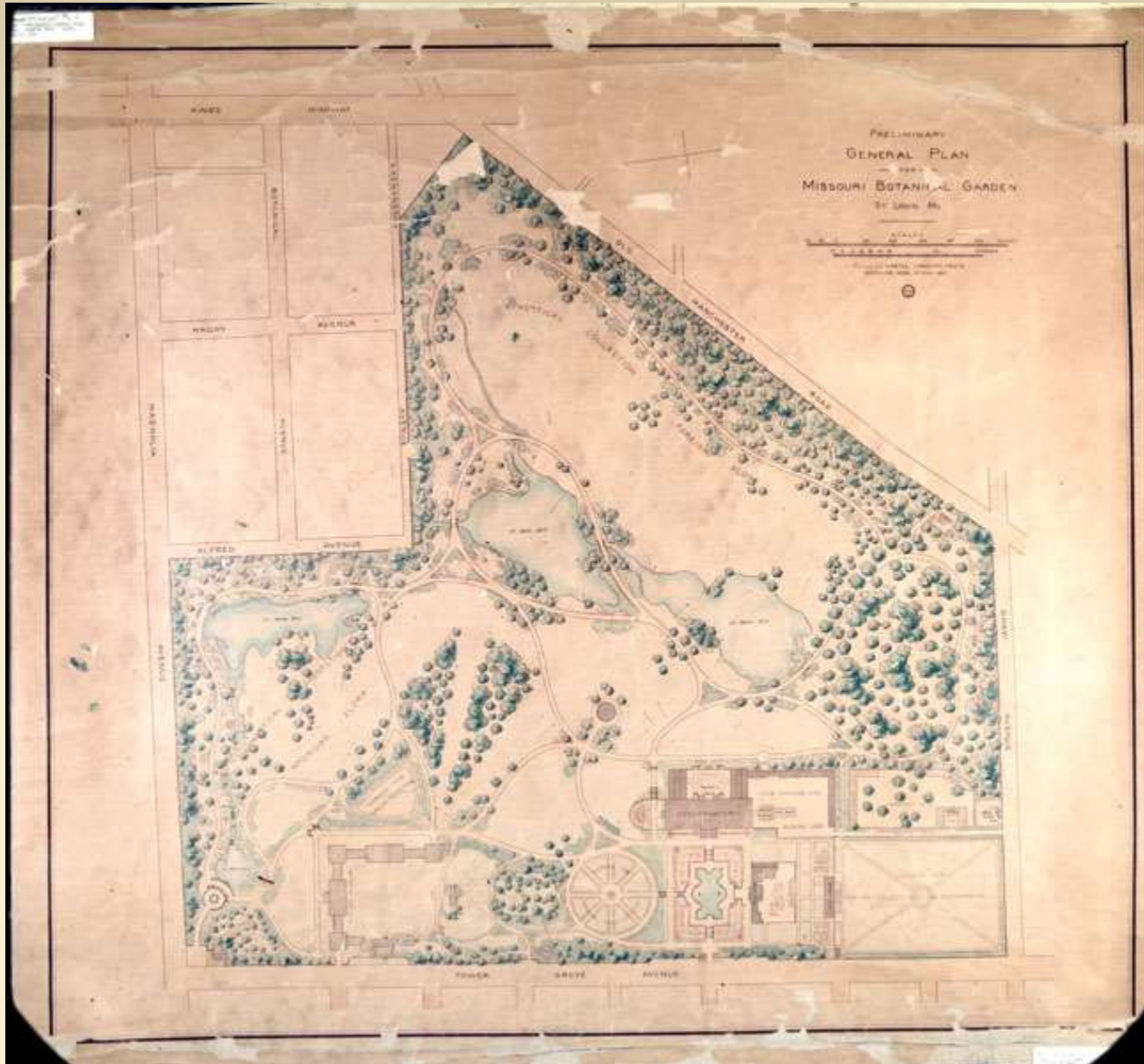


William Trelease, 1857-1945

- First Engelmann Professor at the Shaw School of Botany, Washington University
- 1885 – became First Director MBG
- Built up research program, library, and herbarium
- Tried to modernize the Garden grounds
- First president Botanical Society of America, 1894, 1918
- Garden vs. Science Dilemma



Plan of the Garden that was never executed, 1897



Frederick Law Olmsted's firm submitted the plan for the future development of the Garden. Only the two ponds were implemented

George T. Moore

Director of the Missouri Botanical Garden (1912-1953).

- Started Annals of the Missouri Botanical Garden
- Built new Palm House in 1913
- Air pollution prompts plan to move outside city to Gray Summit, the Arboretum, now Shaw Nature Reserve
- Orchid collection moved
- Garden begins expeditions to tropics, Panama



Air Pollution in St. Louis – November 28, 1939, daytime

“Black Tuesday, the day the sun didn't shine”



3 MBG Directors, 1950s to 1970s



Edgar Anderson
1954-1956
Genetics
Introgression

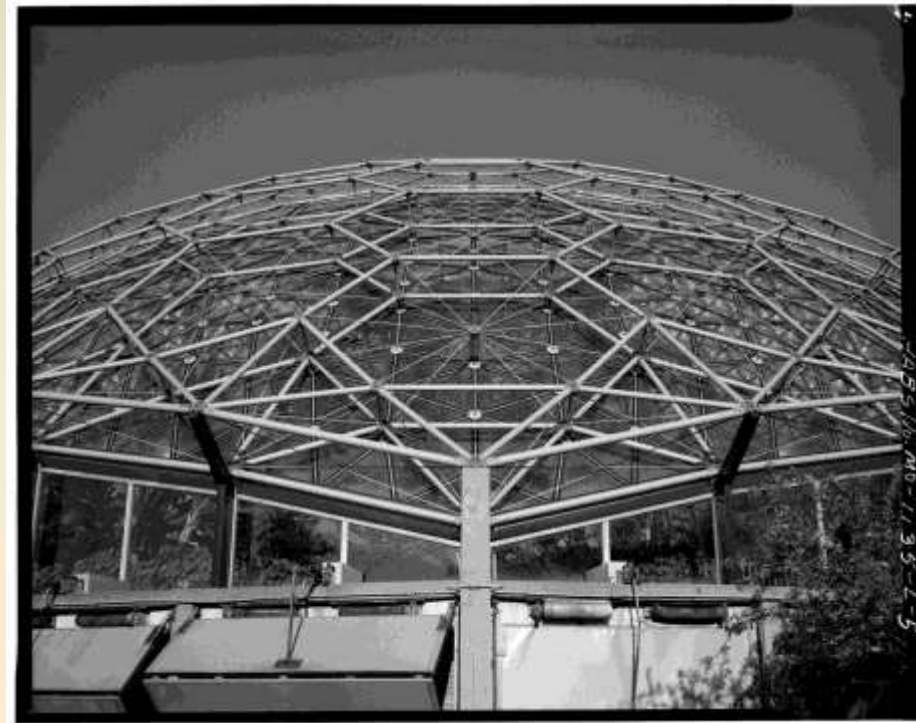


Fritz Went
1958-1963
Auxin
Climatron



David Gates
1965-1971
Lehmann Bldg.

Construction of Climatron – 1959-1960



Climatron (Infra-Red Photography)



Photo: D. Bogler

Climatron



Old Desert House



Peter Raven, Director 1971-2010



John S. Lehmann Building, 1972

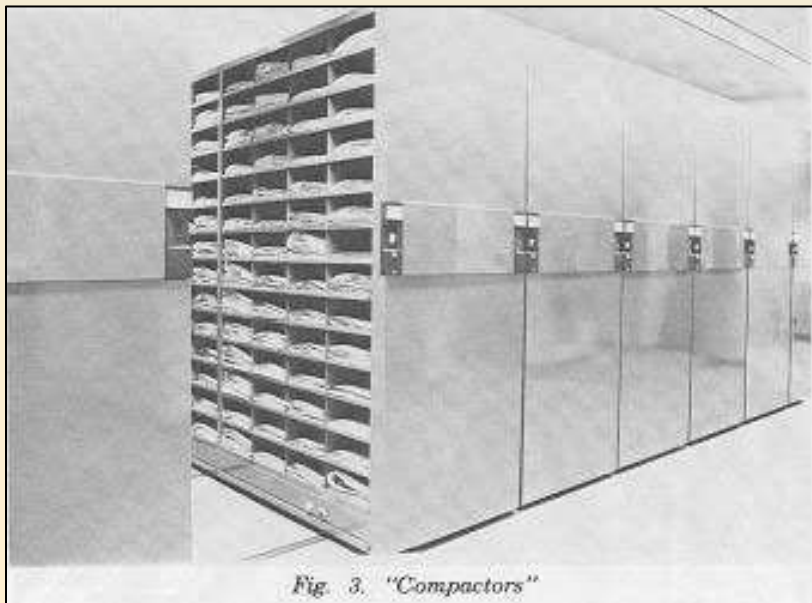


Fig. 3. "Compactors"



Fig. 4. The Herbarium, MBG

Plant Mounting, Lehmann Building



Joel Swift, REU 2014

Photo: D. Bogler

Construction Begins for Japanese Garden, 1973



Japanese Garden



Photo: D. Bogler

MBG NSF Research Experiences for Undergraduates (REU), 2012



Photo: D. Bogler

Japanese Garden



Photo: D. Bogler

Japanese Garden



Photo: D. Bogler

Japanese garden – Yedo Cherries



Photo: D. Bogler

Japanese Garden



Photo: D. Bogler

English Woodland Garden Created, 1976



English Woodland Garden



Photo: D. Bogler



Photo: D. Bogler

Ridgeway Center, 1982



New entrance for garden, Education Department, Garden Gate Shop, Sassafras Restaurant, auditorium, and floral display area

Maze Planted, 1986



Photo: D. Bogler

Schoenberg Temperate and Rock Garden, 1989



William T. Kemper Center for Home Gardening, 1991



Photo: D. Bogler

William T. Kemper Center for Home Gardening, 1991



Photo: D. Bogler

Fruit Garden



Butterfly Garden



Grigg Nanjing Friendship Garden (Chinese Garden), 1995



Grigg Nanjing Friendship Garden (Chinese Garden), 1995



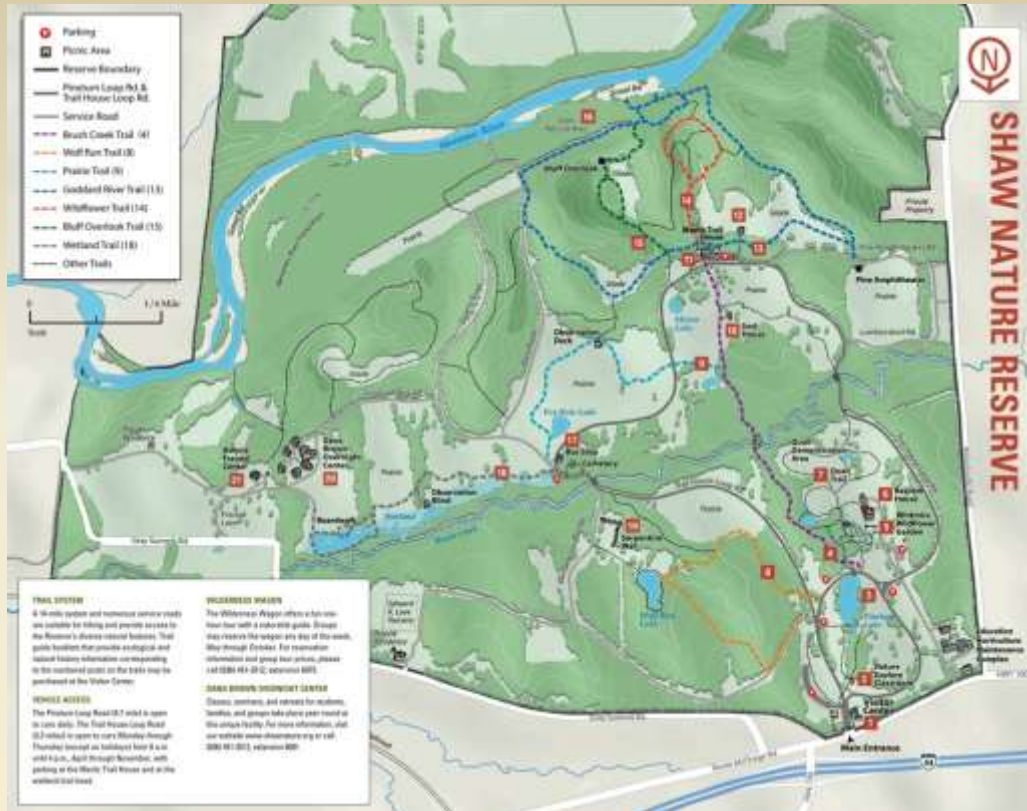
Monsanto Research Center, 1998



Monsanto Center – Herbarium, Laboratory



MBG Shaw Nature Reserve



Pinetum Lake, Shaw Nature Reserve



Photo: D. Bogler

Chapungu: Nature, Man, and Myth, Sculptures, 2007

Shona artists of Zimbabwe



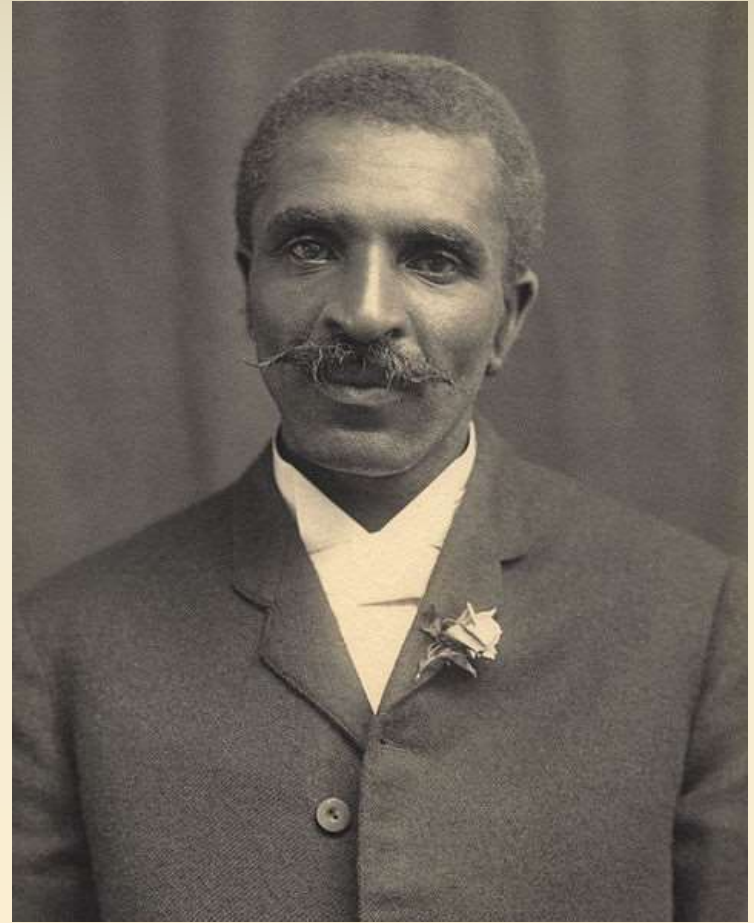
Niki De Saint Phalle





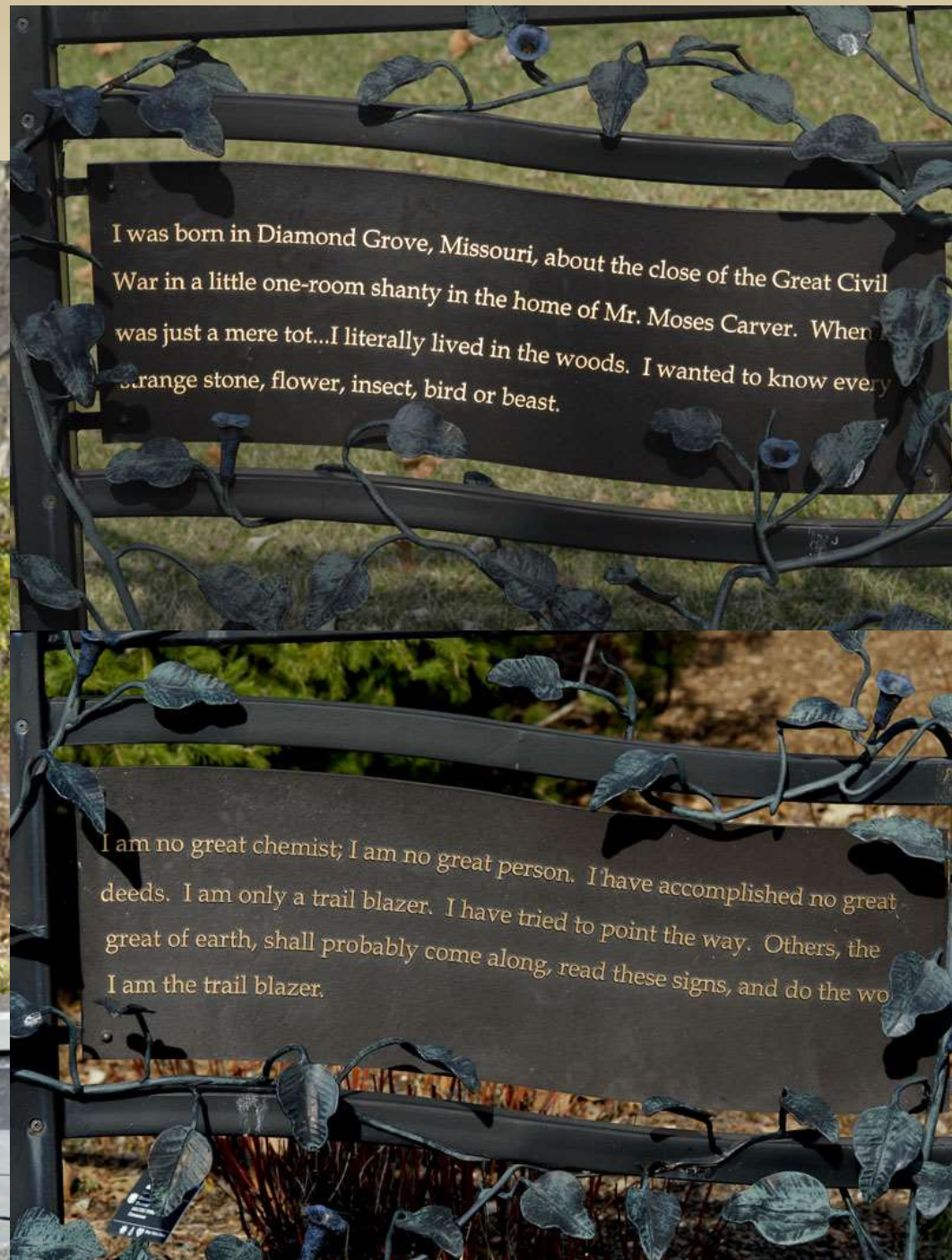
George Washington Carver - (1864-1943)

- American botanist, chemist, and inventor.
- Born into slavery in SW Missouri
- College professor, Tuskegee, Alabama
- Changed Southern Agriculture
crop rotation methods
agricultural products
- Philanthropist, dreamer, and
Role model



George Washington Carver

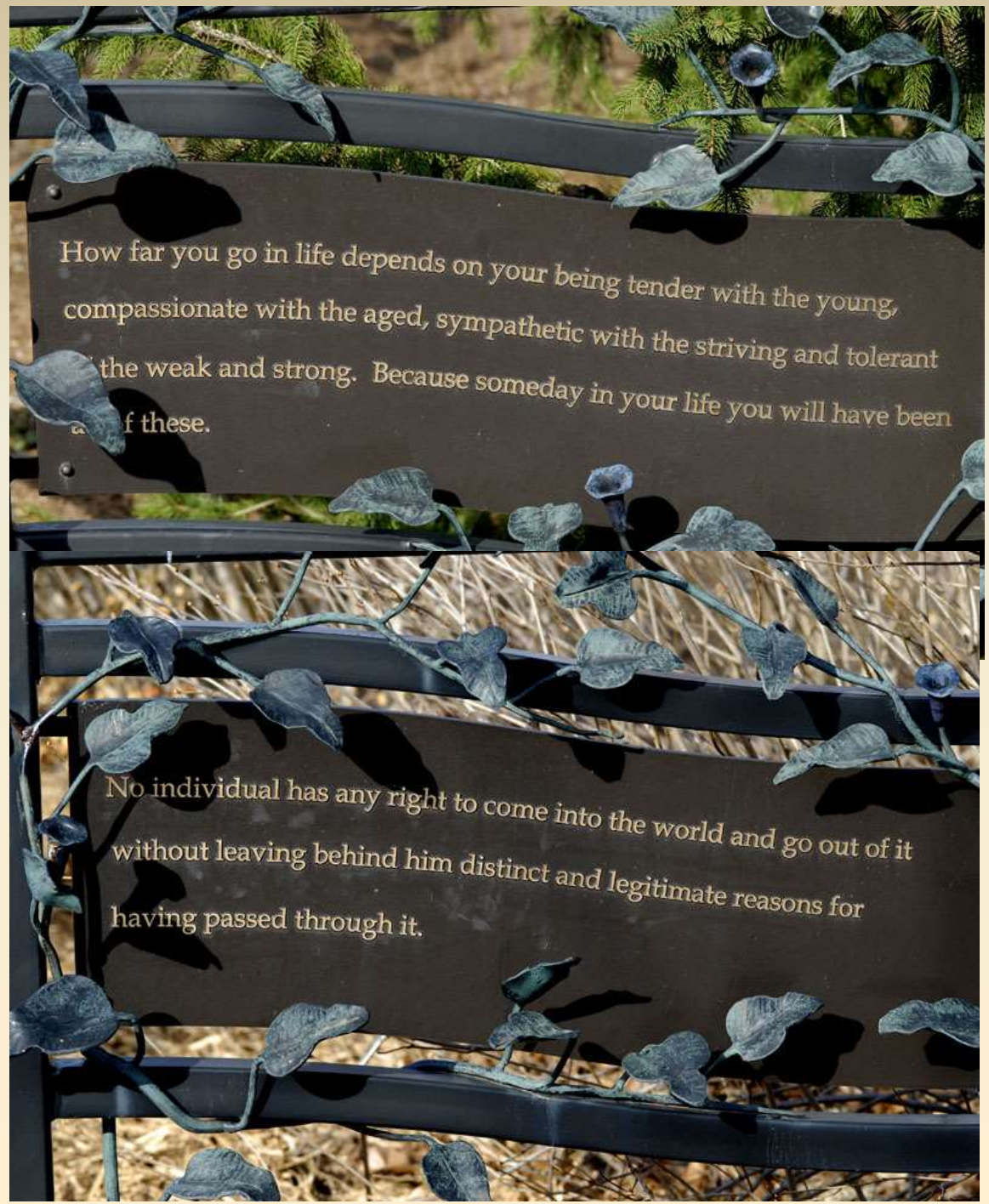
MBG



G.W. Carver

"Ninety-nine percent of the failures come from people who have the habit of making excuses."

"There is no short cut to achievement. Life requires thorough preparation - veneer isn't worth anything."



End



1883



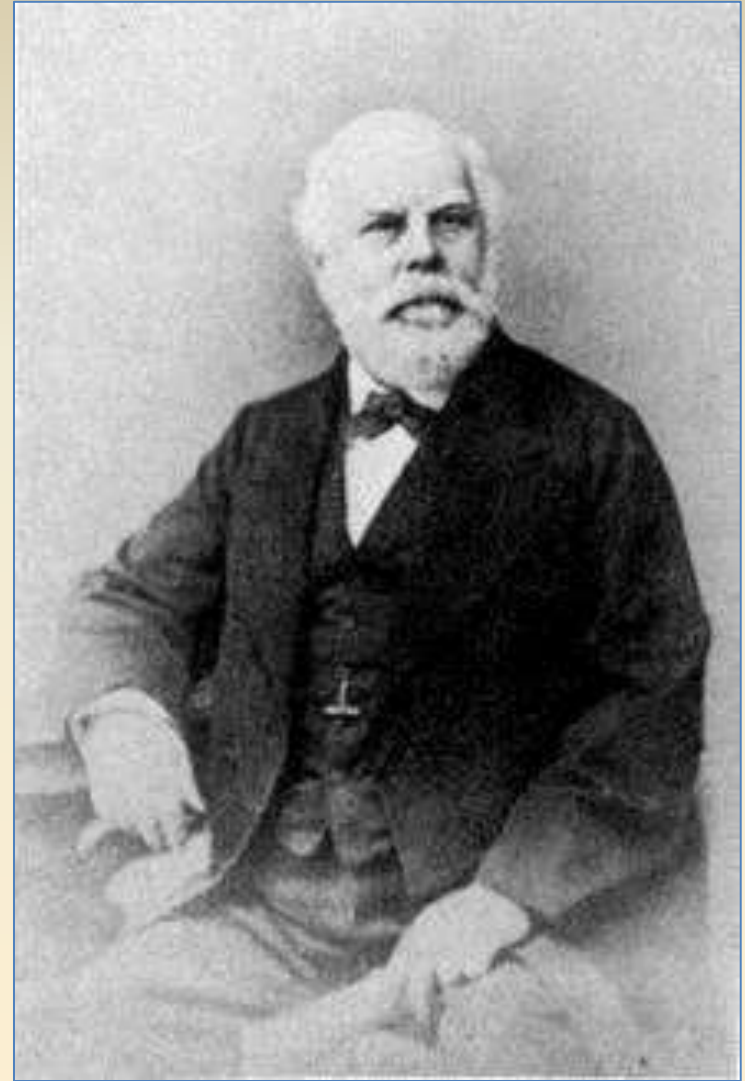


MISSOURI BOTANICAL GARDENS -- SHAW'S GARDEN -- ST. LOUIS, MISSOURI



George Engelmann 1809 – 1884

- Born and raised in Germany
- Emigrated 1832, established medical practice in St. Louis 1835
- Friend of Asa Gray at Harvard
- Studied cacti and grapes
- Instrumental in describing the flora of the west of North America
- Encouraged and advised Henry Shaw on his garden plans
- Herbarium collections became the start of MBG herbarium



The four full-length sculptures:
Ferdinand von Miller 's William Shakespeare
dedicated 23 April 1878;
Miller's Alexander von Humboldt , dedicated
24 November 1878;
Miller's Christopher Columbus , dedicated 12
October 1886; and
Baron Friedrich Wilhelm von Steuben ,
originally commissioned for the 1904 Louisiana
Purchase Exposition; moved to Tower Grove
Park, 1968.

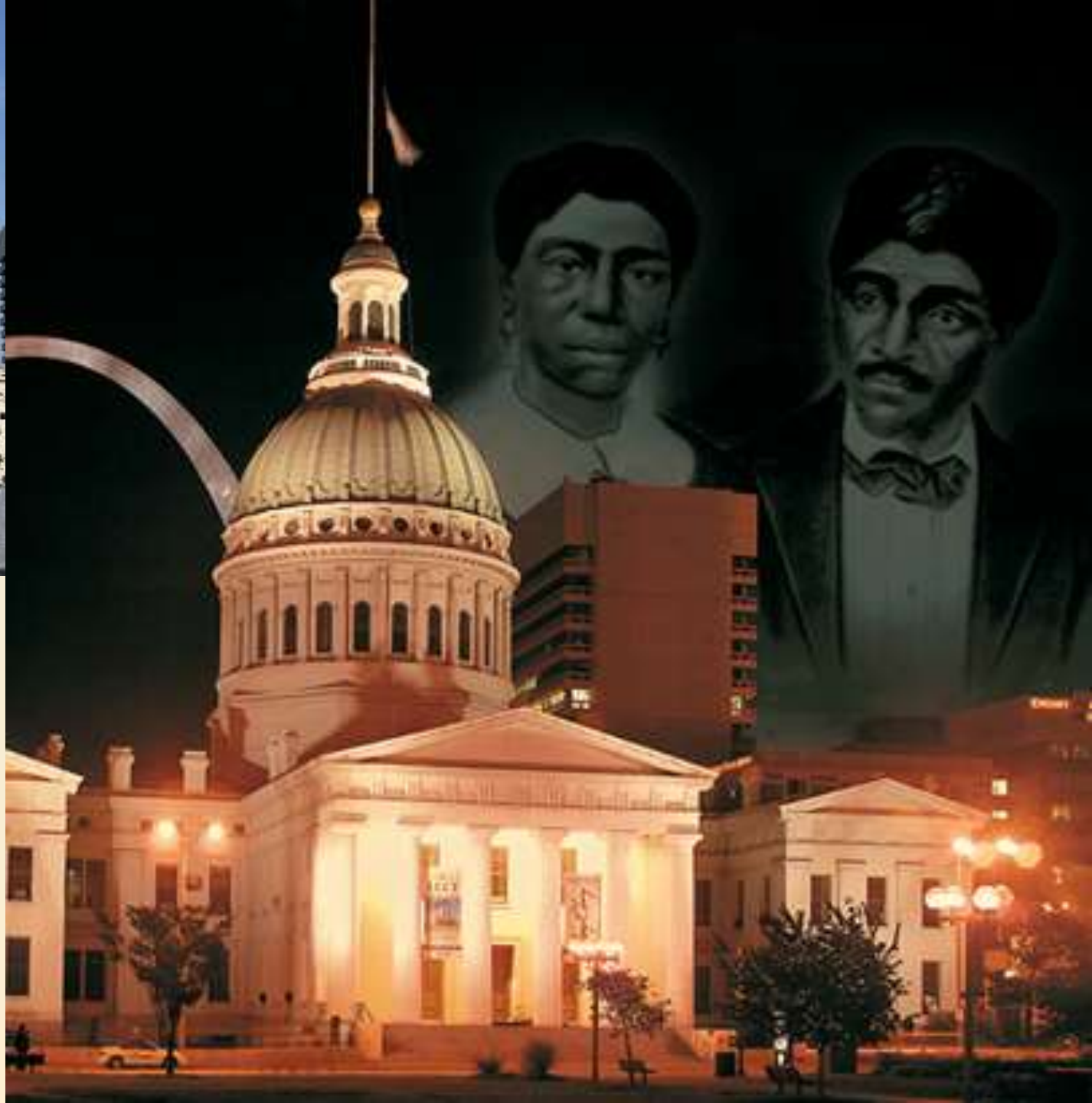
Prehistoric

1. “before written history”
2. Major tribes of Missouri:
 - a. Hopewell (500bc-400 ad)
 - Mound Builders
 - b. Mississippian (900AD-1350 AD)
 - c. Osage and Missourian
 - Farmers and Hunters
3. “Missouri”=land of large canoes

Sugarloaf Mound – South St. Louis



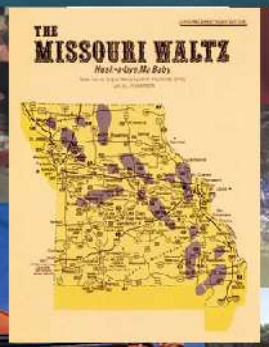
This is Sugarloaf Mound, and it is the only Indian mound remaining in St. Louis city limits. The others were all leveled to make room for a growing city. The Osage Nation bought the land and house a few years ago in order to preserve it.



D. The Missouri Compromise

1. In 1819, Missouri applied for statehood
2. Sparked debate over the status of slavery
3. Compromise:
 - a. Missouri admitted as a slave state (12)
 - b. Maine admitted as a free state (12)
 - c. Southern boundary of MO used to divide free states from slave states
4. Missouri 24th state on Aug. 10, 1821







D. The State Animal

--Missouri Mule

E. State Flower

--Hawthorne

F. State Tree

--Flowering Dogwood

G. State Insect

--Honeybee



H. State Bird

--Blue Bird

I. State Fish

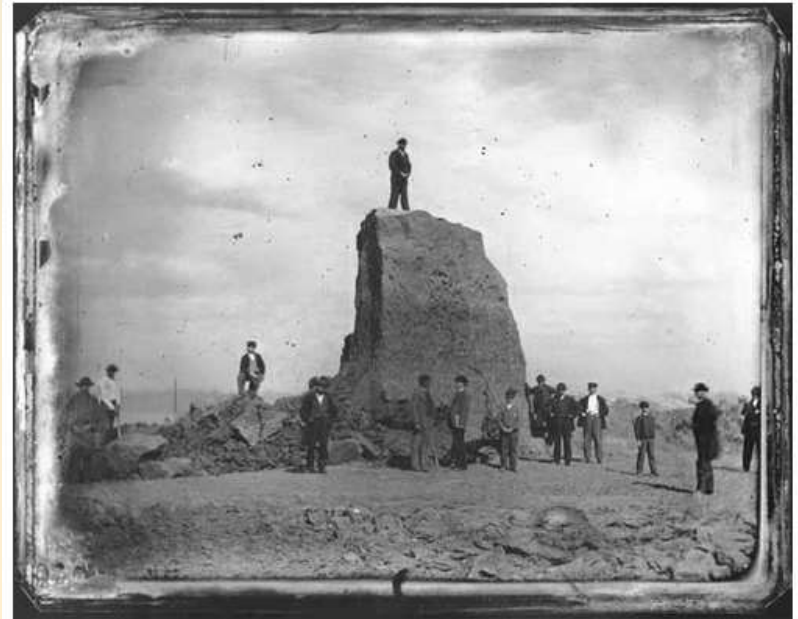
--Channel Catfish

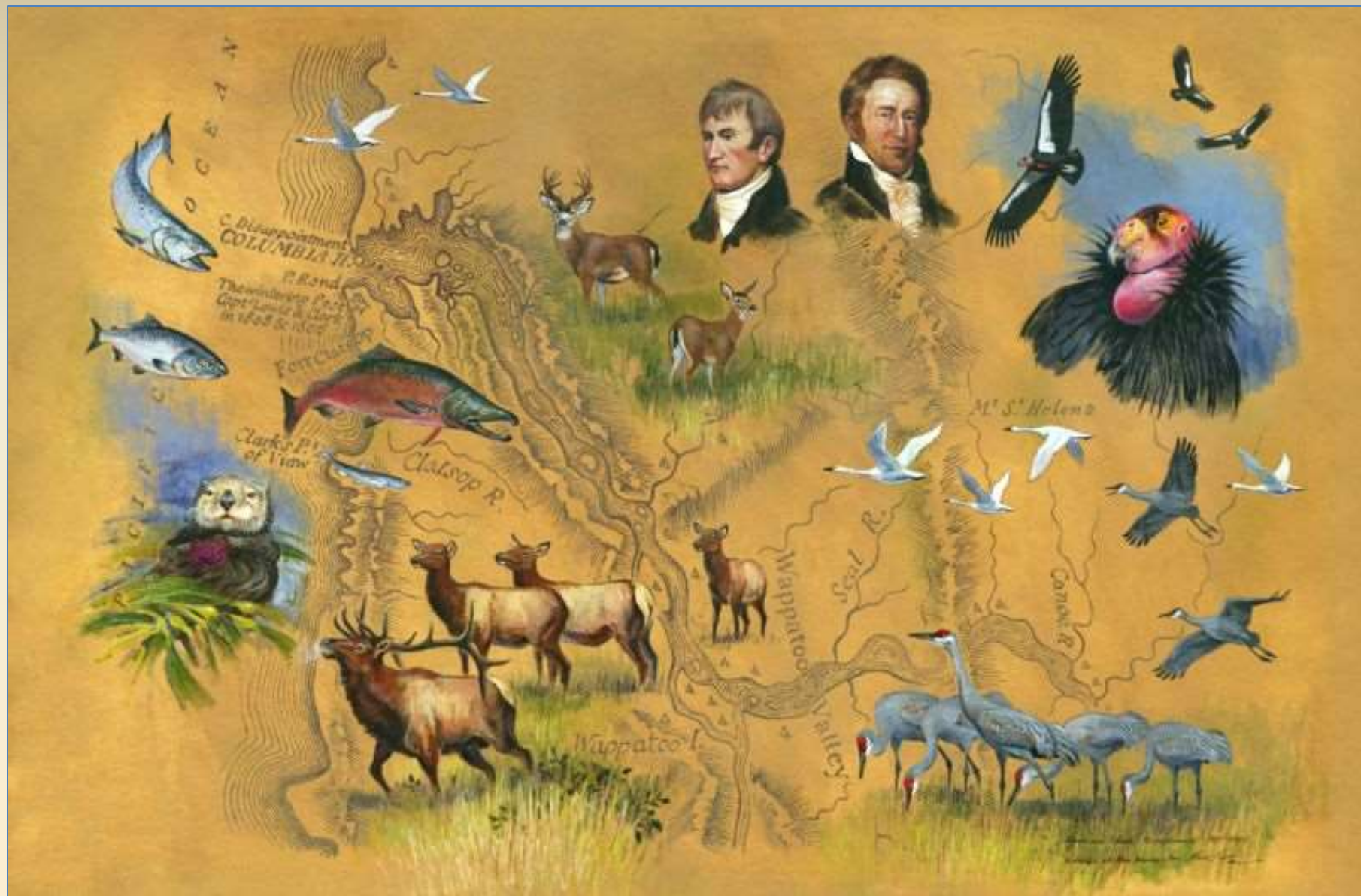


REGIONS OF MISSOURI



Cahokia





Steamboats in St. Louis, 1853



St. Louis Levy - 1852





