Platteville Limestone, 454-455 Million Years Old

Glenwood Shale, 455 Million Years Old

St. Peter Sandstone, 455-458 Million Years Old
Carvers Cave / Wakan Tipi

The earliest known interior plat of Carver's Cave. Drawn by Robert O. Sweeny from data provided by Dr. Thomas Foster (?). Minnesota Historical Society.
www.fromsitetostory.org
Petroglyphs
Wakan Tipi
St. Paul, 1874.
Phalen Creek mouth

Minnesota Historical Society
1927 Aerial – Phalen Creek
St. Paul, ca 1940
Carvers Cave/Wakan Tipi, 1875
Carvers Cave, 1913
1. Granary – Barley is stored in a granary prior to use.
2. Malt House – Barley grains are soaked and then spread out on the malt house floor until it germinates.
3. Malt Kiln – Germinated barley grains are kiln-dried.
4. Malt Mill – The dried malt is ground in the malt mill to a coarse powder or grist.
5. Mash Tub – The grist is placed in a tub and hot water is added to convert the starches into sugars. The mash is washed and filtered and the malt extract, or wort, is collected.
6. Brew Kettle – In the brew kettle the wort is boiled with hops. After two hours, the hops are removed, as is any accumulated protein, which is called trub.
7. Wort Tank – The collected wort is then placed in a tank where it cooled to a temperature of about 50 degrees.
8. Fermentation Tanks – Yeast is added to the wort and the brew is transferred to tanks where the fermentation process begins.
9. Aging Tanks within Cellars/Caves – The brew is eventually transferred to aging tanks where the slower second fermentation takes place. This stage of the fermentation process takes place at temperatures between 45 and 55 degrees Fahrenheit.
10. Ice Houses – Ice houses were often built over cellars or caves to cool the storage space below.
11. Fining – Wood chips or shavings are added to the brew to attract and hold impurities that have been generated during the fermentation process.
12. Krausening – A fifth of new beer is added to four-fifths of aged beer.
13. Racking – The finished lager is pumped into kegs.
14. Distribution – As lager needs to be kept cold prior to consumption, retailers did not keep a large stock on hand. Rather the brewery made frequent deliveries via horse-drawn wagons.
Carvers Cave/Wakan Tipi, 1934
North Star Brewery Excavation

106 Group
Dakota Village Life on the Mississippi River

Seth Eastman. Minnesota Historical Society