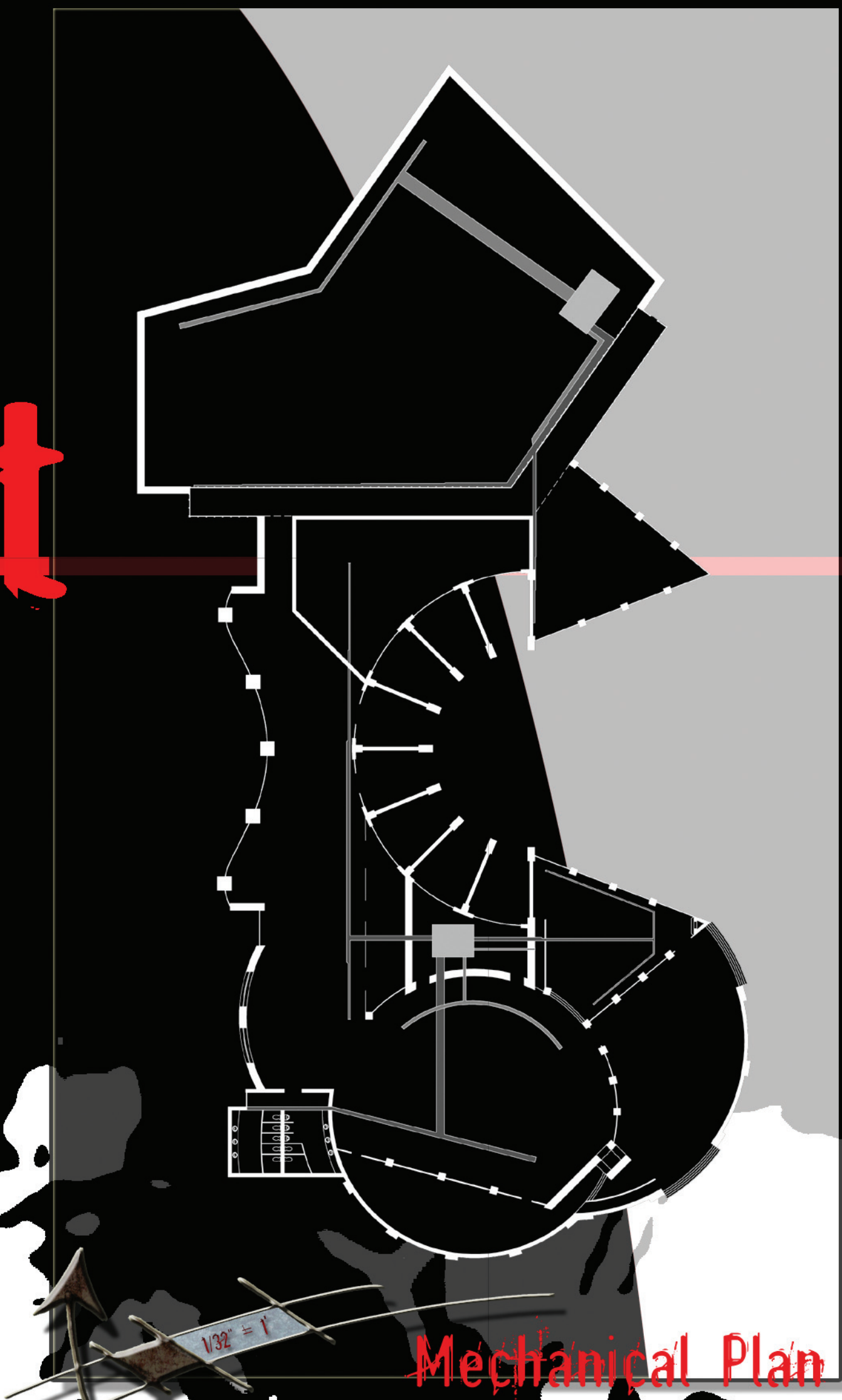


Restaurant & Winery



Wine Process



Harvest

From the vine to the processing facility timing is crucial in order to keep the full flavor of the freshly picked grapes. Manual labor has been the most common form of harvesting since vinification began.



Crushing

The act of breaking open the berry so the juices within can be extracted is called crushing. De-stemming usually accompanies this where the stems of the berries are removed.



Fermentation

Fermentation occurs when the sugar contained within wine is converted into alcohol and carbon dioxide.



Pressing

Usually occurring after fermentation, and always after crushing (though in the beginning this was done first), the pressing of berries squeezes the remaining juice from the solid pieces.



Filtration

Filtration is used to remove the large particles from the wine juice. On certain wines these particles are left in to add flavor.



Aging

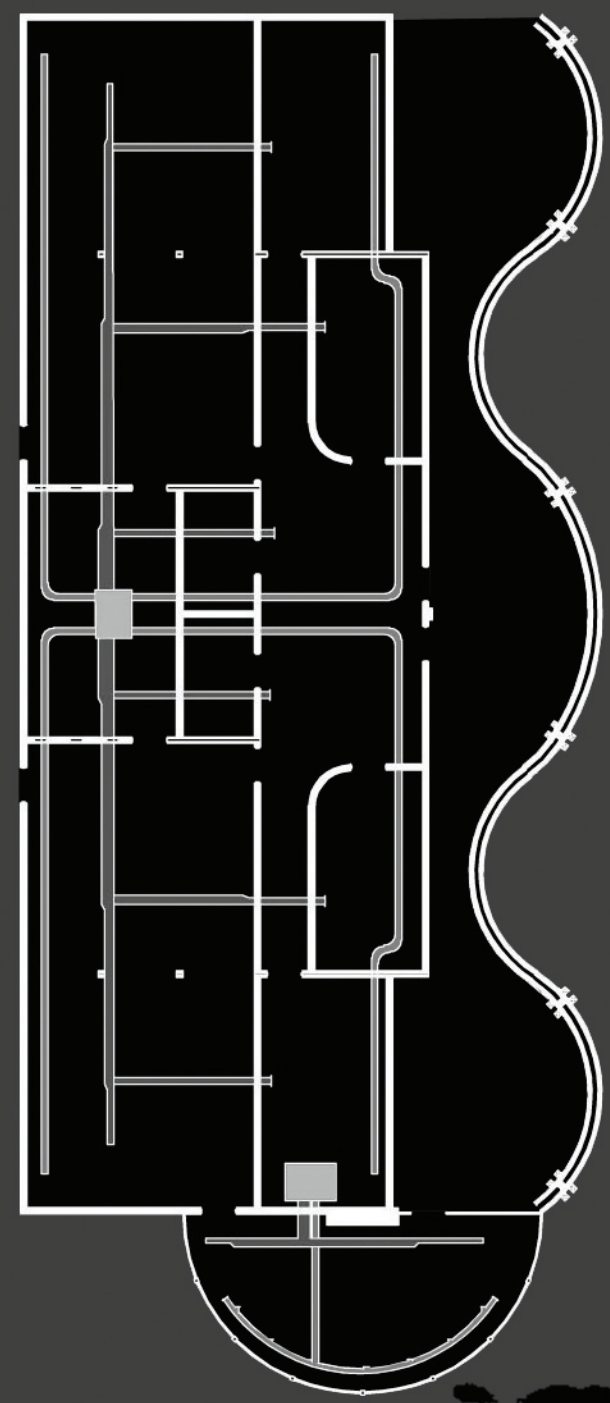
One of the largest aspects that sets wine apart from other beverages is the process of ageing, most wines go through.



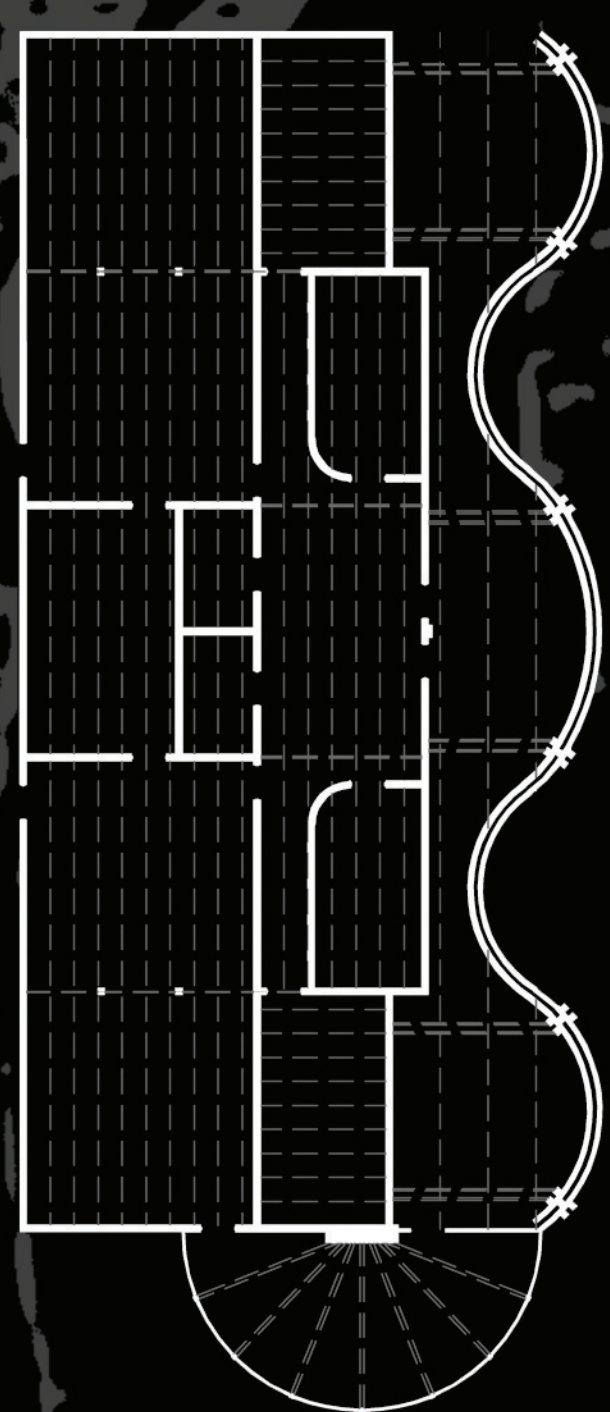
Bottling

In the beginning each bottle was done by hand from wine casks or individual barrels. That is now considered ancient tradition and is rarely used, even within smaller wineries. The process today is semi or even fully mechanized through the use of bottling lines.

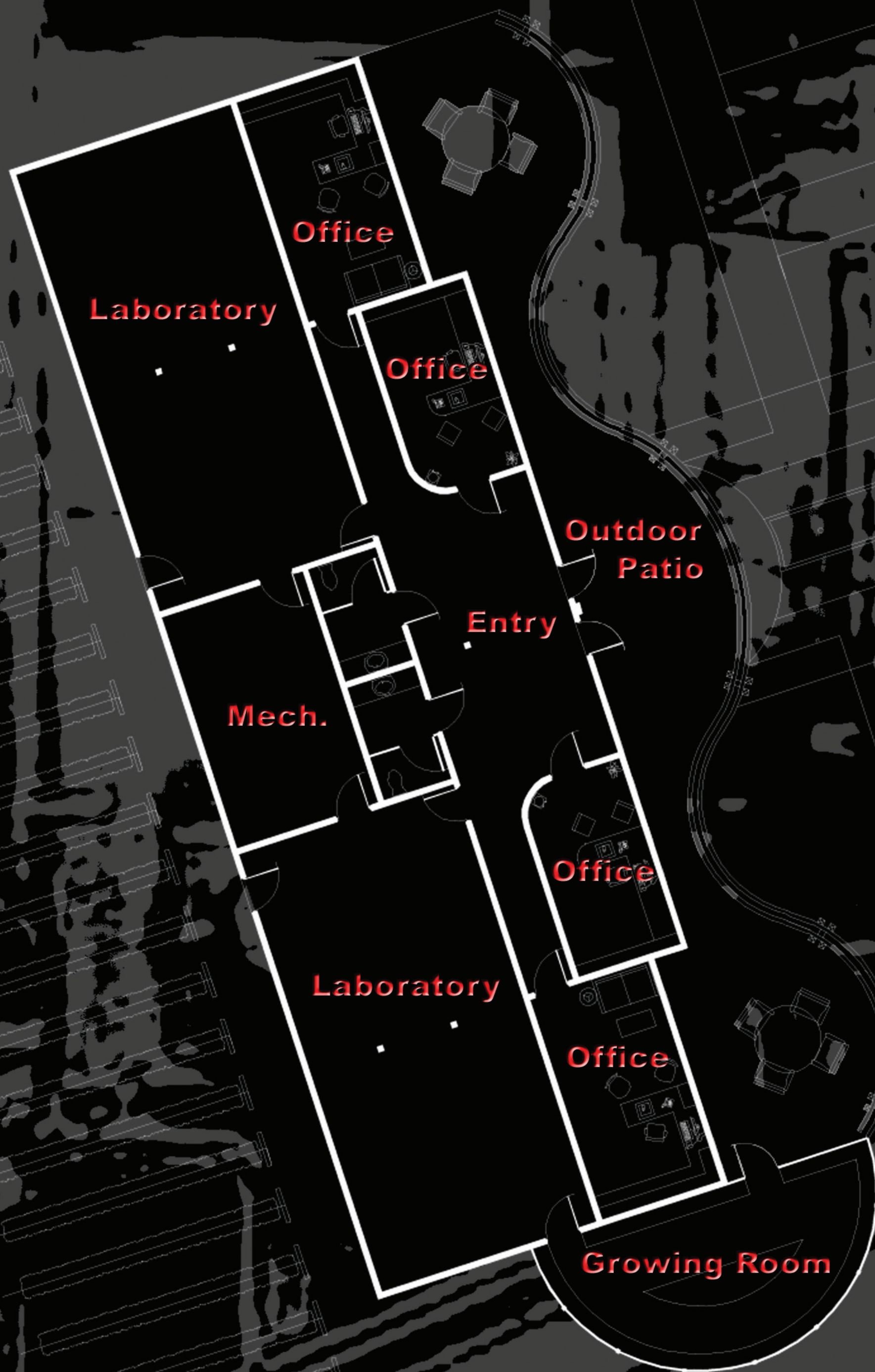
Research Facility



Mechanical Plan



Structural Plan

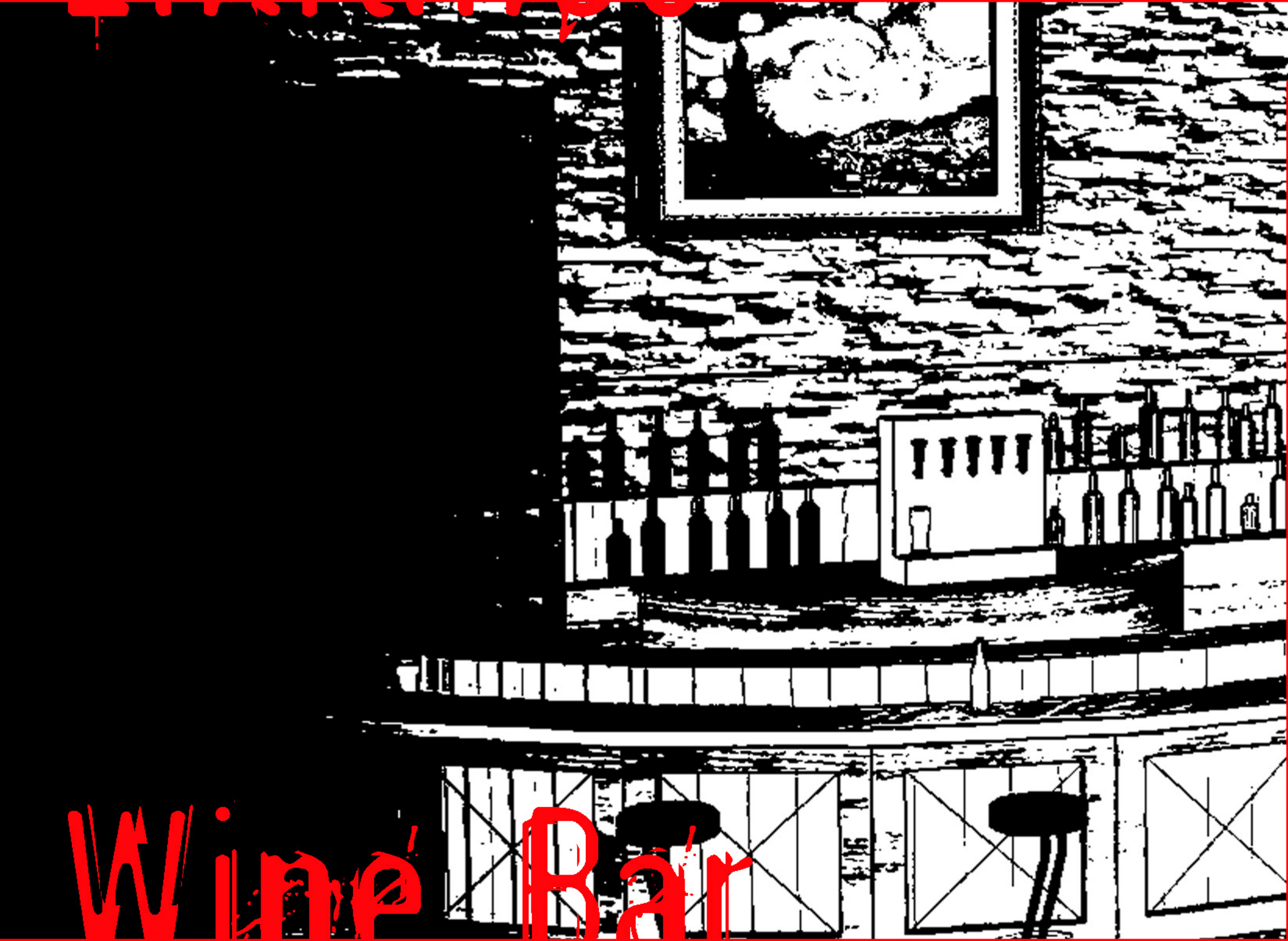


Floor Layout

The research facility is designed to help develop new grape vines that are more suitable to growing in the cold winter climates of southern Minnesota. Currently southern Minnesota grape growers bury the vines under a couple feet of dirt to protect them from the cold winters. This has been a very common practice for grape growers that are located in cold climates. Grape vines tend to retain large percentages of water, during the winter months, these deposits of water freeze and the vines explode. Even after burying the vines, grape growers experience fifteen to twenty percent loss. With new vines taking five years to start producing grapes for wine this can be expensive. That is why this small research facility will be devoted to developing state of the art grape vines that can withstand the cold climate.



Entrance



Wine Bar



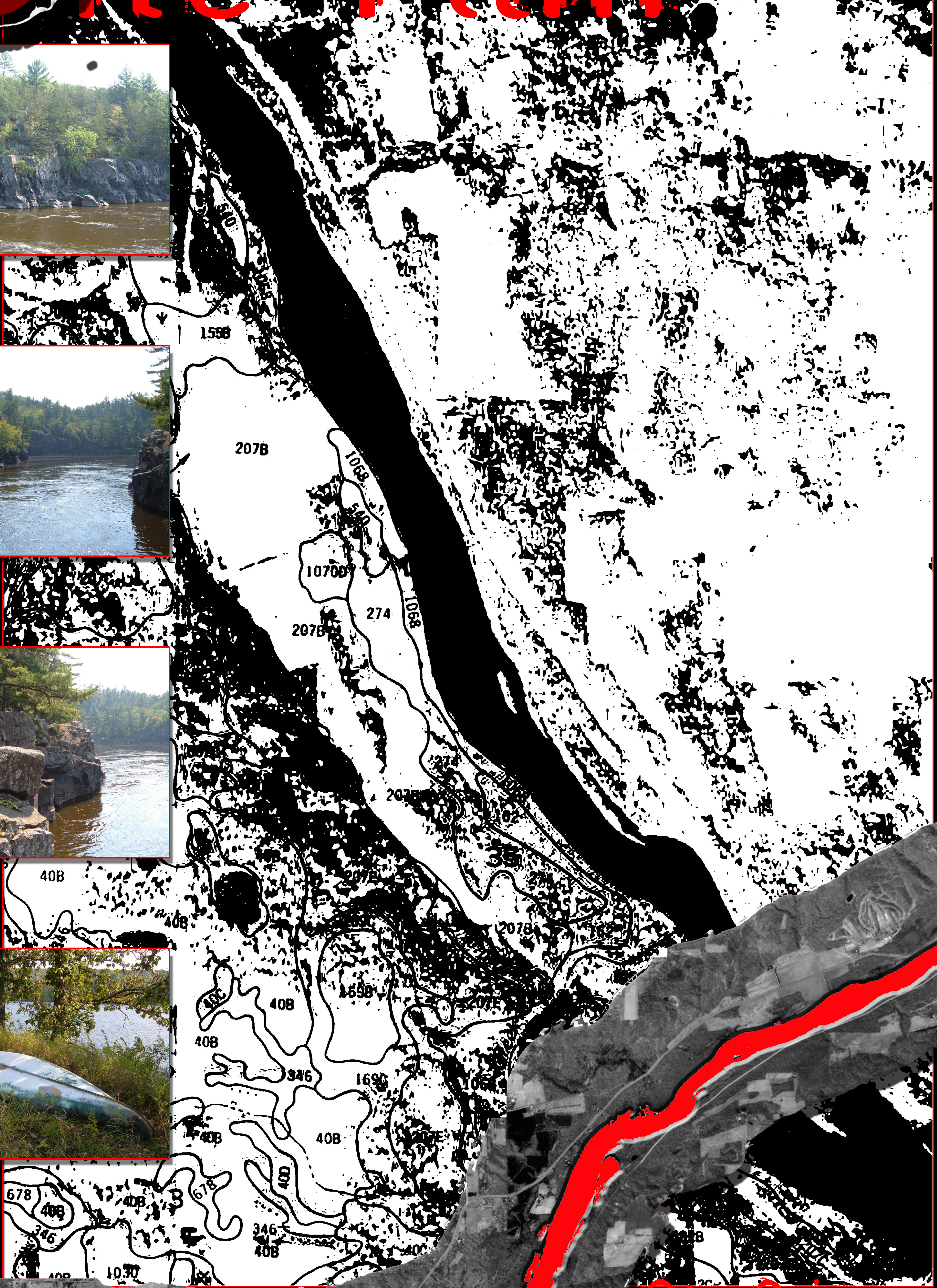
Tasting Room



Vinification Facility



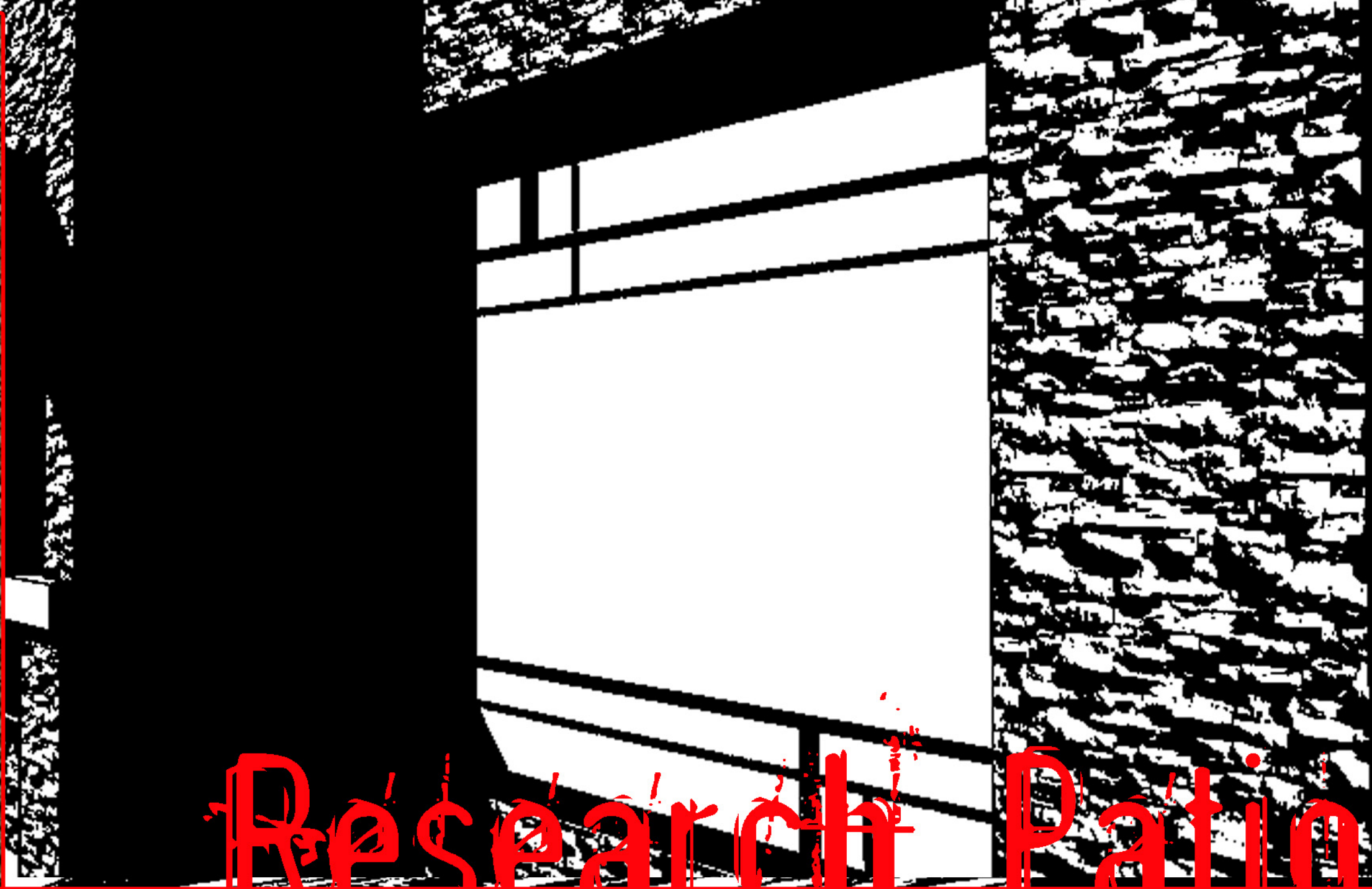
TAYLOR'S FALLS, MN Site Plan



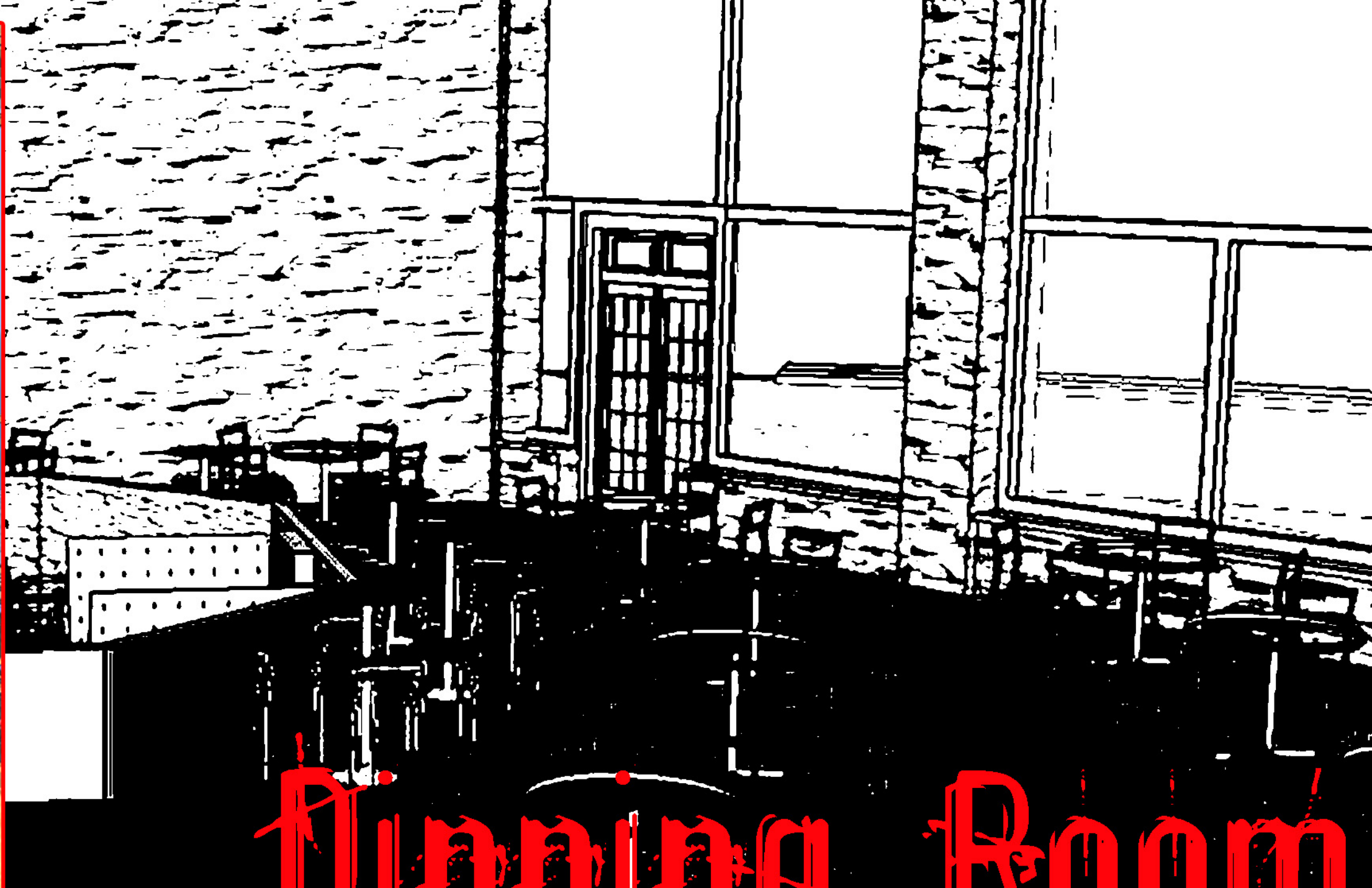
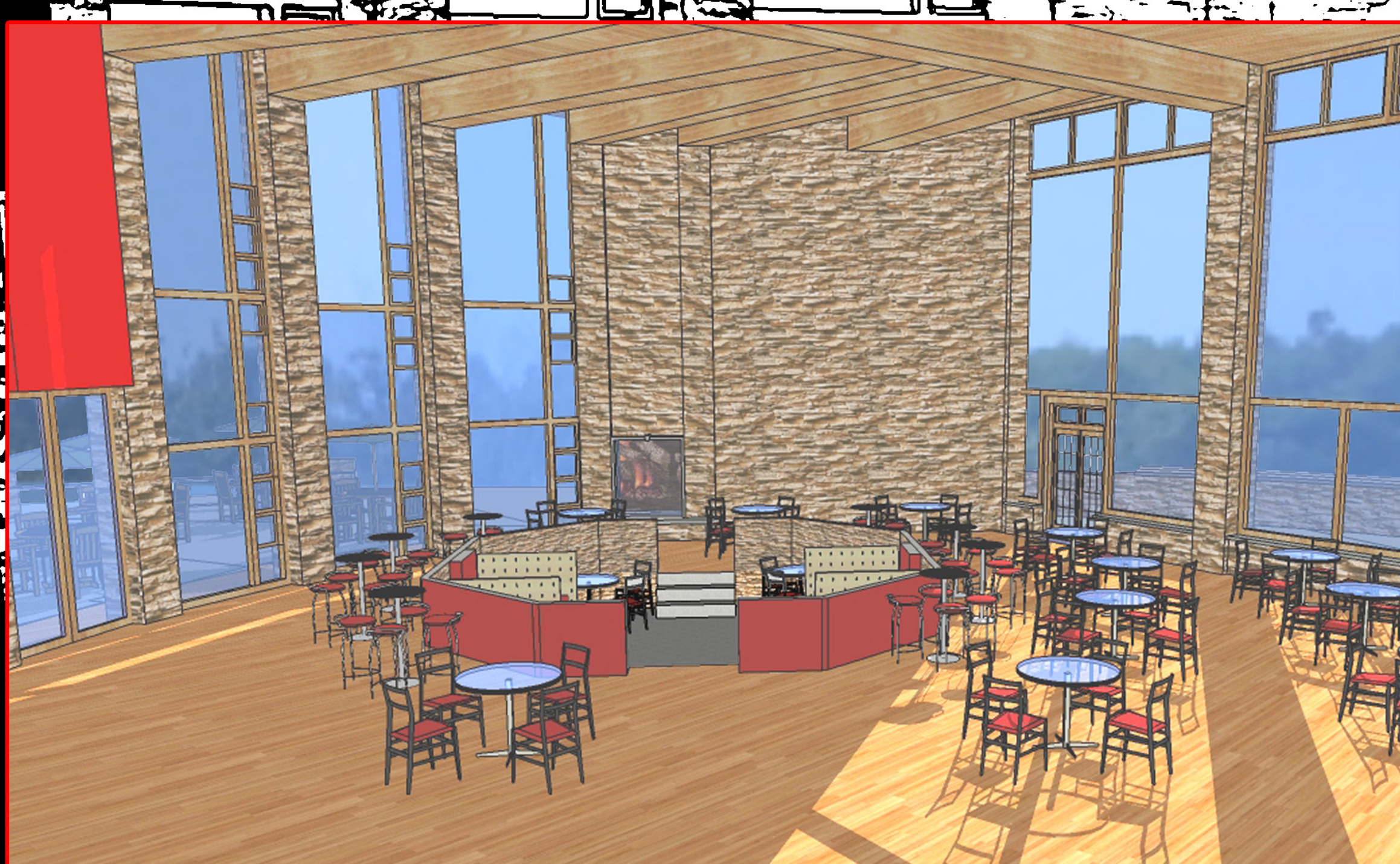
St. Croix
River



Research Center



Research Patio



Dinning Room



Restaurant & Winery

Entrance