

Distinguish, differentiate, compare and explain what is the difference and similarities between Bull's trench kiln and Hoffman's kiln. Similarity, Comparison and Differences.

The main difference between the Bull's trench kiln and the Hoffman kilns are:

1. Hoffman's kiln is an over the ground structure while Bull's Trench Kiln is an underground structure.
2. Hoffman's kiln have a permanent roof while Bull's trench Kiln do not have so it former can be used in 12 months a year to manufacture bricks but later is stopped in the monsoon season.

Differences between Bull's trench kiln and Hoffman's kiln

S.No.	Bull's trench kiln	Hoffman's kiln
1	Burning capacity is about 3 lacks in 12 days.	Burning capacity is about 40 lacks in one seasons.
2	It required more space for drying of bricks.	It required less space for drying of bricks.
3	Consumption of fuel is more.	Consumption of fuel is less.
4	Initial cost is low.	Initial cost is high.
5	More popular because of less initial cost.	Less popular because of high initial cost.
6	Percentage of good quality bricks is small.	Percentage of good quality of brick is more.
7	It stops functioning during monsoon as it is not provided with a permanent roof.	It functions all the year round as it is provided with a permanent roof.

Bull's Trench Kiln

Bull's trench kiln consists of a rectangular, circular or oval plan shape. They are constructed below the ground level by excavating a trench of the required width for the given capacity of brick manufacturing. This Trench is divided generally in 12 chambers so that 2 numbers of cycles of brick burning can take place at the same time for the larger production of the bricks. Or it may happen that one cycle is carried out at one time in all the 12 chambers by using a single process in the 2-3 chambers at the same time. The structure is under-ground so the heat is conserved to a large extent so it is more efficient. Once fir is started it constantly travels from one chamber to the other chamber, while other operations like loading, unloading, cooling, burning and preheating taking place simultaneously. Such kilns are generally constructed to have a manufacturing capacity of about 20,000 bricks per day. The drawback of this kiln is that there is not a permanent roof, so it is not easy to manufacture the bricks in the monsoon seasons.

Hoffman's Kiln

Hoffman's kiln is generally circular in plan, and is constructed over the ground. The whole structure is divided into the 12 chambers and the entire processes takes place simultaneously like in Bull's trench Kiln.