The Harris Matrix

Archaeologists rely heavily on the three basic laws of stratigraphy to understand layers in the dirt, create archaeological context, and maintain relative dating. These laws are:

<u>The Principle of Superposition</u>: in a series of layers and features, the upper layers were deposited later and so are younger, and lower layers are older. In other words, "the further down you dig, the further back in time you go."

<u>The Principle of Original Horizontality</u>: layers were originally deposited in a horizontal position, whether or not they still appear horizontally in an excavation.

<u>The Principle of Lateral Continuity:</u> a layer appearing in a vertical "sliced" view means that this layer was cut into at some point in time, and part of it removed; the layer continues uninterrupted in surrounding areas.

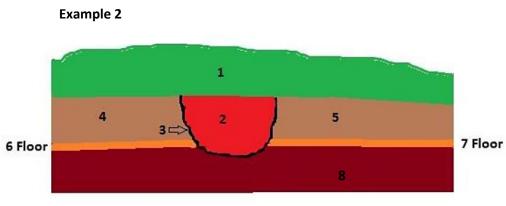
A **Harris Matrix** is a tool that archaeologists use to keep track of stratigraphy and stratigraphic units. By using the laws of stratigraphy, archaeologists create these logic diagrams to record the top-down sequence of stratigraphic deposits and help make sense of the information they contain.

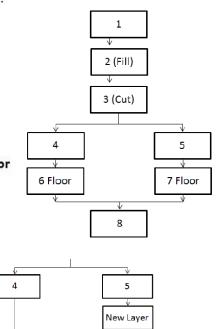
Example 1 $\begin{bmatrix}
1 \\
\downarrow \\
2 (Fill) \\
\downarrow \\
3 \\
2 \\
4 \\
5
\end{bmatrix}$ $\begin{bmatrix}
1 \\
\downarrow \\
2 (Fill) \\
\downarrow \\
4 \\
\downarrow \\
5
\end{bmatrix}$

Example 1 below depicts some simple stratigraphy. At the right is the Harris Matrix of this particular site.

In the Harris Matrix, Unit 2 is the fill of an intrusive pit, which was created by a cut. This cut is Unit 3 – not actually a physical layer – which occurred in the layer called Unit 4. We know Unit 3 (the cut) exists because of the differentiated fill (Unit 2).

In <u>Example 2</u> below, the situation is slightly more complex. Units 4 and 5 are not touching, broken by the intrusive cut Unit 3 and its fill Unit 2, but share the same position in the logical sequence of layers (Principle of Lateral Continuity). The same is true of Units 6 and 7. While these units are the same color in this image, the same logic can be applied to layers of different colors or textures. All that matters is the sequence.





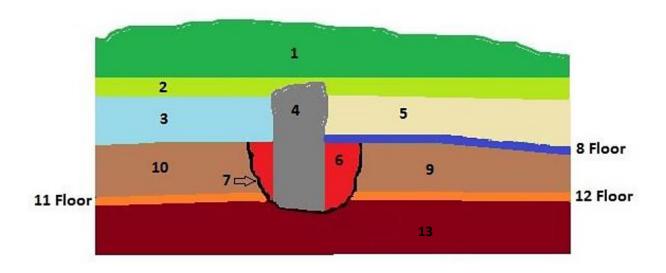
7 Floor

6 Floor

If there was a layer between Units 5 and 7 but not between 4 and 6, that layer would be added as an unnumbered unit in the sequence, but 4 and 5, as well as 6 and 7, would remain parallel as they are above. The connecting arrow between 4 and 6 would be lengthened.

Now it's your turn!

Draw the Harris Matrix of the image below. Remember to keep your logic straight!



ANSWER:

