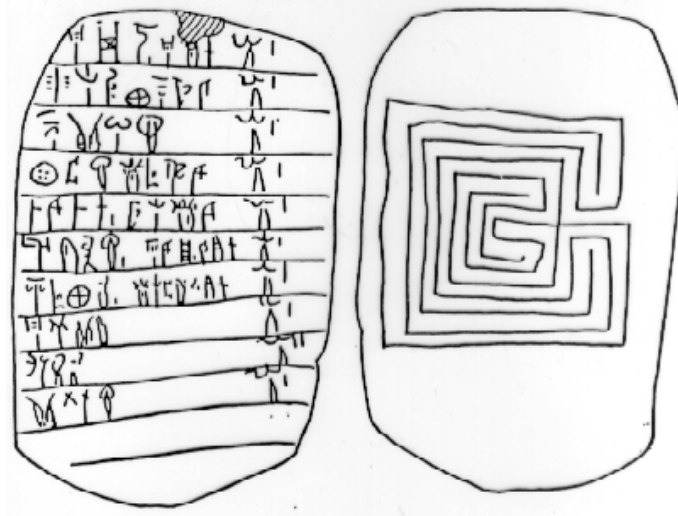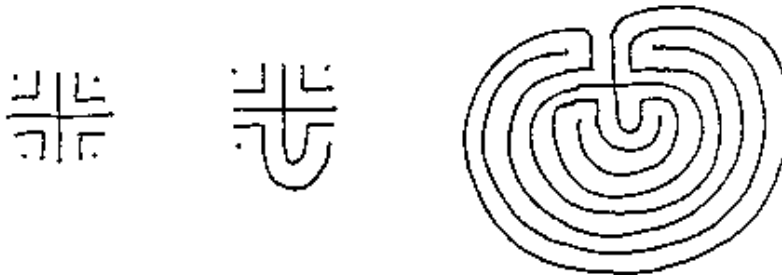## MAZES!

The pictures show two sides of a clay tablet from King Nestor's palace in Pylos from about 1200 BCE.

This maze is called the Cretan Maze, and it can be drawn in a special way by starting from its nucleus:

The Cretan Maze is an example of an ancient type of maze called Simple Alternating Transit Mazes. They don't have branches, just a path that eventually reaches the center.
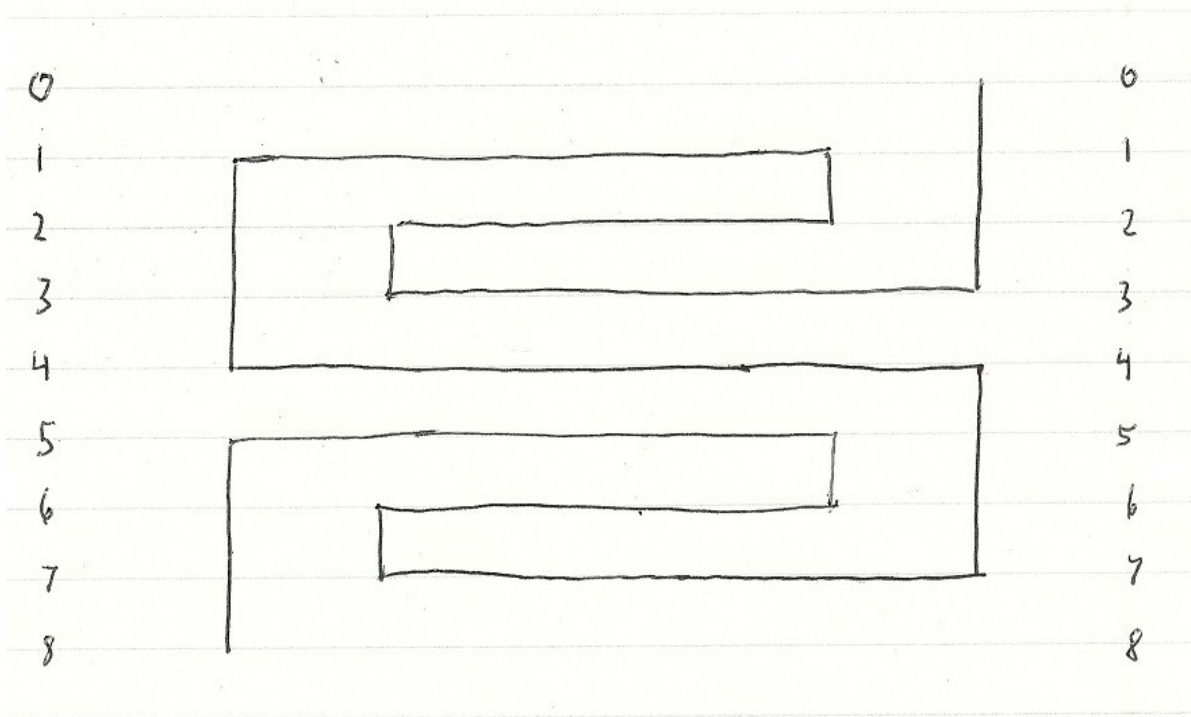
1) Learn to draw the Cretan Maze.

2) Draw it as a maze with an entrance and an exit.

3) Create a different maze of any kind

4) Do research and learn more about S.A.T. mazes.

5) Draw a different S.A.T. maze.

6) Create an artistic rendering of a maze.

7) How many S.A.T. mazes are there for each number of levels?

8) Learn how to play the Cretan maze as a melody!

9) Have fun!

Thanks to Tony Phillips! For more information visit his website:

www.math.sunysn.edu/~tony/mazes/

The Cretan Maze has levels, and counting the outside as 0, it takes you on this route: 0, 3, 2, 1, 4, 7, 6, 5, 8. We can also draw it as a maze with an entrance and an exit:

This drawing above shows the *path* through the maze--you need to add the walls around it.
To make more S.A.T. mazes, for example with 10 levels, follow these rules:
Start with 0, end with 10.
Alternate odd and even.
Look at pairs of neighboring numbers in the maze path beginning with an even number. If two pairs overlap they must be nested like 0-3 and 2-1 in the maze above. 0-3 and 2-5 wouldn't work. The same is true for pairs beginning with odds.