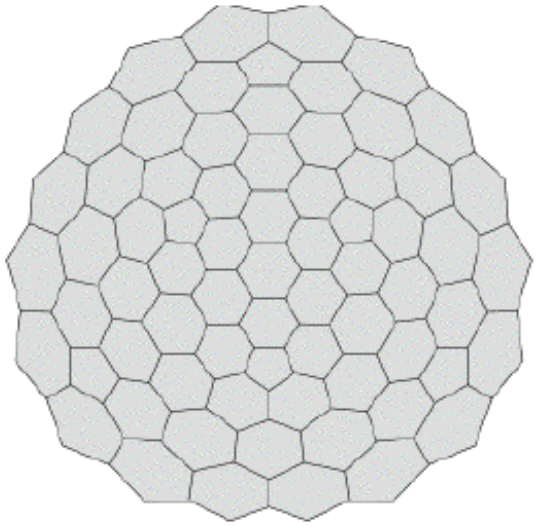
Gaia

2002, Mark Thompson
Text from Cameron Browne's *Connection Games* (2005)

Gaia has a similar layout and theme to 1966's Split but introduces an effective tie-breaking mechanism.

Rules

Gaia is a game in which two players, Black and White, attempt to connect opposed points on a rounded board. The board is irregularly tessellated and contains six five-sided cells; all other cells are six-sided. The board is initially empty.



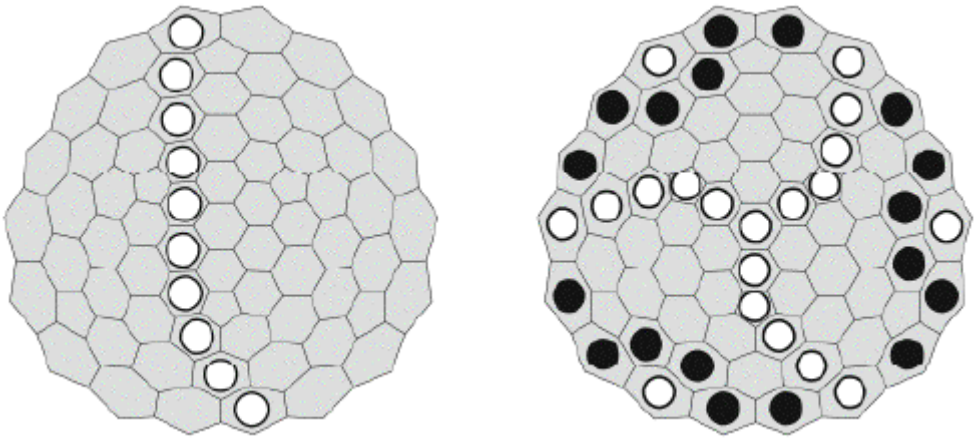
Players take turns placing a piece of their color on an empty cell. If a piece is played on an edge cell, then another piece of the same color is also placed on the maximally removed edge cell on the far side of the board.

A player wins by either:

- completing a chain of his pieces across the board between two opposed edge cells, or
- forming a Y that renders any Type 1 connection by the opponent impossible.

Every game must have exactly one winner. A single-move swap option is recommended. Edge cells may be marked by letters or some appropriate symbol to explicitly show opposed pairs; the original board design used astrological symbols.

Notes



(left) shows a game won by White, who has completed a chain of white pieces between two opposed white edge pieces. (right) also shows a game won by White. This is a Type 2 connection in which the white Y stops all possible black connections across the board. Note that every piece occupying an edge cell has a matching piece of the same color on the far side of the board.

The winning conditions can also be described as follows. Any edge cell that is part of a chain is called an anchor. The object of the game is to create a chain with at least two anchors, in which the gap between every pair of consecutive anchors (going around the board) is less than half the board's perimeter.

The game graph for Gaia is more complicated than that for Split, and involves a separate graph for each pair of antipodal cells (which form the terminals for that graph). If any such pair is joined then the player wins; if all such pairs are cut then the opponent wins.

Notes from Mark Thompson

Although the center is still somewhat more valuable than the perimeter, since a path through the center can take advantage of more two-way stretches, opening play needs to gain influence over large areas of the board. Any part may be ultimately important, especially on larger boards. Note that either a straight or curved path linking two opposite cells requires about the same number of cells. But ladders around the circumference are also important, and the player unlucky enough to be on the inside of such a ladder can only win it by running into a friendly stone, prudently placed ahead of time.

History

Gaia was invented by Mark Thompson in January 2002.