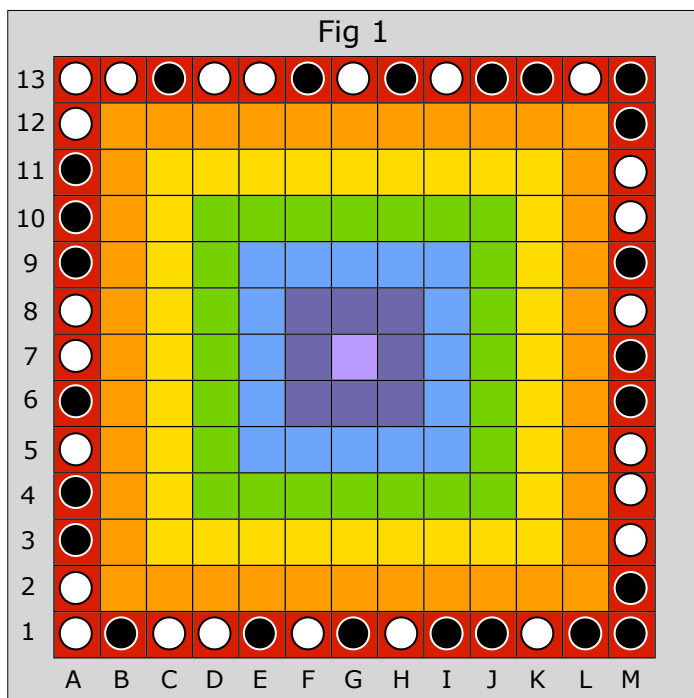# Morelli

A game of pure skill for two players

' "Is it true that there is an Indian chess game with sixty pieces on each side?"

"It's possible," Oliveira said. "The infinite game."

"The one who conquers the centre wins." '

Julio Cortázar, *Hopscotch*, Chapter 154

1) Equipment

Fig 1

1.1 The 120 pieces posited by Cortázar's Morelli would require, at this game, a 31x31 matrix – which in terms of time and sanity might as well *be* infinite. 13x13 is quite challenging enough. The board [**Fig 1**] is coloured, in the concentric manner of a square archery target, with the successive shades of the rainbow: Red (outermost band, 48 squares) through to Violet (single square – the Centre, or **Throne**).

1.2 There are 48 reversible black/white pieces – plain and circular.

1.3 Also a black and a white **King** (or a single reversible one), clearly distinguishable from the other pieces.

2) Setting up

2.1 At the beginning of the game, Black and White have 24 pieces each on the board.

2.2 These are randomly disposed on the outermost band, with the sole proviso that every piece must have a piece of the adverse colour diametrically opposite [see **Fig 1**, for example]. Even discounting rotations and reflections of the same position, this gives rise to over two million distinct set-ups – for all practical purposes unlimited replayability.

2.3 In online play, a set-up will usually be generated automatically. Face to face, it is arrived at as follows:

> **2.3.1** The players determine by any mutually-acceptable method which of them is to be Black; *then*

> **2.3.2** Black places, anywhere on the outermost band but diametrically opposite each other, a black and a white piece; *then*

> **2.3.3** White places *two* such pairs wherever he wishes; *then*

2.3.4 The players alternate in repeating **2.3.3** until only one pair of vacant spaces remains; *then*

2.3.5 Black chooses which way round to place the last two pieces.

2.4 Neither King is on the board at start of play.

3) Winning

3.1 At the start of the game the Throne is vacant, but it may in the course of play be occupied by either King. Once occupied, it may subsequently change hands any number of times from Black to White or vice versa.

3.2 The winner is the player whose King is on the Throne at the moment when the game ends.

3.3 If the Throne remains vacant from start to finish, the game is drawn.

4) Moving

4.1 Players take turns to move one piece of their own colour, Black moving first.

4.2 A piece may move any distance and in any direction along an orthogonal or diagonal line, subject to the following conditions:
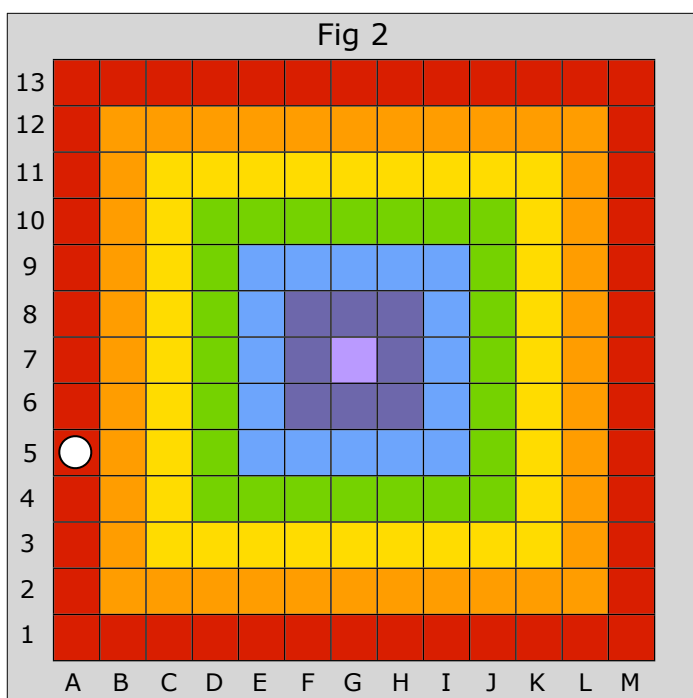
Fig 2

4.2.1 It must land upon a coloured band nearer the Throne than the band on which it stood before the move, though it may cross an axis of the board in so doing. Thus, in **Fig 2**, the white piece at A5 may move to B5, but equally to L5 (or any square in between); likewise, to anywhere on the diagonal from B6 to H12 or from B4 to D2. But the squares I13, M5 and E1 are unavailable to it, as are all those along the A file.
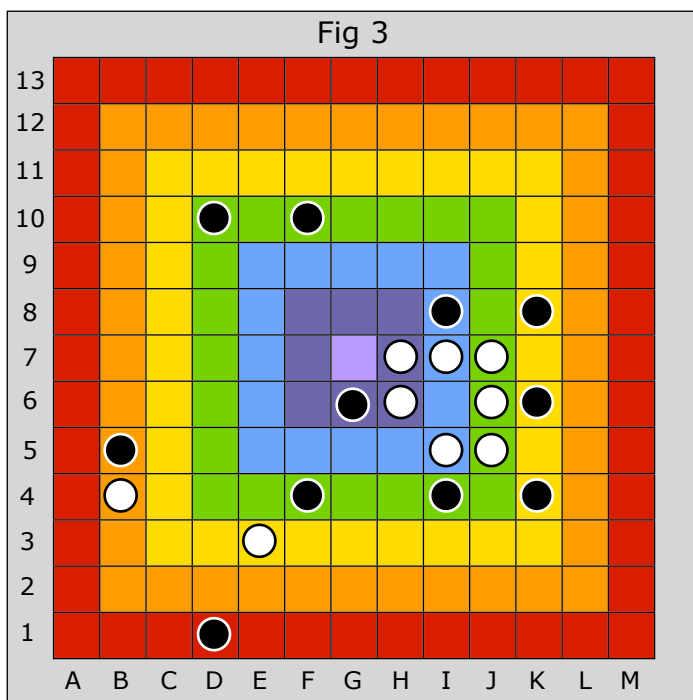
4.2.2 It cannot cross or land upon any cell occupied by another piece, whether friendly or hostile.

4.2.3 It may cross the Throne while the latter is still vacant, but not once it is occupied.

4.2.4 It cannot in any circumstances land upon the Throne.

4.3 Kings do not move at all. They simply occupy the Throne.

5) Capturing

Fig 3

5.1 Capture in **Morelli** is custodial capture. That is, it takes place when a moving piece comes to rest next to an adverse piece whose immediate neighbour on the opposite side, either orthogonally or diagonally, is a piece (*not* a King) also belonging to the mover. In **Fig 3**, the black piece at D1 would capture the white piece at B4 by moving to B3, or the one at E3 by moving to D2. If it moved to I6, six white pieces would perish at one fell swoop.

5.2 Captured pieces defect to the captor, changing colour accordingly.

5.3 A capture must be the immediate result of an active move by the captor during open play. Hence:

5.3.1 Pieces on the outermost band are at all times immune from capture (consequence of **4.2.1**).

5.3.2 A piece may be inserted with impunity between adverse pieces already in place. In **Fig 3**, for instance, the white piece at E3 could, if so desired, escape to E10 in perfect safety.

5.4 Captures are effected as part of the turn which gave rise to them.

5.5 Any capture arising from a given move (including multiple captures) *must* be effected.
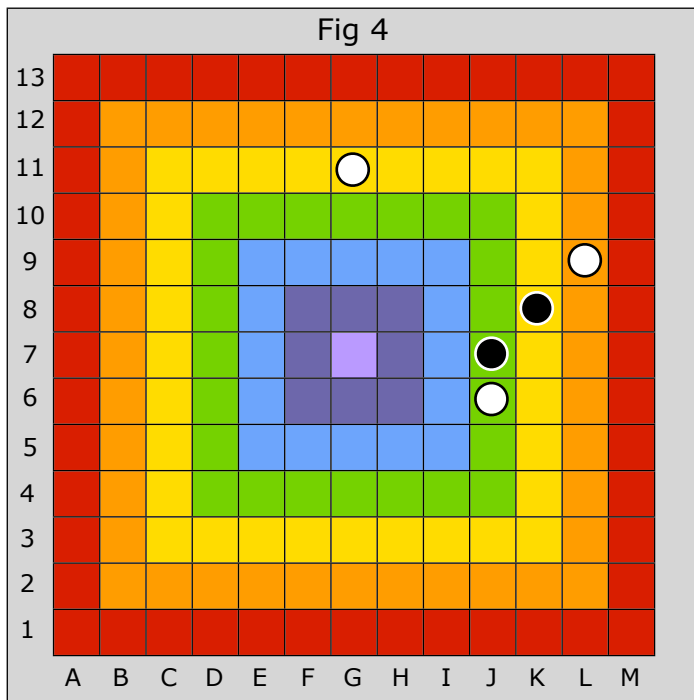
Fig 4

5.6 ['Ripple Rule'] Even if a captured piece completes, by virtue of changing colour, what would otherwise be the conditions for the capture of a further piece, that secondary capture is not permissible. In **Fig 4**, the White move G11-J8 captures the black piece at J7, but the latter's change of colour does *not* trigger a 'knock-on' capture at K8.

6) Completing a frame

Note The term "**frame**" has been introduced into these revised rules in order to disambiguate "**square**", which henceforth should be reserved for reference to one of the board's unitary cells. Experience suggests that this convention of nomenclature is sufficiently useful to be worth maintaining.

6.1 A frame is an arrangement of four pieces:

> **6.1.1** all belonging to the same player; *and*

> **6.1.2** forming the corners of a perfect square; *and*
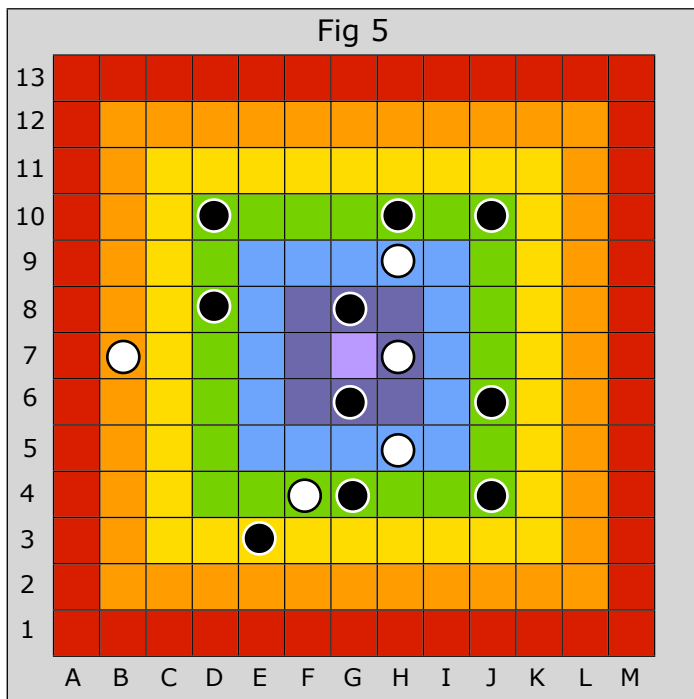
> **6.1.3** centred upon the Throne.

[Rule of thumb for recognizing a frame: all four pieces (a) on the same colour-band *and* (b) evenly spaced.]

6.2 A frame may be completed by a move in various ways – namely:

> **6.2.1** where a missing corner is supplied by the moving piece; *or*

> **6.2.2** where a corner of adverse colour is converted by capture; *or*

> **6.2.3** both of the above at once.

Fig 5

Thus, in **Fig 5**, the Black move E3-D4 completes a frame at the Green corners. E3-E4, on the other hand, completes, by capture, a different and less obvious Green frame. And, spectacularly, the White move B7-F7 conjures an Indigo frame out of thin air by adding three corners at a stroke.

6.3 As with capture, the completion of a frame must be the immediate result of an active move during open play. Hence:

6.3.1 no frames can be formed on the outermost band (indirect consequence of **4.2.1**).

7) Occupying the Throne

7.1 Where a player's move completes a frame, he *must*, as part of the same turn, enthrone his King, evicting his opponent's if applicable.

7.2 Where the mover's King already occupies the throne, no action results from the completion of a frame.

8) Ending

8.1 The game ends when either player, *on his turn*, has no legal move – or at any earlier moment by agreement between the players.

The importance of the phrase "on his turn" is illustrated by the endgame in **Fig 6** (see below), where it will be noted that the Throne is occupied by Black's King, which White must therefore evict in order to avoid defeat.

White has the move, but, crucially for the outcome, Black is now completely gridlocked, so that, although the white piece at L9 *seems* able to complete a Green frame by marching initially to J11 and then back down to I10, in practice the game will terminate after the first of these moves, with victory for Black.

Fig 6
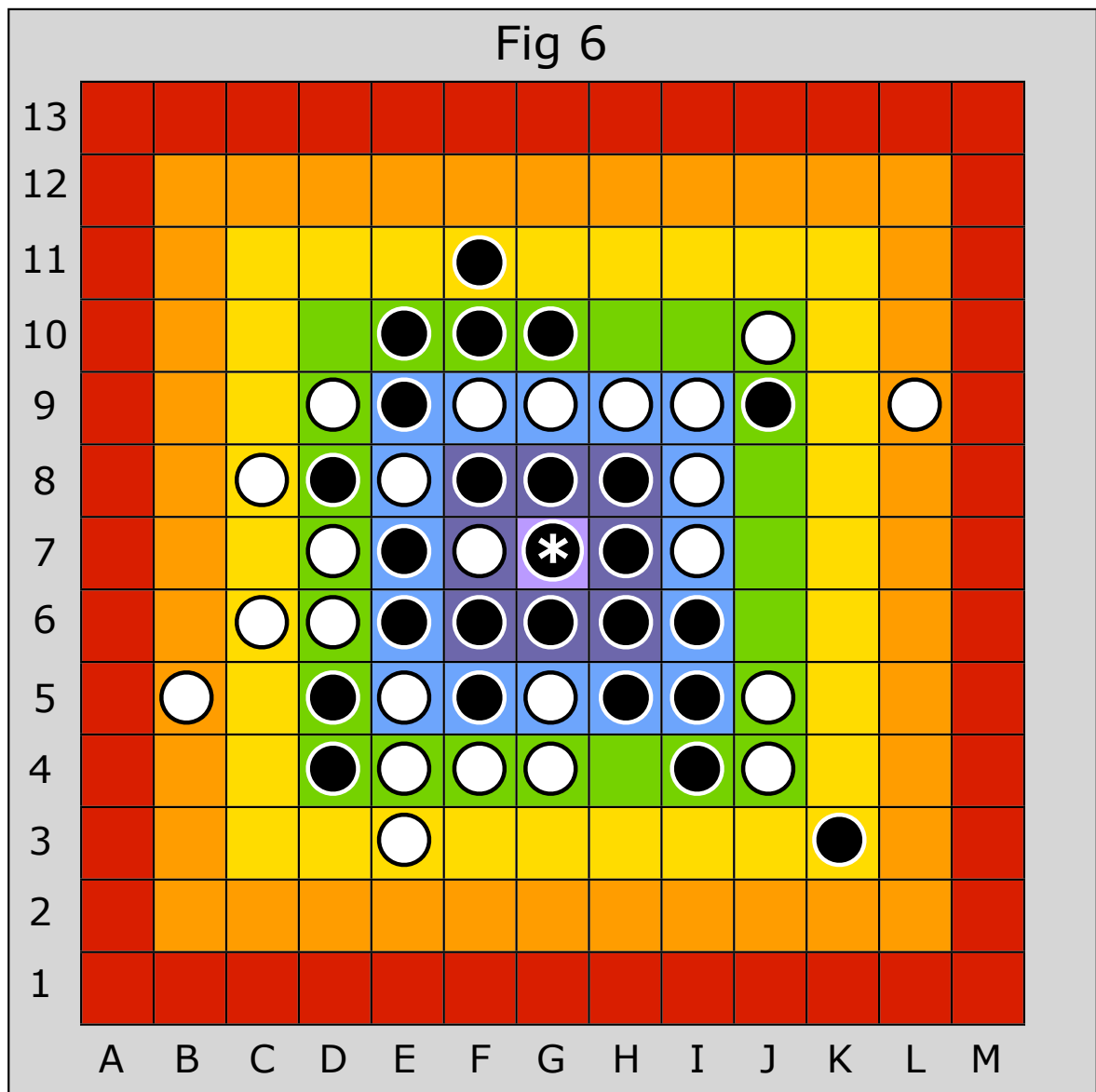
9) Morelli on smaller boards

9.1   Newcomers to **Morelli** may find it helpful in the first instance to explore the game on a playing area of less than regulation size. A set-up on the Orange band (11x11, with 20 instead of 24 pieces per player) gives a game which is slightly easier to manage strategically, but an apprenticeship on Yellow (9x9, 16 pieces each) is recommended as an ideal - and far from trivial - introduction. Even Green (7x7, 12 pieces each) will punish carelessness.

Fig 7

Fig 8

Fig 9

Fig 10
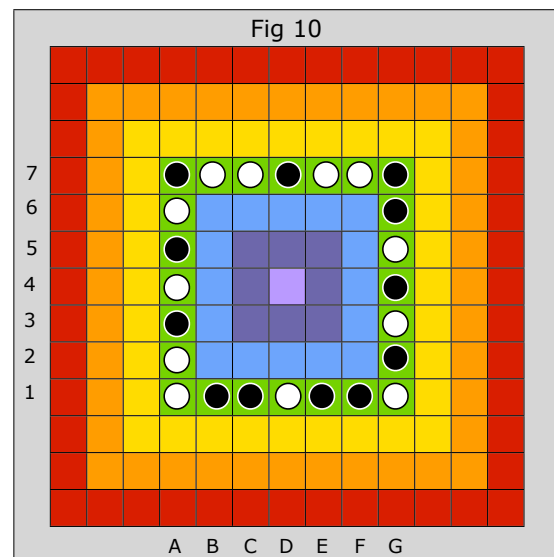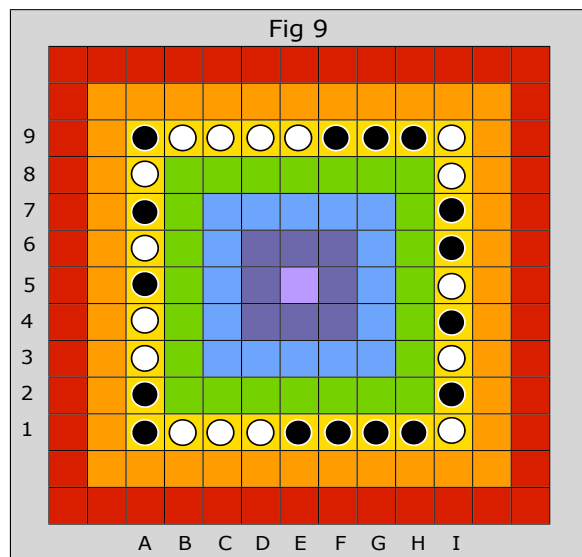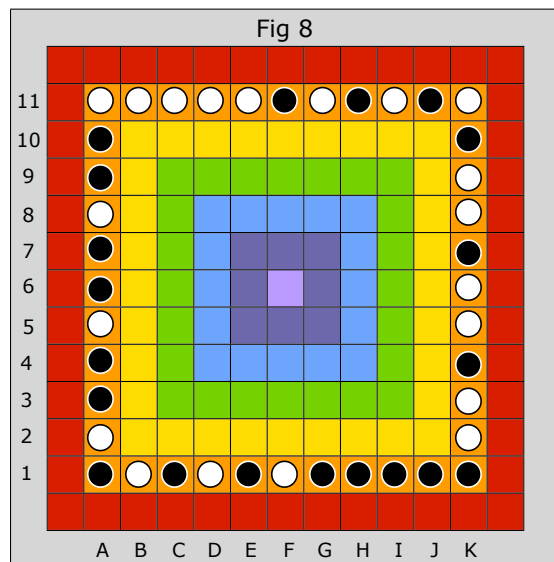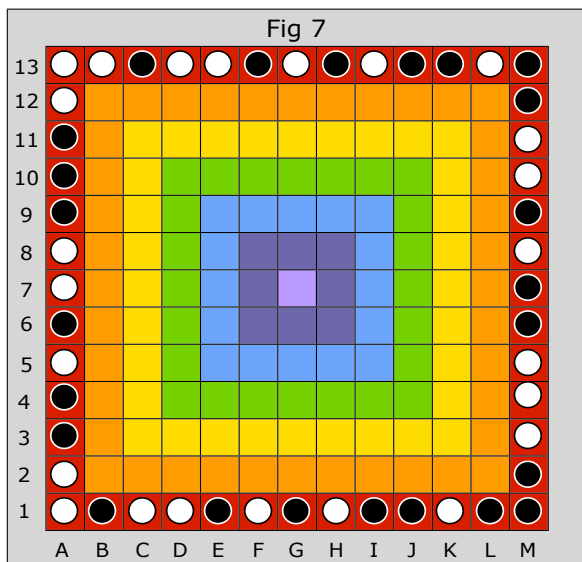
Because of the centripetal movement of pieces, all of these smaller variants play straightforwardly on a regulation board, and none of them requires any modification of the rules.

10) Notation

10.1 For purposes of game recording, standard grid notation is used. Thus, on the full regulation board, files are diagrammed from A to M (reading left to right) and ranks from 1 to 13 (bottom to top).

> **10.1.1** A sample move would be recorded, say: 1. B1-H7

> **10.1.2** A move with capture: 15. K3-K5 xJ5

> **10.1.3** A move with multiple capture: 18. D12-G9 xF8H8

8

10.1.4   A move with occupation of Throne: 24. L10-K9*

10.1.5   A move with capture *and* occupation (or, with capture and *consequent* occupation): 38 C4-C6 xD6*

10.1.6   For the game's terminal move, add // (e.g. 45. A1-B2*//).

10.2   Notation for frames is not usually required in the actual recording of games, but is extremely convenient when discussing them.

Fig 11

The system illustrated in **Fig 11** enables any frame to be uniquely identified by the name of a colour coupled with a number between 1 and 10. Note that numbering proceeds clockwise from the corners. Thus, one refers to frames as Orange 3, Yellow 7, Green 6, Blue 4, Indigo 1, etc, and in analyzing might say or write something like: "Black's F13-F12 prevents White from establishing the Orange 5 frame."

11) Board colouring

For the benefit of those to whom the information might be of use or interest, the official RGB colour specifications for the **Morelli** board are:

	R	G	B
Red:	204	0	0
Orange:	255	140	0
Yellow:	255	204	0
Green:	102	205	0
Blue:	92	145	251
Indigo:	90	82	155
Violet:	171	130	255