

JERSI





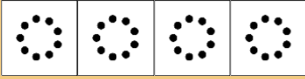
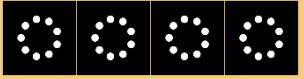
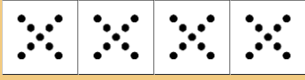
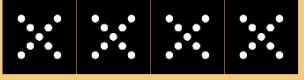
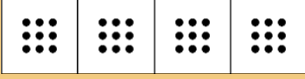
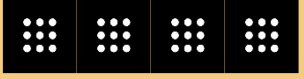
Your white shapes chase after your opponent's black in order to capture their unique black "kunti", and vice versa. On the hexagonal board, stacks project your forces and protect your forms from enemy threats. But not completely, because a ternary and cyclical order governs the forces. So, you will have to stack and unstack your shapes at the right time and in the right place! **[WORKING DOCUMENT !!!]**

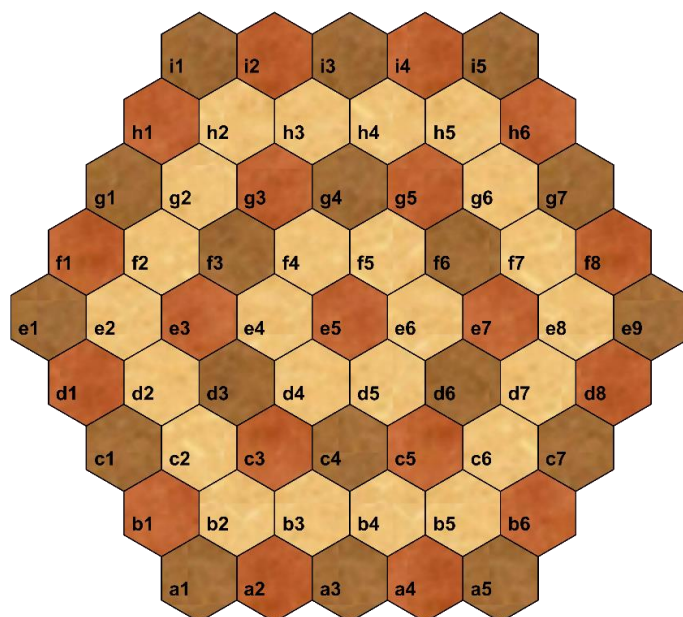
Players

JERSI is an abstract game between 2 players called "**white**" and "**black**".

Components

On a hexagonal board, with 5 side cells, each player moves 13 or 14 "shapes" of his/her color (dices with 6 identical sides) divided into 4 kinds (see [References](#) for pronouncing **jersi**, **kunti** ...):

1 kunti (alias void)		
1 mokca (alias point or guardian)		
4 cukla (alias rock)		
4 kuctai (alias scissors)		
4 kurfa (alias paper)		



Goal of the game

Be the first to capture the opposing **kunti**.

Preparation

The colors are drawn randomly.

White stands in front of rows a and b, and **black** stands in front of rows h and i (see §Components).

Players position all their shapes in the 2 rows closest to their sides, respecting the stacking rules (see §Stacking) and without obligation to completely fill these 2 rows.

Three setting methods are described in [§Standard setting without mokca](#), [§Standard setting with mokca](#) and [§Free setting](#). The first setting is recommended for beginners.

When all the shapes have been placed, the game continues, with the turn of **blank**.

Stacking

Each player can stack and unstack the shapes of his/her color.

The maximum height of a stack is 2. An isolated shape is considered as a stack of height 1.

The shapes within a stack are arbitrary.

The **kunti** can be placed in a stack of height 2, but only at the top.

A shape on top of a stack is « active ».

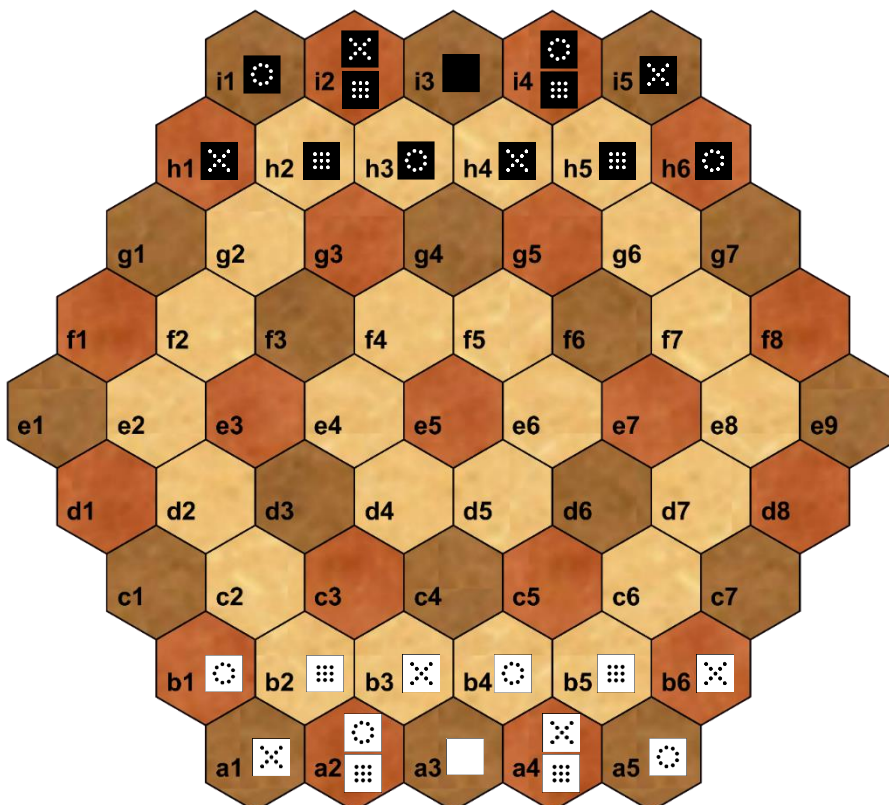
A shape at bottom of a stack of height 2 is « inactive ».

Free setting

First, the players decide whether to use or not the **mokca**. Then, they set all their shapes, one by one, in turn, in the 2 rows closest to their sides, respecting the stacking rules (see §Stacking) and without obligation to completely fill these 2 rows. **White** begins the setting phase.

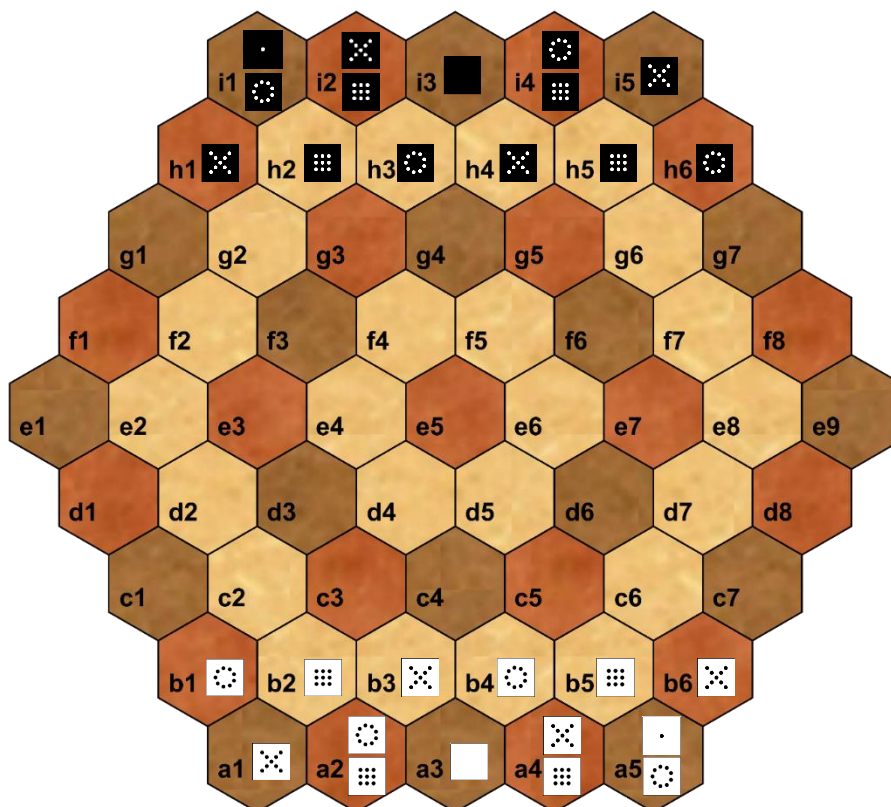
Standard setting without mokca

Hereafter is the standard setting without **mokca**:



Standard setting with mokca

Hereafter is the standard setting with **mokca**:



Moving

A stack of height 1 moves by 1 cell.

A stack of height 2 moves by 1 cell or 2 cells aligned with the start cell.

Stacking or unstacking a shape is equivalent of moving a stack of height 1.

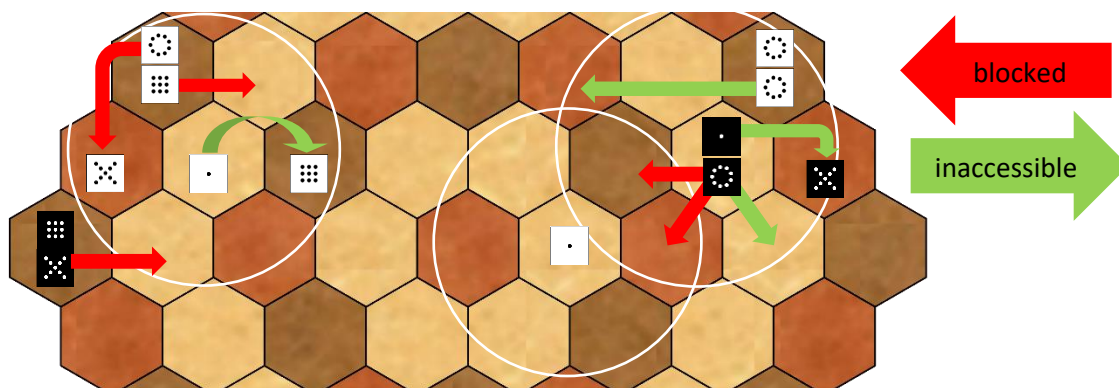
Passing over a shape is forbidden.

Blocking

When a **mokca** becomes active, during the next game turns, the cells bordering this **mokca** become inaccessible, to any allied or opposing stack of height 2, either by stacking or by movement.

A stack of height 2 with an active **mokca** is never blocked, except by an opposing active **mokca**.

A stack of height 1 is never blocked.



Attacking

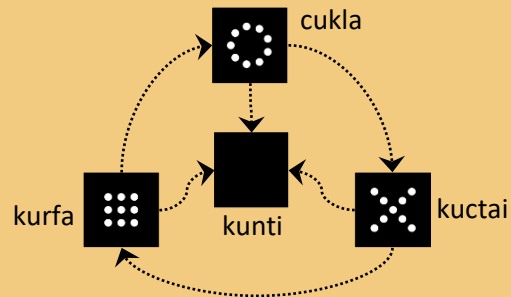
An attack is a movement arriving to a position occupied by the opponent.

An attack is only possible if the strength of the attacking stack is greater than that of the attacked stack. After the attack, the beaten opposing stack is entirely removed from the board.

The strength of a stack is determined by the shape of its top, regardless of its height.

The strengths of the shapes are ordered as follows:

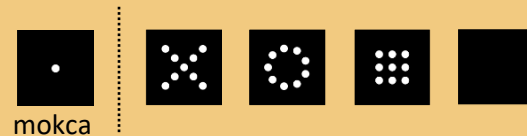
- **cukla** beats **kuctai**;
- **kuctai** beats **kurfa**;
- **kurfa** beats **cukla**;
- **cukla**, **kurfa** and **kuctai** beat **kunti**.



Defending

Mokca's purely defensive behavior is as follows:

- **mokca** does not beat any shape;
- no shape beats **mokca**.



A stack of height 2 with active **mokca** cannot be attacked.

Mokca is vulnerable when inactive in a stack of height 2.

Turn of game

Each player plays one or two moves. It is not possible to pass your turn.

For his/her first move:

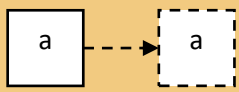
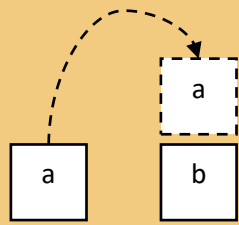
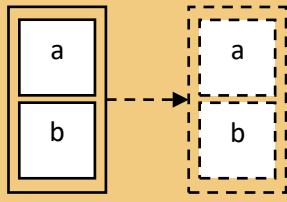
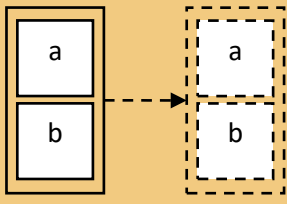
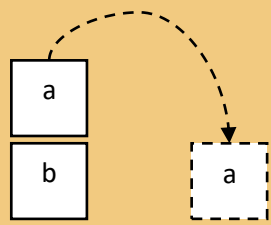
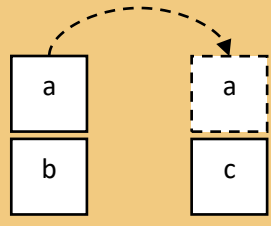
- The player chooses one of his/her stacks and engages either the full stack of 1 or 2 shapes, or the top of a stack of 2 shapes.
- The player chooses an arrival position for the engaged shape/shapes:
 - If the arrival position is empty, then it is a displacement.
 - If the arrival position has the same color, then it is a stacking.
 - If the arrival position has a different color, then it's an attack.
- The rules for moving, stacking and attacking must be respected.

For his/her optional second move, the player must engage 1 or 2 shapes of the arrival stack from the first move, respecting the following alternating condition:

- If, during the first move, 1 shape has moved, then, during the second move, 2 shapes must move.
- If, during the first move, 2 shapes have moved, then, during the second move, only 1 shape must move.

If the alternating condition cannot be satisfied, then the second move is impossible.

The table below graphically illustrates the possible sequences of the two moves of a player having the shapes "a", "b" and "c" and also mentions the associated possible attacks.

Case	1 st move		2 nd optional move	
1		Move « a ». Possibility to attack the arrival cell.	No option.	
2		Stack « a » over « b ». No possible attack.		Move stack « a+b ». Possibility to attack the arrival cell.
3		Move stack « a+b ». Possibility to attack the arrival cell.		Unstack « a ». Possibility to attack the arrival cell.
				Unstack « a » et stack it over « c ». No possible attack.

Game endings

When a player captures the opposing **kunti**, the game ends, and that player wins the game.

As soon as a player has only one kind of shape, in addition to the **kunti** and a possible **mokca**, then the game must be stopped at the latest after 20 turns (10 turns of **white** and 10 turns of **black**). If no **kunti** is captured after these 20 turns, then the following rules allow you to conclude:

- The player who has the greatest number of shape kinds on the board wins.
- If both players have the same number of shape kinds on the board, then the one who has the greatest number of shapes on the board wins.
- In all other cases, it is a tie game.

Notation

The coordinate system of the board makes it possible to note the positions of the shapes (see §Components). Each row is marked with a letter. Each position in a row is identified by the number corresponding to its order in the row. The **white** starting positions are rows a and b. A position is given by a letter followed by a number; example: c2.

Each shape setting is noted by the letter identifying the shape, then ":" and the position. The shape identifier is its first distinctive consonant in the ordered list of names: "C" for **cukla**, "K" for **kuctai**, "N" for **kunti**, "R" for **kurfa** and "M" for **mokca**.

Notation example for the setting phase:

N:a3 N:i3 C:b1 C:h6 R:b2 R:h5 K:b3 K:h4 ...

Each move is noted by the starting position, followed by "-" for 1 displaced shape or "=" for 2 displaced shapes. One adds "!" at the end of the move to notify a capture. For the final capture of the **kunti**, one adds "!!". The second move is noted by continuing after the arrival position of the first move. The notation ends with the score: 1 for the winner; 0 for the loser; 1 to each player for a tie game.

Notation example of moves:

a5-b5=d7	i5-h5=f7
d7=e8-f7!	h6-g6
e8-f7=g6!	i2-h3=f5
g6=i4!-i3!!	
1	0

References

The following terms are taken from Lojban, a constructed language developed from 1955 to 1989 by the Logical Language Group:

- “**cukla**”, pronounced [sh.oo.k.l.a] in English or /'ʃukla/ in IPA, means “round” or “circular”;
- “**jersi**”, pronounced [j.e.r.ss.i] in English or /'ʒer.si/ in IPA, means “hunt” or “pursue”;
- “**kuctai**”, pronounced [k.oo.sh.t.ai] in English or /'kuftaɪ/ in IPA, means “cross”;
- “**kunti**”, pronounced [k.oo.n.t.i] in English or /'kun.ti/ in IPA, means “empty”.
- “**kurfa**”, pronounced [k.oo.r.ph.a] in English or /'kurfa/ in IPA, means “square”;
- “**mokca**”, pronounced [m.o.k.sh.a] in English or /'mokʃa/ in IPA, means “geometrical point”.

The strength order of the shapes is taken from the “rock-paper-scissors” game.

The acronym “IPA” stands for International Phonetic Alphabet.

Version

This document, dated on February 24 2020, describes version **4.x** of the JERSI rules.

Changes compared to version 3: **TODO**.

Thanks

I thank my wife “Pt” and my children, “Ad” and “Cr”, for their patience, as well as my colleagues “Al”, “At” and “Bn”, for their participation in the first test sessions and for their suggestions. I appreciated the exchanges on colors and shades with “Mr” who studies the visual arts. Special thanks to my son “Cr” for his contribution to the development and testing of versions 2 and 3 of the rules.

Prototype

On page 8, some photos illustrate my wooden creation of a wide format prototype, more intended for demos than for marketing.

The two folded half-boards constitute a box measuring 44 cm x 22 cm x 5 cm.

The closure of the box is obtained by a cord passing through small holes in the two half-boards; two strips, taken from wooden clothespins, provide a releasable binding on the front of the box.

Inside the box, a felt on its bottom reduces the friction of the 28 dice (the shapes) and embellishes the inside.

The hexagonal cells of the board are delimited by pyrography with a cylindrical iron with a rounded flat head, then varnished in three shades.

The shapes are materialized by cubes of 2 cm side, black or white. The dots on the 6 faces of the cubes are engraved to a depth of at least 1 mm by pyrography with a cylindrical iron with a pointed head. For good contrast, the holes in the black shapes are plugged with white wood pulp. For the finish and their protection, the shapes, both white and black, are treated with colorless varnish.

Copyright



Copyright (C) 2019 Lucas Borboleta.

JERSI, rules of an abstract game for two players, by Lucas Borboleta (<https://github.com/LucasBorboleta/jersi>) is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/4.0/>.

Permissions beyond the scope of this license may be available at lucas.borboleta@free.fr.

Gallery

Here are some photos of my wide format prototype intended for demo:



Journal

Read the journal in the French document at <https://github.com/LucasBorboleta/jersi/blob/master/Jersi-les-regles.pdf>. It is not translated in English.

