shibumi

RULE BOOK

v1.1

Cameron Browne

Néstor Romeral Andrés

Cameron Browne
Computational Creativity Group
Imperial College London
180 Queens Gate, South Kensington
London SW7 2RH UK
www.cameronius.com

Néstor Romeral Andrés
nestorgames
www.nestorgames.com

Thanks To

- **Tom Gilchrist** for mentioning this new word *shibumi* one day...
- **Arty Sandler** for implementing the Shibumi sandbox for testing new game ideas at www.iggamecenter.com.
- **Michel Guitterez** and **Jérôme Choain** for implementing several Shibumi games at www.jocly.com.
- **Nathan Morse** for proofreading and fruitful discussions.
- **Greg James** for starting the classification process.
- **Giacomo Galimberti** for his useful contributions and enthusiasm.
- **Stephen Tavener** for analysis and game ideas.
- **Dieter Stein** for immediately getting the Shibumi philosophy.
- All of the Shibumi Challenge participants!

Shibumi Rule Book v1.1

ISBN: 978-1-4710-8729-5
Lulu.com

Design, text and figures by Cameron Browne.
Cover by Néstor Romeral Andrés and Cameron Browne.

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System

Shibui 渋

Shibui is a term from Japanese aesthetics that means elegance in its minimal form, or simplicity hiding complexity. Objects that display shibui are described as *shibumi*. Such objects may look plain at first, but will reward the viewer with hidden depths the more time is spent with them.

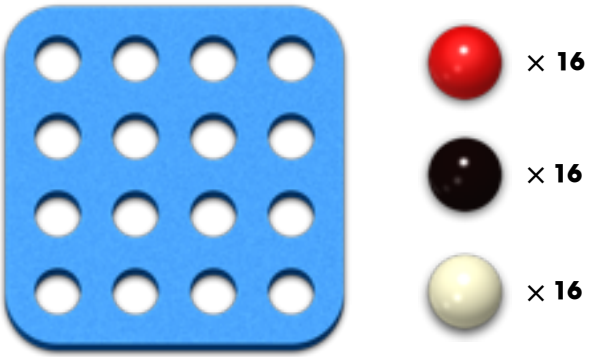
There are many parallels between the principles of shibui and those of abstract game design. For example, the old cliche applied to many abstract board games - *a minute to learn, a lifetime to master* - exemplifies the shibui ideal of simple appearances hiding deeper complexity.

One of the keys to designing shibumi games is to make the maximum use of minimal equipment, through clever use of the rules. These should be deceptively simple, but allow complex interactions to emerge during play.

There are also obvious similarities between the elegance and the *shibusa* (degree of shibui-ness) of an object. However, elegance can describe superficial aspects whereas shibui is a more holistic concept that goes right to the core - things are either shibumi or they are not. Almost any shibumi object will be elegant, but many elegant objects will not be shibumi.

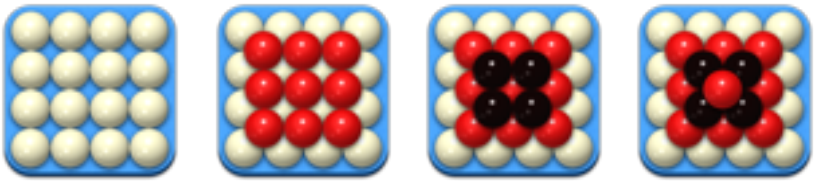
Shibumi Set 渋

The *Shibumi set* is a simple game system that consists of a 4×4 square grid of holes and 16 balls in three colours:



The set is based on a *square pyramidal stacking*. Such stackings have been used for games and puzzles at least since Edouard Lucas's cannon-ball stacking problem of 1875.

Shibumi games do not have to use all balls or all colours, but generally exploit this 3D pyramidal stacking. The set was devised by Cameron Browne in March 2011.



A fully stacked pyramid will contain 4×4 + 3×3 + 2×2 + 1 = 30 balls. There are hence potentially 30 playable points, even though the board itself is only 4×4 in size, and no more than 16 of these points can ever be playable at any given time.

Shibumi games therefore have the move complexity of a 2D (16 point) game but the board complexity of a 3D (30 point) game, so can be more complex than they first appear. Very shibui!

16 balls of each colour were chosen to allow complete coverage of the 4×4 board layer, and to maximise the colour combinations for various numbers of players, while minimising the amount of equipment.

The state of each board point may be described by two bits (00=empty, 01=white, 10=black, 11=red), and the entire board state packed into 2×30 = 60 bits. Each board position can therefore be described by a single 64-bit integer, leading to very efficient computer implementation.

In the context of this book, lower case *shibumi* refers to the aesthetic concept, while upper case *Shibumi* refers to the game system described herein.

The Shibumi set is available exclusively from nestorgames.

Note: Any reference to “red” balls shall refer to medium grey balls in B&W copies of this book.

Definitions

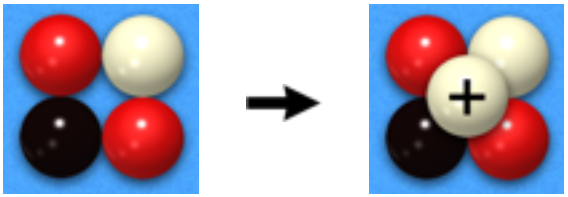
We define some key terms, so that games can be described clearly and unambiguously in a common language.

Position: The levels are described as follows:

- *Board*: 4×4 level of board holes.
- *Level 1*: 3×3 level.
- *Level 2*: 2×2 level.
- *Apex*: Single ball at the top of the pyramid.

A *point* is any location that a ball can be placed. This includes the board level *holes* and higher level points when balls stack. The pyramid is *complete* if all 30 balls are placed.

Stacking: A 2×2 square of mutually adjacent pieces is called a *platform* (left). Balls can stack on platforms (right).

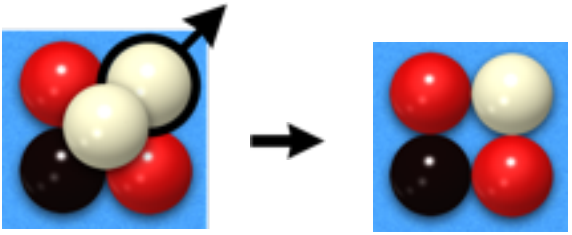


Each ball in the platform *supports* the ball stacked on top.

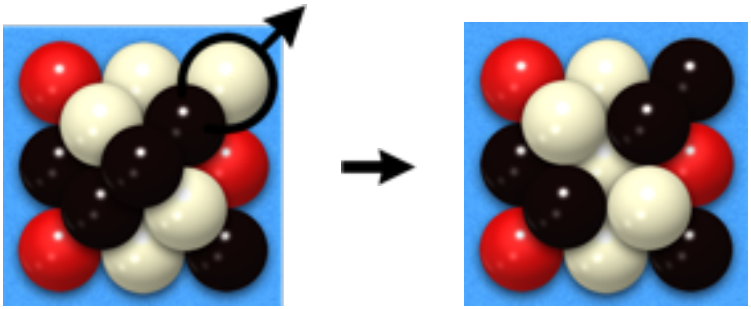
Balls are *adjacent* to any balls that they touch. This includes *flatly adjacent* balls on the same level and supported balls between levels. Diagonal balls on a level do not touch.

Points are *playable* if a piece placed there would sit stably. Only board holes and platforms are playable.

Dropping: Balls that support a single ball may be removed (left) so that the stacked ball *drops* to fill the space (right).

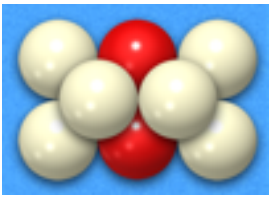


This may cause higher level balls to also drop, as shown below.



This two-ball drop cuts the main black group in two, but reveals a hidden white ball to join the two white groups into a single group.

Pinning: Any ball that directly supports more than one ball on the level above is *pinned* and cannot be removed. For example, the two red balls on the right are pinned.



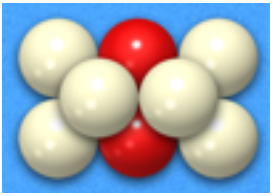
Balls that are not pinned are *movable*. Balls that do not support any balls on top are *free*.

Visibility: Visibility refers to whether balls can be seen when viewed from directly above. Balls that are *buried* by another ball stacked directly above are *hidden*.

There are five *interior* points at which balls may be hidden (left) and 25 *exterior* points that will always be visible (right).

Some games start with a small pyramid of five neutral pieces to ensure that every piece placed in the game is visible.

Connectivity: Balls that touch are *connected*. Connected balls of the same colour form *groups*. In general, balls are only connected if the connection is visible: *overpasses cut underpasses*.



For example, the white balls (right) are visibly connected and form a single group, but the red balls are *cut* and do not form a group.

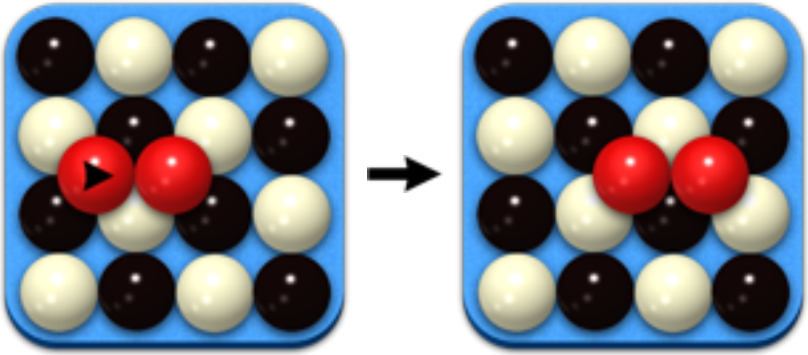
Ownership: Balls of your colour are *friends*. Balls of any opponent's colour are *enemies.* Balls shared by both players are *neutral*.

Cycles: Some games are prone to infinite cycles, and need some way to stop moves being repeated over and over. Cycles can occur when a ball being removed causes a drop and is placed on top of the column that has just dropped. A simple solution is to forbid balls being placed on balls that have dropped that turn. Another safeguard is to specify that the board state must change with each turn.

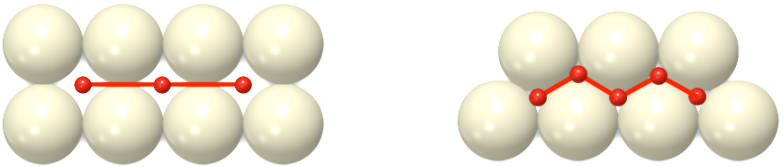
Ko Rule: A stronger safeguard is the *ko* rule, which stipulates that players cannot repeat the board position of their previous turn. The *superko* rule goes further to stipulate that players cannot repeat the board position of *any* previous turn.

Activation: An interesting feature of the pyramidal stacking is that moves can *activate* higher level points. For example, the following position has 8 playable points before the move (left) but 11 after the move (right), even though the move itself occupies a point. Example by Giacomo Galimberti.

Slides and Pushes: Higher level balls may be *slid* orthogonally over supporting balls to a free point along that line. The following example shows a red ball being slid to the right, *pushing* another red ball along the same line in the process.



Slides cannot be performed on the board level as it has no tracks for the balls to slide along. The square packing provides convenient tracks for balls to slide along on higher levels (left), compared to the hexagonal packing (right) in which linear slides are more problematic.

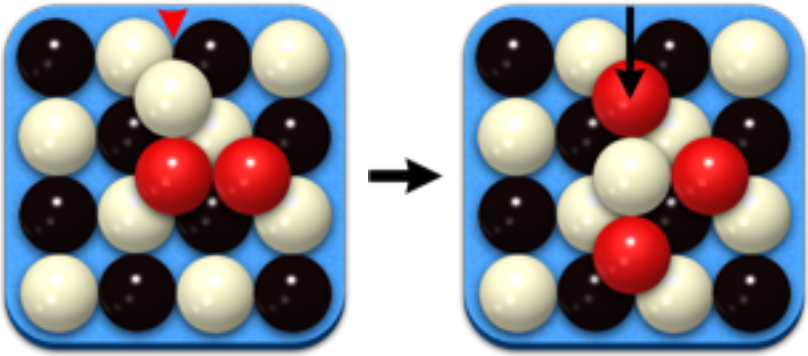


A ball may be slid with a single ball resting upon it, which will drop down to fill the gap. No line may be pushed if any balls rest upon it.

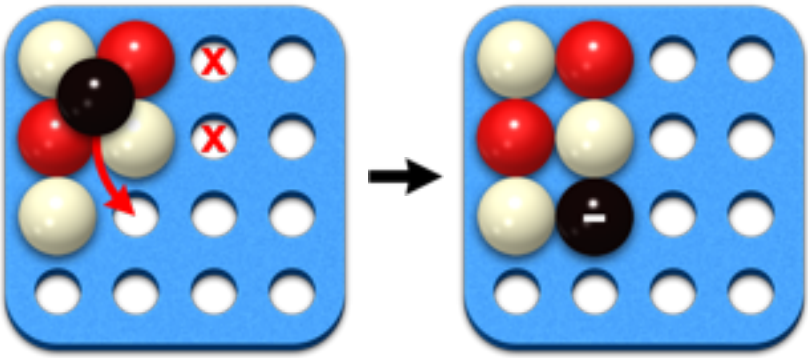
Thanks to Giacomo Galimberti for bringing the benefits of higher level slide moves to our attention and suggesting these examples.

Entries: The slide move allows another way to *enter* balls into play, by pushing them in from the side at higher levels. The following example (next page) shows a red ball being entered into play from the top edge, pushing along a white and red ball in the process.

It may be allowed to push balls off the far side of the board with such entries. However, this can lead to cycles in which players repeatedly enter balls at opposite ends of the same line, to keep pushing the opponent's last move off the board. The game's rules should either forbid pushing off the board or otherwise cater for such situations.



Slide Drops: Another interesting feature of the slide move is that balls may be slid or pushed off the current level to drop. This should only be allowed if the ball drops a single level and its destination point is clearly defined. For example, the black ball in the following position can be slid downwards to drop to the empty board hole shown.



This black ball cannot be slid to the right to drop to either of the board holes marked **x**, since such a drop would be ambiguous. The ball could drop to the outer hole... or to the inner hole... or land between the two and just keep rolling... Such random outcomes are generally unsatisfactory and are anathema to abstract or pure strategy games.

For the same reason, it is recommended that slide drops of more than one level are not allowed. The ball may drop correctly in some cases if pushed very gently, but will tend to bounce and roll off the board just as easily.

Shibumi Challenge 渋

The Shibumi Challenge was a game design contest run over December 2011 and January 2012 on the BoardGameGeek web site (www.boardgamegeek.com). Participants were asked to design the best – and most shibui – games for the Shibumi set.

22 designers submitted 45 new games, the best of which are included in this book. The winners were:

1st	*Sploof*	Matt Green	p27
2nd	*Spire*	Dieter Stein	p47
3rd	*Splastwo*	Giacomo Galimberti	p49
RU	*Sprite*	Micah Fuller	p64

The Shibumi set is so constrained that it's almost impossible to devise new rules that have not been seen in other games before. There are only so many things that can be done with a 4×4 grid of holes and some balls, and as mathematician Ian Stewart points out: *the simpler the ingredients, the harder it is to make things with them*.

Almost any creativity in design has to come through the combination of known rules and their adaptation to the 3D pyramidal geometry. If anything, a greater degree of creativity is required to coax new games from this minimal system than for the general, unconstrained, case. Several experienced game designers simply baulked at the challenge of making something out of almost nothing, after failing to see the emergent possibilities of the system.

The Challenge achieved its intended goals. It produced a number of new, high quality Shibumi games, and generated a large amount of raw material in the form of base rules for the system. These will be used in an upcoming AI experiment in combinatorial creativity, to see whether even more high quality games can be found using automated search.

We would like to give a heartfelt thanks to all who participated in the Shibumi Challenge. They embraced the spirit of shibui and ran with it, and the care and dedication that they devoted to their designs is evident in many of the games listed in this book.

Games

 The *players* symbol indicates the number of players suitable for each game.

 The *complexity* symbol indicates how difficult each game is to learn to play.

Complexity scores vary in the range 1 to 4, based on the scale used on www.nestorgames.com. Note that a game's difficulty is not necessarily the same as its depth – especially when shibui is involved!

Games are grouped by category according to their primary goal type or underlying mechanism. They are not otherwise listed in any particular order, although we have tried to capture the sequential development of ideas where possible.

> **Two-Player Games:** The players are assumed to be White and Black, in that order, unless otherwise stated.
>
> **Three-Player Games:** The players are assumed to be White, Black and Red, in that order, unless otherwise stated.

Most Shibumi games will take between 5 to 10 minutes to play, depending on complexity. Some of the more complex ones might take longer if played in earnest.

Some of the games were dressed in a theme for entry in the Shibumi Challenge. Spaghetti had a pasta theme, Spice had a sauce theme, Sparro had a pirate theme, and so on. We've removed such themes to make the descriptions as clear and consistent as possible – our apologies to the designers.

All Shibumi game names start with "Sp" to denote that they are **S**quare **P**yramidal games. More details on each game can be found in their BoardGameGeek entries.

N-in-a-Row

Lines. Good old lines – the simplest 2D shape. For elegance, clarity and intuitive play you can't beat lines. Where would abstract games be without them?

The square pyramidal geometry offers lots of scope for different line types. Here are some examples.

Fixed length (3).

Board spanning.

Higher level.

Diagonal.

Linear from above.

Up a ridge.

Alternating.

Mixed colours.

Line of sight.

Spline

Néstor Romeral Andrés (2011) 2 1

Spline is a simple *N*-in-a-row game that expresses shibui in its basic rules, intuitive nature and guaranteed result.

Start: The board starts empty.

Play: Players take turns adding a piece of their colour to any playable point (empty hole or platform).

End: A player wins by making a flat line of their colour spanning side to side, or corner to corner, on any level.

Lines on the 4×4 level must be 4 balls long.
Lines on the 3×3 level must be 3 balls long.
Lines on the 2×2 level must be 2 balls long.

The following examples show a winning line of size 3 for White (left) and a winning line of size 2 for Black (right).

Strategy: Most wins will occur on the 2×2 level, by the first player to reach that high.

Every game is guaranteed to produce a winner before the last ball is played.

Spline+

渋

Néstor Romeral Andrés (2011)

2 2

Spline+ is an extension of Spline with ball movement.

Start: The board starts empty.

Play: Players take turns either:

1) placing a ball of their colour on any playable point, or

2) moving a ball of their colour to any playable point. The ball cannot be placed on any ball that the move caused to drop.

End: A player wins by making a flat line of their colour spanning side to side, or corner to corner, on any level. If multiple spanning lines occur (due to a drop) then the longest line wins, otherwise the mover wins.

The following example shows a losing move for Black. If the black ball shown is removed, then the two balls above it drop down to create a black line of size 3 but a white line of size 4.

Ball movement adds depth to the basic Spline idea by making games longer and allowing tricky multi-level moves.

Balls are forbidden to stack on self-drops to avoid cycles.

Splice

Néstor Romeral Andrés (2011) 2 2

Splice is an an extension of Spline using red balls.

Start: The board starts empty.

Play: Players take turns placing either:

1) a ball of their colour on any hole or any platform that contains at least one red ball, or

2) a red ball on any hole or any platform.

End: A player wins by making a flat line spanning side to side, or corner to corner, on any level, composed entirely of friendly and neutral balls (at least one of each).

If the placement of a red ball achieves this for both players, then the mover wins.

The following example shows a win for White, who has completed a spanning line consisting of both red and white balls.

Strategy: White should place at least one red ball on the board level, otherwise Black can force a win due to parity. White should defend this red ball so that Black can't exploit it.

Spree

渋

Avri Klemer (2011)

2 2

Spree is a mixed-colour spanning line game in which players dictate which piece the opponent plays next.

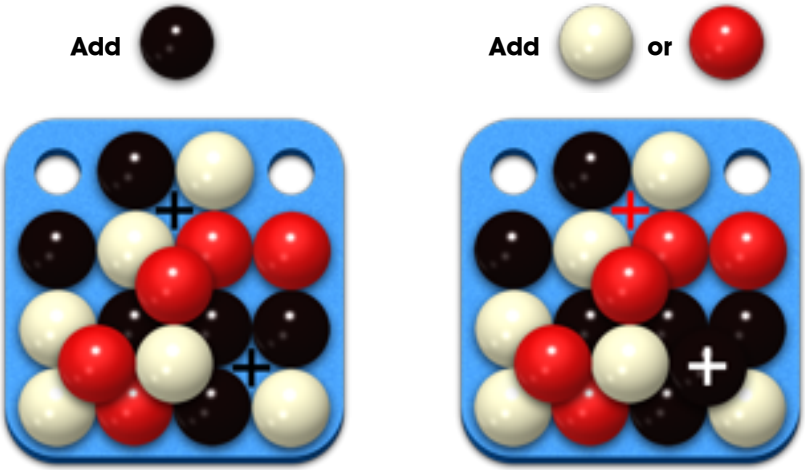
Start: The board starts empty.

Play: Players take turns handing a ball of any colour (white, black or red) to the opponent, who must place it at any playable point.

A player cannot hand their opponent a ball of the colour just placed.

End: A player wins by making a flat line spanning side to side, or corner to corner, on any level, composed entirely of white+red or black+red balls, with the red balls being optional.

For example, player X has just handed Y a black ball to play in the following position (left). Y is now in trouble due to the two threats (+).



Y plays the move shown (right), then must hand X either a white or red ball in return, as black has just been played. X can then play at the other point marked (+) to complete a winning line of white+red balls.

Spree is similar to Splice, but is unusual in that the winning conditions are colour-specific (white and black) but the players are not.

Spava

Cameron Browne (2012) 2 2

Spava is Spline with the “N but not N–1” rule from Yavalath.

Start: The board starts empty.

Play: Players take turns placing either a ball of their colour or a neutral red ball at any playable point.

End: A player wins by making a flat line of their colour spanning side to side, or corner to corner, on any level.

A player loses by making a flat line of their colour 1 short of the spanning size, orthogonally or diagonally, on any level. Only lines at least two balls long count.

The following game shows a losing move by Black. Black has formed a line of two black balls (shown) on the 3x3 level.

Strategy: The neutral red balls can be used to block winning enemy lines without creating losing lines at the same time. This makes Spava less cold than Yavalath.

Single balls on the 2×2 level do not count as lines.

Splade

Néstor Romeral Andrés (2011) 3 3

Splade is an extension of Spline for three players, inspired by Alex Randolph's Gute Nachbarn.

Start: The board starts empty.

Play: Place a ball of your colour at any playable point.

End: The game ends upon the completion of a flat line spanning side to side, or corner to corner, on any level, and composed of exactly two colours, X and Y.

The game is won by whichever of X and Y is immediately after the other in the playing order.

Consider Red's move on the following board (left), with the two possible options indicated (**+**). The first option would create a line of red+white balls, giving White the win. Instead, Red completes a black +red line for victory (right).

The scoring rule would confuse even the most clear-headed player! It was designed specifically for three players to reduce the effect of petty alliances and kingmaker moves.

Variant: Make the winning order "immediately before".

Sparro

Phil Leduc (2011) 2 2

Sparro is a 3-in-a-row game in which lines need not be flat.

Start: Start with five neutral balls filling the interior points. Players start with 12 balls of their colour.

Play: Players take turns placing a ball of their colour at any playable point.

If the first move is to a corner hole then the second move must be to a non-corner hole, and vice versa.

End: The game ends when all 24 balls have been played. The player with the most lines of size 3 in their colour wins. If tied, the last player to make a line of size 3 wins, otherwise Black wins.

All unique lines of size 3 are counted, hence lines of size 4 count as two lines of size 3. The following game (left) scores 7 for White and 3 for Black (right).

The initial five balls occupy the interior points, ensuring that all 24 moves are made to the visible sides of the pyramid (as in Sponnect).

Games must end with 29 balls in play, forming the truncated (apex-less) pyramid shown above.

Phil recommends using a *tiebreaker token* such as a spare ball. Black starts with the token in hand, then players take possession of the token each time a line of size 3 is completed. If tied, the game is awarded to the player holding the token.

The corner/non-corner opening rule is used to break potential problems with symmetry. If White starts at a corner hole, then Black cannot reply at another corner hole next turn (left), whereas if White does not open at a corner hole, then Black must reply at a corner hole next turn (right).

This symmetry-breaking rule is a bit verbose, but is simple in practice and solves a potentially serious problem for some games.

Sploof

渋

Matt Green (2011)

2 3

Sploof is an *N*-in-a-row game featuring buffered player hands.

Sploof took 1st place in the Shibumi Challenge.

Start: The board starts as shown.

Each player starts with two friendly balls in their *stock*:

Play: Players take turns either:

1) placing a ball from their stock at any playable point, or

2) removing a red ball from the board to the bag, and moving two balls of their colour from the bag to their stock.

End: A player wins with a line of four touching balls of their colour (viewed from above). A player with no legal moves loses.

For example, the following game has been won by White.

Note that White's winning line of four balls is straight when viewed from directly above, but not when viewed from other angles. This relaxed definition of "straight" was the first innovation of Sploof.

The second innovation was the use of the two-ball stock, which acts as a buffer between the main ball supply and the board. Designer Matt Green stresses the importance of stock management, and the dangers of depleting your stock:

> "*Running out of balls in your stock will force you to remove a red ball and give the opponent two consecutive placements: this becomes a progressively riskier tactic as the game develops.*"

We found Sploof to be elegant, original, challenging, and simply good fun to play. A worthy winner for the Shibumi Challenge!

Spaniel

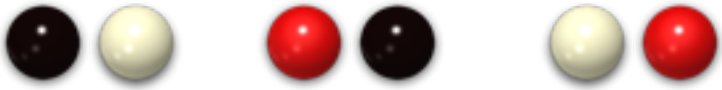
Joseph Symons-Smyth (2012) 3 2

Spaniel is an *N*-in-a-row game for three players, who are not tied to particular colours.

Start: The board starts empty.

Play: Players take turns placing two balls, in the order shown, at any two playable points. Passing is not allowed.

Player 1 *Player 2* *Player 3*



End: A player wins by completing a visible line of three touching balls in any single colour. The game is drawn if the pyramid is completed before a winning line is made.

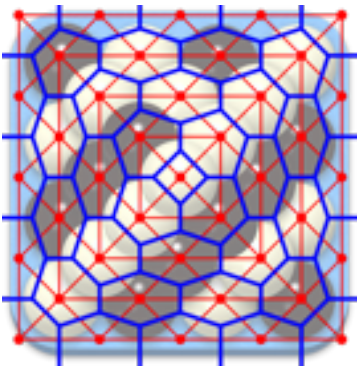
The following game has just been won by the last player to move, with two red lines of size 3 (indicated). The last ball played was red, so the winner must be player 2 or player 3.

Each game will last a maximum of 15 moves.

Connection

Connection games are mathematically elegant, but the small 4x4 board may seem too small to allow any but the most trivial connection battles to occur. This would indeed be true if play was restricted to 2D, but the 3D aspect of stacking and the possibility of visible connections burying hidden ones (overpasses cutting underpasses) allows some interesting connective mechanisms of cut and counter-cut to develop.

In addition, connection games played on the Shibumi set can be guaranteed to produce a winner for every game. To see why, consider the fully stacked pyramid shown below. A vertex has been drawn at the centre of each visible ball and edges drawn between connected neighbours to form a connectivity graph (left).



The dual of this graph (right) is *trivalent*, meaning that three cells meet around each vertex. Trivalent graphs avoid deadlock because two pieces of the same colour meeting around a vertex, such as the red balls below, cannot be separated by a third piece of a different colour also meeting at vertex.

This is the condition with which connection games such as Hex, Y and ConHex avoid deadlock to guarantee a winner – the dual graph shown above is in fact the exact tiling of the ConHex board! Connections between the visible balls of a completely stacked Shibumi board are similarly trivalent, despite its square basis.

Span

Cameron Browne (2011) 2 1

Span is the simplest connection game for the Shibumi set.

Start: The board starts empty.

Play: Players take turns placing a ball of their colour at any playable point.

End: White wins by forming a visibly connected white group spanning left and right. Black wins by forming a visibly connected black group spanning top and bottom.

The following example shows a game won by White, who has achieved a visible connection spanning the left and right sides of the board.

Black also has a potential connection between the top and bottom sides in this example, but it is cut by the white path crossing over it so does not count. Recall that *overpasses cut underpasses*.

Every game of Span is guaranteed to produce a winner, even if the board fills up.

Sponnect

Martin Windischer (2011) 2 1

Sponnect is a connection game played on the visible points.

Start: Start with five neutral balls filling the interior points as shown.

Play: Players take turns adding a ball of their colour at a playable point. Players may pass if the opponent has not just passed.

End: White wins by forming a white group spanning left and right. Black wins by forming a black group spanning top and bottom.

The following example shows a game won by Black.

The initial five balls occupy the interior points, hence every placement by each player *must* be a visible ball.

Every game is guaranteed to produce a winner.

Spight

Cameron Browne and Néstor Romeral Andrés (2011) 2 3

Spight is a connection game that introduces the knight jump.

Start: The board starts as shown.

Play: Players take turns either:

1) making a knight move to an empty point on the same level,

2) making a knight jump up a level (explained shortly), or

3) passing if no legal moves.

End: A player wins by connecting all of their balls into a single group.

Knight Moves and Jumps: The following white ball has two moves:

1) a knight move to another hole, and
2) a knight jump up to level 1 (both moves win for White).

White makes the knight jump (+). This involves jumping the ball around a touching neighbour onto its platform. A ball drops in this case (–).

Moves may cause drops, but a knight jump is not subject to ko as the dropping ball cannot possibly support the moving ball.

Spice 渋

Martin Grider (2011) 2 2

Spice is the Shibumi version of the group size game Ketchup.

Start: Start with five neutral balls filling the interior points as shown.

Play: Players take turns placing one or two balls of their colour at any playable point (one on the first turn).

If a move creates a larger group of (non-neutral) balls than existed before the move, then the opponent can remove any movable ball on their next turn.

End: The game ends when the pyramid is complete. The apex is removed, and the owner of the largest group wins.

For example, the game on the left has been won by White, who has completed a group of size 8.

Black's best group is size 6.

Martin originally described the players as Ketchup (red) and Pepper (black), in keeping with the names used in Ketchup, the game that inspired Spiece. The colours have been swapped here for consistency with other games.

Strategy: The apex ball is very powerful in group-building games as it connects all four sides of the pyramid. Removing the apex reduces a huge advantage for the final mover; the pyramidal geometry suits these rules well.

Spaiji 渋

Néstor Romeral Andrés (2011) 2 2

Spaiji is the Shibumi version of Taiji, which involves the placement of pieces of both colours per turn.

Start: The board starts empty.

Play: Players take turns adding a white ball and a black ball each turn, in any order, at any playable points, provided that both balls touch.

End: The game ends when the pyramid is complete. The owner of the largest visibly connected group wins.

If tied, the second player (Black) wins.

Consider White's final move in the following game. There are two possible ways to fill the final two points, as shown.

The move on the left loses 7–13 but the move on the right wins 10–9. White should make the move on the right.

Every game will involve exactly 15 moves. The opening player (White) also gets the last move, which suggests a strong first player advantage.

Variant: Include hidden balls when scoring.

Spaghetti 渋

Phil Leduc (2011) 2 2

Spaghetti is a path-building game featuring neutral pieces. The players are White (spaghetti) and Red (sauce).

Start: White puts a black (meat) ball on any board hole.

Play: Players take turns adding a ball of their colour to any playable point that is adjacent (orthogonal, diagonal or resting upon) the ball last played. If this is not possible, then they must place a black ball at any playable point.

End: The game ends when only the apex remains. A black ball is placed at the apex, and the winner is the player with the longest visibly connected strand.

If tied, the player who last placed a black ball loses.

Consider the game shown below. White wins with a strand of length 9, beating Red's best strand of length 8 (right).

Red's strand does not include the ball indicated (–), as strands can't double back on themselves (they are non-branching paths).

The neutral ball at the apex is an elegant way to negate the power of the topmost point. Phil suggests using a token (e.g. a spare ball) as a reminder of who placed the last black ball.

Splush

Cameron Browne (2012) 2 3

Splush is a group-gathering game that uses entries and slide drops.

Start: The board starts as shown.

Play: Players take turns either:

1) entering a ball of their colour from the side onto a 2x2 platform, which may push other balls, or

2) removing a ball of their colour and entering it back into play as per move 1).

The removal may cause a drop. The entry may cause a drop but may not push any balls off the board.

It is not allowed to enter the ball onto any ball that has just dropped as part of the move.

End: A player wins by forming all of their visible balls into a single connected group.

For example, consider the position shown below, with White to move.

White appears to be in big trouble. Black has an easy win next turn (removing the isolated black piece and entering it as part of the main black group), but White has *two* isolated pieces, which are both surrounded, and which can't both be moved on this turn.

However, White can save the situation with the move shown above (left). White removes the corner ball to drop the black piece, which also frees up the bottom line for a slide. White then enters this piece to slide this line to the right, connecting all visible white pieces into a single group for the win (right). This is White's only winning move.

This example demonstrates the power of the slide move, especially when slide drops are involved, and even more so when removals and subsequent drops are also involved. This allows significant dynamicism in the board position with a single move, but in a controlled and predictable way.

Strategy: Try not to let the opponent isolate your balls and pin them with two of their own pieces! Depending on the situation, such isolated balls can be impossible to rejoin with the main group, and are hence a losing proposition.

The rules that players may not push balls off the board, and that balls may not be entered onto other balls that have just dropped as part of the move, are required to avoid cycles.

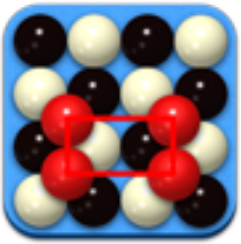
This game was specifically designed to exercise slide moves and slide drops as described by Giacomo Galimberti. For more details see **Slides and Pushes** on p12.

Pattern

Lines are the most common geometrical pattern used in Shibumi games, and belong in their own category. However, the square pyramidal packing offers many other embedded patterns to choose from. Here are some examples.

Square corners.

Square edges.



Rectangle corners.

Pyramid corners.

Shared pyramids.

Inverted pyramid.

Rotated/Plus sign.

Two triangles.

Diamond.

There have been few successful pattern-based Shibumi games to date. However, this seems to be an interesting avenue to explore due to the combinatorial possibilities. There are various:

- *Shapes*: Square, rectangle, pyramid, triangle, diamond...
- *Orientations*: Aligned, rotated, inverted...
- *Sizes*: 1, 2×2, 3×3, 4×4, 2×3. 2×4, 3×4...
- *Styles*: Corners, edges, faces, full, empty, in, out...
- *Colours*: Same, different, majority, minority...

Spyramid

Néstor Romeral Andrés (2012) 2 2

Spyramid uses a pattern-based winning condition.

Start: The board starts empty.

Play: Players take turns either adding or moving a ball of their colour to any playable point. Balls cannot be moved onto any ball that dropped as a result of the move.

End: A player wins by placing balls of their colour at the five corners of a pyramid of any size, pointing up or down. If pyramids of both colours are formed then the mover wins.

Consider the following board with Black to play. The indicated move (+) wins the game as it forms the apex of a 3×3 pyramid with another four black balls at its base (right).

Winning pyramids may be of size 2×2, 3×3 or 4×4. There are 14 potential pyramids embedded in the 4×4 square pyramidal board.

Variant: Also count pyramids rotated 45 degrees to the square grid.

Completion

Placing a ball at the apex completes the pyramid. This is a natural and intuitive aim for Shibumi games, and several use it to good effect.

However, care must be taken to avoid biasing the game towards any particular player. The Shibumi board contains a fixed and known number of points (30), and the apex can never be played before any other point.

For example, if players simply take turns adding a ball to any playable point and win by completing the pyramid, then:

- Player 2 would win every two-player game.
- Player 3 would win every three-player game.
- Player 2 would win every four-player game, and so on.

Placement must be constrained, or ball removal involved, so that the same player does not complete the apex to win every game.

Spire

Dieter Stein (2011) 2 2

Spire is a simple platform-counting game.

Spire was the first entry in the Shibumi Challenge and took 2nd place.

Start: The board starts empty.

Play: Players take turns adding (to playable points) either:

1) a ball of their colour, or

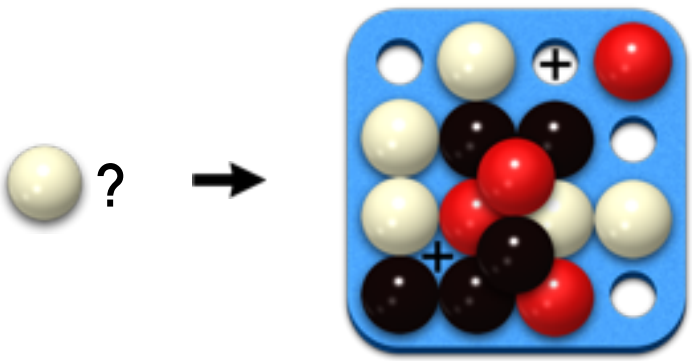
2) a red ball followed by a ball of their colour.

No platform may include more that two same-coloured balls. No ball may be stacked on any platform containing two balls of its colour.

Players must pass if there are no legal moves. This can occur at the beginning of a turn or after a red placement.

End: The player who places the last ball wins. The last move can be any colour at any point.

The following example shows the only two places that a white ball can be played. The other board holes already have two white balls in surrounding platforms, and the other platform has two white support pieces.



Spinimax 渋

Cameron Browne (2011) 3 2

Spinimax is a simple three-player Shibumi game. Moves are made on the board, but may trigger automatic stackings.

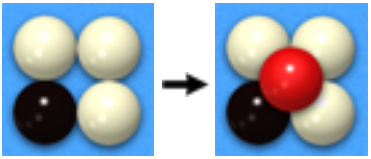
Start: The board starts empty.

Play: Players take turns adding a ball of their colour to an empty hole.

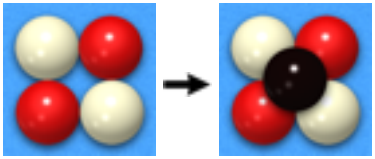
Whenever a platform is formed, at any level, a ball is automatically stacked on top, its colour being the *minority colour* of the platform (if any) otherwise the *majority colour* of the platform.

End: The owner of the ball placed on the apex wins.

The minority colour is the one least represented in a platform.

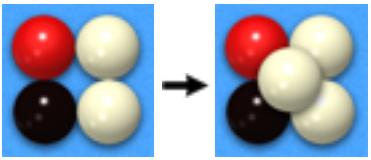


Minority stacking

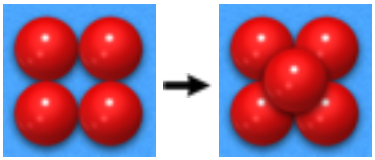


Minority stacking

The majority colour is the one most represented in a platform.



Majority stacking



Majority stacking

Majority stackings are only made if there is no clear minority.

Each move can trigger multiple placements, as each automatic stacking may complete a platform that triggers further stackings.

Every game is guaranteed to end after exactly 16 moves. However, the last few moves can be difficult to predict correctly.

Splastwo

Giacomo Galimberti (2012) 2 2

Splastwo extends Nim-like play to 3D.

Splastwo took 3rd place in the Shibumi Challenge.

Start: The board starts empty. Each player has 15 pieces of their colour.

Play: Players take turns placing one, two or three balls of their colour on adjacent playable points at the same level. All balls played in a move must form a single contiguous line.

If a player runs out of balls, then the opponent completes the pyramid with their remaining balls.

Scoring: Players score 1 point for completing each of the three lower levels, and 2 points for placing a ball at the apex.

End: The game ends when the pyramid is completed. The player with the most points wins.

The following example shows a game in action, with White to play (left). Black has scored 1 point for completing the board level, so White decides to even the score by completing level 1 with a line of three (right). Both players now have 1 point.

Black could now complete level 2 with a line of two to gain another point, but this would let White take the apex to win the game.

Instead, Black places a single ball, which forces White to play a single ball in reply to complete level 2 (left).

This move surrenders another point to White, but Black can now play at the apex for 2 points, to win the game 3 points to 2 (right).

Strategy: The 2 points for the apex are generally decisive. Players should plan their moves around being the last player to move.

The apex is worth 2 points both to avoid ties (1 + 1 + 1 + 2 = 5) and to reflect the importance of the final move. This was found to increase the tension in the game, as players need to start planning their assault on the apex well in advance.

Splastwo could also be classified as a Counting game as it involves scoring, but completion is the dominant theme.

Splastwo was the surprise of the Shibumi Challenge. What initially seemed like just another Nim-like game literally took on a new dimension as the 3D stacking came into play. The rules seem to integrate especially well with the pyramidal geometry, to produce a mathematically elegant and pleasing game. Unfortunately, we feel that its Nim-like nature might yield a simple winning strategy if one is looked for.

Three Players: Splastwo extends naturally to three players, and can be played with the same rules. In case of a tie, the player who placed the apex balls wins. This means that a player who has not completed any levels yet can sometimes still win the game by achieving the apex, which adds drama and tension to the very end.

The three-player version was devised by Cameron Browne and Giacomo Galimberti after the Shibumi Challenge.

Elimination

Elimination: the opposite of completion. Because sometimes it's just good to get rid of things.

Elimination games come in many forms, and for Shibumi may involve:

- emptying the pyramid,
- emptying your hand,
- playing all balls of a certain colour,
- removing all balls of a certain colour, and so on.

Elegance is often described as the absence of unnecessary clutter. Elimination therefore seems a particularly apt theme for Shibumi games, even though this is a relatively untapped category so far.

Spanic

Néstor Romeral Andrés (2012) 3-6 2

Spanic is a multi-player game with random ball distribution.

Start: The board starts empty. A bag is filled with 30 balls (10 of each colour) and players randomly draw a number of balls as follows. Drawn balls are kept hidden from other players:

- *3 players*: 10 balls each.
- *4 players*: 7 balls each (place the two spares on the board).
- *5 players*: 6 balls each.
- *6 players*: 5 balls each.

Play: Players take turns either:

1) placing one of their balls on an empty board hole or platform containing at least two balls of that colour, or

2) passing.

End: The winner is the first player to exhaust their balls. If all players pass in succession, then the winner is the player with the fewest remaining balls.

Spanic is all about colour management. For example, only two more white balls can be played in the following game (**+**), so any player holding more than two white balls cannot finish.

Capture

Capture is a difficult mechanism to implement well for the Shibumi set, due to the extremely constrained board. All but the most subtle of attacks would simply threaten most pieces on the board every turn. Asymmetric capture is especially important in this context, otherwise free-for-all slaughter would ensue in this small arena.

However, capture can offer significant benefits, as the removal and recycling of pieces can naturally extend games beyond the typical 15 or 30 moves. Dynamic piece exchange is a natural route to deeper games.

The few known Shibumi games that involve capture use various constraints to limit capturing potential. The helps introduce balance, and one of these (Spargo) is the deepest known Shibumi game.

Spoing

Stephen Tavener (2011) 2 3

Spoing is one of the few Shibumi games to not use stacking.

Start: The board starts as shown.

Play: Players take turns moving either a ball of their colour or a neutral red ball, to jump over an adjacent ball of a different colour and land on a ball beyond it.

The ball landed on is removed, and the ball jumped over is converted to the colour that is not the jumper or the jumpee.

Jumps can be diagonal.

End: The game ends when a player cannot move, and is won by the player with the most balls on the board.

Consider the following move by White. The white ball jumps over a black ball to capture the black ball beyond it, following which the ball jumped over is converted to the absent colour (red).

Players cannot move if there are not three balls in a row somewhere on the board.

Spargo

渋

Cameron Browne (2006 – 2011) 2-3 5

Spargo is a 3D extension of Go, in which pinned pieces remain active in the game following capture.

Start: The board starts empty.

Play: Players take turns adding a ball of their colour to a playable point. The ball must have *freedom* (i.e. it must be visibly connected to at least one empty board hole by a chain of visibly touching friendly balls) following the move.

Enemy groups with no freedom are captured after each move, except that balls supporting one or more enemy pieces are not removed. Such balls survive capture and remain active in the game as *zombies.*

Passing is not allowed.

Overpasses cut underpasses.

The ko rule applies: it is not allowed to repeat the board position of the previous turn.

End: The game ends when the current player has no legal moves, and is won by the player with the most balls in play (counting zombies).

Consider the following position, with White to play.

White's move (+) removes the final freedom from the large black group, capturing seven of its nine members. The two black balls supporting the white ball survive capture and remain active in the game as zombies.

Zombies can have a devastating impact on a game, as shown in the following example. First, consider if it is Black's turn to play. Black is not able to play at any board hole, as any such placement would have no freedom afterwards.

Now, consider if it is White's turn to play. White would like to capture the black group by filling in its single remaining freedom (dotted). However, this move would only capture two black balls and leave the other five behind as zombies, leaving the white ball no freedom after the move (right). White therefore cannot make this move either. Zombies protect that eye, and the black group is (temporarily) safe.

This position is interesting as the next player to move will lose, regardless of who that next player is! Spargo is surprisingly difficult to analyse even on the small 4×4 board, and is the deepest known Shibumi game.

Spargo is the 4×4 version of the same designer's earlier game Margo from 2006 (see **6×6 Games** on p84). It was originally tested at the smaller size on a whim, but the 4×4 game soon revealed its own unique character.

Three-Player Version: Spargo can be played with three players using the same rules as above. If you thought the two-player version was tricky...

Counting

Counting games typically involve some form of scoring or voting, with the winner being the player to satisfy some specified condition the most often.

Scoring should be sufficiently intuitive that counting does not become a chore, and ideally only needs to be applied once at the end rather than after every move. Splink is an example of a game in which scoring is so intuitive that players can usually judge the relative merit of a move without performing an exact count, and need only score the game once at the end.

Spindizzy

Dieter Stein (2011) 3 4

Spindizzy is a mind-boggling game for three players.

Start: The board starts empty.

Each player takes 10 balls of their colour, passes 3 to their left neighbour, and 2 to their right neighbour. These balls remain hidden from opponents players from this point on.

A player is selected to be the *Master* of the first turn.

Play: On each turn, players secretly select a ball from their stock and hold it out in their closed hand. The balls are then revealed simultaneously.

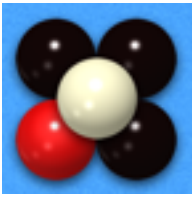
Starting with the player whose colour was selected by the Master, players then take turns placing their selected ball at any playable point. The last player of the turn becomes Master for the next turn.

Scoring: Whenever a small 2×2 pyramid is formed, the player whose colour represents the majority (or the topmost ball if none) scores 1 point.

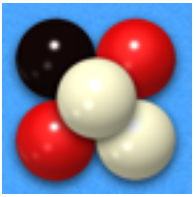
End: The game ends when the pyramid is completed, and is won by the player with the most points. In case of a two-way tie, the player coming third wins.

The following examples demonstrate the scoring rule.

1 point for Red.



1 point for Black.



1 point for White.

Sprite

Micah Fuller (2011) 2 2

Sprite is an elegant colour-difference counting game.

Sprite received honourable mention in the Shibumi Challenge.

Start: The board starts empty.

Play: Players take turns placing two balls at any playable points. Each ball must be either the mover's colour or red.

On the first move only, White must play an additional third (red) ball.

Scoring: As each ball is played, its score is counted. A ball of the mover's colour scores points equal to the number of red balls that it touches. A red ball scores a number of points equal to the number of balls of the mover's colour that it touches.

Relative scoring is used. One player's score is shown as 0, while the other player's score is the number of points that they lead by.

End: The game ends when the pyramid is completed, and is won by the player with points above 0.

Consider the board shown below, with Black to move (left). Black plays the red ball (+) for 2 points and the black ball (+) for 3 points, for a total of 5 points for that move (right). Black would have achieved the same score if the balls had been played in the other order.

Spao

Néstor Romeral Andrés (2012) 3 2

Spao is a simple game specifically for three players, using the group size scoring mechanism from Omega.

Start: The board starts empty.

Play: Players take turns placing a ball of their colour at any playable point (empty hole or platform).

End: The game ends when the pyramid is completed. Each player counts the sizes of their connected groups and multiplies their counts together (including hidden connections). Highest score wins.

The following example shows a game in progress with White to play. A white ball played at the point marked (**–**) will connect all white balls into a single group of size 9 for a score of 9.

However, a white ball played at either point marked (**+**) will extend the buried group to size 5 to give a much better score of 2×2×5 = 20.

Strategy: It is better to have several small groups than one large group. For Omega, it was found that the optimal group size was 3.

Each game will last exactly 30 moves. Spao is not classified as a connection game, as the winner is decided by the group size product rather than the mere fact of connection.

Speedo

Cameron Browne (2012) 3 3

Speedo is a three-player group size game similar to Spao, involving both removal and placement each turn for a deeper game.

Start: The board starts empty. White places a white ball on any hole.

Play: Players take turns:

1) removing a movable ball of any colour, and

2) placing two balls (one of each colour **not** removed) at any two playable points.

End: The game ends when the pyramid is completed. Each player counts the sizes of their visibly connected groups and multiplies their counts together. Highest score wins.

Consider the position on the left. It is Red's turn to make the final move, but their score is currently only 1×1×1×2×2 = 4 compared to White's 2×2×6 = 16 and Black's 3×5 = 15 (the central ball is about to be buried so is not counted).

However, if Red removes the white ball marked (**–**) to cause a drop and places the two balls marked (**+**) as shown on the right, this gives a winning score of 2×3×3 = 18. This is Red's only winning move.

Like Spao, each game will last exactly 30 moves. Unlike Spao, hidden connections do not count, and the combined removal and double placement leads to more complex and dynamic board positions.

Spirit (of Shibumi)

Néstor Romeral Andrés (2012) 2-3 2

Spirit is a minimalist game designed to distill the essence of *shibui* for two or three players. Spirit is all about freedom.

Start: The board starts empty.

Play: Players take turns either:

1) placing a ball of their colour at any playable point, such that no other free balls of the same colour lie on the same orthogonal line on the same level, or

2) passing.

End: The game ends when all players have passed in succession. The game is won by the player with the most balls in play.

White has no moves in the position shown on the left, as every playable point is in line with a free white ball on the same level.

However, White can play at the point marked (+) on the right for significant gain. The two white support balls would no longer be free, allowing White to play at the points marked (•) but not Black or Red.

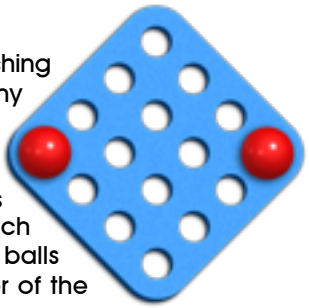
Ties are possible but rare.

Spodd

Giacomo Galimberti (2012) 2 2

Spodd is a mathematically elegant voting game.

Start: The board starts as shown.

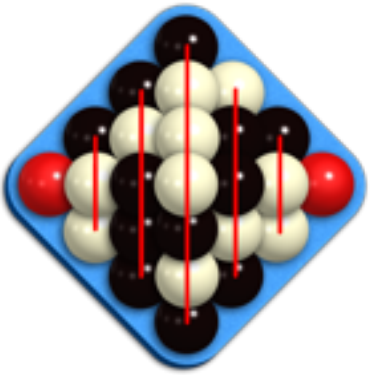


Play: Players take turns placing two touching balls, one white and one black, on any playable points. One ball can support the other.

End: The game ends when the board is full. Visible balls are counted along each diagonal, and the player with the most balls along each diagonal wins it. The winner of the most diagonals wins the game.

For example, the following game has been won by White, who has won 3 diagonals to 2:

White (2–1), *Black* (4–1), *White* (4–3), *Black* (3–2) and *White* (2–1).



Ties are not possible as the game has an odd number of diagonals, each consisting of an odd number of balls.

Variant: Make the diagonals worth 1, 2, 3, 2, 1 points each, respectively. This makes the columns that harder to achieve worth more points.

Splink

Cameron Browne and Néstor Romeral Andrés (2011) 2 3

Splink is a connection game for one player (the *Attractor*) and an anti-connection game for the other (the *Repulsor*). Players share a common pool of 16×white and 16×red balls, and are not distinguished by colour but by their roles.

Preparation: Splink has two modes of play.

1) **Duel:** Two games are played, with the roles reversed. The player with the highest Attractor score wins.

2) **Bid**: Players bid on how many points the Attractor will score. Whoever passes becomes the Repulsor. The Attractor must achieve that score to win.

Each game is then played as follows.

Start: The board starts empty. The Attractor plays first.

Play: Player take turns either:

1) placing one white ball and one red ball from the pool at any two playable points, or

2) removing a ball and placing it elsewhere (including on balls that dropped due to the removal) and placing a ball of the other colour at any playable point.*****

End: The game ends when the pyramid has been completed. The Attractor's score is the number of places that white and red neighbours visibly touch.

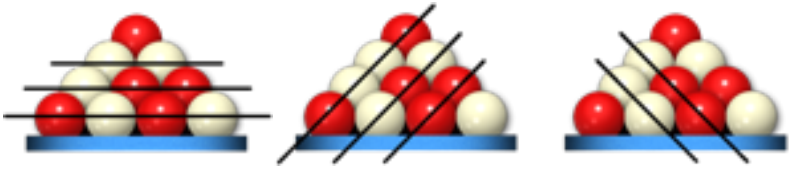
***** Note that move 2) can only be made if the pool contains at least one ball of the colour that is *not* being removed.

For example, the Attractor scores 33 points in the following game. Each white-red pair is indicated on the right. The Repulsor should also check the score as it is easy to overlook some of the 60 possible connections.

Splink emerged during a search for the simplest game to involve piece recycling, to maximise shibusa. It works at an intuitive level because spotting colour mismatches is second nature, but unfortunately the scoring is rather tedious.

An easier way to count colour mismatches is to score each side of the pyramid in turn, then add these four sub-totals to get the final result. This can even be fun for the Repulsor, who can score the opposite side at the same time.

The following figures show a methodical way to score each side. Count colour mismatches along each row (left), then along each right diagonal (middle) then along each left diagonal (right) – except the ridge, to avoid counting those balls twice.



Cycles are possible, but since each move changes the total score, then players should break such cycles when the score favours them. Leaving this responsibility with the players is more elegant than specifically forbidding cycles in the rules.

Spagyric

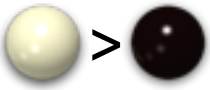
Nathan Morse (2011) 2 3

Spagyric involves a psychological sub-battle between the players each turn, as they bid for the colour to play.

Start: The board starts empty.

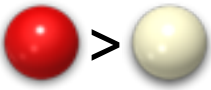
Each player starts with half the balls each in their *stock* (8×white + 8×black + 8×red). Stocks are kept hidden.

Play: Each turn, players secretly choose a ball from their stock. Both players simultaneously reveal their choice to each other, and a winning colour is decided as follows:



White beats black.

Black beats red.



Red beats white.

The winner of this playoff places the winning ball at any playable point. The losing ball is sent to a discard pile, whose contents are kept hidden.

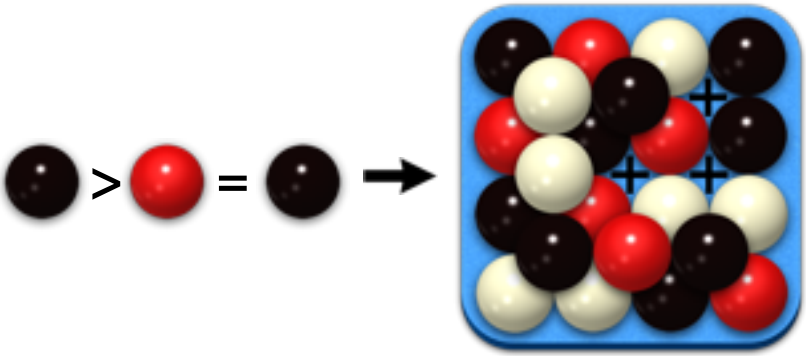
If the same colour is chosen by both players, then both balls are sent to the discard pile.

End: The game is won by forming a visibly connected group of exactly size 4, of any colour. The game is lost by making a visibly connected group of size 3 or size 5 or more beforehand.

In case of a tie, the players secretly choose a ball each from the discard pile, and perform a tiebreaker playoff as above.

Yes, it's Rock-Paper-Scissors with a Shibumi set!

In the following example, player X has secretly chosen a black ball and player Y has secretly chosen a red ball. Both balls are revealed and the black ball wins this playoff (black beats red). The red ball is discarded and the black ball must now be placed on the board. Unfortunately, there are only three playable points (marked **+**) and all of those are losing moves for a black ball, so player X must lose this game on this move.



So why did player X choose a black ball if it was a losing play? Perhaps black was the only colour left in their stock. Or perhaps player X noticed the winning move for a red ball (central point +) and reasoned that the opponent would not be so brazen as to make the obvious choice of red this turn... incorrectly, as it turned out.

The intrigue of this game lies in the bluffs and counter-bluffs that players must perform, not only to win the playoffs, but to win them with the colours they want. Or in some situations to deliberately lose particular colours; it can be dangerous to have too many of one colour, as indicated above.

Spagyric was submitted to the Shibumi Challenge with slightly different rules, and later reworked by Nathan Morse, Cameron Browne and Néstor Romeral Andrés into its current form to add tension. Games will last a maximum of 24 moves.

Puzzles

 1

This section contains solitaire puzzles that can be played with just you and your Shibumi set.

The Shibumi set is a good size for puzzles. It is complex enough to provide significant challenges, yet small enough that the entire set can be used effectively. The resulting puzzles are reasonably *tractable*, that is, we do not need a super-computer to check their optimal solution.

Spuzzle

Néstor Romeral Andrés (2011) 1 2

Spuzzle was the first solitaire puzzle for the Shibumi set.

Start: The board starts empty.

Play: Continue placing a ball of any colour (white, black or red) at any playable point, such that no connected group of three or more same-coloured balls is formed.

Note that hidden connections count!

End: Your score is the total number of balls placed.

The following example shows a game with 22 balls placed. This game is over as no more balls can be placed without forming a group of size three.

22 isn't a very good score. Can you do better?

Filling the board level is easy, but then things start to get complicated...

What is the highest possible score?

Spin 渋

Enrique Blasco Arnandis (2011) 1 2

Spin is a colour-flipping puzzle that does not involve stacking.

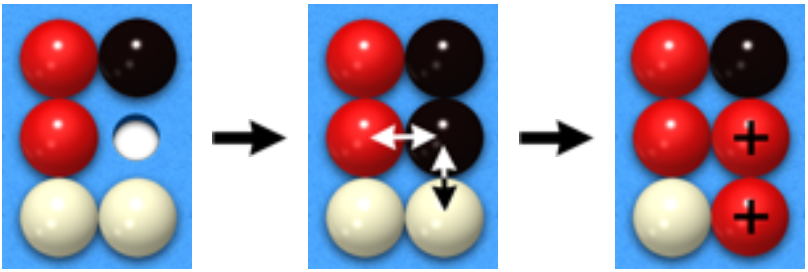
Start: The board starts empty. You start with a specified number of balls of each colour in your *stock* (see the table below). Unused balls remain in the bag as a resource pool.

Play: Each turn, place a ball from your stock at an empty hole. If the ball touches another ball of a different colour, then both are replaced with balls of the third colour, taken from the pool.

If the placement causes more than one colour mismatch, then you choose which mismatching pair to replace.

End: You win if every ball on the board is the same colour after the last ball has been placed from your stock.

Consider the following position (left). The black (middle) placement causes two colour mismatches: black/red and black/white.



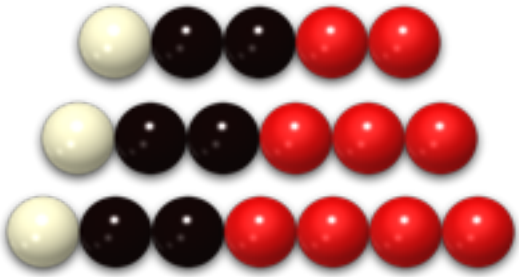
The black/white pair is chosen, then the two offending balls are replaced from the pool (not the stock) with balls of the third colour, in this case red. This completes the turn.

Interestingly, the two games in this book that do not involve stacking (Spin and Spoing) both involve colour flipping.

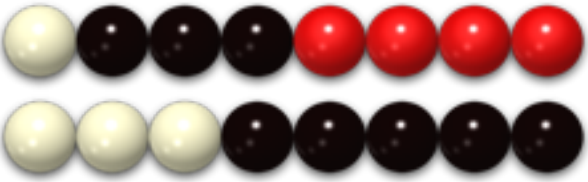
The following table lists starting hands of increasing complexity.

Starting Hands for Spin

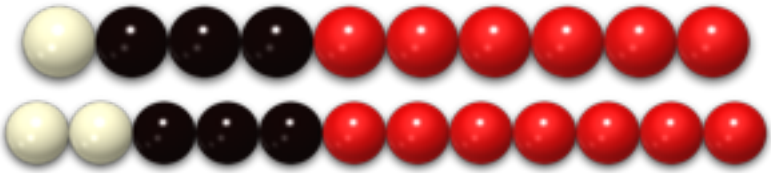
Very Easy



Easy



Medium



Hard

Spalone

渋

Cameron Browne (2012)

1 2

Spalone is the solitaire version of Spanic.

Start: The board starts empty. Place 10 marbles of each colour (white, black and red) in a bag.

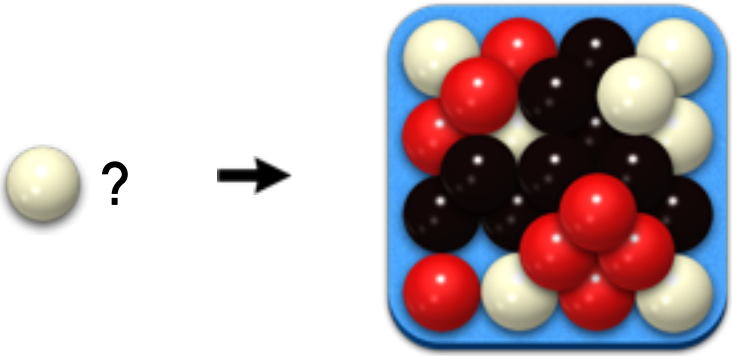
Play: Continue drawing a ball from the bag at random, and placing it on either:

1) an empty board hole, or

2) a platform containing at least two balls of that colour.

End: Win by completing the pyramid.

The following game has been lost as the player has drawn a white ball and cannot place it, as there are no board holes or platforms with at least two white balls.



Like Spuzzle, it is easy to complete the board level. But stacking is difficult and subject to the whim of the random draw, especially for the last few moves.

The random draw means that some games will be easy, but that some may not be solvable. Patience may be required.

Multiset

The Shibumi board is small – this is one of its defining features. We have seen in the previous sections how unexpected emergent complexity can be encouraged from this minimal system through the clever use of rules. However, there is an easier and more concrete way to increase the potential for complexity: simply add more equipment!

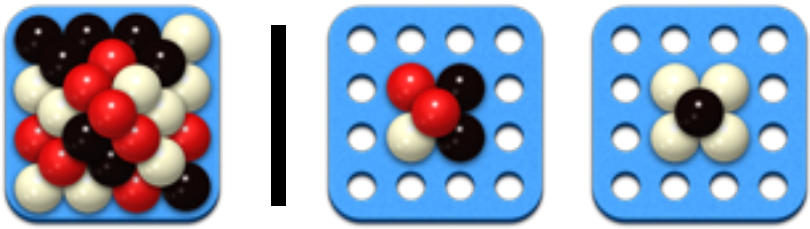
One way to achieve this is to play games on multiple sets simultaneously, rather than on a single set. No unfamiliar equipment is introduced, so there is nothing new to learn; multiset games can be almost as easy to learn as their single set counterparts, although potentially much deeper. The difficulty of devising multiset games lies in finding rules that allow interactions between players on different boards, in an elegant and intuitive way.

Spy

Néstor Romeral Andrés (2012) 3-? 3

Spy is a multiset deduction game inspired by Mastermind and Zendo, which requires a Shibumi set for each player.

One player takes the role of *Master* and constructs a secret *code* on their board in the form of a completed pyramid. This code is kept hidden behind a screen and the other players (the *Agents*) must crack it. Agents can see each other's boards but not the Master's.



Start: The Master builds a pyramid on their board with any 30 of their balls and discards the rest. The five hidden balls do not count.

Each Agent starts by making a small stack of five balls to fill the interior points of their board, using any of their balls.

Play: Each round, all Agents must either:

1) add a ball to their board at any playable point, or

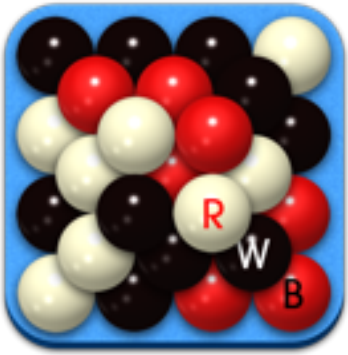
2) remove a movable ball from their board and replace it at any playable point. The removal may cause drops, and the placement may be on a dropped ball.

Agents should keep their moves secret while performing them (e.g. hidden behind a hand), but must reveal the resulting board to all players at the end of the round.

The Master then tells each agent how many of their visible balls match the secret code hidden behind the screen. Balls must match exactly and in the same orientation - board rotations don't count!

End: The game ends on the round that any Agent completes their pyramid. The Agent with the highest score wins.

Consider the board position shown below (left). This Agent has a score of 14 as fourteen balls visibly match the Master's secret code (the central red ball that will soon be hidden is not counted).



Now, it turns out that this Agent is a good spy and has deduced from observing the enemy Agents' boards that the three balls along their lower right ridge are wrong, and should instead be coloured as indicated to match the secret code. That is, the white ball marked **R** should be red, the black ball marked **W** should be white, and the red ball marked **B** should be black.

This Agent is not only a good spy but also a clever tactician, and makes the single move that corrects all three balls (right). The red ball is removed and replaced on top of the ridge, while the other two balls drop down into the correct position. This Agent has increased their score from 14 to 17 in a single move.

Conclusion

6×6 Games

While the charm of the Shibumi set lies largely in its simplicity and the unexpected depth that can emerge from the small 4×4 board, it can be interesting to see how some of these games scale to larger boards. For example, Spargo uses exactly the same rules as its 6×6 counterpart Margo, but is quite different in character when played – if anything, the game is easier to learn on the larger 6×6 board!

6×6 Margo set.

The Margo set from nestorgames is the ideal way to play Shibumi games on a 6×6 board. Both sets use the same manufacturing process and components, and all parts are interchangeable between them.

Néstor can supply custom boards for any required size. Bearing in mind the degree of complexity that pyramidal stacking adds to even a 4×4 board, imagine the depth achievable with an 8×8 or even 10×10 pyramid! Attempting such games would take a lot of balls.

Afterword 渋

This book highlights the diverse range of games possible with the Shibumi set. The set was released in October 2011, only a few months before the first edition of this rule book, and there are already enough games to keep any player occupied for a long time.

If you come up with new games, or improvements to existing ones, please don't hesitate to contact us – your creations could make the next edition of this rule book. Designing Shibumi games is a fascinating game in itself, and we believe that there are some masterpieces out there just waiting to be discovered.

We hope that you enjoy the games in this collection, and that it helps you make good use of your Shibumi set. Meanwhile, stay tuned for the *Shibumi Rule Book Volume 2: Synthetic Games*, which will list new games automatically generated by computer, as they emerge.

Cameron and Néstor
London / Zaragoza
February 2012

Designers

The following designers contributed games to this book. For each game, the recommended number of players and page number is shown. Co-designs are indicated by an asterisk *.

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