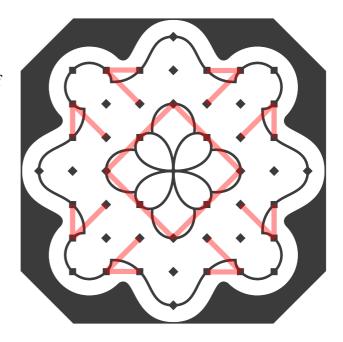
The diagrams are optimised for colour printing.

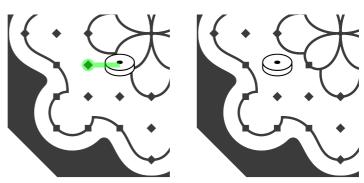
#### Forbidden Routes

The diagram to the right shows how the curvy lines define the forbidden moves in Mini-Quincala; it is not allowed to move along any of these red lines!



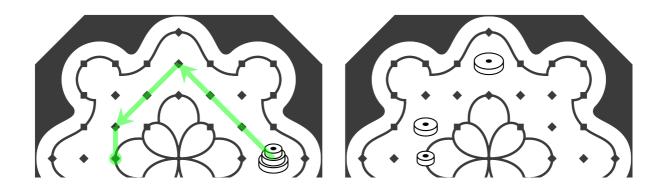
### A Single Piece can move one step

The simplest move in Quincala is with a single piece, which can only move one step. Note the use of the circle at the end of the moving arrow to show that the move cannot continue.

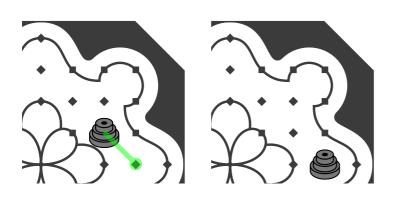


#### Full Tower Maximum move

The two diagrams below show the maximum move a full tower of three pieces can make. Note the use of normal arrows for legs that do not finish the move, and the circle head to finish it off.



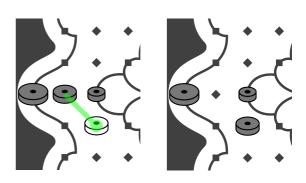
#### **Full Tower Minimum move**



A full tower can of course also just go one step, if the player so chooses.

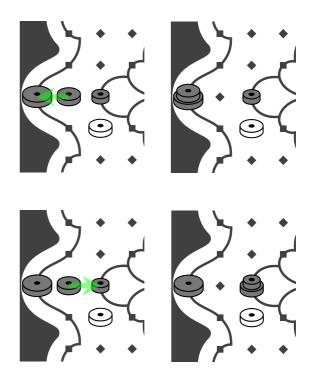
### Interactions: Knocking

*Knocking* happens if two pieces try to occupy the same dot. Note that the rules allow a player to knock his own pieces as well, but it is rarely good



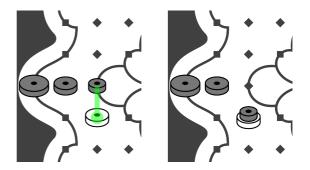
# Interactions: Building

There are two *building* moves available for the middle black piece; note that pieces are put in order of size after moving if necessary.



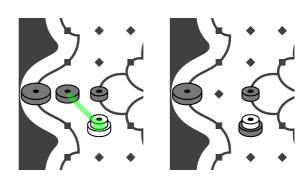
### Interactions: Mixing

If pieces of different colour occupy the same dot, a mixed tower is created. Note: pieces in a mixed tower cannot move!



### Interactions: Knocking and Mixing

If you move into a tower of another colour, you sometimes knock and mix at the same time, creating a mixed tower.



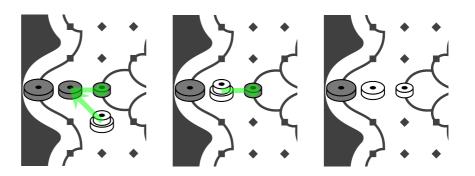
#### Interactions: Clearing

The only way to undo a mixed tower is by *clearing* it, that is, knocking all pieces of the opponent's colour. If there now is a bottom piece to leave behind, the move can continue if the player to chooses.

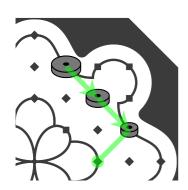


# Interactions: Consecutive Knocking

It is possible to knock more than one piece in one move:



### Wave Type move



This is called a *wave* type move:

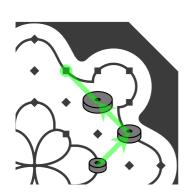
The move starts with a large piece, which is always put underneath smaller pieces. When the resulting tower has at least two pieces and they are both or all of the colour, the move may continue.





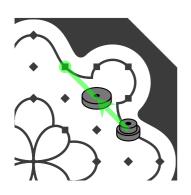


## Bridge Type move

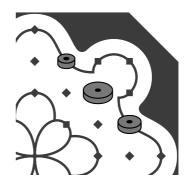


This is called a *bridge* type move:

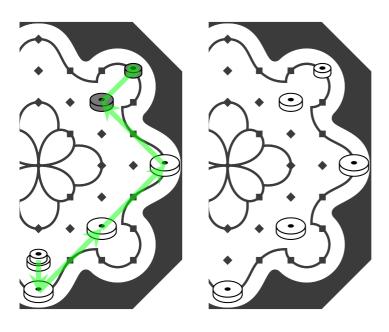
By moving on top of a larger piece of the same size, a smaller piece can use them to leave behind, in effect use them as a 'bridge'.





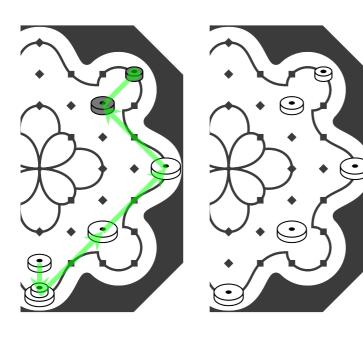


### **Stepping Stones Moves**



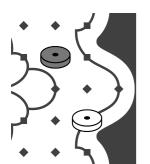
This shows a long move which finishes with two instances of knocking the two black pieces. It takes it names from the use of the largest pieces as *stepping stones* to increase the reach of the smaller pieces.

#### 'Re-fuelling' Move



As you can see, even with a different start position from the stepping stone example above the end result is the same; a Quincala move will always pick up any available potential on the way, leaving only the large bottom pieces behind.

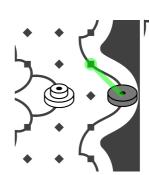
### Tactics: Knocking the Largest Piece



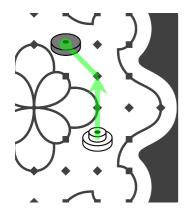
Two single matched pieces cannot knock each other (diagram left)

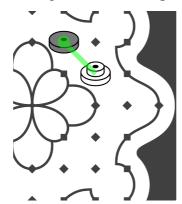
Even if one (or both) of the largest pieces are part of towers, it is usually impossible to knock at a distance - there is usually a way to escape (diagram right).

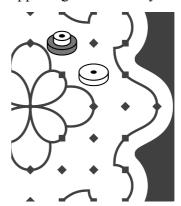
... unless a single largest piece is tracked in a *gate*, as in the low right diagram, where there is no escape.



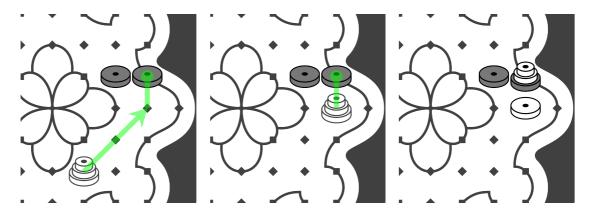
The solution is to first trap the piece by putting a *hat* on it, then knock it the following turn. Note that since a mixed tower cannot move, Black cannot knock back in the move following the initial attack. If Black can *clear* in his response, an *exchange* is happening – more analysis on the website.







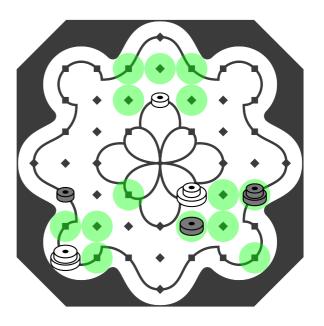
Also, if Black puts two of his largest pieces next to each other, the other one could knock the White attacker in the following move; this is called *twin defence*. A mixed tower stops the move immediately, so White cannot put a hat on both black pieces.

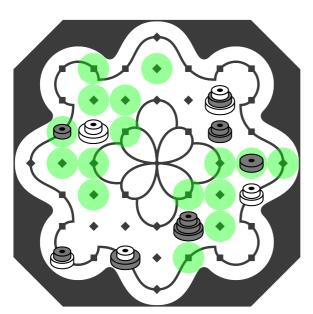


#### Example Options For a First Leg

Further illustrating the limiting effect of the curvy lines and other pieces, and how the maximum reach depends on how many pieces are moving, these two diagrams show all options for a first leg available to white.

Puzzle: Find the 7 options (= green circles) in the diagram on the right from which the move can continue after the first leg! The solution is on the next page.





All options in the diagram to the left give the possibility to continue the move. (Even if the white tower encounters black pieces, they will be knocked, so no further mixed towers can be created from this position).

There are more resources available on the Quincala website, <u>www.quincala.eu</u>: there is a tutorial showing the way the pieces move using animations, software to play back game scores and examples, lots of scores, some documents on strategy, etc

# Solution to the puzzle on the previous page

The 7 options marked in blue will enable the move to continue, each with a single step further.

