Examples for Ikeda Territory I Scoring - Part 3

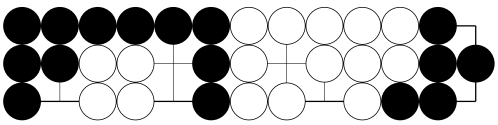
by Robert Jasiek

One-sided Plays

A general formal definition of "one-sided play" is not available yet. In the discussed examples, the following types occur: 1) one-sided dame, 2) one-sided plays in asymmetrical sekis, 3) one-sided plays for string removals from sekis, 4) one-sided defence in sekis versus opposing throw-in.

General proofs about pass-fights in positions with one-sided plays are not available yet. Therefore for each type of one-sided plays, one has to make fresh studies whether pass-fights occur. The preliminary conclusion for the types of one-sided plays in the discussed examples is: Pass-fights do not occur.

Example 1



General Information

- diagram index: 0025
- traditional description: "one-sided dame"
- board size: 13x3
- board parity: odd
- black - white stones: 0
- to move: Black
- frequency: 1:10 to 1:1,000
- total reading time: <1m
- perfect play score: -1
- pass-fight: none

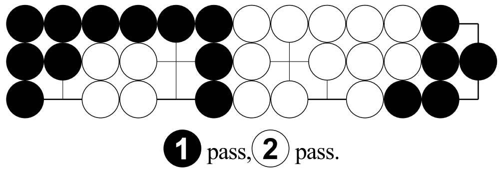
Remarks

So called one-sided dame should be played during the playout, where implicitly they are worth 1 point each if they can be played at all. Play of the first one-sided dame turns the remaining dame into so called zero-sided dame. Playing one-sided dame during the alternation is a strategic mistake because they are unvaluable during the alternation.

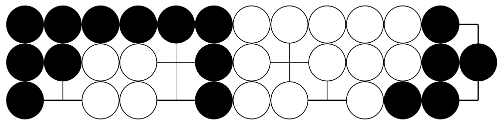
Variation 1

This is a possible perfect play.

Alternation



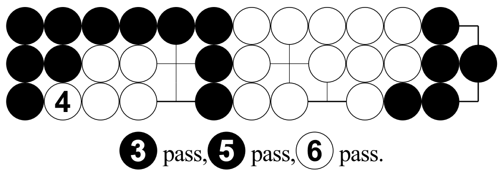
Position at the End of the Alternation



Agreement

The players disagree in the agreement phase.

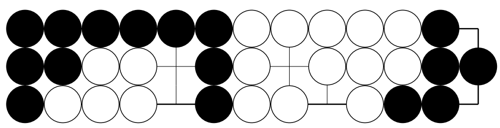
Playout



stones paid for passes: 2 black, 1 white
stones removed: 0 black, 0 white

There is an equal number of moves in this playout. So also the last pass is costly.

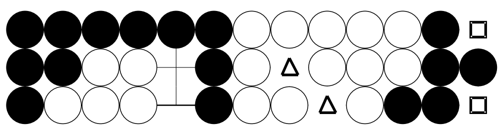
Position at the End of the Playout



prisoner stones: 2 black, 1 white

Scoring

There are 2 black and 1 white prisoner stones.



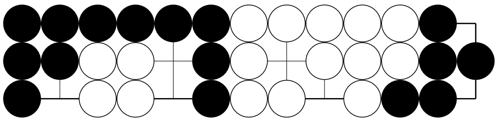
(2 + 1) - (2 + 2) = -1

Black's score consists of 2 points of territory and 1 white prisoner stone. White's score consists of 2 points of territory and 2 black prisoner stones. The unmarked empty intersections score for neither player.

Variation 2

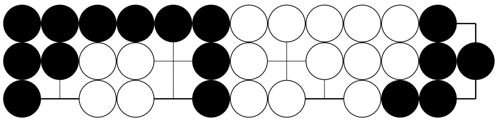
This is a possible perfect play.

Alternation



1 pass, 2 pass.

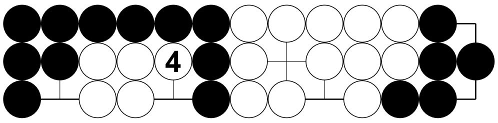
Position at the End of the Alternation



Agreement

The players disagree in the agreement phase.

Playout

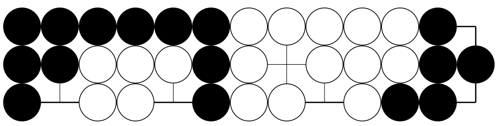


3 pass, 5 pass, 6 pass.

stones paid for passes: 2 black, 1 white
stones removed: 0 black, 0 white

There is an equal number of moves in this playout. So also the last pass is costly.

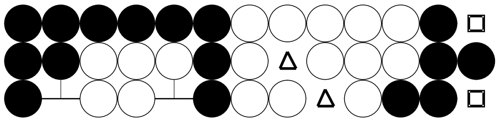
Position at the End of the Playout



prisoner stones: 2 black, 1 white

Scoring

There are 2 black and 1 white prisoner stones.



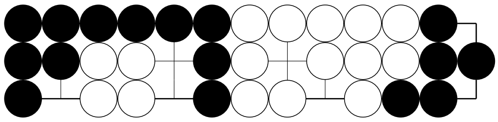
(2 + 1) - (2 + 2) = -1

Black's score consists of 2 points of territory and 1 white prisoner stone. White's score consists of 2 points of territory and 2 black prisoner stones. The unmarked empty intersections score for neither player.

Variation 3

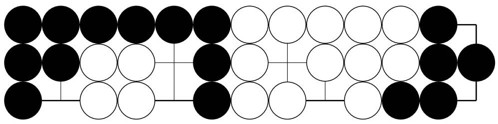
This is a possible perfect play.

Alternation



1 pass, 2 pass.

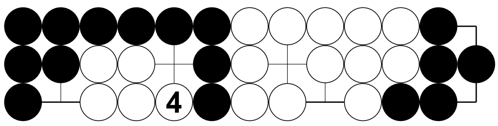
Position at the End of the Alternation



Agreement

The players disagree in the agreement phase.

Playout

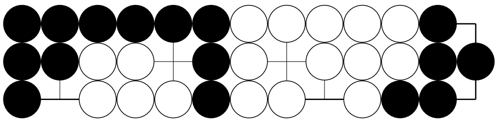


3 pass, 5 pass, 6 pass.

stones paid for passes: 2 black, 1 white
stones removed: 0 black, 0 white

There is an equal number of moves in this playout. So also the last pass is costly.

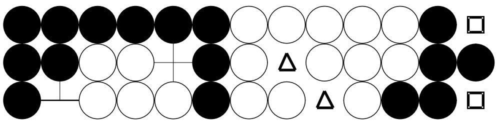
Position at the End of the Playout



prisoner stones: 2 black, 1 white

Scoring

There are 2 black and 1 white prisoner stones.



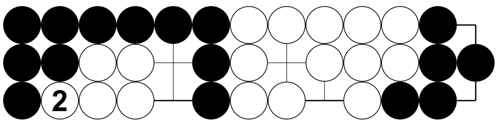
(2 + 1) - (2 + 2) = -1

Black's score consists of 2 points of territory and 1 white prisoner stone. White's score consists of 2 points of territory and 2 black prisoner stones. The unmarked empty intersections score for neither player.

Variation 4

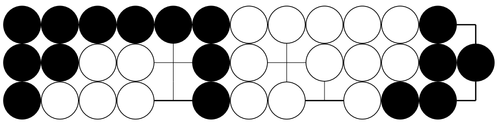
Move 2 is a strategic mistake. During the alternation, filling a so called one-sided dame does not provide any point.

Alternation



1 pass, 3 pass, 4 pass.

Position at the End of the Alternation

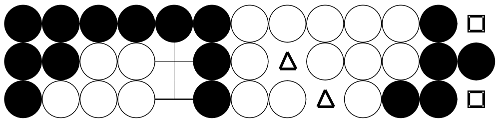


Agreement

The players agree not to remove any strings.

Scoring

There are no prisoners.



(2 + 0) - (2 + 0) = 0

Black's score consists of 2 points of territory and 0 white prisoner stones. White's score consists of 2 points of territory and 0 black prisoner stones.

Remarks about Pass-Fights

On a bigger board, where, expressed by traditional terms, tenuki plays inside one's own or opposing territories are available, either player might attempt to create a pass-fight. However, all such attempts are futile, as is now discussed.

A one-sided dame is worth 1 point. Therefore, to create a meaningful pass-fight, a player may sacrifice only less than 1 point.

If a player wants to create a pass-fight during the alternation by filling territory intersections, he loses 1 point per such play. Any such attempt of his sacrifices at least 1 point altogether. So the player cannot gain in this manner.

Can a player create a meaningful pass-fight during the playout by filling territory intersections? The board except for the one-sided dame intersections behaves like a position without any one-sided dame intersection; according to a proof, a pass-fight does not occur (under standard assumptions). Now let us include the one-sided dame intersections into the consideration: Only one player can play there meaningfully at all (under standard assumptions). His play on the one-sided dame shall be embedded in a sequence of alternating playout moves that are on the rest of the board or passes.

To maintain alternation of moves while embedding the play on the one-sided dame into a playout sequence, this play has to be paired together with an embedded move by the opponent.

The effect of the one-sided dame play itself on the score is zero: Before its occupation, the empty intersection would not score for either player. After its occupation, the occupied intersection will score for neither player, too.

In a standard position, the following types of cases have to be considered for the opponent's embedded move:

1) It is a pass. Since it cannot be the playout's last pass (it does not succeed another pass because it succeeds a play), it costs the opponent 1 point.

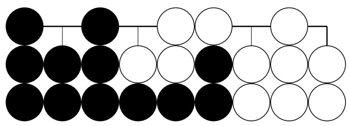
2) It fills a previously empty territory intersection of the opponent. Since this takes away one of his territory intersections, it costs the opponent 1 point.

3) It fills a previously empty territory intersection of the player. Since the stone on that intersection will be lost as a removed prisoner stone, it costs the opponent 1 point.

In each case, the player gains 1 point as a consequence of playing on a one-sided dame. The opponent does not have any means to prevent that gain. In particular, he cannot create a meaningful pass-fight. Not only can't he sacrifice less than 1 point, but he is even forced to sacrifice at least 1 point.

The above can be taken as a sketch for a formal proof that one-sided dame do not cause pass-fights.

<u>Example 2</u>



General Information

- diagram index: 0026
- traditional description: "asymmetrical seki"
- board size: 9x3
- board parity: odd
- black - white stones: 1
- to move: White
- frequency: 1:10 to 1:1,000
- total reading time: <1m
- perfect play score: -1
- pass-fight: none

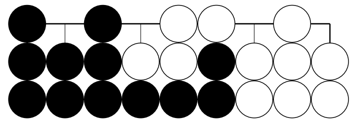
Remark

One-sided plays in asymmetrical sekis should be played never or during the playout.

Variation 1

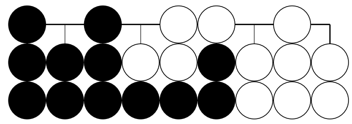
This is a possible perfect play.

Alternation



1 pass, 2 pass.

Position at the End of the Alternation

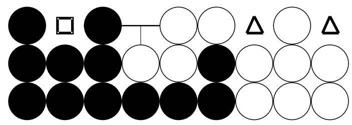


Agreement

The players agree not to remove any strings.

Scoring

There are no prisoners.



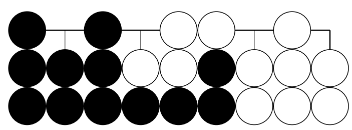
(1 + 0) - (2 + 0) = -1

Black's score consists of 1 point of territory and 0 white prisoner stones. White's score consists of 2 points of territory and 0 black prisoner stones. The unmarked empty intersection scores for neither player.

Variation 2

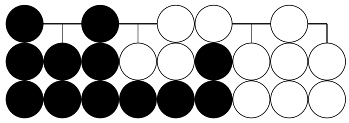
This is a possible perfect play.

Alternation



1 pass, 2 pass.

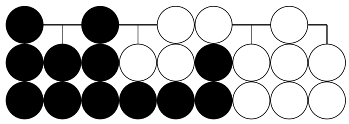
Position at the End of the Alternation



Agreement

The players disagree in the agreement phase.

Playout

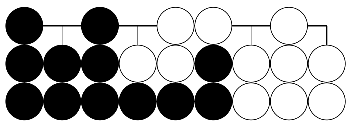


3 pass, 4 pass.

stones paid for passes: 1 black, 1 white
stones removed: 0 black, 0 white

There is an equal number of moves in this playout. So also the last pass is costly.

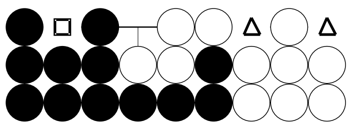
Position at the End of the Playout



prisoner stones: 1 black, 1 white

Scoring

There are 1 black and 1 white prisoner stones.



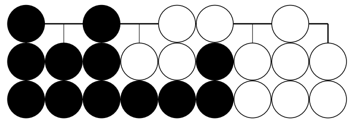
(1 + 1) - (2 + 1) = -1

Black's score consists of 1 point of territory and 1 white prisoner stone. White's score consists of 2 points of territory and 1 black prisoner stone. The unmarked empty intersection scores for neither player.

Variation 3

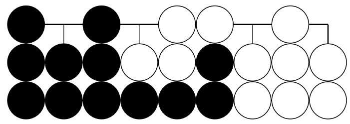
This is a possible perfect play.

Alternation



1 pass, 2 pass.

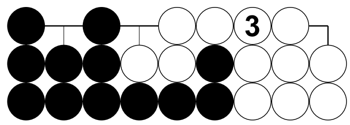
Position at the End of the Alternation



Agreement

The players disagree in the agreement phase.

Playout

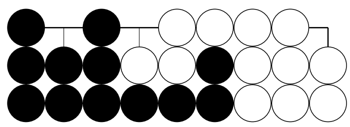


4 pass, 5 pass.

stones paid for passes: 1 black, 0 white
stones removed: 0 black, 0 white

There is an unequal number of moves in this playout. So the last pass is free.

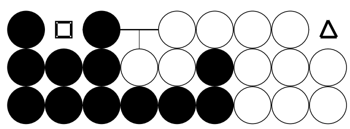
Position at the End of the Playout



prisoner stones: 1 black, 0 white

Scoring

There are 1 black and 0 white prisoner stones.



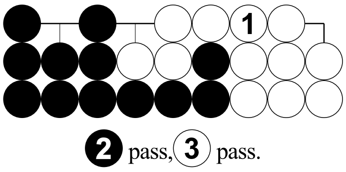
(1 + 0) - (1 + 1) = -1

Black's score consists of 1 point of territory and 0 white prisoner stones. White's score consists of 1 point of territory and 1 black prisoner stone. The unmarked empty intersection scores for neither player.

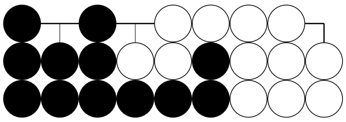
Variation 4

Move 1 is a strategic mistake.

Alternation



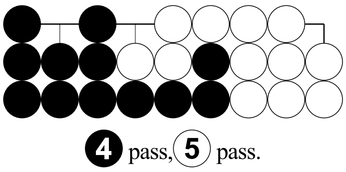
Position at the End of the Alternation



Agreement

The players disagree in the agreement phase.

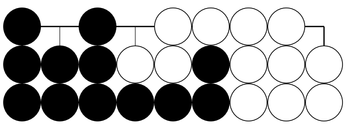
Playout



stones paid for passes: 1 black, 1 white
stones removed: 0 black, 0 white

There is an equal number of moves in this playout. So also the last pass is costly.

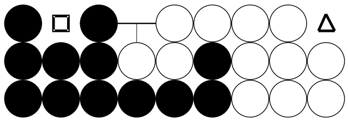
Position at the End of the Playout



prisoner stones: 1 black, 1 white

Scoring

There are 1 black and 1 white prisoner stones.



(1 + 1) - (1 + 1) = 0

Black's score consists of 1 point of territory and 1 white prisoner stone. White's score consists of 1 point of territory and 1 black prisoner stone. The unmarked empty intersection scores for neither player.

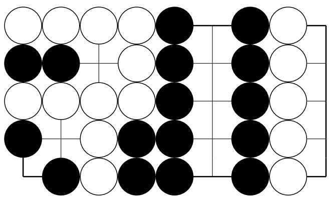
Remarks about Pass-Fights

Spoken in traditional terms, territory intersections in sekis behave pretty much like those surrounded by independently alive strings of only one player. Filling them during the alternation loses points. Filling them during the playout is score-neutral. Instead of 1 point for an empty intersection, after filling a player gets 1 point in form of a prisoner paid for passing by the opponent. So a pass-fight related to one-sided territory filling plays in asymmetrical sekis does not occur. In fact, a general proof about so called regular divided positions applies, regardless whether tradition sees a seki here.

Remarks about Similar Positions

In some asymmetrical sekis, the opponent might make throw-ins on intersections that the one player might fill during the playout. In that case, the player does not get 1 point for an otherwise empty intersection on that he needs to play to remove the opposing throw-in stone but the player gets 1 point for the removed throw-in stone instead.

Example 3



General Information

- diagram index: 0027
- traditional description: "iterative removal of dead stones in a seki"
- board size: 9x5

- board parity: odd
- black - white stones: 0
- to move: Black
- frequency: 1:100 to 1:1,000
- total reading time: 3m
- perfect play score: -4
- pass-fight: none

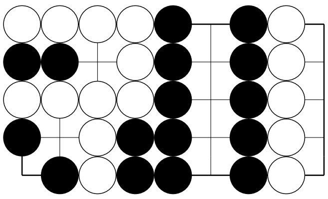
Remarks

The 3 removed stones give points regardless when they are removed. At the end of the alternation, there should be an equal number of remaining necessary plays approaching the liberties of the removable stones and of remaining answer plays. The simplest way is to make all the approach plays during the playout, unless both players agree in the agreement phase.

Variation 1

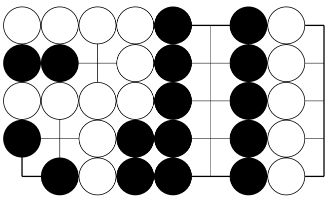
This is a possible perfect play.

Alternation



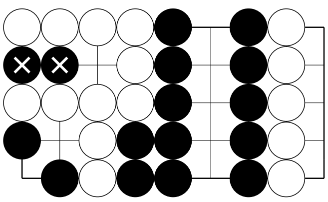
1 pass, 2 pass.

Position at the End of the Alternation

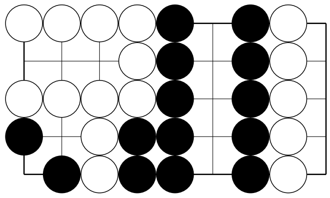


Agreement

The players agree to remove the marked strings.



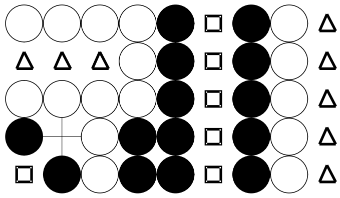
Position at the End of the Agreement



prisoner stones: 2 black, 0 white

Scoring

There are 2 black and 0 white prisoner stones.



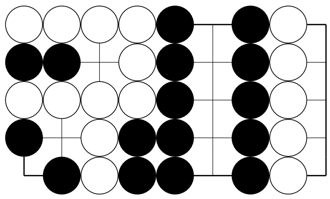
(6 + 0) - (8 + 2) = -4

Black's score consists of 6 points of territory and 0 white prisoner stones. White's score consists of 8 points of territory and 2 black prisoner stones. The unmarked empty intersection scores for neither player.

Variation 2

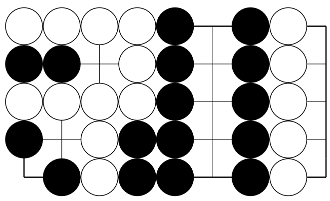
This is a possible perfect play.

Alternation



1 pass, 2 pass.

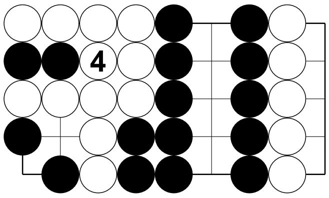
Position at the End of the Alternation



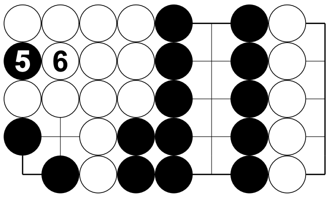
Agreement

The players disagree in the agreement phase.

Playout



3 pass.

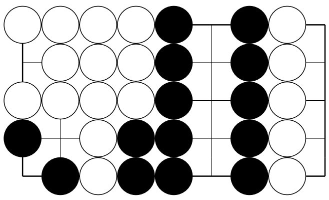


7 pass, 8 pass.

stones paid for passes: 2 black, 1 white
stones removed: 3 black, 0 white

There is an equal number of moves in this playout. So also the last pass is costly.

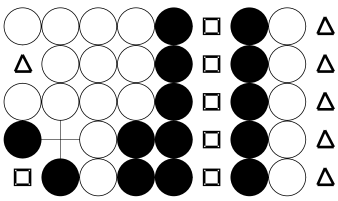
Position at the End of the Playout



prisoner stones: 5 black, 1 white

Scoring

There are 5 black and 1 white prisoner stones.



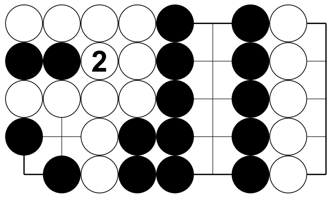
(6 + 1) - (6 + 5) = -4

Black's score consists of 6 points of territory and 1 white prisoner stone. White's score consists of 6 points of territory and 5 black prisoner stones. The unmarked empty intersection scores for neither player.

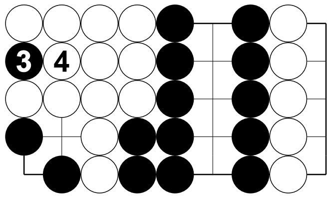
Variation 3

Move 4 is a strategic mistake.

Alternation



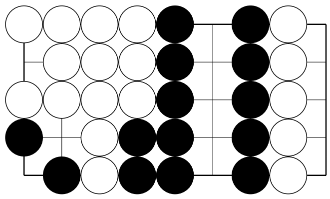
1 pass.



5 pass, 6 pass.

Position at the End of the Alternation

There are 3 black and 0 white prisoner stones.

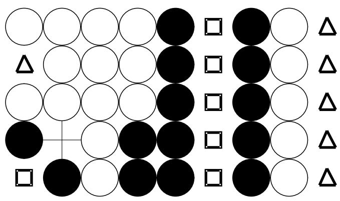


Agreement

The players agree not to remove any strings.

Scoring

There are 3 black and 0 white prisoner stones.



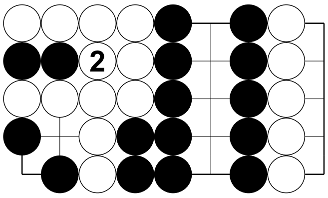
(6 + 0) - (6 + 3) = -3

Black's score consists of 6 points of territory and 0 white prisoner stones. White's score consists of 6 points of territory and 3 black prisoner stones. The unmarked empty intersection scores for neither player.

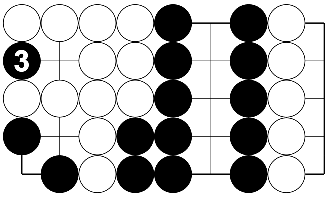
Variation 4

This is a possible perfect play.

Alternation



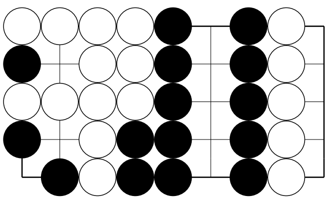
1 pass.



4 pass, 5 pass.

Position at the End of the Alternation

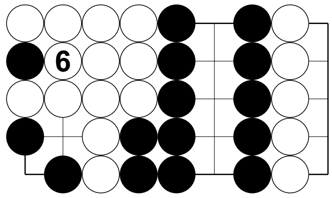
There are 2 black and 0 white prisoner stones.



Agreement

The players disagree in the agreement phase.

Playout

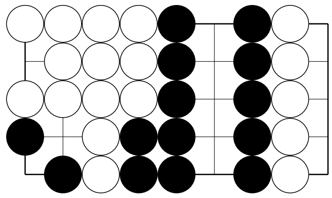


7 pass, 8 pass.

stones paid for passes: 1 black, 0 white
earlier prisoner stones: 2 black, 0 white
new stones removed: 1 black, 0 white

There is an unequal number of moves in this playout. So the last pass is free.

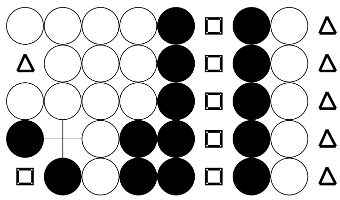
Position at the End of the Playout



prisoner stones: 4 black, 0 white

Scoring

There are 4 black and 0 white prisoner stones.



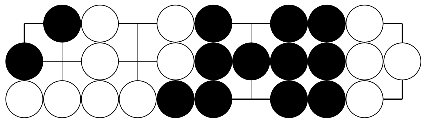
(6 + 0) - (6 + 4) = -4

Black's score consists of 6 points of territory and 0 white prisoner stones. White's score consists of 6 points of territory and 4 black prisoner stones. The unmarked empty intersection scores for neither player.

Remarks about Pass-Fights

Regardless of whether tradition sees a seki here, a general proof about so called regular divided positions applies - there are no pass-fights during the playout. During the alternation, White can make one approach play that is answered, but this forced sequence of two plays is not a pass-fight because this sequence always consists of exactly two plays. The proof depends on perfect play in general and does not care about the detail of some partial sequence being forced. The, what tradition might call, local play in the seki and play elsewhere do not affect each other because also the seki is, as a term calls it, divided at the start of the playout.

Example 4



General Information

- diagram index: 0028
- traditional description: "seki with optional throw-in"
- board size :11x3
- board parity: odd
- black - white stones: 1
- to move: White
- frequency: 1:10 to 1:1,000
- total reading time: 5m
- perfect play score: -1
- pass-fight: none

Remarks

According to empirical statistical data made by John Fairbairn in a collection of then roughly 15,000 (?) professional games called GoGoD, the frequency is 1:800. However, it should be pointed out that most games in that collection are Japanese and Japanese professional games have a tendency towards rather low percentages of sekis. In countries with more aggressive playing styles or among amateurs, sekis are more frequent (in case of amateurs playing on Go servers, much more frequent). Thus there this type of seki would also be more frequent.

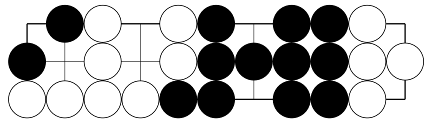
Maintaining the seki is correct endgame. White's extra point can be expressed in various ways: as an empty intersection, as a pass stone compensation during the playout, as a thrown-in prisoner during the alternation, or as a thrown-in prisoner during the playout. Throwing in early affects the balance of ko threats.

The simplest perfect play strategy is passing. If White wants to make a one-sided defence play, he should do so only during the playout. During the alternation, it would waste 1 point - quite like filling any other intersection of territory.

Variation 1

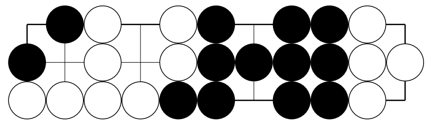
This is a possible perfect play.

Alternation



1 pass, 2 pass.

Position at the End of the Alternation

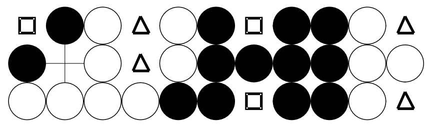


Agreement

The players agree not to remove any strings.

Scoring

There are no prisoners.



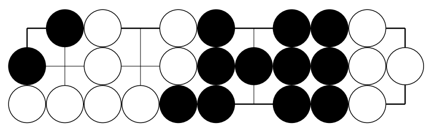
(3 + 0) - (4 + 0) = -1

Black's score consists of 3 points of territory and 0 white prisoner stones. White's score consists of 4 points of territory and 0 black prisoner stones. The unmarked empty intersection scores for neither player.

Variation 2

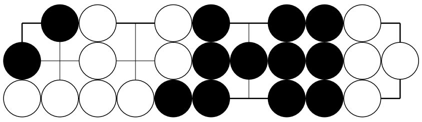
This is a possible perfect play.

Alternation



1 pass, 2 pass.

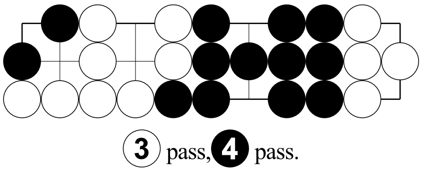
Position at the End of the Alternation



Agreement

The players disagree in the agreement phase.

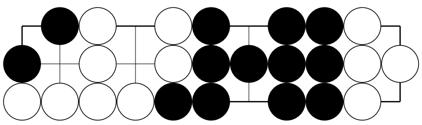
Playout



stones paid for passes: 1 black, 1 white
stones removed: 0 black, 0 white

There is an equal number of moves in this playout. So also the last pass is costly.

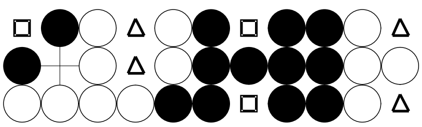
Position at the End of the Playout



prisoner stones: 1 black, 1 white

Scoring

There are 1 black and 1 white prisoner stones.



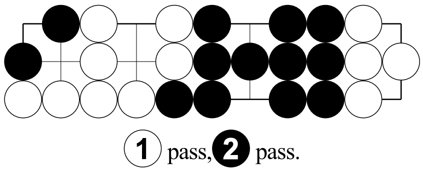
(3 + 1) - (4 + 1) = -1

Black's score consists of 3 points of territory and 1 white prisoner stone. White's score consists of 4 points of territory and 1 black prisoner stone. The unmarked empty intersection scores for neither player.

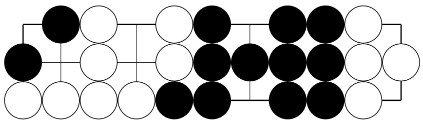
Variation 3

This is a possible perfect play.

Alternation



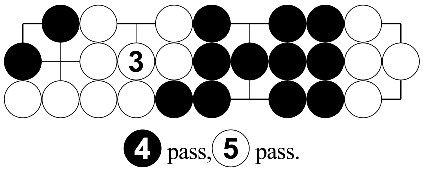
Position at the End of the Alternation



Agreement

The players disagree in the agreement phase.

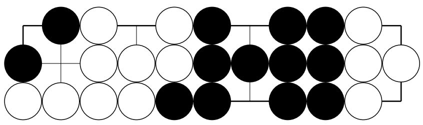
Playout



stones paid for passes: 1 black, 0 white
stones removed: 0 black, 0 white

There is an unequal number of moves in this playout. So the last pass is free.

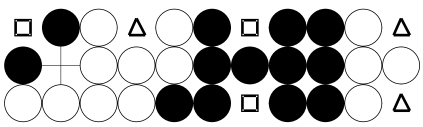
Position at the End of the Playout



prisoner stones: 1 black, 0 white

Scoring

There are 1 black and 0 white prisoner stones.



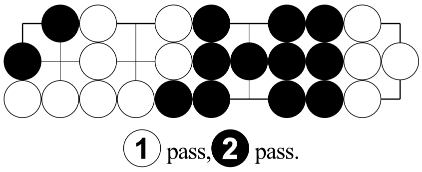
(3 + 0) - (3 + 1) = -1

Black's score consists of 3 points of territory and 0 white prisoner stones. White's score consists of 3 points of territory and 1 black prisoner stone. The unmarked empty intersection scores for neither player.

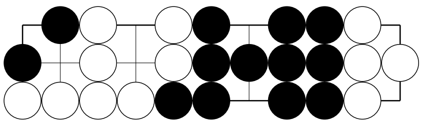
Variation 4

This is a possible perfect play.

Alternation



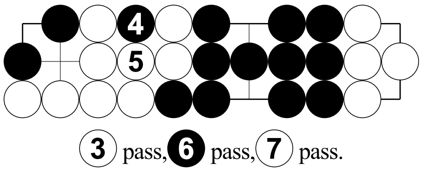
Position at the End of the Alternation



Agreement

The players disagree in the agreement phase.

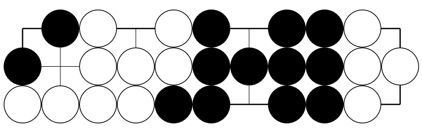
Playout



stones paid for passes: 1 black, 1 white
stones removed: 1 black, 0 white

There is an unequal number of moves in this playout. So the last pass is free.

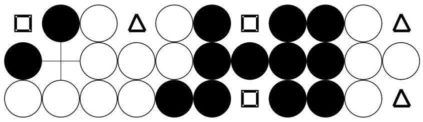
Position at the End of the Playout



prisoner stones: 2 black, 1 white

Scoring

There are 2 black and 1 white prisoner stones.



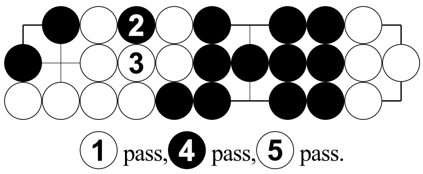
(3 + 1) - (3 + 2) = -1

Black's score consists of 3 points of territory and 1 white prisoner stone. White's score consists of 3 points of territory and 2 black prisoner stones. The unmarked empty intersection scores for neither player.

Variation 5

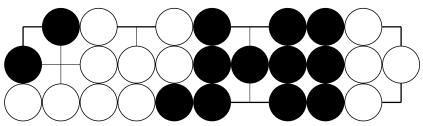
This is a possible perfect play.

Alternation



Position at the End of the Alternation

There are 1 black and 0 white prisoner stones.

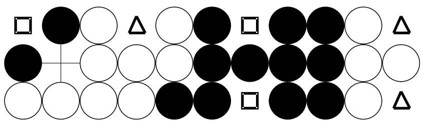


Agreement

The players agree not to remove any strings.

Scoring

There are 1 black and 0 white prisoner stones.



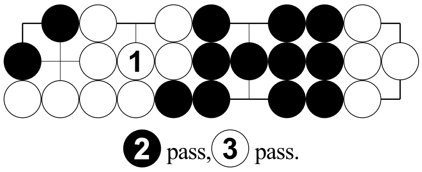
(3 + 0) - (3 + 1) = -1

Black's score consists of 3 points of territory and 0 white prisoner stones. White's score consists of 3 points of territory and 1 black prisoner stone. The unmarked empty intersection scores for neither player.

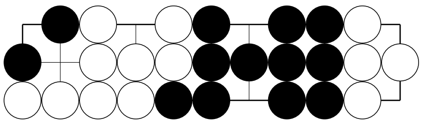
Variation 6

Move 1 is a strategic mistake.

Alternation



Position at the End of the Alternation

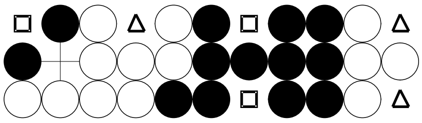


Agreement

The players agree not to remove any strings.

Scoring

There are no prisoners.



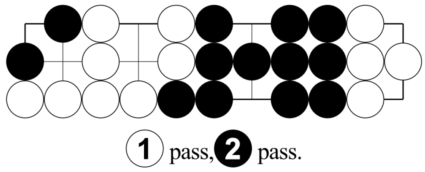
(3 + 0) - (3 + 0) = 0

Black's score consists of 3 points of territory and 0 white prisoner stones. White's score consists of 3 points of territory and 0 black prisoner stones. The unmarked empty intersection scores for neither player.

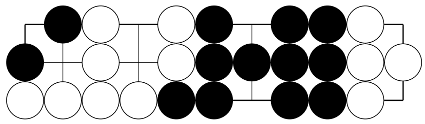
Variation 7

Move 3 is a strategic mistake.

Alternation



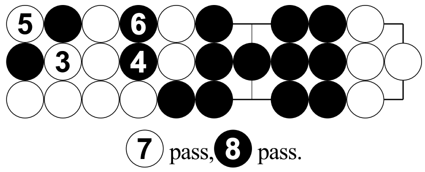
Position at the End of the Alternation



Agreement

The players disagree in the agreement phase.

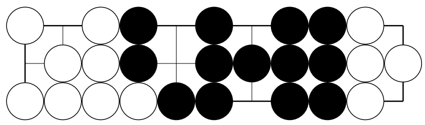
Playout



stones paid for passes: 1 black, 1 white
stones removed: 2 black, 2 white

There is an equal number of moves in this playout. So also the last pass is costly.

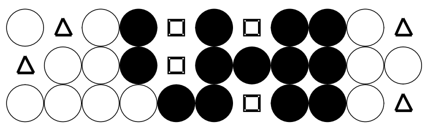
Position at the End of the Playout



prisoner stones: 3 black, 3 white

Scoring

There are 3 black and 3 white prisoner stones.



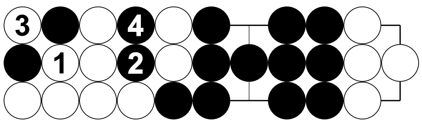
(4 + 3) - (4 + 3) = 0

Black's score consists of 4 points of territory and 3 white prisoner stones. White's score consists of 4 points of territory and 3 black prisoner stones.

Variation 8

Move 1 is a strategic mistake.

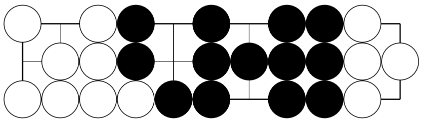
Alternation



5 pass, 6 pass.

Position at the End of the Alternation

There are 2 black and 2 white prisoner stones.

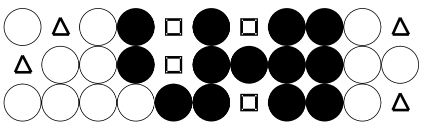


Agreement

The players agree not to remove any strings.

Scoring

There are 2 black and 2 white prisoner stones.



(4 + 2) - (4 + 2) = 0

Black's score consists of 4 points of territory and 2 white prisoner stones. White's score consists of 4 points of territory and 2 black prisoner stones.

Remarks about Pass-Fights

The exchange dissolving the seki lets White lose 1 point. This is already as much as he could hope to gain by a pass-fight about who makes the last pass of the playout. Therefore such a kind of pass-fight would not be meaningful.

Black's throw-in and White's answer play are a sequence of two plays. As such they do not alter the parity of the number of moves of the playout.

During the alternation or the playout, the throw-in and answer have a neutral effect on the score: Each of the two plays loses 1 point for the respective player. Hence the throw-in does not initiate a pass-fight.

The remaining action to be considered is White's defence. Played during the alternation, this would lose 1 point of territory. This is too much for allowing a meaningful pass-fight.

Played during the playout, a White defence play is a perfect play move in a divided position. For that, a proof about non-existence of pass-fights can be applied.

Summarizing, no kind of action creates a pass-fight.