

# Kunstmatige Intelligentie — Tablut

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## Introduction

*Tablut* [1] is a variant of the so-called *Tafl games*, which is a large family of Germanic and Celtic board games from Scandinavian descent. They are characterized by two unequal, in both numbers and properties of the pieces, armies with unequal objectives. *Tablut* is the best documented variant of the *Tafl games*. In the 18<sup>th</sup> century, it was reintroduced to the world by Carl Linnaeus during his expedition to Lapland. His description, however, is incomplete and ambiguous resulting in multiple reconstruction attempts, which yielded multiple rule sets.

## The Pieces

Each of the two players, white and black, commands an army of pawns. The white army consists of eight pawns (S) and a king (K), referred to as “Swedes”. They start from the center area of the board. The black army, the “Muscovites”, only has pawns (m), but it outnumbers the white army with sixteen pawns. They start from the edges of the board. The initial placement of the pieces is fixed, see Figure 1.

## The Board

*Tablut* is played on a rectangular board consisting of  $9 \times 9$  squares, see Figure 1. The columns are called *files* and are labelled  $a-i$  from left to right. The rows or *ranks* are numbered 1–9 from bottom to top.

```
. . . m m m . . .  
. . . . m . . . .  
. . . . S . . . .  
m . . . S . . . m  
m m S S K S S m m  
m . . . S . . . m  
. . . . S . . . .  
. . . . m . . . .  
. . . m m m . . .
```

Figure 1: The initial configuration on the *Tablut* board.

The central square ( $e5$ ) is called the *Konakis* (meaning: castle or throne) and is initially occupied by the king. This square is special in the way that no piece can ever occupy this square once the king leaves his initial position (including the king himself).

## Movement

Players alternate moves with white moving first. Each move one piece must be moved. Each piece can move any number of squares either horizontally or vertically provided that they do not move through any other piece (like a rook in Chess). Once the king leaves the konakis ( $e5$ ), any piece may freely move through it.

## Capturing

Pawns (of either side) are captured by so-called *custodial capture*. An enemy pawn that is surrounded by friendly pawns from both sides, either horizontally or vertically, is captured, see Figure 2. Moving a pawn into a surrounded position does not capture it. Multiple captures simultaneously are also possible, see Figure 3. The king cannot participate in a capture.

```

. . . . .
. . . . m S . . .
. . . . .
. . . . . S
m . . S K . . m .
. . . . . S
. . . . .
. . . . .
. . . . m . . . .

```

Figure 2: The black pawn at  $e8$  is captured by moving the white pawn from  $d5$  to  $d8$ . The black pawn at  $h5$  is not captured by moving it to  $i5$ .

```

. . . . .
. . . . m . . . .
. . m . . . . .
. . S . . . . .
m S . m K . . m .
. . S . . . . .
. . m . . . . .
. . . . .
. . . . m . . . .

```

Figure 3: The white pawns at  $b5$ ,  $c4$  and  $c6$  are simultaneously captured by moving the black pawn from  $d5$  to  $c5$ .

## Objective

The two opposing sides have different objectives. The objective for white is to escape his king to any square on the edge of the board. The black army is trying to prevent the white king from escaping by surrounding him. To capture the king, black has to surround the king on all four orthogonal sides. When the king is adjacent to the konakis, black only has to surround the king on the remaining three sides to capture it. Any player unable to make a legal move loses the game.

## References

- [1] Tafl games, [http://en.wikipedia.org/wiki/Tafl\\_games#Tablut](http://en.wikipedia.org/wiki/Tafl_games#Tablut), retrieved February 10, 2014.