

# Glass Hnefatafl Set

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## History of Hnefatafl

Hnefatafl is the Scandinavian precursor to the modern game of Chess. Reference to the Hnefatafl or tafl is widespread in the Icelandic and Scandinavian Sagas and other forms of literature. In the early Middle Ages when the "Viking" era was in decline the Scandinavian people abandoned Hnefatafl for Chess. As a result the rules for the game were lost. Even though the rules were lost, game boards and pieces have been found in abundance in the Norse world. Willard Fiske, an American language expert was one of the first people to research and create a reasonable set of rules for Hnefatafl. Several people picked up the research of Hnefatafl, including Harold J. R. Murray, a British Chess Historian, who connected the Hnefatafl with the modern game of Saami to which rules still exist. The research of Hnefatafl was further advanced by the discovery of a 1587 Welsh manuscript, which detailed the rules for tawl-bwrdd, a Welsh variant on Hnefatafl. (Helmfrid p. 2)

The basic rules for the game as described by Murray are very simple. The board size depends on the number of playing pieces used but is always an odd number. The board is a series of squares with the same odd number of squares horizontally as vertically so a definite center square (the "Throne") can be marked. The Corner squares are also marked. The game is modeled after sea combat. There are two sides, a defender with a King (a unique playing piece) who begins on the Throne surrounded by his pieces and is trying to escape, and the attacker whose pieces begin along the edges of the board and are trying to capture the King. The attackers outnumber the defenders by a two to one ratio. For example, if the King has 12 defenders the attackers number at 24. The object of the game is for the King to escape off the board and for the attackers to prevent the King from escaping. The pieces may move horizontally or vertically only. The exact rules of the game are dependent on the size of the board. (Helmfrid p.3)

The number of playing pieces and exact rules vary according to the size of the board. When I chose to make the Hnefatafl set, I choose the medium sized board with 11 squares per side, because that seemed like a good size to learn the game. For the 11x11 board, the defenders have the King and 12 pieces, and the attackers have 24 pieces. The rules for the 11x11 board are:

### ***Instructions for playing Hnefatafl on an 11x11 board***

- 1. All pieces may move any number of squares horizontally or vertically. No pieces can occupy or cross the Throne (except the King occupies the Throne at the start of the game), and no pieces except the King may occupy a Corner.***
- 2. The defender's objective is for his King to escape by reaching any Corner. If the defender moves so the King ends up with a clear path to any of the four Corner squares, he must announce that he has an escape route. If the attacker inadvertently opens an escape route for the King, the defender may take advantage of it immediately with no announcement.***
- 3. The attacker's objective is to capture the king, by surrounding the King, or the King and no more than one defender, with the attacker's pieces so that the King cannot move.***
- 4. The Throne, Corners, and edges of the board count as attackers for the purposes of capturing the King. Thus, it is possible to capture the King when the King is one move from escaping.***
- 5. When the King is in danger of being captured on the attacker's next move, the attacker must announce "Watch your King" to the defender.***
- 6. If a moved piece ends up sandwiching an opposing piece (not the King) between itself and another piece of the moving color or a Corner or the Throne, along the horizontal or vertical axis (not diagonal), the sandwiched piece is "captured" and removed from the board. It is possible to capture several pieces in a single move.***
- 7. A piece may safely move to place itself in a capture position between to opposing pieces, a Corner, or the Throne. Such a move is not suicide. My lord calls this move a "berserker."***
- 8. The defender wins if he gets his King to a corner square.***
- 9. The attacker wins if he captures the King.***
- 10. The defenders have an advantage over the attackers. It is recommended that the game be played two times, with each player taking a turn as attacker and defender. The total number of captures is recorded and used to determine the winner of the game.***

[Documentation for Glass Hnefatafl Sets](#)



The variety and number of Hnefatafl sets and boards are extremely large. I will highlight some of my favorite boards and sets found in the Norse world. The most well known and best preserved board of Hnefatafl is the board found on a native Irish settlement at Ballinderry, Co. Westmeath. It has a marked center and corners with a 7x7 layout. Many of the game pieces have a small hole in the bottom of them. A peg could have been inserted into the hole for use on this board.

Another board, which was only partially preserved, was found at Coppergate in York and has an 11x11 layout. The marked corners are hardly recognizable in this board. It is not certain that this is a Hnefatafl board however it does have an odd number of squares and the corners are marked.



Many glass-playing pieces were recovered. One set of glass playing pieces, found in Sweden, is in a transparent blue. There are 25 defenders and a larger King with this set.

Another wonderful glass set has 8 defenders with a King and 16 attackers. This set was from grave 750 in Bjorko. The King from this set is what I used as the basis for the King in my Hnefatafl set.



The gaming pieces for the Hnefatafl sets came in a large variety of sizes and materials. Some of the materials include glass, bone, antler, wood, and amber. The sizes seem to vary from as small as 1 cm in diameter to as large as 4 cm in diameter. (WOV) The pictures show a variety of sizes for the gaming pieces including some as small as 1 cm. My game pieces are just over 1 cm in diameter. I chose to reproduce a smaller gaming piece because they are more portable, more elegant, and more challenging to produce.



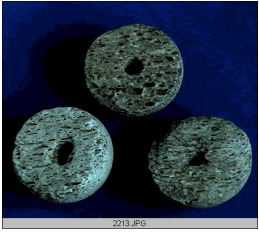
## My Method of Production

### Board Construction

Game boards seem to have been made from readily available materials. Some were found scratched into slate and others were drawn out on scrap pieces of wood. I choose to make my game board 11x11 to match the find from Coppergate in York. Since I am not a wood worker I decided to draw the board on a piece of leather. I first measured the size of my game pieces to determine an appropriate size for the squares and then made the squares 2cm square. Next I measured out the size of the leather. I wanted a small border on the board therefore the size of the leather was 2cm x 11 cm plus 4cm which works out to be 26cm square. This produced a board with a 2cm border on all sides. I then drew the board on the leather and

carved the lines into the leather. Next, I went back and colored the lines red and marked the center and corner squares. Finally, I oiled the piece of leather with vegetable oil. I then attached the leather board to a piece of wood with small tacks to give the board some added dimension. I don't know if a leather board existed however I believe it is reasonable to believe that a leather board could have been created at a travel version of the game.

### Game Piece Construction



None of the glass Hnefatafl sets that I have found display the bottom of the pieces therefore I do not know the exact method of manufacture. However many of the sets in bone, ivory and wood do show the bottom of the pieces and those pieces have a small hole in them that suggest they were lathe turned. This set pictured to the left shows three bone playing pieces from Oldsaksamlingen, Norway that, according to the archeologists, were produced on a lathe. Since glass bead manufacture was very

common in the Norse world I assumed that the glass playing pieces were probably made in a similar fashion to glass beads.

I decided to make the defenders and attackers as a half round bead on the end of the bead making mandrel. I wound on the glass and then used a mold to get a uniform half round shape to the playing pieces. (See the step by step bead making instructions below for exact instructions on how to make a bead.) The King I made was based on the King from the Bjorko grave. I formed the head of the King on the end of the mandrel and then formed the body. The Kings was then decorated with a twisted stringer to provide additional interest. I chose to make the set in green and yellow in honor of my mentor. If you look closely the King may resemble someone you know.

### Step-by-step method of producing the game pieces:

- 1. Prepare the mandrels. The mandrels must be coated in bead separator to prevent the bead from sticking to the mandrel. In period they would have used high quality clay.**
- 2. Prepare the work area. The work area needs to be well ventilated and fire proof. It is also a very good idea to have a fire extinguisher available. Tools and glass are laid out so that the beadmaker need not reach around or over the flame.**
- 3. Light the torch. The torch can be lit with either a striker or a match.**
- 4. Heat the glass. The glass is passed in and out of the flame to heat it slowly until it starts to turn color. The initial color change is different for different colors of glass. This prevents thermal shock that can shatter the glass. Once the glass is warm it is then heated up in the flame until a round ball of molten glass is formed. I am currently using moretti glass.**
- 5. Form a bead. Once a round ball of molten glass forms on the end of the rod, touch the glass to the prepared mandrel and turn the mandrel away from you. Keep the mandrel turning in the heat until you have the desired amount of glass on the mandrel then wind off the glass from the rod. Winding off is accomplished by slowly pulling the glass rod away from the bead and then burning off the stringer that connects the bead and the glass rod. Next keep the bead in the heat and continue turning the mandrel until the bead is round. Hot glass acts like honey. Knowing this, the beadmaker can turn and manipulate the bead using gravity to shape and form the bead.**
- 6. Decorate and form the Bead. Once you have a basic round bead the bead can be decorated with stringers or formed using a marver or graphite paddle. A marver is a small metal plate that is smooth on one side and has a pattern on the reverse side. The beadmaker can use this plate to shape the bead and add texture. The graphite paddle is a small block of graphite with a wooden handle designed to help the beadmaker shape and form the bead. (In period the graphite paddle would have been made from cheery or apple wood and kept wet to avoid charring the wood when the paddle was used to shape the hot glass.) Graphite is used because it will not stick to the hot glass and does not absorb the heat from the glass therefore increasing the amount of time the beadmaker has to shape the bead.**
- 7. Anneal the Bead. Once the bead is formed and decorated it must be annealed in order to keep the bead from cracking later. I anneal my beads in a bead-annealing kiln for at least 30 minutes at 950 degrees Fahrenheit. In period the beads were placed on the edge of the furnace or kiln. The beads were left at the edge of the furnace or kiln throughout the bead making session annealing the beads as the beadmaker worked.**

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