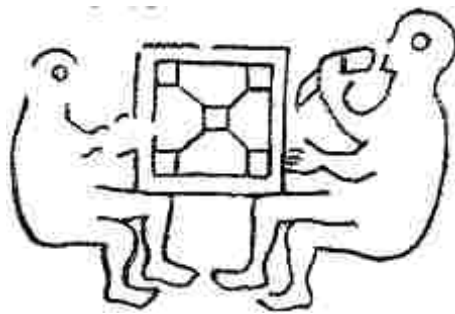


# Linnaeus' Game of Tablut and its Relationship to the Ancient Viking Game Hnefatafl

by John C. Ashton  
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## *Abstract*

This paper concerns Linnaeus' 1732 work *Iter Lapponicum* and his important (though inadvertent) contributions to the field of Viking age archaeology. A journal entry from his publication contains a description of a Lapp board game called Tablut (also called Swedes & Muscovites), which later scholars realized was related to the Viking game of Hnefatafl. Brand new research is now presented, derived from a re-translation of the original Latin text. Problems with the first 1811 translation have led to major errors in attempts to reconstruct the rules of both games. By revisiting the original Latin, these problems can be resolved. The newly translated rules for Tablut are presented, and it is shown how, with a few modifications, they can be applied to Hnefatafl. It is argued that Linnaeus' contribution here is not insignificant, because leisure activities can, in fact, be an important component of the archaeological record. The various archaeological evidence regarding this Viking age game is presented, along with evidence in medieval literary sources, to establish the nature of the relationship between Tablut and Hnefatafl. Finally, these reconstructed rules are analyzed with regard to how they reflect certain aspects of Viking culture, which many historians have perhaps overlooked or undervalued.

## Introduction

In the year 1732, the young Swedish naturalist, Carolus Linnaeus, later known as Carl von Linné, the founder of taxonomy's modern nomenclature scheme, traveled to Lapland in northern Sweden on a botanical expedition. While there, he recorded in his journal, not only the plant and animal life of this substantially unexplored part of Europe, but also the human life of the native Lapps, whose habits and customs he observed firsthand. That journal of his travels was published as *Iter Lapponicum* in 1732, containing entries in Swedish interspersed with sections in Latin<sup>1</sup>. The book was not published in English translation until 1811, as *Lachesis Lapponica*.

One journal entry of considerable cultural, historical, and archaeological significance, partially translated by J. E. Smith<sup>2</sup>, was largely overlooked until the 20<sup>th</sup> century. The British game historian H. J. R. Murray was the first to identify the importance of Linnaeus' description of the rules of a Lapp game called Tablut. This game, he argued, was related to, and possibly identical with, an ancient Viking game called Hnefatafl, which the Icelandic sagas frequently reference<sup>3</sup>. The game involves a defending force composed of a king and his warriors, located at the center of the playing board, besieged by a much larger attacking force, positioned at the periphery of the board. The Hnefatafl family of games was very popular in northern Europe until the introduction of chess, which ultimately displaced it except in "backwaters" like Lapland.

Unfortunately, the original English translation of Linnaeus' diary account of Tablut omitted 2 of the 14 entries<sup>4</sup>, and those that were translated were of dubious accuracy in a few cases. Murray based his reconstruction of the rules on this faulty English translation; furthermore, his set of rules overlooked some of the nuances suggested by Linnaeus' observations. Part of the problem was that Linnaeus did not speak the Lapp language, and so had to arrive at an understanding of the game by induction, presenting examples of permissible moves for the pieces. Another part of the problem was that Linnaeus' use of Latin contained cryptic abbreviations and various errors of syntax that made translation difficult<sup>5</sup>. A final part of the problem was that these errors were compounded; Murray used Smith's translation<sup>6</sup>, and subsequent game historians used Murray<sup>7-9</sup>.

Attempts to play Tablut or other Hnefatafl games with Murray's rules show that the game is extremely unbalanced; the defending force is greatly favored and almost always wins<sup>10</sup>. This is primarily due to the incorrect assumption that the king must be captured by surrounding him in 4 cardinal directions. Attempts to weaken the king to help balance the game, proffered by other game historians, have included a weaponless king, who may not assist his men in capturing opposing pieces. In fact, this article grew out of the attempt to locate literary evidence to support such an unarmed king rule (e.g., a disputed passage from the Icelandic *Hervarar* saga).

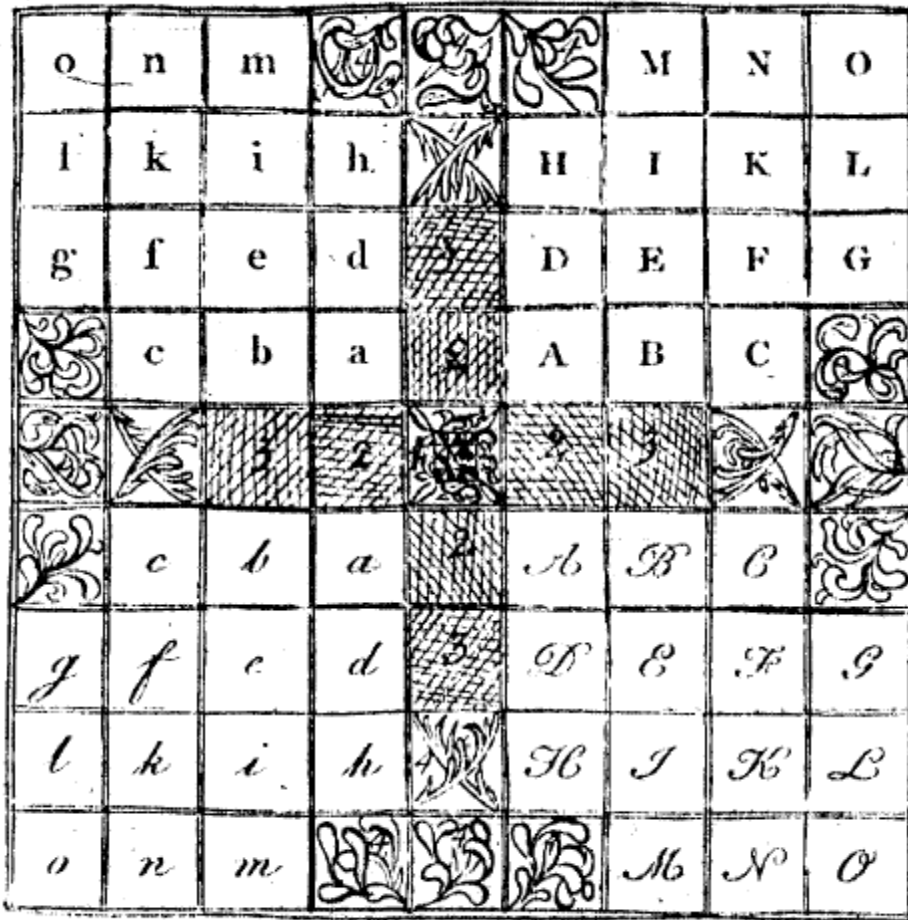
However, a new translation of Linnaeus' Latin text has resolved the mystery. Essentially, the solution lies in a 2-man rather than 4-man capture rule for the king (with certain exceptions). The Danish archaeological magazine *Skalk* appears to have arrived at a similar conclusion, judging from the rules contained in their reconstruction of Hnefatafl<sup>11</sup>. This, though, is the first time that an accurate set of rules for the variant Tablut, and by extension Hnefatafl (assuming they were nearly identical, as archaeological finds suggest), is being offered to English speakers. Besides providing modern audiences with a new type of board game, these rules can also shed light on certain aspects of Viking age culture not usually reflected in the archaeological record.

**Results: Linnaeus' Rules of Tablut, Presented along with a Reconstruction of Hnefatafl**

*Iter Lapponicum*, Carolus Linnaeus, 1732, p. 147-148

Rules translated from Latin, clarified, and expanded by John C. Ashton, March 2007.  
Professional Latin translation performed at Lengua.com for verification purposes, March 2007.

Tablut (a late Swedish variant of Hnefatafl, exported to Lapland and observed by Linnaeus)



*Starting Positions.*

1. *Royal Citadel* (or throne). Called *Konokis* in Lapp, no one is allowed to enter this central space. The Swedish King is placed here to start the game.
- 2 & 3. Swedes number 9 when counted together with their King; at the beginning of the game, their 8 soldiers are arranged around the King in squares 2 and 3.
4. Muscovites are placed in the 16 perimeter embroidered squares at the start of the game, some of which have the notation 4 in the figure.

*Other.* Empty spaces can be occupied by any piece legally, including the King; this applies for all prominently lettered (*a* through *o*, *A* through *O*) and prominently numbered (2, 3) spaces. Other spaces (i.e., embroidered squares, including 1 and 4) are citadels and are off-limits to all pieces. A piece originating in a citadel may not re-enter once it has left.

*Laws.*

1. All pieces can occupy and move to a space by means of a straight line, not obliquely, as *a* to *c* not as *a* to *e*.
2. It is not permitted to go to a space by means of a straight line if it would require jumping another occupied space, as from *b* to *m*, if in the process *i* is occupied.
3. If the King, for example, occupies space *b* and no one is in *e*, *i* and *m*, he can leave, as long as a Muscovite does not block or capture the King in the next turn.
4. If the King can escape to a perimeter square (except for the off-limits embroidered squares), the game is over.
5. If the King, for example, is positioned in *e*, and neither his own nor hostile soldiers are in *f* and *g* or *i* and *m*, his escape cannot be stopped, unless he is captured in the next move.
6. If the King sees a clear escape route, he calls out *Raichi* (check); if two open routes exist, he calls out *Tuicha* (checkmate).
7. It is permissible to move as far as possible along a straight line, as from *c* to *n*, if nothing is blocking.
8. Swedes and Muscovites move in alternate turns. The lighter color pieces (usually the Swedes) are arbitrarily allowed to move first [this is not specified in Linnaeus].
9. If 1 piece finds itself trapped between 2 enemies, it is captured and must be removed from the board. This is also true for the King, except as noted in rules 10 and 11 below. It is permissible to move in between two enemy pieces already in position; a soldier is only taken if a sandwiching (hammer and anvil) movement is made by his enemy. The hammer and anvil enemy pieces must be lined up either vertically or horizontally with the soldier who is captured; diagonal captures are not allowed. Multiple captures of 2 or even 3 enemy pieces are possible with a single move (given favorable geometry).
10. If the King is in citadel *I* and enemies in 3 of the places numbered 2, he can escape to the fourth square labeled 2. If his own man is occupying the 4<sup>th</sup> square, and if that soldier in 2 is positioned between the King and an enemy soldier, it is killed. If four enemies are in 2, the King is captured. Four attackers are required to take the King, as described above, only when he is on his throne (citadel *I*). The Swede in square 2 is captured, as described above, not because he is trapped between the King and a Muscovite, but rather because he is trapped between the throne and a Muscovite; see rule 14 below regarding citadels.
11. If the King is in 2, and 3 enemies are in *a*, *A* and 3, he is captured. It is only when the king is directly adjacent to the throne (in square 2) that 3 attackers are required to take him. Unless the King is on or next to the throne, he may be captured like any other piece.
12. The King being thus captured or hemmed in finishes the battle and the victor retains the Swedes he captured, claims the defeated Muscovites, and a new game can start, if so desired.
13. Muscovites operate without a king, being 16 soldiers divided into 4 ordered phalanxes.
14. A citadel can block, just as a third piece would, so that if a soldier is in 2 and an enemy in 3, he is killed. Thus, a piece may not move through a citadel (embroidered squares *I* or *4*), and if standing next to one of these hostile squares, a piece may be captured with the hammer movement of a single opponent (except for the King standing next to the throne).
15. A draw should result if a series of moves is repeated 3 times. To avoid this, and to avoid an endless game, the offensive player (whose next move would initiate the third in the series of repeated moves), must find an alternative move, either with the piece he had been moving, or with some other piece. [Rule not in Linnaeus, but added for playability.]

Hnefatafl (the original Viking game, reconstructed based on Tablut rules recorded by Linnaeus)

Tablut is a medieval Swedish variant of the ancient Viking game Hnefatafl. It is important to realize that the strategic situation for the Swedes had changed between the earlier Viking and later medieval ages. In Tablut, the Swedish throne probably represented one of the fortified castles the Swedes built along the river entrances to the Baltic coast, and the Muscovite base camps probably represented neighboring fortresses from which the Russians laid siege to the Swedish outposts<sup>12</sup>. In Hnefatafl, the Viking King in his central fortress is besieged by another Viking tribe. The raiders have no permanent base camps, but rather arrive and leave in their famous longships. To escape this attack, the King's goal is to reach one of the four corner squares, which are fortified citadels at the outskirts of his territory that will offer him protection. Thus, all of the above Tablut rules may be used to play Hnefatafl, with the following exceptions.

1. Instead of Swedes, the smaller force is called the Defenders, and instead of Muscovites, the larger force is called the Attackers.
2. Usually, the Attackers are the light colored pieces (at least according to the Icelandic sagas). So, if white is arbitrarily assigned the first move, the Attackers would typically have the first move in the game (logically, being the aggressors).
3. As explained above, there are only five squares or citadels that have special properties (the center throne and four corner citadels). Once the King has left his throne, he cannot return, just as in Tablut, and the throne cannot be landed on or moved through by anyone.
4. Only the King is allowed to enter the four corner citadels, at which point he wins the game. His goal here is to reach a corner citadel, not, as in Tablut, just any legal perimeter square. The 16 squares where the Attackers originate have no special properties and may be moved through and landed on legally by all pieces.
5. The corner citadels, like the throne, are hostile to other pieces and may be used to capture them. The throne thus can serve as one of the four opponents necessary to capture the King when he is adjacent to his throne, and a corner citadel can serve as one of the two opponents necessary to capture the King when he is away from his throne. If the King is captured, of course, the Attackers win the game.


























Note that Hnefatafl came in various board sizes besides 9x9, such as 7x7, 11x11, 13x13 and 19x19. Different boards were popular in different geographical regions under Viking influence, and were known locally by different names<sup>13</sup>. The above Hnefatafl rules may be used for all these versions, the only difference being the quantities and exact starting positions of the pieces. These rules should result in a playable and balanced game, unlike many modern reconstructions. In all boards, the ratio of Attackers to Defenders (not counting the King) was 2:1. Also, in all versions, the King started at the central throne, encompassed by his Defenders, all of whom were encircled by Attackers, positioned at or near the perimeter of the board. The precise starting positions of the pieces are really only known for Tablut (and thus its 9x9 Hnefatafl cousin, which was probably played throughout Scandinavia) and the Anglo-Saxon Alea Evangelii (19x19)<sup>14</sup>. Other speculative setups have been proposed by historians for the remaining board sizes (Irish 7x7 Brandubh, Welsh 11x11 Tawl-bwrdd, and Scandinavian 11x11 and 13x13 variants), based partly on Irish and Welsh literary sources that suggest the piece counts for the 7x7 and 11x11 boards<sup>15</sup>. These proposed starting positions are available in a number of references, and online<sup>16</sup>.

Derivation of Results: Step 1 in the Process – Linnaeus’ Original Latin Manuscript

*Iter Lapponicum*, Carolus Linnaeus, 1732, p. 147-148

Rules as observed by Linnaeus in Lapland, recorded in Latin for his journal. Latin text follows.

*Tablut.*

o	n	m				M	N	O
i	k	i	h		H	I	K	L
g	f	e	d		D	E	F	G
	c	b	a		A	B	C	
								
	c	b	a		A	B	C	
g	f	e	d		D	E	F	G
l	k	i	h		H	I	K	L
o	n	m				M	N	O

1. *Arx regia. Konokis Lappon., cui nullus succedere potest.*
- 2 et 3. *Sveci N:r 9 cum rege et eorum loca s. stationes.*
4. *Muscovitarum stationes omnes in prima aggressionem depictae.*
- O. *Vacua loca occupare cuique licitum, item Regi, idem valet de locis characterisatis praeter arcem.*

### *Leges.*

1. Alla få occupera och mutare loca per lineam rectam, non vero transversam, ut *a* ad *c* non vero *a* ad *e*. [First portion of sentence is in Swedish.]
2. Nulli licitum sit locum per lineam rectam alium supersalire, occupare, ut *a* *b* ad *m*, alio aliquo in *i* constituto.
3. Si Rex occuparet locum *b* et nullus in *e*, *i* et *m* positus esset, posit exire, nisi mox muscovite aliquod ex locis nominates occupat, et Regi exitum praecludit.
4. Si Rex tali modo exit, est praelium fiutum.
5. Si Rex in *e* collocaretur, nec ullus s. ejus s. hostis miles esset in *f g* sive *i m*, tum aditus non potest claudi.
6. Ut Rex aditum apertum vidit, clamet *Raichi*, si duae viae apertae sunt *tuicha*.
7. Licitum est loca dissita occupare per lineam rectam, ut *a c* ad *n*, nullo intercludente.
8. Svecus et muscovite in gressibus alternant.
9. Si quis hostem 1 inter 2 sibi hostes collocare posit, est occisus et ejici debet, item Rex.
10. Si Rex in arce *1* et hostes in 3<sup>bus</sup> ex N:r 2, tum abire potest per quartum, et si ejus in 4<sup>to</sup> locum occupare potest, si ita cinetus et miles in 2 collocatur, est inter regem et militem qvi stat occisus, si qvatuor hostes in 2, tum rex captus est.
11. Si Rex in 2, tum hostes 3, sc. in *a a* et 3 erint, si capiatur.
12. Rege capto vel intercluso finitur bellum et victor retinet svecos, devictus muscovitas et ludus incipiatur.
13. Muscovitae sine rege erint, suntque 16 in 4 phalangibus disponendis.
14. Arx potest intercludere, aequae ac trio, ut si miles in 2 et hostis in 3 est, occidat.

### Author's Note

There is some ambiguity in these rules, even when properly translated into English. Consequently, the following alternate rule is suggested for the interested gamer. It may or may not lead to a more playable game, but there is not enough evidence in Linnaeus' journal to completely discount it. The initial interpretations of such ambiguous rules are found in the primary Tablut rules presented above. Obviously, the alternate rule would supersede that, and can be considered applicable to both Tablut and Hnefatafl. Further discussion of the varying interpretations and ambiguity is found in the Clarification Section (Step 4). The numbering of the modified rules presented here is consistent with Linnaeus' Laws as described elsewhere.

14. A citadel can block, just as a third piece would, so that if a soldier is in 2 and an enemy in 3, he is killed. Thus, a piece may not land on a citadel (embroidered squares *1* or *4*). However, a piece may move through an empty citadel (throne and, in Tablut, base camp). If standing next to one of these empty hostile squares, a piece may be captured with the hammer movement of a single opponent (except for the King standing next to the throne). A citadel is not hostile unless empty, except as described in rule 10, where a Swede in square 2 is captured by being trapped between a Muscovite in square 3 and the King in citadel *1*, himself surrounded by Muscovites in the other 3 squares labeled 2. The reason for this special clause in rule 10 is to avoid stalemate, with the King nearly surrounded by Muscovites, but for one Swede in square 2 prolonging the game indefinitely.

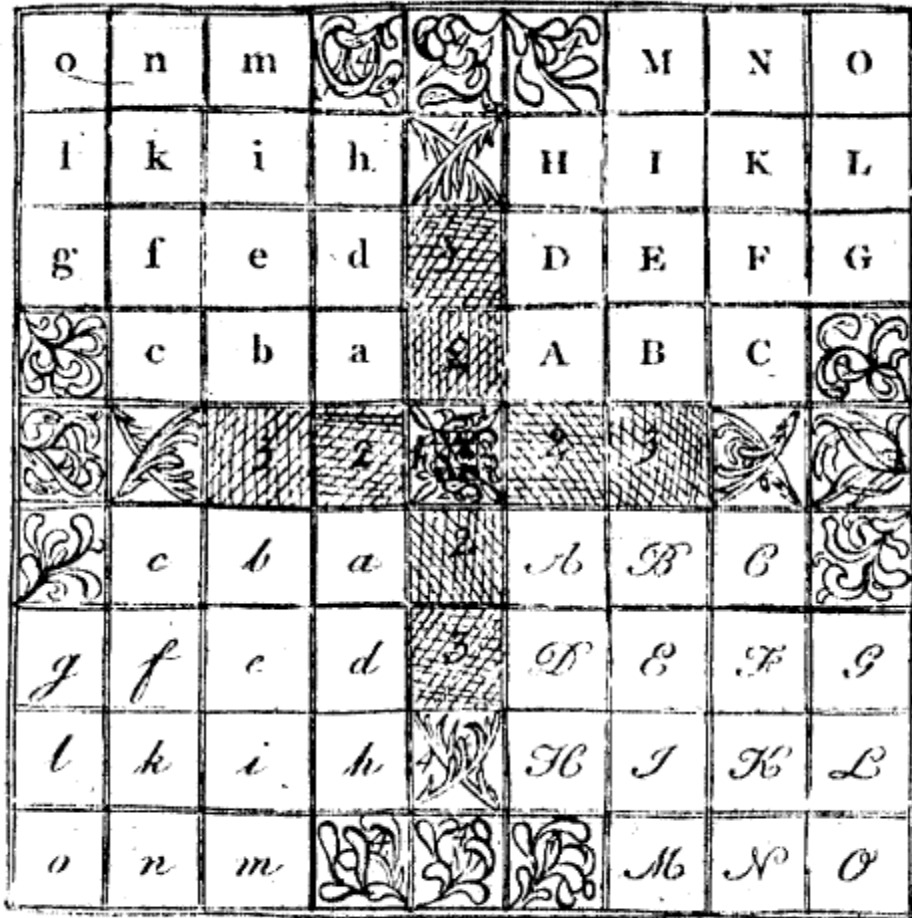
Derivation of Results: Step 2 in the Process – A Draft Translation into English

*Iter Lapponicum*, Carolus Linnaeus, 1732, p. 147-148

Rules translated from Latin by John C. Ashton, March 2007.

Professional Latin translation performed at Lengu.com for verification purposes, March 2007.

*Tablut.*



1. *Royal Citadel.* Konokis in Lapp, which none can enter.
  - 2 & 3. Swedes number 9 together with king and they are arranged as shown.
  4. Muscovites station all men at the start of the attack as depicted.
- Other.* Empty spaces can be occupied by any piece legally, including the King; this applies for all labeled spaces except a citadel.



## *Laws.*

1. All pieces can occupy and move to a space by means of a straight line, not obliquely, as *a* to *c* not as *a* to *e*.
2. It is not permitted to go to a space by means of a straight line if jumping another occupied space, as from *b* to *m*, if in the process *i* is occupied.
3. If the King occupies space *b* and no one is in *e*, *i* and *m*, he can leave, as long as a Muscovite cannot block the King in the next turn.
4. If the King's escape is possible, the game is over.
5. If the King is positioned in *e*, and neither his own nor hostile soldiers are in *f* and *g* or *i* and *m*, his escape cannot be stopped.
6. If the King sees a clear escape route, he calls out *Raichi*; if two open routes exist, *tuicha*.
7. It is permissible to move as far as possible along a straight line, as from *c* to *n*, if nobody is blocking.
8. Swedes and Muscovites move in alternate turns.
9. If 1 piece finds itself positioned between 2 enemies, it is killed and must be thrown off the board, likewise for the King.
10. If the King is in citadel *I* and enemies in 3 of the places numbered 2, he can go through to the fourth; if his own man is occupying the 4<sup>th</sup> place, and if that soldier in 2 is positioned between the king and an enemy soldier, it is killed. If four enemies are in 2, the king is captured.
11. If the King is in 2, and 3 enemies are in *a*, *A* and 3, he is captured.
12. The King being thus captured or hemmed in finishes the battle and the victor retains the Swedes he captured, claims the defeated Muscovites, and a new game can start.
13. Muscovites exist without a king, being 16 divided into 4 ordered phalanxes.
14. A citadel can block, just as a third piece, so that if a soldier is in 2 and an enemy in 3, he is killed.

## *Note on this Draft from Professional Translator at Lengua.com*

“...After reviewing your client's translation, I can pronounce it free of any errors. On the contrary, it is an excellent rendering, the only real difference from my own being that his is more fluent and mine more literal. But I detect no errors of interpretation [sic] on his part, despite some fairly numerous orthographical and grammatical mistakes in the original.”

The professional translator's own rendering is given in the next section. It is very literal, as he mentions, and suffers due to his unfamiliarity with the game and simultaneous assumption that it is very much like chess. Difficulties are also introduced due to the use of non-italicized Arabic numerals in the original text, which made it hard for him to distinguish when a number refers to a quantity (e.g., 3 pieces) or a labeled space on the board (e.g., square 3); this can only be resolved by a careful study of the diagram of the board and associated context of the passages in question. Note that in the Latin text presented here (Step 1), board square numbers are italicized.

After receiving the draft translation presented above (Step 2), however, he concluded that the interpretation was accurate. Thus, any inconsistencies encountered in the translation below may be disregarded. That alternate translation of the text is merely being presented for completeness.

*Derivation of Results: Step 3 in the Process – Verification by a Professional Translator*

*Original Rendering from Translator at Lengua.com (Prior to Receiving Draft Copy Above)*

1. 'Royal Castle', 'Konokis' in Lappish, to which (castle) no one can ascend.
- 2 and 3. The Swedes are nine in number with the King and their places are (listed) under their positions [or 'according to their positions', if 's.' is an abbreviation for 'secundum' instead of for 'sub'].
4. All the positions of the Muscovites have been depicted in the first (part of the) attack.
0. It is permissible for anyone to seize empty places, likewise for the King; he has the same power regarding the places drawn, except for the castle (lit., citadel).

Carolus Linnaeus  
*Journey in Lapland*  
*Undertaken for God's Sake*, p. 148

*Laws.*

1. . . . had taken possession of . . . to change places in a straight line, but not an oblique (one), as *a* to *e* . . .
2. Let it be permitted to no one to jump over another (pawn) in a straight line to seize it, as from *h* to *m*, when any other one is situated on *i*.
3. If the King were to occupy position *b* and no one be stationed in *e*, *i*, and *m*, he is able to go out, [i.e., he is able to move] unless a Muscovite presently seizes one of the positions named, and closes off the exit for the King beforehand [i.e., puts him in check].
4. If the King moves in such a way, the battle is finished.
5. If the King were placed on *e*, and no soldier either of his or of the enemy were on *j* (and) *g* or *l* (and) *m*, then an approach cannot be closed [i.e., he cannot be put in check].
6. Whenever the King has seen an approach open [i.e., a position into which he may move], let him shout, "Raichi"; if two ways are open, (let him shout), "Tuicha".
7. It is permitted to seize places lying apart along a straight line, as from *c* to *n*, provided that no one is blocking (the way).
8. The Swede and the King take turns with their moves.
9. If anyone should be able to place the first between the second enemy hostile to him, he was cut down, and ought to be thrown out; likewise the King. [i.e., the situation is a stalemate].
10. If the King is in his castle and his enemies are in three (places) according to rule No. 2, then he is able to move into a fourth (place), and if his (man) in the fourth place is able to seize a place, if (he) is surrounded and a pawn is placed in two positions, (then) the one standing between the king and pawn is killed; if four enemies are stationed in the two places, then the king is captured.
11. If the King will be on 2, then his enemies will be three; that is, he will be in *a a* and there will be three (enemies), if he should be captured.
12. When the King is captured or stalemated, the battle is finished and the winner keeps the Swedes, the loser the Muscovites, and let the game begin.
13. The Muscovites are without a king, and they are (intended) for stationing 16 phalanxes in four (groups).
14. A castle is able to block (a move), and equally with a trio, so that, if a pawn is in the second and an enemy (pawn) in the third place, he may kill (him).

### *Derivation of Results: Step 4 in the Process – Clarification and Expansion of the Rules*

This section offers various caveats to the final set of Tablut rules as presented above. The rules that have been augmented, significantly clarified, or rewritten are pointed out; the historical or archaeological evidence supporting the proposed interpretation is then presented. Note that in the original Latin text, the lettered squares are italicized, but not the numbered ones. This makes it very difficult to translate sometimes, because it must be determined from the context when an Arabic numeral refers to a quantity (e.g., 3 soldiers) or a board space (e.g., square 3). To clarify this, italics have been used above for all board squares in the Latin text and English translation.

#### *Starting Positions.*

1. It is hard to tell from the board diagram whether the embroidered central square is actually labeled as *1*. However, it is obvious, by process of elimination, and also from the other rules, that the King is placed in the central square.
- 2 & 3. The placement of the Swedish soldiers is self-explanatory; it is only a minor clarification to state that there are 8 soldiers who are placed in these numbered squares. That is obvious since the total Swedish force is 9, they have only one King, and there are 8 crosshatched squares (4 labeled 2 and 4 labeled 3).
4. Only half of the perimeter embroidered squares are denoted as *4*. It is uncertain why Linnaeus presented the Muscovite stations this way. Perhaps at first he did not realize that the Muscovite base camps had special properties, and then discontinued his numbering of these embroidered squares so that they would not cause confusion with rule *O* below (i.e., that a labeled square, except for a citadel, may be occupied legally by any piece). He probably added rule 13 below to clarify that there are 16 Muscovite attackers, occupying all of the perimeter embroidered squares, not just 8 as might be inferred from the diagram. It's possible that he found the other embroidered squares too cluttered with the decoration to label them, but more likely he wanted to leave the embroidery for a purpose (e.g., to differentiate these squares as off-limits).
- O*. This rule has been clarified, so that the term citadel is understood to apply to all of the embroidered squares, not just the royal citadel (“*arx regia*”). Since only some of the Muscovites’ square are numbered, and very lightly at that (especially when compared to the large and prominent lettering and numbering used for the empty and Swedish soldiers’ squares, respectively), and any numbering of the royal citadel is difficult to make out, it seems likely that Linnaeus intended for these squares not to be considered as labeled (“*characterisatis*”), but rather as special citadels. Therefore, they would not be, according to his rule, legal squares for movement. This conclusion is supported by later rules such as 3 and 5 below, which address single and double escape routes for the King, respectively. From the examples of the King’s movement options in these two rules, it becomes apparent that he may not land on any embroidered Muscovite square at the edge of the board, but rather must escape to an unadorned (and legal) perimeter square.  
Finally, the clarification is added that pieces may not re-enter an off-limits citadel, even if they originate there. This is suggested for two reasons. First, Linnaeus’ generic statement about a citadel not being a legal move is not qualified in any way that might suggest possible re-entry. Second, rule 14 below makes it pretty clear that a citadel is treated like an obstruction that blocks other pieces.

*Laws.*

1. This rule is self-explanatory, and thus unmodified.
2. This rule is self-explanatory, and thus unmodified.
3. The qualification is added that the King may also be prevented from escaping by capturing him in the Muscovites' next turn. It will be seen below that the 2-man capture technique in rule 9 applies also to the King (except when he is on or near the throne, as in rules 10 or 11). In this case, it is possible to capture him when standing on space *b* by moving a Muscovite into space *e*, provided a Muscovite is on 3. Of course, even a 4-man capture rule would be feasible here, provided that Muscovites were standing in *a*, *c* and 3. (The controversy between the alternative 2-man and 4-man capture rules for the King is explained at length under rule 9 below.) Linnaeus probably omits the possibility of capturing the King in the next move because it is obvious that such an outcome would prevent the Swedes from winning the game.
4. The clarification is provided here, as explained above, that the King's goal is to reach a legal square on the perimeter of the board, which discounts the off-limits embroidered base camps or citadels of the Muscovites.
5. The qualification is again added, as in rule 3 above, that the King may be prevented from escaping by capturing him in the Muscovites' next turn. In this condition, with the King standing on *e*, with no one in *f* or *i*, it would be impossible to capture the King in one turn by employing a 4-man capture rule. However, capture with a 2-man rule is possible by moving a Muscovite into *i* when one is already on *b*, or into *f* when one is already on *d*. As shown in rule 3 above, Linnaeus' failure to mention the potential capture of the King in that situation doesn't really support a 4-man capture rule for the King. Rather, he simply felt it too obvious to state.
6. This rule is self-explanatory. The only modification is the introduction of the equivalent chess terms "check" and "checkmate". Chess was introduced to Europe around 1000 A.D., and so would have existed alongside Hnefatafl, and its descendant Tablut, for hundreds of years. The original game of Hnefatafl, originating perhaps as early as 400 A.D., would have been unlikely to have incorporated chivalric ideals such as warning one's opponent prior to attacking<sup>17</sup>. Thus, the terms used as warnings here ("Raichi" and "Tuicha") were probably borrowed from chess.
7. This rule is self-explanatory. The only modification is a silent change from "nobody" to "nothing", referring to a potential obstruction that blocks one's movement. This was done to accommodate rule 14 below, where it is seen that citadels can block movement just as if they were real pieces.
8. This rule is self-explanatory, but Linnaeus fails to mention which side moves first. It is arbitrarily decided to let white move first, as in chess. In this game, the blond Swedes were represented by fair or light colored pieces, and the Muscovites by darker ones. Icelandic saga references to Hnefatafl indicate that the attackers were light and the defenders dark<sup>18</sup>. The piece coloring may have varied between geographical regions, or even between playing boards in an individual household. It really doesn't make too much difference who moves first as, just as in chess, there is no significant advantage in first movement. An arbitrary decision is made here merely for the sake of completeness in the rules. The notion of white moving first may be extended to the Hnefatafl reconstruction in the next section, in which case the attackers would be given the first move. That is probably more logical, as they initiate the raid or attack.

9. This is an extremely important and controversial rule. It documents the standard 2-man capture rule, which Linnaeus clearly intends to also be applicable to the King in general circumstances. It is not until rules 10 and 11 that Linnaeus qualifies the King's capture with certain exceptions. The 2-man capture technique of sandwiching a piece orthogonally is believed to have been borrowed by the Norse from the Roman board game *ludus latruncularum*<sup>18</sup>. For those not familiar with this technique, some expansion and rewriting are done to illustrate it in terms of a hammer movement smashing an enemy against the anvil piece (allied soldier). Further clarification is provided so that it is understood that such captures occur orthogonally (i.e., 3 pieces lined up horizontally or vertically, not diagonally). This was probably considered obvious by Linnaeus after he documented the rules of piece movement, so he doesn't go into great detail in describing this capture technique.

Note that Smith, in his 1811 translation, chose to ignore Linnaeus' Latin word "item", which means "likewise", and instead translated "item Rex" as "except the King, who is not liable to this misfortune", meaning the King cannot be captured this way with 2 men<sup>19</sup>. Probably Smith assumed, based on the 4-man capture in rule 10 below, that Linnaeus had erred. However, careful examination shows that Linnaeus did not offer an enclosure rule for all situations; he specifically describes a 4-man capture when the King is on his throne (rule 10), and a 3-man capture when the King is adjacent to his throne (rule 11). Linnaeus does not talk about capture of the King outside the throne area, except here, in rule 9, where he allows a 2-man capture.

Smith's poor translation has created a tremendous amount of difficulty, as Murray used this 4-man capture rule for his game reconstruction, and subsequent game historians followed Murray's lead. Anyone who has ever tried to play this game knows that the King is nearly unstoppable with a 4-man capture rule, and the Swedes will always win. The only other way to achieve balance in the game is to forbid the King from participating in capturing Muscovites. There are pros and cons to this theory, the most insurmountable con being that Viking age kings were also warriors and took part in combat, just like their men<sup>20</sup>. One pro for the unarmed king theory is a line in one of the riddles of the Icelandic *Hervarar saga*, which mentions the dark-colored maids (Defenders) and fair-colored maids (Attackers) fighting around a weaponless king in the game of *Hnefatafl*. However, an earlier version of the manuscript applies the term "weaponless" to the maids and then reiterates this, so it is unclear what the true meaning here is<sup>21</sup>. Perhaps the term is used to signify playing pieces for a game of an imaginary war, as opposed to actual physical combat.

Also, a rule, not in Linnaeus, is added that allows one to move in between two opponents without being captured. This additional rule makes the hammer movement necessary in capturing an opposing piece. There is some literary evidence to support such a rule, but it comes from Wales rather than Lapland. In Robert ap Ifan's 1587 *Peniarth* manuscript 158, he includes a drawing of a board and some rules for a game called *Tawl-bwrdd*, which is very clearly a *Hnefatafl*-type game<sup>22</sup>. His capture rules are vague, but strongly suggest that the King is susceptible to a 2-man capture. Further, the King is permitted to safely move in between 2 enemies if he says the word "gwrheill"<sup>23</sup>. It is not specified whether other pieces can use this word to avoid capture when moving between 2 opponents. However, most modern reconstructions of *Hnefatafl* apply this rule liberally, allowing safe movement between enemy pieces.

Finally, another rule, not in Linnaeus, is added to the rewrite in order to allow multiple captures with a single piece's turn. This is done for the sake of completeness; it is possible that the Lapp player actually had to choose which enemy he wanted to kill with his hammer movement, as he only had time to deliver one sword stroke. However, multiple captures make for a faster, more exciting game.

It should also be noted that the word "capture" has often been used to replace the Latin word for "kill" in the rewritten translation. Linnaeus' use of the word "capture" for the King in rules 10 and 11 below, and his use of the word "kill" in rule 9 could perhaps be used to argue for a distinction between a 4-man capture rule for the King (who is immune to assassination) and a 2-man kill rule for all of the soldiers. But rule 12 may contradict with this with the captured Muscovites being returned to the winner of the game. Perhaps Linnaeus imposed this distinction in the wording of the rules because he felt uncomfortable with the concept of regicide.

10. This rule is a little confusing, as it is composed of a single sentence, containing multiple conditions pertaining to the movement and capture of the King, merely separated by commas. Further, the use of Arabic numerals here, as mentioned above, can make it hard to distinguish between the quantity of pieces ("3<sup>bus</sup>"), the quantity or sequence of spaces in which to move ("4<sup>lo</sup> locum"), and the number label for a square ("2"). However, the translation is presented as-is, simply with a clarification offered regarding the applicability of the 4-man capture rule only when the King is standing on his throne (as explained above).

One other unusual feature of this rule is the description of the Swedish soldier being killed when he is pinned between the King in 1 and a Muscovite in 3. It is possible to interpret this as being a special rule, applicable anywhere on the board, whereby a soldier standing next to the King is killed when they are both completely surrounded by Muscovites. A more likely explanation, though, is that Linnaeus was presenting an example of a move that he witnessed; when the King was surrounded on three sides, a Muscovite moved into square 3, trapping the Swede in 2 up against the throne, thus capturing him. Linnaeus' final rule 14, presented below, was probably an attempt to clarify what he witnessed here in terms of a citadel's ability to block and aid in capturing an opponent. The clarification is therefore offered that Linnaeus' example of the captured Swede is not due to some other special rule, but rather is a direct application of rule 14 below.

11. This rule is again clarified as being applicable only when the King stands on a square directly adjacent to the throne; it emphasizes the applicability of a 2-man capture rule, as discussed above, when the King is elsewhere on the board, away from his citadel. One other minor change is made, which Smith also implemented in his translation. The three positions of the Muscovites who surround and capture the King are given as *a*, *a* and 3 in the original text. One *a* is here changed to *A* to be more consistent with the board diagram. Probably Linnaeus intended for one lowercase *a* to be in type and the other one in script, as seen on the board. However, when all lettered board squares are italicized, as mentioned above, it is very difficult to make the distinction between type and script. Thus, a capital *A* is substituted for one lowercase *a* for the sake of clarity; the symmetry of the board ensures that the underlying rule is unaffected.

12. This rule is self-explanatory, and thus unmodified.

13. This rule is really just a reiteration of the setup of the Muscovite pieces, perhaps, as mentioned above, because Linnaeus felt he had been unclear in the diagram with the use of the label 4. Perhaps this also explains why Smith chose to stop the translation at entry 12 (which discusses the conclusion of the game) and instead put the additional information about the quantity of Muscovite soldiers at the beginning of his translation (i.e., beneath the diagram of the board), next to the other rules for setting up the game.
14. This rule is somewhat problematical. Part of it stems from Linnaeus' misuse of the Latin word "trio", which actually means "oxen". In this context he probably meant it as referring to a third piece (i.e., the third and final piece required to sandwich and capture an opponent). Linnaeus only gives one example of using the royal citadel to capture an opponent in square 2 by moving into square 3. The rule is clarified in the translation above so that this property applies not only to the throne, but also to the Muscovite citadels or base camps. This is likely, based on the similar embroidered decoration on the throne and base camps. It is also likely because it is apparent from rules 3 and 5 above that the King may not escape to the edge of the board through the base camps. If any citadel can block movement, it seems reasonable to suppose that any citadel can assist with captures, just as Linnaeus describes for the royal citadel here. Finally, as will be seen in the next section, the corner squares in the game Hnefatafl had special off-limits properties like the throne. In Hnefatafl, where the King's goal is to escape to a corner square, these corner citadels must be allowed to assist in capturing, otherwise the attackers would be able to position a soldier adjacent to each side of a corner square, and thus completely seal off any chance of the King's escape. Note that Smith never translated rule 14.
- A clarification is also made, suggested by the text of rule 14 (and possibly by rule *O* above), that it is not permissible to move through a citadel, even if one doesn't land on it. If the citadel is treated as an obstruction which can block other pieces, just as any playing piece sitting on that square would be, then this conclusion is logical.
15. As noted, this rule is not present at all in Linnaeus, but is merely added, as in chess, to deal with the possibility of a draw. Whereas in chess, draws are possible, here it is arbitrarily decided not to allow them; rather, one side must make an alternative move to avoid the draw, even if such a move should prove disadvantageous. This is done for the sake of playability, so the game cannot go on forever with the same moves being endlessly repeated. Another option would be to permit draws, say, after a series of 3 repeated moves. However, Tablut and Hnefatafl belong to a branch of games known as "hunt games"<sup>24</sup>. Such games have different force sizes, different objectives, and sometimes different piece capabilities. Due to this inherent imbalance, these games will invariably favor one side or the other, albeit only slightly if the rules have been fine-tuned. Even so, if two equally skilled opponents should play, the one given the easier role (e.g., perhaps Swedes) would always win. Because of this, a draw rule is only recommended for "battle games" such as chess, where the opposing forces and capabilities are identical, and the only disparity between the sides is which player makes the first move.

### **Derivation of Results: Step 5 in the Process – Application of Tablut Rules to Hnefatafl**

Certain conclusions are drawn in the reconstruction of Hnefatafl above. The archaeological and literary evidence supporting these conclusions, and supporting the various assertions made regarding the exact nature of Hnefatafl, are presented in this section.

First, as mentioned previously, literary sources besides Linnaeus' account of Tablut do exist. Robert ap Ifan in 1587 described a Welsh game called Tawl-bwrdd. Curiously, the accompanying diagram of the 11x11 playing board had alternate rows shaded, but not symmetrically, because the penultimate row, which should have been shaded, was not. It is commonly assumed that this was an oversight on ap Ifan's part<sup>25</sup>. It is also usually assumed that these shaded rows were unrelated to the method of playing the game, but rather represented some sort of ornamentation on the actual (presumably wood) game board<sup>26</sup>. His account told of the King, how many Defenders he had, and how many Attackers opposed them. He also described the custodial capture rule (i.e., 2-man sandwiching), which apparently was also applicable for the King. He did not address whether ordinary soldiers could safely move in between 2 enemies without being killed, but he definitely allowed the King such a privilege. Part of the text is missing where he explained how the King could win the game; all that remains is that the King must move along some line<sup>27</sup>. Perhaps he was trying to say "move along the diagonal line" (i.e., to reach the corner squares) but there are many other possibilities. Murray, in his reconstruction of Tablut, ignored Linnaeus' examples of the King's movement where he had to avoid the embroidered Muscovite base camps, instead concluding that the Swedes won the game when the King reached any square on the edge of the board<sup>28</sup>. Such an objective, even without the 4-man capture rule Murray used for the King, makes it far too easy for the Swedes to win. It is theoretically possible that Tawl-bwrdd had a simple objective of any perimeter square, but that should make the King's escape too easy. Other sources must be consulted to resolve this issue.

Another literary source is a 10<sup>th</sup> century manuscript, probably of Irish origin, which describes an Anglo-Saxon game called Alea Evangelii. The drawing of the game board illustrates starting piece positions and includes special decorations at the four corners. The board is laid out as an 18x18 grid, with pieces at the line intersections, but in actuality it could have been played on a 19x19 board with the pieces sitting on the squares, as in chess or Tablut. The rules are not really explained, but reference is made to "defenders and attackers, city and citadel, and nine steps twice over"<sup>29</sup>. Taken with the decoration at the corners, one may surmise that the King, being besieged in the central city, is attempting to escape to one of his citadels at the corner of the board, being nine spaces horizontally and nine spaces vertically from the central city point.

Archaeological evidence, such as the rune stone from Ockelbo, Sweden, illustrated on the front cover of this paper, indicates that the central and corner squares of the board had a very special function in the game, and quite possibly special properties. This is further supported by the finds of wooden game boards, such as the Ballinderry board in Ireland. This 7x7 pegged board had circles inscribed around the center and corner squares, indicating their special importance. Other archaeological board finds, like a portion of a 13x13 board at the Gokstad ship burial in Norway, are not so conclusive. On this board, certain squares are ornamented, but they do not correspond to any known or presumed layout of Hnefatafl pieces<sup>30</sup>. It is possible the ornamentation is just for aesthetic reasons, the board maker assuming everyone knew where to set up the pieces.



## *Final Conclusions*

Archaeology is not just concerned with finding evidence of how people survived, but of how they lived, in every sense of the word. So arrowheads, hunting implements, swords, pottery jars containing grain stores, etc., are very useful in learning about how ancient civilizations hunted, farmed, and fought off neighboring tribes. But it is just as common to find more personal implements in an archaeological dig, such as grooming tools like combs, items of conspicuous consumption like jewelry, and other items of sentimental value (which might often be found in grave sites). Just as today, people didn't work constantly, but did different things with their leisure time. The Vikings, along with all other cultures, employed pastimes like board games; not only have Viking game boards been found, but many playing pieces as well, some of which are clearly for Hnefatafl (as they have a King piece readily distinguishable from the rest). Of course, the Vikings did a lot of soldiering, and it is not impossible that they would pass their "down" time, either on their longships on the way to a raid, or in the countryside after one, by playing games. After all, the typical military life is "hurry up and wait". And it is not surprising that the games they played should reflect the life of raids and constant warfare that they knew.

The rules of Tablut and Hnefatafl reconstructed here should prove fascinating to those interested in history, particularly that of the Norse. In a modern age full of fast-paced electronic entertainment, some may find it quite refreshing to learn and play a new, yet old, type of board game. There is a school of archaeological theory called "zeitgeist" that suggests that only by getting into "the mind" of ancient cultures, for example by studying their artifacts, living how they did, or even playing their games, can an archaeologist truly understand them. However, a much more reasonable approach is based on logic, positivism and deduction. Thus, by studying the reconstructed game rules for Hnefatafl, one can draw certain conclusions about Viking culture. The obvious ones about warfare have already been mentioned. However, there is a certain level of equality in Viking culture that is often overlooked. By no means were they democracies; these were stratified societies with kings (earlier in prehistory, chieftains), princes, freemen, and slaves (thralls). Yet the demonstration of the validity of the 2-man capture rule for the King in this game actually gives an important clue to the Viking mindset. While the King was royalty, and lines of succession definitely existed, on the battlefield he was an equal with his men, fighting alongside them. It was only when sitting on the throne itself that he had special powers or privileges. This is in contrast to later medieval European history, where the King did not participate in combat with his army, and was regarded as having a divine right to rule, granted by the one God of Christianity (as opposed to the many pagan gods of the Norse). So this game, besides being fun or addictive to play, reflects the Viking relationship between the King and his army, and the King's important, but not irreplaceable, role in their society. After all, the attackers have no king, but with a balanced set of rules as presented above, often can win.

Of course, in archaeology, one never really knows for sure, on any subject of interest, unless a complete written account can miraculously be dug up. But it seems likely that the Viking game Hnefatafl was so popular (judging by numerous archaeological finds and saga references) that it was passed down relatively unchanged from its origins in the middle of the first millennium, until finally modified slightly in medieval Sweden to reflect the new, powerful presence of Moscow and her army. And though chess displaced Hnefatafl, it survived in the modified form of Tablut, passed on to the Lapps by the Swedes. And then Linnaeus saw it; the rest is history.

## End Notes

1. Linnaei 1732; 147-148.
2. Linnaeus 1811; 55-58.
3. Murray 1913; 445-446.
4. Linnaeus 1811; 55-58.
5. Linnaei 1732; 147-148.
6. Murray 1913; 445-446.
7. Bell 1960.
8. Bell 1969.
9. Parlett 1999.
10. Peterson 1997.
11. Jørgensen 2006.
12. Helmfrid 2005.
13. Murray 1952; 55-64.
14. Robinson 1923; 68-71, 171-181.
15. Bell 1969; 43-46.
16. Walker 2005.
17. Nielsen 2007.
18. Helmfrid 2005.
19. Linnaeus 1811; 57.
20. Peterson 1997.
21. Helmfrid 2005.
22. Murray 1952; 63.
23. Peterson 1997.
24. Parlett 1999.
25. Walker 2005.
26. Helmfrid 2005.
27. Murray 1952; 63.
28. Murray 1913; 445-446.
29. Robinson 1923; 71.
30. Helmfrid 2005.

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