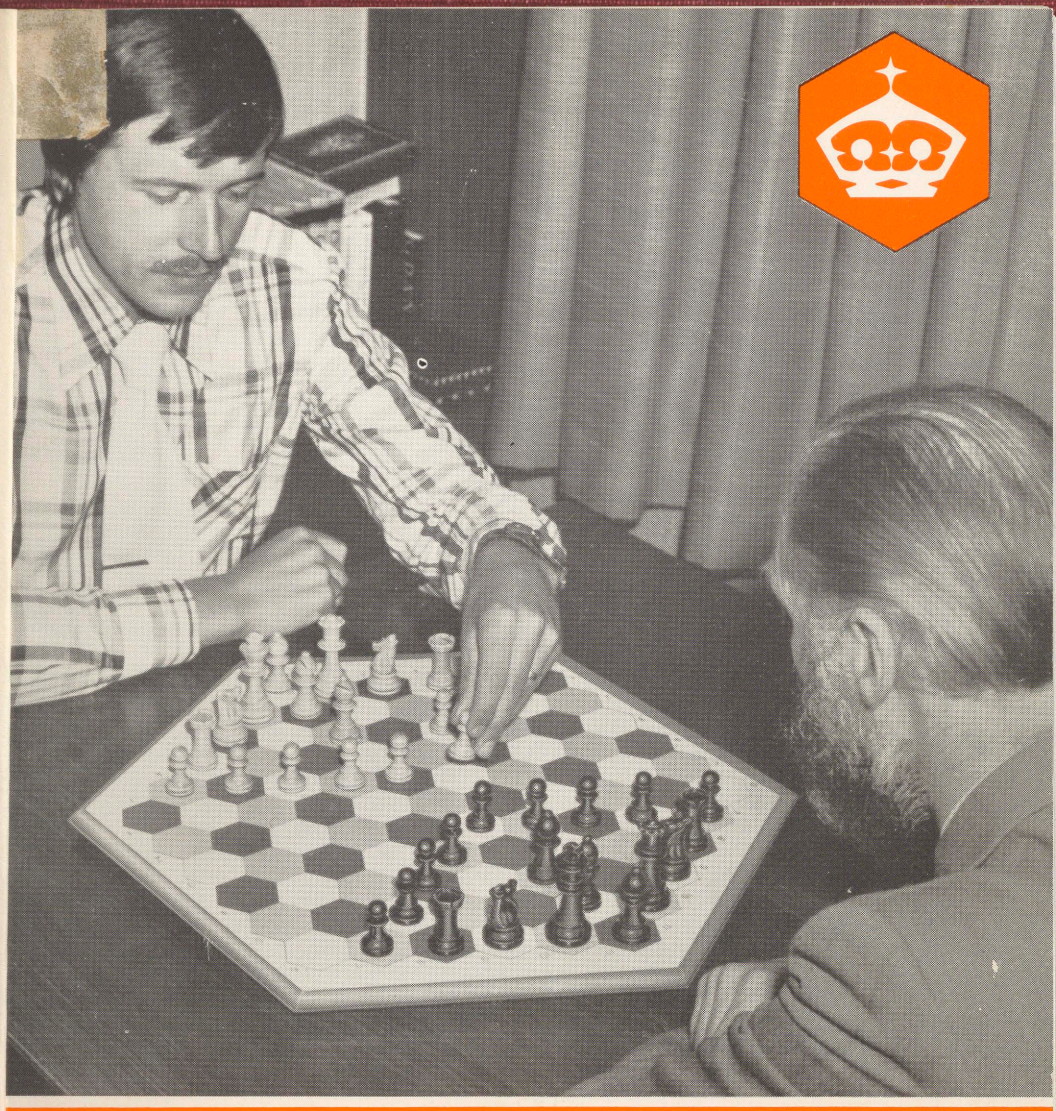

First theories of

HEXAGONAL CHESS

W. GLINSKI

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In gratitude

The Author expresses his gratitude to all who have assisted him over the years towards accomplishing this first book on the theories of Hexagonal Chess. In particular he would like to thank David L. Brewer, Prof. Joseph Boyer, Dr. William Boyle MD, V. R. Parton and M. L. Barst.

Introduction

Our ancient game of chess played on 64 square cells is now over 1,400 years old. Before the rules of the orthodox chess game were standardised towards the end of the fifteenth century, chess was played in a variety of ways. In spite of many variations in the game, chess has always been played on a square checkered board. Ever since the end of the fifteenth century the openings and middle games have been so intensively studied and absorbed that in more recent years chess masters have found more and more difficulty in creating new ideas in attack. Alekhine was only one of the masters who expressed his dissatisfaction.

Shortly before the second world war, while still at school and a young but keen player on the square board, I began to wonder whether or not the chess-board composed of squares was necessarily the only or the best medium upon which it was possible to manoeuvre the chessmen. At that time I was not aware that quite a number of other chess players had also been occupied with this question. Lord H. D. Baskerville was one of the early pioneers who not only established that chessmen can be manoeuvred on hexagonal cells, but in 1929 he proposed a square shaped board, composed of 83 hexagons of 3 colours, with indications of the movements of the pieces. As this project was unfinished and prematurely introduced, it was consequently in general disregarded. After much study and experimenting with different shapes of boards and cells, I came to the conclusion that a hexagonal board with 91 hexagonal cells of three shades was the most suitable development from the square board. When the Hexagonal Chess-board was finally perfected and the rules of the game established, I began an intensive search on the new board, often with practical test games with my chess partners in four European countries and this resulted in discovering many new theories in the game.

The introduction of Hexagonal Chess is not intended as a challenge to the old game, because I do not suggest that chess should in future be played only on the hexagonal board. Although the new game has the same basic principles, it does not interfere with the strategy on the square board. The manoeuvres in Hexagonal Chess are so different that many of them

do not exist in square chess. It is therefore, the introduction of a new board game, which is entirely separate from our Standard Chess. It provides a great freedom of movement for the pieces and many new theories, the majority of which are still awaiting discovery.

The rules of the new game are explained in an elementary way so that every reader, including those who have no knowledge of orthodox chess, will be able to follow them. Hexagonal Chess has now reached sufficient maturity to be introduced in many countries. In our progressive world it will undoubtedly serve as a new medium with which the intellectual ability of the competitive chess player's mind can be tested even more precisely. For the social chess player Hexagonal Chess is a game where a good knowledge of openings, although advisable, is not necessarily a decisive factor in winning a game. This is so because the initial arrangement of the pieces on the Hexagonal board form a very safe position for both players, ready for attack or any defence almost immediately from the start of a game.

I am convinced, that although the orthodox chess may be considered as eternal, many chess-minded people of the 20th century now require something additional and different, something that reaches beyond the possibilities on the old square chess board.

Chapter 1

Rules of Hexagonal Chess

The game of Hexagonal Chess is played by two persons one moving the "white" and the other the "black" chess pieces. In its basis (the aim of play, the types of pieces etc.) this game is related to "Standard" Chess.
The essential differences are geometrical, and arise from three sources:
(A) Instead of being played on a square checkered board, the new form of Chess is played on a special "Hexagonal" board which has hexagons for the "cells" or playing spaces.
(B) Instead of two-colour systems, three systems of cells are involved in the pattern of the "Hexagonal" board.
(C) A piece, except a Pawn, has in general a choice of six (or twelve) directions of movement from an interior hexagon, whereas on the square board this same piece has four (or eight) directions.
The object of play is to checkmate the opponent's King, or to weaken his powers of resistance and defence to such a degree that the opponent prefers to "resign" rather than to continue a long but clearly lost ending.
The players move alternately, one piece at a time, white by convention having the first move. The players decide by lot or special agreement the question of which of them shall have the white pieces and first move in the game.

The board

The board is hexagonal and is divided into 91 small hexagons of three colours (or shades), no two hexagons of the same colour (or shade) touching.
The three colours of the hexagons are referred to simply as 'dark', 'light' and 'medium'. There are 30 dark cells, 30 light cells and 31 medium cells.

Identification of the hexagons

Each hexagon on the board has its own letter and number combination of identification so that any required hexagon may be traced with ease by referring to the letters and numbers marked round the edge of the board.
As shown in Diag. 1, the vertical rows, which we call files, are distinguished by the letters 'a' to 'l', (leaving

out the letter 'j') and the hexagons in each file are distinguished by numbers, counting from the white side.

The number of hexagons in the files varies as follows: Files 'a' and 'l' are formed of 6 hexagons; files 'b' and 'k' of 7; files 'c' and 'i' of 8; files 'd' and 'h' of 9; files 'e' and 'g' of 10 and file 'f' of 11 hexagons.

File 'f' divides the board into two halves.

Left – covered by files 'a' to 'e'. ***Right*** – covered by files 'g' to 'l'. To find any hexagon when given its identification letter and number, first locate the letter, (to find which side – left or right) then use the number on that side.

For example: Hexagon c6 is found by following the letter 'c', belonging to the left side, and the number 6 on the same side. Similarly, hexagon i4 is traced from the letter 'i', on the right-hand side, and using figure 4 to correspond. (shown in Diag. 1). Only on one side, right or left, may be used to trace these hexagons. An exception to this rule is provided by the file 'f'. When finding a hexagon on this file, the numbers of either right or left side may be used. For instance, f8, as shown in Diag. 1. In notation, used in game scores, the hexagon identification letters are printed in small letters so that they are easily differentiated from the capital letter symbols which are used for naming the pieces. To play just a social game of Hexagonal Chess, the letters and numbers round the board can be ignored. For the study of a game, and for studying diagrams, the knowledge of the identification of hexagons is of course, necessary.

Abbreviations

Abbreviations used in Hexagonal Chess are much the same as in Standard Chess, thus:

K	= King	R	= Rook	B	= Bishop
Q	= Queen	N	= Knight	P	= Pawn

– = moves to (e.g. c2 – c3 means the Pawn on hexagon c2 moves to c3); in notation of games we omit the symbol 'P' for Pawn moves.

x = takes or captures (e.g. Ra1 x Bf6 means that a Rook on a1 takes a Bishop on f6);

ch. (or +) = check (e.g. Bd1 – h7+).

dis.ch. = discovered check.

‡ (or ch.m) = checkmate (e.g. Rk6 – f10 ch.m. or just 'mate').

! = good move (e.g. Bc8 – g9!).

? = inferior move (e.g. Qe1 – a5?);

e.p. = capturing 'en passant' (e.g. f6 – g5 e.p.).

Q Also means promotion of a Pawn to another piece (e.g. h8 – h9Q).

By tradition the moves in chess are printed in two columns: White on the left, Black on the right. This book follows that tradition.

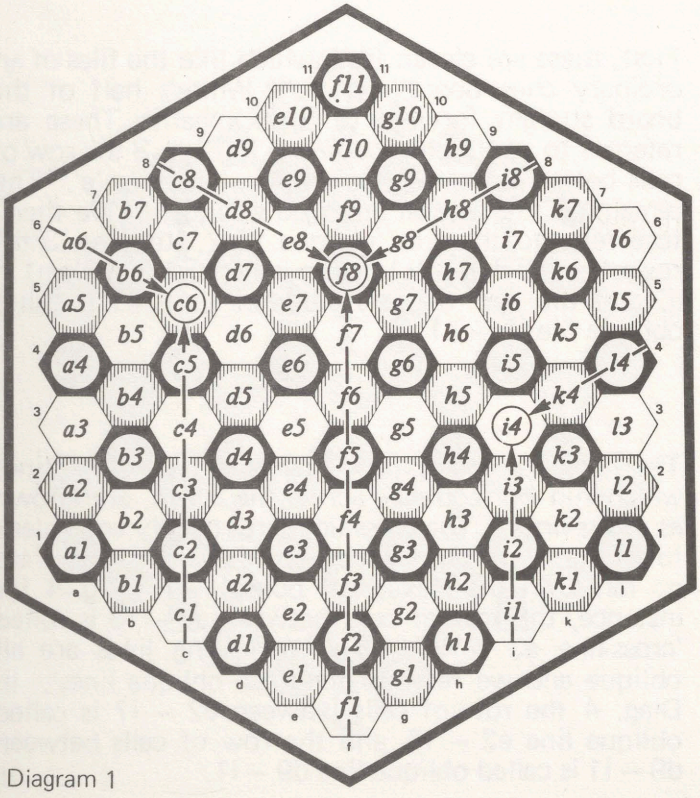


Diagram 1

Identification of files and lines on the hexagonal board

It will be seen later that a Rook moves in a straight line across the sides of the hexagons and a Bishop moves in a straight line through the corners of the hexagons of the same colour-system. This means that any complete row of cells running in any direction on the Hexagonal Board represents the move of either a Rook or a Bishop. Therefore, for the convenience of obtaining uniformity of expression, the types of rows of hexagons which are embodied in the pattern of the complete Hexagonal board are divided into two categories. One is based upon the direction of move of the Bishop. Hence all rows of cells that run in the direction of a hexagonal Rook's move (Diag. 3) are referred to as ***files.*** All rows of cells that run in the direction of a Bishop's move (Diag. 4) are referred to as ***lines***, the descriptive words: "diagonal, angular" being omitted for brevity.

Two types of files

First, there are eleven files, which like the files of an ordinary chess-board run from White's half of the board straight forward to Black's half. These are referred to as simply ***'the files'***. In Diag. 3 the row of cells between e1 — e10 is simply called file 'e'. The remaining files are all arranged obliquely. We therefore refer to them as 'oblique files'. In Diag. 3 the row of cells between a1 — l6 is called oblique file a1 — l6 and the row of cells between a5 — k1 is called oblique file a5 — k1.

Two types of lines

The lines are also of two different types. All lines which run horizontally across the board, are known as ***'cross-lines'***. The cross-lines are roughly equivalent to the ranks of an ordinary chess-board. (There are no ranks on the Hexagonal board). In Diag. 4 for instance, the row of cells between a3 — l3 is called 'cross-line a3 — l3'. The remaining lines are all oblique and we refer to them as 'oblique lines'. In Diag. 4 the row of cells between e2 — i7 is called oblique line e2 — i7, and the row of cells between d9 — i1 is called oblique line d9 — i1.

The Pieces and their arrangement on the board

At the start of the game each player has: one King, one Queen, two Rooks, two Knights, three Bishops, and nine Pawns. These are similar to the pieces used in Standard Chess, but the set is larger by one Bishop and one Pawn on each side. The third Bishop is employed to operate on the third colour of cells.
The player with the white pieces should have in front of him the light hexagon f1. Before the commencement of a game the pieces should be arranged as shown in Diag. 2 thus:

White: Kg1, Qe1, Rc1, Ri1, Nd1, Nh1, Bf1, Bf2, Bf3.
Pawns: b1, c2, d3, e4, f5, g4, h3, i2, k1.

Black: Kg10, Qe10, Rc8, Ri8, Nd9, Nh9, Bf11, Bf10, Bf9.
Pawns: b7, c7, d7, e7, f7, g7, h7, i7, k7.

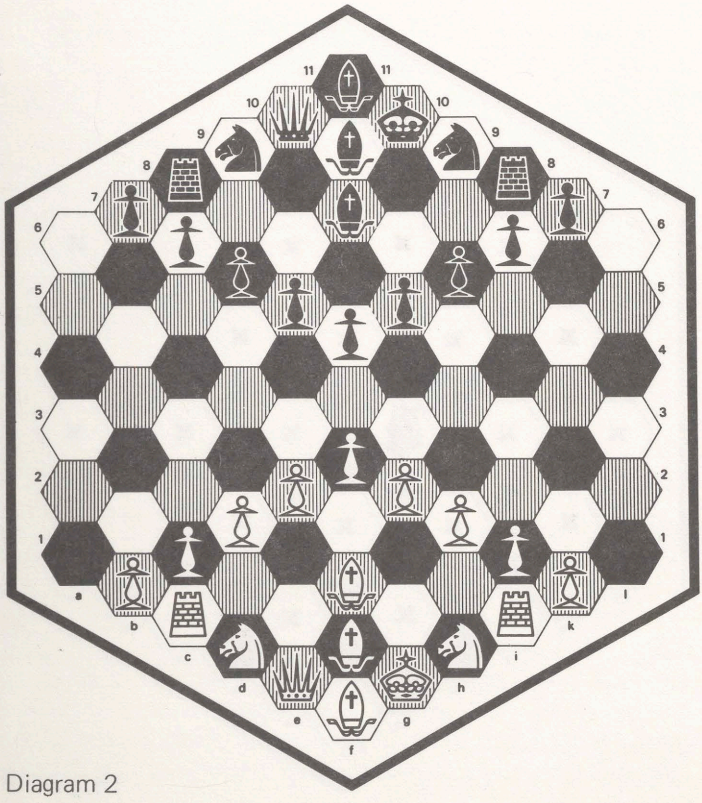


Diagram 2

Moving and capturing with minor pieces, major pieces and with the King

The ROOK can move in six "side-crossing" directions, as shown in Diag. 3. The Rook shown there could move at choice to any of the hexagons marked with an 'X'. All these hexagons are commanded by the Rook. Should a Rook be situated on the edge of the board it may move in four directions; and from a corner of the board, in three directions. The Rook may move as far along a file as this is free and unoccupied by any of its own or its opposing pieces. A Rook may not leap over any piece. It is forbidden to the Rook (as well as to all other pieces) to make a move through which his own King would be exposed to check. Any opposing piece (except the King) present on a hexagon commanded by the Rook may be taken. The Rook replaces that piece which is then removed from the board. 'Castling', the double move used in standard chess, with a Rook and King, is ***not*** used in Hexagonal Chess.

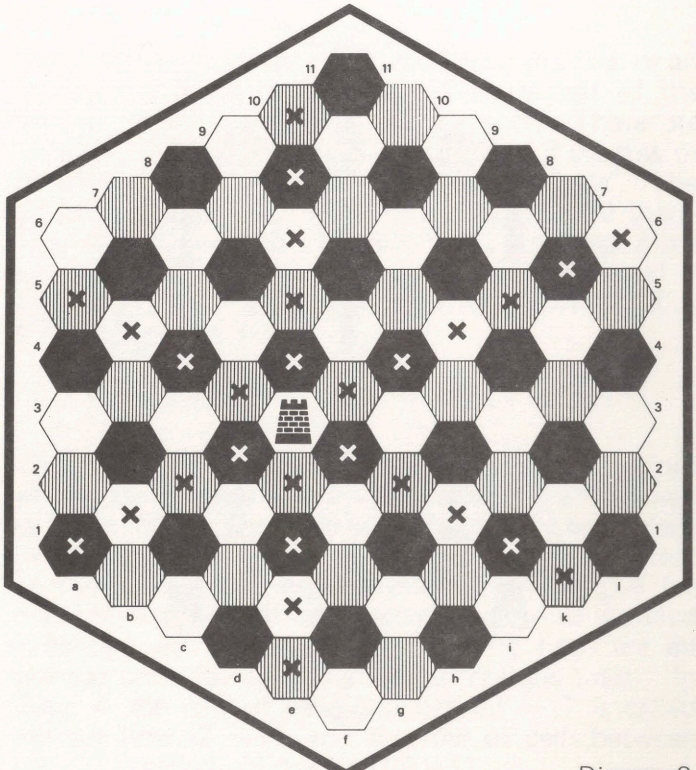


Diagram 3

The BISHOP can move in six directions across the board as shown in Diag. 4 (each Bishop on 'his' own colour of hexagons). The Bishop's directions may be fewer if he is situated on the edge of the board. Conditions governing the moves, also the conditions of capturing opposing pieces are the same as for the Rook. We name the three Bishops of each force according to the colour of cells, on which they are respectively operating. And so we say:

Whites: light Bishop, medium Bishop and dark Bishop.
Blacks: light Bishop, medium Bishop and dark Bishop.

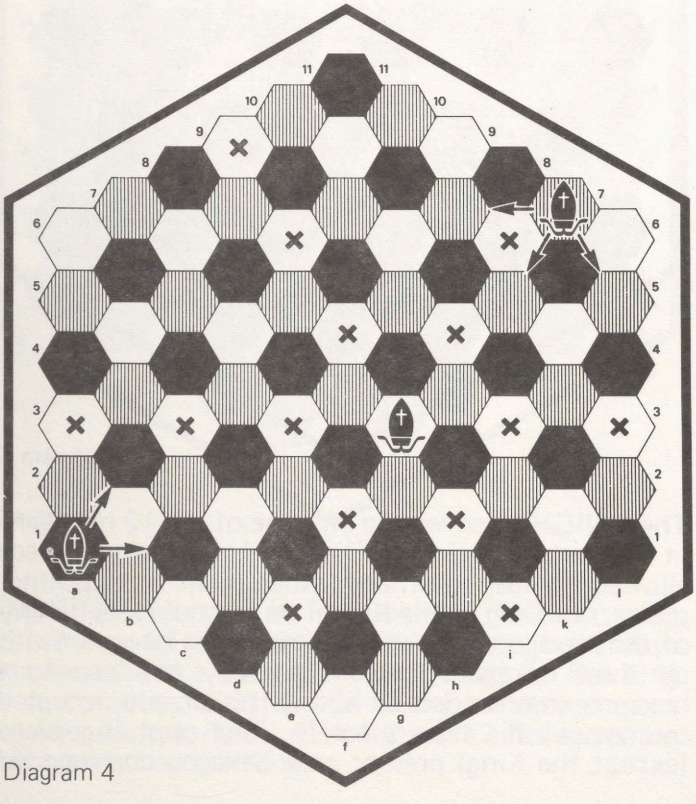


Diagram 4

The QUEEN has the power of moving like a Rook along a file, or like a Bishop along a line; therefore, she can move in 12 directions. This is illustrated in Diag. 5 where the Queen could move to any of the hexagons marked with an 'X'. The Queen is subject to the rules governing the Rook and the Bishop i.e. she can move and capture like a Rook or like a Bishop.

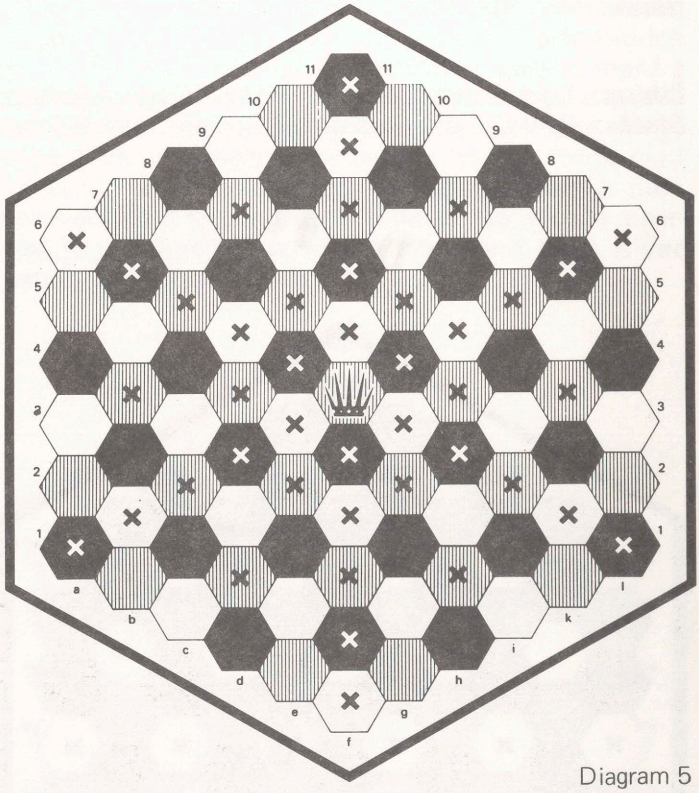


Diagram 5

The KNIGHT can leap to any one of the 12 hexagons in the manner shown in Diag. 6. He is the only piece allowed to leap over any other (own or opposing) pieces. In Diag. 6 the Knight on f8 could leap to any of the hexagons marked with an 'X' as he commands all these hexagons. A Knight may not leap to a hexagon commanded by him if it is already occupied by one of his own pieces. Any opposing piece (except the King) present on a hexagon commanded

by the Knight may be taken from the board and replaced by the capturing Knight. The Knight may not make a move which would cause his own King to be in check. Any single move of the Knight can be divided into two parts: one hexagon step like a Bishop's move followed by one hexagon step like a Rook's move. Note that the terminal hexagon of the Knight's move must be coloured differently from the hexagon which has just been vacated.

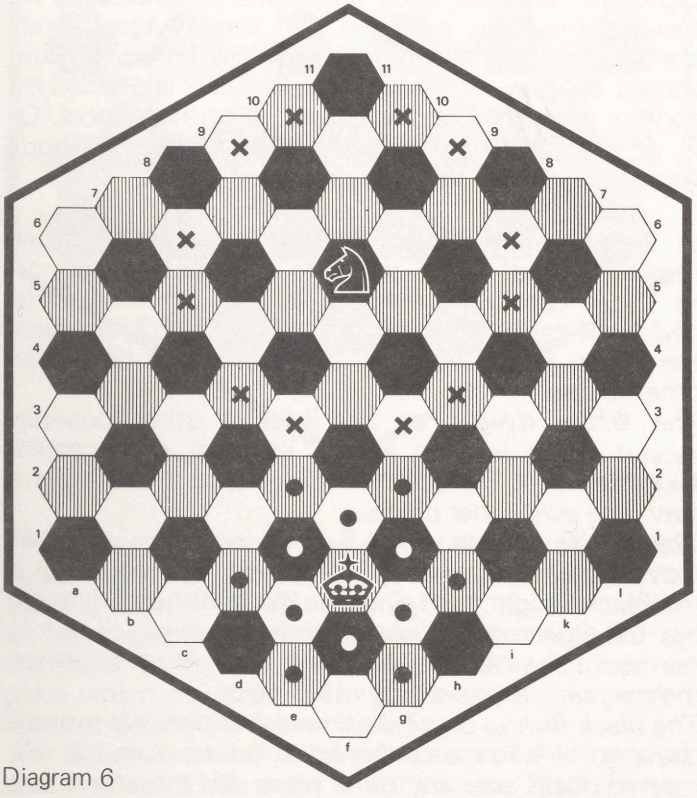


Diagram 6

The KING can move in 12 directions (6 side-crossing and 6 diagonal – i.e. along a file or a line) but always one hexagon at a time, as shown in Diag. 6. The King there could move at choice to any of the hexagons marked with a dot. All of these 12 hexagons are commanded by the King.

The King may not move to a hexagon commanded by him if:

(a) It is occupied by one of his own pieces,

or

(b) If the hexagon to which he wishes to move is also commanded (not occupied) by any of the opponent's pieces.

Any enemy piece (but never the enemy King) present on a hexagon commanded by the King, may be captured, removed from the board, and replaced by moving this King, provided that the hexagon is not commanded by another enemy piece, i.e. a King cannot capture an enemy piece which is protected by another piece of his own force. All other pieces, Q, B, R, N, and P may capture enemy pieces without regard to whether they are protected or not.

Examples with minor pieces, major pieces and the King

In Diag. 7 ***The Black Rook on b7*** (besides other possible moves) could move to e10 for instance, or he could capture the White Knight from b4. He could not capture the White Queen from b3, nor take the White Rook from i4, as he may not leap over other pieces.

The White Knight on b4 (besides other possible moves) could leap to e5 for instance, or he could take the Black Bishop from d7. NOTE: The Knight may leap over other pieces.

The White Queen on b3 (besides other possible moves) could move to d3 or to f5. She could take the Black Knight from g7 or the Black Bishop from d7, but the Queen could not go to hexagon e9, or to k7, nor could she capture the Black Rook from b7, since she may not leap over any other piece.

The Black Bishop on d7 (besides other possible moves) could go to h1 or take the White Queen from b3. He may not leap over any other piece and therefore may not move, for instance to a1.

The Black Bishop on f10 (besides other possible moves) could move to b2, or he could take the White Rook from l4.

The Black Knight on g7 (besides other possible moves) could leap to k6, or take the White Rook from i4, as previously stated, the Knight is the only piece which may leap over other pieces.

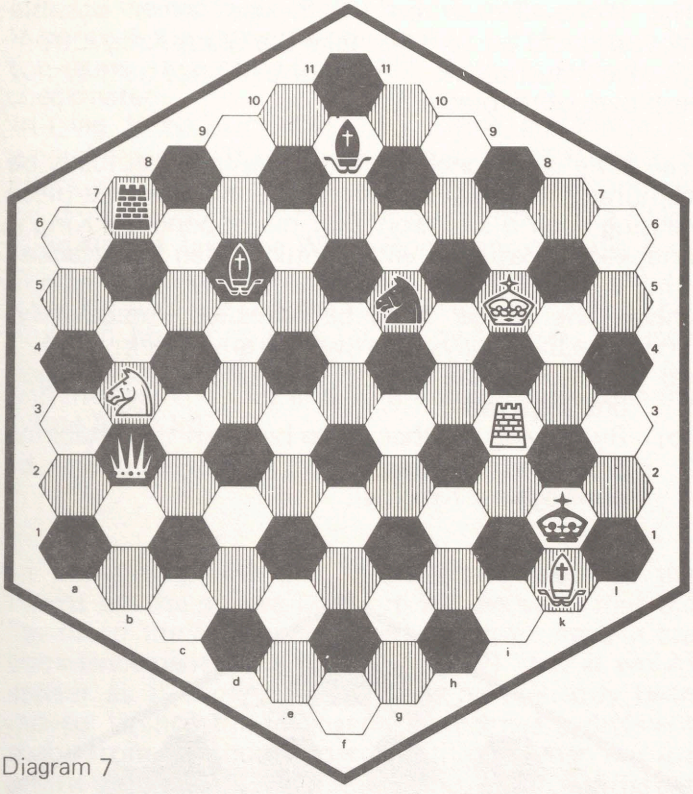


Diagram 7

The White King on i6 (besides other possible moves) could move to i7 or to l5, or he could capture the Black Knight from g7. He may not, however, move to h6 because that hexagon is also commanded by the Black Bishop on f10 (N.B. The King is the only piece which may not move to a hexagon which is also commanded by an enemy piece).

The White Rook on i4 (besides other possible moves) could move to d2, or he could take the Black Bishop from d7. Since he may not leap over other pieces, this Rook may not move to b7 to capture the Black Rook, nor could he move to i8.

The Black King on k2 could move to h3, l3 or l1. He could take the Rook from i4 or the White Bishop from k1. He may not, for instance, move to k3 because this hexagon is also commanded by the White Queen on b3 and the White Rook on i4.

The White Bishop on k1 (besides other possible moves) could go to b1 or take the Black Knight from g7. He may not move to f9 or e10 since he may not leap over other pieces.

Check and checkmate

The King is the only piece that can never actually be captured. If a player has made a move with a piece causing such a situation that his opponent's King is attacked (threatened with capture) then the attacked King is said to be in check. As he may not remain in check, the danger must be remedied immediately. There are three ways of answering any check:

(a) By moving the King to some unchecked hexagon one step away.

(b) By moving another piece between the attacking piece and the King. (This cannot, of course, be done against Knights).

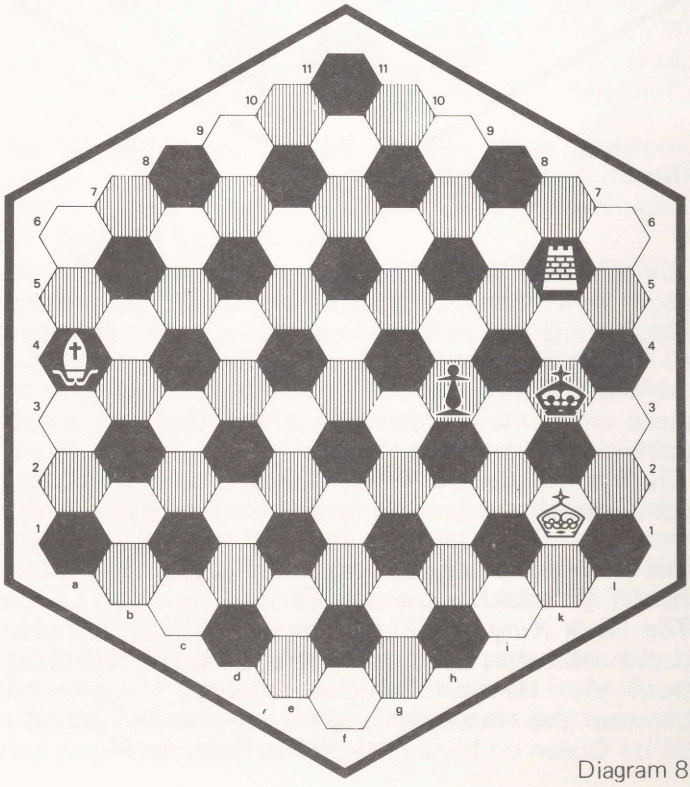


Diagram 8

(c) By the capture of the attacking piece.
If none of the above can be carried out the object of the game is achieved and the King is said to be checkmated.
In Diag. 8 the Black King k4 is mated, and White has won the game. It will be seen that the Black King is checked by the White Rook k6 and that nothing can be done to release him from this check. The Black King cannot take the White Rook, nor can this King move from his present position, since hexagons i4, i3, k3, l3 and l2 are commanded by the White King k2, hexagon h5 is occupied by his own Pawn, hexagon i5 and l4 are commanded by the White Bishop a4, and hexagon i6, k5 and l5 are commanded by the White Rook k6.

The Pawns

In comparing with the initial arrangement of the Pawns on the square board it will be seen, that the Pawns on the Hexagonal board are so arranged at the commencement of a game (Diag. 2) that it would appear as if some of the Pawns have already been moved. Since the Hexagonal board has a different shape from the square board, neither the men nor the pawns are arranged in a straight line, but in a different symmetrical way. The Pawns differ in character from the other pieces in three respects. Firstly, a Pawn can move and take only in a forward direction. Secondly, it takes in a manner quite different from that in which it makes a non-taking move. Thirdly, it can be "promoted" into another type of piece.
A Pawn advances by a step of one hexagon at a time in its file (going straight forward towards the enemy camp) when it is not taking, but by a step of one hexagon along an oblique file when it takes. It has therefore, only three directions of movement, two restricted to capturing and one to non-taking advances (see Diag. 9). At it's first move, a Pawn may advance two hexagons straight forward in it's file, but of course the first hexagon must be unoccupied like the second into which the Pawn moves. If the first move of a Pawn is a capture in the direction of the central file then this Pawn although moved already may still move 2 hexagons straight forward in his next move.

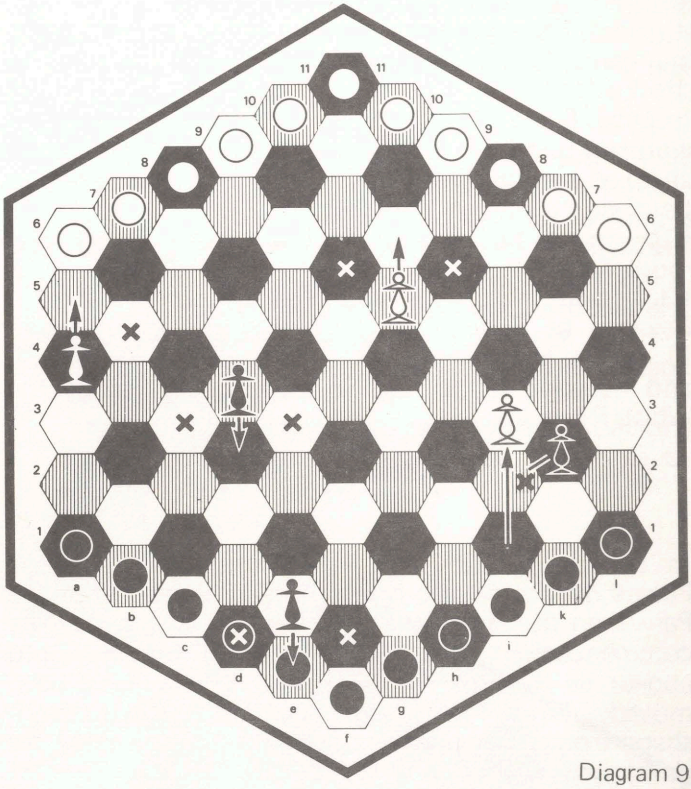


Diagram 9

For instance: If there is a Black piece on e4 and the White Pawn d3 takes this black piece from e4, then the White Pawn on e4, can still move 2 hexagons straight forward in his next move.

So long as a White Pawn is present on his original pawn-formation line, which is the rows of hexagons b1 – f5 – k1 (and a Black Pawn on the rows of hexagons b7 – f7 – k7) he may move one or two hexagons straight forward. After a Pawn has made his move two hexagons straight forward, he can advance only one hexagon at a time thereafter. See the small arrows in Diag. 9. Should the hexagon in front of a Pawn be occupied by one of his own or the opposing pieces this Pawn cannot move to that hexagon, and its forward progress is thus blocked. A Pawn may not move backwards, it is the only piece that may not do so.

Capturing opponents pieces with Pawns

The hexagons marked in Diag. 9 with 'X' are the cells commanded by the respective Pawns, and on these the Pawns may capture enemy pieces (except the King). The diagram shows that each Pawn commands two hexagons. He may only move to these hexagons when he captures an enemy piece. A Pawn may not move forward or make a capture if by doing so his own King would be put in check. Although there are initially no Pawns on the files 'a' and 'l', Pawns can be present on these files, after they have captured pieces on them.

In this case, while on file 'a' or 'l', a Pawn has only one hexagon to command. See Pawn 'a4' in Diag. 9. Remember, that a Pawn can enter a hexagon on the file 'a' or 'l' only by capturing.

Promotion of Pawns

A Pawn is promoted to another type of piece when it reaches the opponent's base and so can advance no further. (The base for White is, of course, the set of hexagons a1 – f1 – l1; for Black the hexagons a6 – f11 – l6). The promoted Pawn can become Queen, Rook, Knight or Bishop, as the player chooses; the pieces which he already has in play making no difference here. The "promotion hexagons" are marked in Diag. 9 with a small circle. This system of promotion is referred to as "Queening".

Capturing *'en passant'*

As previously explained, all Pawns may at their first move, advance two hexagons forward. The 'en passant' rule now to be described is used in order to counterbalance any such first move of the Pawns, so that when making their move of two hexagons, they may not entirely evade the possibility of capture by opposing Pawns.

It will be seen in Diag. 9 for example, the White Pawn i2 has made a move to i4. However, in this case there is a Black Pawn on k3 which commands hexagon i3. Obviously, if the White Pawn i2 moves only one hexagon forward, he may be captured from i3 by the Black Pawn. If White tries to avoid capture by advancing this Pawn two hexagons to i4 he may still be taken by Black. This is known as capturing 'en passant'. For clarity the procedure and reasons for the typical 'en passant' capture k3 x i3 e.p. are described in the following example.

Procedure	*White*	*Black*
	i2 — i4	k3 x i3 e.p.

i.e. Black Pawn moves to his commanded hexagon i3 and the White Pawn on i4 is removed from the board.
NOTE. The 'en passant' capture must be made immediately as in the above notation. If any other piece is moved instead, then the player forfeits the right of capturing that particular enemy Pawn under the conditions of the 'en passant' rule.

Reasons for the 'e.p.' capture

1. The Black Pawn (k3) does not command the cell (i4) to which the White Pawn was moved, therefore, it would be illegal for the capture to be made on i4.
2. A Pawn may only move forward — k3 to i4 would be backward.
3. The Black Pawn commands the cell (i3) which was leapt over by the White Pawn, therefore Black Pawn completes the capture by occupying that cell.

If one observes the initial arrangement of the Pawns, many beginners in their mid-game, or especially near the end of a game, may be confused as to which of their own, or their opponent's Pawns are still on their original cells, i.e. which of their Pawns can still make the first double move. When considering this matter, the player should always observe the row of cells on the centre oblique files: a1 — f6 — l1. So long as a White Pawn is still before that line, he is on his original cell. In the case of the Black Pawns, the row a6 — f6 — l6 should be observed.

Examples with the Pawns

The following examples are illustrated in Diag. 10:

(1) White Pawn on b3 could move to b4, or he could capture either the Black Bishop on a3, or the Black Pawn on c4.

Any Pawn (Black or White) capturing in the direction towards the centre file f, is not nearer to a Queening hexagon after his capture: If White Pawn b3 captures the Black Bishop a3, then the White Pawn will be one cell nearer to the Queening hexagon (a6), but if he captures the Black Pawn on c4, he will still require 4 moves to be Queened, as he required from b3, where he is situated. It is essential to remember this, especially in end games with Pawns.

(2) Black Pawn on c4 could move to c3, or he could capture the White Pawn on b3.

(3) The White Pawn d3 is still on his original cell, and therefore he could move either to d4, or two hexagons forward, to d5 (If this Pawn moved to d4, he could be captured with the Black Pawn from c4 if the White Pawn moved to d5, it could also be captured by Black Pawn c4, with the 'en passant' capture).

(4) White Pawn f10 could move to f11, and be promoted to a Queen.

(5) Black Pawn g2 cannot move, because he is blocked by the White King.

(6) Both White Pawn h5, and Black Pawn h6, cannot move because they block each other.

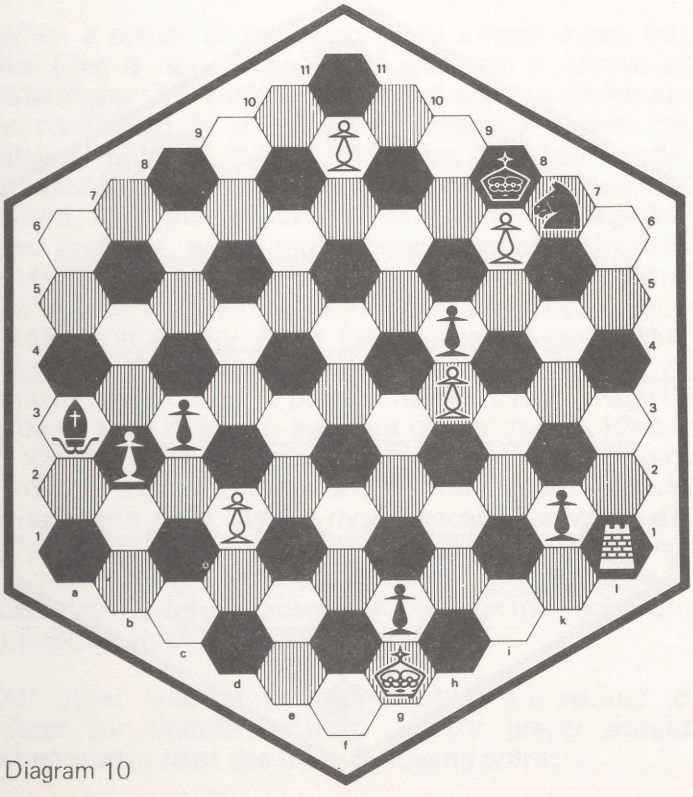


Diagram 10

(7) White Pawn i7 cannot move forward because this Pawn is blocked by the Black King, but it couid capture the Black Knight on k7, and be promoted to a Queen at the same time.

(8) Black Pawn k2, could move to k1, and be promoted to a Queen, or he could capture the White Rook on l1, and be promoted to a Queen.

Perpetual check

As the name implies, Perpetual Check is an endless series of checks delivered by one of the players. Wherever the defending player may move his King out of check he will be unable to prevent further immediate checks. When this situation arises the game is drawn. Diag. 11 (upper half) shows an example of perpetual check. The Black King g10 is checked by the White Queen i8. No Black piece can take the White Queen or cover the Black King against

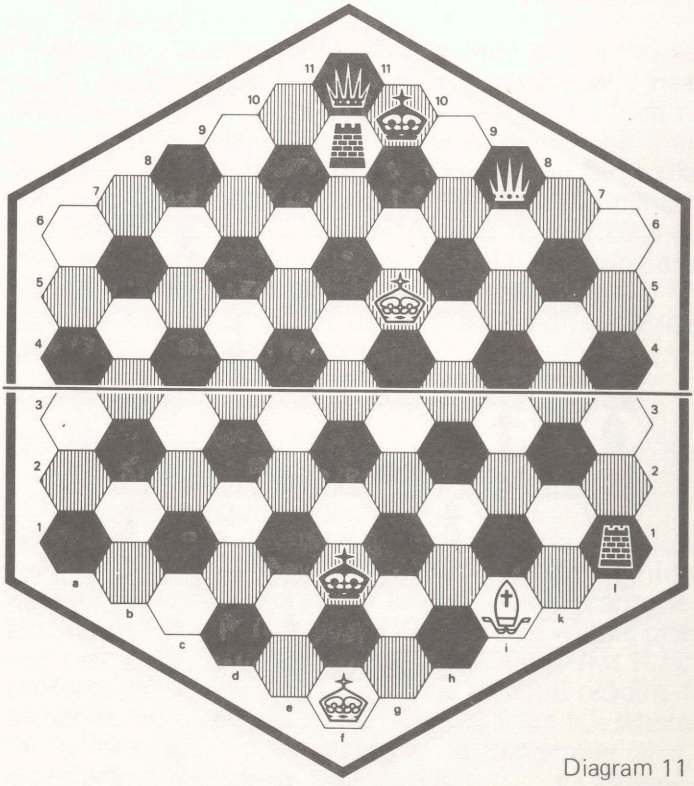


Diagram 11

this attack, therefore, the only move for the Black King is to e10 (g9, h9 and h8 are all commanded by the White Queen. Both h8 and f9 are commanded by the White King). When the Black King is on e10, the White Queen will move from i8 to c8 and again deliver check. The Black King's only move then is back to g10. The White Queen may then return to i8 and the position is as before. Thus the White Queen may put the Black King in perpetual check and so cause the game to be drawn.

Note that in Diag. 11 we have a typical demonstration of the fact that perpetual check can often be the means of obtaining a draw, when the game would otherwise have been lost. It will seem that the stronger Black force would probably have won, but for White's timely perpetual check.

Stalemate

When a player is unable to make a legal move, but his King is not in check, the situation is known as 'Stalemate'. Unlike orthodox chess where a Stalemate is considered as a draw, in Hexagonal Chess the player who is in Stalemate has lost the game. However, in competitive chess on the Hexagonal board, the winner by a Stalemate gains ¾ of a point, and the loser, which means here the player who is in Stalemate, has gained ¼ of a point from such a game. (A normal victory by Checkmate or by an opponent's resignation, or by other legal means — gives a full point to the winner and nought to the loser. A drawn game means ½ point to each player). Diag. 11 (lower half) shows an example of Stalemate: Here it is White's turn to move; in the position illustrated, White is unable to move and his King is not in check. The White King cannot move, because cells e2, e1, f2, g2 and g1, are all commanded by the Black King; also the White Bishop on i1, cannot move because in each case he would cause his King to be in check from the Black Rook on l1.

Other laws

All other laws of Hexagonal Chess are related to those for Standard Chess. Every player should memorise at least the three following points:

1. Touching pieces, and completion of move

(a) If the player should touch one of his own men he must move it. If he touches one of his opponent's men and be in a position to take it he must do so.

(b) A completed legal move may never be withdrawn, but an illegal move must be withdrawn at once.

2. A player forfeits the game

(a) If he wilfully upsets the board to disarrange the men.

(b) If he refuses to resume an adjourned game within a reasonable time.

(c) If he exceeds the time limit, (when using the chess clock).

(d) If he refuses to comply with a legal requirement of his opponent.

(e) If he refuses to obey these laws.

3. A game is drawn

(a) If the same position, with the same player to move occurs three times.

(b) If 50 successive moves on each side are made without a capture or a Pawn move.

(c) If at any stage the two players agree to call it a draw.

(d) If one player can submit the other to an endless series of check (perpetual check).

Values of the pieces in Hexagonal Chess

As in Standard Chess, where the position must first be taken into consideration before we can judge the value and importance of a piece, so it is in Hexagonal Chess. Although there is not yet a final estimation, the ***approximate*** values of the men may be considered as follows:

A Bishop is equal to 3 Pawns

A Knight to 4 Pawns

A Rook to 5 Pawns

A Queen to 10 Pawns

The King is not a strong piece, though the most vital. He can nevertheless contribute some strength to defence.

In the developing phase of a game, the comparative values of the Knight and Bishop in Hexagonal Chess are also usually dependant on the position of the moment, and on the player's personal preference. Later in the game, when the number of the pieces on the board is decreasing, the Knight can become more dangerous, and is therefore of more value than a Bishop. It is not advisable at the beginning of a game to sacrifice a Bishop for a Knight at the first opportunity, because a Bishop may be very useful for developing many attacking or defending positions in the openings. In the end-games however, Knights seem to be stronger than Bishops, because a Bishop can manoeuvre on only one colour-system of cells, i.e. on one third of the board. The Knight can move by manoeuvring to ***any*** cell on the board in not less than 4 moves.

The Hexagonal Chess-board is so formed, that there are no medium-coloured corner cells, and therefore the **medium Bishop** can never command or occupy a corner cell. This minor disadvantage does not imply that ***this*** Bishop has less value than the other two, because the medium Bishop possesses one small advantage which is not possessed by the Light and Dark Bishops:

He can command or occupy one more cell than the other two (a medium Bishop can cover a system of 31 cells, while a light or dark Bishop can cover a system of only 30 cells). This 31st cell for the medium Bishop is the true centre (cell f6) of the board.

Chapter 2

Hexagonal Chess introduced and compared with Square Chess

Except for such details as the regularisation of castling, ***en passant*** law, etc., ordinary chess, as we know it today, has remained practically unchanged for about five centuries.

Towards the close of the Fifteenth Century, the modern moves of the chess pieces were adopted in Europe. This reform was the culmination of a long series of experiments that had been in progress since the game of Chaturanga had been first acquired from the East about four centuries previously. From this Eleventh century basis of Eastern Chess played on an 8 x 8 squared board, the possible methods of improvement and alteration that were tried during the transition period — Eleventh to Fifteenth century — were:

1. Extension of the powers of movement of the pieces.
2. Re-arrangement of the pieces on the board.
3. Enlargement of the board with introduction of new pieces.

Of these three, the first has indeed withstood the test of time — approximately five centuries from its inception to the present day. The other two are conspicuous only by their absence from the present established square chess. Nevertheless, throughout chess history and even into recent times, diverse other methods of 'improvement' have been suggested by chess celebrities and others less well-known. For instance, ever since 1617, a succession of champions, including H. L. Bird, a noted player of Victorian times, suggested that the board should be widened to 10 squares x 10 (or 10 x 8) with the addition to each side of two pawns and two hybrid pieces.

This amendment was subsequently supported in principle by none other than Capablanca who became Chess Champion of the World. Nevertheless, the idea in common with other more or less revolutionary changes, has never been adopted.

It must be noted that hitherto, all suggested modifications have retained the basic idea in some form or other, of a squared board. The fact that over a number of years these embellishments of the square game have obtained little or no popularity is sufficient proof that the game of chess on our standard board has reached as far as possible, a state

of perfection which is accepted the world over, and no major changes in the game can now be anticipated so long as it is played upon a square checkered board. Now whilst I am content that Square Chess can be considered to be perfect in its own way, I recommend Hexagonal Chess for your appraisal since it is a logical development from the established game, and worthy of a trial examination.

The newcomer to this game, even if he has only a scanty knowledge of Standard Chess, will have realised that Hexagonal Chess seems at first sight to be the more complicated of the two. This is of course, due to the fundamental differences between the square and the hexagon. Yet after only a few practice games on the Hexagonal board most players who have already taken up the new chess, have adjusted themselves to the hexagonal cells. A six-sided board with 91 hexagonal cells of three shades is the truly novel feature of the invention, for the chess-men themselves remain identical in appearance and name with those used in Standard Chess. In order to complement the third colour, there are for each player two extra pieces — a bishop and a pawn. The moves of the pieces retain the essential characteristics inherited from their counterparts in Square Chess, but their scope of movement is considerably augmented as will now be demonstrated.

For the purpose of this illustration, consider a King or a Queen standing on a square cell of an ordinary chess-board. This piece may move away from the square in any of eight directions. However, the same piece on a Hexagonal board may move in any of twelve directions. The other pieces — Rook, Bishop and Knight have their power of directional movement increased in the same ratio.

Increased scope of directional movement

It may be stated that compared with their moves in Square Chess, the possible directions of movement in respect of each of the pieces is increased by one half in the Hexagonal game. Pawns, of course, moving only in one direction in the square game, have precisely the same power of ***directional*** movement in the Hexagonal game.

Piece	Possible directions in Square Chess	Possible directions in Hexagonal Chess
KING	8	12
QUEEN	8	12
KNIGHT	8	12
BISHOP	4	6
ROOK	4	6
PAWN	1	1

Table showing the increased scope of directional movement for the men in Hexagonal Chess

'Speed' of movement of the King and Knight

Each half of the Hexagonal set contains one King, one Queen, two Rooks, two Knights, three Bishops, and nine Pawns. This selection of pieces and their arrangement on the Hexagonal board cannot conform to the same arrangement of the ordinary set of chessmen on the square board, simply because the boards, as well as the number of men, are different in each of the two games. The arrangement of the pieces on the Hexagonal board before the game commences is in its own way symmetrical. Each player has an equal number of equivalent pieces on medium coloured cells. The remainder of the pieces are so arranged, that whatever pieces White has on dark coloured cells, Black has an equivalent force on light coloured cells. The playing area for the hexagonal game contains 91 - cells, which is 27 cells more than in the familiar 64 - cell square board. Because of this, critics may say, in disapprobation of the new game, that compared with standard chess, more moves may be required to complete a game. This assumption might be backed by the (purely hypothetical) inference that, as the Hexagonal board has nearly half as many more cells, then the short range pieces King and Knight should require more moves to traverse the board from side to side or from corner to corner. This is not so; for it can be demonstrated that the Hexagonal board, although having 27 extra cells, can reasonably be considered at least equally as small as the square board. For this purpose we will use as our standards for comparison the number of moves required by the pieces to span the principal dimensions of the two boards. We know that in both games the Queen,

Rook and Bishop require only an unobstructed line of cells in order to traverse the length of the board in one move, so they need have no further mention in this part of the discussion. The number of moves required by the King and the Knight for various manoeuvres on the square board may be conveniently compared in the following table, with the number of moves required for equivalent manoeuvres on the Hexagonal board.

The following table and diagrams prove that the Hexagonal board for the manoeuvres of the pieces is in general even smaller than the square board. This is simply because the Knight's move, and also the King's move on the Hexagonal board have longer range. When a Knight has been moved on the square board, the Knight has actually jumped over ***one*** file. On the Hexagonal board a Knight is jumping over ***two*** files. The King, when moved on the square board, moves always from one file to the next. On the Hexagonal board the King when moved along a line, is traversing ('jumping') a file.

Comparative mobility

	Manoeuvre	Square Board	Hexagonal Board
KING	Side to opposite side	7 moves	5 moves
	Corner to opp. corner	7 moves	7 moves
	Corner to adjacent corner	7 moves	4 moves
KNIGHT	Side to opposite side	4 moves	4 moves
	Corner to opp. corner	6 moves	4 moves
	Corner to adjacent corner	5 moves	2 moves

NOTE: If constrained by the edge of the board, the Knight in Square chess required 5 moves to cross the board from one end to the other of a given rank or file as is conditional in the manoeuvre 'Corner to adjacent corner'.

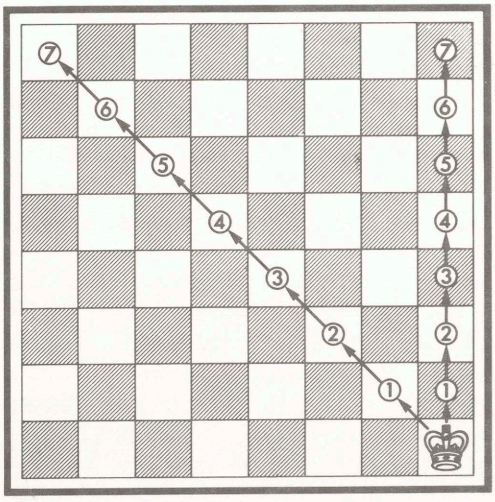


Diagram 12

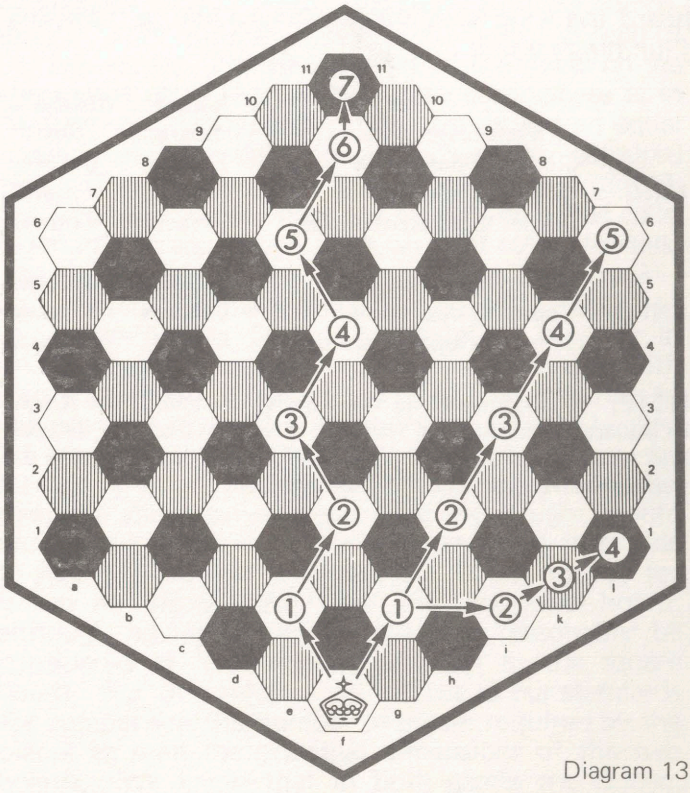


Diagram 13

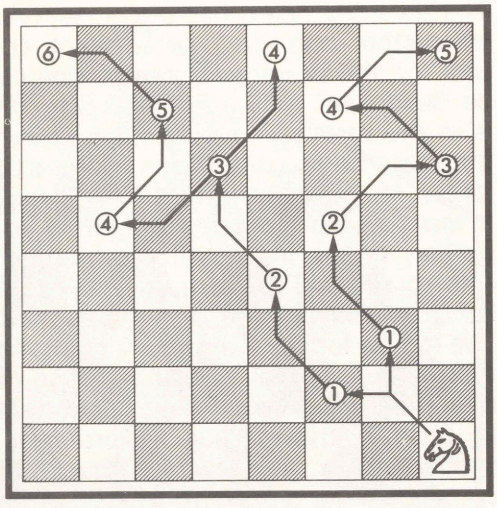


Diagram 14

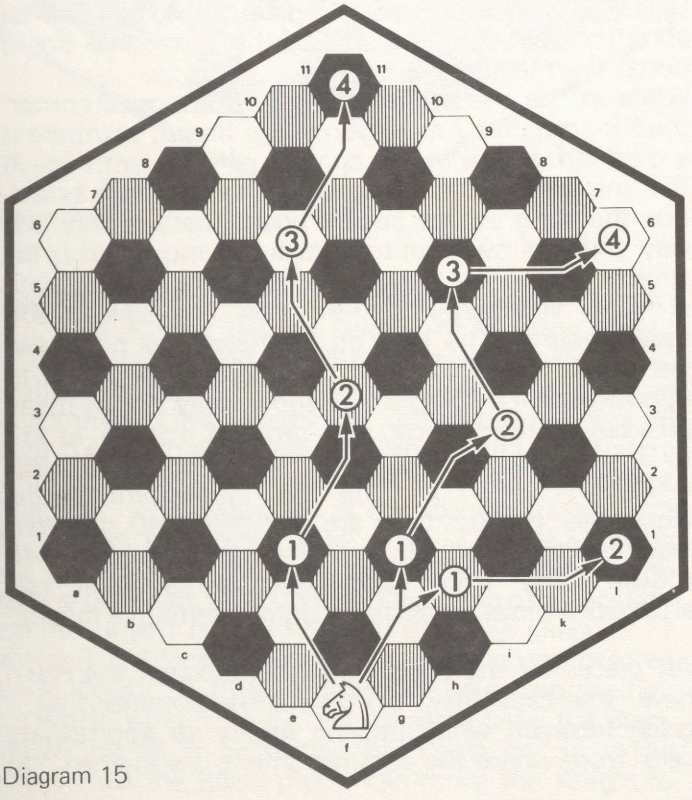


Diagram 15

The six-sided board has of course, two corners which are neither opposite, nor adjacent, to a given corner and for the present reference they can conveniently be designated as the 5th and 6th corners. As there is in this respect, no parallel between the two boards, there can be no comparison for insertion in the above table. It will be seen that if a Hexagonal chess piece is manoeuvred from a given corner to the 5th or 6th corner, it has in actuality crossed the board from side to side. Therefore, as can be seen in the right hand column of the table, this manoeuvre requires five moves for the King and 4 moves for the Knight.

N.B. A Hexagonal Knight standing on a corner of a clear board can reach ***any*** of the distant cells within at most 4 moves, but an ordinary Knight placed similarly on a square board requires 5 moves to reach certain of the distant squares, and 6 moves to reach the opposite corner (as shewn in the table). If these Knight manoeuvres are carried out on the two boards together with those given in the table, it must be admitted that the Knight 'fits' the Hexagonal Board better than the Square board.

While in the manoeuvre 'corner to opposite corner' the King requires 7 moves on either board, yet there is a great difference in the number of ways with which this manoeuvre can be accomplished on each board. For the King on the square board there is only one way which allows him to do this in 7 moves. It is the straight diagonal way, (see diagram 12). Any different way requires more than 7 moves on the square board. The King on the Hexagonal board can use several paths to cross the board from corner to opposite corner. Diagram 12 shows only one of many possible routes. He can also proceed from f1 to f11 in 7 moves as follows: —e2, —d3, —c4, —d6, —e8, —f10, —f11. In fact for this manoeuvre on the Hexagonal board, there are altogether 40 different ways for the King, all have 7 moves and all the 40 routes differ from each other by at least one alternative move, or as many as six alternative moves.

Constant commandment of a given cell

All pieces on the Hexagonal board except the Pawn have the capability of constantly commanding a given hexagon while moving legally to appropriate cells from where the commandment is sustained. In

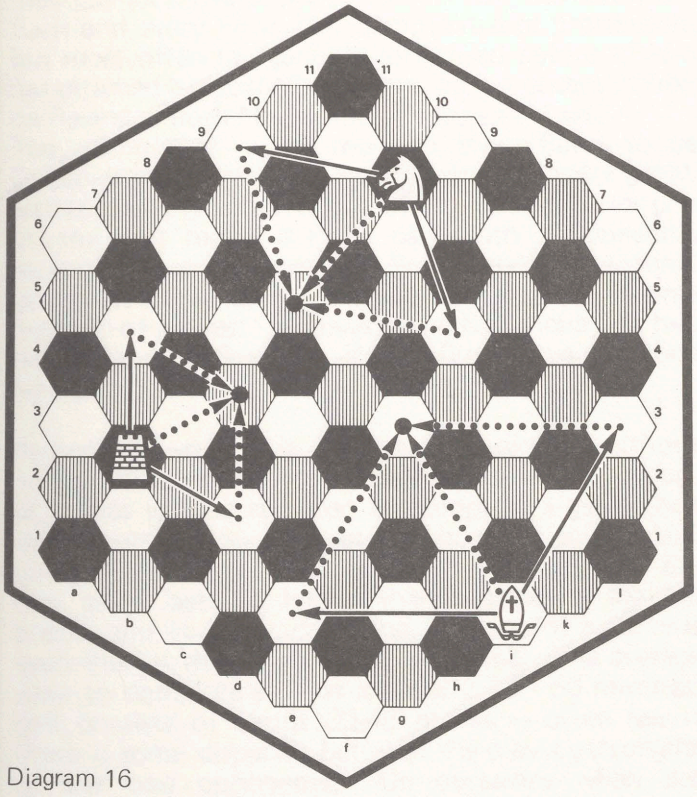


Diagram 16

Diagram 16 the Knight on g9 commands the hexagon e7. That Knight has the possibility of being moved to d9 or to h6 and in both cases will immediately continue to command the hexagon e7. The Rook on b3 commands the hexagon d5. It can be moved to b5 or to d3 and in either case the Rook will immediately continue the commandment of d5 from a different direction. The Bishop on i1 commands the hexagon g5. It can be moved to e2 or to l3 and the Bishop will immediately continue the commandment of g5 from a different direction. An example of a constant commandment by the Knight is shown in Diagram 17 where it is Black's turn to move: The unprotected Black Knight on f8 is in danger of being captured by the White King from e7. At the same time, the Black Knight on f8 is protecting his Pawn on d5. The player with the Black pieces can move the Knight to

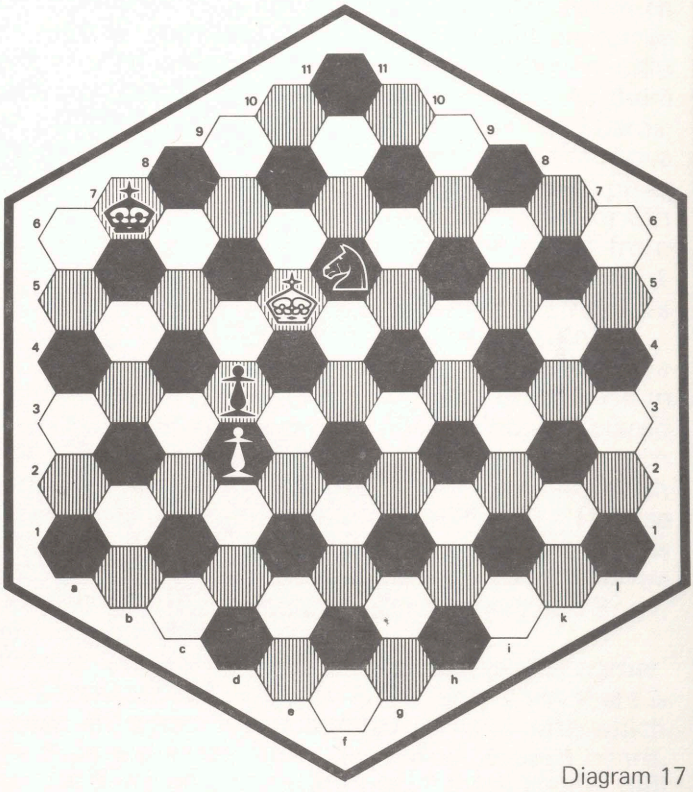


Diagram 17

g5 from where he would check the White King, but more important, the Knight would continue to protect his Pawn on d5. Alternatively the Knight can be moved from f8 to c7, from where he will also continue to protect his Pawn on d5. (The latter is the stronger move for the Knight here.) This advantageous manoeuvre with a Knight as demonstrated is only possible on the Hexagonal Chessboard.

Similar limitation of Pawn movement

In both Hexagonal and Square Chess the part which the Pawns play in the game differs essentially from that of the pieces. In respect of the pieces we have suggested a comparison of equality between the 91-cell Hexagonal board and the 64-cell Square board. Broadly speaking, in either of the games, the relative strength of each of the pieces can be assessed by its particular individual mobility. Individual mobility is by no means an attribute of power in the Pawns as

they cannot move backwards in retreat from attack. Each and every Pawn has the potential of promotion, but most often the game is concluded before a Pawn has attained his goal. The foregoing is a generalisation on Pawns in both Hexagonal and Square chess.
The number of moves required for a Pawn to be Queened is equal in both games. In the square game, according to whether it is moved two squares or one on the first move, a Pawn can reach its Queening square in 5 or 6 moves. All Pawns in the Hexagonal game can attain their Queening hexagon in the same number of moves: 5 moves if the first move was two hexagons, and 6 moves if the first move was one hexagon.

Duration of a game

Perhaps the reader is still of the opinion, without having played Hexagonal Chess, that a larger number of moves will be required to complete a game than in the case of Square chess. I would however, point out that it has been found in actual play, that the new game lasts no longer than a game on the old board, and in many cases the duration of a game is even shorter than that of the old game. The average time to complete a game is usually 35 - 50 minutes, and consists of about 30-45 moves — often less if there is some disparity between the playing strengths of the two opponents. On occasions when the players are in serious mood for competitive purposes, it is possible and even likely that more time will be consumed, especially if a chess clock is being used. The normal time limit for Hexagonal Chess is at present the same as for Orthodox Chess — forty moves for each player in the first 2½ hours on his clock and sixteen moves in each subsequent hour (if a game lasts as long as that).

Speed of development

The rapidity with which the Hexagonal pieces are developed in the opening is also a factor which tends to make this game of a shorter duration than would be the case if as many pieces had to be brought into play from behind a barrier of Pawns on a square-type board.
On the Hexagonal board the vacant space of cells between the pieces and the Pawns known as the COURT, allows great freedom and diversity of movement during the opening and usually within 5

to 8 moves the pieces can be deployed in readiness for the battle.

I particularly wish to illustrate and comment upon the rapid development which is possible for the Hexagonal Rooks. Either of the Rooks have clear access to the centre in the court, or after one move of the Pawn e or g, the Rooks may be moved at once outside the court. Compared with this lightning development, consider the old game where it is usually the case that one Rook often comes into action no earlier than the 7th to 10th move, and the remaining Rook is not developed until later still. We know that in square chess it is very seldom that a winning position or a mate is secured without the Rooks having played their part in bringing it about. Suppose that it was possible in ordinary chess for the Rooks to be developed to command the centre during the first few moves without wrecking the Pawn formation. The middle game would be entered much earlier and the length of the game shortened by perhaps 5 to 10 moves. Of course, the perfection of chess as played on squares would be ruined by such a modification as I have instanced, but the reference is made purely and simply to illustrate the point.

Collective mobility of the forces

Certain chess thinkers have from time to time occupied themselves with inexplicable "flaws" in the orthodox game. In this regard we may consider the total collective mobility of the forces on the Square and Hexagonal boards respectively. The total collective mobility is defined as being the sum total of the moves available to pieces and Pawns when standing on their optimum squares, (e.g. a Knight in the centre of a square board has 8 possible moves; in the centre of a hexagonal board 12 possible moves).

A particularly interesting correlation becomes possible if we consider ***only those forces*** available in both games. That is to say, we ignore for the moment the "extra" Bishop and Pawn in Hexagonal Chess.

Thus:

	COLLECTIVE MOBILITY	
	ORTHODOX	HEXAGONAL
King	8	12
Queen	27	42
Rooks	28 (2 x 14)	60 (2 x 30)
Bishops	26 (2 x 13)	28 (2 x 14)
Knights	16 (2 x 8)	24 (2 x 12)
Pawns	16 (8 x 2)	16 (8 x 2)
	121	182

One fact emerges strikingly from this comparison. Dividing the total collective mobility of the orthodox game by the number of squares (64), we arrive at an irrational fraction slightly below 2. Performing the same operation with regard to Hexagonal Chess — dividing the collective mobility by the number of cells (91), we find a figure of exactly 2!

What is the reason for this? After all, at first sight the above figures represent merely a sort of algebraic mumbo-jumbo.

Quite simply, there is no exact centre on the square board, whereas there ***is*** such a centre on the Hexagonal board, allowing the interrelation of the forces into a harmonious whole. Moreover, it is precisely from that centre that the extra Bishop, (the medium Bishop,) radiates its influence; and towards that centre that the extra Pawn, on the f-file, portends. Thus the ***total*** collective mobility in Hexagonal Chess is in fact 197, a figure of more than 2 for each cell.

Consider then the enormous aggregation of mobility in Hexagonal Chess. In orthodox chess the limitations of the Rook have been the same for fourteen centuries. In Hexagonal Chess the Rook's activity is expanded, not by half again (as you might expect), but by an astonishing factor of over 2 : so much so in fact, that it radiates activity even at the edge of the board.

In making these comparisons, it is not intended to deride orthodox chess and its stored repository of knowledge. Rather it is to demonstrate that Hexagonal Chess is a game of great fluidity and high kinetic potential, which equates to a pleasing aesthetic

whole whether considered in terms of pure mathematics or sheer excitement.

In conclusion, it is to be hoped that the newcomer will not be unduly apprehensive of the slight additional complication which is an inherent feature of Hexagonal Chess. If you are already a player of the square game, recall the fact that this also appears incomprehensible to the uninitiated.

It is but a step further to master the convention of the new game, and after playing a few times you will find that the concentration required is very little, if at all, more than that which is necessary for a good game of the old chess.

Chapter 3

Openings, middle games and played games

For those players who wish to begin a Hexagonal game with a regular opening, knowledge of the openings on the hexagonal board is just as important as that on the square board. Apart from the similar names of certain openings on both boards, there is no connection in the patterns of the openings or strategy between the two games.

In addition to the 'regular' or more popular openings on the hexagonal board, there are also very wide possibilities for many 'irregular' openings and new developments on the player's own initiative. Most of these are still to be discovered, and in due course, will be, as the new game develops. A brief study of the initial arrangement of the pieces on the hexagonal board, will suggest to some extent the range of the possibilities.

In Hexagonal Chess every piece is free to move immediately from the start of the game without the necessity of first moving the Pawns, although most Hexagonal Chess games are opened with a Pawn move. Furthermore, every major and minor piece, including the Rook, can be brought from its initial position into action in the centre of the board within two moves.

The initial Pawn arrangement on the hexagonal board creates a strong front line for both players, because seven Pawns on each side are double-protected and the remaining two Pawns 'e' and 'g' are each five-times-protected. In this arrangement the Pawns also provide their own 'chain protection': White Pawn B1 protects Pawn c2, then c2 protects d3, etc. The Black Pawns provide the same 'chain protection' for themselves.

The following openings in Hexagonal Chess are some of the early ones already in practice.

King's gambit

In the King's gambit the action can take place at once, after White's first move. The King's Pawn is here offered 'free' with the intention of weakening Black's Pawn formation, if Black accepts the gambit.

At the beginning of this game White is concentrating his attack mainly on Black Pawn k7.

1.	g4 – g6	f7 x g6
2.	Nh1 – i3	

White has offered a Pawn which was not protected on g6. Black captured this Pawn, and after White's second move, the Black Pawn g6 is attacked by the White Knight. First, we shall see what happens if Black defends his Pawn on g6 with his dark Bishop.

	2.	.....	Bf11 – e9
	3.	Ni3 – k5	Ri8 – g8
	4.	Bf3 x k7	

Now Black has also lost a Pawn, the game can continue in three possible ways:

a)	4.	.....	i7 – i6
	5.	Bk7 x Bf9+	Qe10 x Bf9
	6.	Nk5 – i3	
b)	4.	.....	Bf9 x Bk7
	5.	Qe1 x Bk7	i7 – i6
	6.	Nk5 – i3	Nd9 – g9
	7.	Qk7 – k4	
c)	4.	.....	Nd6 – g9
	5.	Bk7 – f3	

A different position will arise if Black defends his Pawn on g6:

	2.	.....	h7 – h6
	3.	Bf3 – i6+	Nh9 x Bi6?
	4.	Qe1 x Ni6+	Bf9 – h8
	5.	Qi6 – l4	Ri8 – h9

White did not capture a Pawn here to balance his previously sacrificed one, but Black's Pawn position is weaker. This variant can also be different from Black's third move:

	3.	.....	Bf9 – h8
	4.	Bi6 x Bh8 +	Ri8 x Bh8
	5.	Qe1 x k7	

In the next variant, Black abandons the protection of his Pawn g6 and supplies immediate protection for Pawn k7:

	2.	.....	Nd9 – g9
	3.	Bf2 – d4	e7 – e6
	4.	Ni3 x g6	

Here White has a slightly better position. Black may also try prevention of White's Knight move to k5 by:

2.	.....	Bf10 – d6
3.	Bf2 – i5	Nd9 – g9
4.	Bi5 – l4	Ri8 – g8
5.	Bl4 x g6	Qe10 – d8

The Black Queen has been moved to d8 to give more protection for Pawn k7, as White would otherwise continue attacking k7 by Rc1 – k4 and Ni3 – l4. The flank Pawns b and l should not be moved forward early in the game, as such a move weakens the Pawn position. Therefore, in most cases, Black would rather defend Pawn k7 than move him to k6.

In the following variant, Black moves his Pawn g6 – g5, offering this Pawn to be captured and thus gaining a balance in the Pawn position.

2.	.....	g6 – g5
3.	f5 x g5	Nd9 – g9
4.	Bf2 – d4	e7 – e6
5.	Ri1 – g3	

From here various middle games may start, according to Black's reply to White's 5th move, for example:

a)	5.	.....	Ri8 – g8 ?
	6.	Ni3 – l4 !	Qe10 – d8
	7.	Nl4 – h5 !	
b)	5.	.....	d7 – d6
	6.	Bd4 – f5	Bf10 – h6
	7.	Nd1 – g2	
c)	5.	.....	Nh9 – f8
	6.	Nd1 – f4 !	d7 – d6
	7.	Qe1 – g2	

King's gambit declined

In King's gambit declined, Black is ignoring White's Pawn offer. Instead Black is preparing immediate defence for Pawn k7, and developing his pieces for possible counter-attacks. The gambit may be declined amongst other possible ways by:

(a)	1.	g4 – g6	Bf11 – e9
	2.	Nh1 – i3	Nd9 – g9
	3.	Bf2 – i5	

Black may continue to ignore the White Pawn on g6 at least for the time being and re-develop the pieces inside the court. If White now captures g6 x f7, Black can answer g7 x f7, or e7 x f7. Either way it is to Black's advantage.
In the next opening variant Black's response 1. ..... f7 – f6 is leading to a ready "action position" for both players:

(b)	1.	.....	f7 – f6
	2.	Nh1 – i3	Nd9 – g9
	3.	Bf2 – d4	e7 – e6
	4.	Nd1 – f4	Rc8 – e8

(see diagram 18)

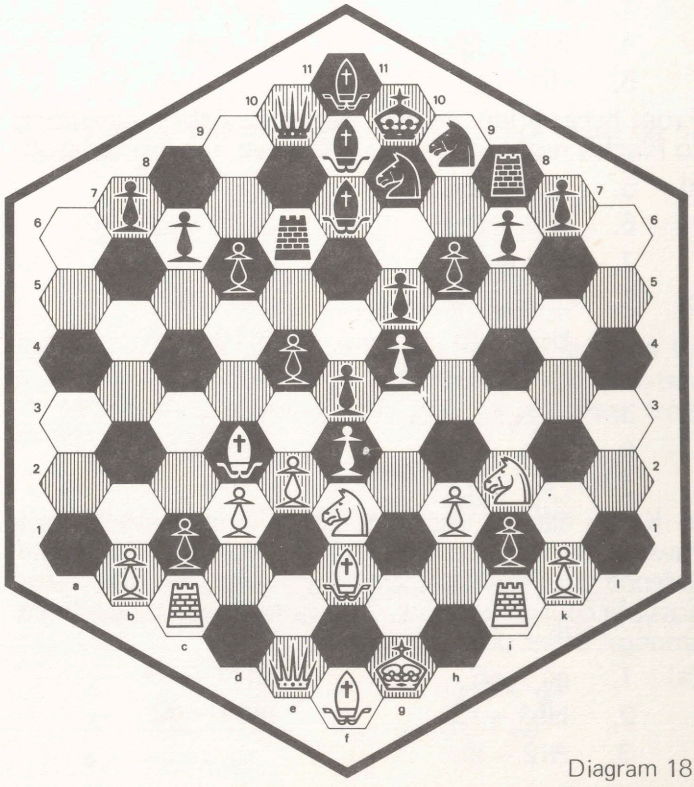


Diagram 18

Another way to decline the King's gambit may be analysed by Black's answer:

1. ..... Nd9 – g9

followed by Black's two or three further moves inside the court, ignoring for the time being the White Pawn on g6.

King's Knight opening

Although this is a different opening from the King's gambit, White's concentration at the start of this opening is also on the Black Pawn k7. If Black is strengthening the protection of Pawn k7, White is bringing his King's Knight to a favourable position on h4.

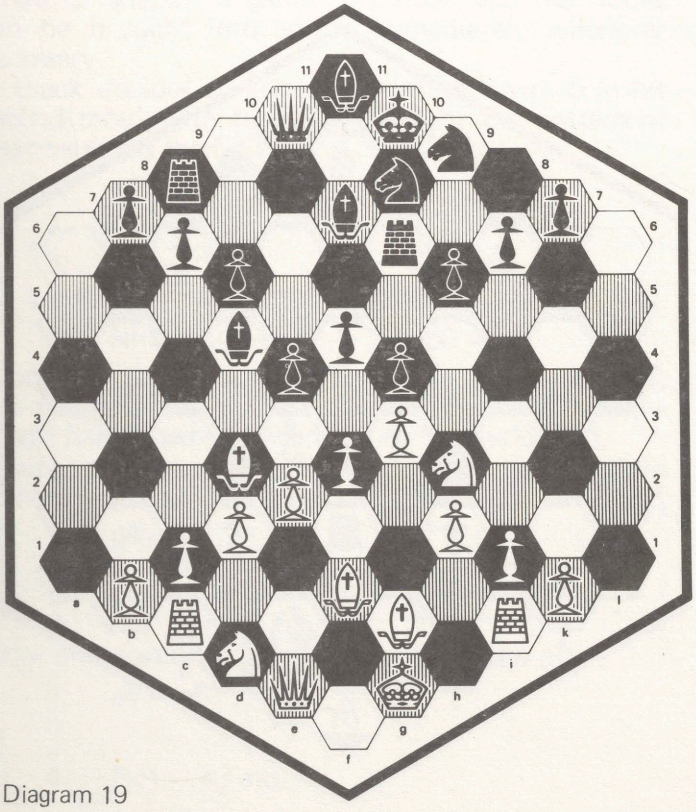


Diagram 19

1.	Nh1 – i3	g7 – g6
2.	Ni3 – k5	Ri8 – g8
3.	g4 – g5 !	Nd9 – g9
4.	Bf2 – d4	e7 – e6
5.	Nk5 – h4	Bf10 – d6
6.	Bf1 – g2	

(see diagram 19)

In this variation, Black in his first move is creating a barrier against White King's Knight, with i7 – i6:

1.	.....	i7 – i6
2.	g4 – g5	g7 – g6
3.	Ni3 – g2	Nd9 – g9
4.	Bf2 – d4	e7 – e6
5.	e4 – e5	

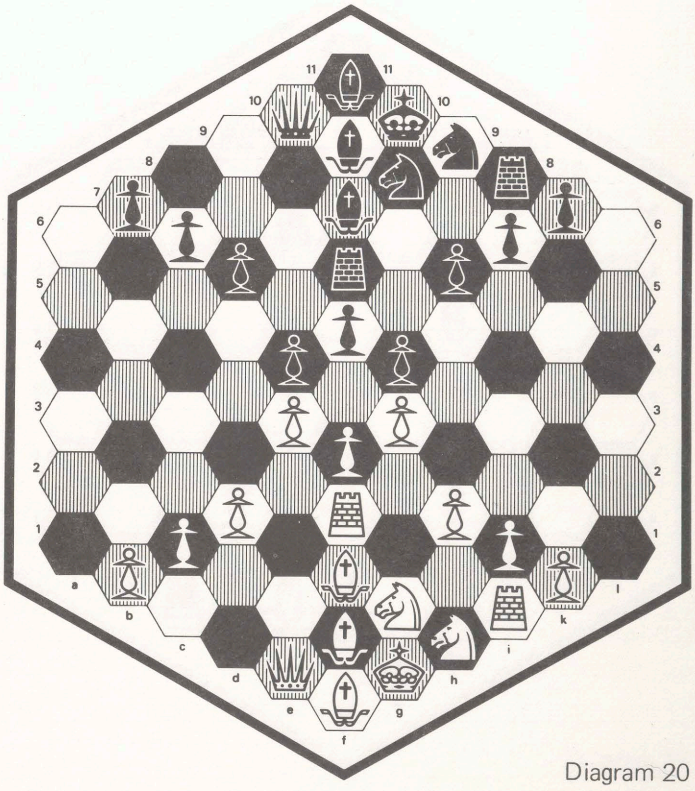


Diagram 20

As Black's Pawn is already moved into action, Black is committed to an early defence or counter-attack on the King's side as soon as the game develops into any of a variety of middle games.

Rook's opening

As the name implies, in this opening the "way out" for the Rooks is opened early in the game, by moving forward the Pawn g, or e, or both. The concentration and battle can then develop in many ways in and around the centre of the board:

1.	e4 – e5	e7 – e6
2.	g4 – g5	g7 – g6
3.	Nd1 – g2	Nd9 – g9
4.	Rc1 – f4	Rc8 – f8

(see diagram 20)

Whatever shape the game may now take the Rooks can be brought into action immediately whenever necessary.
If Black decides to attack the White Pawn f5 in his second move with the King's Knight the pattern of the opening.is then different:

1.	g4 – g5	g7 – g6
2.	e4 – e5	Nh9 – g7 !
3.	Bf2 – d4	e7 – e6
4.	Nd1 – e4 !	Bf10 – d6
5.	Nh1 – g4 !	Nd9 – g9

From here the Rooks are often drawn to files e and f, but the advantages of bringing into action the three King's flank pawns now, must not be overlooked.
A safe variation of the Rook's opening for both sides is the following:

1.	g4 – g5	g7 – g6
2.	NH1 – g4	Nh7 – g7
3.	Nd1 – g2	Nd9 – g9

Now, amongst other possibilities White can play:

4. e4 – e5

or

4. Rc1 – e3 etc.

Queen's flank opening

This is a "dual pattern" opening where up to the 6th move both sides may develop their pieces in identical "mirror image" tactic. The White Queen's flank is developed here, where the Bishop f1 is brought out to a favourable position nearer to the centre of the board. From the 7th move there can be many variations of attack for White as well as many defences, or counter-attacks for Black.

1.	d3 – d4	d7 – d6
2.	Bf1 – d3	Bf11 – d7
3.	g4 – g5	g7 – g6
4.	Nd1 – g2	Nd9 – g9
5.	Bf2 – h4	Bf10 – h6
6.	RC1 – e3	Rc8 – e8
7.	Nh1 – g4	Nh9 – g7

(see diagram 21)

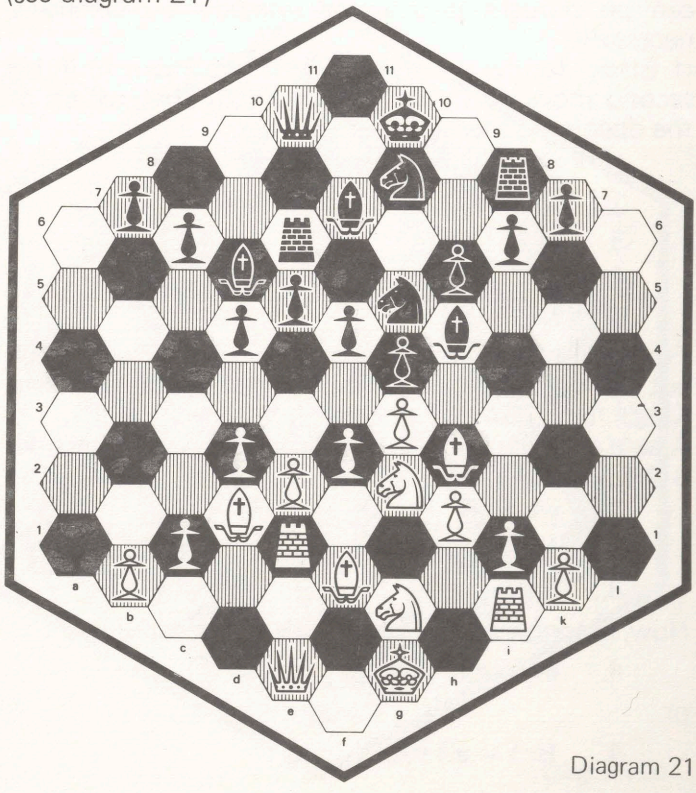


Diagram 21

From here the game can develop into a middle game where many different variations are possible. If Black begins his counter-attack in the 7th move (different from the variation shown above) e.g. Bf9 – g8, concentrating against the White Knight on g4, it would not be advantageous to Black as the following two examples will show:

7.	.....	Bf9 – d8
8.	Ng2 – i3	e7 – e6 ?
9.	Ng4 x Bh6	Ng9 x Nh6
10.	Ni3 x Nh6	Re9 x Nh6
11.	Bd3 x f7	
7.	.....	Bf9 – d8
8.	Ng2 – i3	e7 – e6 ?
9.	Ng4 x Bh6	Ng9 x Nh6
10.	Bd3 x f7	

King's flank opening

This opening is related to the Queen's flank opening with the difference that White is developing his pieces on the King's flank. At the moment the King's flank opening is not considered to be as popular as the Queen's flank opening.

1.	h3 – h4	h7 – h6
2.	Bf1 – h3	Bf11 – h7
3.	e4 – e5	e7 – e6
4.	Bf2 – d4	Bf10 – d6
4.	.....	Nd9 – e7
5.	Nd1 – g2 etc.,leads to different variants),	
5.	g4 – g5	

(if 5. Nd1 – e4 Nd9 – g9 etc.,
leads to different variants).

5.	.....	g7 – g6
6.	Nd1 – g2	Nd9 – g9
7.	Ri1 – g3	Ri8 – g8

(see diagram 22)

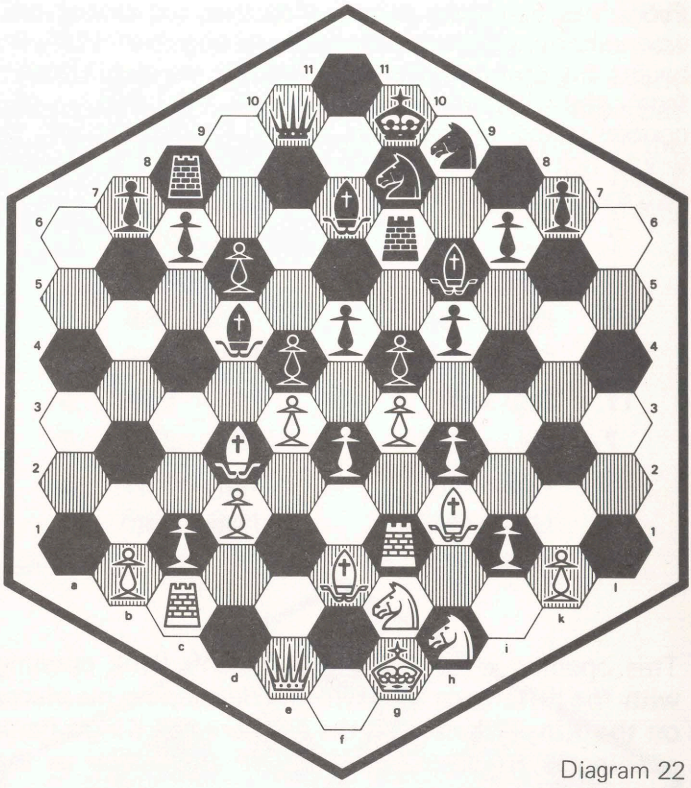


Diagram 22

The five openings which have here been introduced, (King's gambit – King's Knight opening – Rooks opening – Queen's flank opening – King's flank opening) are now played by many newcomers to Hexagonal Chess.

These and other openings will certainly be crystallized as the new game develops. Many new openings will be discovered and there are wide possibilities for players to develop their own defence tactics, if they do not wish to play a particular opening which their opponent may try to impose or suggest. This is because the initial arrangement of the pieces, and in particular the Pawns, form a strong fortress before the start of the game. A player, if he so wishes, can reject a suggested opening by making his first two or three moves inside his court, without moving his

Pawns for the time being.

Here are some other openings and defence tactics:

Four Pawn opening

In this opening four Pawns (d, h, g, e) are moved one hexagon forward and other pieces can then be assembled behind the Pawns d – h:

1.	d3 – d4	d7 – d6
2.	h3 – h4	h7 – h6
3.	e4 – e5	e7 – e6
4.	g4 – g5	g7 – g6
5.	Rc1 – f4	Rc8 – f8 etc.

Centre Pawn opening

If White opens the game with 1. f5 – f6 then the Black Pawn on f7 is immediately blocked. However, this does not cause any real disadvantage to Black's defence as a whole. The object of White's opening with f5 – f6 would be with the intention of encouraging Black to move g7 – g6 as this would lead to the distortion of Black's King's-side Pawn position as follows:

1.	f5 – f6	g7 – g6
2.	f6 – g6	f7 – g6
3.	Bf2 – h4 !	h7 – h6

To prevent this Black can simply play as follows:

1.	.....	e7 – e6
2.	f6 x e6	

Queen's Pawn opening

If White does not now capture, but moves a different piece, then Black would play

2.	.....	e6 x f6 etc.
2.	.....	Qe10 x e6
3.	Bf2 – d4 !	Qe6 – e10

Black Pawn's position is safer and more favourable. White now has his own Pawn position broken in the centre, which is rather a disadvantage.

The purpose of this opening is to break, Black's Pawn position in the centre, or alternatively paralyse Black's centre Pawn formation early in the game:

1.	e4 – e6	f7 x e6
2.	Qe1 x e6	Bf11 – g9
3.	Qe6 – e1	

White's position is more favourable as Black has his Pawn position broken in the centre.
Black need not hurry to take the White Pawn on e6, rather he should choose any of several defence manoeuvres:

1.	.....	Bf11 – e9
2.	Bf2 – d4	

If 2. Re6 x f7, Black then takes e7 x f7 etc., leading to different variations.

2.	.....	Bf10 – h6
3.	Rc1 – e3	f7 – f6
4.	Bf3 – d2	g7 – g6
5.	Nd1 – g2	Ri8 – g8
6.	Ri1 – g3	Bf9 – h8
7.	c2 – c3	i7 – i6
8.	Bd4 – c2	Bh6 – i7

The positions are fairly even. Whilst Black must now sustain good protection for his Pawn on g6, White has a similar problem with his Pawn on e6.

Knight's opening

This opening will now enter a middle game by White concentrating his forces against Black Pawns 'f' and 'g', alternatively advancing his Pawns on the Queen's side by d3 – d5, followed by c3 – c4 and then Bf1 – d3. All this, of course, as far as Black will permit. Black is equally positioned for good defence and counter-attack.
In this opening one or both players are arranging their Knights on file f, for the purpose of commanding the 4 cells e4, e5, g4 and g5, all adjacent to the centre.

1.	Nh1 – f4	Nh9 – f8
2.	g4 – g5	g7 – g6
3.	e4 – e5	e7 – e6
4.	Nd1 – g2	Nd9 – g9

5.	Ri1 – g3	Ri8 – g8
6.	Bf3 – h2	Bf9 – h8
7.	Bf2 – e3	Bf10 – e8
8.	Ng2 – h4	Ng9 – h6
9.	Nh4 – f3	Nh6 – f9

Different variations of this opening will emerge as it is practised more. While the White King's Knight is always placed on f4 in this opening (Nh1 – f4), during the opening the White Queen's Knight is often brought only to g2 (Nd1 – g2) and not necessarily always as far as f3. The middle games develop from this opening either around the centre of the board, or, also very often, on the Queen's side with Queen's flank Pawns 'b', 'c', and 'd' taking their active part.
It is anticipated that students will benefit in knowledge from the openings which have been introduced here.

At first it is advisable for the Student to choose two openings of personal preference and to study these by taking first the White and then the Black side. Other openings can be taken up later one by one. It is not essential to know thoroughly all the openings that will be discovered unless the Student wishes to become a Master. The initial arrangement of the pieces is such that there is no immediate danger from the opponent's side as various early defence tactics are possible. There is immediate danger only if a drastic mistake is made early in the game like the one now to be described in the "Fool's mate" on the hexagonal board.

'Fool's mate'

The shortest complete game known so far in Hexagonal Chess consists of four moves and is known as the "Fool's Mate" on the hexagonal board:

1.	Qe1 – c3	Qe10 – c6
2.	b1 – b2	b7 – b6
3.	Bf3 – b1	e7 – e6 ?

Black's move with the intention of attacking the White Queen with his Bishop on f9 is a drastic mistake made "without thinking" and is called the "fool's move". This bad move causes a checkmate

for the Black King:

4. Qc3 x Bf9 ‡

In a similar way but in a slightly different variation and in reverse position, in the 4th move White can also make a mistake by a "fool's move" and can be checkmated immediately thereafter:

1.	Qe1 – c3	Qe10 – c6
2.	b1 – b2	b7 – b6
3.	Rc1 – a1	Bf9 – b7
4.	e4 – e5 ?	Qc6 x Bf3 ‡

Two examples of played games

From available records of played games on the Hexagonal board I have selected two games to be introduced here as examples, in which the student will be able to observe many interesting good moves as well as some weak moves of the Hexagonal strategy.

All four players who took part in these two games are also active players on the square board.

The first game, recently played in London, consists of 20 moves.

Queens flank opening

(analysis by the winner)

	White: *M. L. Barst*	Black: *C. Findlater*
1.	d3 – d4	Nd9 – g9
2.	Bf1 – d3	Bf11 – e9
3.	Nd1 – g2	

This type of development putting the Queen's Knight in front of the King is a typical idea for defence and attack, e.g. White hopes to post a Bishop on h4, Black on h6.

3.	.....	g7 – g6
4.	g4 – g5	Ri8 – f8

Probably the wrong rook

4.	.....	Rc8 – f8 was better.
5.	Nh1 – i3	Bf9 x Ni3 ?

Following Black's fourth move this is definitely a mistake. True a Knight is worth slightly more than a Bishop but after this move Black's k - pawn is very weak.

6. Ng2 x Bi3 k7 – k6

7. Rc1 – g4

Preparing action along g – file against Black King.

7. ..... i7 – i6

8. f5 – f6 h7 – h6

9. e4 – e5 Qe10 – f9

Both sides continue their preparations. White prepares to double rooks on the vulnerable g - file, while Black sets his Pawn structure to rights and attempts counter-measures in the centre.

10. Qe1 – e4 Rc8 – e8

11. Ri1 – g3 Nh9 – g7

12. k1 – k2 (??)

This should have been preceded by protection for Pawn i2.

12. ..... k6 – k5

13. Kg1 – e1 !

Very important. White gets his king to safety before the central exchange of pawns.

13. ..... g6 x f6

14. g5 x f6

(Obviously not e5 x f6 (?) with a good game for Black)

14. ..... i6 – i5

15. Bd3 – c4 !

A probing move, taking advantage of Black's congested pieces.

15. ..... d7 – d6

16. Bc4 – e2 h6 – h5 ?

Superficially good (threatens

17. h5 – h4, forking Rook and Knight.)

17. Rg4 x Ng7 !? Rf8 x Rg7 !

Unprotected White Pawn i2 is now in danger from Black Bishop e9.

18. Bf3 – k1 ?

Protection for pawn i2 is still omitted.

18. ..... h5 – h4 ??

This move loses the game for Black. Instead, Black should play 18. ..... Be9 x i2 !

19. Ni3 – f5 !

Now the meaning of White's exchange sacrifice is clear. Black's Rook is attacked by three pieces and is pinned to his Queen. Also the importance of White's move 13: Black cannot play Rook x Rook, check ! because the White King has previously moved out of g – file.

19. ..... Kg10 – f11

20. Bk1 x Rg7 Resigns.

Black is one piece down without compensation, his King and Queen are both under attack and his King's – side pawns cannot last long. Between strong players this is enough to decide the game – therefore Black resigns.

The second game consists of 50 moves and leads up to a check-mate. It was played in Torun (Poland) in December, 1973, between two members of a family. Incidentally, the player with the White pieces is also a noted winner of many championships on the square chess board in Northern Poland. The bulk of the game is left to the Student to follow the development of the game.

King's Gambit

	White *Adam T. Borchardt*	Black *Teresa Borchardt*
1.	g4 – g6	f7 x g6
2.	Nh1 – i3	Bf11 – e9
3.	Ni3 – k5	Ri8 – g8
4.	Bf3 x k7	i7 – i6
5.	Bk7 x Bf9 +	Qe10 x Bf9
6.	Nk5 – i3	h7 – h6
7.	Nd1 – f4	d7 – d6
8.	Bf2 – d4	Nd9 – g9
9.	k1 – k2	Rg8 – h8
10.	Ri1 – l1	Qf9 – h7
11.	Rl1 – l2	Ng9 – f7
12.	Bd4 – e3	Nf7 – h4
13.	Rl2 – l4	Nh4 – k5
14.	Ni3 x Nk5	i6 x Nk5
15.	Rl4 – l2	e7 – e6
16.	Qe1 – c3 +	Kg10 – f11
17.	Rc1 – d1	Nh9 – i6
18.	i2 – i3	Kf11 – e10
19.	h3 – h4	Bf10 – h9
20.	Bf1 – h3	c7 – c6
21.	Rd1 – f3	Rc8 – c7
22.	d3 – d5	Rh8 – e7
23.	d5 x e6	d6 x e6
24.	Rf3 – d1	Ni6 – f8
25.	Rl2 – l5 +	Bh9 – i7
26.	Qc3 – e1	h6 – h5
27.	k2 – k3	Ke10 – f9
28.	Qe1 – l2	Qh7 – h6
29.	e4 – e5	Be9 – c8
30.	Rd1 – g3	Rc7 – d8

31.	Bh3 x k5	Bi7 x Bk5
32.	Ql2 – l4	Rd8 – e9
33.	Rl5 x Bk5 +	Kf9 – d8
34.	Rk5 x Re9 +	Bc8 x Re9
35.	Kg1 – f3	Nf8 – i7
36.	Ql4 – l5	b7 – b5
37.	Ql5 – k7 +	Kd8 – d7
38.	Nf4 – c3	Kd7 – e8
39.	Rg3 – d4	Be9 – d7
40.	Rd4 – c4	Ni7 – f8
41.	Be3 – d4	Qh6 – f7
42.	Kf3 – e4	b5 – b4
43.	Rc4 – a2	c6 – c5
44.	Ra2 – a5	Qf7 – h3
45.	Ra5 – d8 +	Ke8 – f7
46.	Nc3 – f4	Qh3 – e2 +
47.	Bd4 – e3	Qe2 – c4 +
48.	Ke4 – g4	Qc4 – a2 +
49.	Kg4 – h3	Qa2 x b1
50.	Qk7 – k5 Checkmate.	

(See Diagram 23)

In the 49th move Black captured a Pawn by Qa2 x b1, probably not realising that the Black King was in danger. Actually, the Black King was already one move away from mate after Black had moved:

46. ..... Qh3 – e2 +

No matter what alternative move Black would have chosen in the 49th move, White's position would have remained stronger.

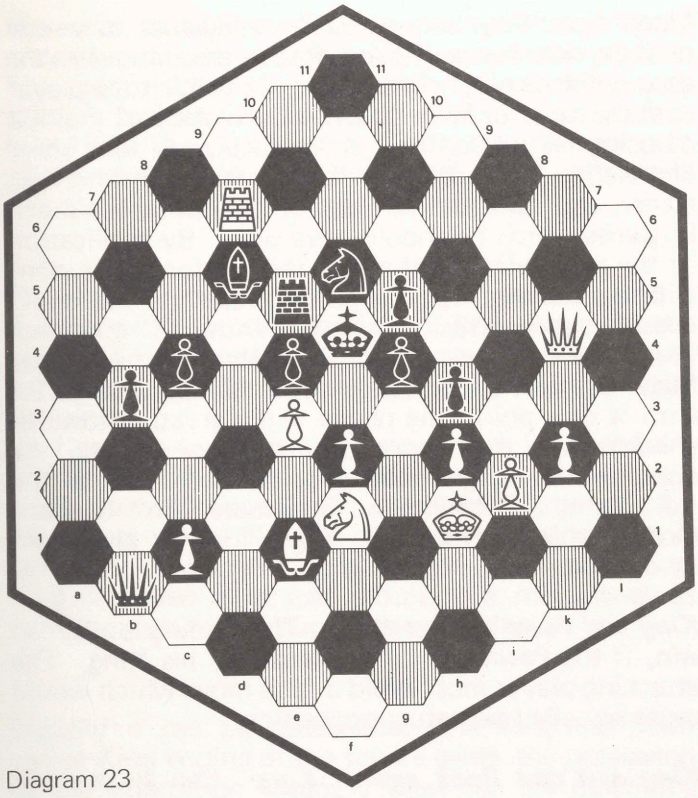


Diagram 23

Chapter 4

Endgames and problems

Much time may be wasted on endgames in which neither side has sufficient force remaining for the accomplishment of checkmate, or in which the player with the superior force does not know the best method of using his advantage. Unless equipped with some knowledge of endgames, the player may often go astray, and find that he loses or only obtains a draw, in games which he should have won. By application of the principles laid down in this section the student will be enabled to bring his games to the most expeditious conclusion. As we know, in Hexagonal Chess there is the additional possibility of a win by Stalemate, yet as it gives a win in competitive games with ¾ of a point, the player will aim rather towards checkmating the opponent's King or forcing the opponent to resign in order to achieve a win with a full point. Therefore a "Stalemate win" happens mostly when the position allows for this and a win by other means is not in sight.

King and Pawn against King: This ending is a forced win, if the Pawn can be protected by his King. The attacking player must avoid a false move which would cause so-called perpetual opposition.

King and one Rook against King: Can always win from any position in about 20 moves.

King and Queen against King: Can always win in about 8 moves from any position.

King and any two minor pieces against King: Can win only from certain positions, but more often draws.

King and any three minor pieces against King: Can always win from any position in about 25 moves.

Most of the above endings, which occur most often in actual play, will now be demonstrated from given positions, where checkmate is assured by correct play. Endings in which there is approximate equality, or in which the weaker side is not reduced to bare King, cannot be covered in a general treatise such as this.

Moreover, detailed methods for the more complicated endgames cannot be categorically asserted at present. The modus operandi in the earlier stages of the endgame is basically related to that of the square chess board and the clarification of this intermediate part of the game presents to Hexagonal Chess enthusiasts a wide field for exploration in the future.

King and Pawn against King

This type of endgame occurs most frequently and is therefore the most important. Knowledge of the opposition is essential here, and the kinds of opposition on the Hexagonal board will be fully explained.

The opposition

In Hexagonal Chess the opposition is essentially similar to that of orthodox chess. Players of square chess know the opposition as an advantage held by the player whose King is in such a position that, it being the opponents turn to move, the opposing King if moved must lose ground (i.e. move away as the Kings may not occupy adjacent cells).

Broadly it can be stated that in a King and Pawn versus King ending of the square game, the possession of the opposition means a draw for the defending player, and for the attacking player a win. In the Hexagonal game it makes no difference which side is holding the standard opposition at the start of this endgame, as the attacking player will win the game in every case. This is because he is able to regain the opposition. The attacking player must be careful not to allow his opponent to gain the so-called blocked or perpetual opposition. When such opposition occurs, the game is drawn. A perpetual opposition cannot occur when the pawn is on a flank file.

From the above we can say that once the attacking King has joined up with his Pawn, (which is not on a flankfile) without the defending player having gained a perpetual opposition, he, the attacking player, is in an unassailable position, from which correct play will ensure a win.

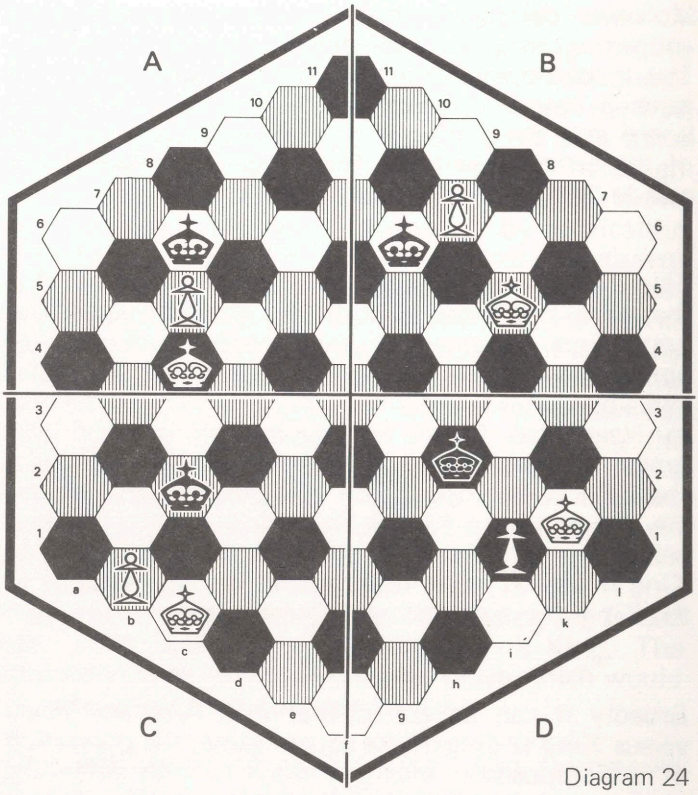


Diagram 24

The forms of opposition are variously illustrated in Diagram 24. In each of the four positions shown — A, B, C, D — it is White's turn to move, therefore Black holds the opposition in each case. If the White King is moved, it must be in a direction more or less away from the Black King.

If such a blocked position arises, and Black holds the opposition as is the case here, then it is the first stage to perpetual opposition, and the game is drawn. If White were to hold the blocked opposition (i.e. if it was Black's move) then of course, White would win the game. White is here to move, and in order to continue the protection of his Pawn, he can move to either b4 or d5, resulting in a perpetual opposition:

1.	Kc5 – b4	Kc7 – d6
2.	Kb4 – a5	Kd6 – c7
3.	Kd5 – b4	Kc7 – d6 etc.

A drawn game resulting from repetition of the same moves. Black is here able to keep the opposition perpetual, moving between d6 and c7.

It is White's turn to move, therefore Black holds the opposition. White cannot move with his Pawn h8 – h9, as it would then be captured by the Black King Kg8 x h9. To continue protection of his Pawn, the White King can only move to k7. We observe, that the perpetual opposition here is on an oblique file.

1.	Ki6 – k7	Kg8 – h9
2.	Kk7 – i6	Kh9 – g8 etc.

A draw by repetition, resulting from a perpetual opposition. If in the position as shewn in Diagram 24B, White held the opposition, (Black to move) then the attacking player would win the game, as the White Pawn would be queened in 3 moves. The perpetual opposition as such, exists only for the defending player, as this opposition is in favour of the defending King in this endgame.
In Diagram 24B if the Black King was on i7, adn the White King on g7 (White: Kg7, Ph8, Black: Ki7) with White to move, it would be the same perpetual opposition, only the Kings would be in reversed position in relation to the Pawn.

In this diagram, we have a standard opposition, held here by the defending player, because White is to move. By simply moving the Pawn: b1 – b2 check, White will regain the opposition, and win the game, if correctly played. (i.e. if White does not later allow Black to gain the perpetual opposition.)

1.	b1 – b2 ch.	Kc3 – b4
2.	Kc1 – d2	Kb4 – b3
3.	Kd2 – d3 etc.	

Here is another oblique opposition held by the Black King because White is here to move. This opposition is on an oblique file, but it is not perpetual (observe, that it is different from opposition in Diagram 24B, where the Pawn is differently situated), therefore, White can win the game from this position, if correctly played.

After studying Diagram 24 (A, B, C, D), we understand the nature of the opposition as follows: When the two Kings stand on the same file or oblique file with only one cell between them, it is said that they are in opposition, as neither can approach the other (incidentally it is immaterial whether or not the cell that separates the two Kings is occupied by another piece). When such a position occurs, the player who has just moved is said to hold the opposition.

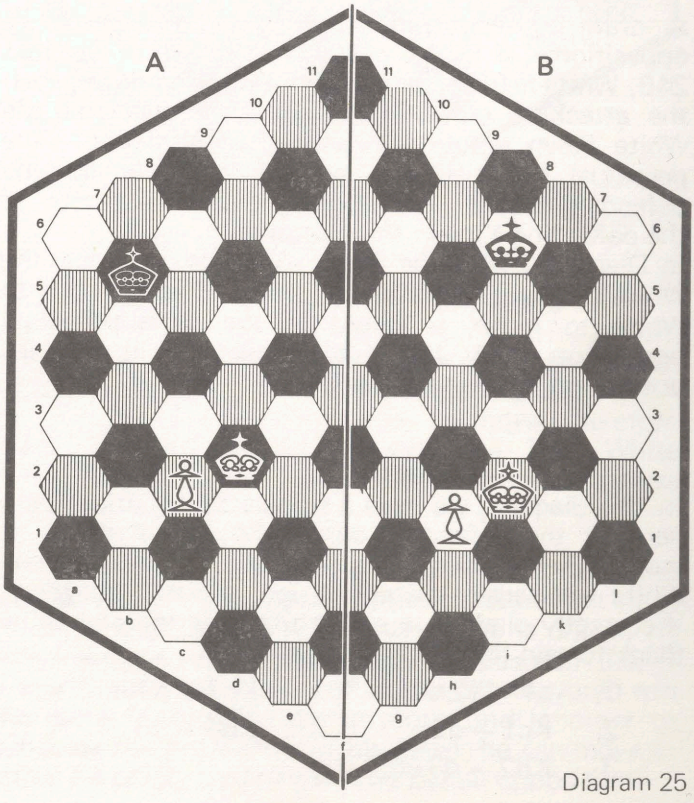


Diagram 25

Two further oppositions, which are rather semi-oppositions, are shown in Diagram 25.

When the two Kings stand on the same line with only one cell (of the same line) between them, it is said that the player who has just moved is holding the 'line opposition'. See Diagram 25A.
When the two Kings stand on the same file with three cells between them, it is said that the player who has just moved is holding the 'distant opposition', see Diagram 25B.
The possession of the line opposition or distant opposition is the first stage to obtain direct opposition.
In Diagram 25A, suppose White has just moved, then White King holds line opposition. If the Black King is moved to b5, d7, or anywhere nearer to the White King, then the White King will gain direct opposition in his next move, if the Black King moves away from the White King, then the White King will in his next move gain another line opposition or distant opposition as the case may be.
In Diagram 25B, suppose White has just moved then the White King holds distant opposition. If the Black King next moves anywhere nearer to the White King, then the White King will gain the standard opposition in his subsequent move. If the Black King moves away from the White King, then the White King in his next move will again achieve distant opposition (or line opposition).
If a player finds it necessary to gain the opposition (the standard opposition) and it is not possible to do so at once, then he should always try to gain and hold at least the line opposition, or the distant opposition.
The opposition is most important in the endgame King and Pawn versus King, and therefore we have described it in this section, but the opposition is also important in other endgames, and even in middle-games.

Leading a Pawn to promotion

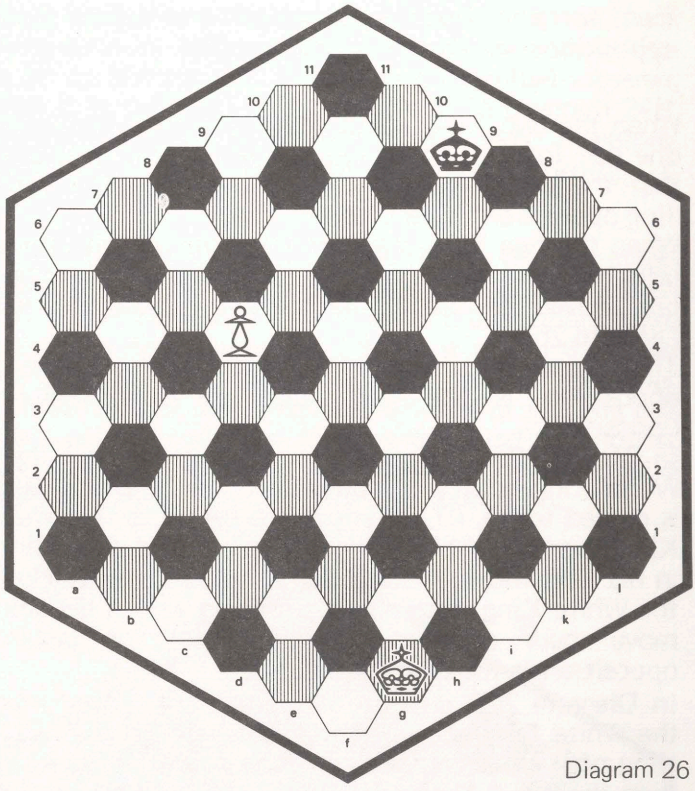


Diagram 26

Let us consider now the ending from position of Diagram 26 where White is to play, and wins the game.

1.	Kg1 – f3	Kh9 – g8
2.	Kf3 – e4	Kg8 – e8

(If Black plays

2.	.....	Kg8 – f7

the game would proceed:

3.	Ke4 – d5	Kf7 – e8
4.	Kd5 – c6	Ke8 – d9
5.	Kc6 – d7	Kd9 – e10 (or f10)
6.	Kd7 – c7 wins,	

as the Pawn would be queened in the next 3 moves.)

3. Ke4 – e5 Ke8 – c7
4. Ke5 – e6

(If White should make a mistake and play

4. Ke5 – f7 (or d5)

Black would answer Kc7 – d7

gaining perpetual opposition and draw.)

4. ..... Kc7 – e8
5. d6 – d7 ch. Ke8 – d9
6. Ke6 – e7 Kd9 – e9
7. d7 – d8 ch. Ke9 – f10
8. Ke7 – f8 Kf10 – d9

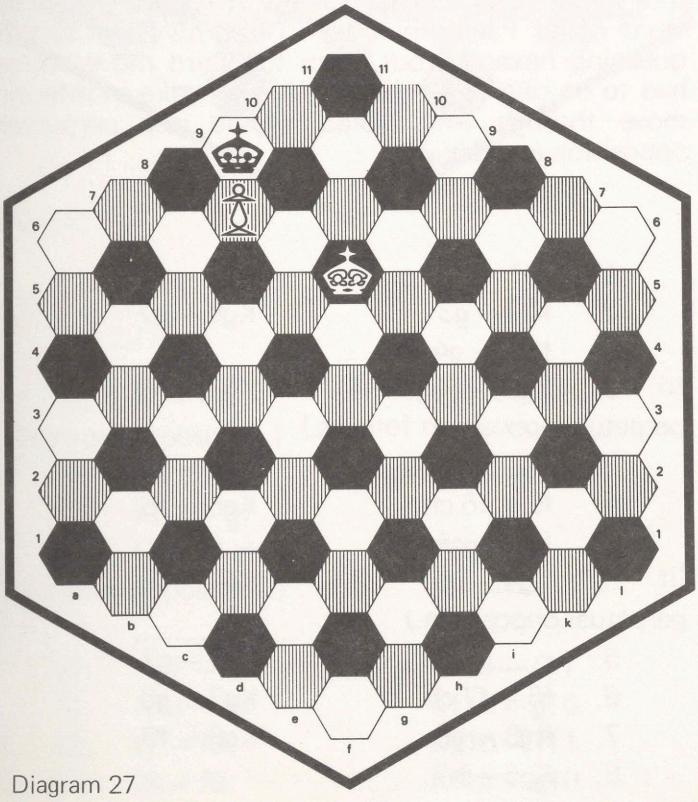


Diagram 27

9. Kf8 – d7

(A different variation is:

9. Kf8 – f9 Kd9 – c7

10. Kf9 – e9 wins.

A false move by White would be

9. Kf8 – c7?.

As Black would answer Kd9 – c7

perpetual opposition causing draw.)

9. ..... Kd9 – f10 (or e10)

10. Kd7 – c7 (or c8) wins.

The Pawn will be queened in the next move, and White has won the game. We have noticed, that when Black was holding the opposition, it did not do any harm to the attacking Whites, as the opposition was regained by the Pawn move. We have also noticed that it was not necessary for the White King to be in front of his Pawn, in order to lead his Pawn to the queening hexagon, but from the third move White had to be careful all the time not to make an inferior move through which Black would gain perpetual opposition and draw.

Promoting a Pawn on centre file 'f'

1. Kl1 – i2 Ki5 – g6

2. Ki2 – g3 Kg6 – g7

3. Kg3 – g4

(if 3. Kg3 – f4 (or h4)? Kg7 – f6

perpetual opposition follows.)

3. ..... Kg7 – g6

4. f5 – f6 ch. Kg6 – f8

5. Kg4 – g5

(if 5. Kg4 – h5? Kf8 – f7

perpetual opposition.)

5. ..... Kf8 – g7

6. f6 – f7 ch. Kg7 – g8

7. Kg5 – g6 Kg8 – f9

8. Kg6 – h7

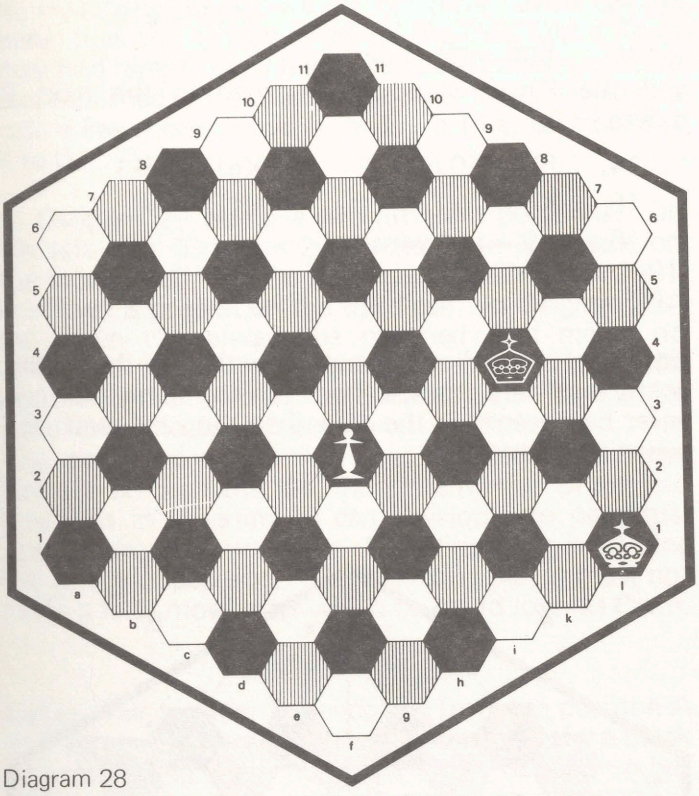


Diagram 28

(if 8.	f7 – f8?	Kf9 – e7
perpetual opposition.)		
8.	.....	Kf9 – e8
9.	Kh7 – g7	
(if 9.	f7 – f8 ch.?	Ke8 – f9
perpetual opposition.)		
9.	.....	Ke8 – f10
10.	Kg7 – f8	Kf10 – f11
11.	Kf8 – g8	Kf11 – g10
12.	f7 – f8	Kg10 – f11
13.	f8 – f9	Kf11 – g10

(if 13. ..... Kf11 – e10
14. Kg8 – g9
and the Pawn would be queened in the next 2 moves.)

14. f9 – f10 ch. Kg10 – f11
15. Kg8 – h9 Kf11 – e9
16. Kh9 – g10 wins.

Promoting a Pawn on a flank file

Players of the ordinary game know that on the square board a solitary Rook's Pawn (on the flank file) can never be queened if the defending King can reach the queening square.

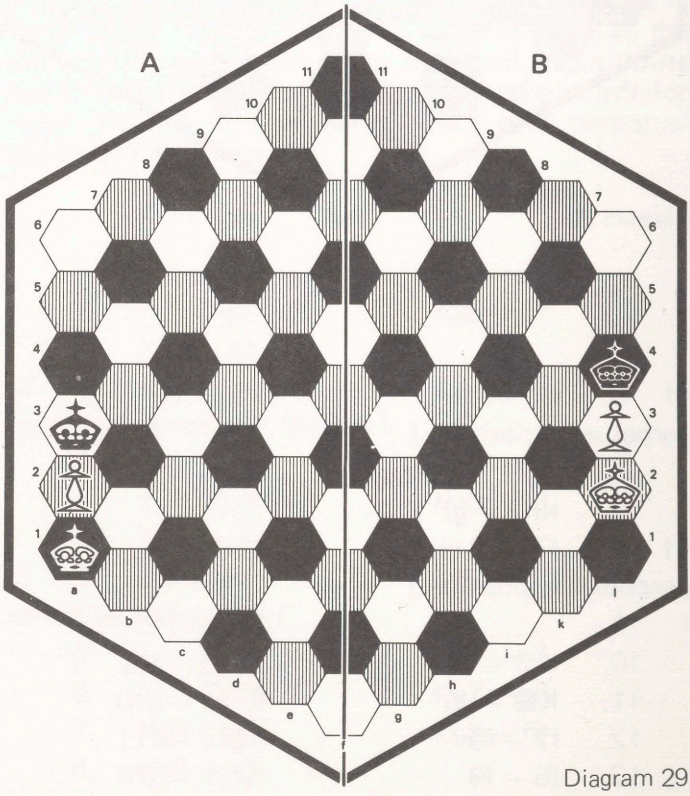


Diagram 29

In Hexagonal Chess, we do not have Pawns on the flank files but it may often be the case that a Pawn may find himself on a flank file (a or l) after a capture accomplished on one of these two files. (In such a case a Pawn may move from file b to a, or from file k to l).

In Diagram 29 we have two different positions: On the left side (Diagram 29A), the Pawn is present on the second cell, and on the right side (Diagram 29B), the Pawn is present on the third cell. In Diagram 29A the Pawn can always be queened – it makes no difference who is holding the opposition, but in the position B the Pawn will be queened only if the White King holds the opposition.
The perpetual opposition does not exist when the Pawn is on the flank file, therefore neither of the two positions in Diagram 29 can develop into perpetual opposition, even when the defending King is holding the direct opposition. The attacking player must not make a false move after which he could lose his Pawn.

Let us now consider the endgame from the position A in Diagram 29 where White is to move, therefore Black (the defending King) holds the direct opposition but White wins the game, as the Pawn will be queened.

1. Ka1 – b1 Ka3 – b5

Black now holds distant opposition.

2. Kb1 – b2 Kb5 – b4
3. a2 – a3 ch.

White has now regained the opposition and must not lose it until the White King safely occupies b5 or b6, to secure the promotion of his Pawn.

3. ..... Kb4 – a5
4. Kb2 – c3

White now holds line opposition.

4. ..... Ka5 – a4
5. Kc3 – c4 Ka4 – b6

(if 5. ..... Ka4 – a5

White would answer

6. Kc4 – c5 etc.)
6. Kc4 – b4 Kb6 – a6
7. Kb4 – a4

(if 7. Kb4 – c6 wins by stalemate.)
7. ..... Ka6 – c7

(if 7. ..... Ka6 – b7
8. Ka4 – b5 wins

as the Pawn would be queened in the next 3 moves.)
8. Ka4 – a5 Kc7 – d6
9. Ka5 – b6 Kd6 – c4
10. a3 – a4 wins.

The Pawn would be queened in the next 2 moves.

Now we shall analyse the endgame from position B, and we will see that if in this position Black is to move (White holding the opposition) then the Pawn will be queened. If it is White's turn to move, (Black holding the opposition) then provided Black plays correctly, the Pawn cannot be queened, but White wins the game (with ¾ point) by stalemate.
First, in the case where Black is to move. White is holding the opposition, and must hold it until the White King occupies k5 or k6. The White King will then command the queening cell l6, and until this has been achieved, the Pawn must not move forward.

1. ..... Kl4 – l5
2. Kl2 – i3 Kl5 – k7
3. Ki3 – k3 Kk7 – i7
4. Kk3 – i5 Ki7 – l6
5. Ki5 – l4 Kl6 – i7
6. Kl4 – l5 Ki7 – h6
7. Kl5 – k6 Kh6 – i4
8. l3 – l4 wins.

Now we shall play from the position B in the case that White is to move, Black holding the opposition.

1. Kl2 – k2 Kl4 – k6

Black must not lose the opposition by a false move. If he does lose the opposition, the Pawn will be queened.

	2.	Kk2 – i3	Kk6 – i5
	3.	Ki3 – k2	Ki5 – h6
	4.	Kk2 – k3	
(if	4.	Kk2 – l2?	Kh6 – i4
	5.	Kl2 – l1 (or k1)	Ki4 x l3 draw)
	4.	.....	Kh6 – k5
	5.	l3 – l4 ch.	

This is the only way for White to regain opposition, but since the Pawn now occupies the 4th cell, it will not be queened if Black plays correctly.

	5.	.....	Kk5 – l6
	6.	Kk3 – i4	Kl6 – i7
	7.	Ki4 – i5	Ki7 – l6
	8.	Ki5 – i4	Kl6 – i7
	9.	Ki4 – l3	Ki7 – l6
	10.	Kl3 – k4	Kl6 – k6
	11.	l4 – l5 ch.	Kk6 – i7
	12.	Kk4 – i5	Ki7 – l6
	13.	Ki5 – i6 stalemate (and wins with ¾ point).	
(if	13.	Ki5 – l4	Kl6 – i7
	14.	Kl4 – i5	

which could lead to a draw by three repetitions of the same position.)

King and Rook against King

In this endgame, no matter what the position is, a Rook with his King can always checkmate the defending King. However, the player should know the correct way to force the defending King to a side or corner of the board, where the checkmate takes place. This can be achieved by use of the opposition, and co-operation of the Rook.

On the Hexagonal Board the Rook is not able to blockade the opponent's King, as is the case on the square board. This is because on the hexagonal board a King can cross a file when he is making a move

along a line or along a cross-line. For instance, in Diagram 30 the White Rook is commanding the file g, but the Black King on f6 can cross file g if he moves to h5.

Such crossings by the defending King can be prevented with a peculiar manoeuvre, which we are going to learn in this endgame.

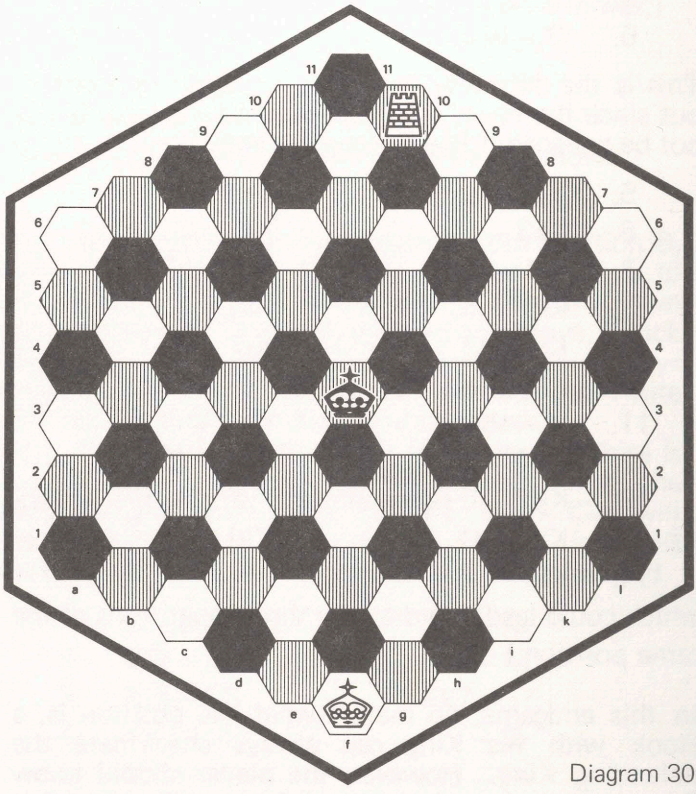


Diagram 30

Since the defending King can be checkmated only in a corner or sometimes also on the side, the Black King in Diagram 30 will try to stay near the centre of the board as long as possible.

1.	Kf1 – g2	Kf6 – h5
2.	Kg2 – h3	Kh5 – f6
3.	Rg10 – g5 ch.	Kf6 – f7
4.	Kh3 – g4	Kf7 – f8
5.	Rg5 – f6 ch.	Kf8 – e7

The White Rook on f6 now commands all 3 centre files: file f, diagonal file a1 to l6, and diagonal file a6 to l1. The Rook on f6 is therefore commanding all 6 corners of the board. It is not always necessary in this endgame to place the Rook in the centre. It depends where the defending King is present at the start of the ending.

6.	Kg4 – g5	Ke7 – d5
7.	Rf6 – e5 ch.	Kd5 – c4
8.	Kg5 – f5	Kc4 – d6

The Black King has moved to d6 with intention of moving next to f7.

9.	Kf5 – f6	Kd6 – d7
(if 9.	.....	Kd6 – c4
10.	Rc5 – d5 ch. etc.)	
10.	Kf6 – f7	Kd7 – c6
(if 10.	.....	Kd7 – d8
11.	Re5 – e8 ch. etc.	

and the Black King would soon be forced to move towards a6 or f11.)

11.	Re6 – d4	Kc6 – c5
12.	Kf7 – e5	Kc5 – c6
13.	Ke5 – e6	

Whether it is by the use of the opposition or otherwise, the student might have noticed that the White King is always able to command the cell by means of which the Black King would otherwise have crossed the Rook-commanded file in order to regain the centre of the board. In the position as it is now, see Diagram 31, the Rook-commanded file that is taken into consideration is file d. The cell e7 is the one to

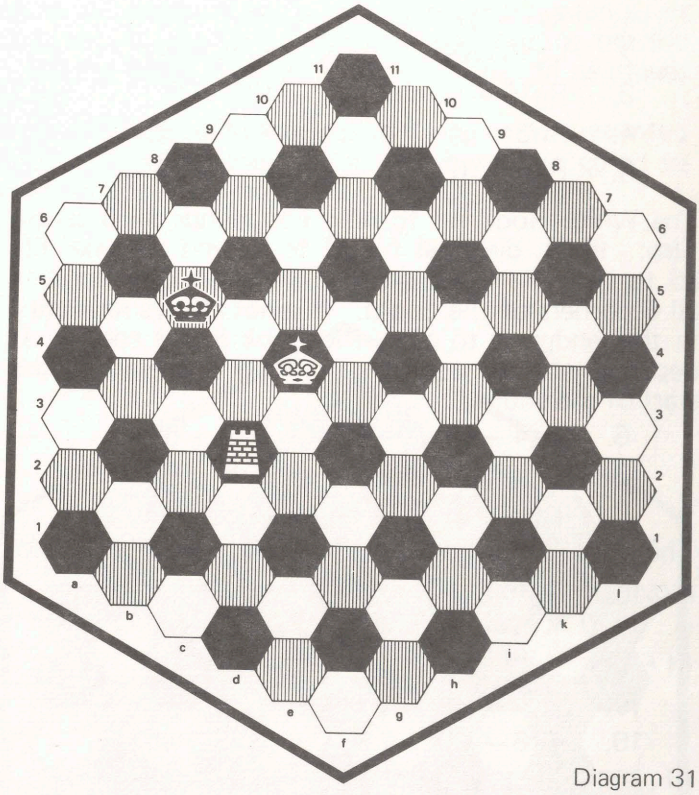


Diagram 31

which the Black King wanted to move in order to cross file d,

13. ..... Kc6 – b5

(if 13. ..... Kc6 – c7

14. Rd4 – d7 ch.

and the Black King would be confined to the two diagonal files at the edge of the board – diagonal files a5 to g10 and a6 to f11.)

14. Rd4 – c3

Now the Black King is confined only to the two files: a and b. The Black King will be checkmated in one of the two corners: on a1 or a6.

14. ..... Kb5 – b4

15. Ke6 – d4

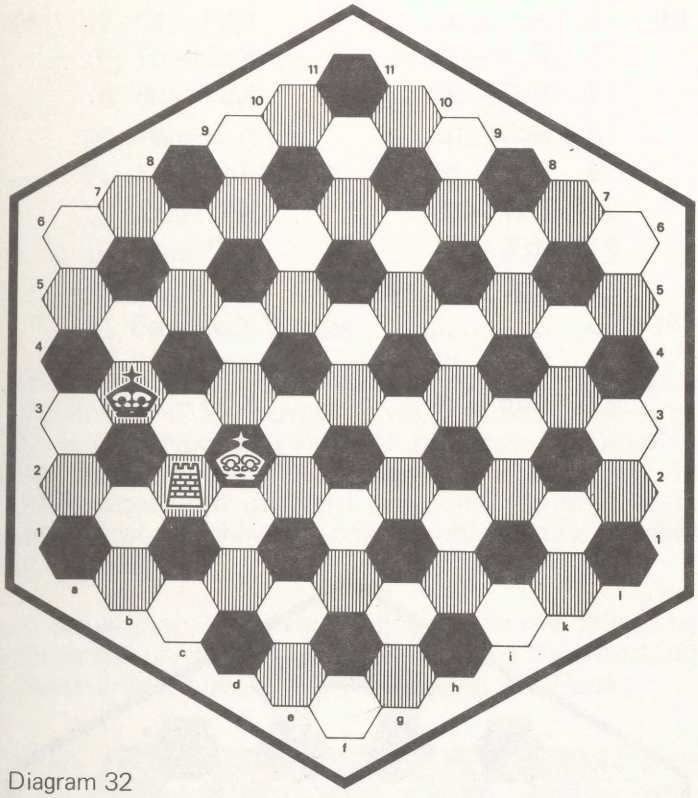


Diagram 32

Suppose the Black King should now move in his 15th move to one of the 3 cells on file a, (to a2, a4 or a5) the Black King would be checkmated as follows:

(1)	15.	.....	Kb4 – a2
	16.	Rc3 – b3 ch.	Ka2 – a1
	17.	Rb3 – b4	Ka1 – a2
	18.	Kd4 – c4	Ka2 – a1
	19.	Rb4 – b2 mate	
(2)	15.	.....	Kb4 – a4
	16.	Rc3 – b3	Ka4 – a5
	17.	Kd4 – c5	Ka5 – a6
	18.	Rb3 – b6 mate	

(3)	15.	.....	Kb4 – a5
	16.	Kd4 – c5	Ka5 – b7
	17.	Kc5 – d7	Kb7 – a5
	18.	Rc3 – b2	Ka5 – a4
	19.	Rb2 – b6	Ka4 – a3
	20.	Kd7 – c5	Ka3 – a2
	21.	Kc5 – c4	Ka2 – a1
	22.	Rb6 – b2 mate	
(4)	15.	.....	Kb4 – b5
	16.	Kd4 – d5	Kb5 – b6
	17.	Kd5 – d6	Kb6 – a4

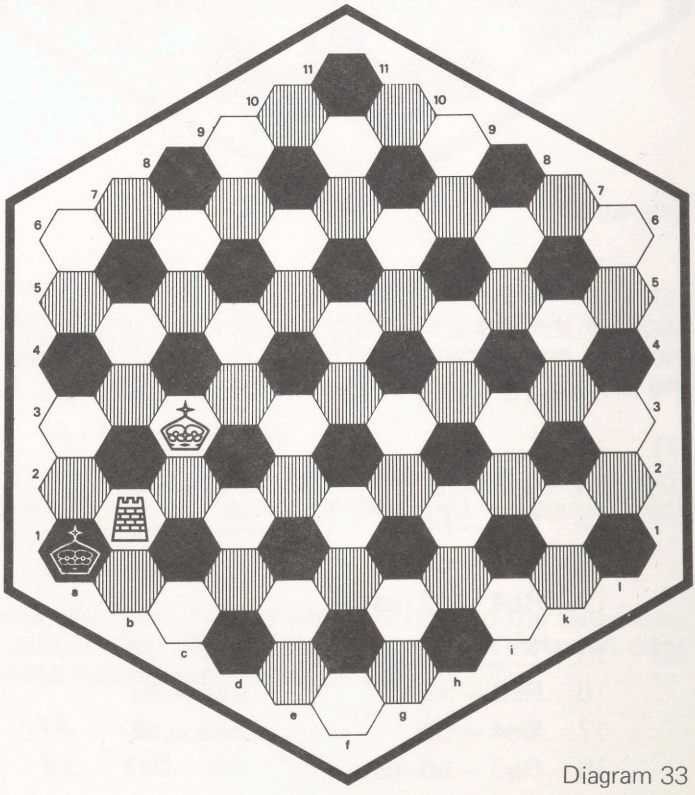


Diagram 33

(if 17. ..... Kb6 – b7
18. Rc3 – c7 ch. Kb7 – a6
19. Rc7 – d8 Ka6 – b7
20. Kd6 – d7 Kb7 – a6
21. Rd8 – b6 mate

18. Rc3 – b2 Ka4 – a3
19. Rb2 – b5 Ka3 – a2
20. Kd6 – c4 Ka2 – a1
21. Rb5 – b2 mate.

The White King with the Rook has accomplished a checkmate in 21 moves, as we have been analysing. 22 is the maximum number of moves required to checkmate the defending King in this endgame. In other cases with different positions, the checkmate can be accomplished in a considerably smaller number of moves.

In actual play, if such an ending occurs the defending player usually resigns, if he is aware that the attacking player knows how to win with a King and Rook.

King and Queen against King

There are several methods of securing mate with King and Queen versus King, and we need not enter into particulars of this endgame because with the Queen's additional power it will obviously be merely a simplification of the Rook and King versus King endgame.
Since the Queen is much stronger than the Rook, it is obvious that the King with the Queen can checkmate the defending King much more quickly than with the Rook. Usually about 6 moves are sufficient, but the maximum is about 12 moves.

King and any three minor pieces against King

King and any 3 minor pieces (3 Bishops, 2 Knights and Bishop, or 2 Bishops and Knight) can always win against King from any position, at most in about 25 moves.
Since this endgame does not appear frequently (it is a very rare case if it does) and it is fairly easy to win with 3 minor pieces – no examples will be given in this book.

However, should the reader come upon the necessity of playing such an ending, it will be found that there are several methods. It is very easy to win with 3 Bishops. It is more complicated with 2 Knights and Bishop, or 2 Bishops and Knight, but the defending King can always be checkmated in several ways.

The general plan at present is that if there does not appear to be an easy mate from the position which is obtained immediately after the defending player is reduced to bare King, the attacking player should arrange his pieces in a position from which the commanded cells will form a barrier across the board against the defending King. For instance, in a position: Ki4, Nc6, Ne7, Bh5, the cross lines a3, b3 and b4 are commanded by the attacking pieces.

By carefully manoeuvring with the pieces, the barrier can be pushed up or down the board towards the defending King, wherever he may be present, and finally the defending King can be besieged and checkmated.

Three Bishops for instance placed on f6, g5 and g6, with their King near them to provide protection, will divide the board into 6 spaces (groups of cells not commanded), available for the defending King. This is because the commanded cells of the 3 Bishops placed as just described, form 6 barriers: from the centre where the Bishops are placed, to all 6 sides of the board. In whichever 'free space' (not commanded) the defending King is present, the Bishops will move towards him one by one, and will checkmate him in a few moves.

King and any two minor pieces against King

These are also endings that do not occur very frequently. At the present early stage in the development of Hexagonal Chess theory, it cannot be stated definitely about all the conditions that must necessarily be present in order that the King and two minor pieces will assuredly checkmate the lone King.

At present such an ending is in many cases a draw, but a checkmate can be accomplished with King and any 2 minor pieces, if the defending King is on the edge of the board, and if the particular position allows it. Sometimes it is even possible to accomplish checkmate with King and one minor piece (one

Knight or one Bishop) see problems 1 and 2 (Diagrams 34 and 35).

It is certain however, that in an endgame King and 2 Bishops versus King, the defending King if present in the centre, cannot be forced to move towards the edge or corner of the board, and in this case, such an endgame is a draw. Examples of this endgame in which the defending King can be checkmated from certain positions, will be analysed in the problem section.

King and two Knights against King

Players of the ordinary chess will be aware that on the square board the defending King cannot be checkmated by a King and two Knights. However, this force is sufficient to secure mate on the hexagonal board, but the mate, as can be stated at present, is only possible from certain positions. See problem 3 in Diagram 36.

King and two Bishops against King

As explained before, three Bishops and King can easily checkmate the defending King in a few moves, as the 3 Bishops can command all 3 shades of cells. Two Bishops and King however, is not a sufficient force to drive the defending King to the side or corner of the board, and therefore such an ending is a draw. In exceptional positions, where the defending King is on the side of the board and the attacking force (King and 2 Bishops) are favourably placed, a mate can be accomplished. See problems 4 and 5 (Diagrams 38 and 39).

King, Knight and Bishop against King

Present knowledge of this ending is incomplete, therefore it is not possible to give here a precise statement as to what are the possibilities of forcing mate from any position.
Studying problem 6 (Diagram 40), we have there a position where King, Knight and Bishop will checkmate the defending King.

Problems composed on the hexagonal board

The hexagonal board offers to the chess problemists an opportunity of composing or solving quite new and different problems. It is known to all those who are concerned with problems that it is always 'White's' turn to move and mate in 2, 3 or more moves. We also have problem endings where we say 'White to move and wins'. The key to a problem is always the first correct move, known as the key move, which gives the solution to the problem.

The first 6 problems are actually endgame theories and are also introduced for the reason of showing the manoeuvres of the minor pieces.

Problem 1

mate in
2 moves

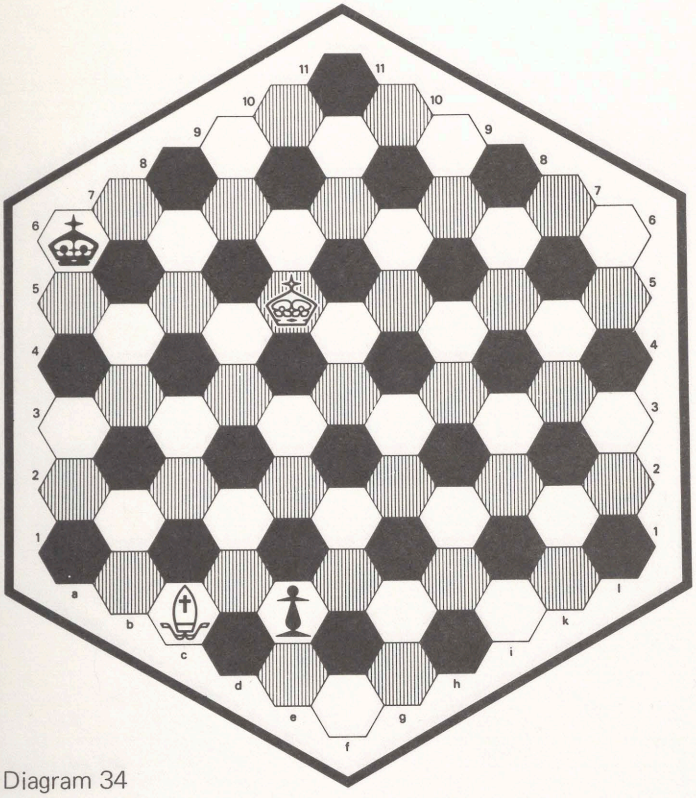


Diagram 34

Pos: W: Ke7, Bc1 B: Ka6, Pe2

Solution to problem 1

1. Ke7 – c6 e2 – e1 Q
2. Bc1 – d3 mate

Problem 2

mate in
3 moves

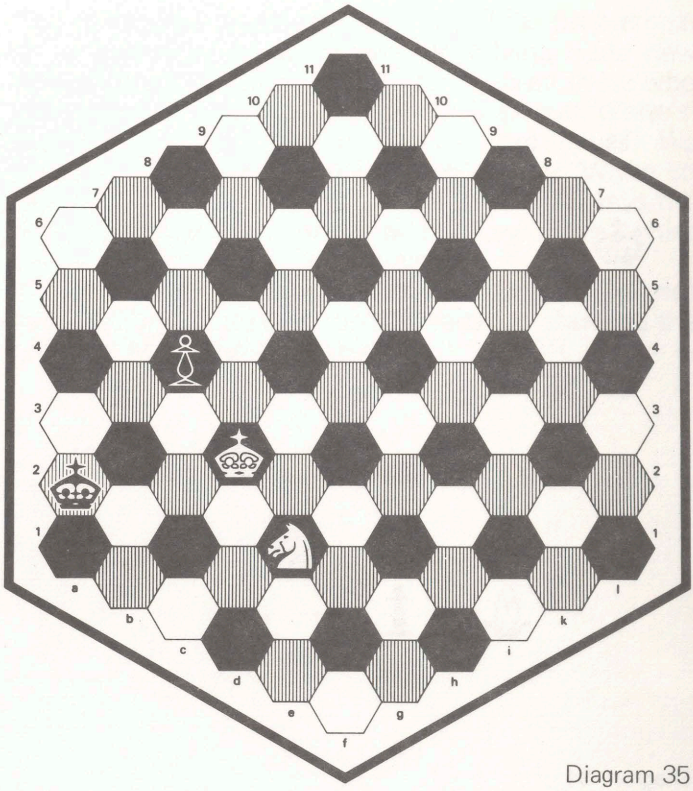


Diagram 35

Pos: W: Kd4, Ne3 B: Ka2, Pc5

Solution to problem 2

1.	Kd4 – c4	Ka2 – a1
2.	Kc4 – c3	c5 – c4
3.	Ne3 x c4 mate	

Problem 3

White to play and wins

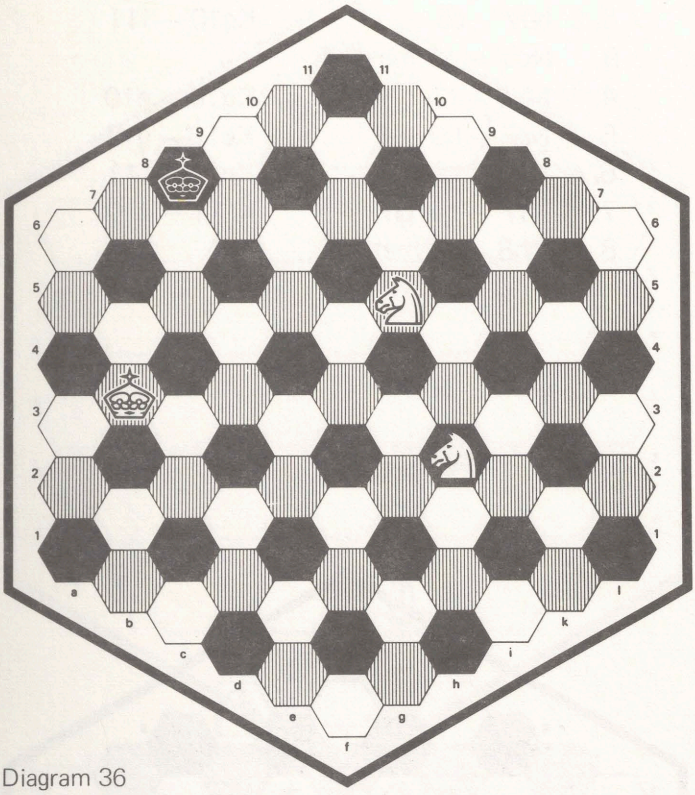


Diagram 36

Pos: W: Kb4, Ng7, Nh4 B: Kc8

---

1. Kb4 – c6 wins

Solution to problem 3

	1.	.....	Kc8 – d9
	2.	Kc6 – d7	Kd9 – e10
	3.	Kd7 – e8	Ke10 – g10
(if	3.	.....	Ke10 – f11
	4.	Nh4 – f7	Kf11 – g10
	5.	Ng7 – e9	Kg10 – e10
	6.	Ne9 – h9 ch.	Ke10 – f11
	7.	Ke8 – g8	Kf11 – g10

8.	Nf7 – c5	Kg10 – f11
9.	Nc5 – e8 mate)	
4.	Nh4 – f7	Kg10 – e10
5.	Ng7 – h9 ch.	Ke10 – g10
6.	Ke8 – g8	Kg10 – f11
7.	Nf7 – h8 ch.	Kf11 – g10
8.	Nh8 – e8 mate	

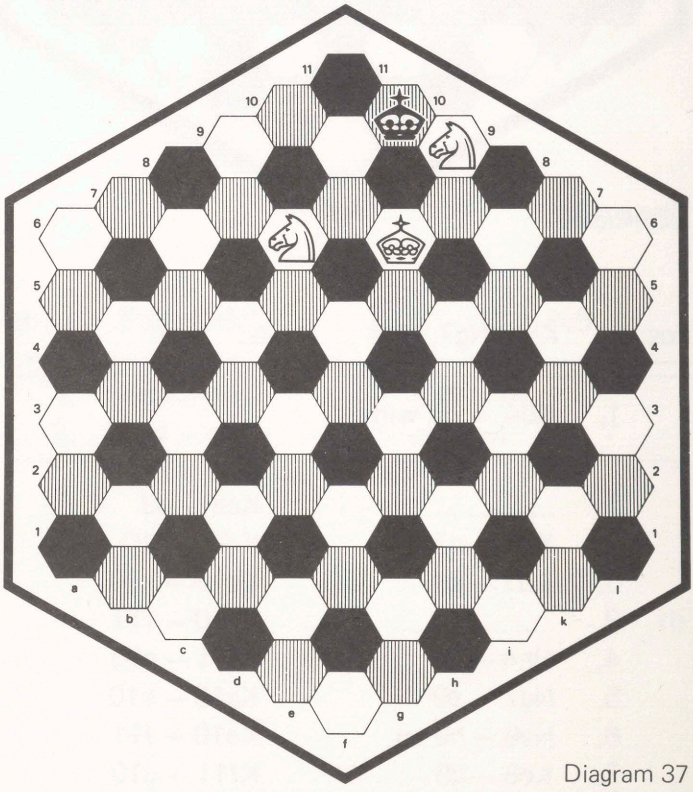


Diagram 37

Problem 4

White to play and wins

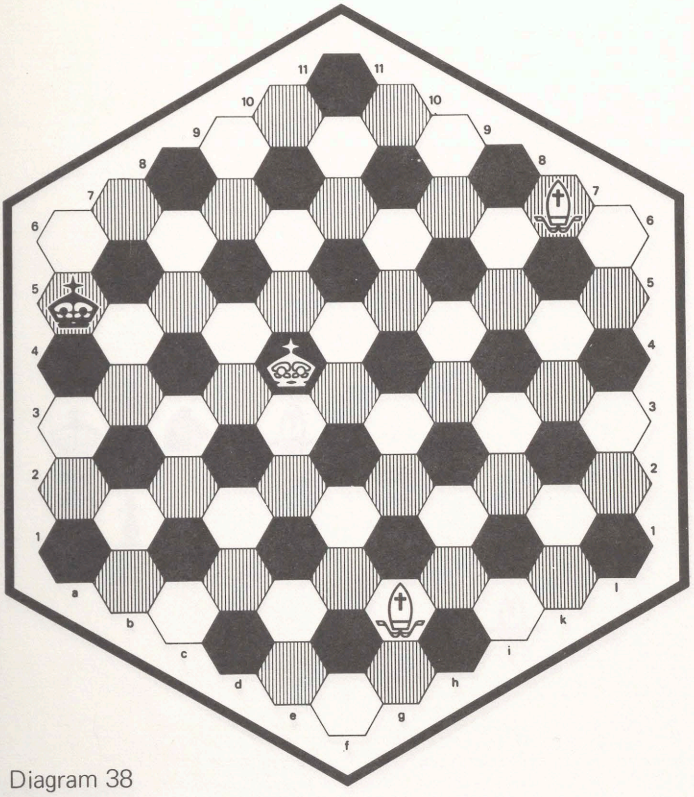


Diagram 38

Pos: W: Ke6, Bg2, Bk7 B: Ka5

---

1. Ke6 – c5 wins

Solution to problem 4

1.	.....	Ka5 – a6
2.	Bg2 – d6	Ka6 – a5
3.	Bk7 – d8	Ka5 – a6
4.	Bd6 – b5 ch.	Ka6 – a5
5.	Bd8 – c6 mate	

Problem 5

mate in
2 moves

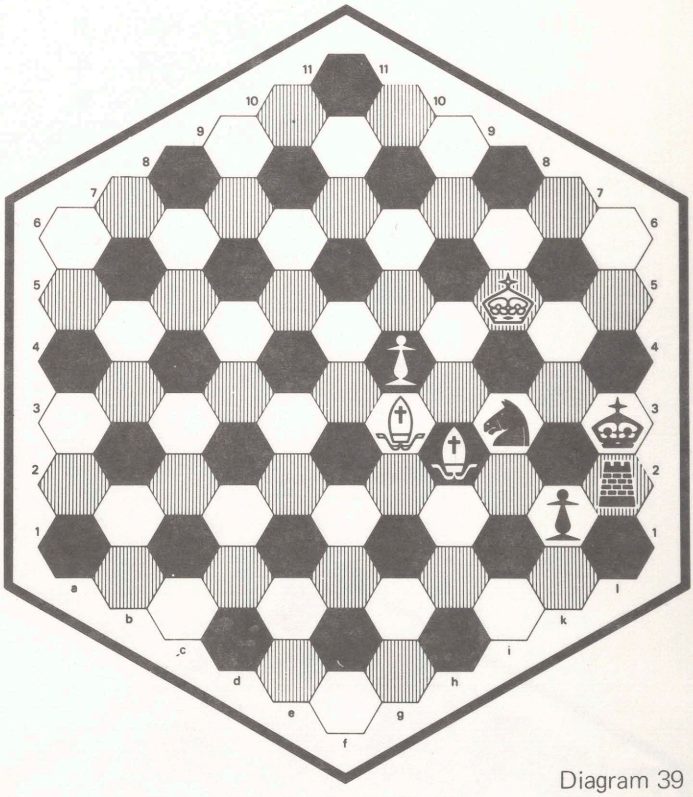


Diagram 39

Pos: W: Ki6, Bg5, Bh4, Pg6 B: Kl3, Rl2, Ni4, Pk2

Solution to problem 5

1. Bg5 – i7 ch. Kl3 – l4
2. Bh4 – i5 mate

Problem 6

White to play and wins

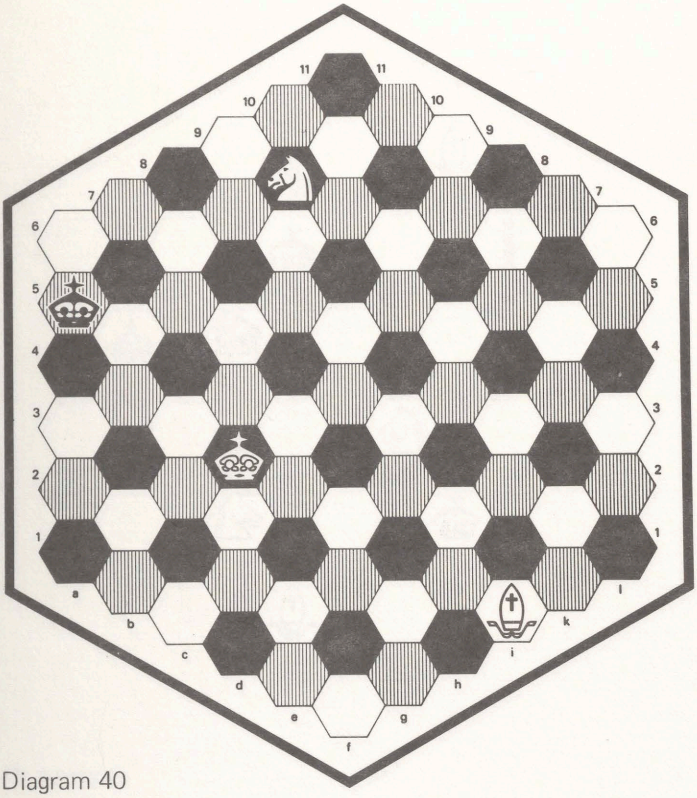


Diagram 40

Pos: W: Kd4, Ne9, Bi1 Ka5

---

1. Kd4 – c5 wins

Solution to problem 6

1.	.....	Ka5 – a6
2.	Bi1 – d9	Ka6 – a5
3.	Ne9 – d6 ch.	Ka5 – a6
4.	Bd9 – b5 mate	

Problem 7

mate in
2 moves

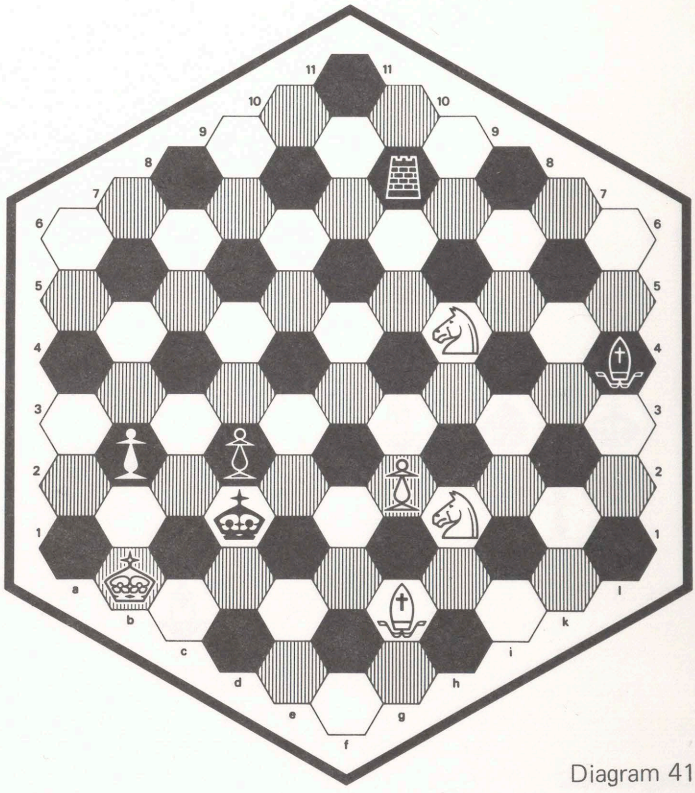


Diagram 41

Composed by Prof. J. Boyer

Pos: W: Kb1, Nh3, Nh6, Bg2, Pb3, g4 B: Kd3, Rg9, Bl4, Pd4

Solution to problem 7

1. g4 – g6

(a)

if 1. ..... Bg2 x g6
2. Nh6 – g4 mate

(b)

if 1. .....
2. Nh6 – e6 mate Rg9 – g6

Problem 8

mate in
2 moves

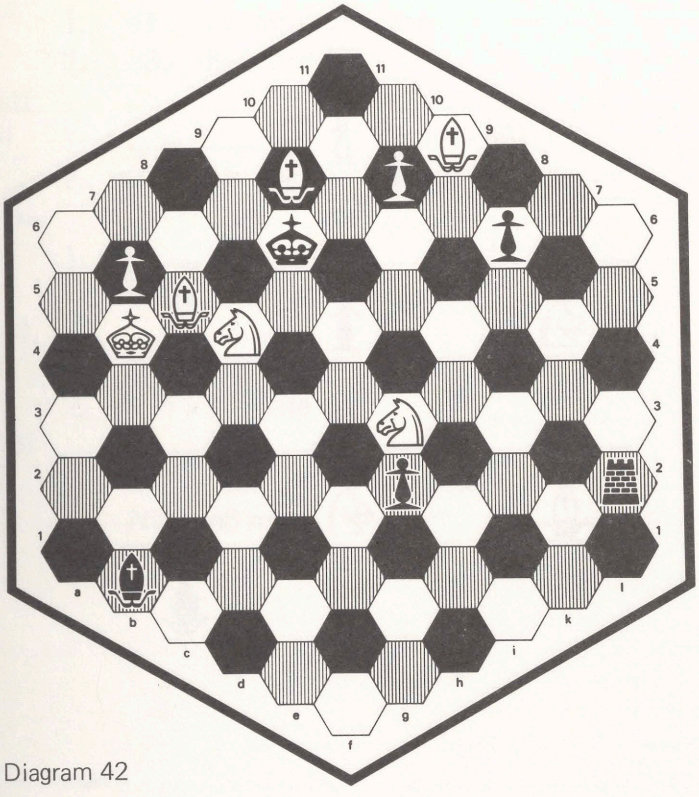


Diagram 42

Composed by J. Berthomeau, R. Loiseau and Prof. J. Boyer

Pos: W: Kb5, Nd6, Ng5, Bc6, Be9, Bh9, Pb6, g9
B: Ke8, Rl2, Bb1, Pg4, i7

Solution to problem 8

1. Ng5 – e7

(a)

if 1. ..... Bb1 x Ne7
2. b6 – b7 = N ‡

(b)

if 1. ..... Rl2 x Ne7
2. g9 – g10 = N ‡

Problem 9

mate in
2 moves

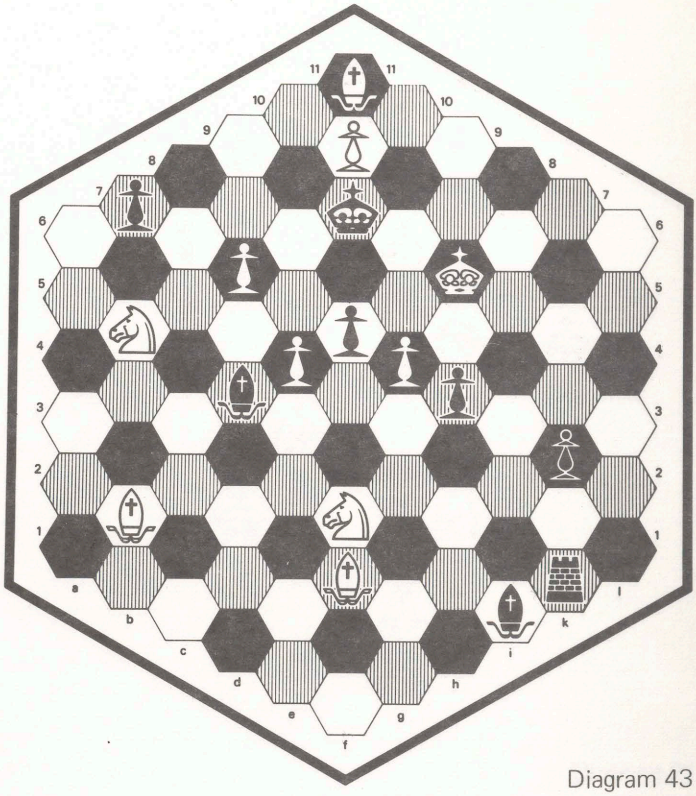


Diagram 43

Composed by J. Berthomeau and R. Loiseau

Pos: W: Kh7, Bb2, Bf3, Bf11, Nb5, Nf4, Pd7, e6, f10, g6

B: Kf9, Bd5, Bi1, Rk1, Pb7, f7, h5, k3

Solution to problem 9

1. d7 – d8 (with intention
2. d8 – d9 Q mate)

(a)

if 1. ..... f7 – f6
2. Bf3 x h5 mate

(b)

if 1. ..... f7 – f5
2. Bf3 x Bd5 mate

(c)

if 1. ..... f7 x g6
2. Nf4 x g6 mate

(d)

if 1. ..... f7 x e6
2. Nf4 x e6 mate

Problem 10

mate in
2 moves

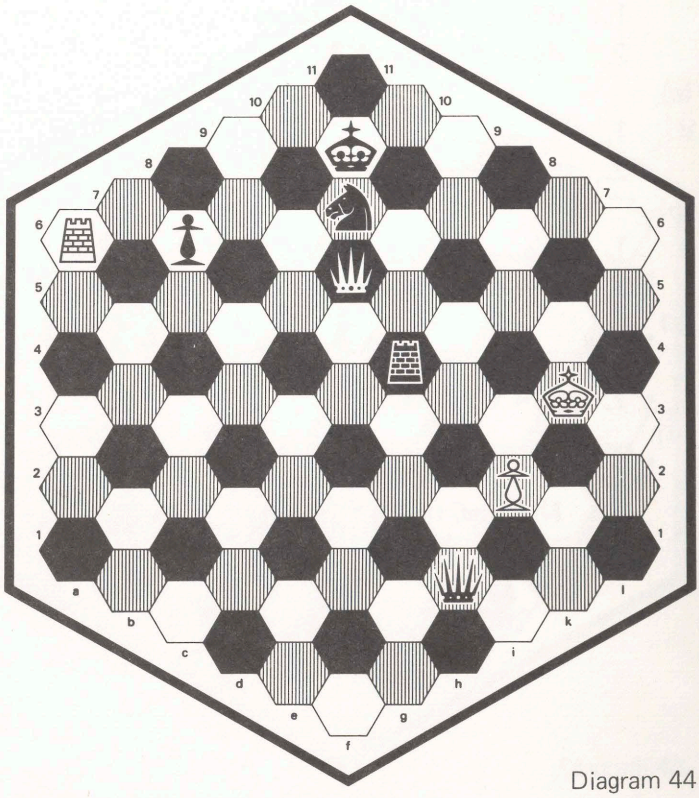


Diagram 44

Pos: W: Kk4, Qf8, Ra6, Pi3 B: Kf10, Qh2, Rg6 Nf9, Pc7

Solution to problem 10

1. Ra6 – f11 + Kf10 x Rf11
2. Qf8 x Nf9 mate

Chapter 5

Tomorrow's Chess World

The influence of FIDE (International Chess Federation of orthodox chess) is considered to be second only to the Football Federation, and the importance of chess is increasingly being recognised and is considered by some to be a "sociological phenomenon". To quote Mac Orlan (1967): "There is more adventure in one single game of chess than throughout the high seas". Why then in many countries is there still so little, if any space, allowed in the daily and Sunday newspapers for the subject, or reports on chess events? Chess magazines alone are not sufficient as these are mainly concerned with chess reviews once a month and the circulations are, in many countries, considerably limited. Apart from chess columns, or corners limited mainly to a particular chess problem, there is seldom anything more about chess or chess players. Some newspapers do not carry a chess column at all. Is the subject of chess considered of so little interest to readers of those newspapers? True, we had our share of chess publicity during the Fischer-Spassky World Championship in 1972, but since then we are now almost back to the usual silence. The Chess Olympiad (Nice 1974) received very little publicity in certain newspapers. We do not expect that all chess events should find space on the front page, but the number of chess players — competitive and social — is large enough not to be disregarded. It is known that there are more books on chess published and sold than on all other indoor games put together. The shelves in good book shops undoubtedly prove this. Hexagonal Chess will now further extend the field of chess publications even wider.

During the 1972 World Championship in Reykjavik the interest of the World Press was caught by the unusual nature of certain events and apart from these, nothing else seemed to be happening in the rest of the world during that August! It was, therefore, by chance, perfect timing for good chess publicity. It seems to me that if the organizers of chess championships — local, national or international —

dress up the events with something additional and spectacular we may tempt the Press to show more interest in our matters. It must, of course, be genuine and not a publicity stunt. The Public today is much more sophisticated and must not be underrated. Without exception every product and every organization needs public relations and sales promotion in the form of advertising and publicity in order not only to expand, but even to survive.

After a few years of playing orthodox chess in my school days, I wished to create my own new idea towards progress. I realised even then that producing any new chess game incorporating the same square cells would not be recognised and accepted as a really different chess game. Many of those that have been proposed can only be considered as off-springs or distortions of existing square chess. All the same, certain other chess games with four-sided cells will also gladly be played by many gamesters. There is room for many good games in the world and all can find their followers. There are over three thousand million people in this world and from all those capable of playing chess only a tiny number have been recruited up to now. In order to stimulate real enthusiasm we must progress with the times. We need, therefore, a logical development acceptable by progressive new generations. I could not find anything completely new on the square board nor could I develop a new playing surface with square cells. At least, whatever project I thought of, as long as squares were used, did not satisfy me personally. It had to be something really different, yet with at least the same or greater potentiality as orthodox chess. A new playing surface with differently-shaped cells was my new idea. I subsequently discovered that many other chess players had had similar ideas. Perhaps destiny has chosen me to complete such a new project! After many experiments with all possible shapes, the perfect cell emerged — the hexagon. Further experiments revealed that the outer shape of the board must also be a hexagon. Tests with different

numbers of cells on the board finally guided me to a board with 91 hexagonal cells of three shades, forming six hexagons to each of the six sides of the board. To devise a suitable system of movement for the pieces on hexagonal cells was a logical progression from the square. It was the number of pieces to be engaged and the initial arrangement that required a long series of experiments. Whilst I have now finally settled on 91 hexagons on my six-sided board, the game was played until 1953 with 22 + 22 pieces (3 Rooks, 3 Knights and 3 Bishops to each side). This, however, proved to be too complicated. After further intensive tests I decided on 18 + 18 pieces, with the arrangement as it is now. The game has been played experimentally in this form for over 20 years. The final adjustment of the new "Stalemate" rule was only decided in 1972, after careful examination and further test games.

Before the production of Hexagonal Chess could be started and this book published, the offer of the game was rejected by many games manufacturers, and the book turned down by several publishers, often before examining it. In those days, whenever I approached an orthodox chess club with an offer to examine and try my game, it was, in many cases, misunderstood as if I was asking them to abandon the old square board altogether. Without much examination Hexagonal Chess was often dismissed by many as "just another freak." However, this did not discourage me from carrying on with my idea as I found many players in several different countries who took up Hexagonal Chess seriously and who became the early followers. They gave me constant encouragement and finally persuaded me to introduce Hexagonal Chess to the world.

In December 1973 the first book of Rules was published with a paper practice board. The first complete Hexagonal Chess outfits were also available. Only ten months later the number of Hexagonal Chess

players in the world can already be estimated in the thousands, and it is being played in several European Universities. The first Hexagonal Chess Correspondence Club (H.C.C.C.) and the first over-the-board clubs have recently been formed. Some Editors have already offered their services to organize the Hexagonal Chess Magazine which is now being planned.

Apart from competitive players there will always be the much larger proportion of social players who enjoy a chess game at home, at recreation centres or anywhere other than in a chess club. It can hardly be expected that all the experts or champions on the square board will wish to change over to Hexagonal Chess. No doubt players who have devoted themselves for many years to orthodox chess will prefer to continue in the square game. So it is predominantly the new progressive generation that is taking up Hexagonal Chess seriously, as they can foresee, and gladly acknowledge, its rightful place in the Chess World. It would be gratifying if some square chess champions would take up the hexagonal game and perhaps become champions of both! Whether or not this happens, it will not be long before Hexagonal Chess Champions emerge from the growing number of enthusiasts.

How will the Chess World reform itself? I believe that the organization of orthodox chess will continue along its accustomed course. Hexagonal Chess on the other hand, will be organized independently forming its own Associations and a new Federation, although maintaining close contact with the square chess organizations. Both games are closely related to each other and have very much in common. Why then, you may ask, should we have a second chess game? The answer is simply because there is a vast difference in the actual strategies on each board, leading to quite different variations and, therefore, Hexagonal Chess

is a very different chess game. From now on, newcomers who wish to take up chess seriously in a competitive capacity will have to choose between the square and the hexagon. Among other factors, no doubt personal taste or preference will help to decide. A player chooses his favourite indoor game simply because he likes it best of all and is willing and able to understand it. Certain vigorous young brains will undoubtedly master both games, but probably most others will prefer to concentrate on one or the other.

Some chess players who have been unable to decide whether or not to study (or, in some cases, even to examine) Hexagonal Chess, have made the statement (or excuse?) that "orthodox chess is sufficiently complicated for ***them***". It could be that these players are afraid that if they begin to study Hexagonal Chess, their concentration on the square board might be impaired. From the reports of those people who have had the courage to try it the converse appears to be true, and their vision on the square board is, in fact, enhanced! This would seem to be quite logical, since if we imagine any individual practising a more sophisticated art or craft, when he returns to the less complicated occupation, he finds an even greater confidence than he had before; viz. (presumably) the aeroplane pilot who graduates to space craft and then returns to aeroplanes. Therefore I can foresee that some players ***will*** be competent to encompass both games.

As the organization of Hexagonal Chess develops and the links between countries throughout the world are forged, international tournaments and championships will undoubtedly take place. In order to promote both square and hexagonal chess and stimulate interest in chess as a whole, I would like to see co-operation between both governing bodies in staging chess olympiads, although each would operate under its own rules. Even if co-operation does not become possible, the first Hexagonal Chess Olympiad is not too far distant (with luck, by 1980?) between these

countries to start with:

United Kingdom (of course)
Austria
France
Holland
Poland
U.S.A.
West Germany
Yugoslavia.

These are the countries where we ***know*** that the seeds, having been sown, have successfully germinated and the tree is growing strongly, spreading its roots and branches. There are also seeds scattered about in other countries, which, for all we know, have already taken root, which gives us confidence to predict that Hexagonal Chess tournaments are bound to grow in each country and ultimately spread internationally.

Sweden and Iceland are two more countries which are 'chess mad' and so are Argentina and the Phillipines. How long will it take the younger generation in different countries to adopt Hexagonal Chess and demand their international olympiads?

The spread of Hexagonal Chess to World Championships may to some extent depend on the attitude of the U.S.S.R. All the same, it can only be a matter of time!

The hexagonal game is compatible with the aims and intellectual development of the twentieth century (probably also the twenty-first). Any game can only reflect the state of ideas in the culture of its time. For example, from the fifth to the seventh centuries, a primitive form of chess was played with dice in India and Persia. Apparently their minds were at that time not sufficiently sophisticated to dispense with the chance element. The Arabs and Moors in the period from the ninth to the thirteenth century codified and improved the game. (Remember that they invented algebra and were also quite skilled in medicine).

In the fifteenth century, the modern expansion in the power of pieces was exactly contemporary with the astonishing intellectual expansion of the Renaissance (Leonardo da Vinci, Michelangelo, Galileo, etc.) and during this period the Italians were the leading chess players.

Scientific research and development during the intervening centuries has been characterized by the systematic codification of scientific laws. Nowadays scientists are prepared to admit that they don't know everything – in contrast to certain arrogant individuals who, a few years ago, appeared to claim that everything to be known on a particular subject, ***was*** known! A corollary may be found in chess and the time is now ripe for the injection of new ideas in tune with the intellectual development of our times.

In most countries the importance of chess is not recognized by the authorities and in the past only the U.S.S.R. and Yugoslavia plus a very few other countries, have appreciated its value in education and intellectual development. The reason could be that the majority of people who do not play chess, imagine that it is 'just a game to pass the time' or an inactive sport.

While other studies at schools and universities enable the student to acquire knowledge, the study of chess exercises the mind and assists him in broadening his vision and appreciation of life and human values. Most chess players, especially in their younger days, also practise one or more sports – like football, tennis, etc., – however moderately. We would all agree that this is a sensible thing to do since some form of recreation is desirable to ensure that both body and mind are exercised, in order to develop a healthy, well balanced individual.

It is a pity that many people do not realize the importance of chess in exercising the brain. After all, it is the brain which controls the muscles! Theoretically at least, one would assume that an agile brain would produce greater agility in physical

activity. If the players of chess can be realistic in embracing physical sports, why shouldn't brainy athletes and sportsmen and women take an interest in chess for recreation and relaxation ('a change being as good as a rest'!)? It could improve their other skills. There are those of course, who would prefer some other indoor game – with cards perhaps. Also highly recommended to make them *think!* Chess, however, should never be excluded by those who are able to understand it, since it will always be 'the noble game' – whether it is played on square or hexagonal cells.

Educational authorities must be persuaded to take chess more seriously and if it is considered too early to adopt chess as a subject to be included in the educational programme, it should at least be encouraged as an extra-curricular activity – more so than it is at present.

Now that there are two legitimate chess games in existence, both should be introduced to the student and he should be left to make his own choice. If this liberal line is followed it will be interesting to see which he prefers.

The subject of 'chess' does not necessarily mean only the rules and practice of the game. To begin with, there is a great deal of knowledge to be gained about the different aspects of the playing surface in connection with each piece and its movements. Both boards have a lot to offer the student, particularly the hexagonal board, since it is composed of more complex cells. There are extremely interesting comparisons to discover between the two boards vis a vis 'chess geometry' – and this will soon be acknowledged.

The question now arises: which country will lead the way?

There must be a large amount of material already waiting to be gathered on this subject from the square board alone. Add to that the enormously

rich vein to be discovered on the hexagonal board — and the sky's the limit! Then consider the two boards ***jointly!*** I leave the reader to imagine the extent of the subject and its value in education.

In many countries orthodox chess organizations are self-supporting and subscriptions are usually insufficient, so that after running costs have been met, there is very little cash left over to promote the game and produce a larger number of competitive players.

As far as western Europe is concerned, it can be estimated from statistics that competitive club-players form only about 0.5% to 1% of the total chess-playing population. The other 99% to 99.5% remain purely social players uncommitted to clubs or competitions. This enormous proportion has largely been created by the commercial manufacturers of games, only a small number of whom are known to contribute to the welfare of chess as a whole by either donating hard cash or helping to organize chess events, which, one assumes, would be in their own long-term interests.

Certain other commercial enterprises unconnected with the manufacture of games in general or chess in particular, do sponsor tournaments, although these events receive scant notice from the National Press as compared with, for example, golf or show-jumping championships. The interest of the general public needs to be captured in order to popularize the game, otherwise the growth of organized chess will be as slow as in the past.

For such an important educational and cultural activity, surely there is a case here for state-subsidy or commercial support or both.

As I do not claim to be an authority in organizing square chess, my proposals to popularize chess-playing in general may be scoffed at and dismissed as nonsense by those who have experience in these matters. What I do state, however, is that these ideas will certainly be applied with respect to Hexagonal

Chess which is a new and entirely independent world organization.

While the tactical elements in square and hexagonal chess are largely the same, the strategy of the hexagonal game is entirely different. This makes it a completely separate game. The playing surfaces of both games are also totally different, but the pieces, although different in number are of the same design, thus enabling the existing players of orthodox chess to try the new game without having to learn to recognize a new set of pieces. This should assist the more rapid expansion of the new chess throughout the world. Furthermore, after joint consultation, one of the largest manufacturers of chess pieces in the world has already begun to produce sets including the extra four pieces (2 + 2) which, of course, are also suitable for playing square chess. Arrangements have now been completed to produce double-sided chess boards and tables with square chess on one side and hexagonal on the other. We expect these to be sought after mainly by the domestic user — and possibly by some schools and social clubs.

Although Hexagonal Chess is an independent body with its own ideas which have been contributed over the years by keen organizers in various countries, it is not hidebound in outlook, but prepared to adopt those policies followed by the square chess organizations, where considered to be sound and appropriate. It will always be prepared to consider any helpful suggestions directed towards the more efficient running of the Organization.

Surely it will be possible for FIDE and the Hexagonal Chess movement to co-exist not only without acrimony, but even to form a close liaison, collaborating to their mutual benefit. Given this goodwill, as mentioned earlier, it could even be possible to promote joint chess olympiads which could prove to be even greater attractions than separate ones. All this will very much depend on the attitude of FIDE to this young upstart! In the meantime, Hexagonal

Chess will continue to grow and form National Federations leading ultimately to the Hexagonal Chess International Federation. No doubt some readers will consider this to be presumptuous or over-ambitious or just plain 'wishful thinking'. I would point out, however, that all these suggestions have not been made by me, but by the enthusiastic players of Hexagonal Chess themselves! In fact, many of their ideas have been incorporated in this book.

At the moment the organization of Hexagonal Chess is at an early stage and we have not yet finalized our Constitution. Obviously, before we could think about that, the game had to be perfected and introduced to the general public. This took many years with much trial and study before I was satisfied that I could not improve on it further.

Unfortunately, a considerable period was then wasted in vainly trying to find a games manufacturer interested in producing the boards and pieces, and a publisher for books on Hexagonal Chess. Finally, to make a start, in a mood of frustration, I formed my own company — Hexagonal Chess Publications — and we organized production. At last the game of Hexagonal Chess has been produced, and boards, pieces and books are now available to the public throughout the world. Having done all the hard work in research and development we now intend to retain control of production.

Almost without exception, every new idea or invention has to pass through a period of rejection no matter how useful it may be, before it finally becomes universally accepted. Its only a question of time and circumstance. Progress cannot be halted as long as life on earth continues. From now on I confidently expect that Hexagonal Chess will develop at an ever increasing rate, benefiting from the present and future accelerating speed of communication.

To conclude this book, perhaps I could introduce a few brief extracts from some of the proposed points to be included in the Constitution of Hexagonal Chess

organizations.

(a) To encourage, study, analyse all possible aspects of the Hexagonal Chess Board and to practise the game of Hexagonal Chess.

(b) To promote the game by means of organizing tournaments and matches with local and national publicity.

(c) To encourage the composition of problems on the Hexagonal Chess Board.

(d) To maintain contact and co-operation between Hexagonal Chess organizations in other countries.

(e) To remain in close contact and co-operation with the square chess Federations and all other chess organizations and educational bodies.

(f) To establish, maintain and increase a Fund to be invested in the names of Trustees.

(g) To defend, improve and strengthen the status of the game of Hexagonal Chess together with its appendant organizations.

We shall constantly advise all Hexagonal Chess players:

(a) Never to discourage other players from studying or playing orthodox chess.

(b) Never to solicit or propagate the game of Hexagonal Chess in any orthodox chess club unless specifically invited to do so.

Notes and Observations on Chapter 1

Rules of Hexagonal Chess

Notes and Observations on Chapter 2

Hexagonal Chess introduced and Compared with Square Chess

Notes and Observations on Chapter 3

Openings, middle games and played games

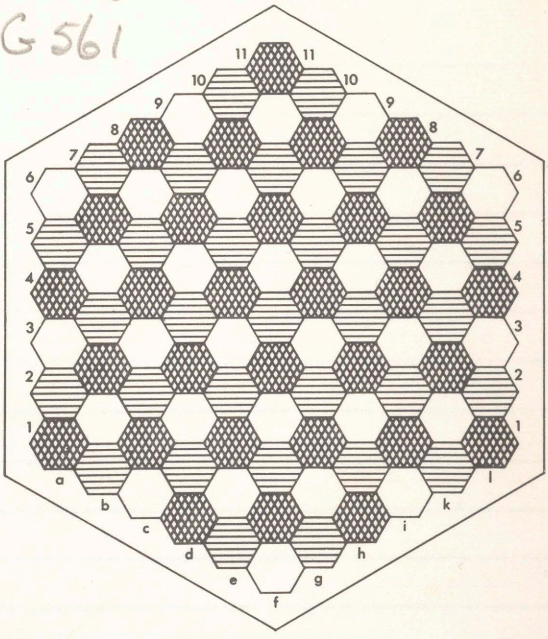
Notes and Observations on Chapter 4

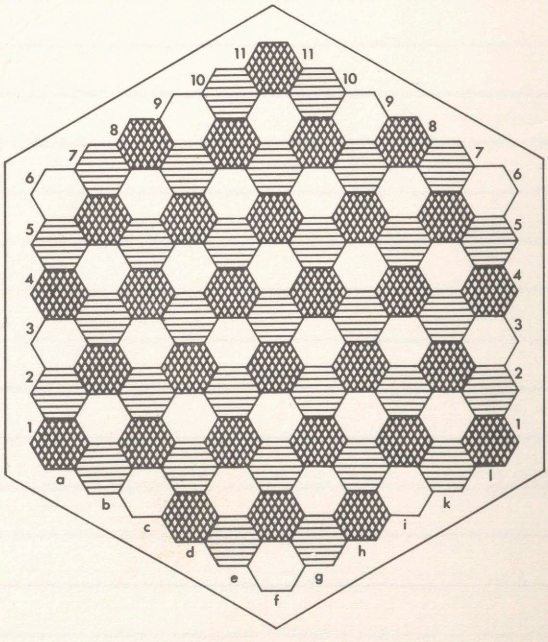
Endgames and problems

Notes and Observations on Chapter 5

Tomorrow's
Chess
World

Notes





Wladyslaw Glinski came to Britain from Italy as a young Polish soldier in 1946, just after the second World War.
A keen chess player on the square board since his early schooldays in Poland, at the age of 18 he conceived the idea of creating his version of Hexagonal Chess and for over 35 years has devoted a large part of his spare time to developing the ideal hexagonal board, perfecting the rules and discovering the theories and variations which he proves in this book, extend far beyond those possible on the square board.

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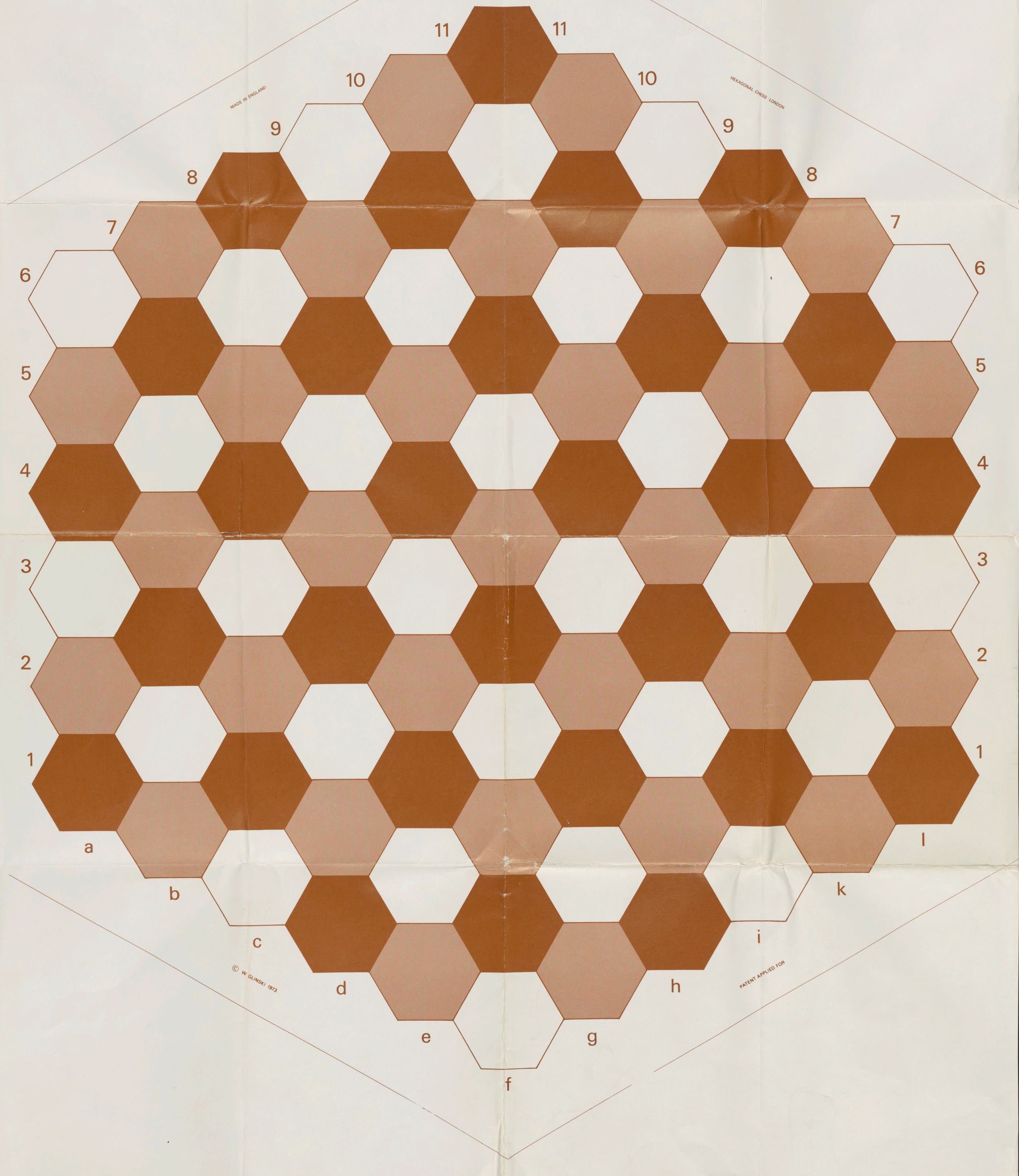

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