## Contents

Conventions and Terminology ..... 6
Introduction and Other Reading ..... 9
1 The Three Key Endgame Skills ..... 19
Calculation ..... 20
Knowledge ..... 21
Imagination ..... 23
2 Pawn Endings ..... 26
2.1 Introduction ..... 26
2.2 Zugzwang-Based Ideas ..... 28
2.2.1 Opposition ..... 28
2.2.2 Distant Opposition ..... 32
2.2.3 Triangulation ..... 34
2.2.4 Reciprocal Zugzwang ..... 39
2.2.5 Corresponding Squares ..... 45
2.3 Breakthrough ..... 56
2.4 King Position Ideas ..... 65
2.4.1 King Trapped at the Edge of the Board ..... 65
2.4.2 Active King Position ..... 70
2.5 Reserve Tempi ..... 75
2.6 All the Pawns on One Side ..... 79
2.7 Outside Passed Pawns ..... 82
2.7.1 The Pawn Triumphant ..... 82
2.7.2 Who's Afraid of the Outside Passed Pawn? ..... 85
2.7.3 Outside Passed Pawn vs Extra Pawn ..... 94
2.8 Space Advantage ..... 98
2.9 Active King vs Outside Passed Pawn ..... 103
2.10 Multiple Passed Pawns ..... 106
2.11 Surprise Moves ..... 108
2.12 Stalemate ..... 113
2.13 Transformation to a Queen Ending ..... 117
3 Knight Endings ..... 140
3.1 Introduction ..... 140
3.2 Knight vs Pawns ..... 140
3.3 Knight + Pawn vs Pawn ..... 144
3.4 Knight + Pawn vs Two Pawns ..... 146
3.4.1 Zugzwang Ideas ..... 147
3.5 Knight + Pawns vs Pawns (More Pawns) ..... 152
3.5.1 Knight Manoeuvres ..... 153
3.5.2 Mate and Stalemate ..... 160
3.6 Knight + Pawn vs Knight ..... 162
3.7 Knight + Two Pawns vs Knight ..... 166
3.8 The Outside Passed Pawn ..... 169
3.9 Sacrificing a Knight ..... 176
3.10 Common Error: Promoting Too Soon ..... 180
3.11 Mate, Stalemate and Breakthrough ..... 182
4 Same-Coloured Bishop Endings ..... 187
4.1 Introduction ..... 187
4.2 Bishop vs Pawns ..... 188
4.3 Bishop and Pawns vs Pawns ..... 190
4.3.1 Rook's Pawn and Wrong Bishop ..... 194
4.4 Bishop and Pawns vs Bishop and Pawns ..... 199
4.4.1 Bad Bishop ..... 202
4.4.2 Stalemate ..... 210
4.4.3 Breakthrough ..... 215
4.4.4 Clearing a Path for the King ..... 217
4.4.5 Passed Pawns ..... 219
4.4.6 Extra Passed Pawn ..... 225
4.4.7 Transformation to a Queen Ending ..... 229
4.4.8 $\quad$ Surprise Moves ..... 233
5 Opposite-Coloured Bishop Endings ..... 237
5.1 Introduction ..... 237
5.2 Logical Thinking ..... 237
5.3 Breakthrough ..... 240
5.4 Disconnected Passed Pawns ..... 245
5.5 Zugzwang ..... 249
$6 \quad$ Bishop vs Knight Endings ..... 252
6.1 Introduction ..... 252
6.2 The Bishop Has the Advantage ..... 253
6.2.1 Extra Passed Pawn ..... 253
6.2.2 Bishops + Two Pawns vs Knight: The Blockade ..... 257
6.2.3 Positional Advantage ..... 259
6.2.4 Advanced Passed Pawn ..... 264
6.3 The Knight Has the Advantage ..... 268
6.3.1 Extra Pawn ..... 269
6.3.2 Tricky Knight Manoeuvres ..... 276
6.3.3 Passed Pawn ..... 279
6.3.4 Knight + Two Pawns vs Bishop ..... 282
6.3.5 Bad King Position ..... 286
7 Queen Endings ..... 289
7.1 Introduction ..... 289
7.2 Stalemate ..... 289
7.3 Mating Attack ..... 294
7.4 Queen and Pawn vs Queen ..... 299
7.5 Queen and Two Pawns vs Queen ..... 303
7.6 Queen and Pawn vs Queen and Pawn ..... 307
7.7 Liquidation to a Pawn Ending ..... 310
7.8 Common Error: Random Checking ..... 313
Index of Players ..... 316


 queens on b 2 ，with an easily winning ending．

 fla for the key variation；Black＇s pawn sacrifice has changed the kingside pawn－structure in his favour，in that taking on g3 and then on g4 de－ fends the g5－pawn，whereas taking on g3 and then h3 didn＇t．

## 2．．．鱼d5 3 b4 a4

In this line too，the outside passed pawn proves decisive．



## 5．．．g4！

White had set a vicious trap，which Black cleverly avoided．After the obvious 5．．．te4？ 6

 ference where Black moves his king） 11 間b6 g4 12 畗xb7g313 b5 g2 14 bxc6 g1宸 15 c 7 Black is unable to win as he can never force White＇s king in front of the c7－pawn，nor can he reach a winning queen and pawn ending．The prelimi－ nary sacrifice deprives White of his reserve tempo on the kingside，and now Black can win by playing his king to the queenside rather than the kingside．

## 

The finish might be 9 韩xa4 智xc4（Marić gave 9．．．龺b2？？in Informator，but this loses to


now we see how important it was to deprive White of his spare tempo on the kingside．

## Summary：

－An outside passed pawn can be a powerful weapon，drawing the enemy king away from the defence of the remaining pawns．
－Much depends on whether the attacker＇s king can quickly penetrate into the pawn－mass on the opposite flank to the passed pawn．Some－ times it is necessary to advance pawns to cre－ ate an opening for the king．
－A pawn－majority that can produce an outside passed pawn may be almost as effective as the passed pawn itself．

## 2．7．2 Who＇s Afraid of the Outside Passed Pawn？

Our treatment of outside passed pawns has thus far been rather typical of endgame books in general，but now we depart from the traditional script．After emphasizing the power of outside passed pawns，most books then pass straight on to the next topic．The consequence of this is that most players have an over－inflated idea of the strength of outside passed pawns．As we have seen，there are indeed many positions in which such a pawn gives a decisive advantage，but there are also many positions in which it does not．In this section we shall explore some of the situations in which an outside passed pawn loses its effectiveness．


At first sight this is a standard outside passed pawn win，with Black using his f－pawn to de－ flect the white king while Black＇s own king gobbles up White＇s queenside pawns；indeed， so standard did it to appear to Mnatsakanian that he resigned at this point（0－1）．However，as Minev pointed out in Informator，the position is actually a draw．If the outside passed pawn were on the g－or h－file，then Black would in－ deed win，but in this position White can take the f－pawn and still make it back to the queenside in time to stop Black＇s a－pawn．

## 1 稀e2

At this stage，White doesn＇t even have to be particularly accurate．He can also draw by 1気d2， 1 c3， 1 占el or 1 a5．

1．．．象e5 2 韩 d 3 韩 d 5

夢c1 is a typical drawing line in which White saves the game by one tempo．



 ing up the queen with a skewer．


## 6 起c3 f4 7 気d3 f3

 11 器d2 also leads to a draw．

## 

Or 8．．．㯖b4 9 飛xf3．
衰c1
with a draw．

In this position there were two factors that enabled White to draw．The first is that Black＇s only pawn on the queenside was an a－pawn，so it was only necessary for the white king to re－ turn to c 1 to save the game．The second was that the outside passed pawn wasn＇t as far away as it might have been，so that the journey to take the f－pawn and still return to c1 was within the range of White＇s king．

The next position is rather different．The out－ side passed pawn is on the edge of the board， and there are plenty of pawns on the opposite flank，but it＇s a draw for a different reason．


Kirov－Ermenkov Sofia 1973

Black has an outside passed pawn and at first sight the win should be simple．He pushes the h－pawn，deflects the white king，marches with his king to take the e3－and b3－pawns and then promotes his a－pawn．However，one aspect of the position favours White：he only needs to take the relatively close d6－pawn in order to create a passed pawn of his own．Another fac－ tor，which is not obviously relevant in the dia－ gram position，is the weakness of the b6－pawn． These compensating factors mean that White is just able to hold the position，although accurate play is necessary．

1 氰h3！！
It was quite an achievement for White to find the only move to save the game．Other moves lose：
 reaches a position of reciprocal zugzwang．It＇s
clear that White loses if he is to play，but it＇s not so obvious that Black can only draw if it is his move．However，the position after 4．．．tay xe3 5 dat 5 h 5 occurs later in the game and we shall see there why it is drawn．

2） 1 e4？and now：
 of reciprocal zugzwang with Black to play．The

 in the game（Black＇s king is on e4 instead of e3， but this makes no difference）．

2b） $1 \ldots$ ．．h5？is given as winning by Minev and Milić in Informator 15，but actually it al－ lows White to escape： 2 氰f3！（2 tath



 h1篹 9 d 7 with the same type of positional draw as in the game．

2c） $1 \ldots$ ．．．h6！（this is the winning move） 2 帠f （2 e5 dxe5 3 韩f3
 wins easily．

## 1．．．衰f5

 of the above reciprocal zugzwangs with Black to play．

## 

It takes too much time to go for the h－pawn， so White must create his own passed pawn as quickly as possible．

## 4．．．h5

This is the only chance，since if Black runs for the b－pawn，White promotes first．
 d7（ $D$ ）

It is perhaps surprising that Black cannot win here，but this is the point at which the weakness of b6 enters the picture．Black cannot force the white king in front of the d－pawn and the best he can do is transfer his queen to e7 with gain of tempo．Then he has a free move before he has to exchange queens on d8．If Black＇s pawn were on a7 instead of a5，then the resulting king and pawn ending would be win－ ning for Black，but as it is，White is in time to take on b6 and create a passed b－pawn．






 also drawn，but it would be a tough task to de－ fend this over the board） 21 bxa4 飛xc4 22 韩c 7韩b4 23 疑xb6c4，the draw is clear．

In the next position，White could choose to make an outside passed pawn on either side of the board，but in the game he picked the wrong one．


White is a pawn up，but has two backward pawns．He can create a passed b－pawn by play－ ing c4，or a passed h－pawn by playing g3． Which plan is correct？

## 

The immediate 2 g 3 ？is wrong，because after 2 ．．．hxg3＋3 taxg tate3 Black＇s f－pawn is just as dangerous as White＇s h－pawn．Instead，White must manoeuvre to find a better opportunity for playing g3．

2．．．${ }^{\text {n}}$ e5




3 韩e3
 win because Black is in zugzwang；after 5．．． 6 g 3 hxg 37 氰xg3（Black＇s king cannot now
 pawn is too fast．

## 3．．．包d5 4 㐨f3 f6（ $D$ ）

After 4．．．象c4 5 g 3 White wins easily．


## 5 㪶f4？

It often happens that a player makes his life more difficult with an inaccuracy，and only then makes a result－changing blunder．Here White could have won at a stroke by $5 \mathrm{~g} 3!\mathrm{hxg} 36 \mathrm{~h} 4$
 taty tate6 10 tigy and there are no more prob－ lems．In the game White decided to play his king to the queenside and create a passed pawn with c4，but this does not win．

## 5．．．f5

Now we have the same position as in the note to White＇s third move，but here it is White to play．He can still win but it is more difficult，as he must first triangulate with his king．

$$
6 \text { 韩e3 }
$$

6 鱼xf5 only leads to a drawn ending of磁 +h 亿 vs 嘫．
6．．．．6e5（ $D$ ）


7 鱼d3？
White has become confused and goes the wrong way with his king．He could have won on the kingside by completing the triangula－
 thans transposing into the note to White＇s third move．

7．．．筸f4！
Black seizes his chance to force a draw．

## 8 c4

晖xf3 is an easy draw，so White has no choice．

## 8．．．bxc4＋ 9 東迫c4？！

Other moves also lead to a draw，but would have offered more practical chances：

1） 9 象c 3 兆g 310 b 5 象xg 211 b 6 f 412 b 7 f 3
 mediate draw，so when the king is on g 2 ，White has to check on the long diagonal）14．．．产g1 15

 means of a careful sequence of checks，White has managed to take the c－pawn with tempo）
 and，while the position is a draw，in practice White would have some justification in playing on．

2） 9 象d4 and now 9．．．c3！ 10 菄xc3 東g3 11 b5 飛 xg 2 is simplest，with the same draw as in the game．Black doesn＇t have to play ．．．c3 at once and can delay it for a couple of moves，but
if he waits too long then he will lose；for exam－ ple，9．．．菄g3 10 b 5 韩xg2 11 b 6 f 4 ？（this was the




㟴g 3＋（black has to move to f1 because the pawn on c4 destroys the usual stalemate） 22旬e3 and White wins．
 b8翦 $\mathbf{f} 2$（ $D$ ）


The position is a draw since White＇s king is too far away；indeed，since Black can promote with check，White＇s winning chances are even less than after 9 tat
 17 欮g5＋

17 䜌 $x h 4 \mathrm{f} 1$ 雪 + is an easy draw，while 17
 drawn as White cannot make progress．

## 17．．．亩xh3

17．．．t the $h$ also draws，but this the move played is the simplest．

White＇s king is one square outside the win－ ning zone．

It＇s stalemate．

We have already mentioned that the defender has better chances against an outside passed pawn when the attacker＇s last pawn is a rook＇s pawn．In the next example，despite falling into a
dubious position White could have held the game had he spotted a neat idea converting his opponent＇s g－pawn into an h－pawn．


Black has a queenside pawn－majority which， given enough time，will allow him to create an outside passed pawn．However，at the moment White is not worse since he can easily create counterplay on the kingside．

## 1 a4 a6 2 g5？！

After this White has to take a little care to reach the draw． 2 竟f4！was sounder and after 2．．．象e6（not 2．．．b5？ 3 axb5 axb5 4 象f5 b4 5䍙e4 c4 6 朝d4 and White even wins） 3 g 5 hxg5＋（not 3．．．b5？ 4 gxh6 gxh6 5 axb5 axb5 6 tase4 and White wins after 6．．．c4 7 tag or


 pawn up in the queen ending．However，it＇s an easy draw as Black＇s king is actively placed and the e5－pawn is vulnerable；for example， 11
戠g6 懒d6＋
 （D）

## 6 東 96 ？

This mistake costs White the game．Although the two players promote at the same time，Black has the first check and can use it to launch a mating attack．White could still have drawn by




Black＇s g－pawn into an h－pawn，after which the draw is obvious．

6．．．b4 7 東 ${ }^{(x y g} 7$ c 38 bxc3 bxc3 9 h6 c2 10 h7


Black first wins the e－pawn with check．

Or 13 韩g8 㟴f7\＃．



 mate．

The propaganda about outside passed pawns sometimes leads players to make the wrong de－ cision when liquidating into a pawn ending．


White faces a typical over－the－board deci－ sion：which pawn should he recapture with？

The answer isn＇t obvious，but the result of the game should depend on it．Flear＇s notes in Informator 52 claim that both captures lose，but one of them draws．

## 1 fxe5？

The wrong choice，after which Black has a winning position．The correct capture 1 dxe5！ may look wrong，as it gives Black an outside passed pawn，but it is relatively close to the pawn－mass and this enables White to hold the game．Black can try：

1） $1 \ldots \mathrm{~g} 5$ ？ 2 f5 is not equal，as Flear gives， but winning for White．





3） $1 \ldots$ ．．f6！（the most troublesome move） 2氰f2


夢xh3 wins for Black）3．．．崨e6 4 exf6（not 4韩d4？fxe5＋5 fxe5 g5）4．．．器xf6（D）．

W


We have reached a key moment at which White must choose the correct square for his king in order to draw： 5 猡f3！（it is surprising that White only draws by moving away from Black＇s passed pawn，but the right strategy is to wait un－ til the pawn is further advanced before attack－

 gradually forced backwards）5．．．高e6（5．．．氰f5 6 挡e3 is a position of reciprocal zugzwang；if

