I have just spent six months writing a new book *Secrets of Rook Endings*, which will soon be published by B.T. Batsford. It includes the most detailed ever coverage of the ending of KR+PR, but the unique feature of the book is that all the moves in it are accurate.

This was achieved with the aid of Ken Thompson's endgame CD-ROM and Lars Rasmussen's user interface program. Using the CD-ROM I was able to correct mistakes in previous analyses of this ending, but it would be wrong to assume that the computer was only used for destructive purposes. In fact I obtained the most enjoyment from the many new discoveries made possible by the CD-ROM and included in the book. I will give just one example.

The concept of reciprocal zugzwang should be familiar to readers of this magazine. It may be defined as a position in which whoever is to move has to weaken his own position. In a KR+PR position we can be even more precise about what the term reciprocal zugzwang means; it implies a position in which Black to play loses, but White to play can only draw. In particular White has no waiting move to preserve the zugzwang. I asked a number of grandmasters how many positions of reciprocal zugzwang they thought existed in the ending KR+PR. The answers were in the range 5 to 25 positions. In fact there are 209 such positions.

Diagram 1: White to play: Draw; Black to play: White wins.

In *Secrets of Rook Endings* the symbol ! has a very precise meaning, and this new convention is also adopted in the following analysis. An ! after a white move means that it is the only move to win, while an ! after a black move means that it is the only move to draw.

The first point to make is that if White succeeds in advancing the Pawn while keeping Black's King cut off then he normally wins. This means, for example, that 1. Kb2 threatens 2. a3 and must be met by 1. ... Rb8+.

We first of all show why the diagram is a draw with White to move:


W2) 1. Rh4 (intending Kb2 coupled with a4, but it releases Black's King cut off then he normally wins. This means, for example, that 1. Kb2 threatens 2. a3 and must be met by 1. ... Rb8+.

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a-file, but Black has a hidden defence) Kc3 5. a5 Rb1 6. Ka4 Rg1 (this is a key drawing position with Black’s King cut off on a rank) 7. a6 (after 7. Kb5 Rg5+ there is no shelter, or 7. Rh6 Ke4 drawing) Rg6! 8. Kb5 Rg5+! and Black draws.


Now we consider the diagram with Black to move.

1. ... Ke1
This is the most obvious move, bringing the King towards the enemy Pawn. Other moves:


2. Kb2! Rb8+
Or 2. ... Kg1 3. Rh4 Kg2 4. Kb3! Rb8+ 5. Kb4 Rc8 6. Rd4+ Kg3 7. Rg4 Rg8 8. a4 Kg3 9. Rb4 transposing to line 1 in the previous note.


This is also the reply to 8. ... Ra4 and 8. ... Ra5; in all cases White threatens to force the advance of his Pawn by playing Kb5 and, if necessary, Kb4.

9. ... Ra8

Diagram 2: Position after 9. ... Ra8.

After 9. ... Kg1 10. Kb5! Kg1 11. Kb4! Rg3 12. Rh4! (a necessary finesse; White shields his King from sideways checks) Kb2 13. a4! the Pawn romps home.

10. Rh4!!
This move is the hidden reason why Black’s King is badly placed on e1; using a tactical resource White advances his Pawn to a4.

10. ... Ra3
The only way to prevent an immediate a4. 10. ... Rxa2 loses to 11. Rh1+ and 12. Rh2+.

11. Kb5! Kd1 12. Rh2
Now the advance of the Pawn is inevitable.

12. ... Rg3
The only chance is to attack from the side because 12. ... Kg1 13. Kb4! wins after 13. ... Ra8 (or 13. ... Rg3 14. Rh4!) 14. a4! Rh8+ 15. Kg5 as in line 2 in the note to Black’s first move.


Secrets of Rook Endings will be published by B.T. Batsford in October.