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Secrets of Pawnless Endings

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Review of Nunn's 'Secrets of Pawnless Endings' Edition 2

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REVIEW

SECRETS OF PAWNLESS ENDINGS

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It is now 32 years since Ströhlein's pioneering computation of KRKN and ten years since the publication of Nunn's *Secrets of Rook Endings*. This book defined a new genre under his authorship and editorship (Nunn, 1992, 1994, 1995; Müller and Lamprecht, 1999, 2001) and has merited a second edition.

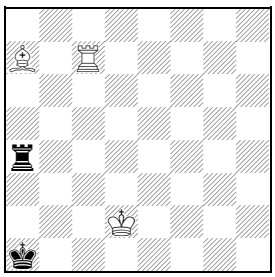
Now comes the second edition of *Secrets of Pawnless Endings*, in which we not only get a modest refresh of existing chapters on some 15 4/5-man endings but also a generous and ambitious 62 pages on a wide range of deeper and more challenging 6-man endings. An opening table gives some 85 maximal mutual zugzwangs and wins plus Nunn's verdict – seeing beyond the nominal statistics - as to whether the endgame is a general win or draw. Here, his broad conclusions agree with Beasley (2002).

The established recipe, first applied to KQKR and KRKB/N, still seems to be effective: a base of perfect information, a judicious choice of games, positions and moves, and a readable commentary when the significance of the moves can be elicited. The endgame still exhibits understandable themes and principles of play even if it increasingly resembles a combinatorial maze, more navigable by computer than by human.

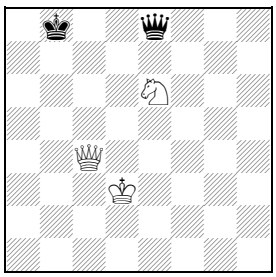
A technical achievement, easily overlooked, is that Nunn has been manually assigning a '!' where the move is apparently the only way to win, ignoring time-wasting moves that allow a forced return to the current position. Few errors have come to light so far, evidence of remarkable accuracy on Nunn's part.

The changes to the first 13 chapters are essentially cosmetic and the position numbers of the first edition are usefully unchanged. The new 6-man chapter lists all the Thompson results (2001; Tamplin & Haworth, 2001) and focuses on 18 of the 64 endings he computed, namely KRmKmm[2], KRRKRm, KRmmKQ, KQmKRR, KQRKQm and KQMKQM. Of these, KQQKQQ occurred in analysis during the remarkable Kasparov-World game (Nalimov, Wirth and Haworth, 1999) but in the absence of KRmKRm, KRRKRN seems to occur most often over the board. Each longest win is included, exhibiting the outermost reaches of endgame space. While the complete sets of mutual zugzwangs (Tamplin, 2002) are not analysed here as a whole, occasional often pivotal mzugs are highlighted. Nunn usefully follows Thompson in subdividing multiple-Bishop endgames into their distinct parts by Bishop-pattern.

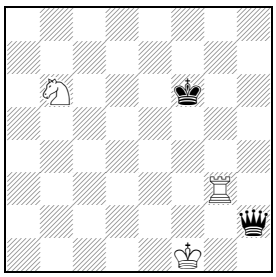
One has to sympathise with those whose endgame play is increasingly caught in the harsh spotlight of infallibility and understand why participants in the Dutch Open of 2000 did not wish to play FRITZ backed by Nalimov's 5-man data (Hartmann, 2000). Although the theoretical result is achieved in two-thirds of the games chosen, depth of win is often unwittingly conceded on a large scale by both attacker and defender.



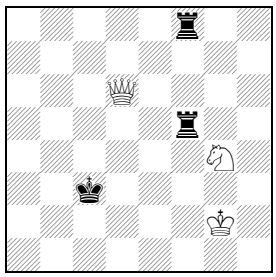
JN327: Nunn (1994).



JN118: Rinck (1917).



JN395: Dobrescu (1979).



JN510: from a longest win.

Although only one 6-man study has been added to the book, enthusiasts of composed positions will now be able to examine over 1300 6-man examples (Van der Heijden, 2001) in the context of both Thompson's data and Nunn's analysis. The composer Rinck and the theme of domination (Kasparyan, 1980) are both well to the fore. Some studies will now be found to be faulty, i.e. *cooked*, and others to have alternative wins or *duals*.

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[2] *m* denotes a minor piece, i.e. Bishop or Knight; *M* denotes a major piece, i.e. Queen or Rook.

Readers may care to progress the increasingly difficult positions given. White is to move and win except for JN395 which is a remarkably deep wtm draw: the continuations below are based on Nunn's analysis.

We should not forget that the pursuit of *knowledge* and *intelligence* starts with the acquisition of *facts*. The computer has revealed unsuspected opportunities for both attack and defence. KQKR is harder to win than anticipated; KBBKN (Roycroft, 1984), KQKBB, KQBKRR and KRBKBN with opposite-colour Bishops are now seen as wins. The one computer-computer game in the book suggests that human instinct might triumph over a computer without perfect information, but that a computer could well even turn draws into wins if it could back a human opponent into 'hard to defend' territory. The more common, partitionable, 6-man P-endgames will soon become computable on a large scale so we may well see even more remarkable table-driven computer finales in the future. Nunn even anticipates further changes to established theory.

According to Frederic Friedel, Gary Kasparov acknowledges that "these databases show me things", words which indicate that there is still much to learn about both the endgame and the potential of the chessmen in combination. The verification and discovery of whatever higher-order knowledge there is about chess endgames remain two key AI computer challenges. For the foreseeable future, Nunn's trilogy offers the best opportunity to gain more understanding of the endings covered, and one that practical players also may now increasingly value given the modes of continuous and faster play now in use.

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327: 1. Bd4+ Kb1 *(1. … R×d4 2. Kc2! Ra4 3. Kb3!; 1. ... Ka2 2. Kc2! Ra5 3.Bc3 Ra6 4. Bb4 Ka1 5. Rc3 Ka2 6. Rc5 Ra8 7. Rb5 Ra6 8. Rb8 Ra7 9. Bc3)* 2. Rc1! Ka2 3. Kc3! Rb4 4.Rc2+! Kb1 5. Rh2 Rb7 6. Kd3 Rc7 7. Rb2+ Kc1 8. Ra2 Philidor's win.

118: 1. Qc7+! Ka8 2. Qa5+! Kb7 3. Nc5+! Kb8 4. Qb6+! Kc8 5. Qb7+! Kd8 6. Kd2! a Rinck mzug (p. 95) and win in 1.

395: 1. Rf3+! Ke5 2. Nc4+! Kd4 3. Ne3! Ke4 4. Rf2! Qh1+ 5. Ke2! Qh5+ 6. Kd2! Qa5+ 7. Ke2! Qa2+ 8. Ke1! Qa5+ 9. Ke2! Qa6+ 10. Kd2! Qd3+ 11. Ke1! Qc3+ 12. Kd1! Qd4+ 13. Rd2! Qa1+ 14. Ke2! Qa6+ 15. Kf2! Qf6+ 16. Ke2! Qf3+ 17. Ke1! Qg3+ reflecting position 12w after Black calls for 17 unique moves from White.

510: If you got close, you are probably a computer. 1. 1. Kh2! mzug Kb3 2. Qd3+ Kb4 3. Ne3! Rf2+ 4. Kg1 R2f7 5. Qc4+ Ka3 6. Qc3+ Ka4 7. Kh2 {countering Rg8+} Rf2+ 8. Kh1 R2f7 9. Qb2 Rf6 10. Qa2+ Kb5 11. Qc4+ Ka5 12. Qc5+ Ka4 13. Ng4 Rf5 14. Qb6 Rh8+ 15. Kg2 Rhf8. White has driven the bK to the edge but the wN is not in the attack yet. White wins ... on move 122.