

Joel Benjamin

Liquidation on the Chess Board

Mastering the Transition into the Pawn Endgame

Third, New & Extended Edition

New In Chess 2019

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Acknowledgments

Thank you to the New In Chess editorial staff, particularly Peter Boel and René Olthof, who provided a lot of useful suggestions for fine-tuning the manuscript.

I would like to extend my appreciation to Alex Baburin for his work in his online newspaper *Chess Today*. After seeing some fascinating pawn endings appear in CT's 'Endgame Kaleidoscope' I was inspired to flesh out his excellent analysis and seek out more endgames, which led to the production of this book.

I would also like to thank my students, John Burke, Praveen Balakrishnan, Aaron Jacobson, and Brandon Jacobson for providing games for the book.

For analysis conducted in the original edition I used the chess engine Fritz 13 (with some help from Rybka 2.3.2a 32-bit). I used Komodo 12.2.2 64 bit for games added in this extended edition. Chess engines have grown tremendously in strength to the point where all works of analysis rely heavily on their input. Computers uncovered a host of hidden possibilities missed by players, analysts, and myself. These discoveries made the book a whole lot richer. Readers, however, should be aware of the limitations chess engines have in the endgame. All the engines were adept at finding conclusive continuations – forced zugzwangs, pawn breakthroughs, and the like. But in positions where the key question is how to make progress, engines often faltered, producing winning evaluations without any apparent winning plan. Engine analysis continues to improve, but the danger zones of fortress/no discernible progress still exist and must be taken into account during endgame study.

Endgame tablebases provide a true assessment for positions with limited material. I consulted the online Shredder endgame database for all positions with six or fewer pieces. All such positions in this book thus have that extra quality assurance. Tablebases are most often cited here in queen & pawn vs queen endings, partly because proper play in such endings is difficult to explain as well as lengthy and beyond the scope of the agenda here. As I have said in the chapters, tablebase wins and draws are very difficult to execute properly for humans. In the pure pawn endings, tablebase analysis is quite enlightening and understandable, though most of these positions have been worked out by humans.

In between versions of *Liquidation* I wrote *Better Thinking, Better Chess* for *New In Chess*. That experience has made me especially focused on the practical aspects of analysis. The ‘objective reality’ of the computer is so often unreachable in human play. Since most of the readers do not possess the skills of the grandmasters represented in so many of these games, whenever possible they should make decisions that will make these endgames easier to play.

This third, extended edition features 50 new examples, as well as several other additions and corrections.

Finally, I would like to dedicate this book to past and potentially future Olympians, my wife Deborah and my children Aidan and Amy.

Joel Benjamin
Waldwick NJ, March 2019

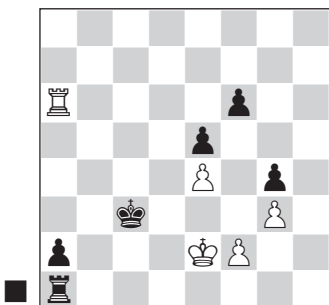
PROLOGUE

The ABCs of chess

I was playing my first games as a grandmaster in Jerusalem 1986, which coincided with the FIDE Congress in Dubai. The venerable Viktor Kortchnoi had been gradually outplaying me, and I felt the game slipping away in the following position:

Joel Benjamin 2540
Viktor Kortchnoi 2650

Jerusalem 1986 (3)



47...♖b1

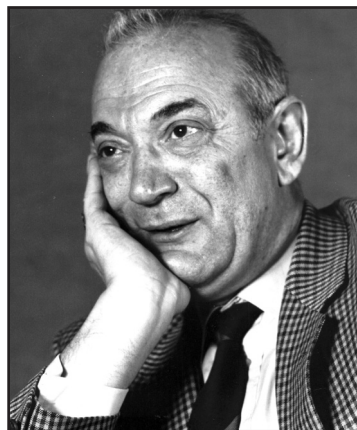
This move gave me a bad feeling. Black can also win with 47...♖c1 48.♖c6+ (48.♖xa2 ♖c2+) 48...♖b2 49.♖b6+ ♖a1 50.♖d2 (or 50.♖xf6 ♖c2+ 51.♖d1 ♖b1) 50...♖b1 51.♖xf6 ♖b2 52.♖b6+ ♖a3 53.♖a6+ ♖b3 54.♖b6+ ♖c4, etc. But Kortchnoi forced the pawn ending right away, obviously seeing it all to the end.

48.♖xa2 ♖b2+ 49.♖xb2 ♖xb2

Even though the black king seems to be far from the action, White is lost!

50.f3

White can't do without this move, for example, 50.♖d2 ♖b3 51.♖d3



JORIS VAN VELZEN

Viktor Kortchnoi

♖b4 52.♖d2 ♖c4 53.♖e3 ♖c3 54.♖e2 ♖d4 clips the e4-pawn.

50...♖c3!

Chess is not checkers – you don't have to take. 50...gxf3+ 51.♖xf3 ♖c3 52.♖g4 ♖d4 53.♖f5 wins for White.

51.fxg4 ♖d4 52.♖f3 ♖d3 53.♖f2 ♖xe4 54.♖e2 ♖d4 55.♖d2 e4

56.♖e2 e3

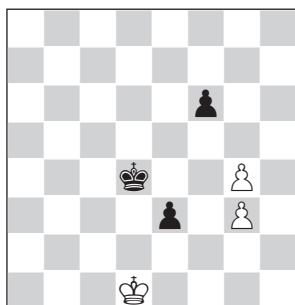
The game was adjourned here (remember adjournments, anyone?) and I sealed...

57.♖d1

I would obviously lose after 57.♖e1 ♖d3 58.♖d1 e2+ 59.♖e1 ♖e3 (I like to call this motif the 'fake stalemate' – White has to move

pawns against his will) 60.g5 fxg5 61.g4 ♖f3. But now I seemed to hold: 57...♔d3 58.♖e1 e2 59.g5 fxg5 60.g4 ♖e3 leads to a real stalemate, while 60...♖e4 61.♖xe2 ♖f4 62.♖f2 ♖xg4 63.♖g2 gains White the opposition and draws.

I knew this couldn't be correct. Kortchnoi had played too quickly and confidently and the position didn't look like it should be a draw. Before leaving the table, Kortchnoi looked at me and said, 'I know something about triangles.' I was lost in more ways than one, because I still didn't see the win. Fortunately Dmitry Gurevich, who was 'classically trained' in the endgame (i.e. he grew up in the Soviet Union) showed me the potential finale.



Indeed, it is all about triangles: 57...♔d5! 58.♖e1 ♖e5! 59.♔d1 (59.♖e2 ♖e4 puts White in zugzwang; the king can go to e2 only if Black's king is already on e4) 59...♔d4 and having created the position with White to move, Black

wins easily after 60.♖e1 ♔d3. Very pretty, but quite simple, too. I ran after Kortchnoi and resigned, apologizing profusely for my ignorance. Quite perplexed, Kortchnoi told me, 'It is the ABCs of chess!' Of course he was right. Triangulation is a basic technique in pawn endings, which are the building blocks for all other endgames.

I realized how important it is to understand pawn endings, and I've been fascinated by them ever since. The magical quality of so many of these endings, where the result often hinges on wonderful subtleties, drew me to writing this book, but there was another practical point that I felt needed to be addressed in print.

Pawn endings do not arise out of nowhere; we know of course that every pawn ending started out as an endgame with more pieces on the board. Some endgame works have addressed the issue with chapters on simplification into pawn endings, but this feels insufficient to me. Just as Kortchnoi's mastery of pawn endings led him to an easy win from the rook endgame, studying the transition will help us see the pawn endings evolve and enable us to appreciate and understand them so much better.

Introduction

Examples in this book are drawn almost exclusively from practical play. Many of the games are recent and have not appeared in any other endgame manuals. Some others have appeared only in the pawn ending form. In analysis I have tried to focus on the practical aspects of the decisions each player had to make. The move numbering is from the original games to indicate the length of the struggle and possible effects of time pressure. I have generally followed the game continuations to the end, even if the play is far from optimal, because we learn as much from the mistakes as from the proper solutions. Along the way I discovered many amazing possibilities hidden in sidelines.

The examples are divided into chapters according to the material present before the liquidation. I have explored the unique aspects of particular pieces in regard to the endgame, e.g. placement of pawns on light and dark squares in relation to bishops, the dynamics of knights and outside passed pawns, positions that favor one minor piece over another, the bishop pair, and bishops of opposite colors. In a number of examples, liquidation occurs almost immediately; obviously the pawn ending takes center stage there. In other cases, the pieces may stay on for several moves, or possibly only come off in a key variation. ‘To trade or not to trade’ – that is the question that can only be understood by examining both pathways. I strove to offer, as much as possible, practical advice about these decisions, in addition to analyzing the critical variations.

The process is, to some extent, working backwards from the pawn ending. So I have subdivided the examples according to general pawn ending themes, which I will explain below:

Technical liquidation

In these cases the transition to the pawn ending is the key itself, and the resulting position is won or drawn without complications.

Tempo games

I have often said about pawn endings, ‘It’s not where you are going, it’s when you get there.’ Results are often determined by exact timing of moves. Zugzwang, opposition and triangulation are important themes in this realm.

King activity

These are endings where the primary factor is the superior activity of one player's king, though often it will be counterbalanced by a competing advantage.

Passed pawn dynamics

This category explores the typical possibilities created by protected passed pawns, outside passed pawns, connected passed pawns, etc.

The race

Many endings come down to both players trying to queen a pawn as fast as they can. The race can involve kings clearing the way for pawns or pawns doing it for themselves. Breakthrough tactics are often involved.

The key moment often comes after both sides promote. There may be tactics to win the queen, force mate, or re-liquidate. Even when the slower player only gets the pawn to the seventh rank, the special circumstances of rook or bishop pawns lead to further nuances.

Breakthrough

Sometimes one can force a passed pawn despite having a minority or an equal number of pawns in an area of the board. Sacrifices can not only create passed pawns but open up squares to help these pawns queen. Certain typical pawn structures generate breakthrough opportunities. Breakthroughs and races are often intertwined.

Sacrifices and countersacrifices

In these cases the pawn ending arrives in stages. One player sacrifices a piece (generally for (a) strong passed pawn(s) or dominant king position). The second will be compelled to sacrifice in return later on.

For this New and Extended 3rd Edition, I have added new categories:

Fortress

These are positions where the stronger side cannot finish the job despite having an apparently winning position. The obstacles can be inability to open the position or penetrate with the king, and stalemate possibilities.

Pawn structure

In these examples a weakness in pawn structure, such as doubled pawns, plays a key role in the ensuing play.

Naturally, there is a great degree of overlap, and the positions do not always fit neatly into these categories.

I have tried to emphasize the human element of these games as much as possible. I hope to help the reader understand how to anticipate the developments in these types of endings and offer practical advice for making these critical decisions.

All of the chapters conclude with exercises for the reader. In each case the reader is asked a question, rather than simply expected to find a winning or drawing continuation. The questions may compel the reader to make a decision about liquidation. It may be whether trading is the correct option, or choosing between moves based on a potential liquidating resource. For a greater challenge, the exercises are not organized by theme. However, there is a hints section in the back of every chapter where a word or phrase will be offered for each example to gently guide the reader.

A section on thematic positions from pawn endings can also be found at the end. These diagrams graphically depict basic critical motifs that should be understood after reading the chapters. For further review, each position will include game references from the chapters that illustrate the concept.

For this Extended Edition, I have added more than fifty new games, supplementing the main chapters and exercise sections. Most of these examples are recent games, some ‘ripped from the headlines’, with an occasional golden oldie. I have also added a few more positions to the thematic positions section.

Lastly, writing this book was both fun and educational, and I continue to view endgames – especially ones with juicy liquidations – with excitement and wonderment. I believe readers will have a similar experience, and I hope to trigger in you the same passion for the endgame.

CHAPTER 8

Major piece endings

Two rooks each

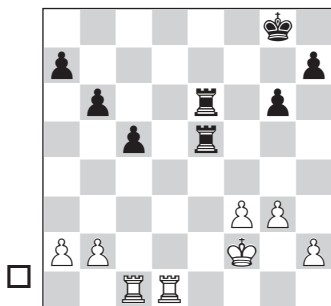
The double rook endgame brings particular judgment decisions of whether to swap both pairs of rooks, or just one. The pawn ending may arrive in stages, but the mass liquidation is often a distinct possibility, as in the next case.

King activity

Game 8.1

Praveen Balakrishnan 2418**Kanan Heydarli** 2255

New York 2013

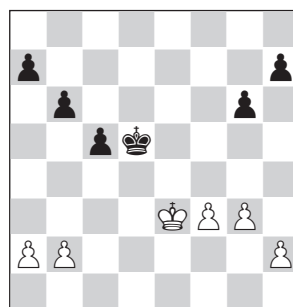


White can meet the threat of 28...♖e2+ with 28.♜c2, guarding everything with plenty of time to organize sufficient counterplay. Instead he chose:

28.♜e1

A Caissic roll of the dice. Allowing the pawn ending is a dubious decision, even if White can hold with best play. Subtle differences, like slightly better king position, can have a far greater impact in

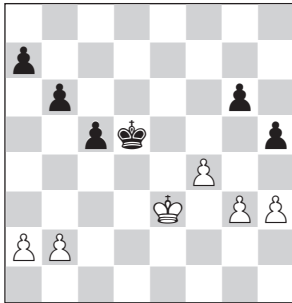
the pawn ending than in the rook ending. It has to be said that White can even win sometimes if Black overreaches in the pawn ending. Black surprisingly went for **28...♙f7 29.♜xe5 ♜xe5 30.♞d1** with an eventual draw. But the far more testing line was 28...♜xe1 29.♜xe1 ♜xe1 30.♙xe1 ♙f7 31.♙e2 ♙e6 32.♙e3 ♙d5.



analysis diagram

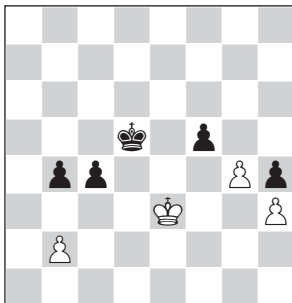
We have an ending similar to Ivanchuk-Karjakin from Chapter 2 (Game 2.19). The majorities look pretty similar, but Black's king is better placed so he should have better chances. Black is faster after 33.♙f4 ♙d4 34.g4 c4 35.♙g5 b5 36.f4 b4 37.f5 gxf5 38.gxf5 c3 39.bxc3+

bxc3 40.f6 c2 41.f7 c1♙+, so 33.f4 should be preferred: 33...h5 34.h3



analysis diagram

A) 34...c4 35.a4! a6 36.g4 h4 37.♖f3 b5 (the same result comes from 37...♗d4 38.f5 gxf5 39.gxf5 ♖e5 40.♗g4 ♖f6 41.♗f4 b5 42.axb5 axb5 43.♗e4 b4 44.♗d4 c3 45.bxc3 bxc3 46.♗xc3 ♗xf5) 38.axb5 axb5 39.♗e3 b4 40.f5 gxf5



analysis diagram

41.gxf5 ♖e5 42.f6 ♗xf6 43.♗d4=;

B) 34...b5 35.b3! c4 and now White has a choice:

B1) 36.bxc4+ bxc4 37.g4 h4 38.a3 c3 39.♗d3 c2 40.♗xc2 ♖e4 41.f5 gxf5 42.gxf5! (now 42.g5? ♖e5 43.♗d3 ♖e6 will land White in zugzwang) 42...♗xf5 43.♗d3 ♖f4 (Black wins the h-pawn, but the rook pawn on the other side dooms him to a draw) 44.♗e2 ♗g3 45.♗e3

♗xh3 46.♗f3 ♗h2 47.♗f2 h3 48.a4 a5 49.♗f1 ♗g3 50.♗g1 ♗f3 51.♗h2 ♗e3 52.♗xh3 ♗d3 53.♗g2 ♗c3 54.♗f2 ♗b3 55.♗e2 ♗xa4 56.♗d2 ♗b3 57.♗c1, etc.;

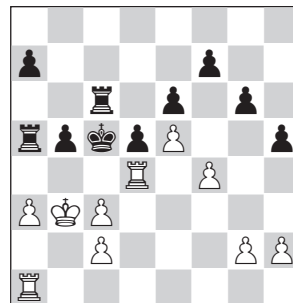
B2) Giving Black a protected passed pawn with 36.b4!? is counter-intuitive, but the only way for Black to progress is to give this pawn away – and it could be a costly mistake: 36...c3 37.g4 h4?? (37...hxg4 38.hxg4 c2 39.♗d2 ♖e4 40.f5 gxf5 41.gxf5 ♗xf5 42.♗xc2=) 38.♗d3 c2 39.♗xc2 ♖e4 40.f5 gxf5 41.g5!! (41.gxf5 would lose, because Black has more queenside pawns to feast on, but now this move actually wins for White!) 41...♖e5 42.♗d3 ♖e6 (42...f4 43.g6 ♖f6 44.♗e4+–) 43.♗d4 ♖f7 44.♗e5 ♗g6 45.♗f4 a6 46.a3 and zugzwang gives White the point.

In the next example the inferior side fails to prepare for a single trade and falls in the pawn ending.

Game 8.2

Yuleikys Fleites Marti 2179
Aramis Alvarez Pedraza 2565

Merida 2011 (1)



Black has a better pawn structure, but the only way through will involve exchanges.

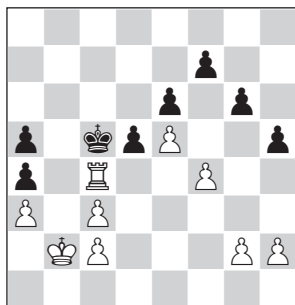
36...♖a4 37.♗b4 ♕b6 38.♞d1

White has several chances to draw by accepting a single rook ending, but by stubbornly holding the line he lets the draw slip away. 38.♖xa4 bxa4+ 39.♕b2 ♖c4 40.g3 ♗e4 41.♞d1 should hold.

38...♖c4 39.♞d4 ♕c5 40.♕b2?

This was the last chance to get in 40.g3. Then 40...a5 41.♗bxc4+ ♖xc4 42.♞d3 ♗e4 43.h4 gives Black a pretty position, but it's not at all clear how he can break through.

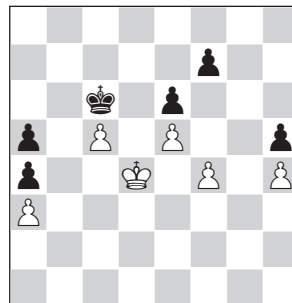
40...a5 41.♗xa4 bxa4 42.♖xc4+



42...dxc4!

Black clears a path for his king and wins directly. 42...♕xc4? may seem natural, but after 43.g3 Black is in zugzwang and must scramble for a draw, which he can just achieve with 43...h4 44.gxh4 d4 (on 44...♕c5 45.♕c1 ♕b5 46.♕d1 ♕c5 47.♕e2 ♕c4 48.♕d2 d4 White wins with either 49.h3 or 49.cxd4 ♕xd4 50.h3) 45.cxd4 ♕xd4 46.h3! ♕c4 (46...♕e4 47.♕c3 ♕xf4 48.♕d4+–) 47.♕c1 and now 47...♕c3! 48.♕b1 ♕d4 49.♕b2 ♕c4 is a clear draw, but even

47...♕d5 is sufficient: 48.♕d2 ♕d4 49.h5! gxh5 50.h4 ♕c4 51.c3 ♕c5 52.♕d3 ♕d5 53.c4+ ♕c5 54.♕c3 ♕b6 55.♕d4 ♕c6 56.c5 and now:

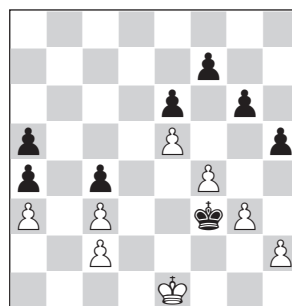


analysis diagram

A) 56...♕b5? 57.f5 exf5 (57...♕c6 58.fxe6 fxe6 59.♕c4+–) 58.♕d5 f4 59.c6 ♕b6 60.♕d6 f3 61.c7 f2 62.c8♖ with a large advantage for White;

B) 56...♕c7! 57.f5 exf5 58.♕e3 ♕c6 59.♕f4 ♕xc5 60.♕xf5 ♕d5 61.♕f6 ♕e4 62.♕xf7 ♕xe5 63.♕g6 ♕e6 64.♕xh5 ♕f5=.

43.♕c1 ♕d5 44.♕d2 ♕e4 45.g3 ♕f3 46.♕e1



46...h4!

And White resigned.

Black avoided a little trap: if 46...♕g2?? 47.♕e2 ♕xh2 (47...h4 48.g4 is the same) 48.♕f2 draws

because Black lacks a tempo to get his king out of the box, for example 48...♔h3 49.♕f3 h4 50.g4.

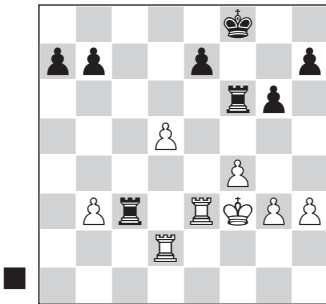
The race

Game 8.3

Amalia Aranaz Murillo 2244

Anna Matlin 2064

Maribor jr 2012 (4)



In the double rook ending, Black's outside passed pawn is balanced by White's superior king activity. Black gets the idea to aim for a pawn ending where the outside passer becomes a greater factor:

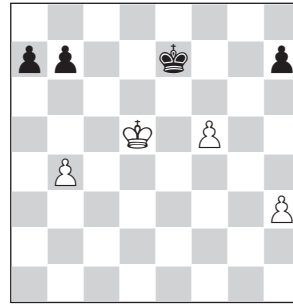
**28...♖c7 29.♜dd3 ♜d6 30.g4 ♜cd7
31.♜e5 e6 32.♕e4 ♜xd5 33.♜exd5
♜xd5 34.♜xd5 exd5+ 35.♕xd5 ♕e7
36.b4**

This seems logical because Black will have difficulties making a passed pawn.

36...♕d7 37.f5?!

White has an easier time of it with 37.♕e5 ♕e7 (White is faster after 37...a6 38.♕f6 b6 39.f5 gxf5 40.gxf5 a5 41.bxa5 bxa5 42.♕g7) 38.f5 gxf5 39.♕xf5!=. White's majority is the equal of Black's.

37...gxf5 38.gxf5 ♕e7



39.f6+?

The World Youth fast time controls are not conducive to precise play in the pawn ending. Both players foresee a race, but White's approach leaves her losing the tempi battle.

39.♕e5 would not help: 39...a6
40.♕d5 b6 41.♕c6 a5 42.bxa5 bxa5
43.♕b5 ♕f6 44.♕xa5 ♕xf5 45.♕b4
♕f4 46.♕c3 ♕g3 47.♕d2 ♕xh3
48.♕e2 ♕g2–+.

But 39.h4!! holds the draw:

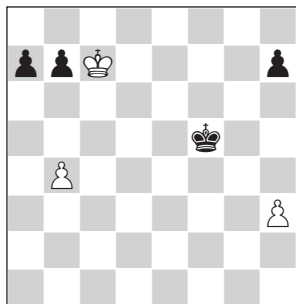
A) 39...♕f6 40.♕d6 ♕xf5 41.h5!!
(41.♕c7 b6 42.b5 ♕e5–+) 41...♕g5
42.♕c7 b5 43.♕c6 ♕xh5 44.♕xb5
♕g5 45.♕a6 h5 46.b5 h4 47.♕xa7
and both sides will queen;

B) 39...h5 40.f6+ (now this works because Black's reserve tempo move is gone) 40...♕xf6 41.♕d6 ♕f5 42.♕c7 b6 43.b5 and Black has to accept both sides queening with 43...♕g4 because now the trip to the queenside even loses: 43...♕e5? 44.♕b7 ♕d5 45.♕xa7 ♕c5 46.♕a6+–.

39...♕xf6 40.♕d6 ♕f5!

40...b6 41.b5 ♕f5 42.♕d5 h5 43.♕d6 ♕e4! is also good.

41.♕c7

**41...b5?**

41...b6 is the all or nothing move, but after 42.b5 ♖e5 43.♙b7 ♖d5 44.♙xa7 ♖c5 45.♙a6 h6! 46.h4 h5—+ White is the one in zugzwang.

42.♙c6 ♙e4 43.♙xb5 ♖d5 44.h4 h5 45.♙a6 ♖c4 46.♙xa7 ♖xb4 47.♙b6 ♖c4 48.♙a5!

The simplest method, though White can afford to get the right idea later: 48.♙c6 ♖d4 49.♙d6 ♙e4 50.♙e6 ♙f4 51.♙f6 ♙g4 52.♙e5! =.

48...♖d4 49.♙b4 ♙e4 50.♙c3 ♙e3 51.♙c2 ♙f3 52.♖d2 ♙g3 53.♙e2 ♖xh4 54.♙f2 ♖h3 ½-½



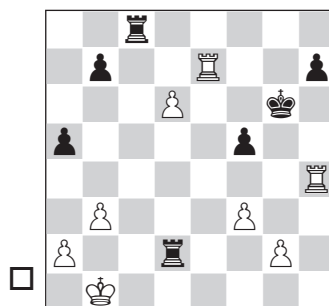
Viswanathan Anand

Tempo games

Game 8.4

Viswanathan Anand 2791**Boris Gelfand** 2727

Moscow Wch m 2012 (3)



The following endgame occurred on the highest stage, and was naturally scrutinized by many players, particularly in the pages of Chess Today by Alexander Baburin and Artur Kogan.

Here Anand missed his chance with 34.♖c7? ♜e8 35.♜h1 ♜ee2 36.d7 ♜b2+ 37.♙c1 ♜xa2 ½-½.

White could have liquidated successfully in stages, beginning with

34.d7 ♜cc2 35.♜c4! ♜xc4

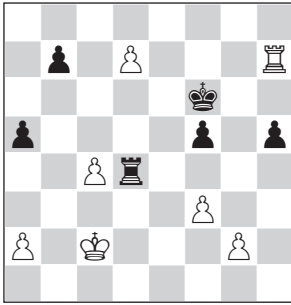
After 35...♜b2+ 36.♙c1 ♜xa2 37.♜c8 ♜f2 38.♜e6+ ♙h5 39.g4+ fxg4 40.♜c5+ White will queen with check.

36.bxc4 h5 37.♙c1 ♜d4 38.♙c2 ♙f6

38...♜xc4+? 39.♙d3 ♜c1 40.♙d2.

39.♜h7

On 39.d8 ♜ ♜xd8 40.♜xb7 ♜g8 wins the g-pawn.



39...♔e6

After 39...♔g6 40.♔c3 ♖d1 41.d8♗ ♗xd8 42.♗xb7 Black does not win the g-pawn, so White maintains excellent winning chances.

40.♔c3

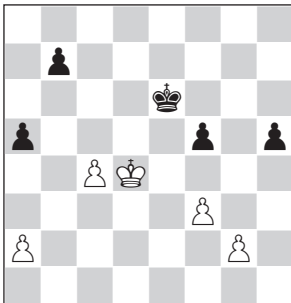
40.d8♗ ♗xd8 41.♗xb7 ♗g8.

40...♗xd7

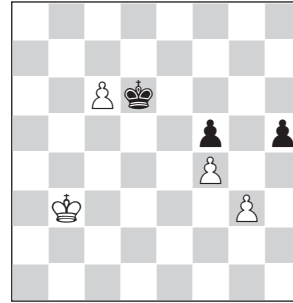
It doesn't help to wait, for example:

40...♗d1 41.c5 ♗xd7 42.♗xd7 ♔xd7 43.f4 ♔c6 44.♔d4 ♔b5 45.♔e5 ♔xc5 46.♔xf5 b5 47.♔g6 and White wins the race.

41.♗xd7 ♔xd7 42.♔d4 ♔e6



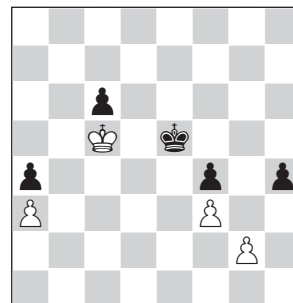
Here, Kogan proposed a win after 43.f4 b6 44.c5 b5 45.g3! (45.c6 ♔d6 46.c7 ♔xc7 47.♔c5 b4 48.♔b5 ♔d6 49.♔xa5 ♔c5=) 45...♔e7 46.♔d5 (46.♔e5 a4 47.♔d5 ♔d8 48.c6 b4 49.♔c4 leads to the same thing) 46...a4 47.c6 b4 48.♔c4 b3 49.axb3 axb3 50.♔xb3 ♔d6



analysis diagram

51.♔c3! ♔xc6 52.♔c4! ♔d6 53.♔d4 ♔e6 54.♔c5 and White wins easily. Kogan pointed out that chess engines see the win only close to the end (my experience was similar).

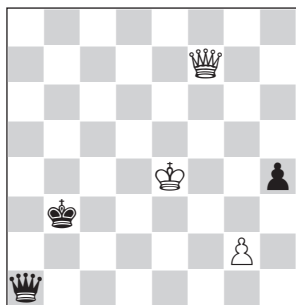
A deep search reveals that White can also win (in rather more spectacular fashion) with 43.c5. The main line goes 43...f4 44.♔e4 a4 45.a3 h4 46.♔d4! (46.♔xf4 ♔d5 47.♔g5 ♔xc5 48.f4 ♔d6 49.♔g6 ♔e7 50.♔g7 ♔e6=) 46...♔d7 47.♔c3 ♔e6 48.♔c4 ♔e5 49.c6! bxc6 50.♔c5.



analysis diagram

With this shouldering maneuver, White completes the pawns swap on the queenside, slowing Black down

considerably on that side. Then he can turn his attention back to the kingside: 50...♔f5 51.♔xc6 ♕e6 52.♔c5 ♕e5 53.♔c4 ♕e6 54.♔d4 ♔d6 55.♔e4 ♔c5 56.♔xf4 ♔c4 57.♕e4! (only on this square can White force a win) 57...♔b3 58.f4 ♔xa3 59.f5 ♔b3 60.f6 a3 61.f7 a2 62.f8 ♖a1 ♖ 63.♖f7+.



analysis diagram

Black can only delay the inevitable queen trade: 63...♔c2 64.♖f2+ ♔b3 65.♖b6+ ♔c4 66.♖c6+ ♔b4 67.♖d6+ ♔c4 68.♖d5+ ♔b4 69.♖d4+ ♖xd4+ 70.♔xd4 and White wins.

In a match where almost every game (including this one) concluded before the second time control, these variations would surely have livened things up.

Queens and rooks

With dissimilar major pieces, the choice of which trade to make can produce quite different kinds of endgames. Moreover, one has to consider how the initial trade – be it queens or rooks – will impact a potential final liquidation.

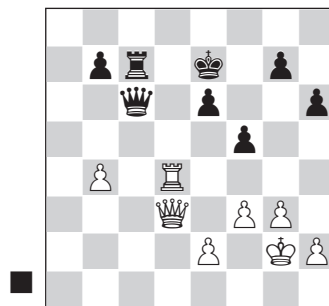
Tempo games

Game 8.5

Diego Flores 2601

Mustafa Yilmaz 2626

Dubai 2018 (6)



White's majors could potentially attack Black's king, so an offer of liquidation makes perfect sense.

34...♖d7 35.♖xd7+ ♖xd7 36.♖c3

White can't consider further liquidation because the centralized black king becomes a decisive asset: 36.♖xd7+? ♔xd7 37.♔f2 ♔c6 etc. But perhaps this fact made Black complacent about future liquidation.

36...♔f7 37.♖c5 ♖c6?!

The engines consider this as good as any move because it leads to a draw with best play. Still, I feel it's a very bad move because Black should not have to find forced moves to draw.

The pro-active approach is probably the best solution: 37...♖d1 38.♔f2 (if 38.♖c4, 38...♖d6 or a half-dozen other moves keep the balance) 38...♖h1 and White will either have to concede perpetual check

or make a dubious winning try like 39.♖c7+ ♘g6 40.♗xb7 ♗xh2+ 41.♔e3 ♗xg3.

38. ♗xc6 bxc6 39. ♔f2 e5

Black has other moves, but they require good future decisions, e.g. 39...♔e7 40.♔e3 e5 41.♔d3 ♔d6 42.e4 f4! 43.g4 ♔c7 44.♔c3 ♔b7! 45.♔c4 ♔b6 46.h4 g6=; or 39...♔f6 40.♔e3 (40.e4 e5 41.♔e3 h5) 40...e5 41.♔d3 f4.

40.e4

White takes the d5-square from the rival king and fixes the e5-pawn for potential capture.

40...fxe4

40...f4 is actually more air tight. After 41.gxf4 (41.g4 ♔e6 42.♔e2 ♔d6 43.♔d3 ♔c7 we've already seen) 41...exf4 the protected passed pawn doesn't help that much because if White's king strays too far Black will make a kingside passer.

41.fxe4 ♔e6??

Black plays into a straightforward zugzwang. The only way is to set up counterplay on the kingside for when White's king runs to the other side: 41...♔g6 (41...♔f6 is okay, too; 42.h4 g5 43.♔f3 gxh4 44.gxh4 ♔g6 45.♔g4 ♔f6=) 42.♔f3 ♔g5 43.h3 ♔h5 44.♔e2 ♔g5 45.♔d3 h5 46.♔c4 h4 47.gxh4+ ♔f4! 48.♔c5 ♔xe4 49.♔xc6 ♔f3 50.b5 e4 51.b6 e3 52.b7 e2 53.b8♗ e1♗ 54.♗f8+ ♔g3 55.♗xg7+ ♔xh3 (55...♔xh4?? 56.♗g4#) 56.h5 ♗e6+ and Black will either give perpetual or grab the h5-pawn.

42. ♔e3 ♔d6 43. ♔d3 c5

43...♔c7 44.♔c4 ♔b6 45.g4 ♔b7 46.♔c5 ♔c7 47.b5 and the e5-pawn will drop due to zugzwang.

44.b5 ♔c7 45. ♔c4 ♔b6 46.g4 g6

47.h4 h5 48.g5

Black resigned.

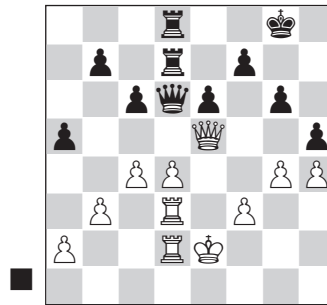
The decision to initiate or offer a mass liquidation is not necessarily an either/or proposition. Trades need not be avoided but rather delayed until the timing becomes right.

Game 8.6

Gabor Papp 2596

Alexander Donchenko 2573

Prague 2016 (9)



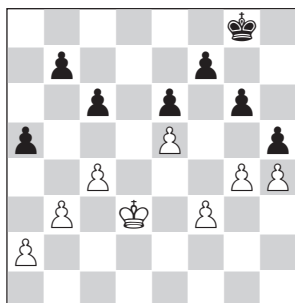
The mass liquidation happens by Black's choice, which can convey a certain degree of optimism about it. It is not inherently good or bad — the timing will decide.

31... ♗xe5+?

I'm sure that young grandmaster Donchenko saw he could wait with 31...hxg4 32.fxg4 ♔h7. White is left waiting with all of his pieces, and he cannot plow through with 33.h5? ♗xe5+ when the pawn ending

is winning for Black. Perhaps he thought he saw an opportunity to win.

**32.dxe5 ♖xd3 33.♖xd3 ♖xd3
34.♔xd3**



34...c5

White's centralized king is poised to herald victory on either side. The attractive continuation 34...g5 does not work: 35.hxg5 hxg4 (White's king is in the square of the h-pawn) 36.f4! ♔g7 37.♔e3 ♔g6 38.♔f2 ♔f5 39.♔g3 c5 40.a3 a4 41.bxa4 b6 42.a5 bxa5 43.a4, winning with zugzwang. Giving White a potential outside passed pawn leads to a predictable result: 34...hxg4 35.fxg4 c5 36.♔e3 ♔g7 37.♔f4 ♔h6 38.♔g3 ♔h7 39.h5 ♔h6 40.♔h4 g5+ 41.♔g3 and White wins by maneuvering the king to the a-file. The ...f7-f6 break doesn't help because White's king will always be in the square of the e-pawn, and can return decisively to the center.

Finally, Black can't wait either, because 34...♔g7 35.g5! ♔f8 36.♔c3 leads to decisive penetration on the queenside, helped by lots of spare tempo moves.

35.gxh5

35.♔c3? g5 would turn the tables, but White has a straightforward win on the kingside now.

**35...♔g7 36.♔e4 gxh5 37.f4 ♔g6
37...f5+ 38.exf6+ ♔xf6 39.a3** again concludes by zugzwang.
**38.f5+ ♔g7 39.♔f4 ♔h6 40.a3 b6
41.a4**

Black resigned.

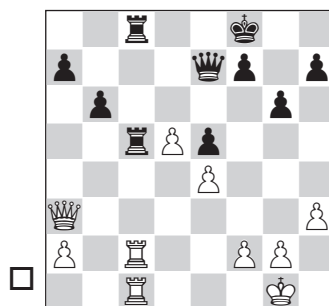
Passed pawn dynamics: protected passed pawns

Game 8.7

Le Quang Liem 2702

Alexander Grischuk 2785

Tromsø 2013 (3)



33.♖xc5 ♖xc5

Here Black has to have a serious think about what endgame he will defend before he makes any captures at all.

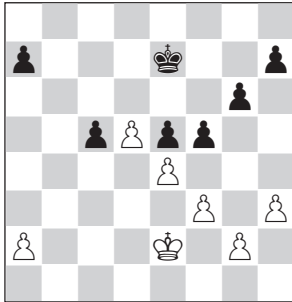
I'm inclined to think the best chance was 33...bxc5. White can combine threats to penetrate on the b-file with the potential advance of the d-pawn, but Black has more chances to mix it up. The game might continue 34.♖b1 ♔g7 35.♖a6

♖d8 36.♗xa7 c4 37.♖b7 ♗f8 38.♖c7 c3 39.d6 ♖d8 and Black can still fight.

34.♖xc5 ♗xc5

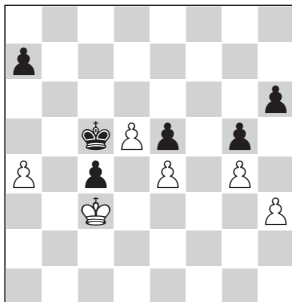
The timing is bad for Black; after 34...bxc5 35.♗a6 White's queen will take up a decisive post on c6 because 35...♗d7 and 35...♗c7 are smashed by 36.♗f6.

35.♗xc5+ bxc5 36.♔f1 ♔e7 37.♔e2 f5 38.f3



38...♔d6

This loses prosaically. Perhaps Grischuk counted on 38...c4 39.♔d2 ♔d6 40.♔c3 ♔c5, but Black's apparent activity counts for nothing as his reserve pawn moves will inevitably run out. White will only need to use a little triangulation: 41.g4 fxe4 42.fxe4 g5 43.a4 h6.



analysis diagram

Now White wins with 44.♔c2! ♔d6 45.♔d2 ♔c5 46.♔c3 a6 47.♔c2 ♔d6 48.♔d2 etc.

39.♔d3 f4 40.h4 ♔c7 41.♔c4 ♔d6

42.♔b5 h6 43.♔c4 a6 44.a3

Black resigned.

Zugzwang will cost him the c-pawn.

The race

Game 8.8

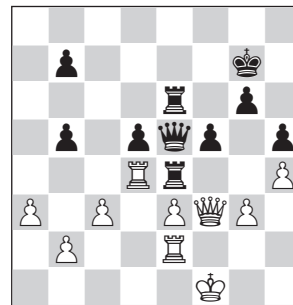
Joshua Colas

2242

Illya Nyzhnyk

2594

St Louis 2017 (1)



37...♖xd4

Nyzhnyk takes a shot with this exchange because 37...♖xe3 38.♗xe3 ♗xe3 39.♖xe3 ♖xe3 40.♔f2 ♖e5 41.♖b4 is actually clearly better for White, and there is really no other plan.

38.exd4?

Komodo evaluates both captures as equivalent – dead even in both cases. Yet this capture is definitely a mistake! After 38.cxd4, preparing for counterplay on the c-file, White is not the least bit worse. Black can try to mix things up with 38...♗e4

39. ♖xe4 fxe4 40. ♖c2 ♖f6+ 41. ♔g2
(41. ♔e2 is also fine) 41... ♖f3 42. ♖c7+
♔f6 43. ♖xb7 ♖xe3 44. ♖xb5 ♔e6,
but White can just as well win that
as lose it. The pawn ending offers
discernible advantages to Black
and is only drawn with exact play...
which White had not worked out.

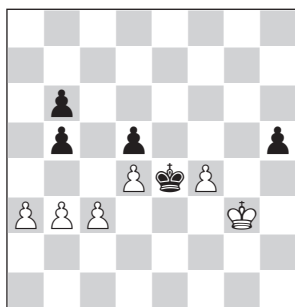
**38... ♖xe2+ 39. ♖xe2 ♖xe2 40. ♔xe2
g5 41. hxg5**

White gains nothing by avoiding
this exchange, though he does have
a rather fortunate draw in the long
variation 41. ♔f2 ♔g6 42. ♔f3 f4
43. g4! hxg4+ 44. ♔xg4 gxh4 45. ♔xf4
♔h5 46. b3 h3 47. ♔g3 ♔g5 48. ♔xh3
♔f4 49. a4 ♔e4 50. axb5 ♔d3 51. c4
♔xd4 (51... dxc4 52. d5 cxb3 53. d6=)
52. cxd5 ♔xd5 53. ♔g4 ♔c5 54. ♔f4
♔xb5 55. ♔e4 ♔b4 56. ♔d5! =.

41... ♔g6 42. ♔e3

It's a good policy to make your
opponent exhaust his reserve pawn
moves, though in this case 42. ♔f3
would have been just as good.

**42... ♔xg5 43. ♔f3 b6 44. b3 f4
45. gxf4+ ♔f5 46. ♔g3 ♔e4**



Black's king is a lot closer to the
critical sector, but because White
has an extra pawn to capture on
the queenside, White can still

surprisingly hold... and even more
surprisingly, he has two ways to do
it!:

A) 47. a4 bxa4 48. bxa4 ♔f5 49. ♔h4
♔xf4 50. ♔xh5 ♔e4 51. ♔g5 ♔d3
52. ♔f5 ♔xc3 53. ♔e5 ♔c4 54. ♔d6
♔xd4 55. ♔c6 ♔c4 56. ♔xb6 d4
57. a5=;

B) 47. ♔h4 ♔xf4 48. ♔xh5 ♔e4
49. ♔g5 ♔d3 50. ♔f6 ♔xc3 51. ♔e5
♔xb3 52. ♔xd5 ♔xa3 53. ♔c6=.

47. b4??

This fails to set up counterplay and
thus loses without a fight.

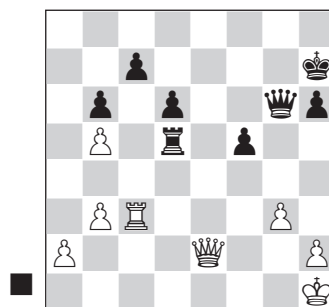
47... ♔f5 48. ♔h4 ♔xf4 49. ♔xh5 ♔e4
White resigned in view of 50. ♔g5
♔d3 51. ♔f5 ♔xc3 52. ♔e5 ♔c4.

Game 8.9

Vitali Golod 2573

Ivan Cheparinov 2581

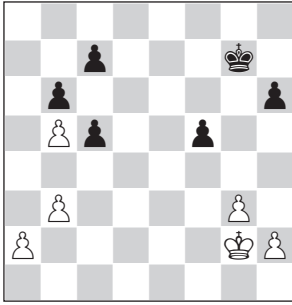
Yerevan Ech 2014 (9)



38... ♖c5??

After 38... ♖g7 White has just a
tiny advantage. Perhaps this was
an ill-advised (though ultimately
successful) winning attempt.

**39. ♖xc5 dxc5 40. ♖e7+ ♖g7
41. ♖xg7+ ♔xg7 42. ♔g2**



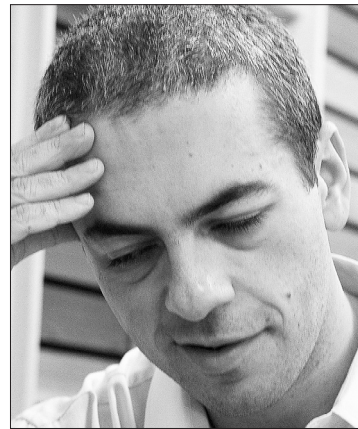
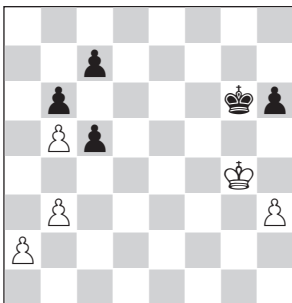
White's advantage may not seem obvious here. He possesses extra reserve tempo moves that will gain him the opposition.

**42...♔f6 43.♔f3 ♕e5 44.♕e3 ♔d5
45.♔f4 ♕e6 46.h3?**

This is actually a serious inaccuracy that Black failed to punish. White needed to push further: 46.h4! ♔f6 47.g4 fxg4 48.♔xg4 ♕e6 49.♔h5 c6 50.a4 and White wins the race.

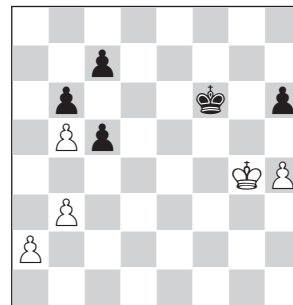
46...♔f6 47.g4 fxg4 48.♔xg4 ♕g6?

This seems forced, but Black actually has time to make a run for it with 48...♕e6 49.♔h5 c6!! 50.bxc6 (50.a4 cxb5 51.axb5 ♔d5 52.♔xh6 ♔d4 53.h4 ♔c3 54.h5 ♔xb3 55.♔g6 c4 56.h6 c3 57.h7 c2 58.h8♔ c1♔ 59.♔d4=) 50...b5 51.♔g4 ♔d6 52.♔f4 ♔xc6 53.♕e5 h5 and White has no winning chances.



Vitali Golod

49.h4 ♔f6



50.a4??

Golod has more or less the right idea, but the wrong timing. White must first pin back the black king: 50.♔h5 ♔g7 51.a4 ♔h7 52.♔g4 ♔g6 53.h5+ ♔f6 54.♔f4 ♕e6 55.♕e4. White has the opposition and wins all races: 55...♔f6 (55...♔d6 56.♔f5 ♔d5 57.♔g6 ♔d4 58.♔xh6 ♔c3 59.♔g5 ♔xb3 60.h6 c4 61.h7 c3 62.h8♔, etc.) 56.♔d5 ♔g5 57.♔c6 ♔xh5 58.♔xc7 ♔g4 59.♔xb6 h5 60.a5+-.

**50...♕e5! 51.♔h5 ♔d4 52.♔xh6
♔c3 53.h5 ♔xb3 54.♔g7 c4 55.h6**

c3 56.h7 c2 57.h8 ♖c1 ♖58. ♖a8 ♖a1+ 59. ♖g6 ♖xa4 60. ♖f3+ ♖b4 61. ♖f4+ ♖xb5 62. ♖xc7

It's a tablebase draw, which was not much consolation to Golod when he resigned on move 119.

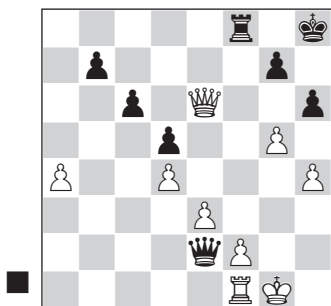
Fortresses

Game 8.10

Sanan Sjugirov 2650

Ernesto Inarkiev 2689

St Petersburg 2017 (1)



43...hxc5?

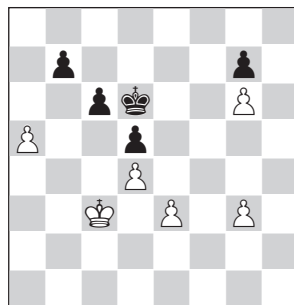
This is actually a huge error, as the open h-file will allow White to force liquidation. Black could hold the balance with 43...♖f3, not fearing 44.gxh6 ♜f6 when Black will do no worse than perpetual check. 44.♖e5 hxc5 45.hxc5 ♖g4+ 46.♖g3 ♖xc3+ 47.fxg3 ♜xf1+ 48.♖xf1 ♖h7 is noticeably different from the game continuation.

44.hxc5 ♖f3 45.g6 ♜f5

Black could soon lose his queen after 45...♖h5 46.f4!

46. ♖e8+ ♜f8 47. ♖e5 ♖g4+ 48. ♖g3 ♖xc3+ 49.fxg3 ♜xf1+ 50. ♖xf1 ♖g8

51.a5 ♖f8 52. ♖e2 ♖e7 53. ♖d3 ♖d6 54. ♖c3



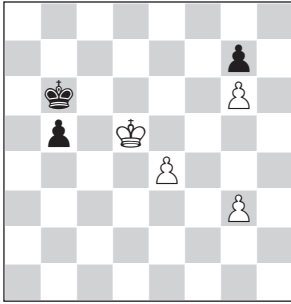
54...c5?

We have a proverbial rock and hard place situation. 54...♖c7 looks good against 55.♖b4? b6! 56.axb6+ ♖xb6 57.g4 ♖b7 58.♖c5 ♖c7 59.g5 ♖d7 60.♖b6 ♖d6 and Black holds because White has run out of reserve pawn moves. But 55.♖b3! is far more problematic, as 55...b6? 56.axb6+ ♖xb6 57.♖b4 ♖b7 58.♖c5 ♖c7 59.g4 ♖d7 60.♖b6 ♖d6 61.g5 ♖d7 62.♖b7 ♖d6 63.♖c8 wins easily. Inarkiev may have been dissuaded by the long line (if he had enough time to calculate) 55...♖b8 56.♖b4 ♖a7 57.♖c5 ♖a6 58.♖d6 ♖xa5 59.♖e6 b5 60.♖f7 b4 61.♖xc7 b3 62.♖f6 b2 63.g7 b1♖ 64.g8♖ and White will certainly have chances to win with his extra pawn.

55.dxc5+ ♖xc5 56. ♖d3 ♖b5 57. ♖d4 ♖xa5 58. ♖xd5 b5 59.e4 ♖b6

It's too early to pitch the b-pawn: 59...b4 60.♖c4 b3 61.♖xb3 ♖b5 62.♖c3 ♖c5 63.♖d3 ♖d6 64.♖d4 ♖e6 65.♖c5 ♖e5 66.g4 ♖e6 67.♖c6 ♖e7 68.♖c7 ♖e6 69.♖d8 and White will queen the e- or g-pawn. In this

line the e-pawn is back far enough and White has enough reserve tempi to win.



60.g4?

Sjugirov probably could not believe Black could hold with one pawn against three, but White's pawns must be placed just right to beat the fortress. When you think you are winning, the transition back into a

queen ending understandably looks less appetizing. But he had to go for 60.e5 b4 (60...♔c7 61.♔e6 b4 62.♔f7 b3 63.e6 b2 64.e7 b1♚ 65.e8♚ gives White a better version of the queen ending) 61.♔d6 b3 62.e6 b2 63.e7 b1♚ 64.e8♚ with good chances for White, but nothing guaranteed.

60...b4 61.♔c4 ♔a5 62.g5

62.e5 ♔b6 63.♔xb4 ♔c6 is still a draw because White doesn't have enough time to swing his king in behind before his own pawns get eaten.

62...b3 63.♔xb3 ♔b5 64.♔c3 ♔c5

65.♔d3 ♔d6 66.♔d4 ♔e6 67.e5

♔e7 68.♔d5 ♔d7 69.e6+ ♔e7

70.♔e5 ♔d8 71.♔d6 ♔e8 72.e7

1/2-1/2

Hints for Exercises Chapter 8

1. No way out
2. Too far apart
3. Look out for surprises
4. Best resistance
5. Zugzwang?
6. No complications