SHARP ENDGAMES



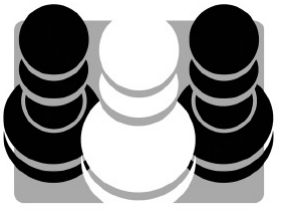
ESBEN LUND

QUALITY CHESS

Sharp Endgames

By

Esben Lund



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Sharp Endgames

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Key to symbols used

⩲	White is slightly better	⊙	zugzwang
⩱	Black is slightly better	?	a weak move
±	White is better	??	a blunder
∓	Black is better	!	a good move
+–	White has a decisive advantage	!!	an excellent move
–+	Black has a decisive advantage	!?	a move worth considering
=	equality	?!	a move of doubtful value
⩲	with compensation	#	mate
⇄	with counterplay		
∞	unclear		

Bibliography

Mark Dvoretsky: *Dvoretsky's Endgame Manual* (DEM), Russell Enterprises 2003. I shall refer to the positions from this work as 'DEM 2-10' etc.

Larry Evans: *Chess Endgame Quiz*, Cardoza Publishing 2002. The three exercises from this book are referred to as 'Evans 176', 'Evans 178' and 'Evans 181'.

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Juri Awerbach: *Endspiele Springer gegen Läufer, Turm gegen Leichtfigur*, Sportverlag Berlin 1989

Juri Awerbach: *Damenendspiele*, Sportverlag Berlin 1990

This is Averbakh's endgame work in six volumes. My book includes references such as 'Averbakh 39' and 'Averbakh 55' that allow the reader to track down the examples in Averbakh's original books.

Software

ChessBase 13

Syzygy Tablebases (all endgames up to 6 pieces)

Komodo 10

Fritz 15

Foreword

You hold in your hands a remarkable book – one that has the potential to greatly improve your results on the chess board. The legendary Viktor Korchnoi boldly claimed that anyone who worked through his book on *Practical Rook Endings* would be guaranteed to gain at least 100 rating points. Silas Esben Lund, originally from low-key Denmark like myself, is too modest to make such a claim, so let me do it for him: if you work through this book cover to cover, you are going to gain at least a similar amount of rating points as from Korchnoi's book – very likely more.

But be warned: the emphasis here is on *work*. What you put in, you will get out – don't expect a quick fix. This is a book for the ambitious chess players who are willing to put in the effort to pursue results through hard work and deliberate practice.

The main value of this book is in the depth of the examples and exercises, which are designed to challenge even International Masters and Grandmasters. After trying in vain to solve some of the demanding exercises, I can testify to the difficulty of the challenge!

However, Lund has a knack for making the difficult understandable. His explanations of the *process* by which even the most difficult exercises should be (and have been) solved is to the point and highly instructive. He explains how you can sharpen your skills in calculation; shows how to identify the Critical Moments in the game; and highlights how the middlegame is connected to sharp and basic endgames in a logical thread. In doing so, Lund helps his readers improve not only his or her skills in sharp endgames, but also in the middlegame and technical endgames.

At the core, the emphasis is on making good decisions at critical stages of the game. For that you need to combine several aspects – calculation, intuition, creativity, basic knowledge of chess, just to name a few. And you have to weave these components together into a useful and practical process. This is not easy, as many players tend to be biased in one way or another when making decisions in chess.

When trying to solve some of the exercises, I was reminded of an episode from a training session the Danish National Team had in Copenhagen with the legendary Russian coach Mark Dvoretsky, shortly before the 2000 Olympiad in Istanbul. Dvoretsky was feeding us difficult exercises, similar to those of Lund in this book, and one of them was a deceptively simple rook endgame where Black needed to decide where to go with his king in reply to a check. Using intuition and drawing on my long-term interest and experience in rook endgames, I quickly settled on the right move, but Dvoretsky was not happy with my intuitive decision. He wanted me to calculate and show the *line* that led to the right decision. While I got it right in this particular instance,

Dvoretsky reasoned that being overly reliant on intuition – as opposed to calculation – was a dangerous bias at Critical Moments. Certainly not all Critical Moments can be solved by intuition only. I took the advice to heart and forced myself to calculate deeper at Critical Moments. Shortly thereafter I had an excellent result at the Olympiad, and a year and a half later I reached a new personal best FIDE rating, despite being semi-retired at the time. This book has the potential to do the same for readers who choose to put in the effort – it will improve your ability to make the right decisions at the Critical Moments late in the game.

Out of the many great examples and exercises in this book, I will single out the study by Troitzky (1925) that opens Chapter 2. Unfamiliar to me, this study epitomizes how good decisions draw on a combination of calculation, intuition, creativity, and knowledge of basic endgames. A delight for chess fans interested in both studies and practical play!

I have known Silas for many years from the chess circuit in our shared home country, and I have always liked Silas's approach to chess, and chess coaching and writing in particular. Silas is an independent thinker who weaves plenty of personal experiences and games into his coaching and writing. And he shares a very important trait with other excellent coaches – he actually has a well-considered coaching *philosophy.* His book is extensively researched – not just in terms of the chess content, but also how expertise is achieved – and all the examples have been thoroughly checked by analysis engines and tested on chess students of various strength. As a result, this book is more than just a book – it is a curriculum for how to improve your chess.

Silas likes to take on topics that are under-represented in chess literature. I thoroughly enjoyed his earlier books, which are filled with new concepts that you will find in few other chess books. For example, who else would devote an entire book to bad bishops (*The Secret Life of Bad Bishops*), showing that a bishop is not 'born bad', but starts out as a 'DEB' – doubled-edged bishop – with the potential to be either good or bad, depending on what you do with it. The present book proceeds in the same vein – you will come away with a refined understanding of several key chess concepts – for example, Critical Moments, the role of Deliberate Practice in chess improvement, and the relationship between the middlegame, sharp endgames and basic endgames.

Silas Lund has issued you a challenge: invest time and effort in this book, and your chess results are going to improve – no matter your current level. The question is: are you ready to accept the challenge? I strongly encourage you to accept – you will not regret it.

Grandmaster Lars Bo Hansen
Orlando, Florida
September 2017

Preface

The process of writing this book has not been straightforward. I started collecting material for the book back in 2010, and my idea was to produce an effective and practical way of studying the endgame. I received valuable information about the level and the thought-processes when I tested all my material on Christian Eriksson at the beginning of 2011. It turned out that the exercises were more difficult than I thought, and I was keen to test the material on even stronger players (Christian was rated 2150 Elo at that time). When IM Andreas Hagen asked me to train him in his quest for the GM title, I saw this as a great opportunity.

At that time, Andreas and I were discussing the concept of Deliberate Practice as a way of optimizing the training, and he asked me if I could implement this concept in our sessions. This not only sharpened my approach to the exercises, but also forced me to make considerations about the thought-process and decision-making over the board. One of the five key points of Deliberate Practice as outlined by Geoff Colvin in *Talent is Overrated* is that feedback should be immediately available, and this led to my 16 parameters. At each Critical Moment (CM) in an exercise, at least one of these parameters is involved, and this turned out to be a very concrete way to measure performance and to explain the thought-process. In the first chapter – The Aim of the Book – I will outline this in more detail. Without the training sessions and discussions with Andreas, this would have been a different book, and I am very grateful for our cooperation.

Andreas would play the exercises against me and a strong chess engine. However, the exercises should not be dependent on two players only, so I prepared the exercises to be set up and played against the chess engine as well. In Chapter 9 you can find information about how to test yourself against the computer.

The book has five main sections based on endgames with knights, rooks, bishop versus knight, rook versus bishop or knight (exchange up) and queens. The introductions to these endgames are selective, and my treatment of the different endgames is aimed at preparing you for the exercise section.

I made an exception with the queen endgames though: here the endgame with queen and pawn versus queen is covered in great detail. Many sharp endgames (of any kind) result in transitions into queen endgames after a pawn promotion, and often with endgames where one side has an extra pawn. Even if the positions do not occur on the board, but only in the linked calculations, the information about this endgame is invaluable to making the right decision. In my analysis, I discovered that not all positions with an extra bishop's pawn are a win for the attacker (the status of the current endgame theory), and to my surprise, positions with an extra c- or f-pawn popped up several times in exercises throughout the book.

Other endgame findings worth mentioning are how a knight successfully fights a pawn from a distance, and how to play strategically and win with rook versus knight (no pawns). The sections 'Lord of the rings' and 'The dance of the rook' are more than just fancy titles.

I would like to thank all the people involved in the book over the past many years. Apart from Andreas Hagen and Christian Eriksson, Danish IM Nikolaj Mikkelsen read through the early draft and gave very useful feedback. GM Axel Smith and WIM Ellinor Frisk willingly tested exercises from the book and gave feedback when I visited them in Kristiansund, Norway, as did my teammates from Lund Chess Club in Sweden.

At a training session with the best Danish junior players, I had the chance to test them throughout a weekend, and this gave valuable insight from youngsters, who don't necessarily (yet) have a huge knowledge of basic endgame theory, albeit already showing great strengths – some of them FMs at the time, now IMs. Thomas Schou-Moldt also tested many positions at a training session with the Danish Women's Team and provided good insight and feedback.

Other people have contributed to the book in various ways, and my gratitude goes to them as well. Thanks to Henrik Bruun for his suggestion to name the section 'Lord of the rings'!

I hope you will enjoy the book.

International Master Silas Esben Lund
New York, September 2017

Chapter 1

The Aim of the Book

This endgame book is designed to make you a better practical endgame player in general; and better at handling sharp endgames in particular. The majority of the positions are *playing* exercises where you have to find your way through a number of Critical Moments (CM) under time pressure. The sharp character of the positions forces you into setting focused and sometimes unpleasant priorities – and the concrete feedback from the solutions will help improve your decision-making over the board.

The idea is to set up the exercise using a strong chess program. In the book I shall recommend Komodo 10 (reigning computer world champion at the time of writing), and the instructions for how to play against it can be found in Chapter 9. The material of the book can also be used by two humans to test each other. For trainers, it is possible to run a session with up to four pupils at the same time (not more than that).

These are the practical benefits of the book: actual playing training. But there is a theoretical gain from the exercises too. The positions with *sharp* endgames start one or two steps before the positions settle into something that can be evaluated definitively as either drawn or won. These *basic* endgames are treated in the theoretical endgame works such as *Dvoretsky's Endgame Manual*.

The knowledge of these theoretical endgames is a great help in the decision-making process, as it gives the player a compass for his planning and for deciding upon a concrete move. In this book, you will also learn about basic endgame theory, to the degree that I find it useful to the practical decision-making process.

The exercises in this book are carefully chosen, and the main criteria are:

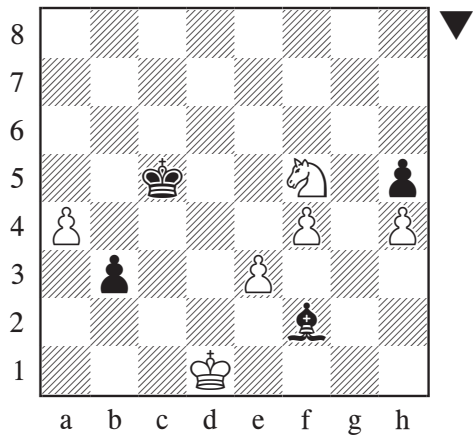
- In order to be *playable*, there has to be at least one CM.
- The positions are endgames with relatively limited material. This way, the basic endgame knowledge is within reach, and thus the sharp endgames are indeed the phase before the basic endgames.
- There is a clear verdict to the exercise, either drawn or won, based on analysis of the position. However, the sharp endgames are not (yet) part of the established (basic) endgame theory
- Multiple solutions are not a problem, the main priority is to solve the exercise satisfactorily.

Here is an example:

1.1 Basic endgame knowledge in the decision-making process

Ferenc Berkes – Peter Acs

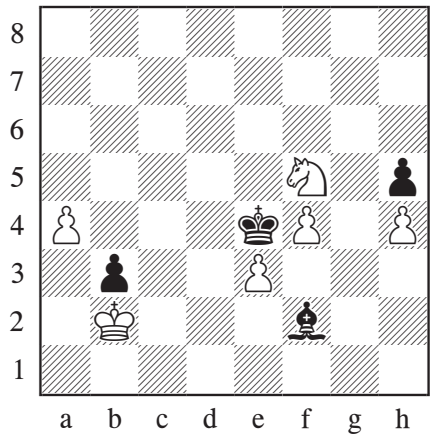
Paks 2011



54...♔c4 55.♔c1

In the game, White played the weaker **55.a5?!** opening up other options for Black. The text move is more direct and avoids unpleasant surprises.

55...♔d3 56.♔b2 ♔e4



Until this point, White and Black had other continuations to choose from. White is at a Critical Moment now and has to make a crucial decision. Probably White saw this position when he was looking for a response to **54...♔c4** and realized that he is going to eventually lose all of his kingside pawns. White will indeed lose them, but in the meantime, he can support the march of the a-pawn with his king and knight.

From the basic endgame knowledge, we know that *with a rook's pawn it is not possible for the bishop to stop the pawn without the help of the king*. This is based on the rule that the bishop needs the shortest diagonal in front of the pawn to be more than four squares, that is, at least five squares. With a rook's pawn, this is never an option. I shall return to this subject in the chapter on bishop vs. knight. For now I give the winning continuation:

57.♘g7!

This is the only winning move, and for many players it is a tough decision to make. The reason is that the position is drastically transformed, with White giving up a good deal of his material superiority. **The willingness to transform the position** is one of my parameters to measure the quality of play by the player. I shall introduce all the parameters below.

In the General Introduction to the book (next chapter), I shall discuss in more depth the basics of such a hard decision – even if it is a question of mere calculation power, it certainly does help the player's decision-making process to be familiar with the fight of bishop versus an a-pawn. And in the process, White needs a good deal of courage and to show willingness to transform the position.

In my training sessions, I have seen how difficult exactly this Critical Moment (CM) is, as several IMs have failed to play this position to a win.

57...♗xe3

57...♗xh4 58.♘xh5 ♔xe3 59.f5 ♔d4 60.♔xb3 ♔e5 61.f6 ♔e6 62.a5+– The knight is taboo and White simply wins the bishop for the a-pawn.

58.♘xh5

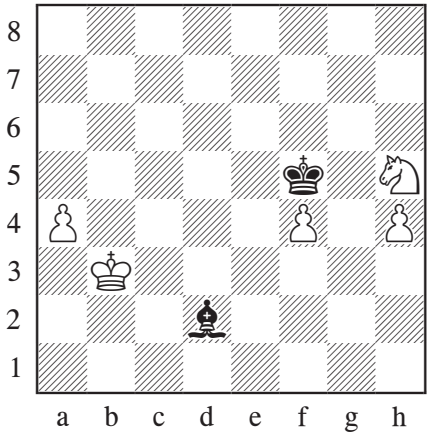
The most logical move as Black now has to lose some tempos in order to get at the f4-pawn.

The fact that there are multiple solutions is not a problem for positions to be playing exercises, what counts is that White is able to play the position to a win.

58...♗d2

Stopping the a-pawn for the time being.

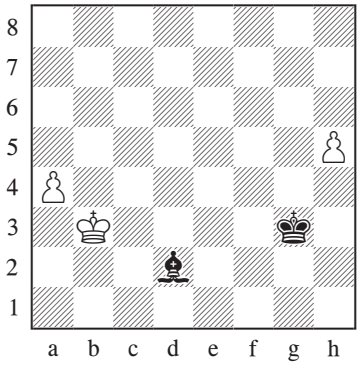
59.♔xb3 ♔f5



60.♔c4!

There is an alternative, study-like solution at this point:

60.♘g3† ♔xf4 61.h5! ♔xg3



62.♔c2!

Chasing the bishop away from its ideal position, where it stops both white pawns (on a5 and h6).

62...♗f4

62...♗e3 63.♔d3+–

63.a5 ♔g4 64.a6 ♗e3 65.h6+–

Again, an alternative solution is not a problem. Players have different techniques to win a game, and if this is your way of doing it, it's fine with me. The moves actually played on the board is *the* essential argument.

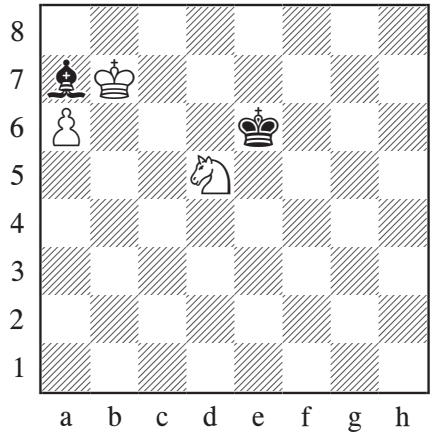
60...♔g4 61.♘f6†

Again, there are other ways to win.

61...♔xf4 62.♘d5† ♔g4 63.♘c3

Blocking the diagonal with 63.♘b4 also wins. In either case, the black king is simply too far away to support the bishop in time.

63...♔xh4 64.a5 ♗e3 65.♘d5 ♗a7 66.♔b5 ♔g4 67.a6 ♔f5 68.♔c6 ♔e6 69.♔b7



69...♗d4

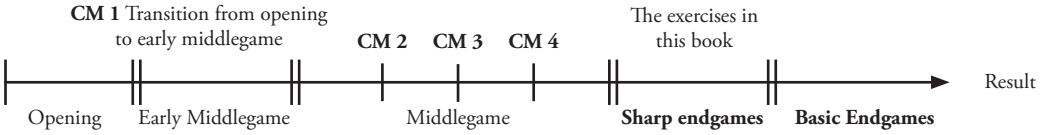
The king is not trapped in the corner after 69...♔xd5 70.♔xa7 ♔c6 71.♔b8+–.

70.♘b6+–
1–0

The book has four main sections: knight endgames, rook endgames, bishop vs. knight endgames and rook vs. bishop or knight endgames (exchange up). Furthermore, special attention is given to the endgame queen vs. queen + one pawn.

As the sharp endgames are played to the end, the solutions will naturally enter the field of the theoretical (*basic*) endgames – in this way, the book is of both practical and theoretical value, as the following figure shows.

1.2 Benefits from sharp endgames



- Opening and early middlegame are phases of the game that most books are concerned with. You can prepare well here and thus get well over the first hurdle (CM 1): the transition from opening to early middlegame. Good and modern opening books treat both these early phases of the game: besides offering concrete moves (opening theory), they offer an understanding of the plans of the early middlegame (sometimes even into the middlegame or, in rarer instances, the endgame).

- Basic endgames are endgames that have a final verdict: they are either theoretically drawn or a win for one side. The basic endgames can be found in endgame encyclopaedias. This last phase of the game can also be well prepared by the player.

- Thus, there are two phases left where it is more difficult to prepare for the challenge of a forthcoming battle: the middlegame and what I call 'sharp endgames' – which is the step before the basic endgames. In these two phases the player has to follow general guidelines and also has to combine experience with calculation. The guidelines are far more vague than the concrete knowledge of opening theory and basic endgames.

- The last two phases are printed in bold-faced type, as are the CM 2-4. This indicates the area in which I think my book will improve your skills and knowledge. The *basic* endgames form a natural ground for your decision-making when you are playing a sharp endgame, and thus my book indirectly deals with this last phase of the game. Furthermore, when dealing with sharp endgames I force you to set priorities, to be logical in your choices and to play in a focused way. In short: handling the CMs correctly. These skills from the sharp endgames improve your

decision-making when facing a CM in general, which is why the CM 2-4 of the middlegame are highlighted too.

1.3 Working with IM Andreas Hagen and deliberate practice

Many of the exercises in this book have been tested on several players of different strengths. However, all of the exercises have been tested on IM Andreas Hagen. Andreas has one GM norm and ambitions for the title, and when we started working together, he asked me to implement the concept of *deliberate practice* into the training to optimize it as much as possible. The idea of deliberate practice was developed by Geoff Colvin in his inspiring work, *Talent is Overrated*.

Sharp endgames was the natural choice for me, since it lives up to the five essential points that constitute deliberate practice. At the same time, this was a golden opportunity for me to collect training material and test it prior to the release of this book. Here are the five points:

1. It's designed specifically to improve *performance*
2. It can be repeated a lot
3. Feedback on results is continuously available
4. It's highly demanding mentally
5. It isn't much fun

In the course of our training, I used several parameters to describe and measure how well Andreas did in the exercises. You will find the parameters below. By doing so, I was able to pinpoint his strengths and weaknesses (I shall not reveal them here!), and thus I was able to design the training more specifically to his needs (1). The keyword of point 1 is performance.

I have a huge amount of training material, so constantly feeding Andreas with new exercises in order to improve on the parameters was not a problem (2). And if Andreas failed in an exercise at some point, I would notice his mistake and repeat the exact same exercise weeks or months later.

Andreas was playing the exercises against a chess engine and myself, and thus it was possible for me to give concrete feedback after every exercise (3).

The exercises were highly demanding mentally, both on the board and due to time pressure (4). The exercises are of level 1-5 in the rating span 1900-2600.

The last point (5) is arguable – at least other chess players believe that chess is fun no matter what. However, it takes strong will to keep training on a 'bad chess day', and this is where motivation alone is not enough. I did hear a lot of deep sighs from Andreas during our training sessions, which confirmed to me that the selection and level of the exercises were about right.

1.4 The 16 parameters

The parameters below are the ones on which I intend to test the reader with the exercises. Some of the parameters are grasped intuitively, while others need more explaining.

The **first 12 parameters** are directly connected to the exercises. Every time you face a CM, I will label it with at least one parameter and thereby explain why it was a Critical Moment. The 12 parameters are briefly explained below, and as you go along in the General Introduction (next chapter) and the solutions to the exercises, everything will become much clearer.

The **last 4 parameters** are used in the follow-up on the exercise. I cannot know how you actually managed the exercise, if you ended up in time pressure etc., but I will outline a way for you to make use of the 4 parameters as an effective tool to measure your performance.

1.4.1 The exercises: 12 parameters

1) **Transform-willingness**: are you ready for a radical shift in the type of position that implies a new material balance on the board?

2) **Change Gears**: the ability to change the tempo of the fight during the course of the game if demanded by the circumstances – both in attack and defence. At times, one needs to play forcefully, only to change gears on the next move and play more strategically. Sensing the ups and downs of the fight, and reacting accordingly, is one of the most difficult things in chess. The term is taking from the world of poker, and to my knowledge, the Danish GM Sune Berg Hansen is the first to have used it in a chess context.

3) **Positional Judgement**: how well knowledge and intuition are used in the decision-making process.

4) **Basic Endgame Knowledge**: the ability to navigate in the position and make decisions based on your basic endgame knowledge (positions that are either drawn or won).

5) **Method of Elimination**: you do not spot the idea of the next CM, but you are still able to play the right move over the board anyway. The correct use of Method of Elimination is about making the right choice.

6) **Prophylactic Thinking**: moves that support one's own play and simultaneously prevent or suppress the plan of the opponent. This is a special case of **displaying multiple ideas in one move**, where the focus is on *both attack and defence.* Please also notice the difference between prophylaxis and passivity: a passive move has no eye for the active potential of the move. We usually evaluate a move as passive if there are other and better alternatives in the position.

7) **Planning**: setting priorities and finding concrete points of attack. This ability is usually important when the position has 'geared down' for a moment, and before it becomes sharp again.

8) **Logical Follow-up**: the plan you initiated earlier is followed up by a focused display of moves. Already when you planned the idea, you were aware that the position could in fact arise on the board, and you are ready to go through with the planned moves.

9) **A Feel for Details**: spotting important minor differences between similar lines that have a huge impact on the resulting position.

10) **Working with the King**: precision when the king moves across the board. The ability to display multiple ideas with the king is also important.

11) **Surprising Moves**: the ability to spot surprising game-changing moves, both for yourself and for the opponent. Especially the surprising ideas from the opponent can easily be overlooked. And surprising ideas and tactics do appear in sharp positions.

12) **Play the most forcing line if possible**: forcing play reduces the possibilities of the opponent. As a defender, it makes the task a lot easier if you can force the draw. The alternative is to be constantly on the guard for new attacking ideas by the opponent, and then adjust accordingly. In general, unforcing play is a way to put pressure on your opponent if you have the upper hand – but be aware in the exercises that you cannot fool a strong engine!

Notice that some of these parameters have a dual connection. **Transform-willingness** involves a material change on the board, whereas **Change Gears** involves a change in tempo within the same material distribution of the position.

Positional Judgement and **Basic Endgame Knowledge** are also closely connected. The latter is based on a very concrete area of knowledge (basic endgames), whereas **Positional Judgement** is your general knowledge (or intuition) that helps you make the decision.

A Feel for Details is a general theme no matter the material distribution, but **Working with the King** is a more specific use of the parameter regarding only the kings.

1.4.2 Follow-up on exercises: 4 parameters

13) *The right decision*: the ability to spot Critical Moments (CM) and play the critical line over the board. If you saw the critical line but for some reason didn't play it, it is useful to try to figure out why you refrained from it.

14) *Move sensitivity*: the ability to know afterwards exactly where you played wrongly in the exercise. This shows how conscious you are about your choices during the exercise.

15) *Composure*: for how long did you stay in the exercise? How many CM did you manage? Or did you crack under the (time) pressure? Remember that the moves played on the board are *the* argument for success, and that ending up in time pressure is your own responsibility. The term *Composure* shows the player's ability to keep the nerves under control and avoid a sudden collapse.

16) *Calculation ability under time pressure*: it is easy to dismiss calculation and make moves on general grounds in time pressure – often with fatal consequences ("This *looks* too dangerous, I'll play something safer..."). If this happens often to you in the exercises, you should carefully check the distribution of your time.

An adequate distribution of the given time on the clock is a practical virtue for the player who tries to improve his performance over the board. I mainly see impractical time consumption as a symptom of the mishandling of one or more of the parameters above. As you go through the exercises in the book, you will get more experience in problem solving and will naturally improve your time management as well.

1.5 The follow-up parameters in action

The following position is a typical exercise. A few words on the exercise level and recommended time: the level span is from 1 through 5, and the rating range 1900 to 2600. These are my standard settings for the 5 levels:

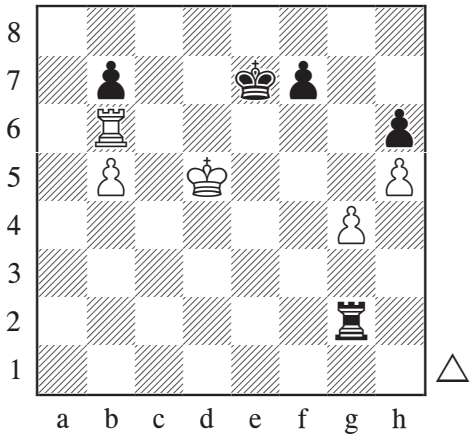
- Level 1: 5 minutes, rating span 1900-2000
- Level 2: 8 minutes, rating span 2001-2200
- Level 3: 10 minutes, rating span 2201-2400
- Level 4: 12 minutes, rating span 2401-2500
- Level 5: 15 minutes, rating span 2501-2600

Of course, the rating span is an estimate, and players might handle some material configurations better than others. Also, a higher rated player is not guaranteed to do better in a certain position than someone rated lower than him.

The recommended time and level depend on the number and difficulty of the specific Critical Moments (CM). Every exercise is given a level and time to begin with, and Fischer-time with 30 seconds added per move is standard, so I won't mention this increment for every exercise. By adding 30 seconds per move, the player avoids ending up in crazy time trouble.

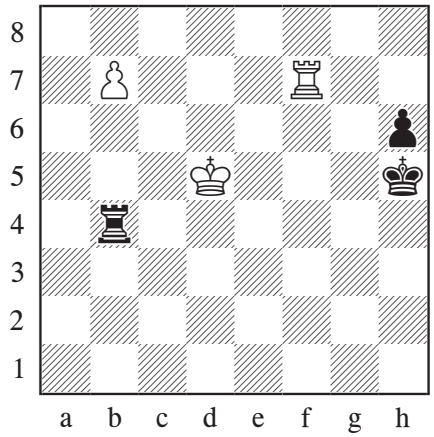
David Navara – Alexander Grischuk

World Cup, Khanty-Mansiysk 2011 (variation)



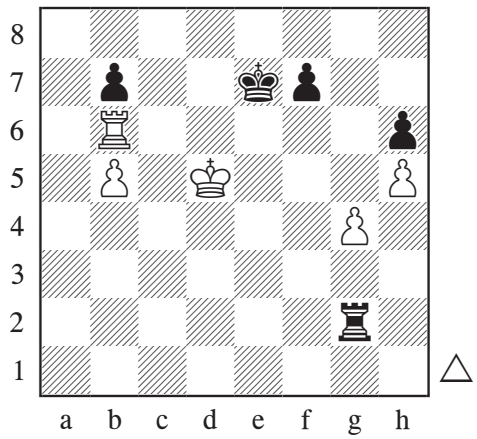
White to move and win
Recommended time: 8 minutes
Level: 2

A natural move to consider here is **53.♖xb7†** followed by **53...♔f6 54.♖c7** when White prepares to push his b-pawn. After **54...♖xg4 55.b6 ♖b4 56.b7 ♔g5 57.♖xf7 ♔xh5** we arrive at the following position:



The White player will eventually face a position with rook vs. pawn, once Black is forced to give up his rook for the b-pawn. Is this winning for White?

A pupil of mine rated 2150 used up a good deal of the 8 minutes at the start of the exercise and decided against this continuation. Let's go back to the beginning of the exercise where he instead played:



53.♖xh6? This is a typical reaction if the player sees the main line given above, but becomes unsure if the resulting rook vs. pawn endgame is a win or not. It often happens that the player chooses the safer but weaker option – in this case, the move poses no real danger to Black: 53...♖xg4 54.♖h8 (54.♖b6 ♖g5† 55.♔c4 ♖xh5 56.♖xb7† ♔d6 57.♖xf7 ♖h4† 58.♔c3 ♔c5= or 54.♔c5 ♖g5† 55.♔b6 f5! 56.♔xb7 f4 57.b6 f3= and the far-advanced f-pawn secures the draw comfortably.) 54...♖g5† 55.♔c4 b6 The position is not dangerous for Black, and other continuations work too. 56.h6 ♖c5† 57.♔b4 ♖h5 58.h7 ♖h4† 59.♔c3 ♔f6 60.♖b8 ♖xh7 61.♖xb6† ♔e5=

I should mention at this point that the correct move is **53.♖xb7†** and that the position after **57...♔xh5** is in fact winning for White. The exercise continues, and White still needs to solve a

few problems, but the win is there. So, why did the pupil play as he did in the exercise? This is where the last 4 parameters comes in handy as working tools.

Move sensitivity is a way to test if the player is aware of where he might have gone wrong in the game. Being aware of this critical turning point in the game gives an indication of the player's awareness in the position. So the first obvious question to ask is: *On which move do you think you played wrongly in the exercise?*

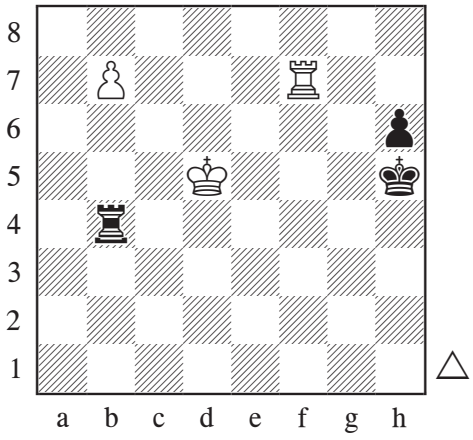
The player was actually aware that he must have played wrongly on the first move. Asked what made him decide upon the move 53.♖xh6?, he was in fact unsure if the line beginning with 53.♖xb7† was winning for White. So he failed on the parameter ***The right decision*** since he did not play the critical main line over the board.

Again, why didn't he play the most testing move in the position? In this complex decision-making process a lot of factors play a role, but I will use the parameter ***Composure*** to measure a player's ability to stay in the exercise for as long as possible. The move played on the board is *the* argument. Here, our player failed to deliver.

Was our player lazy in his calculations and did he stop too early, basing his wrong assessment on a feeling? One can certainly argue like this. However, his **Transform-willingness** plays a role too (the first parameter within the exercises), so in this complex decision-making process, it's also about daring: if you are faced with unclear consequences, do you either play it safe or see it as an opportunity and go head first?

I have chosen the overall parameter ***Calculation ability under time pressure*** as the way to evaluate the player, and here our player can definitely improve – be it laziness, lack of courage or a mix between the two. In general, I believe that most players are able to calculate quite well if they know what to calculate – but of course it never happens like this in a competitive situation. The decision-making process is so much more complicated than that.

This is how the game is won:

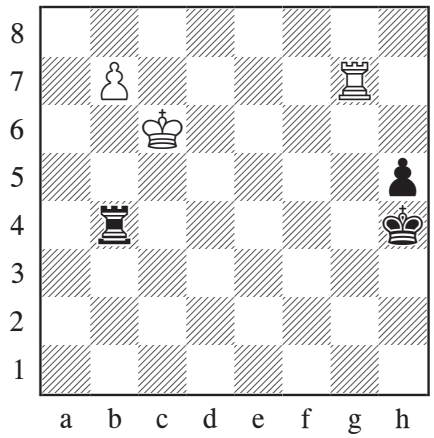


58.♖g7!

The main idea is to keep the black king on the h-file, to make the advance of the h-pawn clumsy and time-consuming. But there is an additional trick available: that of checking the black king to transfer the rook to the b-file, and this will force Black to sacrifice the rook for the b-pawn earlier than planned, under more favourable circumstances for White.

Another way was to mainly go for this second plan: 58.♔c6!? ♔g4 59.♖g7† ♔f4 60.♖h7 ♔g5 61.♖d7! Threatening to interpose the rook with ♖d5-b5. 61...♔g4 (61...♔g6 62.♖d5+–) 62.♔c5! Now the upcoming threat of ♖d4-b4 forces Black to sacrifice the rook, and White wins with a margin to spare. 62...♖xb7 63.♖xb7 h5 64.♔d4 h4 65.♔e3+– For Black to have any hopes of saving this position, he would need at least two more tempos. This position, and the ideas explained above, will all be the subject of investigation in the introduction to rook endgames.

58...♔h4 59.♔c6 h5



60.♖g8

The most precise from an economic point of view: with this prophylactic move, White is playing for zugzwang.

It was also possible to let go of the subtleties and simply calculate your way to victory with the straightforward: 60.♔c7!? ♖c4† 61.♔d8 ♖b4 62.♔c8 ♔h3 63.b8=♕ ♖xb8† 64.♔xb8 h4 65.♔c7 ♔h2 66.♔d6 h3 67.♔e5 ♔h1 68.♔f4 h2 69.♔g3 ♔g1 70.♔h3† ♔h1 71.♖a7+–

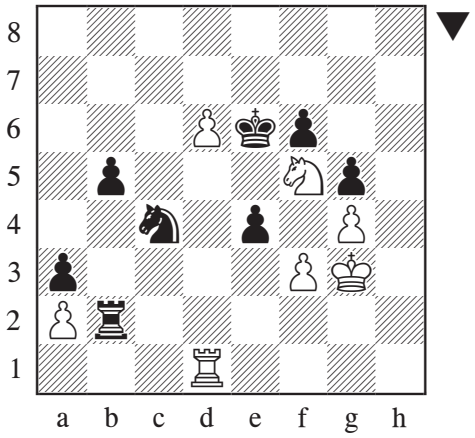
60...♔h3 61.♖g5! ♖xb7 62.♔xb7 h4 63.♔c6 ♔h2 64.♔d5 h3 65.♔e4 ♔h1 66.♔f3 h2 67.♖b5 ♔g1 68.♖b1 mate

1.6 A sharp endgame

I end this section with a great performance by Andreas – the game below was the highest-rated player he has defeated so far. The final phase is not perfect for either side, but it shows how difficult it is to make the right decisions at this stage, with few minutes on the clock.

Peter Heine Nielsen – Andreas Hagen

Køge 2013



Black to move

50...♖d2!?

It is interesting to see how this simplification almost throws away the win. In a practical game, it is still difficult for White who is defending, but the engine is a merciless opponent here and always finds strong moves. If White play the best defence now, Black has to find a couple of precise moves to stay on the winning path.

50...♔d7! 51.♖h1 ♖xa2 52.♖h7† ♔c6

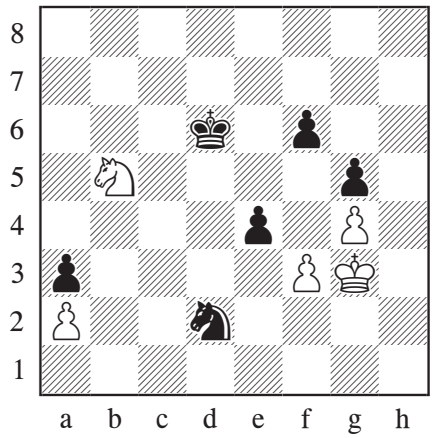
It was this position that Andreas feared with only 30 seconds on the clock. Analysing the position with a pulse lower than 150, it is clear to see that Black wins easily after both 53.d7 ♖d2–+ and 53.♖c7† ♔b6–+.

When fear takes over like in this example, players have a tendency to stop calculating and instead make decisions based on feelings: in most cases, *security* is the guideline, risking as little as possible. You want to simplify matters on the board, and exchanging off pieces is a means to do so.

One obvious solution to avoid this scenario is not to end up in time trouble. This is the responsible approach and what you ideally should do, but it doesn't help you once you actually end up in time trouble.

A better solution is to solve all the exercises in this book to get more used to handling the pressure! This also makes you better at calculating lines when low on time.

51.♖xd2 ♘xd2 52.♘d4† ♔xd6 53.♘xb5†



How should Black continue?

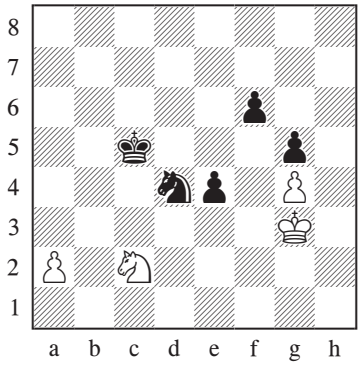
53...♔e5?

The only way was the forcing:

53...♔c5! 54.♘xa3 ♘xf3 55.♘c2

Black needs to find:

55...♘d4!



Judge for yourself if this move is easy to find (with the clock ticking down).

56.♘e3

Black needed to calculate the lines: 56.♘xd4 ♔xd4 57.♔f2 (57.a4 e3 58.a5 ♔d3 59.a6 e2–+) 57...♔d3! 58.♔e1 e3! 59.a4 f5! 60.a5 fxg4! 61.a6 g3 62.a7 g2 63.a8=♕ g1=♖ mate! On the way to victory, Black had to find four only moves in this line.

Again, these lines may not seem too complicated to you, but in a match situation over the board, fear and ghosts can easily make your mind calculate only two or three moves and then shut down with the evaluation 'not clear' or 'too dangerous'.

56...♘e2† 57.♔f2 ♘c3 58.a3 ♔d4–+

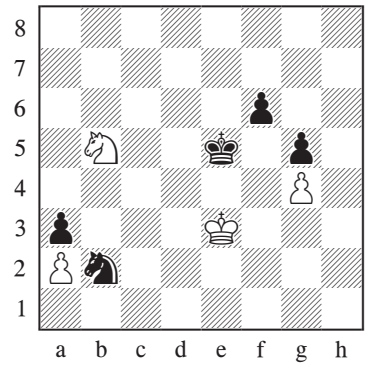
Black controls the a-pawn and can use his centralized king and pawn majority on the kingside. Since the a-pawn is stopped as early as a3, the black knight has great freedom once it is released for more active purposes. The win is not far off.

54.♘xa3?

White returns the favour.

54.fxe4! ♘xe4† 55.♔f3 ♘d2† 56.♔e2 ♘c4 57.♔d3

This was a better way to resist. I don't see a clear path to victory for Black after: 57...♘b2† 58.♔e3=



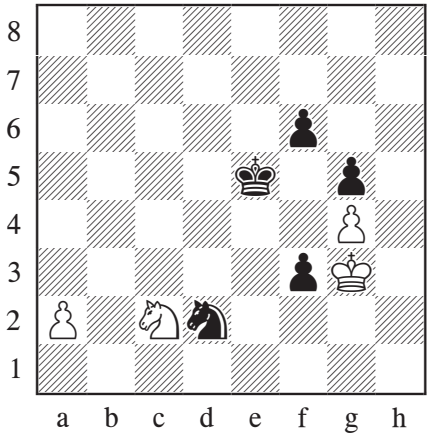
Seeing this line, one could argue that it is not too difficult to calculate. However, one has to evaluate the position at the end of the line, and this makes the picture more complex. Why a strong player like Peter Heine did not find the way to the draw I do not know (perhaps he was even gambling with Andreas being low on time) – but it does indicate how tricky these sharp endgames are to handle in a tense game situation.

54...exf3

Now Black is winning.

Again it was possible to play 54...♘xf3 55.♘c2 ♘d4! etc.

55.♘c2



55...♔e4

This is the point where Andreas afterwards said that, had we not trained in these particular positions with sharp knight endgames beforehand, he would probably have panicked somewhere around here. Instead, he stayed calm with his 30 seconds per move.

56.a4 ♔d3
0-1

White resigned. Andreas had confidently calculated the following variations:

a) 57.a5 ♔xc2 58.a6 ♘c4 59.a7 ♘b6 60.♔xf3 ♔d3–+
b) 57.♘e1† ♔e2 58.♘xf3 ♘xf3 59.a5 ♘e5 60.a6 ♘c6–+
c) 57.♘a3 ♔e2 58.♘b5 f2 59.♘d4† ♔d3 60.♔xf2 ♔xd4–+

1.7 Chapter recap

At the beginning of the chapter we learned the difference between sharp endgames and basic endgames:

- *Basic* endgames are part of the endgame theory: they are endgames that have been analysed to a final verdict. Either they are drawn or won by one side. The basic endgames can be found in endgame encyclopaedias such as *Dvoretsky's Endgame Manual*.

- *Sharp* endgames are the stage in the game before the basic endgames. Thus, these endgames still needs to be played out, and the result is not fixed.

Naturally, there is a fixed solution to the playing exercises in the book, but the main point here is that basic endgame theory is used as a tool in the decision-making process: if the player knows the endgame theory, it is easier to have a framework in which decisions are made in a sharp endgame.

Needless to say, later the sharp endgames can become well-established knowledge and thus move from sharp to basic endgames. I hope this will be your experience from this book.

The benefits of solving sharp endgames was shown in a figure. Here it became clear that not only this specific phase of the game was being trained, but also the general ability to make decisions at the Critical Moments (CM). Thus, testing sharp endgames also benefits the decision-making in the middlegame. And, as we saw, dealing with sharp endgames involves the player in existing basic endgame theory.

The Critical Moments (CM) in an exercise is a way to address the points where special attention is needed. At each CM, the player risks going off track, and thus there is something at stake. The player needs to set priorities and to make choices that are sometimes hard, but necessary.

To describe the thought-process and how choices are made in the decision-making process, I presented 16 parameters that can measure a player's performance in an exercise. The 16 parameters consist of:

- 12 exercise parameters: each CM in an exercise has at least one parameter to describe the nature of the choice the player had to make. Often, several parameters are attached to a CM, and the number of parameters give an indication of the difficulty of the decision in question.

- 4 follow-up parameters: after the exercise, it is possible to measure the performance by asking questions closely connected to these four follow-up parameters.

The 16 parameters can all be found in Chapter 11 at the end of the book.

We also learned about Deliberate Practice. This concept allows us to optimize the exercise training as much as possible. The five central points are:

1. It's designed specifically to improve *performance*
2. It can be repeated a lot
3. Feedback on results is continuously available
4. It's highly demanding mentally
5. It isn't much fun

Especially the points 1 and 3 were highlighted in our treatment: by playing the exercises against a strong chess engine, it is about practical over-the-board performance, and the feedback is immediately available in the solutions and in the answers the chess engine provides.

Chapter 2

General Introduction

In this introduction to the book, I want to give a detailed look into the logic behind the exercises and their Critical Moments (CM). We shall see the parameters in action and discuss the complex decision-making process, and also see how typical mistakes come about.

2.1 Pre-chapter exercises

The following five exercises are taken from positions that occur in this introduction. Some of the critical positions are given to the reader to solve beforehand, to give an insight into the dilemmas of the players when faced with a difficult choice to make.

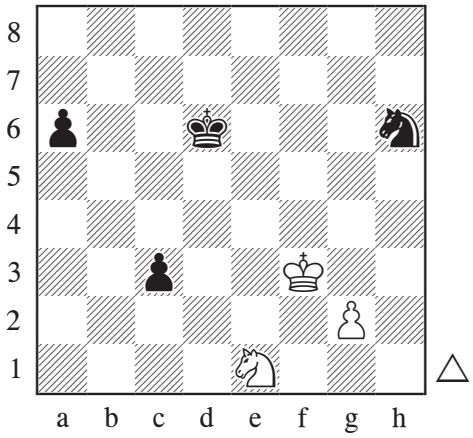
Please notice that these five pre-chapter exercises differ fundamentally from the *playing* exercises of the rest of the book. The five exercises below are about strategy and finding a solution to a certain dilemma – and the solution will be explained as you read on in the introduction.

However, if you come up with a move and a plan that I have not treated, I strongly advise you to check the idea with a chess engine: set up the position in Komodo 10, and see if your idea is a viable alternative solution to my question. If it is not, the computer will find the flaw. This is fully in the spirit of the playing exercises of the book, where the computer is used to avoid mistakes that humans don't see, and to give **concrete feedback** to your thoughts – thus fulfilling point 3 of Deliberate Practice as explained in the previous chapter.

The five pre-chapter exercises are only given a recommended time, no level. Only the *playing* exercises of later chapters and in the exercise section are given both a level and a recommended time.

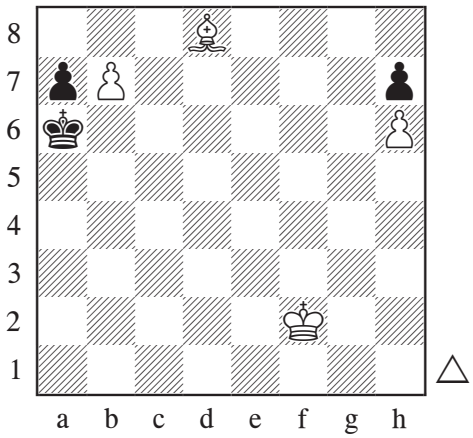
John Weber – Frederik Rhee

Danish Team Corr. 2003-04



White to play
White must choose between **57.g4** and **57.♔e3**.
Justify your choice.
Recommended time: 5 minutes

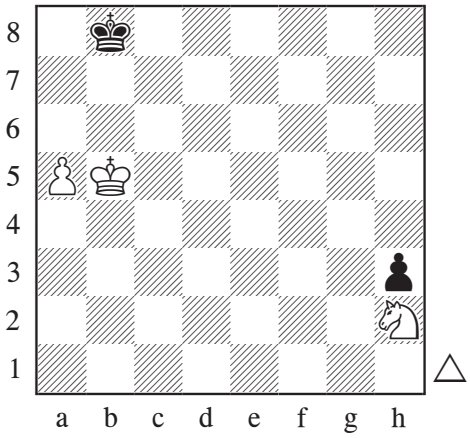
Alexey Troitzky 1925



White to move and win
Out of many candidates, only one leads to a win.
Justify your choice.
Recommended time: 10 minutes

Gustavus Reichhelm

(Evans 176)



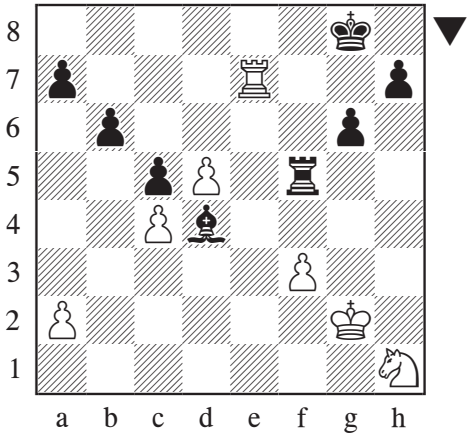
White to move and win

Find the correct first move and calculate your way to victory.

Recommended time: 5 minutes

Silas Esben Lund – Eric De Haan

Schwarzach 2011



Black to move

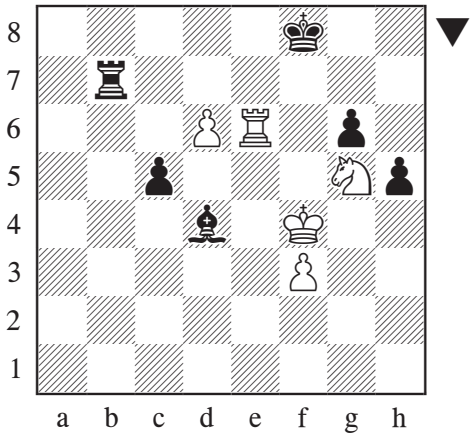
Set your priorities in the position.

Find a plan and a concrete move.

Recommended time: 10 minutes

Silas Esben Lund – Eric De Haan

Schwarzach 2011



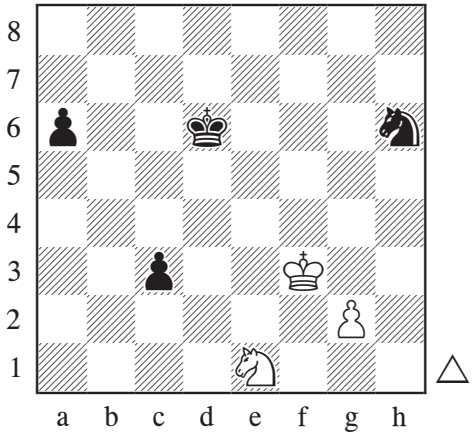
Black to move
Give a defensive plan and a first move.
Recommended time: 5 minutes

2.2 Method of Elimination and worst-case calculation

The most concrete tool available in the decision-making process is the Method of Elimination. Another helpful tool is what I call *worst-case calculation*. The worst-case calculation can be seen as a special case of the Method of Elimination. Let us see how it works in the following example:

John Weber – Frederik Rhee

Danish Team Corr. 2003-04



White has just exchanged rooks on h6. John and I analysed the position together and came to the conclusion that White can draw.

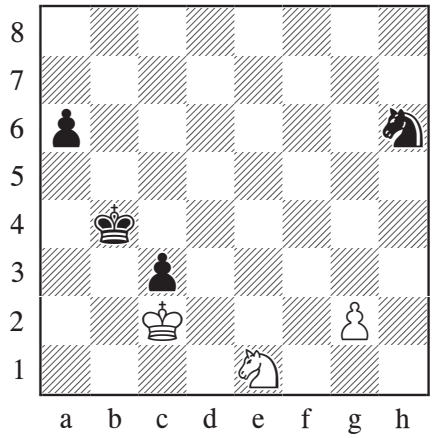
White has two candidate moves in the position: 1) **57.♔e3** and 2) **57.g4**.

1) **57.♔e3?**

This is too passive. Now Black will have a free hand to try to get his two pawns going.

57...♔c5 58.♔d3 ♔b4 59.♔c2

White also runs out of checks after 59.♘c2† ♔b3 60.♘d4† ♔b2.



White threatens to keep checking the black king, beginning with ♘d3†. However, after Black's natural move:

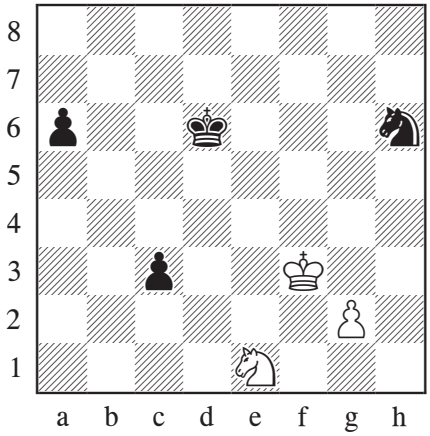
59...♘g4!–+

...he simultaneously blocks the g-pawn and protects the e5-square, and thereby stops White from ongoing knight checks. Now White has no counterplay, whereas Black has time to plan the advance of this two passed pawns.

In the long run, White is unable to stop the two passed pawns in the above position, which are supported by the king and knight. The black knight can both keep an eye on the g-pawn and make its influence count on the other side of the board. Such moves that have both attacking and defensive purposes are important to the theme of **Prophylaxis**. It is a way of optimizing the pieces. Because the g-pawn is not too far advanced, Black has great freedom with his knight once he releases it from its defensive duties.

Thus, in order to find the correct solution at the start of the exercise, you will have to see this line and make the **Positional Judgement** that it is impossible to stop two pawns in a position like this without any counterplay. It is virtually impossible to calculate this position to a final verdict, but the fact that White has no counterplay after **59...♘g4!–+** and Black can steadily improve his position, is enough basis for the right decision not to allow this with White. The position cannot be allowed to come to a stand-still: White needs counterplay.

Hence we come to the right solution to the exercise:



2) **57.g4!**

This move is crucial. White needs to get counterplay going with the g-pawn. In this way, he can make the black knight occupied with the pawn – the more advanced the better.

This is the ideal way to handle the starting position:

1) You look for candidate moves: **57.g4** and **57.♔e3** make the most sense, each move containing a different plan.

2) The line beginning with 57.♔e3 is the most forcing, so this is where you start. You calculate and find out that Black can play 59...♘g4!–+ and stop all counterplay.

3) Your positional judgement tells you that this is very dangerous (if not lost) and then you start to look at 57.g4.

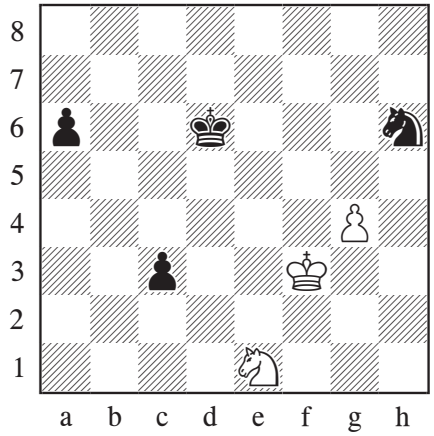
4) You calculate some relevant lines, and after **you don't see a forced loss**, you play the move. The first move to look at is if Black captures the pawn immediately with 57...♘xg4. This, and other important lines, will be treated below.

The Method of Elimination is used, backed up with the specific case of worst-case calculation: "This is not lost." Together with the right **Positional Judgement**, they form a convincing decision-making process based on solid ground. I believe this is how strong players primarily find their way when they are faced with a tough decision.

To lesser, mortal players, the play of a super-GM gives the impression of play with great freedom where daring decisions and material imbalance is an integral part of the game. They seem to dare a lot when they play. I believe this is due to great calculation ability and a disciplined use of the Method of Elimination described above.

In general, there is a tendency that the passive plan with 57.♔e3? is the immediate first choice of players rated below 2200.

Back to the game after the strong and active **57.g4!**:



Black now has two king moves to put White under pressure: **57...♔c5** and **57...♔d5**, each with a different objective.

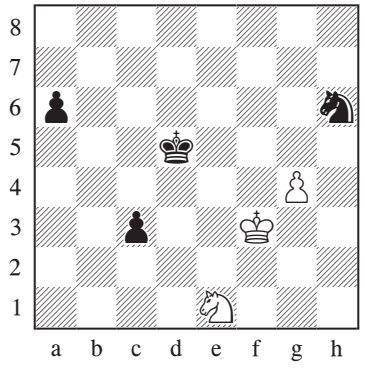
But first we notice that 57...♘xg4 is only a draw: 58.♔xg4 ♔c5 59.♔f3 ♔c4 (59...♔d4 60.♔e2 takes Black nowhere) 60.♔e2 a5 61.♘c2 ♔b3 62.♔d3 a4 63.♘d4† ♔b2 64.♘c2 a3 65.♘xa3=

57...♔c5

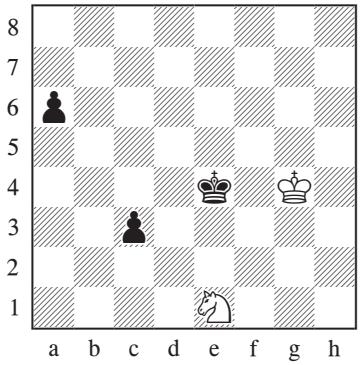
The move played in the game. The king is heading for b3 via the c4-square. The main point for Black is that now 58.g5!? ♘f5 59.g6? ♘h4† 60.♔e3 ♘xg6 61.♔d3 ♔b4–+ wins; this last king move defending the pawn would not have been possible with the king on d5 instead.

However, White can play 59.♔e4! (instead of 59.g6?) and draw with correct play. There are a few obstacles for White on the way to the draw, so even if White finds 59.♔e4!, the choice of 57...♔c5 makes a lot of sense.

The alternative king move 57...♔d5!? is poisonous for White as well:



Now 58.♔f4? ♘xg4 59.♔xg4 ♔e4!–+

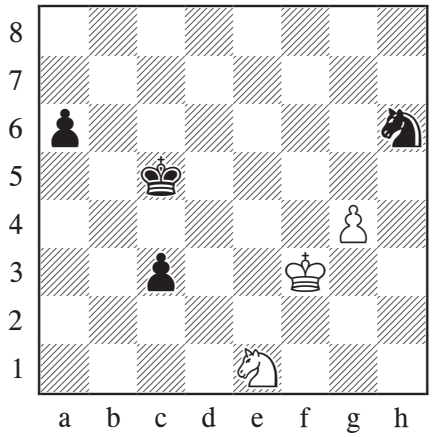


...effectively shuts out the white king on g4. Black wins the knight for the c-pawn and the a-pawn decides.

Instead, White must play: 58.g5 ♘f5 (58...♘f7 59.g6! with similar ideas to the main line) 59.g6! ♘h4† 60.♔e2! (not 60.♔e3? ♔c4! 61.g7 ♘f5† with a winning knight fork) 60...♘xg6 61.♔d3 With the king on d5 instead of c5, the move to b4 is no longer possible; thus, the c-pawn is lost and the draw secured.

The choice between these two moves addresses the parameter **Working with the King**: sensing the details when moving the king across the board is important, in the example above the black king was following a second 'hidden agenda' that White was forced to foresee.

Back to the position after **57...♔c5**:



58.♔f4!

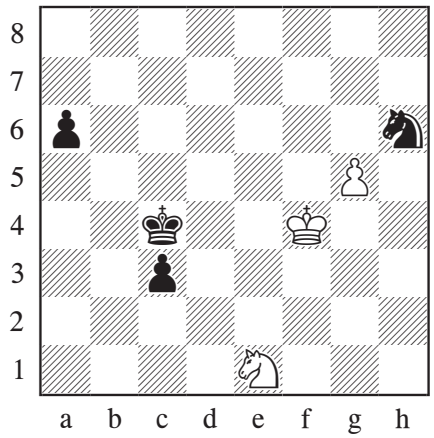
White has to consider how far his g-pawn can be pushed. It turns out that it makes no difference if the pawn is blocked by the knight on any of g5, g6 or g7 – but the far easiest draw is achieved when the black knight is as far as away from the queenside as possible.

With the move in the game, White prevents the knight manoeuvre to g6 via f5-e7, and for this practical reason, the move is awarded an exclamation mark.

58...♔c4

58...♘xg4 59.♔xg4 ♔c4 60.♔f3 is once again a draw. This time White controls c1 in time: 60...♔b3 61.♔e3 c2 62.♔d2 ♔b2 63.♘d3†=

59.g5



White is able to push the pawn to g7 – this is what happened in the game. He has three ways of achieving the draw in this position:

1. Push the pawn as far as he can (g7 preferably) and then rely on the passive defence with ♘c2-a1-c2, forth and back. There will be no zugzwang, and the black knight is too far away to disturb White's defensive set-up on the queenside.
2. Use the fact that he has a g-pawn, and his king can perpetually attack the black knight who would love to sacrifice itself for the pawn – but is not able to. There are a few pitfalls to this method though. In general, White can apply this active defence with a knight's and a rook's pawn.
3. White uses a mix of strategies to achieve the draw: he can sacrifice the g-pawn at the right moment to disturb Black's coordination, activate his own knight and eliminate Black's c-pawn. Or he can use other concrete measures to achieve a draw, depending entirely on the specifics of the position.

I believe that the first two strategies are the easiest to implement – as they contain a clear plan. Whatever White chooses, there are always concrete features to take into account. The third strategy relies almost entirely on specific tactics, and errors are more likely to occur.

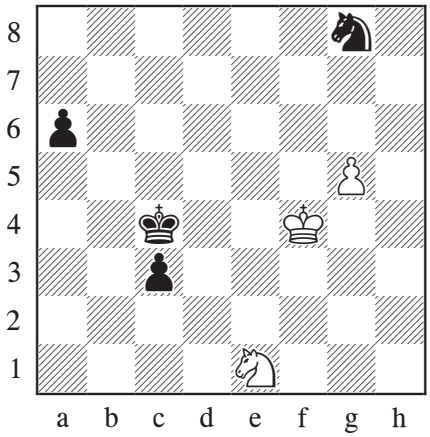
> The good thing about the type of exercises that I present in the book – playing exercises – is the great freedom of choice for the player. Players have different styles in converting an advantage, and basically I don't mind how you solve the challenge – as long as you succeed. The concrete moves played on the board are the argument.

What I can and will do is to give good advice in the solutions on the dangers of the different types

of moves – as I just did above with the three overall strategies. If you chose the most risky strategy 3 and failed early on in the exercise, there is something to be learnt from this.

Back to the game:

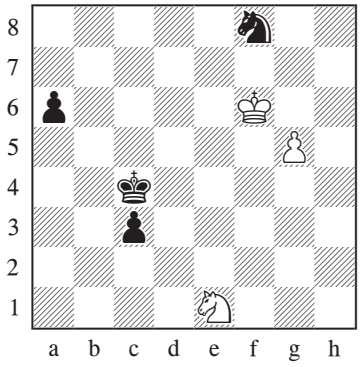
59...♘g8



60.g6!

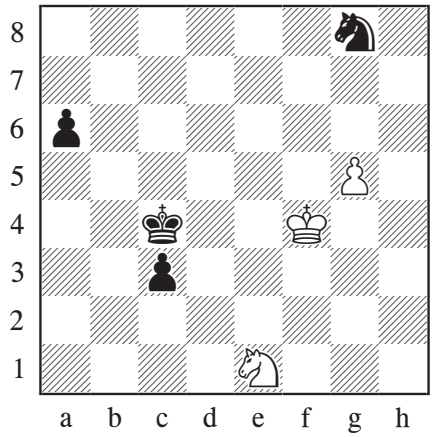
A Critical Moment.

1) 60.♔e4? ♘e7–+ loses. Here we have a case where the pawn on g5 is to White's disadvantage and where he is unable to keep harassing the black knight. 61.♔e5 ♘g6† 62.♔f5 (62.♔f6 ♘h4–+ and the black knight is out of the king's reach) 62...♘f8! 63.♔f6



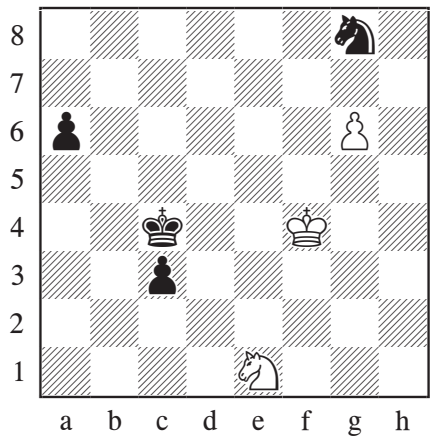
63...♔d5! (63...♘h7† 64.♔f5 ♘xg5? is only a draw: 65.♔xg5 ♔b3 66.♔f4 c2 67.♘d3! ♔c3 68.♔e3= The white king was able to return in time.) 64.♔f7 ♘d7 The knight lands on e5 and Black wins. Notice that sacrificing the knight on g6 is now winning: 65.g6 ♘e5† 66.♔f6 ♘xg6 67.♔xg6 ♔e4!–+ shutting the white king out.

Back to the position after **59...♘g8**:



2) A strong IM tried to harass the black knight (strategy 2) and failed as it does not work here: 60.♔e5? a5 61.♔e6 a4 62.♔f7 a3! 63.♔xg8 a2 64.♘c2 ♔b3 65.g6 ♔xc2 66.g7 a1=♕–+ Drawing against a c-pawn is only possible in very few instances, and this is not one of them – see the introduction to queen endings for more information.

We return to the main continuation after **60.g6!**:



60...a5

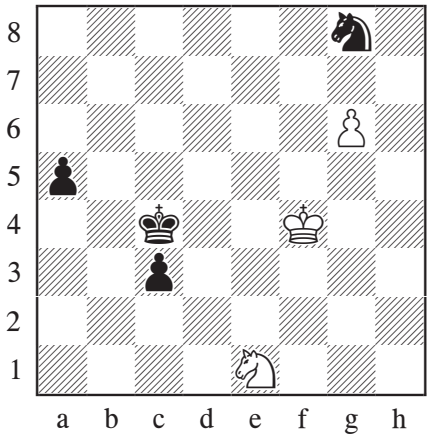
This was the move played in the game. A better test is 60...♔b3!? which demands White to shift between two defensive methods: 61.♔e4! c2 (61...a5 62.♔d3=) 62.♘xc2! (62.♘d3? ♔c3–+) 62...♔xc2 63.♔d5! The star move (**Working with the King**): White approaches both the a-pawn and the knight, thereby winning a crucial tempo. 63...♔b3 64.g7 a5 65.♔e6 a4 66.♔f7= This time, strategy 2 works.

Computers are very concrete and use cold calculation on every move to determine which move to play. They simply choose the move that they rate highest at the end of the calculations. This feature makes the computers extremely flexible as they are not attached to one plan that they have decided on beforehand. They don't have 'tunnel vision' as humans tend to have.

The concept of a 'plan' is only for humans, who don't have the calculating power of a computer and have to rely on a mix of planning and calculation. On the positive side, humans are able to implement concepts in their play that are truly amazing and go beyond the numeric logic of the engines.

The move 60...♔b3!? is unpleasant to a human player, who will now have to show flexibility in the defence. The engines do not always find the most unpleasant continuations for humans to handle. It takes a human being to understand how a human being anticipates a position.

Compare the line above with that of the game, where White only had to play out his overall strategy: sacrificing the knight in the corner as a mean to avoid zugzwang.



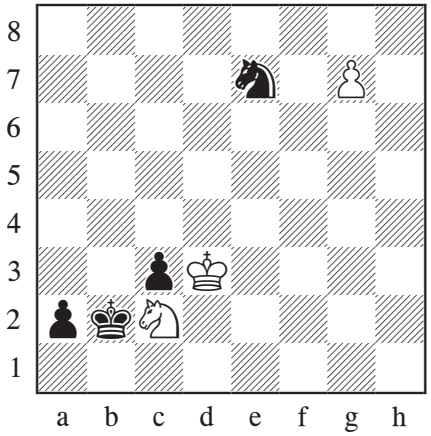
61.g7 ♔b3 62.♔e3 a4

62...c2 63.♔d2 ♔b2 64.♘d3† ♔b1 65.♔c3=

63.♔d3 a3 64.♘c2 a2 65.♘a1†

The game was agreed a draw here.

65...♔b2 66.♘c2 ♘e7

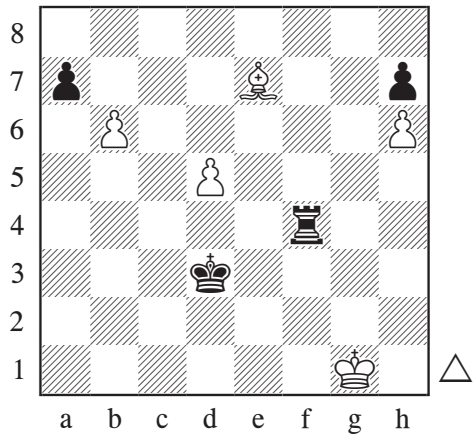


67.♘a1!
There is no zugzwang.

67...♔xa1 68.♔c2=
The white king simply moves back and forth between c1 and c2. The black knight is too far away to be a threat.

The next example goes deeper into the discussion of the Method of Elimination:

Alexey Troitzky 1925



White to move and win

In the course of this study, I will introduce the reader to my notation of Critical Moments (CM) in the games and exercises:

> A Critical Moment (CM) is a point in the game where the player needs to make the right choice or set the right priorities. At a CM there is at least one move that leads the player off the right path – which means that there is something at stake.

1.b7!
This is the first Critical Moment of the position (Critical Moment 1). The main parameter here is **Method of Elimination**. Other options do not lead to the goal:

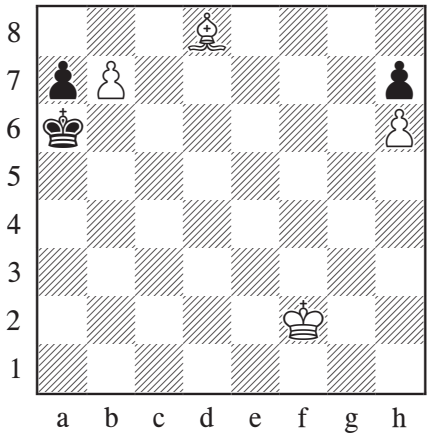
1.d6? axb6 As we shall see later in the study, the position is a fortress if the black king reaches the g8-sqaure. 2.d7 ♖d4 3.d8=♕ ♖xd8 4.♗xd8 ♔e4=

1.bxa7? ♖a4 2.♗c5 ♔c4 If White plays like this it is probably due to the following oversight: 3.d6? ♔xc5 4.d7 ♖g4†! 5.♔f2 ♖g8–+

1...♖g4† 2.♔f2

Critical Moment 2. **Planning**. The exact position of the white king is not essential. 2.♔h2!? is also good enough. The main point is that the white king moves forward.

2...♖g8 3.d6 ♔c4! 4.d7 ♔b5! 5.d8=♕ ♖xd8 6.♗xd8 ♔a6!



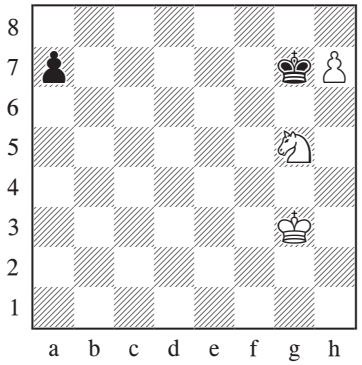
We have arrived at Critical Moment 3. The last sequence of moves was forced. White now has five candidate moves:

1) 7.b8=♕?? stalemate.

2) 7.b8=♖?? stalemate.

3) 7.♔e3? ♔xb7 8.♔e4 ♔c8 Black wins a crucial tempo 9.♗a5 Unfortunately, White is not able to enter the diagonal a3-f8 without losing another tempo 9...♔d7 10.♔f5 ♔e7 11.♗b4† ♔f7=

4) 7.b8=♘†? ♔b7 8.♘d7 ♔c8 9.♘f6 ♔xd8 10.♘xh7 ♔e7! White prevents the transfer of the knight to g4. 11.♘g5 ♔f6 12.♔g3 ♔g6 13.h7 ♔g7=

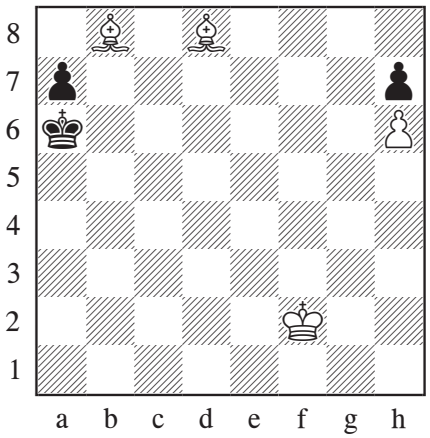


The position is a fortress. Black does not need the a-pawn, moving the king between g7 and h8 is sufficient for a draw. If White wishes to protect the h7-pawn with his king to free the knight, Black will be stalemated.

OK, the a-pawn does mean something. To avoid the 'almost-stalemate' that instead leads to mate, the a-pawn sacrifices itself: 14.♔f4 a5 15.♔e4 a4= etc. But certainly not 14...♔h8 15.♔f5 a5?? (15...♔g7 still draws) 16.♔g6 a4 17.♘f7 mate.

The last option for White is the correct one:

7.b8=♗!!



Critical Moment 3. **Method of Elimination**. I really like the point of this study: the only way to win is by promoting to another dark-squared bishop!

I would like to discuss candidate moves and the Method of Elimination at this point. Of the five possible candidate moves, everyone sees immediately that promoting to a queen or rook leads to stalemate. So far, so good – three candidates left.

Then most players usually calculate giving up the pawn by moving the king towards the h7-pawn. It turns out that Black is just in time to reach the corner, and with his king on g8, we have a fortress. We now have two candidate moves left.

Then the players start to calculate the knight promotion. In fact, I believe most players do not calculate this line to the end before making up their mind. I have seen time and again that their calculation only goes as far as winning the h7-pawn before deciding upon knight promotion. This decision is easy to make – so their reasoning goes – since a bishop promotion is stupid: everyone knows that two dark-squared bishops are no better than one, since they cover the same squares. With this kind of stereotypical thinking, the Method of Elimination can be a dangerous weapon to use.

I know that this is probably the first time you have encountered a position where two same-coloured bishops make the difference – and this makes for an excuse for stereotypical thinking ('this is a very special case').

I still don't find it an acceptable excuse – no matter to which degree, we shall always encounter new positions that are unique in some way or another, compared to what we have previously seen. I can only add that this position is not only about protection of certain squares (the light squares f7 and g8) but also about domination: two bishops work on two diagonals!

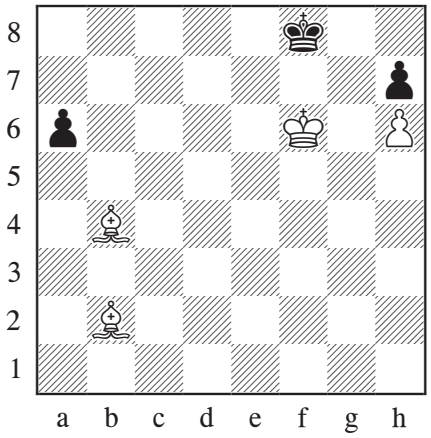
I can understand that none of my pupils (even IMs) so far has solved the position, since even after I reveal to them the correctness of the bishop promotion, it is not simple to find the solution when the playing exercise continues. The stereotypical thinking about two same-coloured bishops is hard to get rid of – an alternative explanation is that we look less for checkmates than we ought to. It does, after all, end the game, as Short has rightly put it. The clue to the bishop promotion is that Black is getting checkmated in the h8-corner.

Here is a sample line that shows the solution after bishop promotion. The presence of the a-pawn in this position has no influence on the general idea.

7...♔b7 8.♗e5 ♔c8 9.♗a5 ♔d7 10.♔f3 ♔e6 11.♔e4 ♔f7 12.♔f5 a6 13.♗f6 ♔g8 14.♔e6 ♔f8 15.♗b2 ♔g8 16.♔f6 ♔f8 17.♗b4†!

Critical Moment 4. **Planning**. White has found the right idea. This is a case where it does not make sense for me to try to cover all possible moves in the position – there are simply too many options. But the central idea still has to be displayed in order to win.

Please notice that you even if you don't see this winning plan when you promote to a second same-coloured bishop at Critical Moment 3, you still have to make that bishop promotion. This is the core idea of the Method of Elimination, and this is why it can be a tough decision.



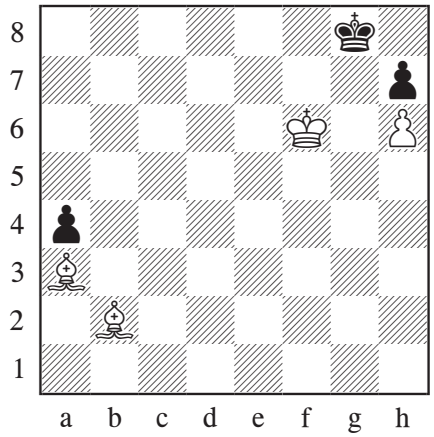
17...♔g8

17...♔e8 18.♔g7 loses the h7-pawn.

Now Black needs to be brought into a deadly zugzwang.

18.♗d6 a5 19.♗c5 a4 20.♗ca3

Zugzwang. The bishop on a3 makes a crucial difference by covering the f8-square. Without this bishop, the position would be a simple draw (the fortress mentioned earlier).



20...♔h8 21.♔f7 Mate!

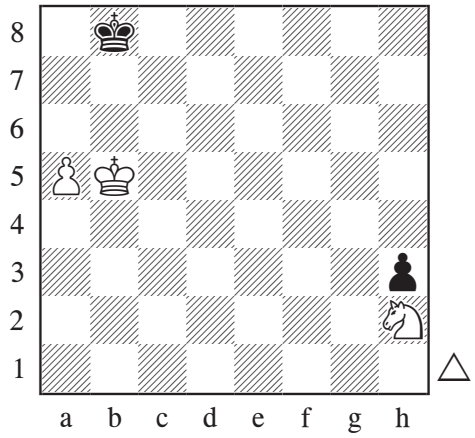
2.3 Only one Critical Moment (CM)

The exercises in this book are playing exercises, and in order to be good as such, they have to be playable. This means that the reader should not be able to spot the win right from the start of the exercise – in this case, the exercise belongs in a book with calculating exercises that can be solved directly from the diagram position.

To avoid this, the exercises in this book have at least two Critical Moments. For comparison, let's take a look at an exercise with only one Critical Moment:

Gustavus Reichhelm

(Evans 176)



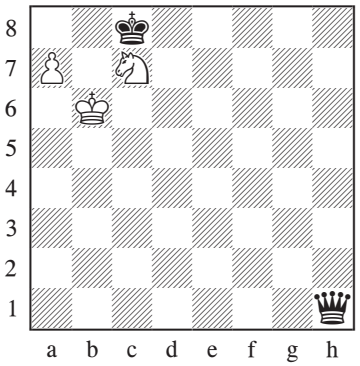
White to move and win

It turns out that the first move is the only critical stage of the game, and that this move decides the outcome. Below I have listed five candidate moves:

1.♔a6!

The only move that leads to a win, based on mutual zugzwang later.

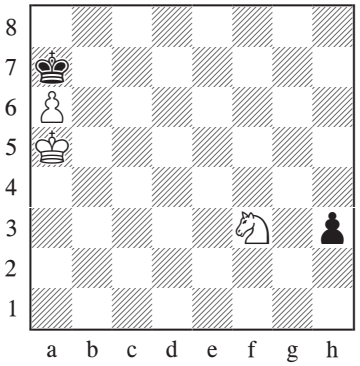
1) 1.♔b6? ♔a8 2.a6 ♔b8 3.♘g4 ♔a8 A position of mutual zugzwang 4.♘f6 h2 5.♘d5 h1=♕ 6.♘c7† ♔b8 7.a7† ♔c8=



Please note that Black's new queen covers the a8-square. Had this not been the case, White could mate in 3 more moves with 8.a8=♕† ♔d7 9.♕e8† ♔d6 10.♕e6 mate. A pattern we shall see later.

2) 1.♘g4? ♔b7= See the next variation.

3) 1.♘f3? ♔b7 With the black king on the 7th rank, he can decide which of the squares a8 or b8 to retreat to in order to save the game: 2.a6† ♔a7 3.♔a5



3...♔b8! (3...♔a8??) 4.♔b6 ♔a8 Again we have the position of mutual zugzwang.

4) 1.♔c6? ♔a7 2.♔b5 ♔b7 Again the black king is on the 7th rank.

1...♔a8

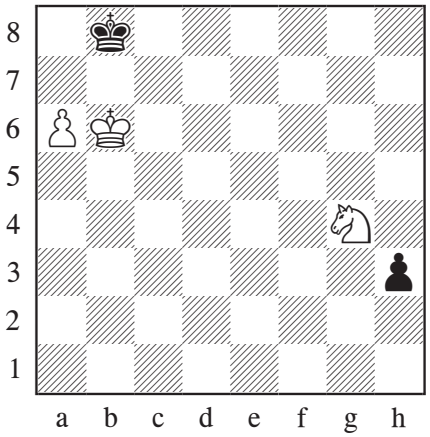
1...♔c7 2.♔a7 ♔c6 3.a6 ♔c7 4.♘g4 leads to the same.

2.♔b6

Now that White has made the right decision on move 1, the remaining moves can more or less be made on autopilot.

2...♔b8 3.a6 ♔a8 4.♘g4 ♔b8

Instead of this, 4...h2 5.♘xh2 is not an option for Black: only with the white pawn (a rook's pawn) advanced to the 7th rank do we have a fortress. We saw this point in the Troitzky Study earlier.



This time it is White to move.

5.a7† ♔a8 6.♘f6

Heading for c7.

6...h2 7.♘d5 h1=♕ 8.♘c7 mate

In the playing exercises of this book, it does occasionally happen that a strong player can calculate 'through' two or more Critical Moments in an exercise. In this case, play the exercise confidently to the end, be proud of yourself and move on to the next exercise!

The following section is about planning:

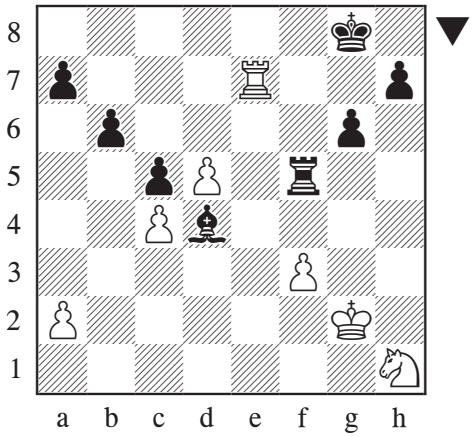
2.4 Finding concrete points of attack and setting the right priorities

Here is an example from my own games to show the importance of setting the right priorities in a position. This is even more important in positions with reduced material on the board, as one priority can be conclusive for the final result. To help set the right priorities, it is a good idea to target concrete points of attack – and keep focused on them.

They say that a Grandmaster always has a plan – even if it's a bad plan. But in fact this is true for every chess player, even a beginner: every player sets priorities in a position, even if the priority is bad and loses outright.

Silas Esben Lund – Eric De Haan

Schwarzach 2011



Being a pawn down in this endgame, I have just played **36.♖e1-e7**. Which priorities should Black set, and what plan should he choose?

Let's first consider the natural-looking:

36...♖f7 37.♖e8† ♔g7

White can then activate the knight with:

38.♘g3≅

...and bring it to e4. Black has an extra pawn and a stable position, but White has a certain amount of compensation due to the strong knight on e4 and passed pawn on d5 – supported by an active rook on e8 deep into Black's territory.

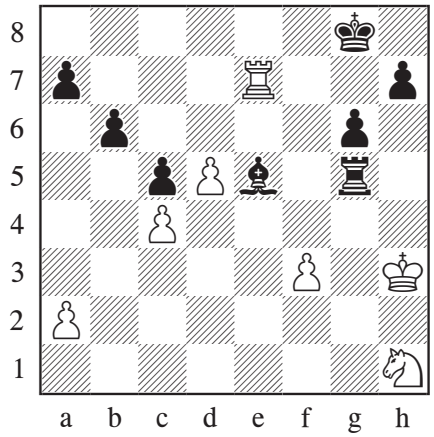
By playing this way, Black's priorities are of a material nature: he wishes to keep his extra pawn, make the position stable and then later try to profit from his material advantage. In the process, he allows White a few tempos to improve his position.

However, the best move in the position is:

36...♖g5†! 37.♔h3

37.♔f1? ♖g1† drops the knight.

37...♗e5!∓



What are Black's priorities in this continuation? Quite the opposite to the previous line: instead of hanging on to material (a7 is under threat) he instead strives for an optimal coordination between rook and bishop – at the same time preventing White from activating the knight from the corner. White's four forces (rook, pawn on d5, king and knight) are working poorly together in this case.

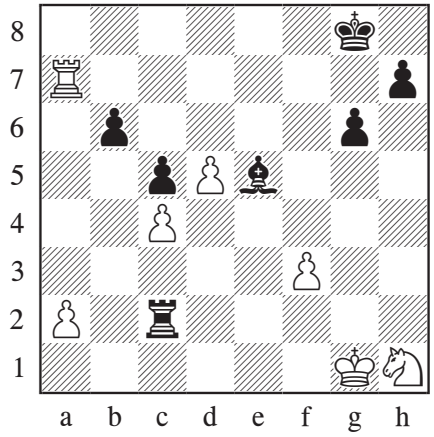
The deeper point behind Black's play is to attack the pawn on c4 in order to make his own c5-pawn a dangerous passed candidate. This is quite logical, as the c5-pawn is the most advanced of his remaining five pawns. Thus, the plan employed by Black shows **Prophylactic Thinking** as it both harms White's coordination as well as striving for his own activity.

Notice how easy Black's moves are to find if you see c4 as the point of attack and then stay focused on it. Play might continue:

38.♖xa7

38.♘f2?! ♖g3† 39.♔h4 ♖xf3 40.♖xe5 ♖xf2 41.♖e7 ♖f7 is no joy for White.

38...♖h5† 39.♔g2 ♖h2† 40.♔g1 ♖c2!



41.♖e7
White plans to advance the d-pawn.

It is still impossible to activate the knight: 41.♘f2?? ♗d4

White can also try 41.♖a6 with the idea of eliminating the b-pawn: 41...♖xc4 42.♖xb6 ♖c1† 43.♔g2 ♖c2† 44.♔f1 ♖xa2∓ Black has active pieces and is a pawn up.

After **41.♖e7** a sample line goes:

41...♗d4† 42.♔f1 ♖c1† 43.♔g2 ♖xc4 44.d6 ♖c2† 45.♔h3 ♗f6 46.♖b7 ♖d2 47.♖xb6 ♗e5 48.♘g3 ♖xd6∓
Black is a pawn up under clearly more favourable circumstances than in the starting position.

Let's recap Black's priorities in this line:

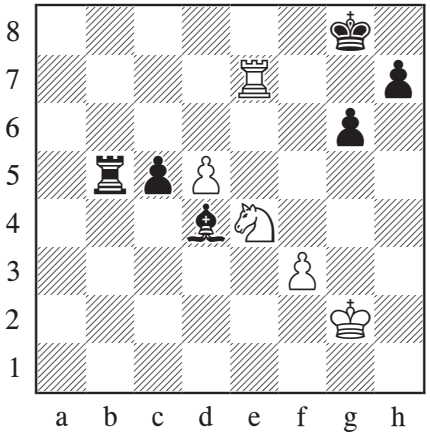
1) Point of attack on c4.
2) Make the c5-pawn a passed pawn.
3) Cooperation between rook, bishop and c-pawn.
4) Disturb White's coordination, by preventing the knight from leaving the corner of the board. In the process, Black temporarily gave up his a-pawn.

The most annoying thing about this sharp continuation is that Black needs to calculate a lot of lines and allow a certain amount of counterplay. To become a stronger player, you need the **Transform-willingness** in these kinds of positions. In this case, the reward of the sharp sequence of moves was a clear advantage.

Let's see how Black (a Dutch FM) set his priorities in the game:

36...♖f7 37.♖e8 ♖f8 38.♖e7 a6?!
The beginning of a dubious plan.

39.a4 ♖b8 40.♘g3 b5 41.axb5 axb5 42.cxb5 ♖xb5 43.♘e4



Black's priorities were the breakthrough ...b5 to create a passed c-pawn and to avoid the loss of the a7-pawn.

The problem with this plan is that White was given time to activate his knight from h1 to e4. White's cooperation between rook, knight and d-pawn fully compensates for the pawn deficit – in fact, it is Black who has to be careful here despite the extra pawn. Don't forget that White's passed pawn on d5 is the more advanced, and that he controls the 7th rank.

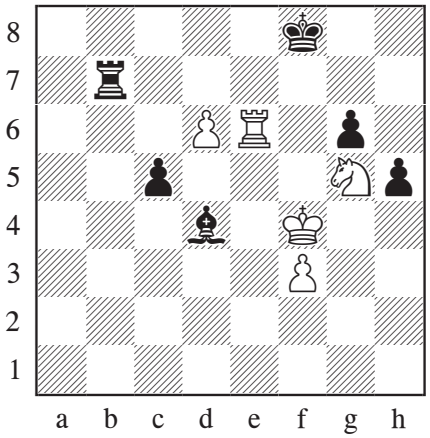
43...♖b2† 44.♔g3 ♖b6?!

44...♖b8 followed by ...♖d8 was best – this would attack the d-pawn while stopping it, thus tying down White's pieces a little. The move played leaves a passive impression.

45.♔f4 h5 46.d6 ♔f8 47.♖e6!

White is slightly better now, but Black can still draw with the right defence.

47...♖b7 48.♘g5!



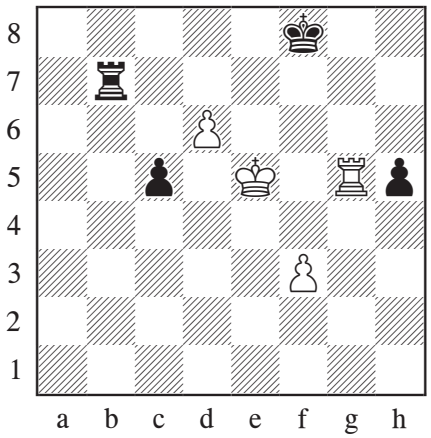
48...♗c3?!

The clearest way to a draw was: 48...c4! 49.♖e4 ♗f6 (not 49...c3? 50.♘e6†! [50.♖xd4?? c2 51.♖c4 ♖b4!–+ is a well-known trick] 50...♔f7 51.♘xd4+–) 50.♖xc4 ♔e8= Black sacrifices his extra pawn and brings his king to the defence against White's d-pawn, thereby freeing the rook from this duty. It is not an easy decision to give up a pawn, though. By playing this way, Black shows flexibility in the defence.

49.♖xg6! ♗d2†?

The turning point of the game: the rook ending is lost for Black. It is possible that Black saw the hopelessness of this decision, although he played it; and I believe that most players can recognize the situation – instead of playing a move that leads to unclear consequences, one chooses a second-rate move that leads to more clarity. **Composure** shows a player's ability not to lose his nerves, but instead to keep the game going.

50.♔e5 ♗xg5 51.♖xg5+–



51...♖b1

Or 51...♖h7 52.♔d5 h4 53.♔c6 h3 54.d7+–.

52.♔e6 ♖e1† 53.♔d7 c4 54.♔c7!+–

White uses Black's c-pawn as an 'umbrella' (Dvoretsky). This pawn prevents checks from the rear along the c-file.

54...♖a1 55.d7 ♖a7† 56.♔c6 ♖a6† 57.♔b7 ♖d6 58.♔c7 ♔e7 59.♖e5†
1–0

2.5 Chapter recap

We started out in this chapter with a discussion about the Method of Elimination. This is the most concrete tool available to players when making a decision, but it is easy to use Method of Elimination incorrectly for various reasons. A typical mistake is to go for the safer, but inferior continuation if you cannot foresee the consequences. Therefore, making decisions demands some element of daring too.

In the study by Troitzky, we saw how it was typical to rule out the promotion to another dark-squared bishop on b8, based on the common sense that two same-coloured bishops are of no use since they cover the same squares. Such simplistic views are the exact opposite of Method of Elimination which is based on calculation, but many players do in fact think like this, and thus uses Method of Elimination incorrectly to make the decision.

In the playing exercises, Method of Elimination comes in handy if you are faced with a difficult choice at Critical Moment 1, but you are unable to foresee the consequences until the decision at the next Critical Moment 2. That is, you have to play the move anyway and then go along with the exercise. This is where other factors are added to the decision-making process.

In Weber – Rhee we saw how **Positional Judgement** influenced the decision, and I used this as a possible explanation as to why most under-2200 players choose **57.♔e3?** instead of the correct **57.g4!**.

We also saw how important it can be to have a forced way to the draw: in this case, defending is easy and only about your calculation abilities. In other positions, you might be obliged to react to ideas of your opponent and thus stay flexible in the defence – which can be very challenging.

In the study by Gustavus Reichhelm we discussed exercises with only one Critical Moment: these exercises can be solved directly from the diagram position, no need to play them out against an engine! Thus, such exercises are not suited for this book. Of course, it happens that a stronger player can 'play through' two Critical Moments in an exercise – but the way the exercises are constructed, it rarely happens that a player can solve one of my playing exercises outright like the Reichhelm study.

In Eric De Haan – Lund, we saw the importance of setting priorities, finding concrete targets and staying focused on them. Black chose a material approach that allowed White time to relocate and centralize his h1-knight to e4. Instead, my opponent could have gone for a daring sacrifice of the a7-pawn, keeping the knight on h1 for the time being, and attacking the c4-pawn to make the c5-pawn a dangerous passed pawn. This energetic and tactical approach would have led to a clear advantage.

Throughout the chapter, we saw that the computer does not always find the most challenging continuation for a human. It takes a human being to understand the challenges of a human being. The chess engine does not plan like humans do, instead it bases its decisions entirely on calculation power. This makes the engine very flexible, as it can suddenly change 'plan' if it values another move more highly. It does not have the 'tunnel vision' that humans tend to have.

On the other hand, sometimes there are two continuations with equal value to the computer, but where a human prefers the continuation where it is possible to stay in control. In the solution to the exercises, I have tried to outline these situations to give the player the possibility of maximum resistance.

Chapter 3

Introduction to Endgames

We have now arrived at the introductions to the specific endgames. I have included the most important themes from the five main endgames to prepare you in the best possible way for the challenges that await in the exercise sections. The five main endgames are:

3.1 Knight endgames
3.2 Rook endgames
3.3 Bishop versus knight endgames
3.4 Rook versus bishop or knight endgames (exchange up)
3.5 Queen endgames

You can go through the introductions 3.1 to 3.5 as you like: either as they are listed in the book or picking out a specific one (say rook endgames) and then testing yourself afterwards in the exercise section. In each of the exercises sections (Chapter 4 for main exercises, Chapter 6 for extra exercises), I give an overview as to which exercises belong to each of the endgame configurations.

Chapter 3.1: Knight Endgames

In this small introduction, I would like to make the reader familiar with the most important tools for handling knight endgames. This goes for both knight vs. knight with pawns on both sides, as well as the case where only one side has a knight.

An important theme that both players should be constantly aware of, is the possibility of a knight sacrifice to obtain a position with knight vs. pawns. This theme is more common than one might think. If both sides possess a knight, you should constantly look out for knight sacrifices.

The theme will occur in the chapter on bishop vs. knight as well: in this case, the sacrifice of the bishop transforms the position into one with knight vs. pawns.

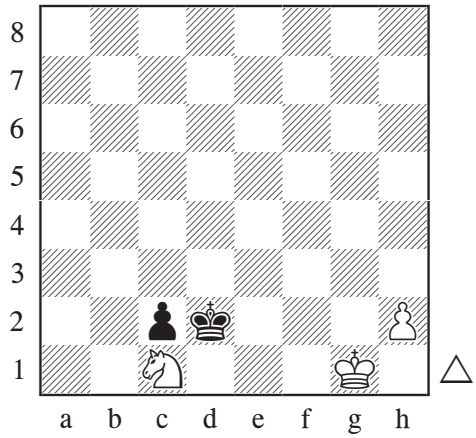
3.1.1 Pre-chapter exercises

Like in the general introduction to the book, you have the chance to solve the examples presented in this introduction to knight endgames as exercises. All seven positions are *playing* exercises and they can all be played against a chess engine.

To get the most out of the chapter, I recommend that you play out all seven exercises against an engine before you read on. Take a look at Chapter 9 on 'How to set up a position in Komodo 10' to get started with the playing exercises. Below you will find the recommended time for each exercise. The standard increment for an exercise is 30 seconds per move.

Silas Esben Lund 2016

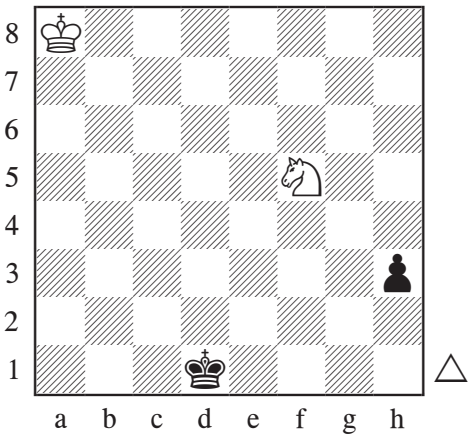
(Study N-1)



White to move and win
Recommended time: 8 minutes
Level: 2

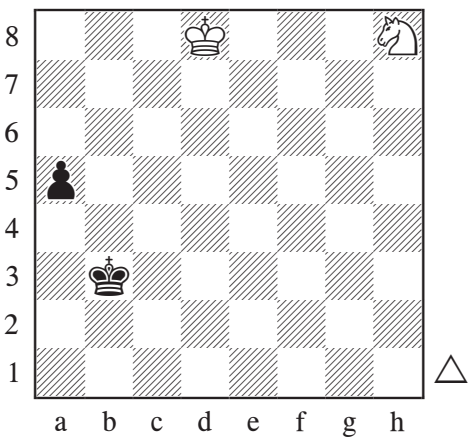
Mark Dvoretsky

DEM 2-10



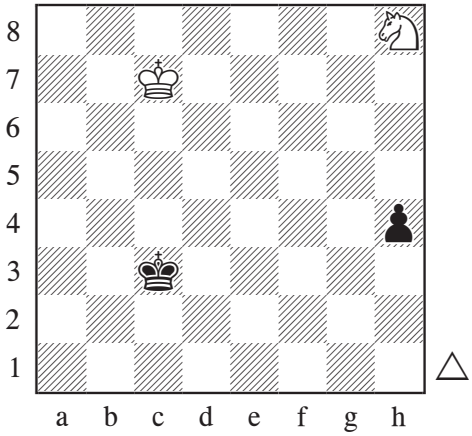
White to move and draw
Recommended time: 5 minutes
Level: 1

Frantisek Prokop 1925



White to move and draw
Recommended time: 12 minutes
Level: 4

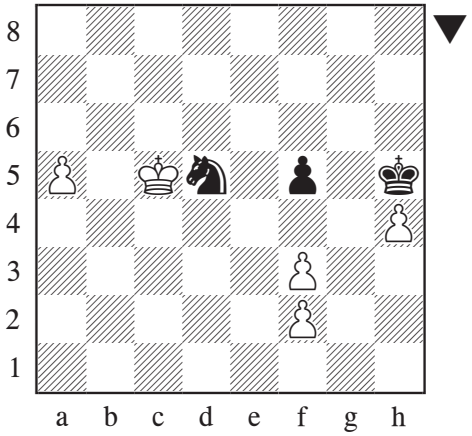
Nikolai Grigoriev 1932



White to move and draw
Recommended time: 12 minutes
Level: 4

Zhou Jianchao – Li Chao

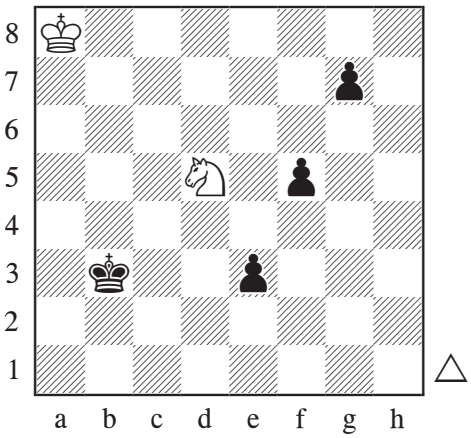
Danzhou 2010 (variation)



Black to move and draw
Recommended time: 10 minutes
Level: 3

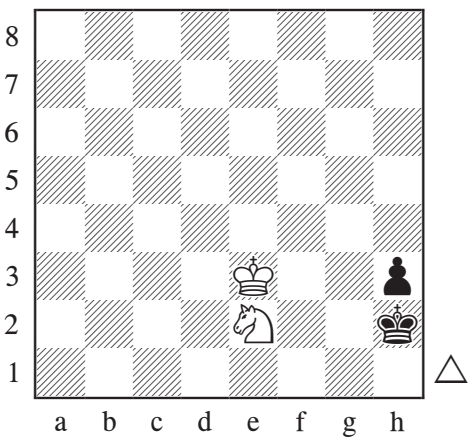
Vitaly Chekhover 1955

Averbakh 28D



White to move and draw
Recommended time: 12 minutes
Level: 4

Alexey Troitzsky 1906



White to move and win
Recommended time: 8 minutes
Level: 2

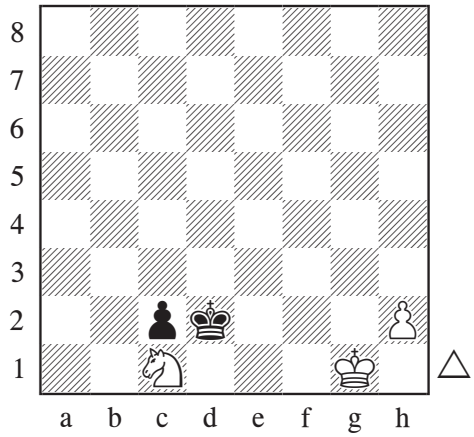
3.1.2 The short-legged knight

A knight usually fights one passed pawn successfully, even if the pawn is supported by the opponent's king.

In some cases, it is possible for the knight to sacrifice itself for the pawn, whereas in other cases the pawn side secures the draw by the perpetual threat to the knight.

Silas Esben Lund 2016

(N-1)



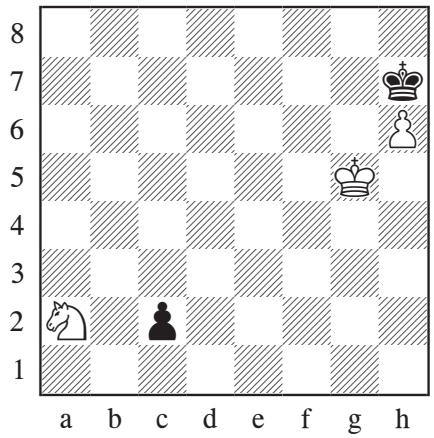
1.♘a2!

1.♘b3†?! ♔c3 2.♘c1 ♔d2 does not yet spoil anything, since White can now play 3.♘a2! as in the main continuation.

1...♔e3

1...♔d3 2.♘b4† immediately eliminates the pawn.

2.♔g2 ♔f4 3.h3 ♔g5 4.♔g3 ♔h5 5.h4 ♔h6 6.♔g4 ♔g6 7.h5† ♔h6 8.♔h4 ♔g7 9.♔g5 ♔h7 10.h6



White wins whoever is to move.

10...♔g8!

The best way to offer resistance. There is a kind of mutual zugzwang on the squares g6/g8.

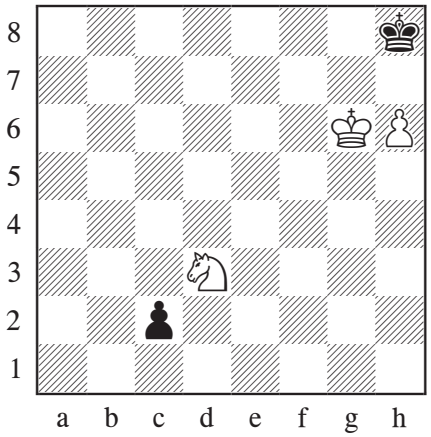
10...♔h8 11.♔g6 ♔g8 12.♘c1 ♔h8 13.♘d3 ♔g8 14.h7† In this position Black has to allow the queen promotion or else mate in two moves will follow after 14...♔h8 15.♘e5 c1=♕ 16.♘f7 mate.

The move in the game demands accuracy from White who will have to let Black promote to a queen several moves before he can deliver the mate.

11.♔g6 ♔h8 12.♘c1 ♔g8 13.♘d3

Notice the knight on d3: White is 'stretching' it – and as it happens, it is possible to use the knight both in defence (of the c1-square) and attack (the h8-square) – the board is just small enough for the short-ranged piece to act on both wings in the case of a bishop's pawn.

13...♔h8



14.♘e5! c1=♕ 15.♘f7† ♔g8 16.h7† ♔f8 17.h8=♕† ♔e7 18.♕d8†! ♔e6 19.♕d6 Mate!

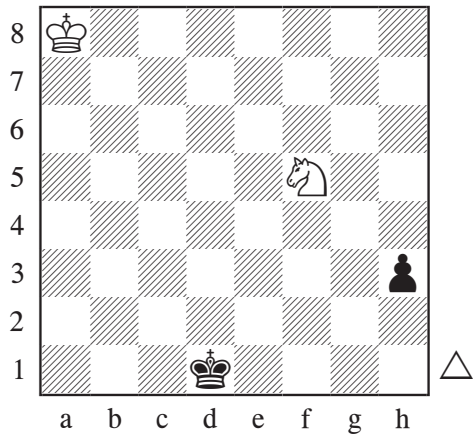
3.1.3 Lord of the rings

In the above example, White avoided the perpetual threat to the knight and therefore won the game. This is not possible with rook's and knight's pawns, that is a-, b-, g- and h-pawns. There is simply no room on the other side of the pawn for the knight to hide successfully. We shall see examples of this later.

A slight exception is attached to a rook's pawn, since here the knight cannot stop the pawn on the corner promotion square. From the corner, it is not possible for the knight to perform the circular movement of 'the ring'. A case in point is the following position:

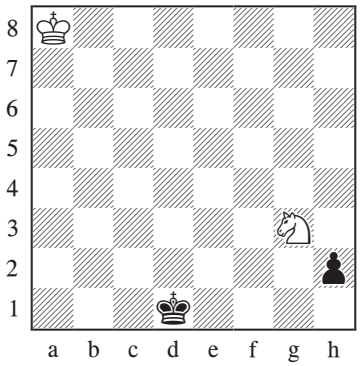
Mark Dvoretsky

(DEM 2-10)



1.♘e3†!
The right move.

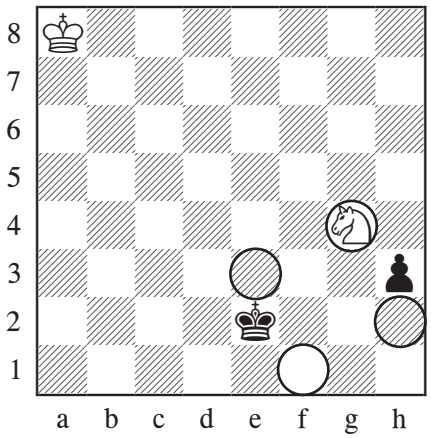
Bad is: 1.♘g3? h2



The knight can only move between the three squares h1-g3 and h1-f2 and is therefore unable to prevent the black pawn from queening. The last chance is to sacrifice itself on h1 and then stalemate Black, but the white king on a8 is too far away:

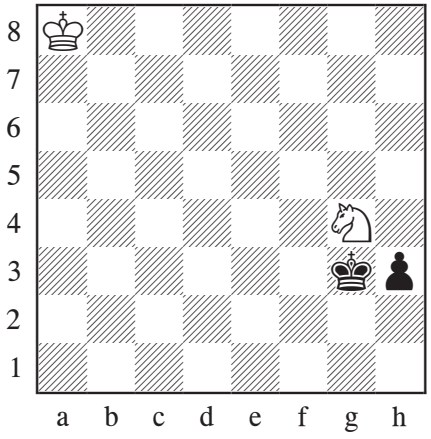
2.♔b7 ♔e1 3.♔c6 ♔f2 4.♘h1† ♔g2 5.♔d5 ♔xh1 6.♔e4 ♔g2–+ However, the idea of sacrificing the knight in the corner is crucial in many positions (and exercises) throughout the book.

1...♔e2 2.♘g4



By stopping the pawn on h2 (one move before the corner promotion square) the knight is able to perform a circular movement on the squares h2-f1-e3-g4. These four squares form a 'ring' and the defender should simply stay within this ring with his knight to secure the draw. Since this ring is the one closest to the pawn, I shall name it 'Ring 1'. More about Rings 2 and 3 follow shortly.

2...♔f3 3.♘h2† ♔g2 4.♘g4 ♔g3



5.♘e3!

An important resource is the check that eliminates the pawn.

5...♔f3

5...h2 6.♘f1†=

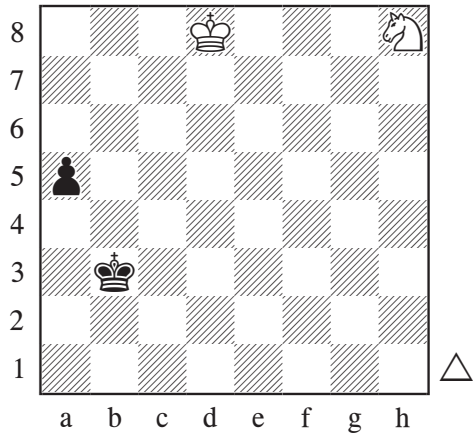
6.♘f1=

And so on for all eternity.

Imagine a situation where the passed pawn is less advanced and where at the same time the knight comes from afar: how should the knight approach the pawn in order to enter Ring 1 and secure the draw?

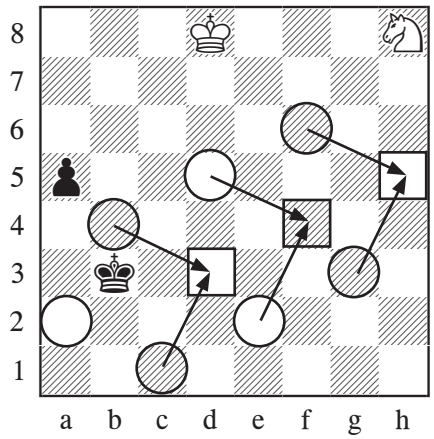
Frantisek Prokop 1925

(Averbakh 15)



White to move and draw

The following diagram shows the whole Ring system:

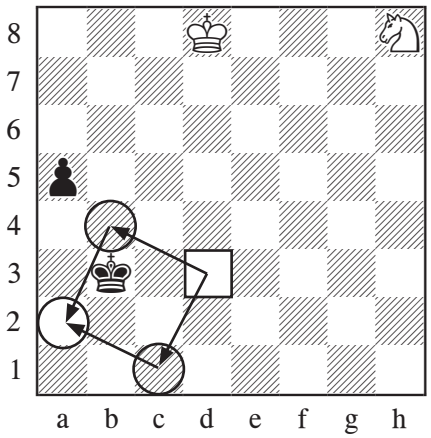


The position shows the usefulness of the extended ring logic. The white knight has to stop the a-pawn from promoting – but which of the squares f7 or g6 should he choose as the starting point of the journey?

It turns out that only one of the moves lead to a draw. The following three steps explains the logic of the ring:

1) The construction of Ring 1 is as follows: a2 is the last square to stop the pawn and thus Ring 1 consists of the squares a2-b4-d3-c1. The square d3 is the connecting point of Ring 1: since from this square, a2 can be reached via two equally long roads. These two roads consist of d3-b4-a2 and d3-c1-a2. The crucial point is that the white king is unable to cover both of these roads and thus the knight has optimal flexibility from the connecting point d3. The connecting point is marked with a square outline in the diagram.

Ring 1 looks like this in our position:

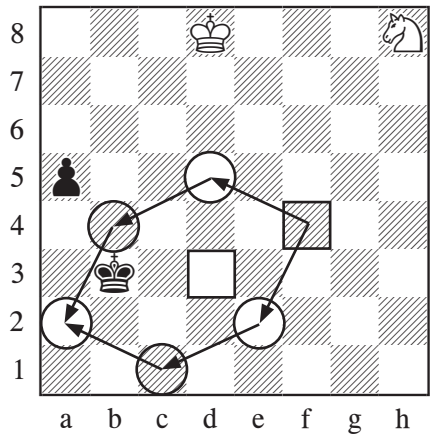


2) The extension to Ring 2: Now imagine that we extend the two roads instead of connecting them in the point d3. The extension b4-d5 and c1-e2 leads to a new connecting point on f4. Thus f4 is the new extended connecting point of Ring 2 (I shall continue to call it a ring although it is in fact an ellipse).

The crucial point is once again that from f4 there are two roads leading to a2: both via f4-d5-b4-a2 and f4-e2-c1-a2, and the white king is unable to cover both these options. From the connecting point on f4 the knight thus again has optimal flexibility.

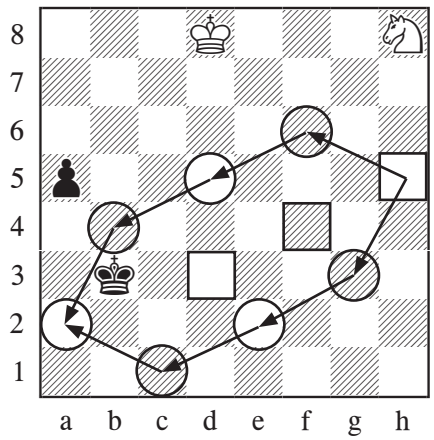
Notice that the road from f4 to a2 is now three moves with the knight.

The extension to Ring 2 looks like this in our position:



3) Ring 3 is an extension of Ring 2: instead of connecting the roads on f4, we extend them with d5-f6 and e2-g3, and thus the two roads are connected in a new point on h5. This is the connecting point of Ring 3. From the connecting point h5 it takes the knight four jumps to reach a2, no matter which branch it chooses.

This is how it looks like from the knight's perspective on h5:



In this particular position, it turns out that there is no need for Ring 3 to find the solution – but later positions demand the full use of Rings 1-2-3!

The knight can strive directly for the connecting point of Ring 2, and this gives the answer to the exercise:

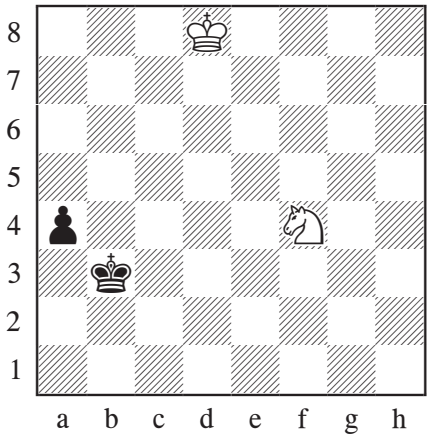
1.♘g6!

Aiming for f4.

1.♘f7? a4 2.♘e5 (2.♘d6 a3–+) 2...♔c3!–+ is a typical domination of the knight by the king. In fact, White would still lose this position with the black pawn on a5 instead of a4.

1...a4 2.♘f4!

The knight has entered the connecting point of Ring 2.



2...♔c3!

This is definitely the most testing move. Black is posing two final problems for White to solve. The engine is indifferent to Black's options at this stage, as they all lead to a draw with correct play. For a human, this king move is unpleasant and forces White to defend accurately. This is why these kind of positions are not (fully) suited for play against a computer.

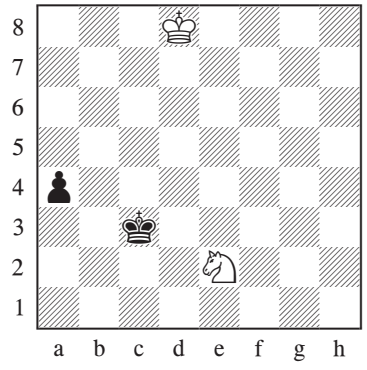
2...a3 allows the knight to enter the connecting point of Ring 1 immediately with 3.♘d3= and the game is easily drawn: 3...♔c3 4.♘c1 ♔c2 5.♘a2 ♔b2 6.♘b4 ♔b3 7.♘d3! etc.

2...♔c4 covers the road via d5-b4-a2, but allows the knight to enter Ring 1 via e2-c1: 3.♘e2 a3 4.♘c1=

3.♘d5†!

When choosing between this check and the one on e2, it is very important to choose the one *where a knight fork eliminates the pawn*!

3.♘e2†? is a mistake.

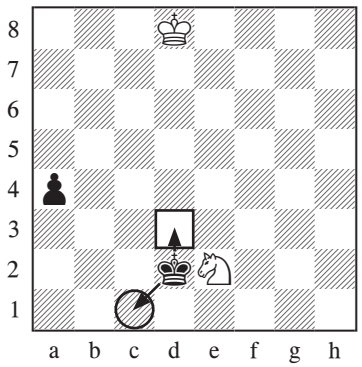


White aims for the c1-square that would immediately bring him into Ring 1, and therefore Black has three options. Only one of them wins.

3...♔b2? gives White the opportunity to correct his mistake by going back into the previous connecting point: 4.♘f4! ♔c3 5.♘d5†! as in the main continuation.

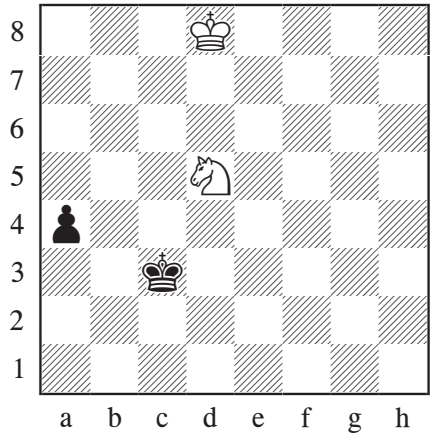
3...♔c2? Now White seizes the opportunity to stop the pawn one move earlier than planned: 4.♘d4† ♔d3 5.♘b5 In this position Ring 1 simply consists of a3-b5-d4-c2. The same logic applies, only this time we have a 'luxury ring'.

The correct move is: 3...♔d2!–+



In some way this move is slightly counter-intuitive. But the point is to cover c1 *and* the connecting point d3 simultaneously. 4.♘d4 a3 The knight is out of the 'ring system' and thus unable to stop the pawn on a2. The king on d8 is too far away for a saving knight sacrifice on a1: 5.♔d7 (5.♘b3† ♔c2! The knight is not allowed to enter the Ring via c1. 6.♘d4† ♔b2–+ and the pawn promotes.) 5...a2 6.♘b3† ♔c3 7.♘a1 ♔b2 8.♔d6 ♔xa1 9.♔c5 ♔b2–+

Back to the position after **3.♘d5†!**:



3...♔b3

Black would love to play 3...♔c4 as it covers the square b4 and the connecting point d3 simultaneously. Unfortunately for him, 4.♘b6†= eliminates the pawn. The knight check that eliminates the pawn is *the* argument.

4.♘f4!

Again we see this very important backward move: the knight goes back to the connecting point of Ring 2 and is again ready to enter the connecting point of Ring 1 (d3). In a way, this move is counter-intuitive, but once you grasp the idea it makes a lot of sense. Now either:

4...♔c4 5.♘e2 a3 6.♘c1=

Or 4...a3 5.♘d3=.

Both cases see the knight enter Ring 1 and the draw is obvious.

Now it is clear why **2...♔c3!** was such a tricky move to face. First, White had to choose the right path for the knight (**3.♘d5†!**), and then he had to find the backward move **4.♘d5-f4!**. Whenever I train my pupils in the ring logic (there are more positions of this kind in the exercise section), I usually repeat the position a lot to see if they make a mistake. Remember: this is a playing exercise that should resemble over-the-board chess as much as possible.

The limited size of a chess board only results in up to three rings. Therefore, the ring logic can easily be learned and adopted.

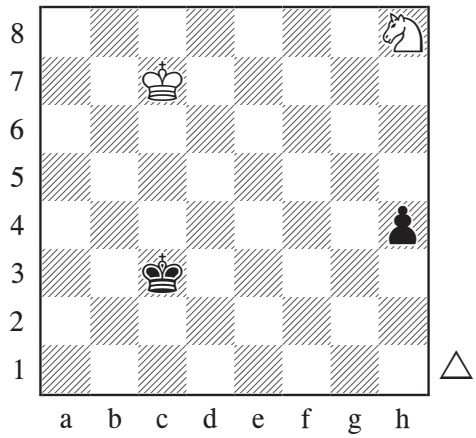
Please notice that I have been working with a worst-case scenario here: the last square to stop the pawn was a2. If White is able to stop the pawn on, say, a3, he should of course seize this opportunity. In this case, Ring 1 would consist of the squares a3-b5-d4-c2. In the above example, we saw an example of exactly this luxury ring in action.

3.1.4 Forming a barrier

When a knight forms a barrier, it consists of both the squares the knight protects directly, and also those protected *in*directly. In the latter case, tactics helps to fulfil the barrier. Consider the following position:

Nikolai Grigoriev 1932

(Averbakh 14)



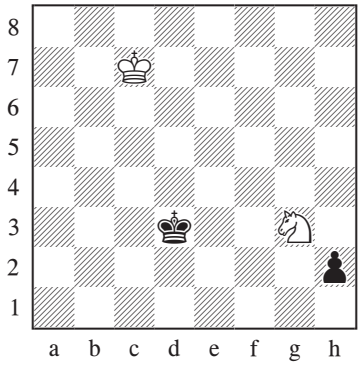
In this position, White again has to choose between two knight moves to stop the h-pawn – and only one of them draws. He quickly realizes that he is unable to stop the pawn on h2. Therefore, he needs to look for other ways to solve the problem. The solution here is to construct a barrier to win a crucial tempo. Should White deliver a check on e2 or e4 on the way to stop the h-pawn?

1.♘f7!

1.♘g6? h3 2.♘f4 h2 3.♘e2† ♔d2!

The right move to avoid the barrier.

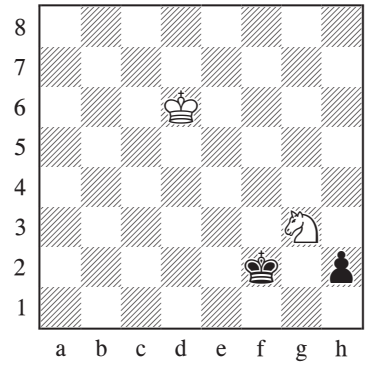
If instead: 3...♔d3? 4.♘g3!



White creates a barrier and gives White an additional tempo that secures the draw. The barrier consists of the squares d2, e2, e3 and e4. Both 4...♔d4 5.♔d6= and 4...♔c2 5.♔d6 ♔d1 6.♔e5 ♔e1 7.♔f4= are too slow.

After the stronger 3...♔d2! Black wins:

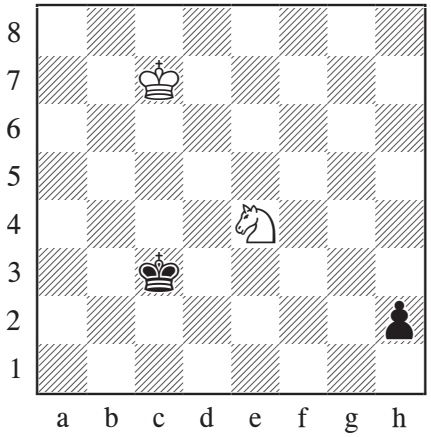
4.♘g3 ♔e1! 5.♔d6 ♔f2–+



Sacrificing the knight on h1 is no option:
6.♘h1† ♔g2 7.♔e5 ♔xh1 8.♔f4 ♔g2–+

Back to the correct first move **1.♘f7!**:

1...h3 2.♘g5 h2 3.♘e4†!

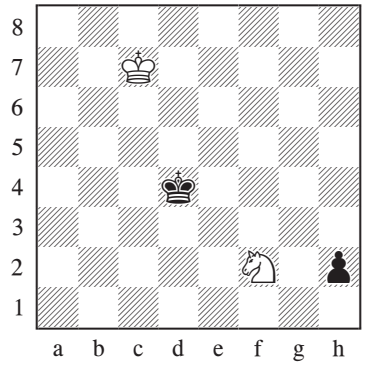


The answer to the question was e4. The black king is deprived of the short-cut to e1.

3...♔c2
This is the crucial loss of a tempo.

3...♔d3 4.♘g3!= constructs the barrier described above.

No better is: 3...♔d4 4.♘f2!

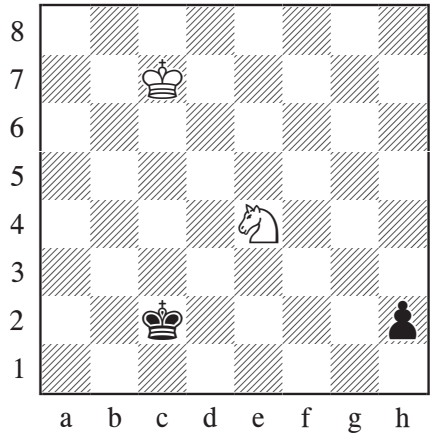


The barrier here consists of the squares d3, e3, e4 and e5.

4...♔d5 5.♔d7= leads nowhere for Black.

Whereas after 4...♔c3 5.♔d6 ♔d2 6.♔e5 ♔e2 the stalemate trick finally works: 7.♘h1! ♔f3 8.♔d4! ♔g2 9.♔e3 ♔xh1 10.♔f2=

Back to the position after **3...♔c2**:



4.♘g3!

4.♘f2? ♔d2 5.♔d6 ♔e2 6.♘h1 ♔f3 7.♔e5 ♔g2 8.♔f4 ♔xh1 9.♔f3 ♔g1–+ White is one tempo short.

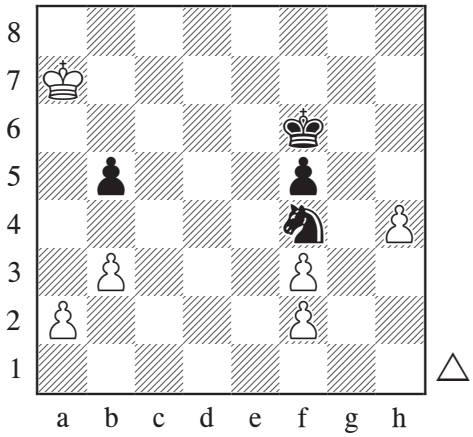
4...♔d1 5.♔d6 ♔e1 6.♔e5 ♔f2 7.♔f4=

3.1.5 Optimizing the knight

In very sharp endgames with knight vs. pawns, it happens that the knight has several ways to stop a passed pawn and one has to make a choice. Here one should try to avoid the knight becoming an entirely passive defender. Even if the knight is short-legged, it is possible to combine play on both wings – as in the following position.

Zhou Jianchao – Li Chao

Danzhou 2010 (variation)



40.a4!?

This is a sideline. In the game, White played 40.♔b6.

40...bxa4 41.bxa4

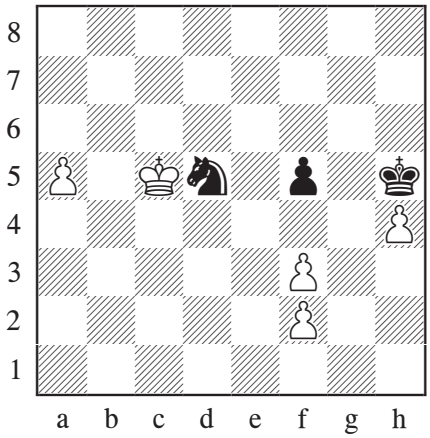
Black now has to set his priorities for how he is going to defend this position. The only way is to try to eliminate the h-pawn with the king as quickly as possible. The knight can fight the a-pawn and try to eliminate it at the right moment, leading to a drawn pawn ending.

This is Black's overall strategy, but White is not willing to cooperate with it – one of the biggest challenges for Black is to be able to sacrifice the knight for the a-pawn!

41...♔g6 42.♔b6 ♔h5! 43.a5

43.♔c6 ♘d3 44.♔b5 ♘f4! is an example of the knight moving back into the connecting point of the previous ring. We shall end up with the main continuation, but this is an interesting way to test the pupil: it is definitely possible to go wrong in this line.

43...♘d5† 44.♔c5



We have arrived at the position that was given as an exercise at the beginning of the chapter.

Black has a choice here – how should the a-pawn be stopped?

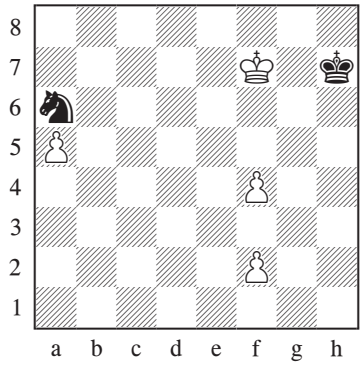
44...♘e7!

It is wrong to play

44...♘c7? 45.♔d6 ♘a6

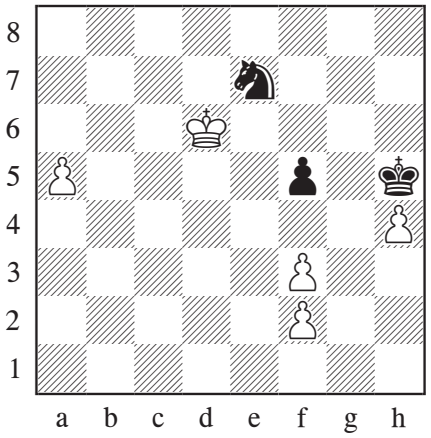
45...♘b5† 46.♔e5 ♔xh4 47.♔xf5 ♔h5 48.f4 is similar: 48...♔h6 49.♔f6 ♔h7 50.f5 ♔g8 51.♔e7 ♘c7 52.a6+– and here the combined effort of the a- and f-pawns secures victory.

46.♔e5 ♔xh4 47.♔xf5 ♔h5 48.f4 ♔h6 49.♔f6 ♔h7 50.♔f7+–



It turns out to be impossible to disturb the white king on the e7-square and e8-square: pushing the f-pawn wins for White. The black knight is simply too far away on the queenside – only performing the passive duty of stopping the a-pawn.

45.♔d6



45...♘c8†!

The point behind the previous move. From c8 the knight stops the a-pawn *and* can chase the white king away from e7/e8. The pawn is stopped on a7 and thus we notice the ring consisting of the squares a7-b5-d6-c8.

46.♔e5 f4

46...♔xh4 47.♔xf5 ♔h5 is the same thing.

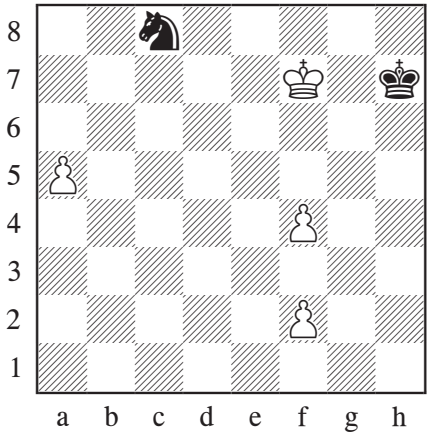
47.♔xf4 ♔xh4 48.♔f5 ♔h5 49.f4 ♔h6 50.♔f6

There are other factors important in this position. As GM Axel Smith pointed out as I tested the position on him, the position would be won if White had his pawn on a6 instead of a5. The manoeuvre with the knight was not only clever, but it also saved crucial time compared to other knight manoeuvres.

50...♔h7

Threatening ...♔g8-f8 with an easy draw as the knight can stay in the ring a7-b5-d6-c8.

51.♔f7



51...♘d6† 52.♔e7 ♘c8†!

Very annoying for White. The knight is used both in defence and attack, and this saves Black.

53.♔e6

Or 53.♔e8 ♔g6=

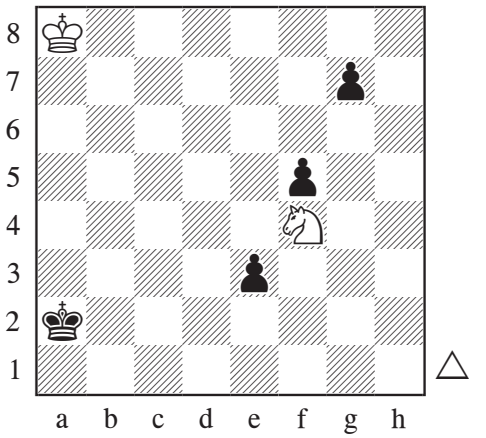
53...♔g7! 54.f5 ♔f8=

3.1.6 Knight against many pawns

We now turn our attention to positions where a knight has to fight several pawns.

Vitaly Chekhover 1955

(Averbakh 28D)



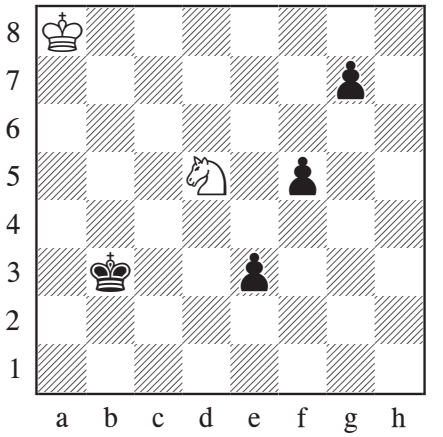
1.♘d5!

This is a very difficult move to make. The pupil is searching for a way to defend this position, but it is difficult to grasp a clear-cut method. The knight move wins one of the three pawns, but after this it is still not clear how to continue. In such positions, you simply have to take a deep breath and play the move – most likely after you have used the Method of Elimination and do not see other options.

There is a reason why I did not start the exercise at the beginning of the introduction at this point: I wanted to choose the first move by Black and the exercise resulting from it. The other options for Black on move one all lead to extra exercises that can be found later in the book.

Black now has four different winning tries, but White holds the draw in all of them. The challenge in all four options is to judge when the knight can fight the pawns alone (using the barrier), or when the king on a8 is needed to support the defence. The positions need accurate calculation and assessment.

1...♔b3



We have come to the exercise from the start of the chapter.

2.♘xe3 f4

2...g6?! is too slow and allows White to bring his king to the defence: 3.♔b7 Furthermore, White uses the same tricks as in the main continuation after 3...f4 4.♘g4 or 3...♔c3 4.♘d5†, only in improved versions.

Black cannot afford the luxury of a consolidating move like 2...g6?! – he has to test White to the maximum.

3.♘f5!

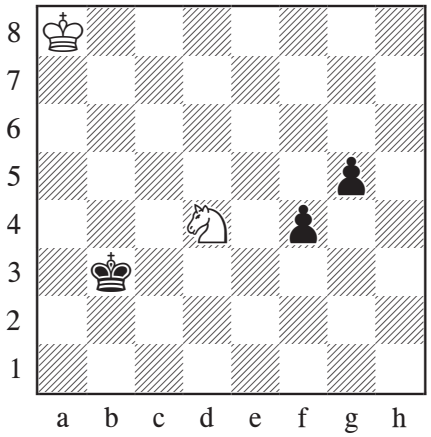
Now it is too slow to play 3.♘g4? due to 3...♔c4 4.♔b7 ♔d5!–+ The black king is body-checking the white king, at the same time approaching the pawns on the kingside – a prophylactic move.

In order to draw the game, White can lose no time. Therefore, he attacks the black pawn as a prelude to the coming barrier.

3...g5 4.♘d4†!

See the following diagram.

Instead 4.♔b7? g4 5.♔c6 ♔c4–+ loses for White. Suddenly White cannot use his knight actively to stop the pawns.



The knight now forms a barrier that makes it surprisingly difficult for the black king to approach and support his kingside pawns.

4...♔a4!?

Black has several ways to test his opponent in this position – after this move White is forced to bring his own king into the defence.

Against other continuations, the knight defends without the help of the king:

1) 4...♔c4? 5.♘f3 g4 6.♘e5†= The g4-pawn drops to a knight fork.

2) 4...♔c3? 5.♘e6 f3 6.♘xg5 f2 7.♘e4†= Another knight fork.

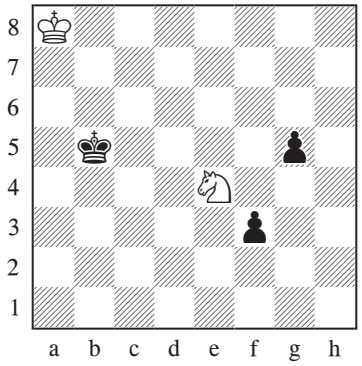
3) 4...♔b4? 5.♘f3 g4 6.♘e5 g3 7.♘d3† Yet another knight fork. 7...♔c3 8.♘xf4=

4) 4...♔b2? leads to the same as in the line above: 5.♘f3 g4 6.♘e5 g3 7.♘d3†=

Notice that all four of these lines were forced draws once Black played his king move.

5.♔b7!

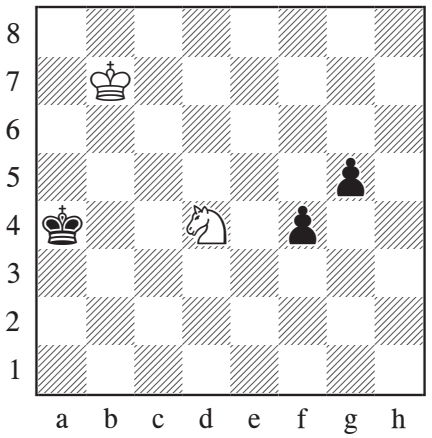
It is possible to go wrong here, even for strong players. An IM that I tested the position on played: 5.♘e6? f3 6.♘c5† ♔b5 7.♘e4



7...♔c6!–+ Again we see this body-checking that simultaneously brings the king closer to the kingside.

Curiously enough, 7...g4? 8.♔b7!= is only a draw. Again the white knight has formed a barrier and if the black king approaches, one of the pawns will drop: 8...♔c4 9.♘f6! Again attacking the pawns from behind. 9...g3 (9...f2 10.♘xg4 f1=♕ 11.♘e3†=) 10.♘e4! g2 11.♘d2†=

Back to the position after **5.♔b7!**:



5...g4 6.♔c6 f3
6...g3 7.♘f3 ♔b4 8.♔d5=

7.♘f5 f2 8.♘g3 ♔b4 9.♔d5
The knight controls the promotion square f1 and the king goes for the g4-pawn.

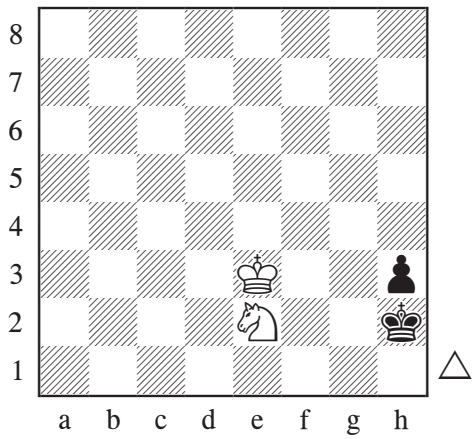
9...♔c3 10.♔e4 ♔d2 11.♔f4=

3.1.7 Mating with king and knight!

When a rook's pawn has advanced too far (to the 6th rank – from Black's perspective to the 3rd rank), possibilities of mating the enemy king arises, even though the mating material is reduced.

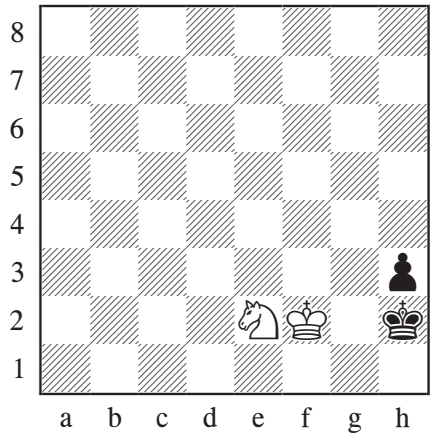
Alexey Troitzky 1906

Averbakh 18



1.♔f3!
1.♔f2? ♔h1= is a position of mutual zugzwang: White cannot force Black to play ...h3-h2 and then mate him in the corner.

1...♔h1 2.♔f2 ♔h2
2...h2 3.♘g3 mates immediately.



White wins as follows:

1) He needs to be on the guard against the defensive resource ...h2, when Black stalemates his own king in the corner. Therefore, White cannot lose sight of the g3-square.

2) On the other hand, the knight has to force Black's pawn to advance in order to mate the king in the corner. The only square from where the knight eyes g3 and h2 is f1.

3.♘c3

An alternative route with the knight is: 3.♘d4 ♔h1 4.♘f5! ♔h2 5.♘e3! ♔h1 6.♘f1! h2 7.♘g3 mate.

3...♔h1 4.♘e4! ♔h2

4...h2 5.♘g3 mate.

5.♘d2! ♔h1 6.♘f1! h2 7.♘g3

Mate.

3.1.8 Chapter recap

In the first game of the chapter (the Lund study), we saw how a knight is able to sacrifice itself for a pawn if it is not a rook's or a knight's pawn. That is, if the pawn is not on the a-, b-, g- or h-file, then the knight is able to hide from the king on the short side of the pawn. In the case of a rook's and knight's pawn, the king is usually able to keep attacking the knight, which is not able to sacrifice itself for the pawn.

We also saw that against a c2-pawn, the white knight was in time to reach the f7-square and mate the black king defending against a h-pawn, the king being mated either on h8 or e6. Thus, there is no position of mutual zugzwang, since White wins no matter who is to move.

Behind the colourful title of 'Lord of the rings' we saw a systematic way for the knight to approach a single pawn from afar. The ultimate goal was to enter Ring 1, and for that purpose, the ring system 1-2-3 was explained. The connecting points of the ring system were important, since from these points there were two equally long paths to the desired square in front of the pawn. An important point was that the king was unable to control both these paths at the same time.

Two methods on the way to a draw were of importance:

1) Choosing the path where there is *a knight fork that eliminates the pawn* is the crucial argument
2) Going back to the previous connecting point

Especially the last point was slightly counter-intuitive, but simply has to be learned.

In many of the examples we operated with a worst-case scenario: the last square the knight was able to stop the pawn. If the knight has a chance to stop the pawn earlier, it should seize it – and we called this a 'luxury ring'.

We also saw how a barrier was formed by a knight against a king: the knight covers both squares directly and indirectly, thus making a wall that the king cannot breach. The means of covering the squares indirectly is tactics in the form of knight forks.

Optimizing the knight is an important concept too. We saw it in the game Zhou Jianchao – Li Chao, Danzhou 2010, where the black knight was able to stop the a-pawn and also ready to harass the white king away from the squares e7/e8. The core idea of the concept is to think both in attack and defence, and thus the move **44...♘e7!** was prophylactic. However, many players choose the passive move 44...♘c7?, only concerned with defending against the a-pawn.

Finally, in the amazing study by Chekhover we saw how a knight was able to stop two pawns using a lot of tricks (including barriers), and even with his own king far away on the a8-square, White was able to save the game.

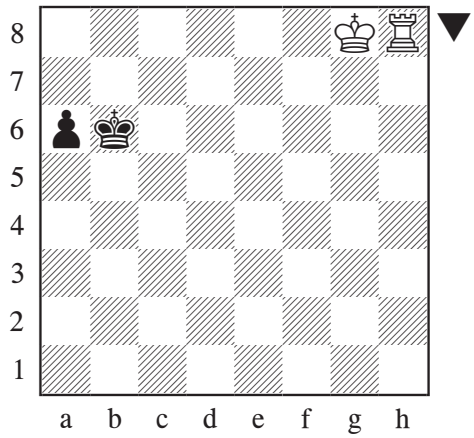
Chapter 3.2: Rook Endgames

Like in previous chapters of the book, you have the chance to solve the examples presented in this introduction to rook endgames as exercises. The first six positions are playing exercises and can all be played against a computer. The last one is a strategic exercise.

Take a look at Chapter 9 on 'How to set up a position in Komodo 10' to get started with the playing exercises. Below you will find the recommended time for each exercise. The standard increment for a playing exercise is 30 seconds per move.

3.2.1 Pre-chapter exercises

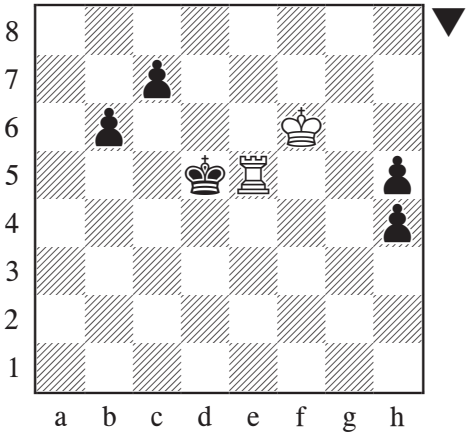
Ilya Maizelis 1950



Black to move and draw
Recommended time: 8 minutes
Level: 2

Sarunas Sulskis – Silas Esben Lund

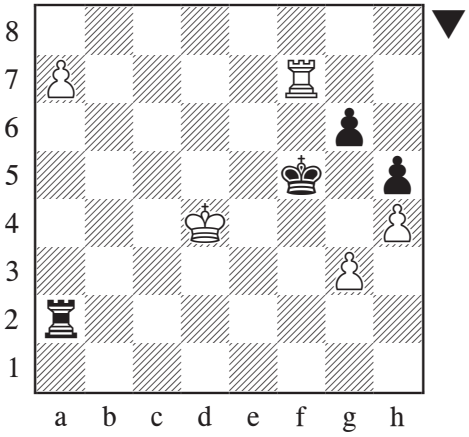
Kaunas 2009



Black to move and draw
Recommended time: 10 minutes
Level: 3

Leonid Kantorovich 1989

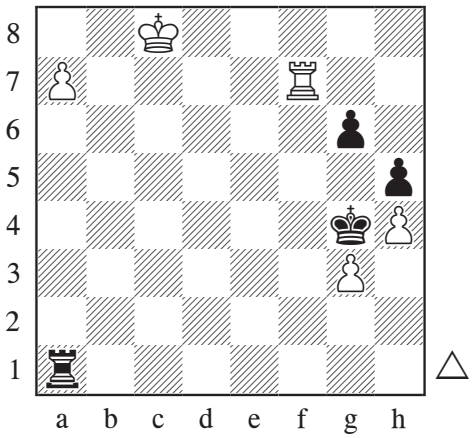
(DEM 9-138)



Black to move and draw
Recommended time: 10 minutes
Level: 3

Leonid Kantorovich 1989

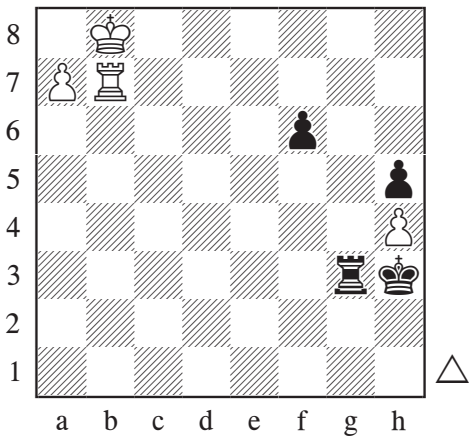
(DEM 9-138)



White to move and win
Recommended time: 10 minutes
Level: 3

Leonid Kantorovich 1989

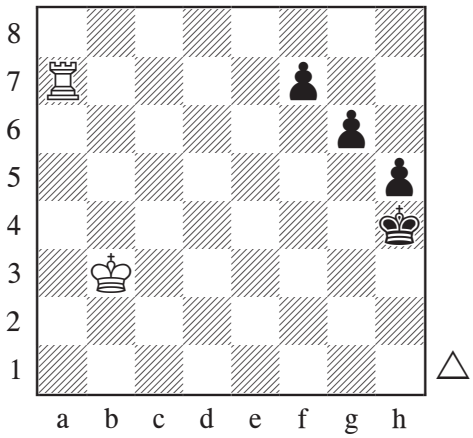
(DEM 9-138)



White to move and win
Recommended time: 10 minutes
Level: 3

Leonid Kantorovich 1989

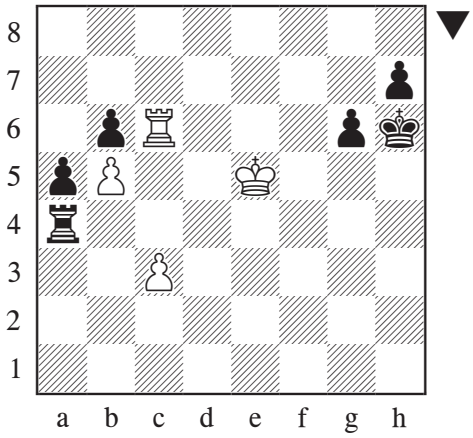
(DEM 9-138)



White to move and win
Recommended time: 10 minutes
Level: 3

Jens Ove Fries-Nielsen – Silas Lund

Fredericia 2013



Strategic exercise. Which of the two plans would you choose for Black:
1) **53...♔g5** followed by **54...h5**
2) **53...♖a1** followed by **54...a4**
Consider the different priorities and back up your choice with a few lines.
Recommended time: 10 minutes

3.2.2 Rook versus pawn – promotion to a knight

Positions with rook vs. one or more pawns usually arise from either of two cases:

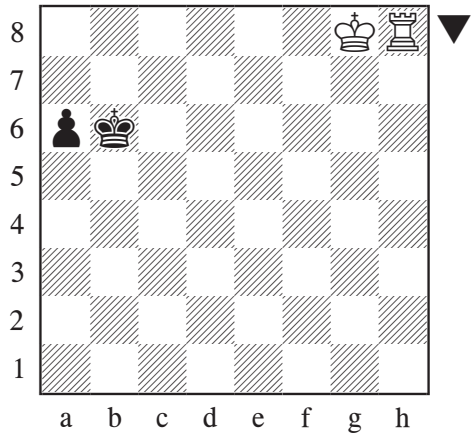
1) A **pure rook endgame** where both sides have passed pawns. One side sacrifices his rook for the passed pawn and works to make his own passed pawn(s) count.

2) A position with **rook versus either bishop or knight** (exchange up). The bishop/knight is either sacrificed for a passed pawn or given up – in both cases to make the counterplay with its own remaining passed pawn count.

In the following study, the material distribution is rook vs. pawn. It shows some basic ways to act in these positions. With a rook's pawn, Black should be very wary of promoting to a knight since the newly promoted knight lacks space in the corner and risks ending up trapped and lost.

With a knight's pawn, Black on the other hand has more space to manoeuvre with the knight and get it out of the corner.

Ilya Maizelis 1950



1...♔c5!

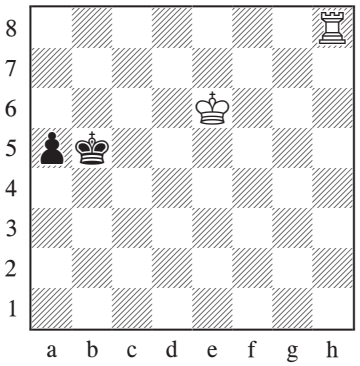
The only move that holds, as the main continuation will show. It is important that Black keeps out the white king while advancing himself – this prophylactic method is called body-checking.

1...a5? is bad because of 2.♖h5!+– cutting off the king. Once the pawn reaches the 3rd rank, White's rook will attack it from the side, and then eliminate it from behind.

1...♔b5?

This move supports the pawn, but does little to defend against the white king approaching. In other words, it is less flexible and this proves fatal.

2.♔f7 a5 3.♔e6



3...a4

Other options fail as well:

3...♔c4 4.♖a8! ♔b4 5.♔d5 a4 6.♔d4 ♔b3 7.♔d3 a3 This is a key position, but unfortunately for Black, White is to move and 8.♖b8† ♔a2 9.♔c2+– wins.

3...♔b4 also allows the white king to come too close: 4.♔d5 a4 5.♔d4 ♔b3 6.♔d3 a3 Again the key position with White to move: 7.♖b8†+–

4.♔d5 ♔b4 5.♔d4 ♔b3 6.♔d3 a3

Again the key position with White to move. Black will lose after:

7.♖b8†+–

In fact, if White could somehow play 2.♖a8 after Black's 1...♔c5!, he would force the black king back to protect the pawn. This is of course not possible, since White's king is on g8 at the beginning. Hence, this is the central point of the study.

2.♔f7 a5 3.♔e6 a4

This is the moment where White shall lose a crucial tempo with either the king or the rook.

4.♔e5

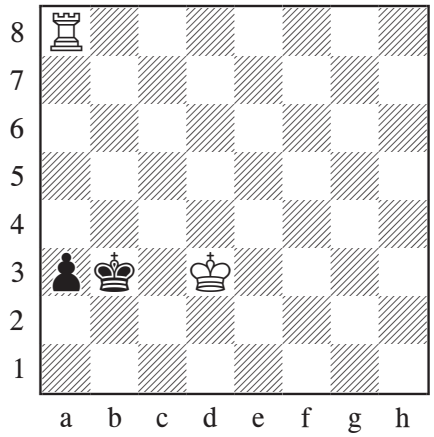
4.♖c8† ♔b4=

4...a3

4...♔c4!? 5.♔e4 a3 6.♖c8† ♔b3 7.♔d3 also leads to the key position.

5.♖a8 ♔b4 6.♔d4 ♔b3 7.♔d3

The key position with Black to move. The position is drawn, but Black has to avoid a few pitfalls.



7...♔b2!

7...a2? 8.♖b8† ♔a3 9.♔c2! Black's only chance is to promote to a knight, but from the corner square it will be lost due to a combination of lack of space and zugzwang: 9...a1=♘† 10.♔c3 ♔a2 11.♖b7⊙+–

8.♔d2

8.♖b8† ♔c1!= is an important drawing line. White has nothing better than 9.♖a8 ♔b2.

Instead 8...♔a1?? 9.♔c3 a2 10.♖h8+– leads to mate on the next move.

8...a2 9.♖b8† ♔a1!=

Again, not: 9...♔a3?? 10.♔c2! a1=♘† 11.♔c3 ♔a2 12.♖b7+–

In this example, we became acquainted with the most important methods in endgames of rook vs. pawns:

- Body-check
- Cutting off the king on the 5th rank
- Promotion to a knight

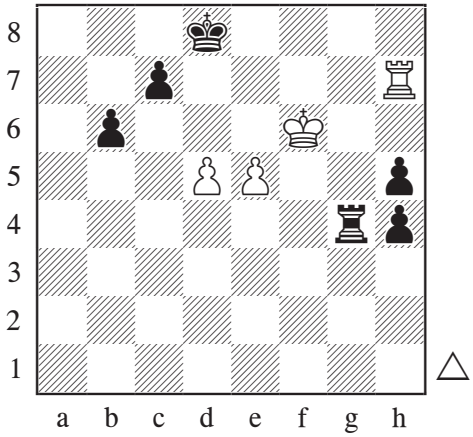
With a knight promotion on a1, the knight is doomed to be lost. However, in some cases it is possible for the knight to leave the corner – but unless the knight and king can be united later, the knight will then usually be lost. We will delve deeper into the pure rook vs. knight endgame in Chapter 4.4.

I shall now move on to a more complex example:

3.2.3 More advanced example

Sarunas Sulskis – Silas Esben Lund

Kaunas 2009



White to move and win

54.♖h8†

54.e6?

This is an example of unforcing play that gives the defender additional options – in this case he is able to set-up a fortress and achieve a draw. In some cases, the unforcing way of playing can be used to lure the defender into making a mistake, but in this case White should rule out any alternatives and go for the forcing line. Black can now play:

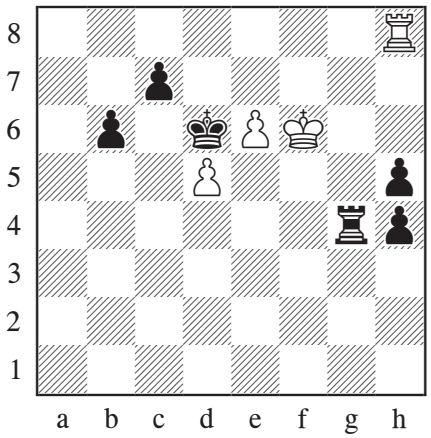
54...♖f4†!

54...♖g8? is too passive: 55.♔f7 ♖e8 56.♖xh5 Black is utterly passive and should lose.

55.♔e5 ♖f1=

The problem for White here is that he cannot hide from the checks of the black rook.

54...♔d7 55.e6† ♔d6



56.♖d8†

56.e7!?

Again, White plays a move that gives Black additional options.

56...♖f4†!?

After 56...♖e4 57.e8=♕ ♖xe8 58.♖xe8 we have the game continuation.

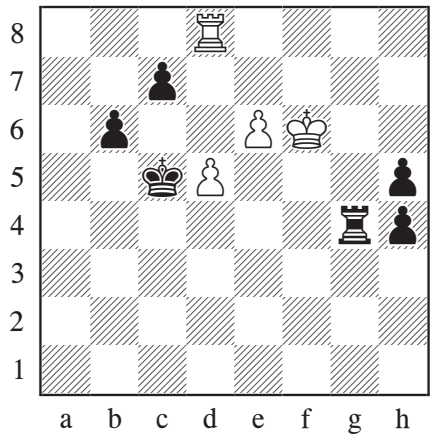
57.♔g5 ♖e4

Here Black has yet another option: 57...♖g4†!? 58.♔xh5 ♖e4 59.e8=♕ ♖xe8 60.♖xe8

58.e8=♕ ♖xe8 59.♖xe8

The difference in these lines after winning the rook on e8 is the position of White's king. Essentially, it does not make a difference, since White still wins by setting the right priorities: bringing the king to the defence against the passed pawn on the queenside instead of grabbing irrelevant pawns on the h-file.

56...♔c5



57.e7

57.d6?!

I don't like this move (played by one of my students) since it indicates that he is more worried about pawn structure (the b- and c-pawns are connected) than – more importantly – going for the more advanced passed pawn. Furthermore, the pawn move gives away a tempo (the king was forced to capture on d5 at some point). Luckily for White, the position is still won, but in other cases he cannot afford himself such luxury.

57...cxd6 58.e7 ♖e4 59.e8=♕ ♖xe8 60.♖xe8

After:

60...b5

...the winning method is similar to that of the game continuation: bring the king in against the most advanced passed pawn – in this case the b-pawn.

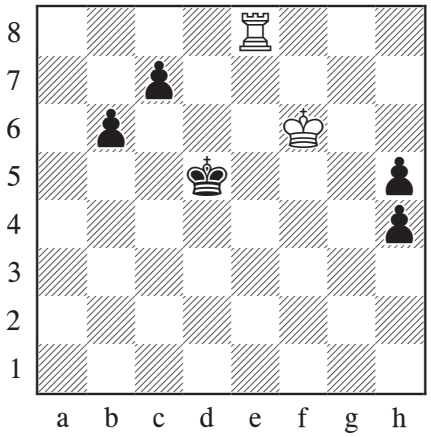
61.♔f5

And so on.

57...♖e4

57...♖f4†?! only helps the white king to get closer to the passed pawns on the queenside: 58.♔e5 ♖f2 59.e8=♕ ♖e2† 60.♔f4 ♖xe8 61.♖xe8 ♔xd5 62.♔e3+–

58.e8=♕ ♖xe8 59.♖xe8 ♔xd5



Surprisingly many go wrong in this position, including my Grandmaster opponent.

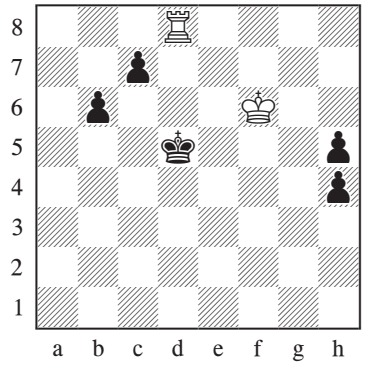
60.♖e5†?

White is setting the wrong priorities here: he goes for the two (irrelevant) h-pawns and thereby loses vital time. He should have used this time to bring the king closer to the queenside pawns.

Other options are:

1) 60.♖h8? b5 61.♖xh5† ♔d4!?
Or 61...♔c4.
62.♖xh4†
62.♖xb5 c5= is a draw.
62...♔c3 63.♔e5 b4 64.♖h3†
This position is identical to that of the game.

2) 60.♖d8†?

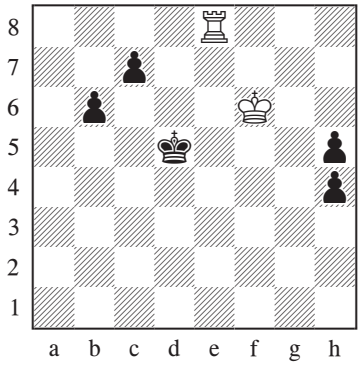


60...♔e4!=

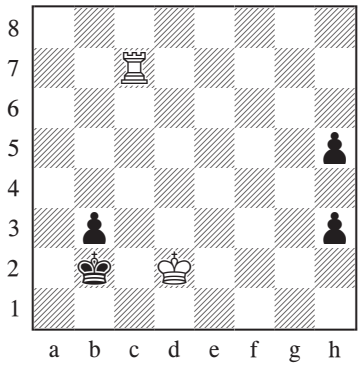
Suddenly the king is able to support the far-advanced h3-pawn. After
61.♔g5 h3 62.♖d1 b5 63.♖h1 b4 64.♖xh3 c5=

The centralized king on e4 effectively body-checks the white king on g5, who is far away from the queenside.

We return to the critical position:



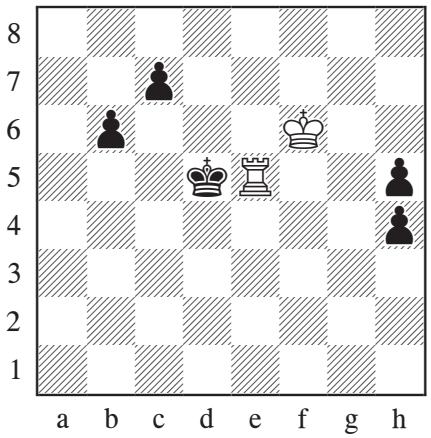
3) The winning method is:
60.♔f5! b5 61.♖d8† ♔c4 62.♔e4 b4 63.♔e3 ♔c3 64.♖c8 b3 65.♖xc7† ♔b2 66.♔d2 h3



This position was reached by two of my students – and one of them found a win.
67.♖c1!

This wins easily. It is still possible to go wrong: 67.♖h7 h2 68.♖xh5 ♔a2! 69.♖xh2 b2 70.♔c3 ♔a1! 71.♖xb2 stalemate.
67...h4 68.♖h1 ♔a3 69.♖xh3 ♔a2 70.♔c3 ♔a3 71.♖xh4 b2 72.♖b4+–

Back to the position after **60.♖e5†?**:



60...♔c4?

Accuracy is needed (**Working with the King**) since now White gets a chance to correct his mistake on the previous move and win time to bring his king in – a chance that he does not take.

60...♔d4!= instead draws.

61.♖xh5?

Now the position is a draw and I did not miss it.

61.♖e4†!

This either forces the black king backwards or allows the white monarch to advance towards the queenside.

61...♔d5

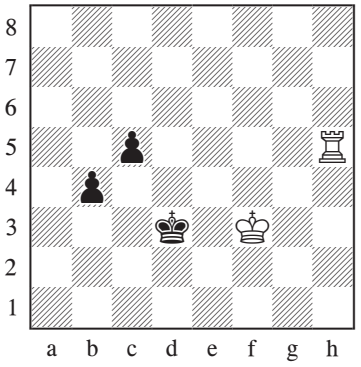
61...♔d3 62.♔e5

62.♖xh4 b5

Let's follow a sample line from here. Black can body-check the white king for a while, but not forever.

63.♔f5! c5 64.♔f4 ♔d4 65.♔f3† ♔d3 66.♖xh5 b4

The answer to 66...c4 is the same.



67.♖d5†!

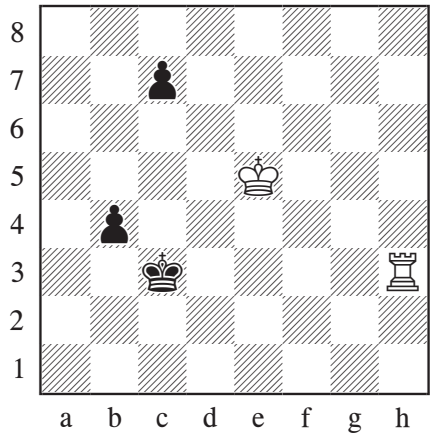
It is more important to get the king in than to grab a pawn: 67.♖xc5? b3=

67...♔c4 68.♖d8 ♔c3 69.♔e2 b3

An important point is: 69...♔c2 70.♖c8+–

70.♔d1 c4 71.♔c1+–

61...b5 62.♖xh4† ♔c3 63.♔e5 b4 64.♖h3†



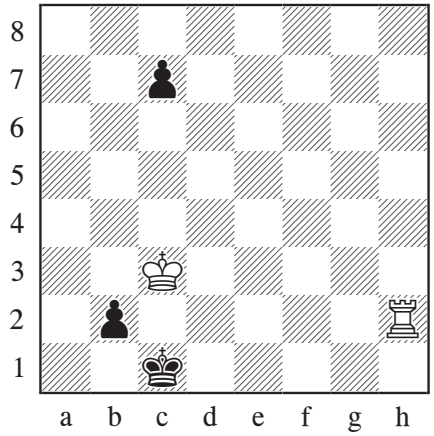
64...♔c4!

64...♔c2?? 65.♔d4 b3 and now either 66.♖h2† or 66.♖c3†, both winning.

65.♖h4† ♔c3 66.♔d5 b3 67.♖h7 ♔c2!?

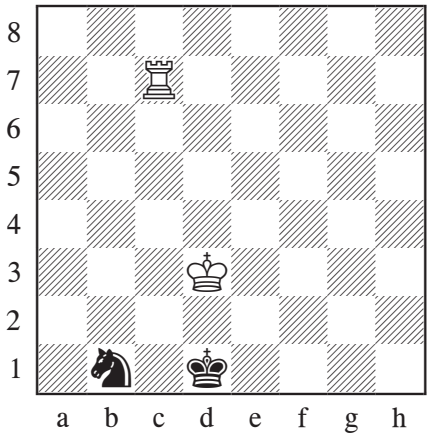
67...b2 was definitely easier, since after 68.♖xc7† ♔d3 69.♖b7 ♔c2 White is forced to take the draw right away. But I was fascinated with the idea of a knight promotion.

68.♔c4 b2 69.♖h2† ♔c1 70.♔c3



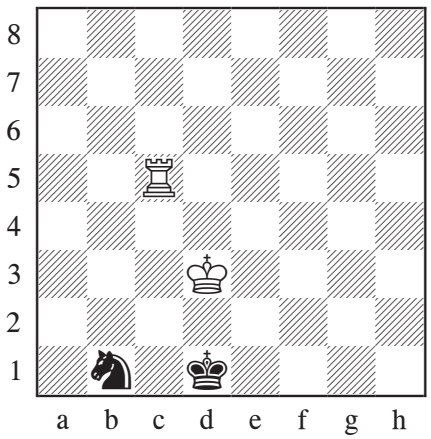
70...b1=♘†!
Black's point.

71.♔d3 ♘a3 72.♖a2 ♘b1 73.♖c2† ♔d1 74.♖xc7



This endgame is fairly easy to hold. Black moves his knight between b1 and a3, and if White attacks a3, then d2 is an option. There are no zugzwang positions since the king can also use the c1-square. The important point is the diagonal opposition of the knight and White's king.

74...♘a3 75.♖b7 ♔c1 76.♖b4 ♘b1 77.♖b3 ♘d2 78.♖c3† ♔d1 79.♖a3 ♘b1 80.♖a2 ♔c1 81.♖c2† ♔d1 82.♖c5 ♘a3 83.♖c6 ♘b1 84.♖h6 ♔c1 85.♖h1† ♔b2 86.♖g1 ♘a3 87.♖g8 ♘b1 88.♖b8† ♔c1 89.♖b3 ♘d2 90.♖c3† ♔d1 91.♖c2 ♘b1 92.♖g2 ♔c1 93.♖a2 ♔d1 94.♖c2 ♘a3 95.♖c5 ♘b1



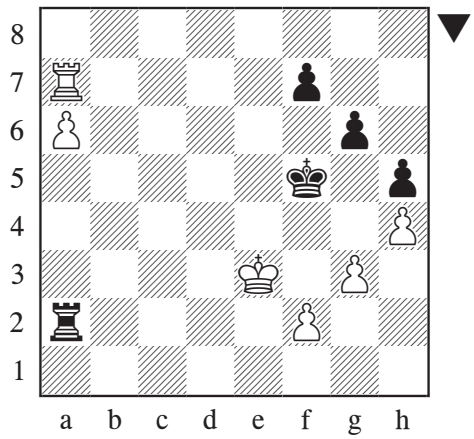
½–½

3.2.4 Three versus three plus one outside passed pawn

We now turn our attention to a position important to endgame theory: where White has an extra outside passed pawn on the queenside. In the following case we have an a-pawn, but positions with b- or c-pawns also occur.

Leonid Kantorovich 1989

(DEM 9-138)



This example and the annotations are taken from *Dvoretsky's Endgame Manual*. I shall pick out what I find most interesting for my own purpose – and correct a few lines as I go along.

1...♔f6?

Dvoretsky wrongly gives the move a question mark, based on a line by Johannes Steckner in 2003. For a while, Steckner's concept was considered to be the antidote to Kantorovich's drawing line, but Steckner himself made a few mistakes in his analysis. In the end, Kantorovich had the last word, but Steckner's analysis shed some new light on the methods for playing for a win in the position.

Kantorovich's drawing main line goes like this:

2.♔d4 ♖xf2

An important moment: this is the real mistake by Black. He has to be very wary of allowing the pawn to move to a7 with the rook defending it from the side – as we shall see in many of the lines to come. This is the drawback of grabbing the pawn on f2. Fortunately for Black, there are less drastic ways to play for a draw. However, the winning lines after **2...♖xf2?** are instructive.

One way for Black to draw is:
2...g5 3.hxg5†

On 3.♔d5!? Black can play the cool 3...♔g6!? 4.♔c6 f6, patiently waiting for White to improve his position. Once the king approaches the a6-pawn, the black rook will start checking it away.

3...♔xg5

Black has sufficient counterplay here:

1) If White exchanges f7 for a6, the resulting 2 vs. 1 on the kingside is a draw. Here the position of the white king in the middle of the board makes the draw easier for Black.

2) If White plays ♖a8 with the threat of a6-a7 and a rook check, Black can transfer the king to f3, hiding from rook checks on the f-file and attacking the f2-pawn.

3) If White does nothing, Black is ready to counter with ...h4 and later attack White's f-pawn with the king.

4.♔c4

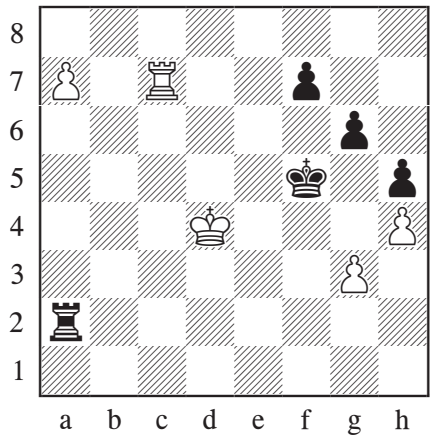
4.♖xf7 ♖xa6=

Or 4.♖a8 ♔g4 5.a7 ♔f3=.

4...h4 5.gxh4† ♔xh4 6.♔b5 ♖b2† 7.♔c5 ♖a2!=

Again, White can make no real progress as long as he cannot free his rook from the a-file.

3.♖c7 ♖a2 4.a7 ♔f5



5.♖xf7†

This position was given as an exercise at the beginning of this introduction: Black to move and draw.

As we shall see later, this is the point where White misses an opportunity (**5.♔c4!**), and where Steckner made his contribution.

5...♔g4 6.♔c5 ♔xg3 7.♔b5! ♖b2†!

An important move.

Black has be alert for rook checks followed by blocking the a-file: 7...♔xh4?? 8.♖f4† ♔g3 9.♖a4+– This trick is probably the most important feature of this endgame.

It is important to notice why it is too early for Black to capture the a-pawn: 7...♖xa7? 8.♖xa7 ♔xh4 9.♔c4 From b5 the king can go directly to e2, which makes a crucial difference compared to the

e3-square. 9...♔g3 10.♖g7 h4 11.♖xg6† ♔f3 12.♖h6 ♔g3 13.♔d3 h3 14.♔e2!+– (14.♔e3= is a draw with Black to move – see the key position from the introduction.)

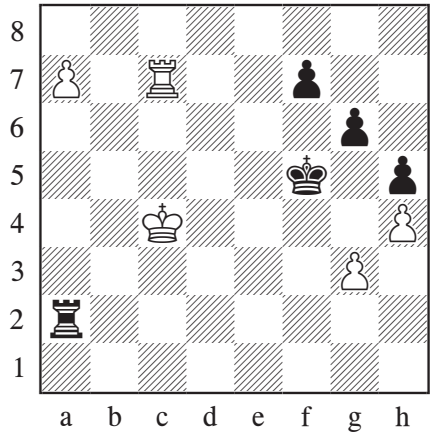
Thus, Black needs to force the white king further away from the kingside before sacrificing the rook for the a-pawn.

It turns out that Black can wait a while before checking on the b-file: 7...♖a1!? 8.♖c7 ♖b1† After a few more moves, we transpose to the main continuation.

8.♔c6 ♖a2 9.♔b7 ♔xh4 10.♖f6 ♖xa7†=

With equality (V. Kantorovich). We have before us a typical rook vs. pawns position where the white king is too far away to cause Black problems.

However, White has a stronger option on move 5 – he can play:
5.♔c4!



The following three lines give three important transformations to consider from this rook vs. rook endgame. Positions from all three lines were given as playing exercises at the start of the chapter. White is winning in all lines.

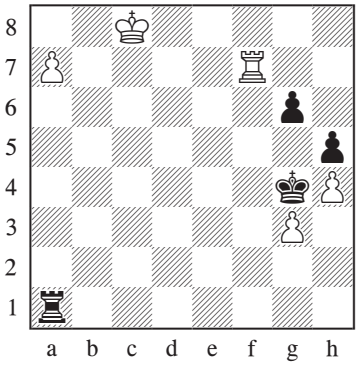
1) 5...♖a1

This avoids ...♔b3 with an attack on the rook.

6.♔b5

White threatens a couple of checks followed by blocking the a-file, therefore Black has to force the white king forward.

6...♖b1† 7.♔c6 ♖a1 8.♔b7 ♖b1† 9.♔c8 ♖a1 10.♖xf7† ♔g4



11.♖g7!

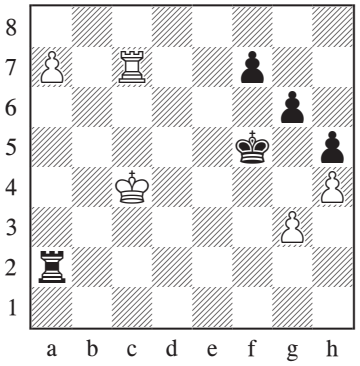
11.♔b8? ♔xg3 12.♖f6 ♔xh4 13.♖xg6 ♔h3 14.♔b7 ♖xa7†= leads only to a draw.

11...♔xg3 12.♖xg6† ♔xh4 13.♔b7

With the threat of blocking the a-file on a6.

13...♖xa7† 14.♔xa7 ♔h3 15.♔b6+–

Compared to the previous line, White is one tempo up and his king is just in time before Black is able to stalemate himself in the corner.



2) This line is elegant as it shows how White constantly combines the threat of blocking the a-file with the rook to protect his own kingside pawns, thereby slowing down Black's counterplay. Furthermore, there is also the possibility of a queen vs. rook endgame:

5...f6 6.♔b5 ♖b2†

Again Black is forced to check the white king further up the board. The threat was a rook transfer with check to either a4 or a6.

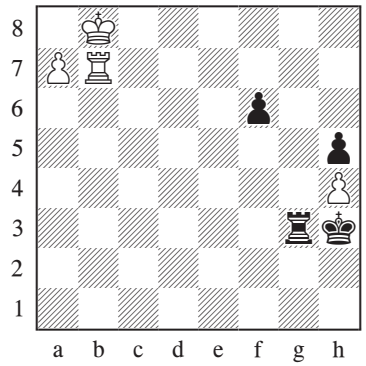
7.♔c6 ♖a2 8.♔b7 ♖b2† 9.♔c8 ♖a2

Here White wins by means of:

10.♖g7!

Again this square for the white rook.

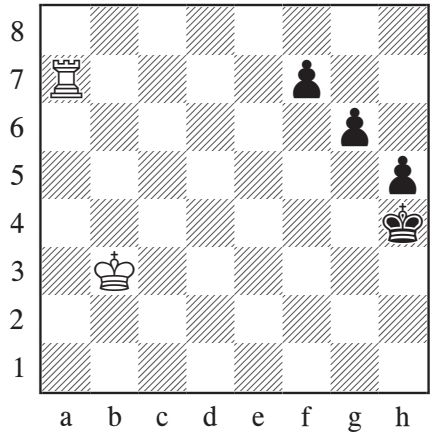
10...♔g4 11.♖xg6† ♔h3 12.♖g7 ♖a3 13.♔b8 ♖b3† 14.♖b7 ♖xg3



15.♔c7!?
15.♖b4 is also strong (Dvoretsky).
15...♖a3
15...♖g8 16.♖b8 ♖g7† 17.♔b6 ♖xa7 18.♔xa7+–
16.♖b3† ♖xb3 17.a8=♕+–

3) The main line is more straightforward and leads to a sharp rook vs. three pawns endgame where White has to set the right priorities in order to win:

5...♔g4 6.♔b3! ♖a6 7.♖c4† ♔xg3 8.♖a4 ♖xa7 9.♖xa7 ♔xh4



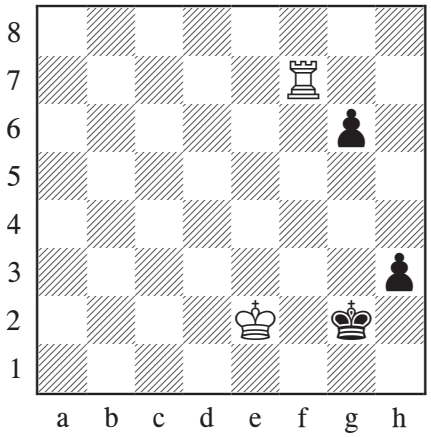
10.♔c3!
The king is heading for e2.

Worse is 10.♖xf7? ♔g3= and the h-pawn saves Black. By grabbing the pawn on f7, White lost a vital tempo. He should instead give priority to time over material.

10...♔g3 11.♔d2 h4
11...g5 12.♖xf7+–

12.♔e2 ♔g2
12...h3 13.♔f1+–

13.♖xf7 h3

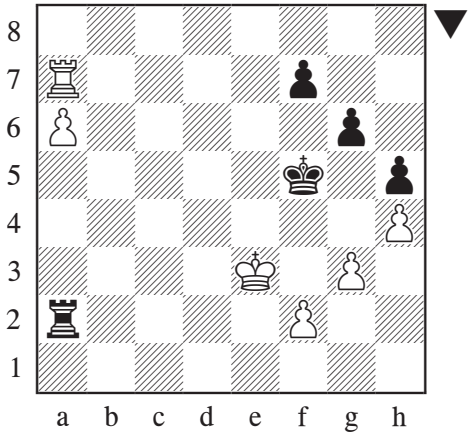


14.♖f2†!
An important check to disrupt Black's coordination and let the white king in.

14...♔g3
14...♔g1 15.♔f3 h2 16.♖g2†+– also loses.

15.♖f6+–
We already know: 15...h2 16.♖xg6† ♔h3 17.♔f2! h1=♘† 18.♔f3 ♔h2 19.♖g7⊙+–

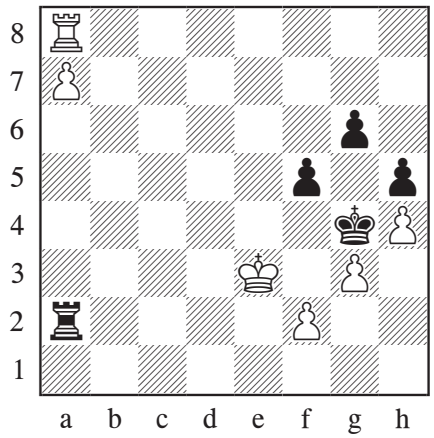
So the king retreat to f6 on move 1 does not lose, but it does seem like an unnecessary waste of time. Instead, Dvoretsky suggests the following lines:



1...f6! 2.♖a8

2.♔f3 is not dangerous for Black: 2...g5 3.hxg5 fxg5 4.♖a8 g4† 5.♔e3 ♔g6 Black's king returns to g7 in time.

2...♔g4 3.a7 f5



Now Black can either keep checking with the rook or – if White's king leaves the kingside – get enough counterplay with the break ...f5-f4.

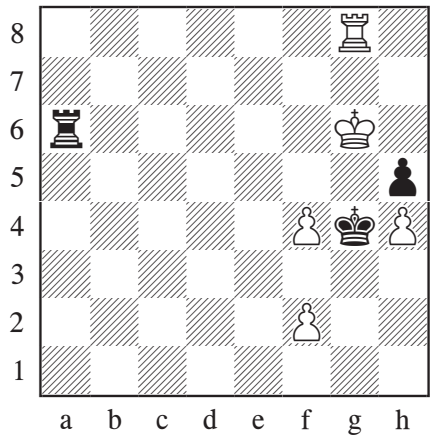
4.♖g8

4.♔d4 ♔f3=

4...f4† 5.gxf4 ♖a3† 6.♔e4

No progress can be achieved after: 6.♔e2 ♖xa7 7.♖xg6† ♔xf4=

6...♖a4† 7.♔e5 ♖a5† 8.♔e6 ♖a6† 9.♔f7 ♖xa7† 10.♔xg6 ♖a6†



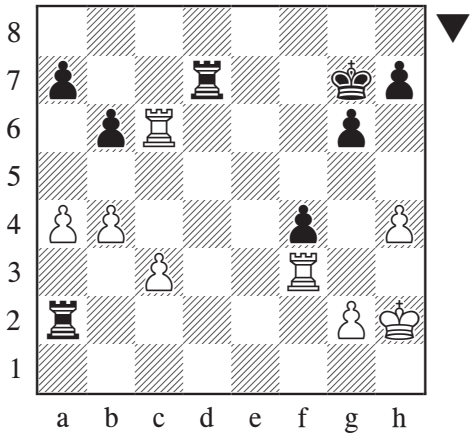
11.♔f7† ♔xf4=

3.2.5 Rook versus rook – the step before rook versus pawns

We now move on to a complex example with first four, and then two rooks on the board:

Jens Ove Fries-Nielsen – Silas Esben Lund

Fredericia 2013

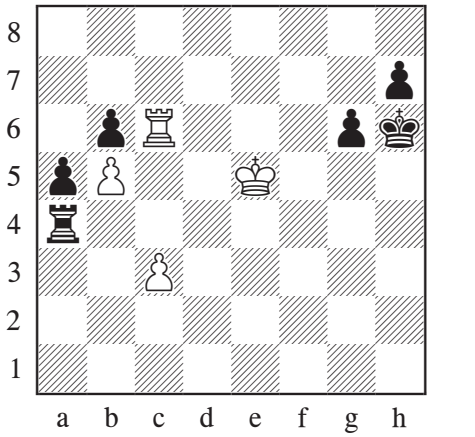


A complicated middlegame with four rooks is transformed into a sharp rook vs. rook endgame:

43...♖dd2!?

43...♖f7 is the safe choice.

44.♖c7† ♔h6 45.♖xf4 ♖xg2† 46.♔h3 ♖h2† 47.♔g3 ♖ag2† 48.♔f3 ♖f2† 49.♔e3 ♖xf4 50.♔xf4 ♖xh4† 51.♔e5!? a5 52.b5 ♖xa4 53.♖c6



This is the starting point of the strategic exercise at the beginning of the chapter. White is down on material, but his king is very active and his b-pawn far advanced. Black on the other hand is

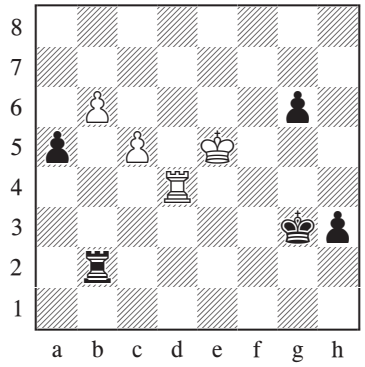
two pawns up, but the g- and h-pawns are not far advanced and his king is offside at the moment. It turns out that the position is dynamically balanced.

53...♖a1

Black seeks immediate counterplay with the a-pawn.

Another way of playing was:
53...♔g5 54.♖xb6 h5

Black brings his king in and advances the h-pawn instead.
55.♖d6 h4 56.b6 ♖a2 57.c4 ♖b2 58.c5 h3 59.♖d3 ♔g4 60.♖d4† ♔g3

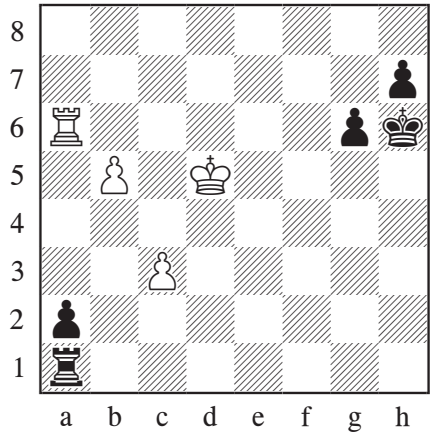


61.♖d3†= ♔g2

Or 61...♔g4=.
62.♖d6 g5 63.♖g6 h2 64.♖xg5† ♔f3 65.♖h5 ♔g2 66.♖g5†=

White has nothing better than to take the repetition.

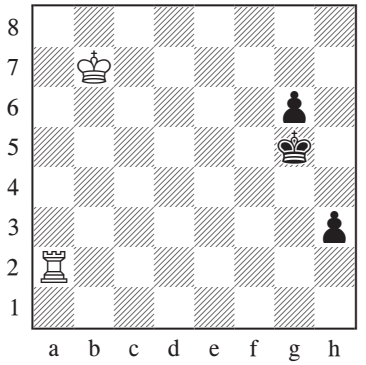
54.♖xb6 a4 55.♔d5 a3 56.♖a6 a2



We have come to a critical point of the game.

57.♔c4!?

During the game I thought that White was afraid of the (sharp) rook vs. pawns endgame arising after 57.♔c5 ♖c1 58.♖xa2 ♖xc3†. This endgame is a draw with a fairly broad margin. Still, it demands experience from both players – one possibility is that White didn't like the fact that Black is left with two pawns on the kingside. This fact is of no real importance – what counts is how far advanced the pawns are. 59.♔b4 ♖c8 60.b6 ♔g5 61.♔b5 h5 62.b7 ♖b8 63.♔c6 h4 64.♔c7 ♖xb7† 65.♔xb7 h3=



Black draws easily with his far-advanced h-pawn.

In hindsight, I simply find White's plan in the game interesting and ambitious. He strives for a position with more play and therefore more winning chances. He does what he can to hold on to his two pawns, which, at the moment, are the more advanced.

However, there are clear risks connected with this ambitious and time-consuming plan: his king will end up on a2 whereas Black's king will advance from h6 to the centre of the board. It is difficult to evaluate the pawn race with two pawns each on either side of the board. To give up several tempos to continue to play for a win like this is courageous.

57...♔g5 58.♖a5!?

58.♔b3? ♖b1† drops the b-pawn.

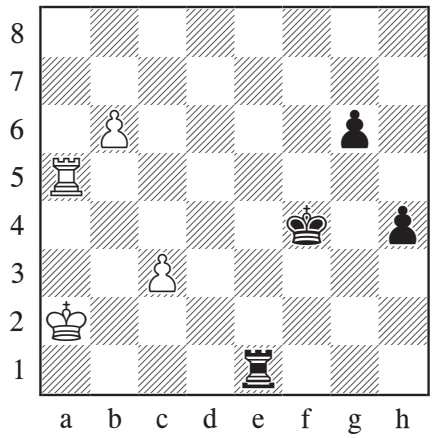
58...♔f4

The king moves forward, ready to support the kingside pawns. At the same time it is close to the centre and within reach of the white b-pawn (see the next note). The fact that the black king is on a square where White promotes with check on b8 only becomes relevant due to the horrible mistake I made in the game. The position is sharp and very concrete and should not be evaluated on the basis of stereotypes.

59.♔b3 h5 60.♔b2

60.♖xa2?? ♖xa2 61.♔xa2 ♔e5–+

60...♖e1 61.♔xa2 h4 62.b6



62...h3??

An incredible oversight that loses the game on the spot. Did I lose my nerves? Either way, it is fair to say that my **Composure** after a long, intense fight wasn't the best.

63.b7+–

To my horror I realized that White supports the promotion of the b-pawn with the winning ♖**a8** – the rook on a8 is protected.

What irritates me about this game is not the loss in itself, but the way it came about. At the time of playing I had already collected and tested 75% of the exercises for this book, and thus it is an empty feeling to lose the game on a simple mistake instead of playing out until the end, keeping on finding the strongest continuations and giving your utmost. Again, it's all about **Composure**.

63...♖e2† 64.♔a3 ♖e8 65.♖a8
1–0

Black should of course have played **62...♖e8** with a continuing fight. I actually believe that this position is slightly unpleasant for White, mainly because of the king on a2 which can find itself out of play in many lines if White is not careful.

3.2.6 Chapter recap

The study by Ilya Maizelis gave us some important insights into endgames with rook versus pawn, and a key position occurred with a rook's pawn (and both kings) on the 6th rank. In this key position, it was crucial who had the move. Even if Black as the defender had the move, he needed to play precisely to secure the draw. The temptation to promote to a knight in the corner square did not work since the knight afterwards lacked the freedom to move and would be lost to zugzwang.

In the game Sulskis – Lund we saw the importance of giving priority to getting the king in instead of playing with the rook. White had to **Change Gear** from a position that previously saw a forced sequence of moves, and allow himself 2-3 'slow' king moves to get his majesty closer to the black pawns. He failed to set the right priorities and I managed to escape with a draw.

In the same game we also saw that promotion to a knight on b1 (in general, promotion of a knight's pawn), was a fairly easy way to a draw. The important points here were to obtain a diagonal opposition between the knight and the opponent's king, and that there are no zugzwang positions, mainly due to the extra space provided for the knight on b1 as opposed to the corner square.

The study by Leonid Kantorovich showed us some important insights. Johannes Steckner questioned Kantorovich's conclusion in 2003, and his very original win for White provided good insight into these kinds of endgames. However, it turned out that the mistake was already at move 2 in the line that both analysed, and thus the original first move by Kantorovich was not a mistake.

For the purpose of this introduction to rook endgames, I gave three different main scenarios based on the possible transformations:

1) This line eventually saw a pure rook vs. pawn endgame where the black king was trapped on the h-file in front of the pawn, and where the white king on a7 was able to come back to the kingside in time.
2) This line was probably the most complex, where White combined threats of checking and interposing the rook to secure the promotion of the pawn. In one line, White even sacrificed the rook to get a winning queen versus rook endgame.
3) This line led to a straightforward continuation with rook versus three pawns, but where the white king was on the queenside and needed to get to the other side of the board in time. White had to give priority to the placement of his king over grabbing a pawn, as one tempo was enough to give away the win.

In the game Fries-Nielsen – Lund, we started out with a position with four rooks that later turned into a sharp rook endgame. In a position where both sides had two connected passed pawns, many transformations were possible and the placement of the kings an issue to be addressed in many instances. With two pawns each, it was less simple to just sacrifice the rook for one of the pawns, since the opponent would still remain with a pawn to promote.

Chapter 3.3: Bishop versus Knight Endgames

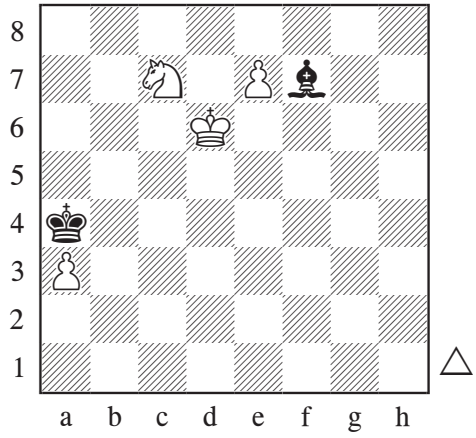
Before we delve into the endgames with bishop versus knight, you have the chance to solve the examples presented in this introduction as exercises. All six positions are playing exercises and they can all be played against a chess engine.

Take a look at Chapter 9 on 'How to set up a position in Komodo 10' to get started with the playing exercises. Below you will find the recommended time for each exercise. The standard increment for an exercise is 30 seconds per move.

3.3.1 Pre-chapter exercises

De Giess – Jean Louis Preti, 1849

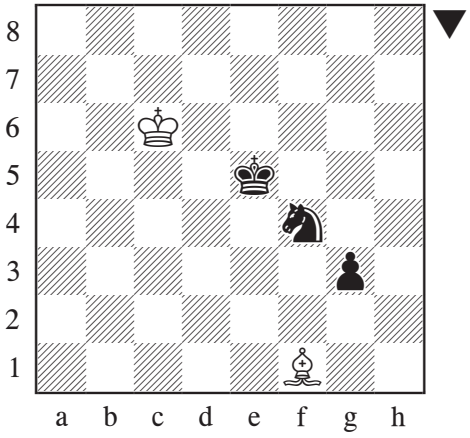
(Averbakh 141)



White to move and win
Recommended time: 10 minutes
Level: 3

Dmitry Jakovenko – Vassily Ivanchuk

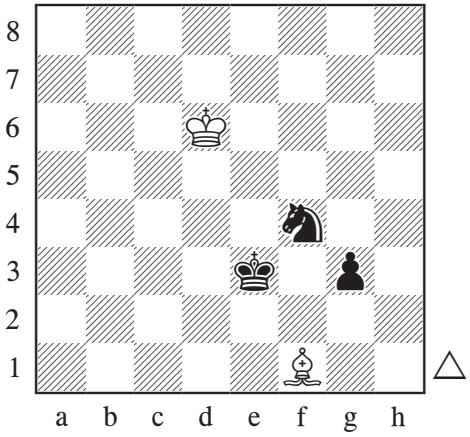
World Blitz Championship, Moscow 2009 (variation)



Black to move and win
Recommended time: 8 minutes
Level: 2

Dmitry Jakovenko – Vassily Ivanchuk

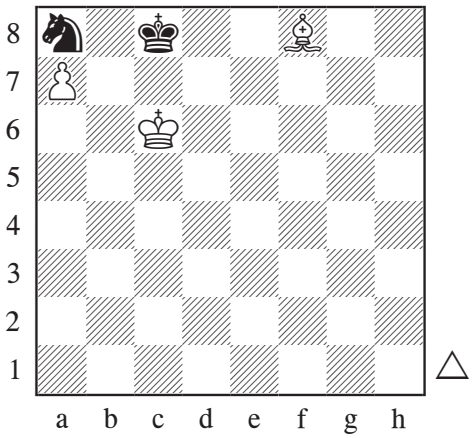
World Blitz Championship, Moscow 2009 (variation)



White to move and draw
Recommended time: 12 minutes
Level: 4

Yuri Averbakh

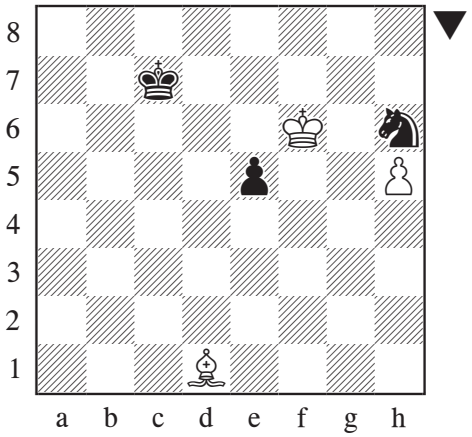
(Averbakh 36)



White to move and win
Recommended time: 8 minutes
Level: 2

Sune Berg Hansen – Daniel Semcesen

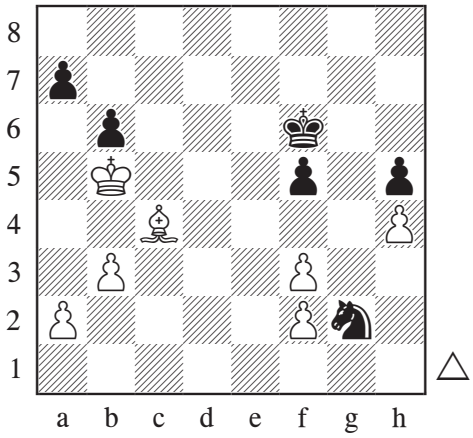
Gothenburg 2011 (variation)



Black to move and draw
Recommended time: 5 minutes
Level: 1

Zhou Jianchao – Li Chao

Danzhou 2010 (variation)



White to move and win
Recommended time: 8 minutes
Level: 2

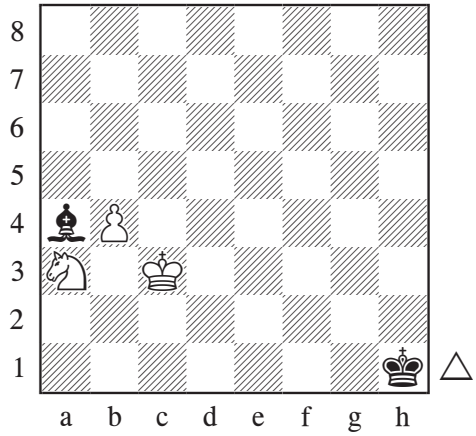
The fight between bishop and knight is interesting, since these two completely different minor pieces have approximately the same value. The bishop is colour-blind and works only on half the board at the maximum, whereas the knight changes colour with every move it makes. In my recent book on *The Secret Life of Bad Bishops,* I tried to come to a deeper insight about the difference between these two pieces.

Generally, I believe that the knight is underestimated compared to the bishop. I will show limitations to both pieces in the pages to come. We all know that knights can end up in zugzwang, but so can bishops.

3.3.2 The shortest diagonal in front of the pawn

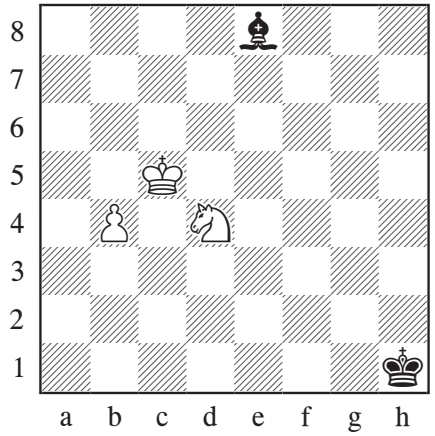
Yuri Averbakh

(Averbakh 49)



The pawn is stopped on b5 by the black bishop. From this square, there are two diagonals it can operate on: the a4-e8 diagonal and the f1-a6 one. The shorter of the two is five squares long. This is long enough for the bishop to stop the pawn without the help of the king (in this case on h1).

1.♔c4 ♗e8 2.♔c5 ♗a4 3.♘b1 ♗e8 4.♘c3 ♗d7 5.♘e2 ♗e8 6.♘d4



White threatens to block the bishop's diagonal with ♘d4-c6.

6...♗a4!=

And so forth. The only way the black king needs to support the bishop is by being available to make a waiting move.

½–½

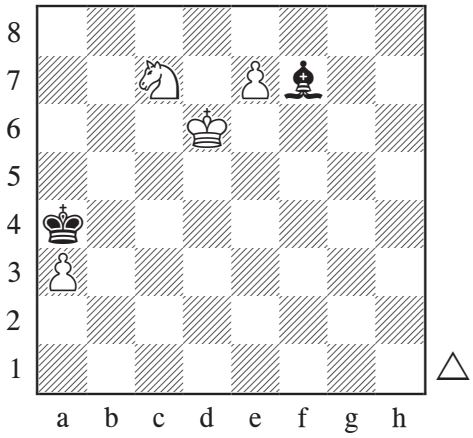
The rule is:

> If the shortest diagonal is more than four squares, then the bishop is able to stop the pawn on its own.
>
> If the diagonal is four squares or less, then the bishop is unable to stop the pawn on its own, and the king is needed in the defence.
>
> With less than four squares on the shortest diagonal, zugzwang themes can appear for the side with the bishop.
>
> As a consequence of this rule, the bishop can never stop a rook's pawn on its own.
>
> The same applies if the pawn has reached the 7th rank.

The reason why four squares on the shortest diagonal are not enough for the bishop is that the knight and king can cover two squares each, giving a total of the needed four squares.

De Giess – Jean Louis Preti 1849

(Averbakh 141)



White to move and win

The pawn on a3 is hanging, but the black king is needed to support the bishop in the fight against the e-pawn. Since the pawn has reached the 7th rank, the bishop cannot stop the pawn on its own. The shortest diagonal in front of the pawn (e8-h5) is only four squares long.

1.♔e5!

White's main idea is to bring the king to f8 and block the diagonal with a knight transfer to f7. If White does not cover the e8-square before he moves the knight, then Black can transfer his bishop to the longer diagonal e8-a4.

1...♗h5

1...♔xa3? 2.♔f6 ♗h5 3.♔g7 Not the only option in this particular position, as we shall see. 3...♔b4 4.♔f8 ♔c5 5.♘e6† ♔d6 6.♘f4+–

White can also transfer his knight to d6 with gain of tempo in the line above: 3.♘b5†! ♔b4 4.♘d6 ♔c5 5.♘f7+–

Another variation on the theme is: 3.♔g5 ♗f7 4.♘b5†! ♔b4 5.♘d6+– In this case the diagonal e8-h5 is too short in yet another way: the knight covers e8 and f7, while the king controls g6 and h5.

2.♔f6 ♔a5

The black king is forced to help the bishop stop the e-pawn.

3.♔g7 ♔b6

It turns out that the knight is forming a barrier in front of the black king: when it approaches, it is possible to transfer the knight to a better square with gain of tempo.

Or 3...♔a4 4.♔f8! ♔xa3 5.♘e8 ♔b4 6.♘d6 ♔c5 7.♘f7+–.

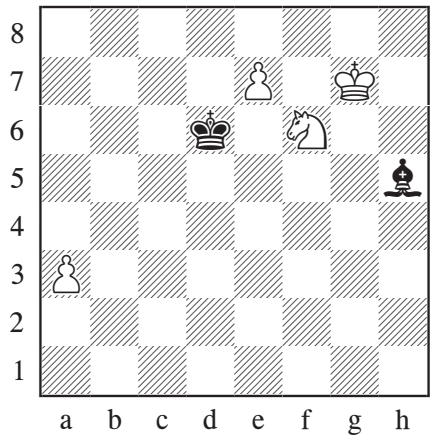
4.♘d5†!

4.e8=♕?? ♗xe8 5.♘xe8 ♔a5= The knight is too far away from the a-pawn.

4...♔c5 5.♘f6

From f6 the knight controls e8 and h5, and in cooperation with the king on g7, the bishop is now short of squares on the diagonal.

5...♔d6



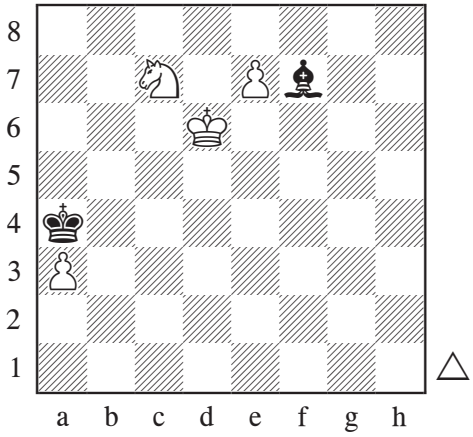
Black's last chance is to sacrifice the bishop in order to eliminate the e-pawn, and then try to make a run for the a-pawn afterwards.

6.♘xh5!
6.e8=♕?? ♗xe8 7.♘xe8† ♔c6!
This is a perfect dominance distance between king and knight. It turns out that the white king is unable to come to the aid of the a-pawn.
8.♔f6 ♔b5 9.♘d6† ♔a4 10.♘c4 ♔b3=
White is one tempo short of giving the knight protection with his king. If the knight were able to protect the a-pawn from behind the pawn (b1 or c2) the position would be won as well, since in this case the knight would be immune to capture.

It should be mentioned that White has a more prosaic way of winning: 6.♔f8 ♗g6 7.a4+– He then combines the threat of bringing the knight to f7 and pushing the a-pawn. This ruins the study a bit, but not the position as an exercise, since the aim is to bring home victory, one way or the other.

6...♔xe7
White now wins easily by bringing the knight behind the a-pawn:

7.♘f4 ♔d6 8.♘d3 ♔d5 9.♘b4† ♔c4 10.♘c2+–
1–0

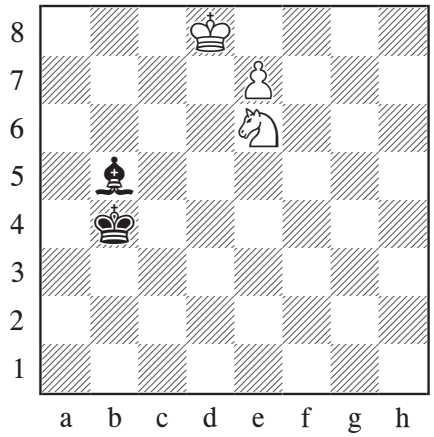


An alternative solution to the exercise is:

1.♘e6! ♗e8
Black transfers his bishop to the longer diagonal a4-e8.

1...♔xa3 2.♘g7+– is followed by a king transfer to f6.

2.♘g7 ♗b5 3.♔c7 ♔xa3 4.♔d8 ♔b4 5.♘e6!



Nice **prophylaxis**: on the way to d7 to block the bishop's access to e8, the knight covers the vital c5-square and thereby prevents the black king from arriving at d6. Thus the knight move is flexible as it eyes both the opponent's options (defence) as well as his own attacking possibilities.

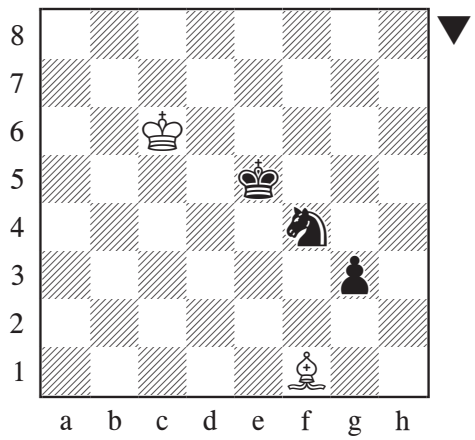
5...♔c4 6.♘f8 ♔d5 7.♘d7+–

3.3.3 Zugzwang

We continue our excursion with positions where a bishop is fighting a knight and pawn. This time we make the shortest diagonal even shorter – with only three squares, zugzwang themes appear:

Dmitry Jakovenko – Vassily Ivanchuk

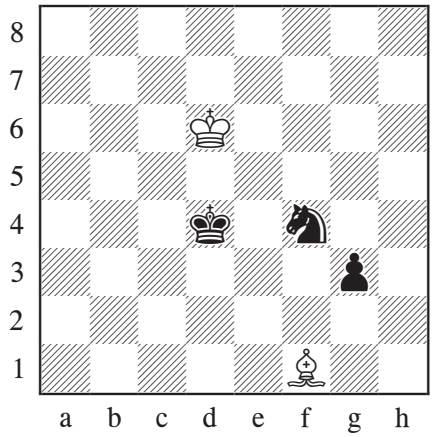
Moscow (blitz) 2009 (variation)



60...♔e4!

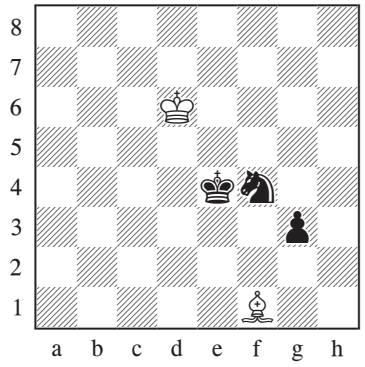
60...♔d4? 61.♔d6= It is a question of mutual zugzwang. From d6 the white king is close enough to Black's g-pawn, which means that he can sacrifice his bishop on f1. An important point is that 61...♔e4 with similar ideas as in the main line fails to 62.♗b5!= when the bishop is transferred to the long diagonal a8-h1. Thus, **Working with the King** is an important theme here.

61.♔d6 ♔d4!–+



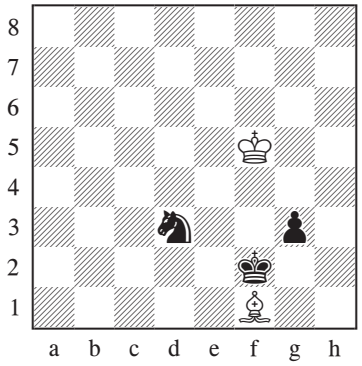
White is in zugzwang since he has no waiting moves on the short diagonal f1-h3. He has to move the king further away from the g-pawn, and this decides the outcome of the game.

Other moves instead of **61...♔d4!** do not lead to a win:

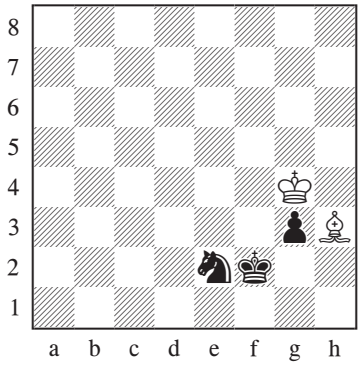


a) 61...♔f3? 62.♗b5!= Again White is able to transfer his bishop to the long diagonal a8-h1. The white king is close enough to avoid the blocking of the diagonal by the knight on either e4 or f3.

b) 61...♔e3? This position was given as an exercise at the beginning of the introduction. White to move and draw: 62.♔e5 ♘d3† (62...♔f2 63.♔xf4=) 63.♔f5 ♔f2



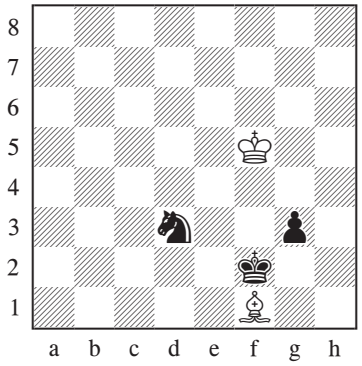
White still needs to be very careful here. 64.♗h3! The only move. 64...♘c1 65.♔f4! (or 65.♔g5!, but not 65.♔g4? ♘e2, which leads to the position of mutual zugzwang – see below) 65...♘e2 66.♔g4!



The position of mutual zugzwang – luckily for White, it is Black to move. It is important to cover both the f4-square and threaten the g3-pawn, and this is only possible from g4. If White were to move, Black would get his knight to f4 with a deadly effect, or Black would lose contact with the g3-pawn.

If now 66...♘g1 67.♗f1, the white king has enough room behind the pawn (f4-g4-h4) to ensure that his bishop on f1 cannot be captured. And if Black transfers his knight to e3, the h3-square is available to the bishop.

Let us return to the diagram after 63...♔f2:



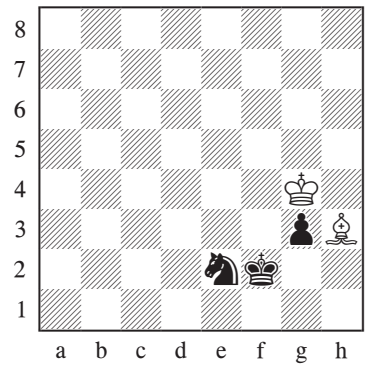
Instead of the correct defence (64.♗h3!), White loses after 64.♔g4? ♘c1!:

1) 65.♔h3 ♘e2! The knight fulfils many purposes from e2:
- It protects the pawn on g3, thereby making the threat to the bishop real.
- A deadly knight check on f4 is looming.
- The knight cannot be captured, as the pawn will then queen.

Black is lost.

2) 65.♗h3 ♘e2

This is the position of mutual zugzwang from above, but this time White is to move. The knight jump to f4 seals White's fate:



66.♔h4

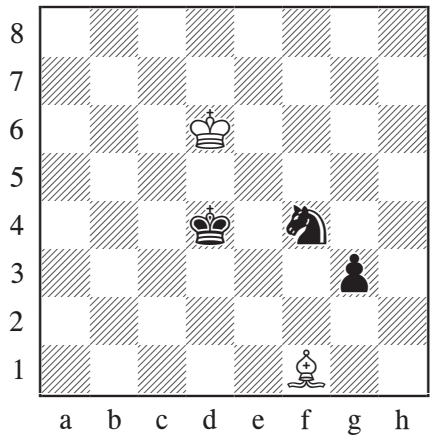
66.♔g5 ♘g1 67.♗d7 g2 68.♗c6 ♘f3†–+ does not work either: the white king has to keep an eye on the manoeuvre g1-f3 as well.

66...♘f4! 67.♗f1 ♘g2† 68.♔h3

White is forced onto this fatal square that is much needed for the bishop to stay on the f1-h3 diagonal as 68.♔g4 ♘e3†–+ drops the bishop to a knight fork.

68...♘e3–+

After the strong move **61...♔d4!–+** White is forced to make a king move (backwards) after which the win for Black is simple:

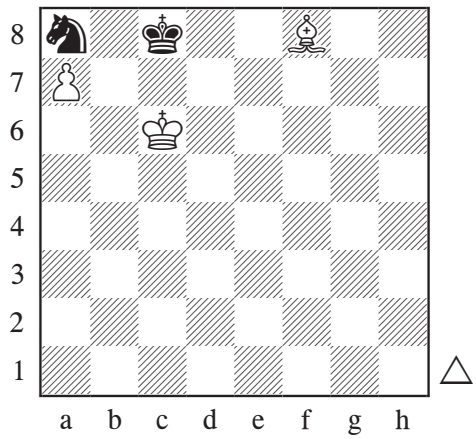


62.♔e7 ♔e3 63.♔f6 ♔f2 64.♔g5 ♔xf1 65.♔xf4 g2–+

Let us investigate a typical case where the knight ends up in zugzwang:

Yuri Averbakh

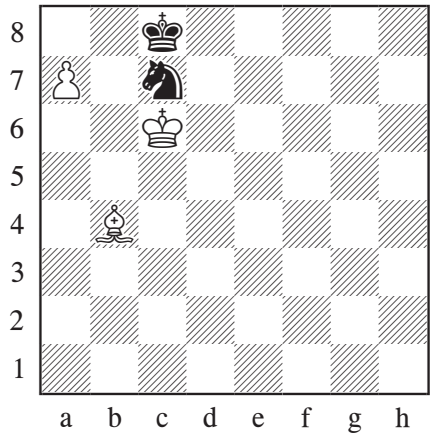
(Averbakh 36)



1.♗b4

1.♗d6 ♘c7 2.♔b6 ♘d5† 3.♔a6+– is also winning. It is important that the bishop covers the b4-square.

1...♘c7

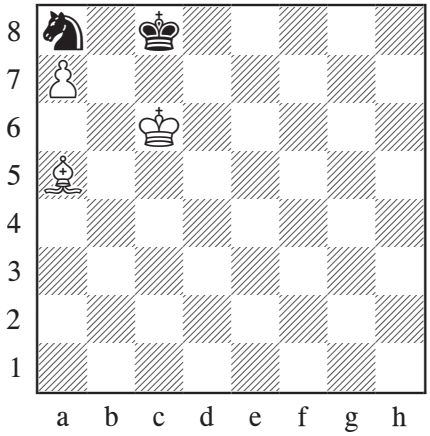


2.♗c3

This is the way we usually see the bishop's superiority over the knight: by making a waiting move, the side with the knight ends up in zugzwang.

2.♗a5?! ♘a8 3.♗b6 ♘c7 The bishop stands in the king's way on its march to a6.

2...♘a8 3.♗a5



3...♘c7! 4.♔b6

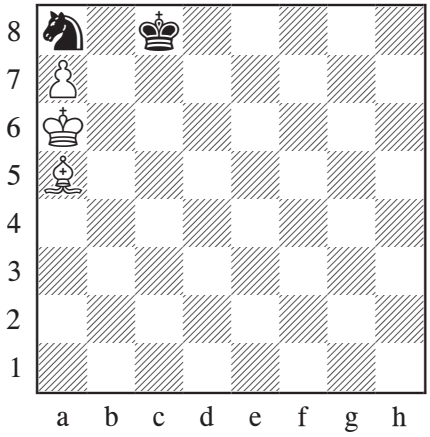
4.♗xc7 is stalemate.

4...♘a8†

4...♘d5† 5.♔a6 Again it is important that the bishop covers the b4-square. Otherwise the knight would keep checking the white king. The black king cannot be allowed access to the b7-square, since the bishop is the wrong colour compared to the corner promotion square.

5.♔a6

Zugzwang. Black is forced to give up control of the b7-square.



5...♔d7 6.♔b7+–

With a bishop able to make waiting moves, the sacrifice of the knight in the corner will never work.

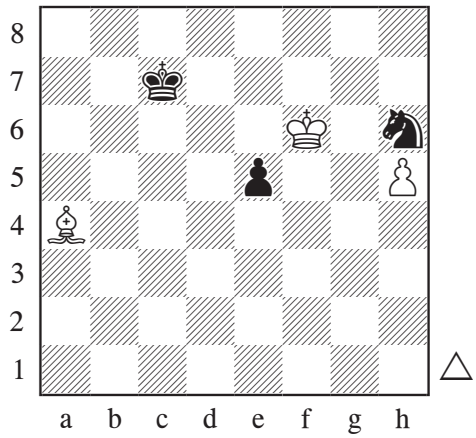
1–0

3.3.4 The bishop works on only one diagonal (the ring works)

In the chapter on knight endgames, we learnt about the logic of the ring. This logic still works in many cases if the bishop only works on one diagonal – that is, if the bishop has defensive purposes on the other diagonal. The following fragment illustrates this:

Sune Berg Hansen – Daniel Semcesen

Gothenburg 2011 (variation)



In this position, a pupil of mine made the unfortunate move:

101.♗d1?

This loss of time gives Black the move that he needs in order to construct a defence based on the ring logic.

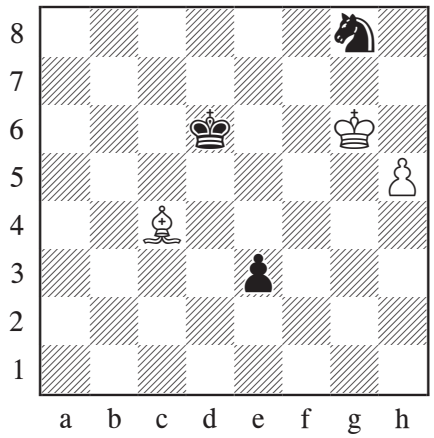
White wins after, for instance:
101.♔g5 ♘g8
101...♘f7† 102.♔g6
102.♗b3 ♘e7
The knight is forced away from the ring consisting of the squares h6-g8-e7-f5.
103.h6+–

After 102...e4 (instead of 102...♘e7) White has enough time to capture the knight: 103.♗xg8 e3 104.♗c4+– and the h-pawn decides.

101...e4! 102.♔g6 ♘g8 103.♗b3

Or 103.♔g7 ♘e7=.

103...e3! 104.♗c4 ♔d6



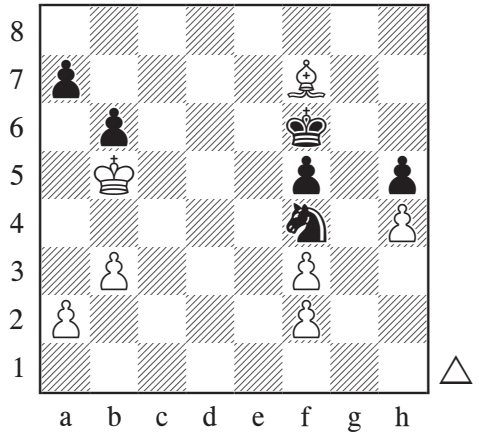
Since the bishop is forced to keep an eye on Black's e-pawn (the e2-square) the threat to the knight is non-existent. It is therefore possible for it to perform its duties in the ring. The game is drawn.

3.3.5 The bishop can be sacrificed

Earlier in this chapter, we saw the idea of sacrificing the bishop to gain other advantages (the game De Giess – Preti). In pawn races, the knight is a short-ranged piece, and this is the main reason for this option.

Zhou Jianchao – Li Chao

Danzhou 2010



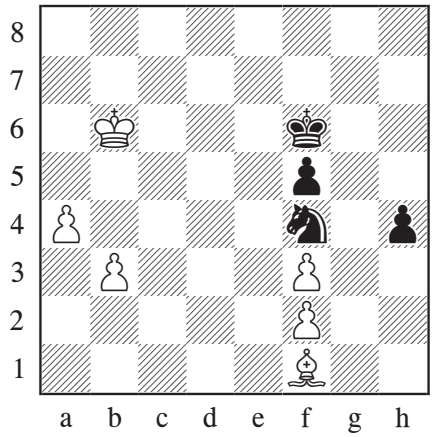
37.♗c4!

This is correct, instead of the impatient 37.♗xh5?! played in the game. See Exercises 11 and 51, which stem from that continuation.

37...♘g2 38.♔a6 ♘xh4 39.♔xa7 ♘g2

39...♘xf3 40.♗e2! and White eliminates the h-pawn.

40.♔xb6 h4 41.♗f1 ♘f4 42.a4



Instead of Zhou Jianchao's impatient bishop sacrifice on h5 on move 37, here the bishop is instead ready to sacrifice itself on h3 under far more favourable circumstances.

The game is easily won after:

42...h3 43.♗xh3 ♘xh3 44.a5 ♘f4 45.a6 ♘d5† 46.♔b7+–

3.3.6 Chapter recap

In the study by Averbakh we learned that the shortest diagonal in front of the pawn should be at least five squares for the defender to not depend on the king. If it is four squares or less, the defender's king is needed in the fight against the pawn advance.

A consequence of this rule is that against a rook's pawn, the bishop can never stop the pawn without the help of the king. It's just not possible to find a shortest diagonal that is more than four squares long.

In the study we saw various ways that White could take control of the four squares on the longest diagonal. Sometimes the knight would cover e8/h5, sometimes e8/f7 or g6/h5. The king is able to cover the last two squares on the diagonal.

We also saw other themes in play such as a knight barrier, a dominant distance between king and knight (c6 versus e8) and placing the knight behind the pawn to secure the win. In the latter case, the knight capture would ensure pawn promotion.

In the game Jakovenko – Ivanchuk, we moved on to a position where the shortest diagonal was only three squares long. With only three squares on the shortest diagonal, zugzwang positions for the side with the bishop becomes an issue. With a tricky king manoeuvre, Black was able to exploit that.

In the Averbakh study we saw a typical endgame where the side with the knight ends up in zugzwang. To many players, this is well-established knowledge, whereas less attention has been given to instances where the side with the bishop ends up in zugzwang.

We then moved on to a position from a sideline to the game Hansen – Semcesen where the bishop was only able to work on one diagonal due to a far-advanced passed pawn. This spells trouble when trying to control a knight in the ring system, since the four squares in Ring 1 are on four different diagonals. In our case, the bishop could do nothing to prevent the knight from exercising its defensive duties.

In the game between the two Chinese players, Zhou Jianchao and Li Chao, we saw an example of how the bishop can be sacrificed in these sharp endgames. In the sideline after **37.♗c4!**, the resulting endgame with knight versus pawns was easily won by White, and such endgames show us that the short-ranged knight can face problems in endgames with pawns on both sides of the board. Sacrificing the bishop in such positions is a common theme.

However, the impatient move played by White in the game – 37.♗xh5?! – allowed Black to show formidable resistance that eventually allowed him to draw the game. Objectively speaking, the game was still won after the premature bishop sacrifice on h5, but White was unable to demonstrate it immediately afterwards. Positions derived from the game are given in the exercise sections (Exercises 11 and 51).

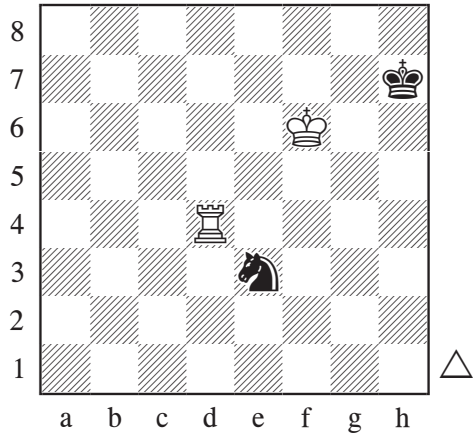
Chapter 3.4: Rook versus Bishop or Knight Endgames (exchange up)

Before we delve into the endgames with rook versus bishop or knight, you have the chance to solve the examples presented in this introduction as exercises. The six positions are playing exercises and they can all be played against a computer. The last pre-chapter exercise is strategic.

Take a look at Chapter 9 on 'How to set up a position in Komodo 10' to get started with the playing exercises. Below you will find the recommended time for each exercise. The standard increment for a playing exercise is 30 seconds per move.

3.4.1 Pre-chapter exercises

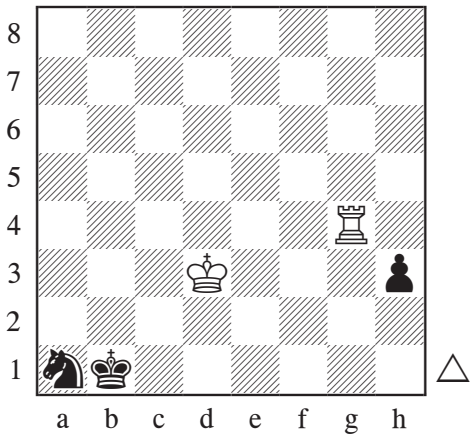
Lund's position 2016 (RN-1)



White to move and win
Recommended time: 10 minutes
Level: 3

Carlo Salvioli 1887

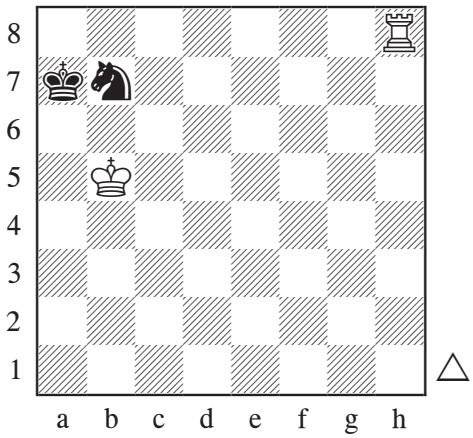
(Averbakh 521)



White to move and win
Recommended time: 12 minutes
Level: 4

Arabic manuscript 1257

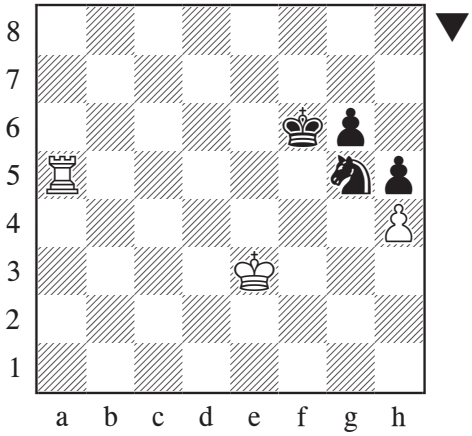
(Averbakh 514)



White to move and win
Recommended time: 10 minutes
Level: 3

Oleg Romanishin – Amador Rodriguez

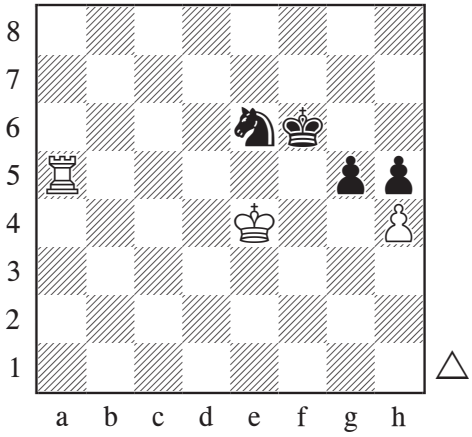
Moscow 1985



Black to move and draw
Recommended time: 10 minutes
Level: 3

Oleg Romanishin – Amador Rodriguez

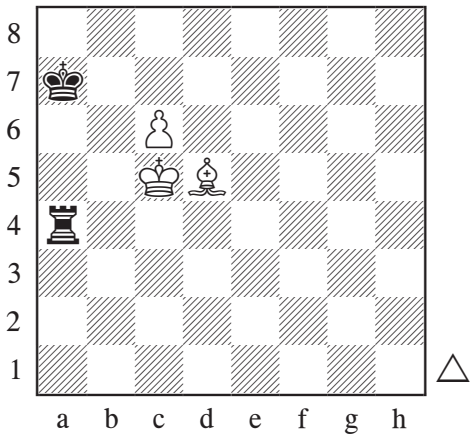
Moscow 1985



White to move and win
Recommended time: 10 minutes
Level: 3

Leon Ehrlich 1928

(Averbakh 337)

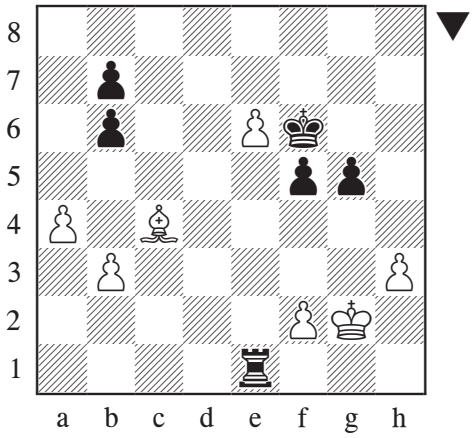


White to move and win
Recommended time: 12 minutes
Level: 4

Strategic exercise:

Vladislav Tkachiev – Etienne Bacrot

Fujairah City 2012



Black to move
Explain why the position is won for Black and indicate a winning plan.
Recommended time: 10 minutes

3.4.2 Rook versus knight endgames

3.4.2.1 The dance of the rook (a study in flexibility)

The following 'study in flexibility' is a systematic approach to positions where the king and knight of the defending side are separated. The traditional way of handling these positions in endgame theory is to isolate and win the knight with the king and rook. This demands accuracy from the attacking side, but basically the knight can be tracked down, once it has been separated from the king.

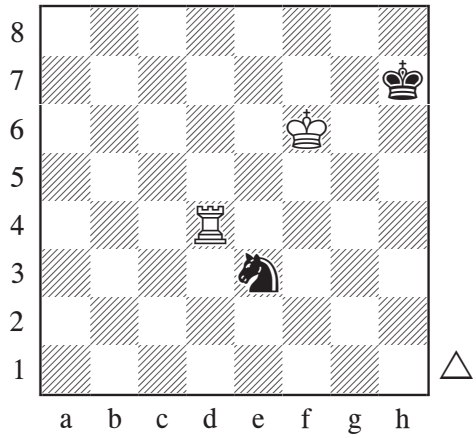
However, I suggest an alternative approach that combines two different strategies instead:

1) Constantly threatening mate with king and rook and thereby forcing the black knight further away from its own king.
2) Once the knight is out 'in the open', White applies the decisive rook manoeuvre and wins the knight.

My method is not necessary as such, but it gives an additional way of winning these endgames. However, the method makes a lot of sense, and learning it will improve your overall chess understanding and skills.

If you tried to solve the pre-chapter exercises, you probably didn't know my method, and first and foremost tried to track down the knight to win it. That's okay with me, as long as you solved the exercise. As I have already stressed, the actual moves played are *the* argument.

Lund's Position 2016 (RN-1)



This is a fundamental position to understand my method in these pure rook vs. knight endgames. It basically shows how to win in a position where the black king and knight are separated. White wins whoever is to move.

Many positions of this kind stem from rook vs. pawn(s) endgames, where the defending side promotes to a knight as a last resource. In general, the king and knight should not be separated – and apart from positions with a knight in the corner (h8) or the square diagonal to the corner (g7) – he can hope for a successful defence.

Once the king and knight are separated, the above position is essential to my method. White's king is ideally placed on f6 as it can create mating threats to the black king both on the 8th rank and the h-file. The king simply has the option of going to both f7 and g6 depending on the circumstances.

The white rook in the centre is flexible and has the possibility to swing both ways. From its actual square d4, it covers d5 and g4 – two squares where a knight check would disturb the white king.

White is to move, but as will soon become clear, it does not influence the evaluation, as he can hand over the move to Black.

1.♖d7†!

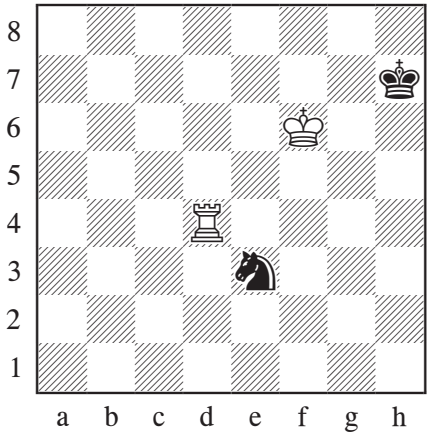
The first step is to arrive at the starting position with Black to move. With the following manoeuvre, White loses a tempo.

1...♔g8

1...♔h6 2.♖d3! ♘g4† 3.♔f5 ♘f2 4.♖d2+– Black loses his knight when it moves to the h-file.

1...♔h8 2.♔g6 leads to a quick mate.

2.♖d8†! ♔h7 3.♖d4!



We are back at the beginning, but now Black is to move, and he will have to worsen his position. I consider four continuations:

1) First we consider the king move: **3...♔g8 4.♔g6! ♔f8 5.♖f4†! ♔g8 6.♖e4+–** White wins the knight due to back-rank threats. Please notice the intermediate check with the rook.

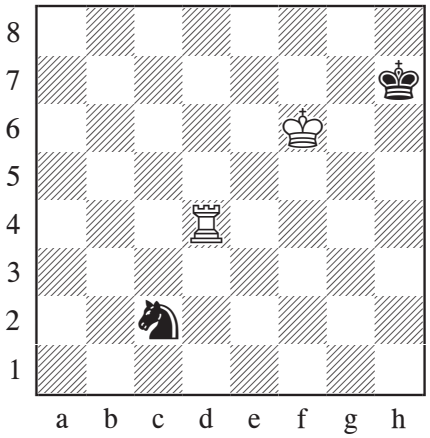
2) **3...♘f1?! 4.♖d3! ♔g8 5.♔g6+–** The only way to avoid mate loses the knight: **5...♔f8 6.♖f3†**

3) **3...♘g2?!** This square diagonal to the corner square is the second worst (after the corner square). Black quickly loses the knight: **4.♖e4 ♔h8 5.♔g6+–**

Or 4...♔g8 5.♖g4†+–.

Or 4...♔h6 5.♖g4+–.

4) **3...♘c2**



The problem with this knight move is that the knight is now 'out in the open'. It can be attacked both along the c-file and the 2nd rank – and thus it will succumb to White's upcoming mating threats.

With the two other knight moves discussed above (3...♘f1 and 3...♘g2) Black was hiding behind the white king – and therefore no threat to the knight could be combined with mating threats on the 8th rank.

From the diagram position above, White wins by performing a 'dance of the rook':

4.♖d7†! ♔g8

4...♔h6 5.♖d2+– threatens the knight and mate on the h-file.

4...♔h8 5.♔g6+–

5.♖g7†! ♔f8

After 5...♔h8, both 6.♔g6+– and 6.♔f7+– mate in a few moves; the knight is too far away to disturb White's set-up.

6.♖c7+–

Threatens the knight and mate on the back rank.

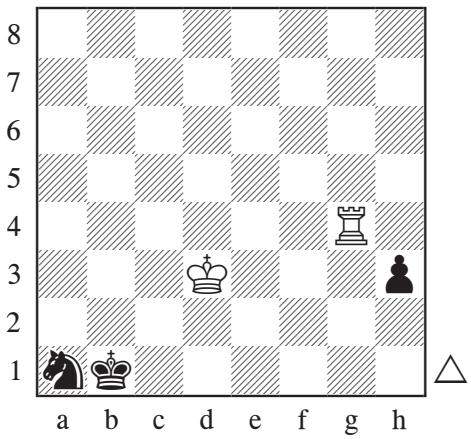
The conclusion is that White can use mating threats to win the black knight. An important tool was to drive the knight 'out into the open' and then perform the 'dance of the rook'.

In the examples to come, we shall also encounter cases where White is forced to use the combined efforts of king and rook to chase down the knight. That is the classical way of treating these positions. Both methods are of course valid and can be deployed depending on the circumstances.

3.4.2.2

Carlo Salvioli 1887

(Averbakh 521)



1.♔c3

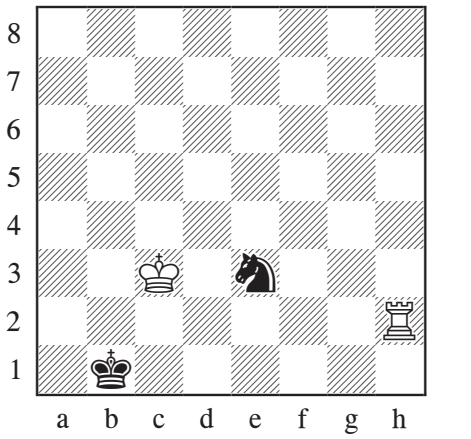
1.♖h4? ♘b3=

1.♖g1†? ♔b2 2.♖h1 ♘b3=

In both cases, the knight escapes the corner under favourable circumstances.

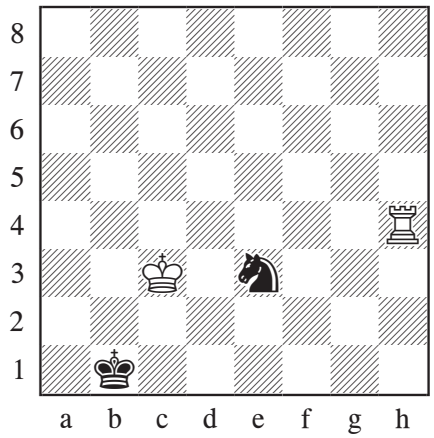
1...h2 2.♖h4 ♘c2 3.♖xh2 ♘e3

After 3...♘a3 4.♖h5⊙ ♔a2 5.♖a5+– Black loses the knight.



Black got his knight out of the corner since White had to eliminate the h-pawn. However, the king and knight are now separated under bad circumstances: the king on c3 constantly takes part in mating threats to the black king.

4.♖h4!



Notice how White uses the 4th and 5th rank as well as the d- and e-file as a prelude to occupying one of the four central squares. In this way, the rook can dominate most of the board and can simultaneously swing to either the a-file or the 1st rank, constantly creating mating threats against Black's king.

Salvioli's solution went: 4.♔d3 ♘d5 5.♖h4 ♔b2 6.♖d4+– The idea is entirely to separate the king and knight. After any of the three knight moves 6...♘f6, 6...♘e7 or 6...♘c7, the Nalimov endgame tablebase declares mate in 23-26 moves with perfect play.

The solution I propose is more systematic, as it first and foremost combines mating threats to the black king with winning the knight. For that purpose, the white king stays on c3. In a few cases, the knight will be chased down by the king and rook, but it is not the overall strategy.

It should be mentioned that 4.♖h5!? is also good enough, heading for the centre via the 5th rank.

Black now has four options that I shall analyse in turn. The first two try to chase the white king away from the optimal square c3, but for two different reasons, this strategy fails:

1) **4...♘d1† 5.♔d2!**

5.♔b3? ♔c1= is a typical drawing position with the knight in diagonal opposition to the white king. There is no zugzwang since Black can play either ♔c1-d2 or ♘d1-e3. We saw this defensive method in the final stage of the game Sulskis – Lund from the section on rook endgames.

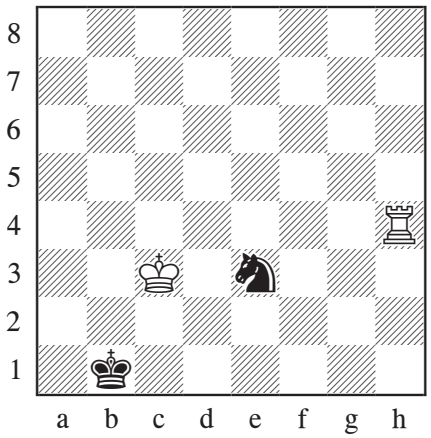
5...♘b2

In the next example based on an Arabic manuscript from 1257, we shall see why this square for the knight, diagonal to the corner square, does not save Black either. That the knight was forced to go to b2 where it will be lost, is the argument why Black was not able to drive the king away from c3.

5...♘f2 6.♔e2+– traps the knight.

6.♖b4 ♔a2 7.♔c2 ♔a1
The last trick.

8.♖b8+–
8.♖xb2?? is stalemate.



2) **4...♘d5† 5.♔b3 ♔c1 6.♖c4†!**
The intermediate check that wins the knight. This is the concrete reason why Black was not able to chase the king away from c3.

6...♔b1
6...♔d2 7.♖d4†+–

7.♖d4 ♘e3 8.♖d3+–

3) **4...♔a2 5.♖a4† ♔b1 6.♖e4 ♘f5**
6...♘d5† 7.♔b3 ♔c1 8.♖c4†+–

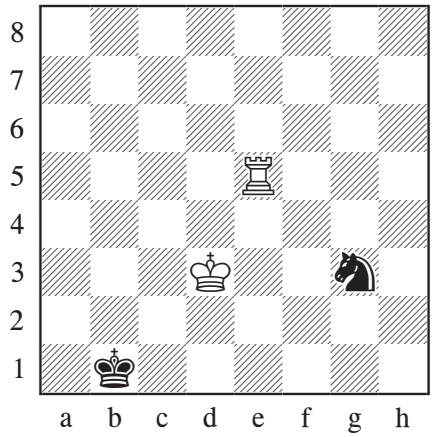
7.♖e5! ♘g3
This is a case where the knight is tracked down by the king and rook.

7...♘d6 gives a variation from Lund's position: 8.♔b3 ♔c1 9.♖c5†!+– etc.

8.♔d3!

It is most effective to dominate the knight with the king and let the rook do the killing. If White decides on the king hunt, where the rook dominates the knight, he should consider the possibility of the black king disturbing the rook: 8.♔d2!? ♔b2 9.♔e1! Avoiding the disturbance. 9...♔c2 (9...♔c3 10.♖e3†+–) 10.♔f2 ♘h1† 11.♔g2+–

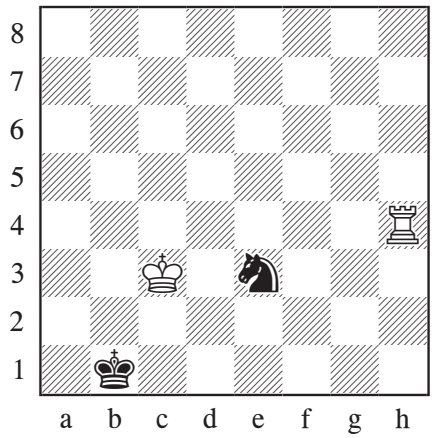
Notice that the move 9.♔e1! is more flexible than 9.♔e3 (with the same aim of reaching f2) since in the latter case, White would not have the rook check on the 3rd rank. The first king move takes both attack and defence into account.



8...♔b2 9.♖g5 ♘f1 10.♔e2 ♘h2 11.♖g2+–

Thus, White should still have in his armoury the option of tracking down the knight with the king and rook, if the option shows itself as the simplest solution.

4) This is the most complex move (not mentioned by Averbakh) – here White needs to show his understanding and display a systemic approach in order to win.



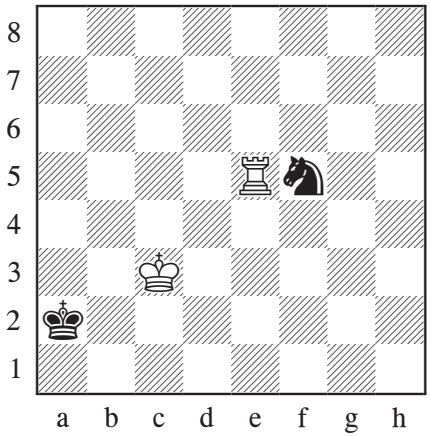
4...♘f5 5.♖e4!

To the centre. White is ready to enter Lund's position or force the knight further away.

5...♔a2

5...♘d6 6.♖e1† ♔a2 7.♖e5!+– gives Lund's position.

6.♖e5!



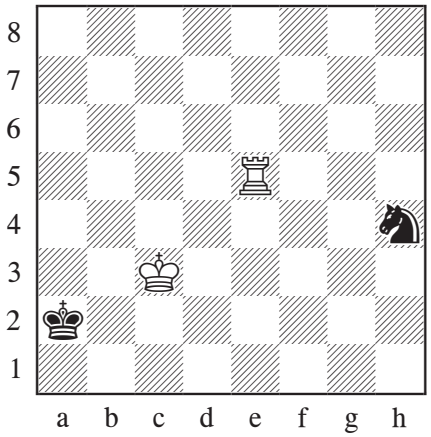
Black has a choice of evils:

4a) **6...♘d6** leads to Lund's position.

4b) **6...♘g3 7.♔d3+–** as we saw above.

4c) **6...♘g7** or **6...♘h6** both fail to the dance of the rook: **7.♖e2†! ♔b1 8.♖b2†! ♔c1** and either **9.♖g2+–** or **9.♖h2+–.**

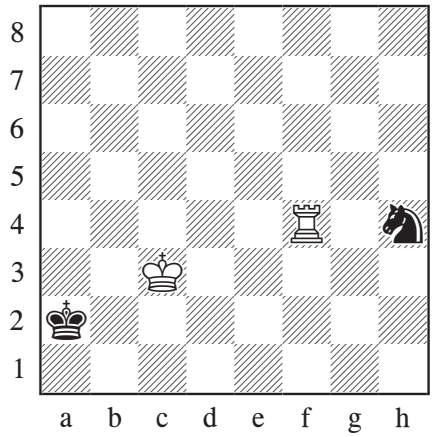
4d) **6...♘h4**



Black tries to hide the knight behind White's king and thus avoid mating threats on the a-file that win the knight. The simplest way to victory is to chase the knight back into the open:

7.♖h5 ♘f3
7...♘g2 8.♖h2+–

8.♖f5! ♘h4 9.♖f4!



9...♘g6
The knight has left its hiding place and the dance of the rook can begin:

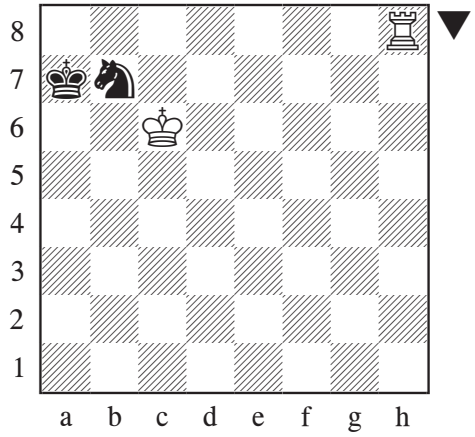
10.♖f2†! ♔b1 11.♖b2†! ♔c1 12.♖g2+–

3.4.2.3 The knight on b7

The next example shows more clearly the way to break down Black's defences with a knight on b7. As we go along, we shall encounter familiar patterns:

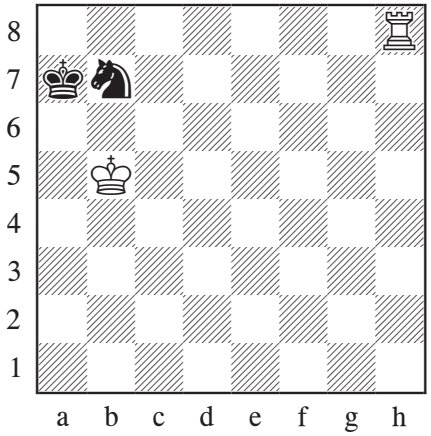
Averbakh 514

(based on an Arabic manuscript 1257)



1...♘a5† 2.♔b5 ♘b7

2...♘b3 3.♖d8+– The knight is isolated and White can shift focus and use his king and rook to chase it down.



White has two winning methods here:

1) He can either protect a5 (rook on the 5th rank) or

2) He can protect the d6-square (waiting move on the 8th rank, later bring the rook to d8).

3.♖f8

The other way is 3.♖h5 ♘d6† (3...♔b8 threatens to transfer the knight to c8 via d6. 4.♔c6! The a5-square is covered. 4...♘d8† 5.♔d7 ♘b7 6.♖b5 ♔a7 7.♔c7 ♔a8 8.♖b1+– We have already seen this method.) 4.♔c6 ♘c4 5.♖c5+– etc.

3...♘d6† 4.♔c6 ♘c4 5.♖d8

The rook covers the d6-square. The knight has to return 'to base', that is b7:

5...♘a5† 6.♔b5 ♘b7 7.♖d7+–

White again wins after:

7...♔b8 8.♔b6 ♔a8 9.♖h7
1-0

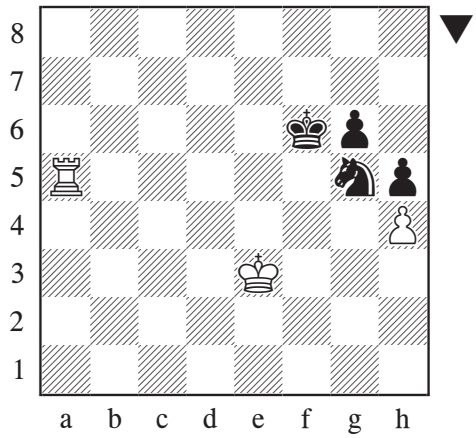
3.4.2.4 Sacrifice of the knight (to draw a rook versus pawn endgame)

We now turn our attention to a type of position where Black is able to exchange off White's last pawn, but where his short-ranged knight can end up in trouble on the way.

In the following example, we have a case with two pawns versus one, but essentially all positions with pawns on the same side show the same challenges for the side with the knight.

Oleg Romanishin – Amador Rodriguez

Moscow 1985



Position after **60.h4**.

This example shows how Black can defend a typical position with two against one on the same side. It is possible to defend it passively. However, Black should be familiar with a more active defence, where he gives up his knight and transfers the position to one with rook vs. pawn(s).

60...♘e6!?

Dvoretsky gives the move a question mark, but it seems that Black still has a way to draw the game.

The more active defence starts with:

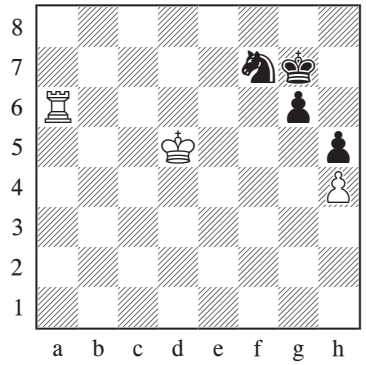
60...♘f7!?

Compared to h7, the knight is more actively placed on f7 – but, as we shall see, from this square it can be attacked by White's king and rook. For now, the knight covers not only g5 (also intending ...g5 at the right moment) but also e5. This means that the white king has to use the squares d5-e6 to enter the black position – and it is at this moment that Black initiates his dynamic counterplay with ...g5.

61.♔f4 ♔g7

As Rodriguez and Vera noted, 61...♘h6 was also possible, for instance: 62.♖a6† ♔g7 63.♔e5 ♘g4† 64.♔e6 g5= This is yet another way to draw the position.

62.♖a6 ♔h7 63.♖a7 ♔g7 64.♔e4 ♔f6 65.♖a6† ♔g7 66.♔d5



66...g5!

It is too late to just stay passive: 66...♘h6? 67.♔e6 ♘f5 68.♖a4+–

67.♔e6 gxh4

Two other options are good enough for a draw:

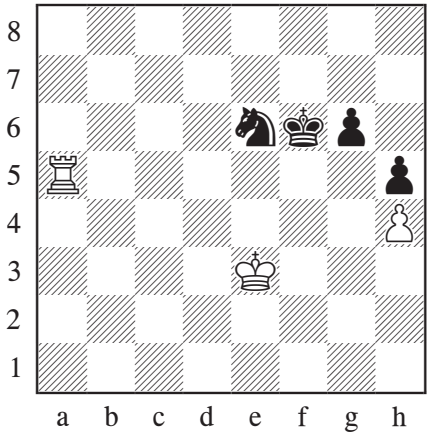
67...♔g6!? 68.♔e7† ♔g7=

67...♘d8†!? 68.♔e7 ♘f7=

68.♖a7 ♔g6 69.♖xf7 ♔g5 70.♔e5 h3=

The black king is body-checking its white counterpart.

We return to the position after **60...♘e6!?**:



61.♔e4 g5?

1) 61...♘g7? does not work either: 62.♖a6† ♔f7 63.♔f4! The pawn on g6 is a real weakness now, and White can answer 63...♘e6† with 64.♔e5+–, and 63...♘f5 with 64.♔g5+–.

2) 61...♘f8!

This looks passive, but with the knight on h7, Black defends the vulnerable squares f6 and g5 and is ready to counter with ...g6-g5 at the right moment, liquidating White's last pawn.

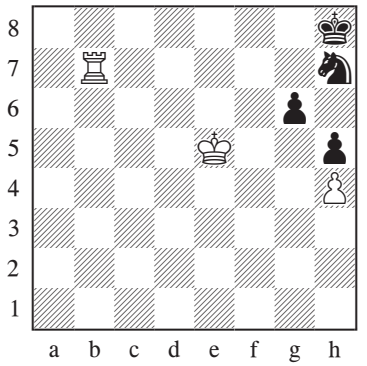
62.♖a6† ♔f7 63.♔f4 ♔g7 64.♖a8

A waiting move.

64...♘h7

64...♔f7? 65.♔g5 ♘e6† 66.♔h6+– and a further check on the f-file will disturb Black's coordination.

65.♖a7† ♔g8 66.♖b7 ♔h8 67.♔e5



67...♔g8!

It is not easy for White to make progress here.

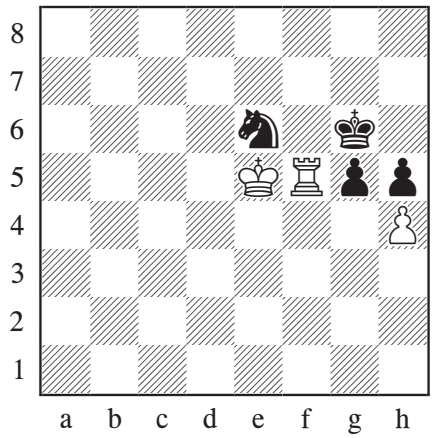
Instead, 67...g5? is bad in view of: 68.hxg5 ♘xg5 69.♔f6 ♘h7† 70.♔f7+– The threat to Black's king will cause him to lose decisive material.

68.♔e6 g5! 69.hxg5 ♘xg5† 70.♔f5 ♘h7! 71.♔g6 ♘f8†=

In view of all this, it is possible for Black to defend with **60...♘h7!?** from the starting position: instead of the route **...♘e6-f8-h7**, he moves directly to this square to adopt a passive defence.

We return to the main continuation after the unfortunate **61...g5?**:

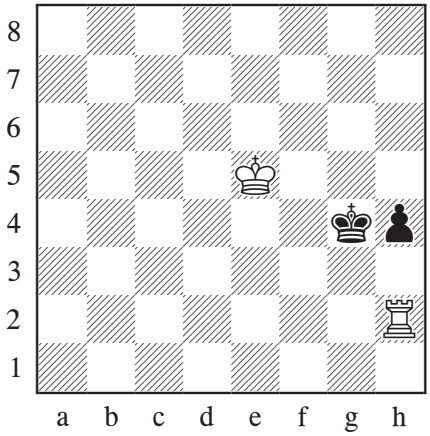
62.♖f5†! ♔g6 63.♔e5+–



63...gxh4

This doesn't work, but Black was lost anyway. Now White has to show some accuracy in order to win.

64.♔xe6 h3 65.♔e5 h2 66.♖f1 ♔g5 67.♖h1 ♔g4 68.♖xh2 h4



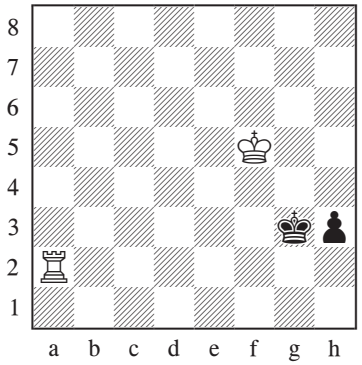
69.♖g2†!

Precision is required: 69.♔e4? ♔g3= is only a draw.

69...♔f3 70.♖a2

1–0

Black resigned in view of: 70...h3 (70...♔g4 71.♖a4†! ♔g3 72.♔f5) 71.♔f5 ♔g3



72.♖a3† ♔g2 (72...♔h4 73.♔f4 h2 74.♖a1 ♔h3 75.♔f3) 73.♔g4 h2 74.♖a2† ♔g1 75.♔g3 h1=♘† 76.♔f3+– etc. (Dvoretsky)

We now turn our attention to positions with rook versus bishop.

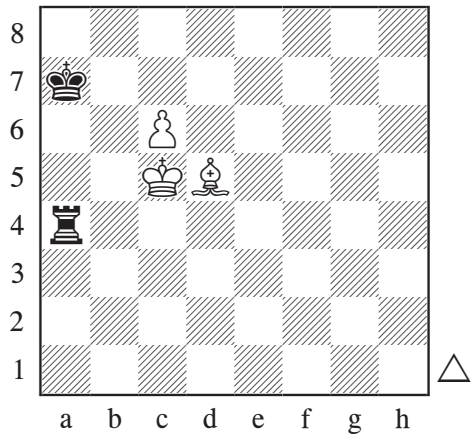
3.4.3 Rook versus bishop endgames

3.4.3.1 Precision is needed

The following example shows how small details and resourcefulness are an integral part of these positions with rook vs. bishop:

Leon Ehrlich 1928

(Averbakh 337)



White to move and win

1.c7

1.♔b5? ♖d4 2.♔c5 ♖d2=

1...♖a5†

1...♖a1 2.c8=♕ ♖c1† 3.♗c4 loses in trivial fashion.

2.♔c4!

Out of five candidate moves, this is the only one to win; the other lines show why. The main motif is stalemate and the possibility of sacrificing the rook for White's last pawn:

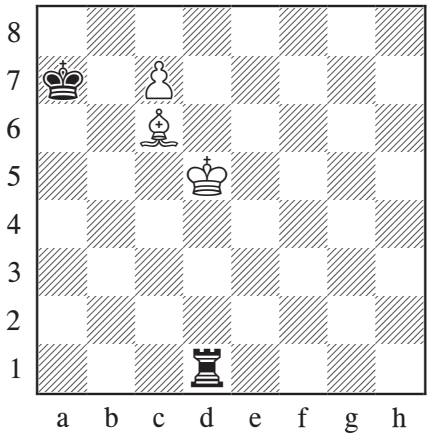
1) 2.♔b4? ♖b5†! 3.♔c4 (3.♔xb5 is stalemate) 3...♖b8! 4.♗e6 ♔b7=

2) 2.♔d4? ♖xd5† 3.♔xd5 ♔b7 4.♔d6 ♔c8 5.♔c6 stalemate.

3) The same goes for 2.♔d6? ♖xd5† and if 3.♔c6 then: 3...♖d1 (or even 3...♖c5†!? 4.♔xc5 ♔b7 5.♔d6 ♔c8=) 4.c8=♕ ♖c1†=

4) 2.♔c6? ♖xd5! 3.c8=♕ ♖c5†! 4.♔xc5 is once again stalemate.

2...♖a1 3.♗c6 ♖c1† 4.♔d5 ♖d1†



5.♔e6!

White has to spot the idea of a rook sacrifice on e8: 5.♔e4?! ♖e1† 6.♔f3? (White should repeat the position with 6.♔d5) 6...♖e8!=.

The same goes for 5.♔e5?! ♖e1† White should return with 6.♔d6 ♖d1† 7.♔e6! or 7.♔e7! leading to the main continuation.

The rook sacrifice on e8 uses the fact that White's bishop was tied to the defence of the b7-square to prevent the black king approaching the pawn. Thus, the bishop essentially only works on one diagonal in this case and needs the support of the king.

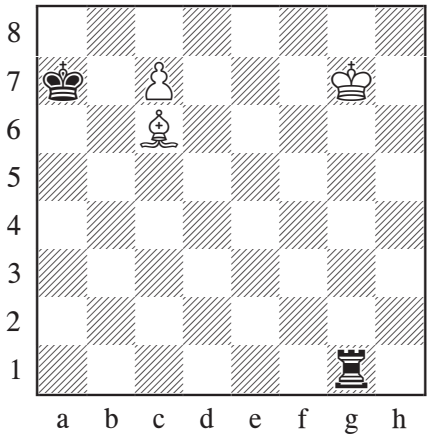
5...♖e1† 6.♔f7

Covering the e8-square.

6...♖f1† 7.♔g7!

7.♔g8? is only a draw, as will soon become clear.

7...♖g1†



8.♔h7!+–
The final detail. White will queen next move.

8.♔h8? throws away the win: 8...♖b1! 9.c8=♕ ♖b8=
Instead of queening, 9.♔h7 ♖b8!= does not stop Black from carrying out his idea. 9...♖b7 also draws.

3.4.3.2 FLP and standstill

I have described the idea of a fortress-like position (FLP) in my previous book *The Secret Life of Bad Bishops.* My definition there was the following:

Fortress-like position (FLP): A position of rook vs. bishop that has come to a standstill, where the side with the bishop cannot improve his position further and only the side with the rook can try to win it. The characteristic of such a position is that it is not yet clear if the position is a fortress or not.

I am talking about a pure rook vs. bishop endgame with pawns – but no additional pieces. In a pure rook vs. bishop endgame the position can come to a standstill due to the colour-blindness of the bishop – and this gives the opponent the possibility to play and improve his position on the squares opposite in colour to the bishop.

The explanation and the point of the definition followed:

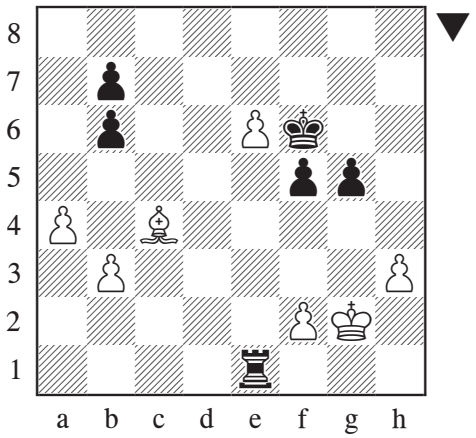
Analysis will show if the FLP is a fortress or not. And here the knowledge of fortress positions comes in handy. If the position is not a fortress then the side with the bishop is lost.

I presented a handful of useful fortresses to the reader for comparison. Fortresses only occurred with a maximum of two pawns each (positions with doubled or tripled pawns excluded) – so in a position with many pawns, the side with the bishop should be absolutely sure if the position he is about to enter is in fact a fortress. Even if he has extra pawns to compensate for his material deficit, the standstill could prove fatal.

The following game explains these points. In one of the examples I gave in my previous book, French GM Etienne Bacrot was on the losing side – hopefully, this will restore his honour:

Vladislav Tkachiev – Etienne Bacrot

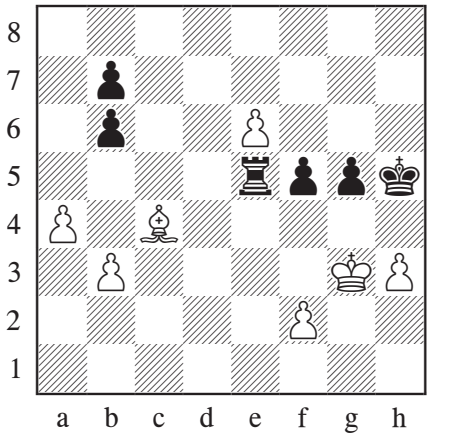
Fujairah City 2012



Black to move. White is doomed to passive defence and for now he has everything under control. But Black can gradually increase the pressure, using the fact that he has almost undisputed control of the dark squares. The pawns at b3, f2, h3 and e6 are points to attack and Black can seize space on the kingside by advancing his pawns. The bishop on c4 protects the pawns on b3 and e6, but overall the bishop is quite static and this makes it possible for Black to play for zugzwang later.

Over many following moves, Black only gives hints of what his plan is, maybe trying to lure White into wrong-doing while basically risking nothing himself.

52...♔e7 53.♔g3 ♖g1† 54.♔h2 ♖c1 55.♔g3 ♖c3† 56.♔g2 ♔f6 57.♗d5 ♖c5 58.♗c4 ♖e5 59.♔f3 ♔g6 60.♔g2 ♔h5 61.♔g3



Black has all the time in the world with his dark-squared dominance. This is the paradox about these endgames: they can be so sterile if they come to a standstill, but on the other hand, they are among the sharpest endgames (if not the sharpest) once the position is sharpened.

In the diagram position, Black has improved his position. The rook is perfect on e5 – standing behind the passed pawn and cramping the bishop by covering the d5-square. Black is ready for further action.

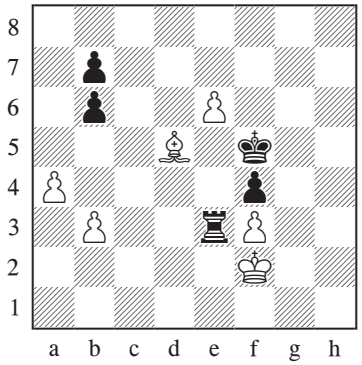
61...f4† 62.♔h2

Let us consider an alternative path:

62.♔f3 ♔h4 63.♔g2 g4 64.hxg4 ♔xg4 65.f3†

Otherwise Black plays his pawn to f3, leading to a position similar to the game continuation. Now the white pawn is a target on f3, otherwise it would have been a target on f2. White had a choice between two evils.

65...♔f5 66.♔f2 ♖e3 67.♗d5



White covers everything and still possesses the passed pawn on e6. But there are many pawns left on the board, and therefore many possible points of attack for Black.

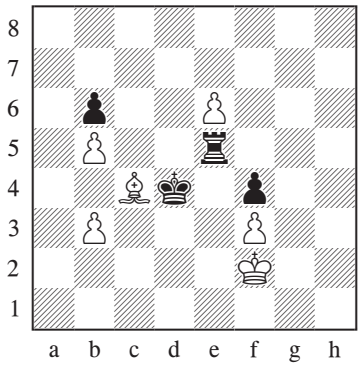
This position is a FLP, and since there are plenty of pawns for each side, the probability of a positional draw (a fortress) is reduced. It is such positions that White should be wary of entering, as either they are fortresses or simply outright lost.

Let us see how Black finds a way through:

67...♔e5 68.♗c4 ♔d4 69.♔g2 ♖e5

With the threat of bringing the king to e3.

70.♔f2 b5! 71.axb5 b6



Like in the game, Black plays for zugzwang. If the black king is allowed to e3, then f3 will come under attack and mating patterns will appear.

72.♗f1

72.♔g2 ♔e3 is followed by a rook check on g5, when the f3-pawn will drop.

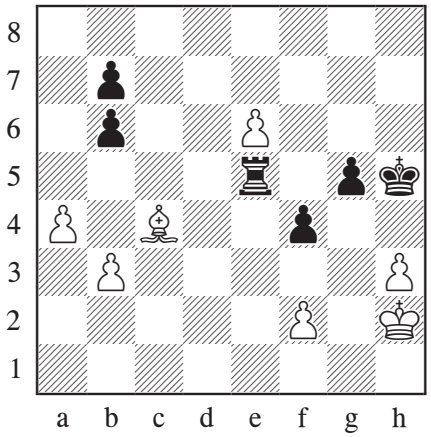
72...♖xe6 73.♗c4

Everything is still protected, but without the e6-pawn, Black has the additional option of an exchange sacrifice leading to a won pawn ending. So now f3, b3 and b5 are all targets.

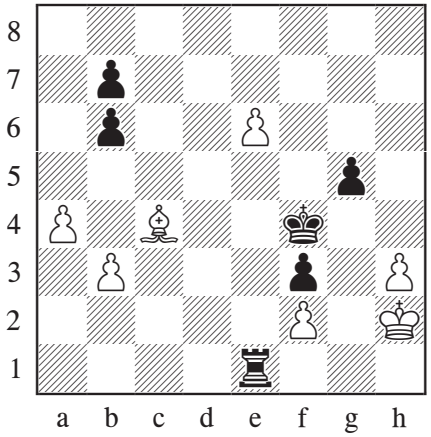
73...♖h6 74.♔g2 ♔e3 75.♗d5 ♖g6† 76.♔f1 ♖g3–+

The simplest way is giving up the rook for the f3-pawn. White can resign.

We return to the position after **62.♔h2**:



62...♔g6 63.♔g2 ♔f6 64.♔f3 ♔f5 65.♔g2 ♔e4 66.♔g1 f3 67.♔h2 ♔f4 68.♔g1 ♖e1† 69.♔h2



69...b5!

69...g4 70.hxg4 ♔xg4 was also good. But I like the idea of playing for zugzwang.

70.axb5 b6
The same idea as in my line above. The extra pawns on h3 and g5 do not matter much.

71.♗d5 ♖f1
This move looks simple, but Black had to do a bit of calculation as White will queen his pawn.

72.♗c4 ♖xf2† 73.♔g1 ♔g3! 74.e7 ♖d2
Here White resigned. Black's point is 75.e8=♕ ♖d1† 76.♗f1 f2† 77.♔h1 ♖xf1 mate.
0–1

3.4.4 Chapter recap

Rook vs. knight

From Lund's position we learned a method to win the knight, not by hunting it down with king and rook, but by a refined combination of mating threats and threats to the knight. For that purpose, the knight needed to be driven out into the open.

To drive the knight out into the open means that the knight is not able to hide behind White's king, and thus it succumbed to mating threats on both the 1st rank and the a-file.

With the king on c3 (or c6/f3/f6), White used the 'dance of the rook' once the knight entered open territory. In that way, the enemy king was forced to oppose the king on c3, and thus the rook could simultaneously threaten the knight and back-rank mate. With the knight out in the open, there was no way to counter this double threat.

We also saw that the position was won no matter who had the first move: White to move easily handed over the move to Black with a series of rook checks.

In the study by Carlo Salvioli we saw how effective it was for the side with the rook to occupy one of the four central squares. This strategy proved useful for both winning methods: the classical hunting down of the knight by the king and rook, or the one I propose from Lund's Position. The rook in the centre proved very flexible, and the king was able to stay on c3 for the time being.

From the position with the knight on b7 (or b2/g2/g7) we saw there were two winning methods:

- White can cover either the d6- or the a5-square with the rook. In both cases, the point is to keep the king close to Black's king (on either b5 or c6), and not let it be chased away by the knight
- In the first case, White eventually placed the rook on d8, in the second the rook was moved to the 5th rank

In the game Romanishin – Rodriguez we learned how to draw a typical position with knight versus rook on the same side of the board, with two pawns against one. There were at least two viable set-ups: a passive one with the knight on h7, and an active defence with the knight on f7.

It is possible to sacrifice the knight under certain circumstances, to transform the game into one with rook versus pawn(s). However, as we saw in the game continuation, Black chose the wrong way to do so. White had to play very precisely to win the game though.

Rook vs. bishop

In the study by Leon Ehrlich we saw just how tricky these position with rook vs. bishop can be. There were stalemate tricks, and White had to be very precise when moving the king across the board. In the end, there was a huge difference between placing the king on the 7th rank or the back rank.

The game Tkachiev – Bacrot was quiet to begin with. Black had full control of the dark squares and could make small but steady progress, and all White could was wait. In the end, Black was able to find a way through White's defences, and thus White's Fortress-like Position (FLP) turned out not to be a fortress.

Even if Black had the first phase under control, he needed precision when the position unravelled and he needed to bring home the win.

From my previous work *The Secret Life of Bad Bishops* we learned the important points about FLP and fortress positions. There are a handful of fortresses that are useful to know, but these only include a maximum of two pawns for each side. With more than two pawns each, the side with the bishop has to be compensated for the material deficit by having extra pawns. The important point is that the side with the bishop has to be absolutely sure that the position he enters is a fortress – otherwise it is (theoretically) lost.

In our game, White did not have enough material compensation for the exchange, and in addition to that, there were simply too many pawns on the board. Black was able to improve his position and launch the decisive breakthrough.

Chapter 3.5: Queen Endgames

Like in previous chapters, you have the chance to treat many of the examples presented in this introduction as exercises to begin with. All eight positions are strategic exercises.

I would like to mention that this is a 5-piece endgame and therefore all positions can be verified by the Nalimov or Syzygy tablebases.

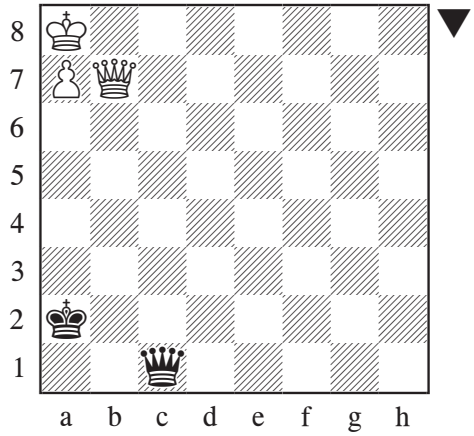
The positions are very complex and often demand extreme accuracy. In my presentation, I will try to focus on the human understanding of the endgame. To a certain degree, I will rely on the works of John Nunn (*Secrets of Practical Chess*) and Müller & Lamprecht (*Fundamental Chess Endings)*.

In later exercises where the engine claims a draw with correct play, but where almost every inaccuracy could be fatal, I shall suggest a 15-move rule: if you are able to hold the balance for at least 15 moves in these queen endgames, you can consider the exercise solved. It is simply inhuman to demand perfect defensive play for 50 moves against the engine.

3.5.1 Pre-chapter exercises

Silas Esben Lund 2016

(Q-1)

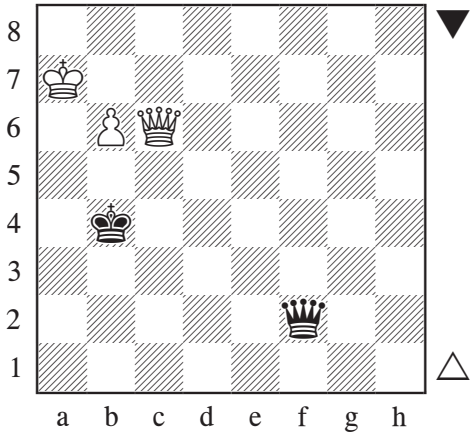


Black to move

Find the only move that draws and try to give an explanation why.
One important question is what Black should do with his king
once the white queen starts to give checks.
Recommended time: 10 minutes

Silas Esben Lund 2016

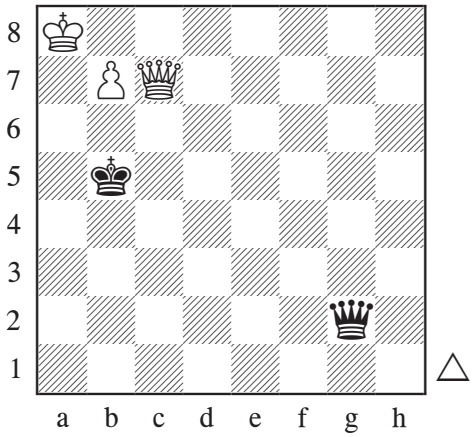
(Q-2)



Draw whoever is to move
Try to describe the drawing method for Black.
Recommended time: 10 minutes

Silas Esben Lund 2016

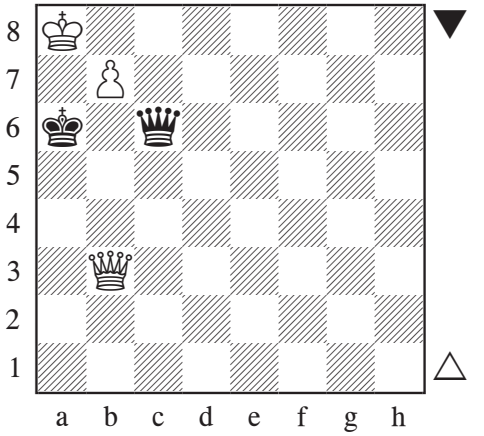
(Q-3)



White to move and win
Show the winning method, and try to explain the difference between this position and the previous one (Q-2).
Recommended time: 10 minutes

Louis van Vliet 1888

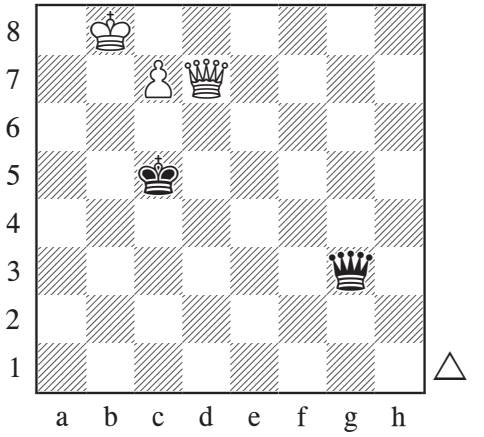
(Averbakh 170)



White to move and win / Black to move draws
Find the solution to both questions.
Recommended time: 10 minutes

Silas Esben Lund 2016

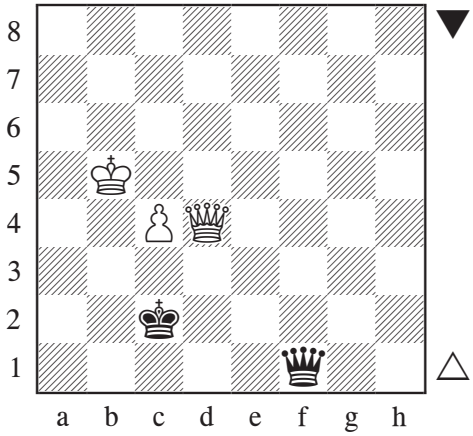
(Q-4)



White to move and win
Show the winning method.
Recommended time: 10 minutes

Silas Esben Lund 2016

(Q-5)



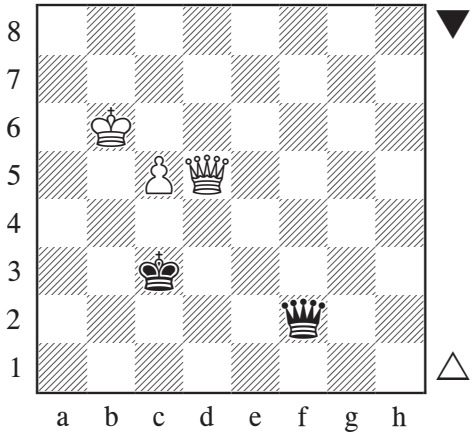
Draw whoever is to move

Try to outline the drawing method with Black to move.

Recommended time: 10 minutes

Silas Esben Lund 2016

(Q-6)



White wins whoever is to move

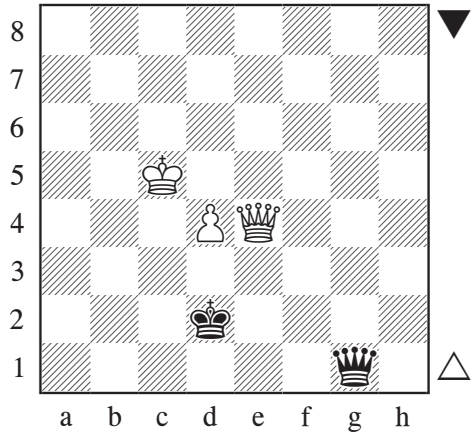
Give a few lines and try to explain why it is a win.

One important question is why this is lost for Black, whereas the previous position (Q-5) was a draw – try to explain what the difference is between a pawn on c4 and c5.

Recommended time: 10 minutes

Silas Esben Lund 2016

(Q-7)



White wins whoever is to move
Compare this position with the pawn on c4 (Q-5) and try to show why Q-7 is a win because of the extra a-file.
Recommended time: 10 minutes

3.5.2 General advice on the endgame

The following five themes are the most important when dealing with queen endgames:

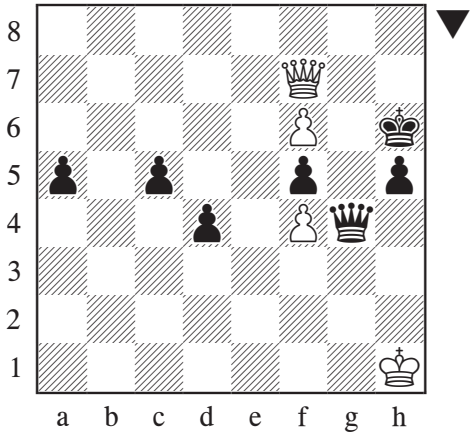
1. The more advanced passed pawn often outweighs a pawn count
2. The counter-check that forces a queen exchange
3. Centralizing the queen
4. The queen cannot mate on her own!
5. **Fundamental queen vs. queen and pawn endings**

I shall briefly touch upon the first four subjects. In the end, however, it is the knowledge of the fundamental positions with queen and pawn versus queen that will be the main subject of this chapter.

In queen endgames, it is often more important to have the more advanced passed pawn. The following game fragment is a case in point:

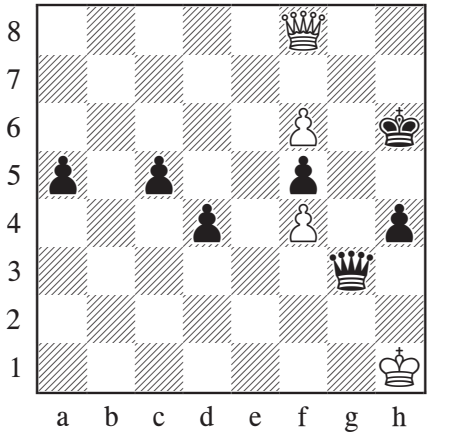
Yuriy Kryvoruchko – Stanislav Bogdanovich

Lviv 2014



Position after **57.♔h1**. Despite his material advantage, Black is unable to win because of White's far-advanced pawn on f6. It is only two steps away from promotion, and it also helps create mating threats on g7.

57...♕h3† 58.♔g1 ♕g3† 59.♔h1 h4!? 60.♕f8†

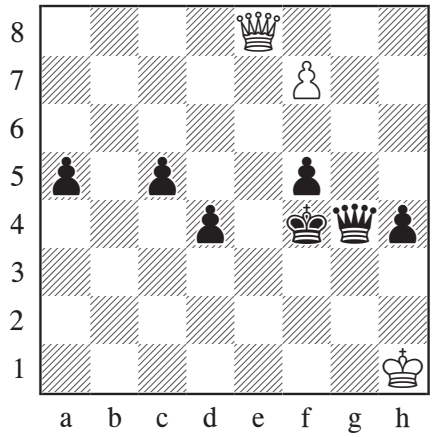


60...♔h5?

Black is playing with fire. He advances his king, hoping to create mating threats against the white monarch. If White manages to promote to a queen, Black is relying on the possibility of a perpetual check. However, the position is a win for White if played correctly.

60...♔h7=

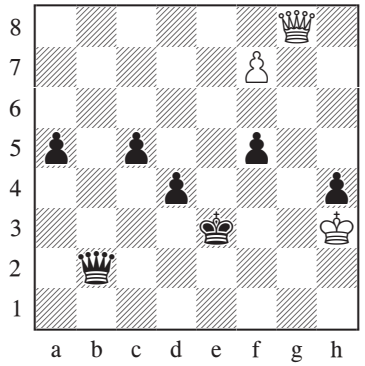
61.♕e8†! ♔g4 62.♕e2†! ♔xf4 63.f7 ♕g7 64.♕e8 ♕g4



65.f8=♕?

White contents himself with a draw.

65.♕b8†! ♔e3 66.♕g8 Now White has an counter-check on g1 that avoids the perpetual: 66...♕e4† 67.♔g1! ♕b1† 68.♔h2 Black is running short of checks. 68...♕b2† 69.♔h3



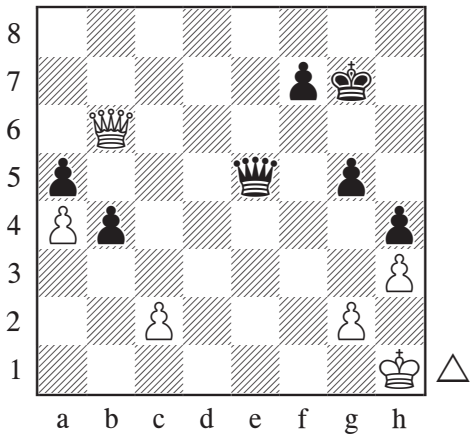
69...♕b1 70.♕g5† f4 71.♕e5† ♔f3 72.♕d5† ♔e3 73.f8=♕ ♕f1† 74.♕g2+– The endgame with queen versus lots of pawns is easily won for White as none of the pawns are dangerously close to the promotion square.

65...♕f3† 66.♔g1 ♕g3† 67.♔f1 ♕f3† 68.♔e1 ♕c3† 69.♔f1 ♕f3† 70.♔e1
½–½

The next game sheds some light on the other important points in connection with queen endgames.

Ruben Felgaer – Salvador Alonso

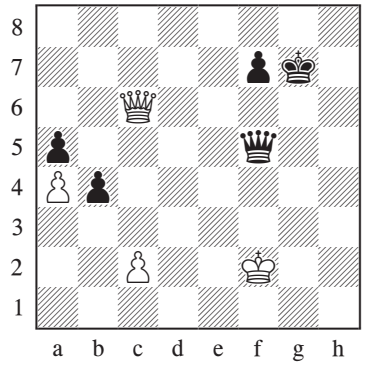
Praia da Pipa 2014



Position after **47...♔g7**. White to move.

48.♕b5!?

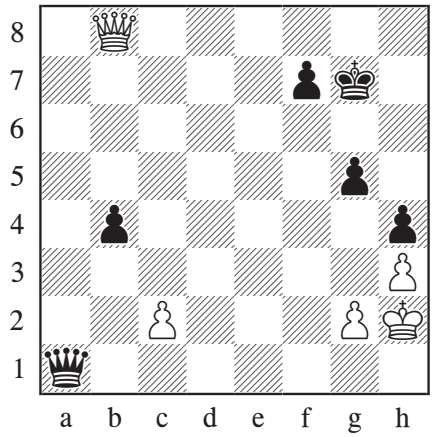
48.♕c6? covers both c2 and a4, but the move is too passive as the following lines show: 48...♕e1† 49.♔h2 ♕g3† 50.♔h1 g4! 51.hxg4 h3 52.gxh3 (52.♕e4 ♕xg2† 53.♕xg2 hxg2† 54.♔xg2 ♔f6 55.♔f3 ♔e5 56.♔e3 ♔d5 57.♔d3 f6–+ zugzwang) 52...♕xh3† 53.♔g1 ♕xg4† 54.♔f2 ♕f5†–+



Black exchanges queens on either e6 or g6.

Back to the position after **48.♕b5!?**:

48...♕xb5 49.axb5 a4 50.b6 a3 51.b7 a2 52.b8=♕ a1=♕† 53.♔h2



After a short transformation, we have once again obtained a queen endgame. This position is of a more positional nature, where Black needs to find a plan and set priorities. Later he needs to find the right moment to **Change Gear** or show **Transform-willingness**.

53...♕d4!

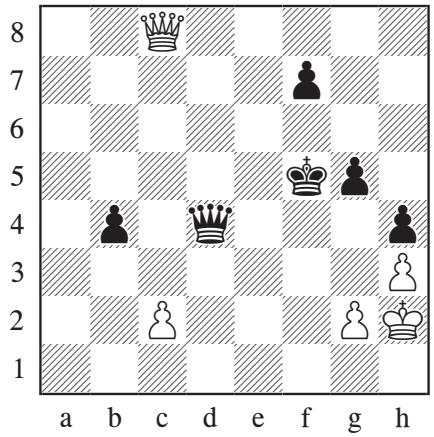
Centralizing the queen. From d4, the queen covers most of the board. The queen also keeps the white king in the corner and constantly threatens the counter-check on f4, forcing an exchange of queens.

54.♕b7 ♔f6

The black king prepares a march towards the queenside – the pawn on c2 is a point to attack. With a centralized queen on d4 and most of his own weaknesses covered, this is the next logical step for Black to improve his position.

55.♕c6† ♔f5 56.♕c8†

Playing a waiting game with 56.♔h1!? was more resilient, and Black would still have to find a path for his king to the queenside.

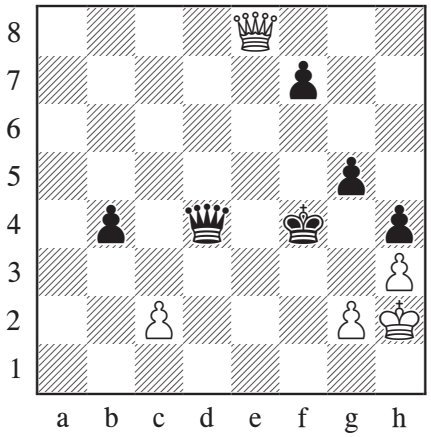


56...♔f4

Black misses an opportunity to shift gear and approach the queenside. The tactics are on his side after: 56...♔e4! 57.♕g4† ♔e3 58.♕xg5† (58.♕f3† ♔d2–+) 58...♕f4† Here it is – the counter-check that forces the exchange of queens. 59.♕xf4† ♔xf4 60.♔g1 ♔g3 The pawn ending is easily won: once the f-pawn arrives at f3, the h3-pawn will drop as well. 61.♔f1 f5 62.♔g1 f4 63.♔f1 f3 64.gxf3 ♔xf3–+

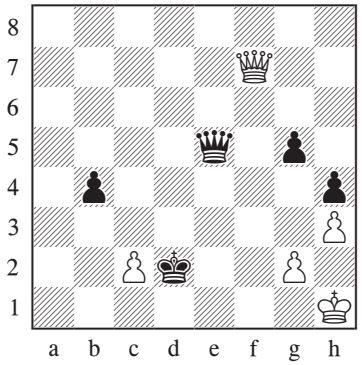
57.♕e8

Cutting off the black king's access to the e-file.



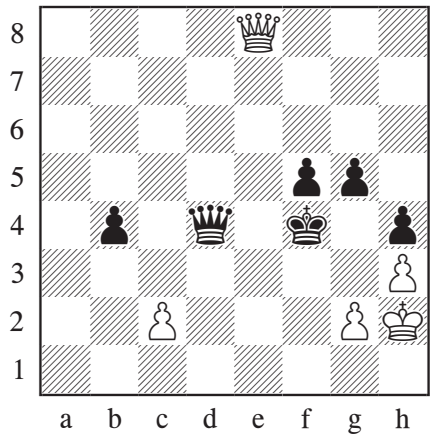
57...f5

Black had a chance to change the nature of the position with: 57...♕e5! 58.♕xf7† ♔e3† 59.♔h1 ♔d2–+



The pawn on f7 was less important. Instead, Black has gained access to the c2-pawn, and his queen is still nicely centralized on e5, where it controls most of the board.

Back to the position after 57...f5:



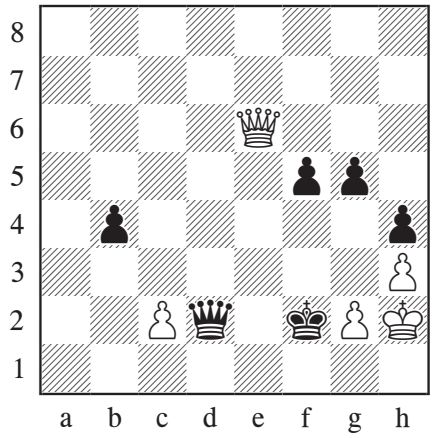
58.♕e1 ♕c3 59.♕c1†

59.♕e7! eyeing b4, was slightly annoying for White.

59...♕e3 60.♕b1?

On b1, the queen is far off. 60.♕f1† offered more resistance.

60...♕d2 61.♕f1† ♔e4 62.♕c4† ♔e3 63.♕e6† ♔f2



64.♕b6†

64.♕xf5† ♕f4† The counter-check again leads to a won pawn ending for Black.

64...♕e3!

White resigned. Black offers the b4-pawn in return for a mating attack:

65.♕xb4 ♕g3† 66.♔h1 ♕xg2 mate.

65.♕c6 ♕f4† 66.♔h1 ♕c1† 67.♔h2 ♕g1 is also mate.

0–1

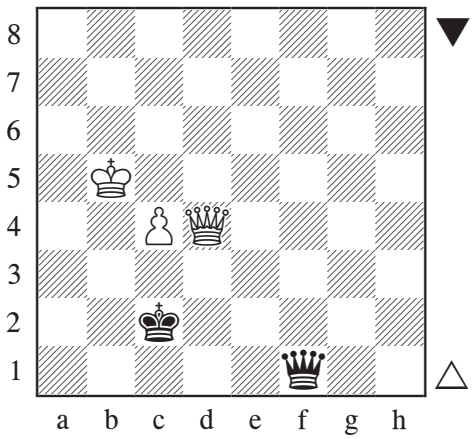
We now turn our attention to the fundamental endgames with queen and pawn versus queen.

3.5.3 Drawing zones and the Nunn priority

We start out with a position that has shown itself to be one of the most important queen vs. queen + pawn endgames in connection with the exercises.

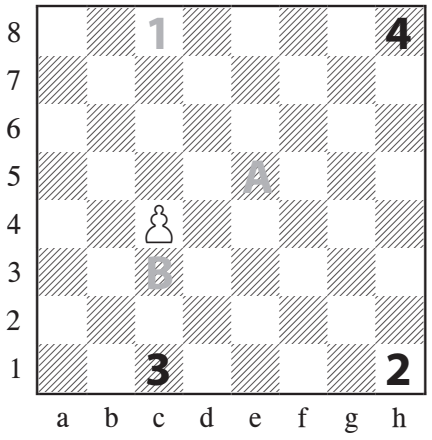
Silas Esben Lund 2016

(Q-5)



Draw whoever is to move. This is one of the pre-chapter exercises, and I will show the solution later on. Prior to this treatment, all positions with a bishop's pawn have been considered a win by established endgame theory if the defending king is not able to get in front of the pawn. This is clearly not the case here, but the position is drawn just the same.

But before we get there, it is essential to delve deeper into the drawing zones of the defending king, depending on the pawn remaining on the board. The case with the c4-pawn is used as a case in point – the numbers indicate the position of the defending (black) king. I shall use Nunn's terminology, but as will become clear later, the letter 'B' constitutes a special case.



The numbers 1-4 indicate Nunn's priority of Black's chances to draw this endgame. The number 1 above (in front of the pawn) is usually the best place for the defending king, a fact that most chess players would agree with intuitively. The explanation of A and B shall follow shortly.

The difference in the colouring of the numbers is as follows: **grey** colour means that the position of Black's king here is sufficient for a draw, and **black** colour means that the position of Black's king loses with correct play.

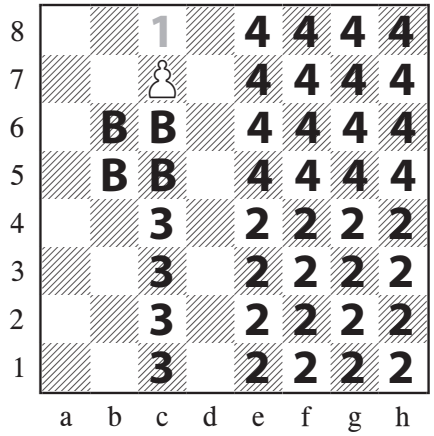
1) The black king **in front of** the pawn usually leads to a draw and is therefore the least interesting case. Therefore, the number 1 shall always be grey-coloured, with the treatment of all pawns.
2) **Diagonally opposite** the pawn (the lower right-hand corner) is not sufficient for Black against a c4-pawn.
3) **The file behind** the pawn is not a drawing option for Black either against a c4-pawn. Please note the difference from B, which is the area *just* behind the pawn.
4) **Horizontally opposite** the pawn (the top right-hand corner) is not sufficient for Black either against a c4-pawn.

We now turn our attention to the letters A and B:

A) The Proximity zone is when the black king is **close to** the pawn. The exchange of queens is therefore a defensive option in some cases, as are the threat of perpetual check as the likelihood for the attacker of a successful interposing queen check has been reduced. However, since the Proximity zone is highly dependent on the special circumstances of each position, I shall grey-colour the letter A throughout when we look at road maps.

B) The area **just behind the pawn** is the most under-investigated area in the theory of these endgames. Therefore, this is the main subject of the remaining part of this introduction. The existing endgame theory considers the positions with a c-pawn to be won for White in any case. As it turns out, the 'B' is the exception – and this is why it is grey-coloured in the position above with a pawn on c4.

The usual way of describing the board is to divide it into four quadrants. Below I will use the c7-pawn as an example. Apart from 1 and A that are always grey-coloured (A is not shown below), the remaining four (2, 3, 4 and B) denote an area as the following diagram shows:



The roadmap for the c7-pawn shows that Black only draws if his king is in front of the pawn.

The quadrant where the pawn is located (*the top left-hand corner*) contains a bunch of unmarked squares. The reason is the special circumstances, where the placement of the kings and queens will determine the proximity zone.

The same goes for *the lower left-hand corner*, this is the quadrant behind the pawn (apart from the 4-square B-area). I have only marked the number 3 on the c-file, and the reason is the following: If the black king is forced onto the b- or d-file, White will be able to deliver an counter-check due to the unfortunate placement of the black king.

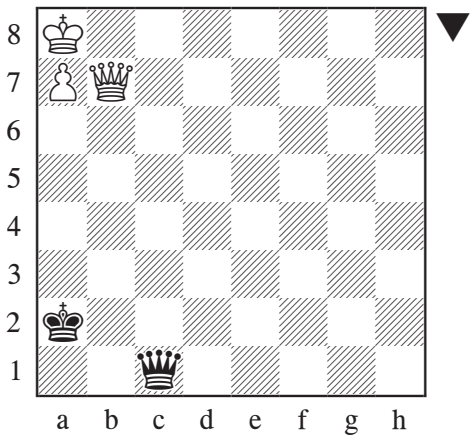
This is basically what separates the B-area from the 3-area: if the black king is located in the B-area, he is able to prevent a queen check by White (on c6, for instance), that forces the black king onto the b- or d-file.

So, why is the B-area black-coloured with the pawn on c7 compared to c4? It turns out that White has a neat tactical trick with the pawn because it is one move from promotion. More of that later – before we get ahead of ourselves, let us start our investigation with a rook's pawn and then move towards the centre of the board.

3.5.4 A rook's pawn

Silas Esben Lund 2016

(Q-1)



Black to move. Only one move draws.

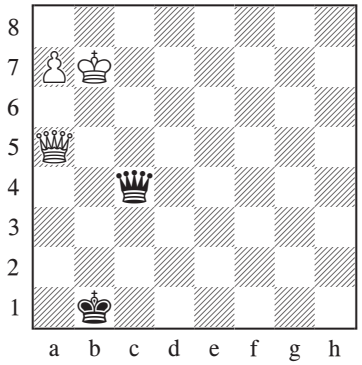
I have deliberately placed the king on a8 to reduce the probability that a specific tactic influences the position of the black king.

1...♕c5!

Curiously enough, this queen move is the only one that draws. The point is to occupy the space behind the pawn and at the same time be ready to give checks to the white king when it leaves the corner.

Let us try to make a similar queen move for comparison:
1...♕c4? 2.♕g2† ♔a1 3.♕g1† ♔a2 4.♕f2† ♔a1

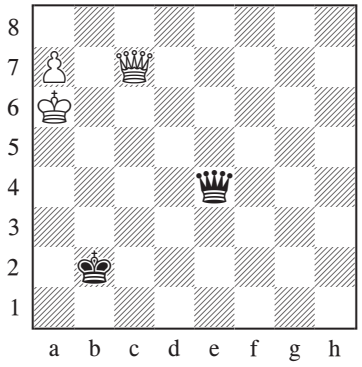
If the black king moves up the a-file, other problems will arise – as a later line will show.
5.♕e1† ♔a2 6.♕a5† ♔b1 7.♔b7



Compare this position with the later one with the white queen on a4.

With the queen on a5, White is able to use the queen as a shield against the checks – with the big point being the interposing check on b5 or b6 that exchanges queens.
7...♕e4† 8.♔a6

No more checks.
8...♔b2 9.♕c7



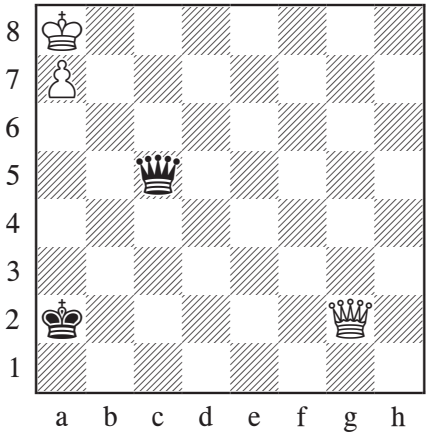
White's idea is simple: to land a check that helps promote his pawn.
9...♔a3

9...♕d3† 10.♔b7 ♕e4† 11.♕c6 ♕e7† 12.♔b6 ♕e3† 13.♕c5 ♕e6† 14.♔a5 ♕a2† 15.♔b5+–

Black has run out of checks.
10.♕g3† ♔b2 11.♕g7†+–

2.♕g2†

With this move, White wishes to check his way to the a-file and thus force the black king onto the b-file.



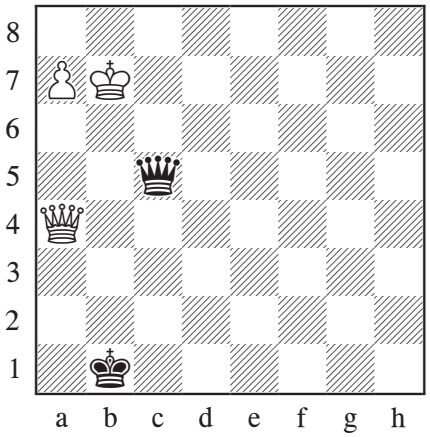
2...♔a1 3.♕f1† ♔a2 4.♕e2†

4.♕a6† ♔b1 5.♔b7 Here Black draws comfortably with: 5...♕e7†=. Instead White is aiming for the a4-square with his queen.

4...♔a1

Black simply stays on a1 and a2.

5.♕d1† ♔a2 6.♕a4† ♔b1 7.♔b7

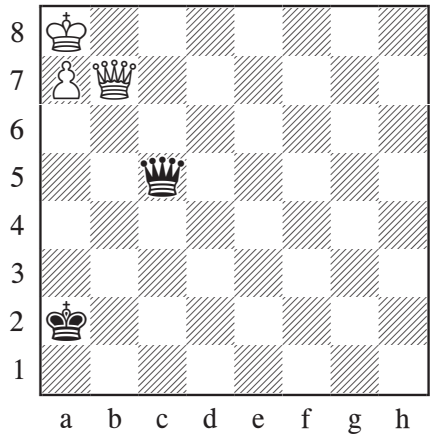


As it turns out, the position with the queen on a4 is not dangerous for Black. White is not able to set up a position with the queen around the king – with the aim of an interposing check on b5.

7...♕e7† 8.♔b6 ♕d8†! 9.♔c5 ♕e7†=

White will not be able to get his queen to c6 and stop the annoying checks. The game is drawn.

Let us go back to the position after Black's first move **1...♕c5!** and see what happens if White makes a waiting move:



2.♕d7

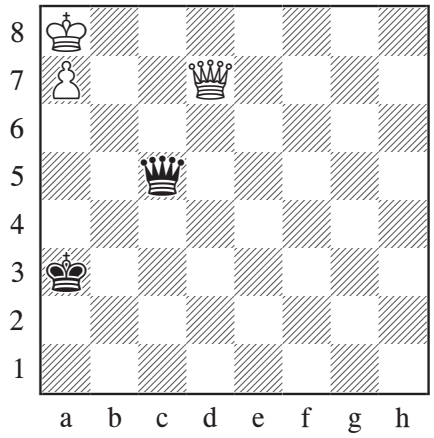
Three points to be made:

1) The easiest way to make a draw now for Black is 2...♕b6 3.♕b7 ♕c5=.

2) As will soon be clear, the black king should stay on either a1 or a2. Therefore 2...♔a1= is also a good move.

3) My point with White's waiting move is to see what happens if Black moves his king up the a-file. This is our main line now:

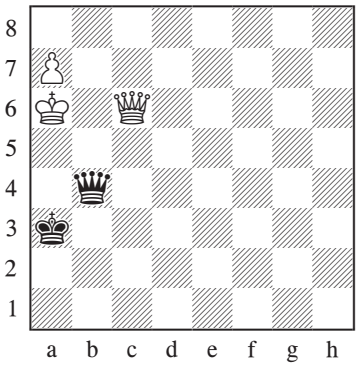
2...♔a3?



This square is unfortunate for two reasons:

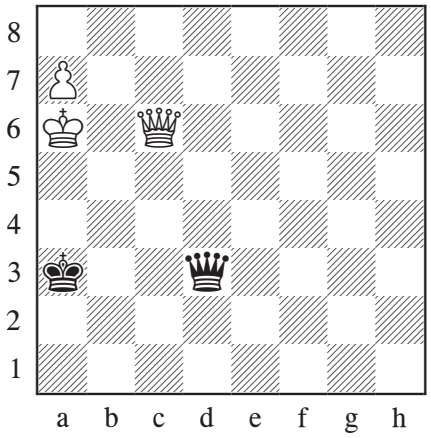
1) The black queen needs this square to keep checking the white king
2) The black king is vulnerable on a3 due to interposing checks that exchange queens.

3.♔b7 ♕b4† 4.♔a6 ♕c4† 5.♔b6 ♕b4† 6.♕b5 ♕d6† 7.♕c6 ♕d8†
Alternatively: 7...♕b4† 8.♔a6+–



No more checks. Had the black king been on a2, the a3-square would have been available to the black queen – and the position would have been a theoretical draw. This corresponds with our first point why a3 is a bad square for the king.

8.♔a6 ♕d3†



The black queen is forced further and further away from the white king in the search for available checks.

9.♔b7 ♕b3†
Another option is: 9...♕h7† 10.♔b6 ♕b1† 11.♔c7 ♕h7† 12.♕d7 ♕c2† (12...♕h2† 13.♕d6† The second sign that the black king is not well placed on a3: White gives an interposing check that exchanges queens.) 13.♔d8+– No more checks. White will find a way to check the black king and help the pawn promote.

10.♔c7 ♕f7†
10...♕g3† 11.♕d6†+– Again the interposing check that exchanges queens.

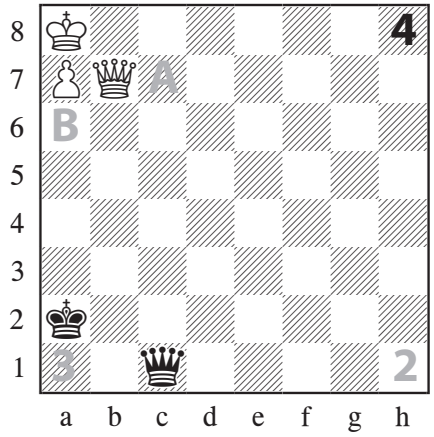
11.♔b6 ♕b3†
11...♕f2† 12.♕c5†+–

12.♔a5! ♕b4† 13.♔a6+–
And once again we see that the black king occupies a square that is needed for the queen.

My conclusion is therefore that the squares a1 and a2 are safe for the black king in any case.

Nunn's conclusion is that a rook's pawn needs to be advanced at least as far as the 6th rank in order to have decent winning chances. I have treated an example with a pawn on the 7th rank as a worst case – lowering the board one or more ranks only enhances Black's drawing chances, and the basic roadmap does not change.

The roadmap for this position with a pawn on a7 looks like this:

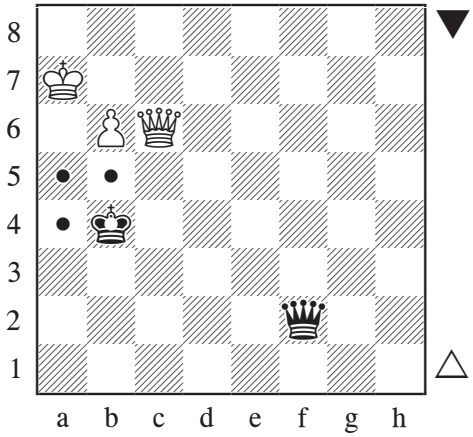


If Black defends precisely, he should be able to draw the game in any of the 6 zones – except the upper right-hand corner (4) which is usually the worst case for the black king to be in.

3.5.5 A knight's pawn

Silas Esben Lund 2016

(Q-2)



Draw whoever is to move

This position shows an important drawing method. The black queen pins the pawn on the diagonal and the king occupies the space right behind the pawn – more specifically one of the squares b4, b5, a4 or a5 (marked with dots). If the white king moves out of the pin, then the black queen starts to check.

The black king cannot be driven away from this space behind the b6-pawn. If White could get his queen to b5 (if Black mistakenly plays his king to b3), the position would be a theoretical win for White: Suddenly the black king can find no shelter behind the pawn and is forced to leave the b-file. In this case it would be exposed, and White would be able to use its position to eventually promote his pawn.

Notice the specific feature of the b-pawn: White can check the king and force it away from the b-file and onto the a-file (a4 or a5). However, this is no disaster for Black since there is no additional space to the left due to the board size. It is White who benefits from the extra space on the short side in the case of a bishop's and a central pawn – similar positions with a pawn on c6 or d6 would be a win for White, as later examples will show.

Black to move has all three squares g1, e3 and d4 as possible waiting moves for his queen.

1...♕g1=

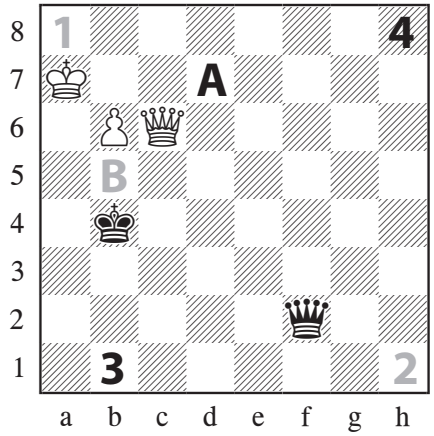
With the pawn two moves away from promotion, no additional tricks are available.

1...♕e3= or 1...♕d4= also draw.

2.♕e4† ♔b5 3.♕e5† ♔b4 4.♕b2† ♔a5 5.♕a3† ♔b5 6.♕b3† ♔a5=

The black king simply stays behind the white b6-pawn. White has no way to force it away.

The roadmap of the position with the pawn on b6 looks like this:



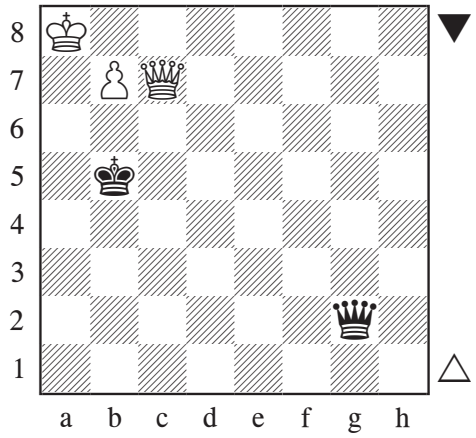
Black has far more troubles defending against a b6-pawn compared to an a7-pawn. The lower right-hand corner (2) is a usual refuge, but beside that, only the area just behind the pawn (B) is an option. It is noteworthy that the proximity zone (A) generally does not offer good chances of survival here.

The fact that the actual position on the board does not allow the black king to set foot on certain squares on the board (b5, a8, h1) does not change the fact that a b6-pawn allows this under normal circumstances.

With the pawn on b7, this drawing methods has limitations:

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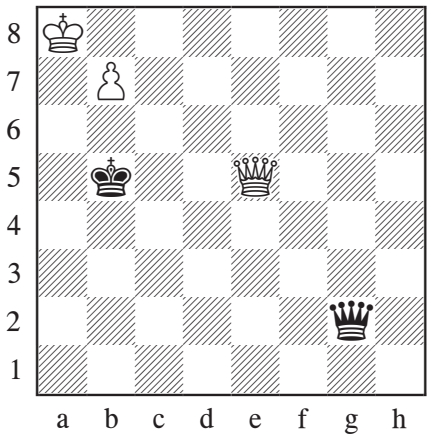
(Q-3)



White to move wins. Black to move draws

With the pawn only one move away from promotion, additional tactics are in the air and Black has to be alert. White to move wins because of the position on Black's queen on g2. Black should stay clear of the squares g2 and h1, as will soon become clear.

1.♕e5†!



1...♔b4

The black king has to move backward. Other options are:

1) 1...♔a6 2.♕a1† ♔b6 (2...♔b5 is no better) 3.♕b2†!+– White promotes and wins the queen back with a skewer. This trick is the cause of Black's defeat in the position.

2) 1...♔b6 2.♕b2†!+–

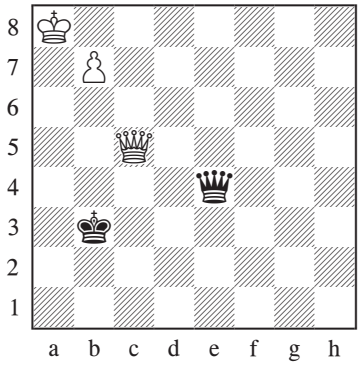
3) 1...♔c4

After a move like this, White has several ways to win. To make my point clear I shall show a line where White conquers the space behind the pawn:

2.♕a1 ♕f3 3.♕b2 ♕e4 4.♕c1†! ♔b3

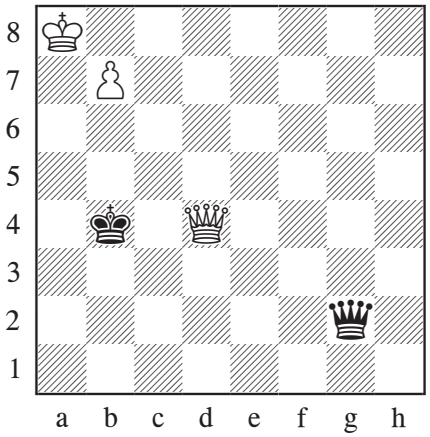
4...♔b4 5.♕b1†!+–

5.♕c5+–



A possible winning line is:
5...♕a4† 6.♔b8 ♕e8† 7.♔c7 ♕f7† 8.♔c6 ♕f6† 9.♕d6! ♕c3†
9...♕f3† is answered with a counter check: 10.♕d5†+–
10.♔b5! ♕c4† 11.♔b6+–
No more checks.

2.♕d4†!



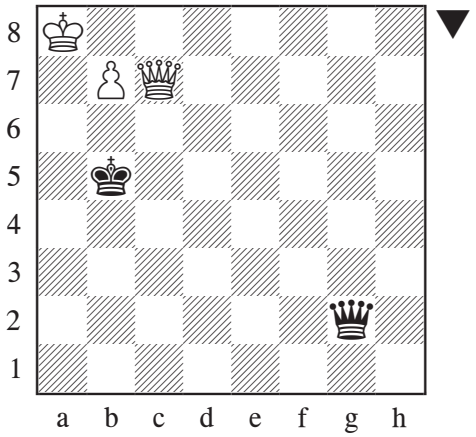
2...♔a5
2...♔b5 3.♕b2†!+–

3.♔a7+–
This now wins instantly as the centralized white queen covers both the g1-a7 diagonal and the g7-square.

An additional winning line is:
3.♕a1† ♔b4
Necessary to avoid the queen sacrifice.
4.♕a6
White occupies the space behind his pawn.
4...♔c5 5.♕a5†+–
And the black king will have to leave the area behind the b7-pawn.

White still has to show some accuracy when he takes his king out of the corner to promote the pawn, but the win is there.

Let us go back to the starting position and see what happens if Black is to move:



1) We notice that Black can draw immediately with a series of checks to the white king:

1...♕a2† 2.♔b8 ♕g8† 3.♕c8 ♕g3†=

And so on. The black king is very helpful here as it prevents the white king from escaping via the b6-square. Once the king is out of the corner, White can hope for counter-checks that exchange queens.

2) Let's see what happens if Black makes a waiting move on the diagonal:

1...♕f3 2.♕e5† ♔b6 3.♕b2† ♔a6 4.♕a2† ♔b5!

Not 4...♔b6?? 5.♕b3†!+–

5.♕b3†!? ♕xb3 6.b8=♕† ♔c4=

3) **1...♕e4=** is also good enough for a draw.

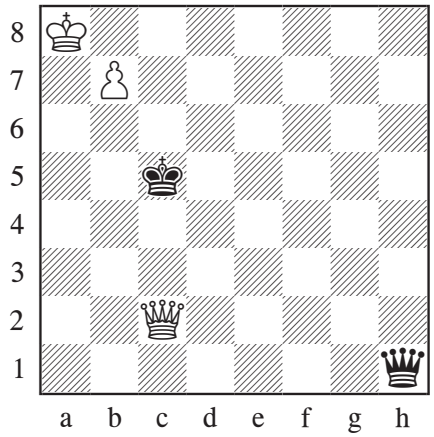
4) **1...♕d5=** is likewise good enough for a draw

5) Let's see what happens if Black mistakenly makes the waiting move:

1...♕h1? 2.♕e5† ♔b6 3.♕b2† ♔c5

3...♔a5 loses directly to: 4.♕a2† ♔b4 5.♕b1†!+–

4.♕c2†!



The black king is forced towards the centre of the board.

4...♔d4

4...♔d6 5.♕h2†!+– is another variation on the theme.

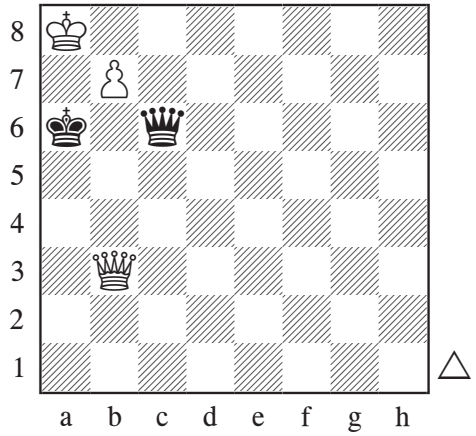
With the black king in the middle of the board, it is no surprise that White wins easily:

5.♔a7 ♕a1† 6.♔b6+–

One study that I came across has many of the same points:

Louis van Vliet 1888

(Averbakh 170)



White plays **1.♕b4!** and Black finds himself in zugzwang: the king cannot move, and if the queen moves down the a8-h1 diagonal, the distant check behind the king followed by pawn promotion will decide the game.

Here are the main lines of the study:

1...♕h1!
1...♕d5 2.♕a4† ♔b6 3.♕b3† ♕xb3 4.b8=♕†+–

1...♕f3 2.♕a4† ♔b6 3.♕b3† ♕xb3 4.b8=♕†+–

1...♕g2 2.♕a3† ♔b5 3.♕b2† ♕xb2 4.b8=♕†+–

2.♕a3† ♔b6
2...♔b5 3.♕b2† ♔c4 (3...♔a4 4.♕a2† ♔b4 5.♕b1† ♕xb1 6.b8=♕†+–) 4.♔a7 ♕g1† 5.♔a6 ♕g6† 6.♕b6+–

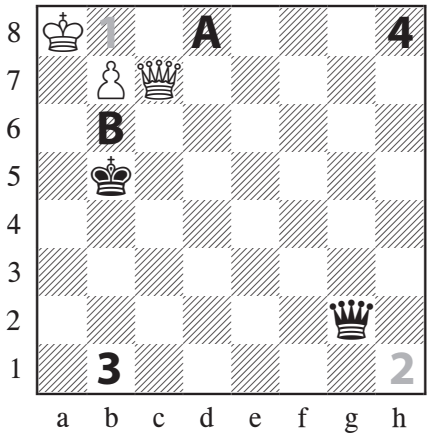
3.♕b2† ♔a6
3...♔c7 4.♕h2† ♕xh2 5.b8=♕†+–

3...♔c5 4.♔a7 ♕h7 5.♕b6† ♔c4 6.♔a6+–

4.♕a2† ♔b5 5.♕b1† ♕xb1 6.b8=♕†
1–0

I can add that if Black had the first move, then **1...♔a5!** would secure the draw. Black stays in the area just behind the pawn (a5, a6, b5 and b6) and does not succumb to zugzwang.

The roadmap with the pawn on b7 looks like this:



The conclusion here is simple: if the black king cannot get in front of the pawn (1) he will have to seek refuge in the lower right-hand corner (2).

Nunn gives two points as to why a knight's pawn gives reduced drawing chances compared to a rook's pawn:

1) The a-file provides additional shelter for the white king.

2) The proximity zone is reduced since a queen exchange is often not a resource for the defending side, since a knight's pawn wins in many instances (in the case of a rook's pawn, it is possible to stalemate the white king in the corner).

I would like to add another point: as we move the pawn closer to the centre of the board in our analysis, the probability that the defending king is able to cover the area just behind the pawn is reduced. As we move on to a bishop's pawn, this point will become clear.

3.5.6 A bishop's pawn

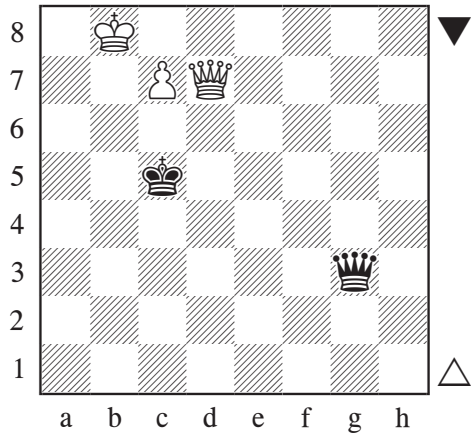
With a bishop's pawn, the story is different from the two cases just examined (pawns on b6 and b7). A major difference is that the black king cannot hide in the lower right-hand corner (diagonally opposite the pawn).

The reason for this is the extra file made available to the white king on the short side: if White has a passed c-pawn he can use both the a- and b-files for his king.

First we investigate if the drawing method above applies for a bishop's pawn as well. This might give some clues to what is going on in the position:

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(Q-4)



White to move wins. Black to move draws

Let us start with Black to move in the diagram:

1) First, we notice that Black can give perpetual check:

1...♕b3† 2.♔c8 ♕g8† 3.♕d8 ♕e6†=

2) Let us consider waiting moves on the diagonal:

1...♕f4 2.♔a7+–
And White promotes since a4 is protected.

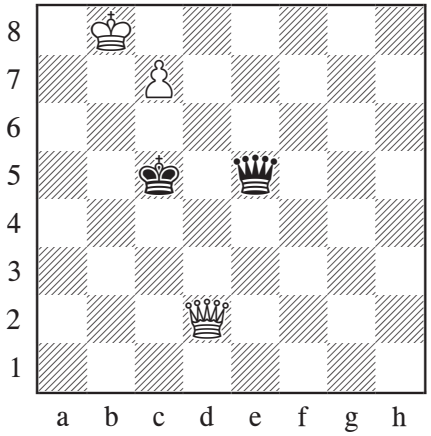
3) **1...♕h2**
This loses to the same method displayed with the b-pawn: White's queen gets behind the black king and uses the tactical motif connected with a pawn promotion:

2.♕f5† ♔b6 3.♕b1† ♔a5
3...♔c6 4.♕c2†!+–

4.♕b7+–
Black can do nothing to prevent the promotion after the white king moves to a8.

4) The best waiting move on the diagonal is:

1...♕e5 2.♕d2!



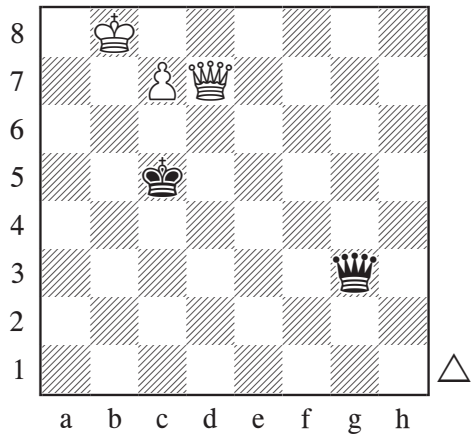
White goes behind enemy lines. On the way, he covers the b2-square to avoid annoying queen checks. His plan is to chase the black king away from the space just behind the pawn consisting of the four squares c5, c6, b5 and b6. This is done by transferring the queen to b7.

2...♔b5
2...♔b6 3.♕b4† ♔c6 4.♕c3†!+–

3.♕d3† ♔c5 4.♕b3!

See the winning line below, when White moves first in the starting position. The queen is transferred to b7.

The conclusion is that Black has no good waiting moves on the diagonal against a bishop's pawn on the 7th rank.



We return to the position at the beginning, but with White to move:

1.♕f5†

We use the same method as before: to get behind the enemy lines with gain of tempo.

1.♕a4!? is another way of getting the queen behind enemy lines. It is important that the b3-square is covered to avoid checks from the black queen. But why not do it with gain of tempo?

1...♔b6 2.♕b1† ♔c5 3.♕c2† ♔b6 4.♕b2† ♔c5

4...♔c6 5.♕c3†!+–

5.♕b7!

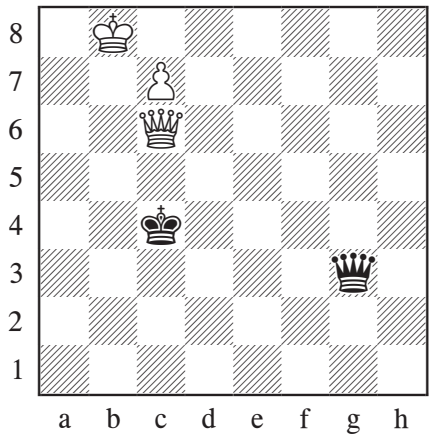
The threat of ♔a8 with a counter-check on a7 forces the black king to leave the space just behind the pawn.

5.♔b7 wins more quickly according to my engine, but I wish to show a human solution.

5...♔c4

5...♕f4 6.♔a8 ♕a4† 7.♕a7†+–

6.♕c6†



The king has to leave the c-file and the shelter behind the pawn. Out in the open, White can easily arrange a counter-check or promote the pawn:

1) 6...♔d4 7.♔b7 ♕g7 (7...♕b3† 8.♕b6†+–) 8.♔b6+–

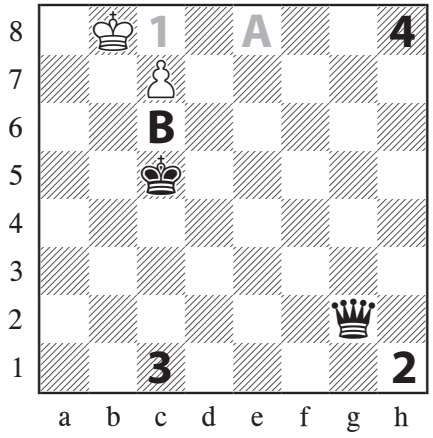
2) 6...♔d3 7.♔a8+–

3) 6...♔b4 7.♔a7 ♕a3† 8.♔b7+–

4) 6...♔b3 7.♔a8+–

Notice how White used the extra space on the a-file with both his king and queen. Thus, Black was unable to stay with his king in the zone just behind the pawn.

The roadmap with the pawn on c7 looks like this:

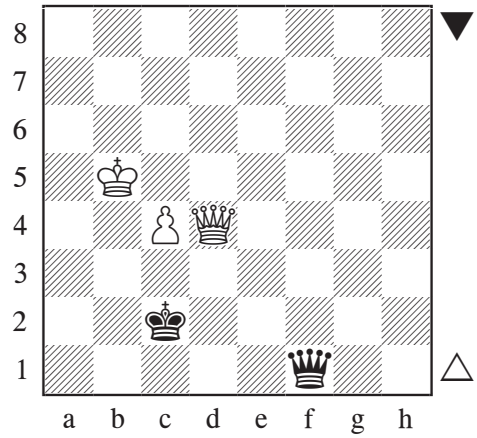


The conclusion here is simple: if the black king cannot get in front of the pawn (1) or get close to the pawn (the proximity zone – A), then the position is lost under normal circumstances.

We now move the c-pawn down the board:

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(Q-5)

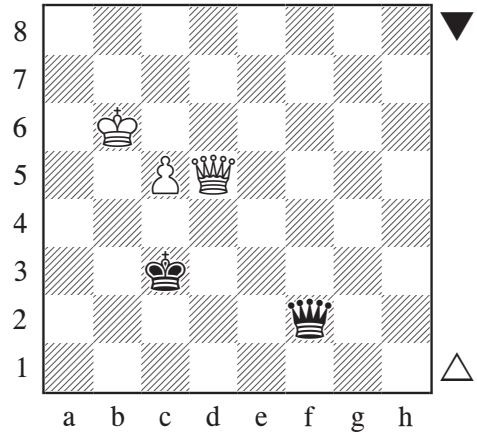


Draw whoever is to move

(a roadmap to this position can be found earlier in this chapter)

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(Q-6)



White wins whoever is to move

The only significant difference between the two diagrams is the position of the c-pawn: on c4 it is a draw, on c5 we have a win for White – no matter who is to move in both diagrams.

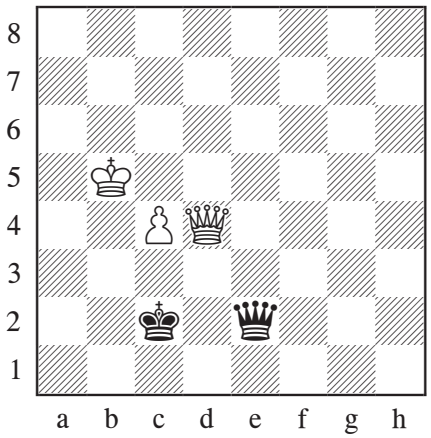
Let's take a closer look at the first diagram (pawn on c4) to understand the difference made by the pawn position. Black has several moves that lead to a draw, but basically he has two ways of defending:

1) Stay on the diagonal f1-a6 and wait for White to undertake something – then react accordingly.

2) Start active defence with queen checks – he needs to get in front of the white king with checks on b7. In the process, he will have to prevent White's queen from reaching g6 or g7 with check.

Let us consider the waiting strategy:

1) **1...♕e2**



White has several ways to try to get his pawn forward:

1a) **2.♔b4 ♕e1† 3.♔c5**
3.♔a4 ♕e2 4.c5 ♕a6†=

3...♕e2=
Simply waiting.

The active 3...♕e8!?= is also good enough since White is unable to push the pawn forward. This will be clear when we turn our attention to the active defence.

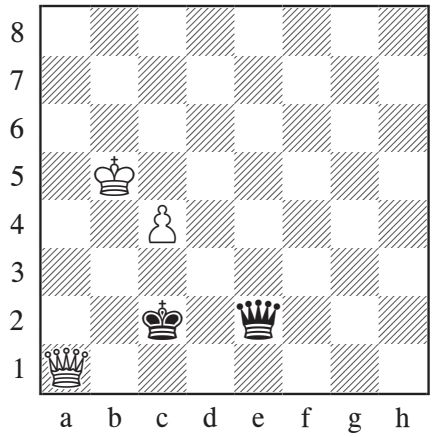
1b) Another option is:

2.♔c6 ♕e6† 3.♔c7 ♕f7†!
The easiest way: Black eyes the c4-pawn and avoids interposing queen moves.

4.♔b6 ♕e6† 5.♔a5
5.♔b5 ♕e2=

5...♕e1†=
Back to the base.

1c) **2.♕a1?!**



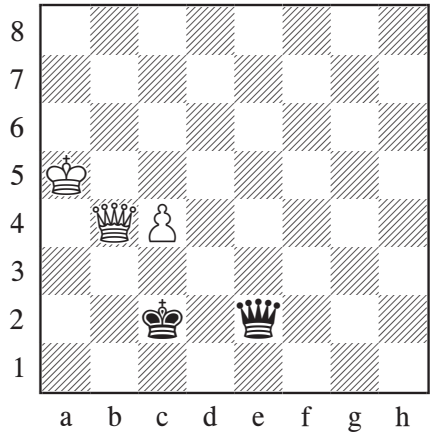
This is immediately answered with:

2...♕e8†=
Followed by an infinite number of queen checks.

1d) White can try to be clever with:

2.♕d6!?
The idea is to place the queen on b4 and the king on a5 – threatening to push the pawn forward.

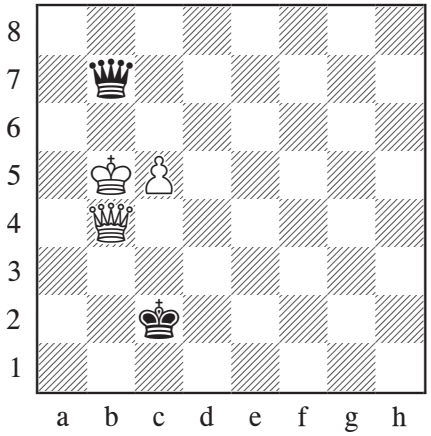
2...♔b3 3.♕b4† ♔c2 4.♔a5



Sadly for White, there is enough space in front of the c4-pawn for a successful counter-measure:

4...♕e4! 5.c5 ♕a8† 6.♔b5 ♕b7† 7.♔c4 ♕e4†=

The mate on b3 is *the* valid argument if White gets too adventurous after **6...♕b7†**:



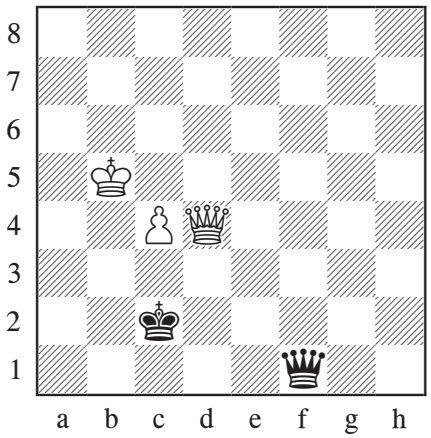
7.♔a4
Instead of 7.♔c4.

7...♕a6† 8.♕a5 ♕c4† 9.♔a3??
9.♕b4=

9...♕b3
Mate!

The reason this mate on b3 is *the* argument will become clear when we consider the similar case with a pawn on d4.

Back to the beginning:



2) **1...♔b3**

As we have seen in previous examples, the black king can safely stay in the area behind the pawn consisting of the squares c2, c3, b2 and b3. In this way, Black has no queen checks to fear. It is important not to let the white king enter this area behind the pawn.

Now we turn our attention to the active defence:

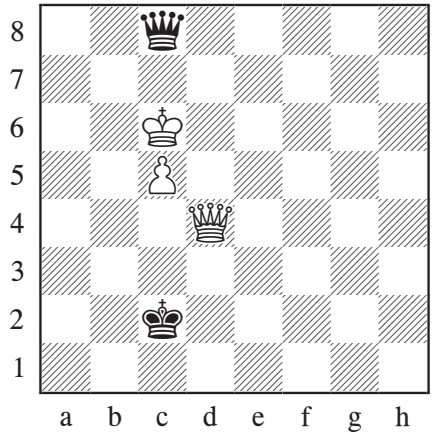
3) **1...♕b1† 2.♔c6 ♕b8 3.c5 ♕c8† 4.♔d5**

After this move, the perpetual is clear.

4...♕d7† 5.♔e5 ♕g7† 6.♔e4 ♕g4† 7.♔e3 ♕g1†=

And so on.

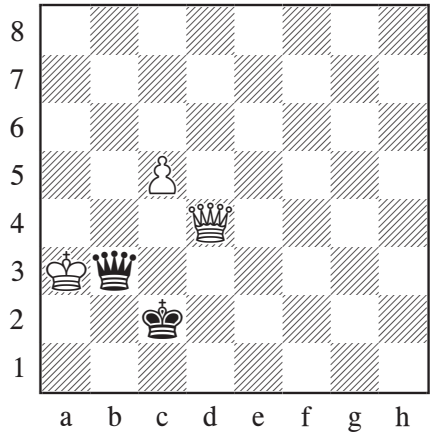
Another option for White on move 4 is:



4.♔b5 ♕b7† 5.♔a5 ♕a7† 6.♔b4 ♕b7†=

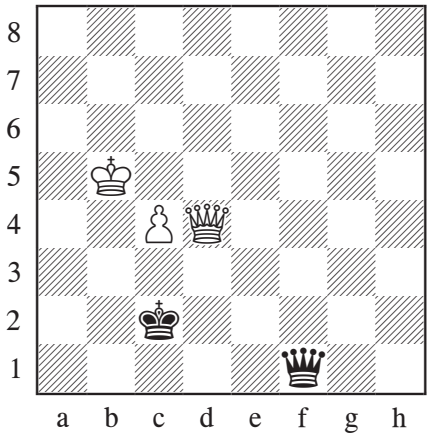
Once again, the crucial argument why White cannot escape the perpetual is the mate on b3:

7.♔a3?? ♕b3#



With an additional (a-) file, White can escape the perpetual check. This is basically why a central pawn on the 4th rank is a win. This will be clear from the later example (Q-7).

Again we return to the start of the position to consider other active options for Black:



4) **1...♕g2**

Black prepares the counterattack with the queen. There is no essential difference between this queen move and the next.

5) **1...♕f3 2.c5 ♕b7† 3.♔a5**

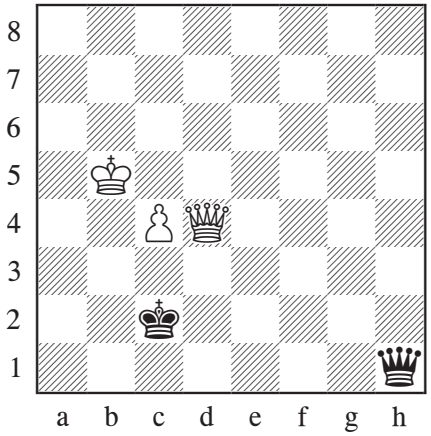
3.♔c4?? ♕b3 is mate.

3...♕a7† 4.♔b4 ♕b7†=

Again, White cannot avoid the perpetual check in view of:

5.♔a3?? ♕b3 mate.

6) One move that Black cannot play is: **1...♕h1?**



Black wishes to start the counterattack in front of the pawn and king, but compared to the squares g2 and f3, this move has a flaw as it allows White to get to g6 or g7 with gain of tempo – and in this case, White can handle the counterattack.

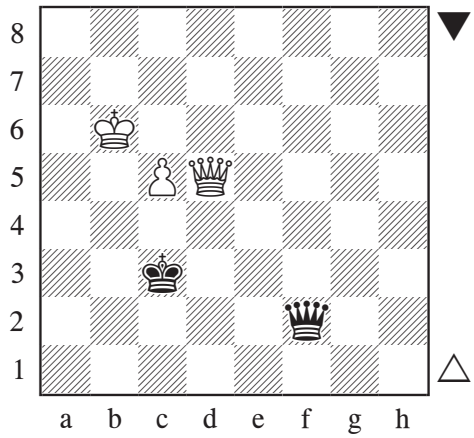
2.♕f2† ♔b3 3.♕g3†! ♔c2 4.♕g6† ♔c3

Or 4...♔b3 5.c5+–.

5.c5+–

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(Q-5)



This position is won for White whoever is to move. The black queen being on either e3 or g1 would not make any difference.

The difference in the position of the c-pawn is that with the pawn on c5, the counterattack with the black queen is not effective since Black lacks a rank for the queen checks. The decreased room in front of the c5-pawn compared to the c4-pawn benefits White.

The space behind the black king is not the decisive factor. Black can still stay in the desired area just behind the pawn (the squares b3, b4, c3 and c4). In the end, it is the space in front of the white king that is important.

1...♔b4!

The toughest defence. The black queen is best placed on f2! The reason is that it should be able to start counterattacking from f8. If the queen goes to g8 (after making a waiting move to g1), Black cannot place his king on the desirable c4-square because of the skewer on a2.

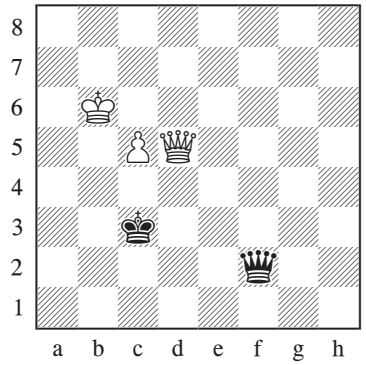
The main move follows a waiting strategy where the queen stays on f2.

Other waiting moves are inferior:

1) 1...♕g1 The simplest is to get the white queen behind the black king and then transfer it to b5, and play the king to a6. 2.♕a2+– The position after White's 6th move in the main continuation will show the point.

2) 1...♕e3 This move does not differ fundamentally from the previous one. White is on the winning path after 2.♕a2!+–.

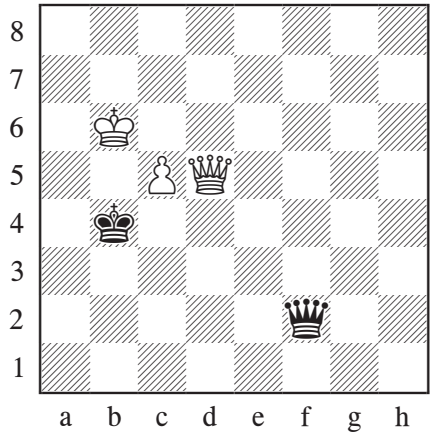
Let us consider active counterplay:



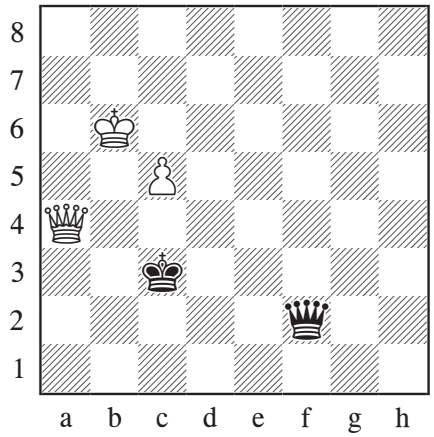
3) 1...♕f4 The counterattack in front of the king and pawn – Black threatens a check on b8. 2.♔b7 ♕b4† 3.♔c8 ♕g4† 4.♕d7 ♕g8† 5.♔b7 ♕b3† 6.♔c7+– Black will push the pawn next move.

4) 1...♕g3 Preparing the counterattack from another square. 2.♔a6 ♕b8 3.♕d6 ♕a8† 4.♔b6+– Black has run out of checks.

There is simply too little space for counterattacking in front of the king and pawn.



2.♕e4† ♔c3 3.♕a4

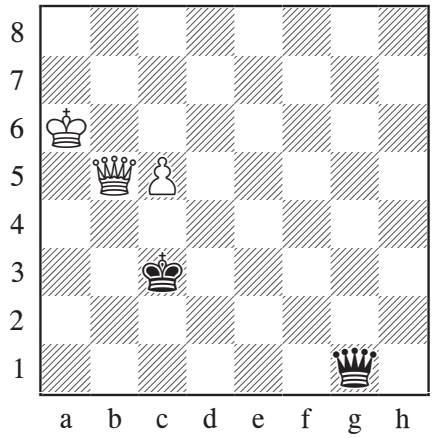


Here Black has two ways to try to defend: from either f2 or g1 he can initiate counterplay on the 8th rank (f8 or g8).

1) **3...♕g1**

After this waiting move, Black will have to place his queen on g8 when the counterattack starts. This square is slightly unfavourable, as we shall see.

4.♕a5† ♔c4 5.♕b5† ♔c3 6.♔a6

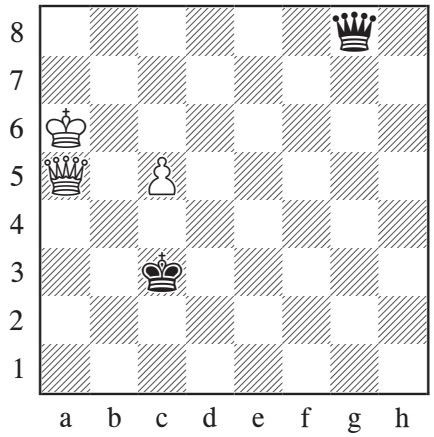


White will inevitably push his pawn next move – there is a counter-check on a5. Black can try a counterattack on a8 similar to the example with the pawn on c4:

6...♕g8

Now this leads to a draw if White pushes the pawn immediately. But White plays:

7.♕a5†!



Black will lose the battle for the area just behind the pawn as 7...♔c4? (the desired move for Black) fails to a skewer: 8.♕a2†+–

7...♔c2

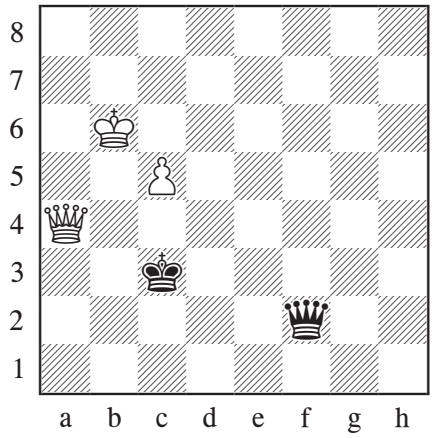
7...♔b3 8.c6 ♕a8† 9.♔b5 ♕b8† 10.♕b6+– Followed by a discovered check by the next king move.

8.c6 ♕a8† 9.♔b5 ♕b8† 10.♕b6 ♕e5† 11.♕c5†+–

A decisive counter-check.

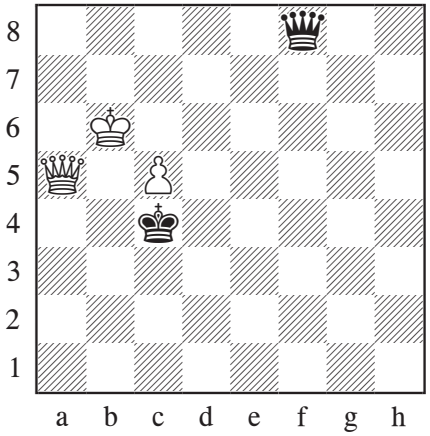
With the black king pushed away from the area just behind the pawn, the white king was allowed access to the 5th rank. It makes little difference if the black king is on the b- or c-file, as White wins with either a discovering king move or an interposing queen check (on c5).

2) In the second option, Black initiates counterplay right away – trying to use the fact that White's queen is on the edge of the board:



3...♕f8!? 4.♕a5† ♔c4

After 4...♔c2 5.c6 ♕b8† 6.♔a6 ♕a8† White is able to use the 5th rank for his king. Furthermore, White will have a counter-check on the c-file: 7.♔b5 ♕b8† 8.♕b6 ♕e5† 9.♕c5†+–



The black king occupies the desired square: it is close to the pawn, it is not on the b-file (White could interpose on b7 and give a discovered check with his king) and it prevents the white king from escaping via the 5th rank once the checks from the black queen begin.

However, White can wreck Black's hopes with his next move:

5.♕a6†!

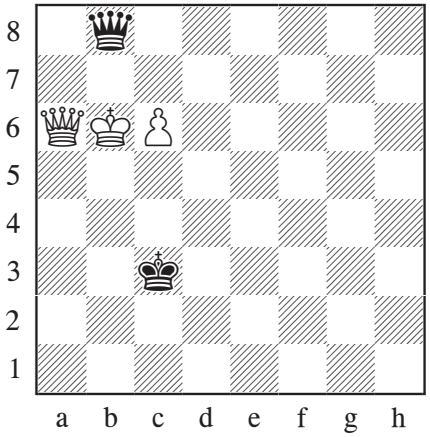
Now White is ready to interpose on the 7th rank.

5.♕b5† ♔c3 6.c6 ♕b8†= leads nowhere.

5...♔c3

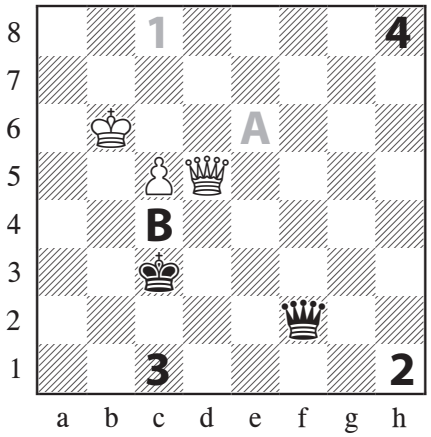
5...♔b3 and 5...♔b4 meet the same reply.

6.c6 ♕b8†



7.♕b7+–
Black's checks come to an end.

The roadmap with the pawn on c5 looks like this:



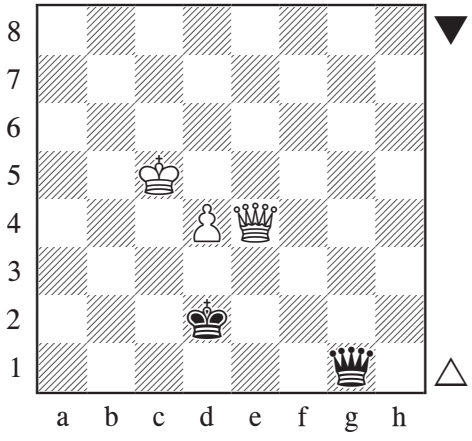
The conclusion here is simple: if the black king cannot get in front of the pawn (1) or close to the pawn (the proximity zone – A), then the position is lost under normal circumstances.
We drew the same conclusions with a pawn on c6 or c7.

3.5.7 A central pawn

For the sake of completeness, I would like to present the position with a d4-pawn. This position does not alter the conclusion already given by existing endgame theory about a central pawn, but it does add a clue to why such a position is indeed winning for White.

Silas Esben Lund 2016

(Q-7)

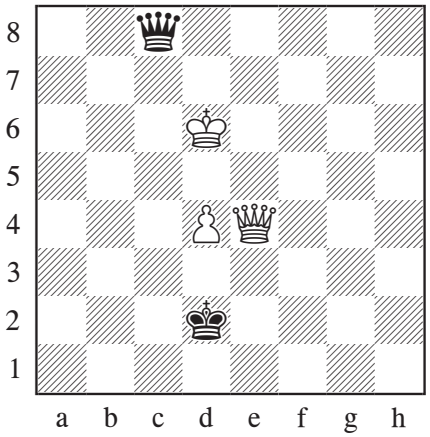


White wins whoever is to move. The reason is the extra a-file that allows the white king to escape perpetual check.

1...♕c1†

The counterattack beginning with 1...♕h2 2.d5 ♕c7† essentially leads to the same thing.

2.♔d6 ♕c8



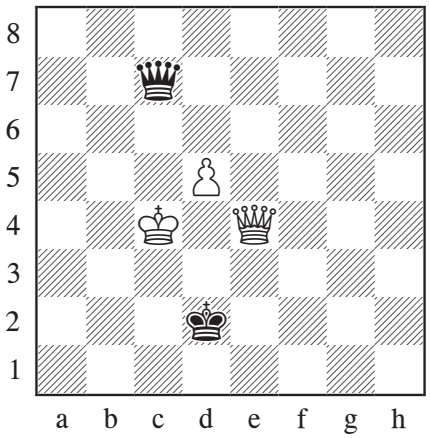
Because the pawn is only on the 4th rank, Black has plenty of room for his counterattack. However, with the extra a-file, White can escape the looming perpetual.

3.d5! ♕d8† 4.♔c6 ♕c8† 5.♔b5 ♕b7† 6.♔c4

The white king will escape the checks because there is no mate on b3 as was the case with a c4-pawn.

6...♕c7†

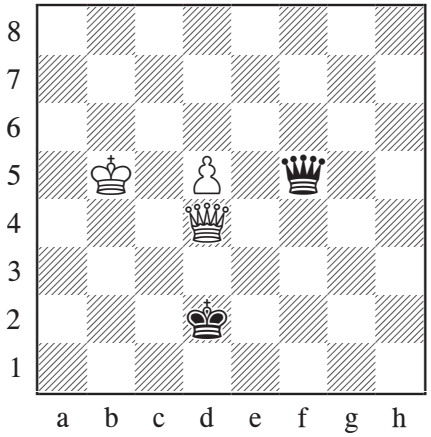
6...♕a6† 7.♔b3+– No more checks without allowing the queen exchange.



7.♔b3! ♕c3†
Now this is not mate!

8.♔a4 ♕a1† 9.♔b5 ♕f1† 10.♕c4
And at this point, Black has run out of checks.

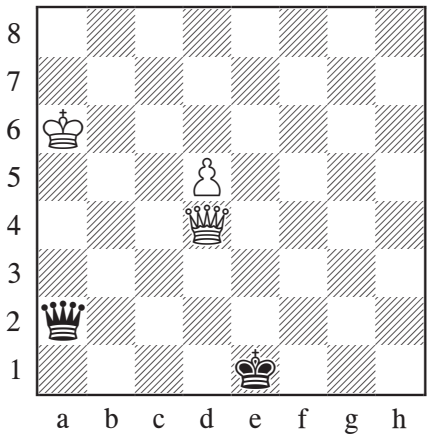
10...♕f5 11.♕d4†



The black king has nowhere to hide. Black will eventually run dry of queen checks, partly because of the vulnerable position of his king.

11...♔e1
Other king moves fail to other interposing queen checks (try for yourself!).

12.♔b6 ♕b1† 13.♔a6 ♕a2†



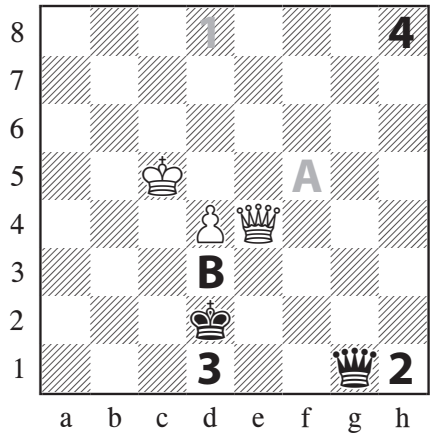
14.♔b5
White is ready to give an interposing check on b4.

14...♕e2† 15.♔b6+–

White will advance his pawn on the next move.

This is the end of my theoretical discussion. We have seen that Black has drawing chances with a pawn on c4 – a case that endgame theory had not taken seriously prior to my treatment.

The roadmap with the pawn on d4 looks like this:

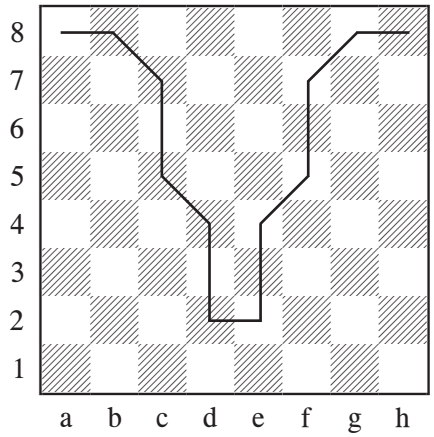


The conclusion here is simple: if the black king cannot get in front of the pawn (1) or get close to the pawn (the proximity zone – A), then the position is lost under normal circumstances.

We drew the same conclusions with a pawn on c5, c6 or c7.

3.5.8 The Lund line

To wrap up, I will give the conclusions about these endings with a single pawn in diagram form:



If the pawn is still behind the above line, then there are chances to save the game if the black king is positioned correctly in one of the four zones 2, 3, 4 or B.

I have not considered position 1 (the black king in front of the pawn), which is a draw under normal circumstances against every pawn.

I also have not considered A (the proximity zone) as it tends to be too dependent on concrete circumstances in the position. As I mentioned early on in the chapter, these two areas (1 and A) are grey-coloured in all the road maps.

Thus, if the pawn is on the line **or** if it has crossed the line, then it is generally a win for White (under normal circumstances). This is the case for the four zones 2, 3, 4 and B.

3.5.9 Chapter recap

We treated the following five themes in the chapter:

1. The more advanced passed pawn often outweighs a pawn count
2. The counter-check that forces a queen exchange
3. Centralizing the queen
4. The queen cannot mate on her own!
5. **Fundamental queen vs. queen and pawn endings**

In the end, the main focus of the chapter was on point 5, on the fundamental endgames with queen and pawn versus queen.

I used Nunn's priority to describe a road map for each pawn. Originally, Nunn dealt with five zones, but I added a sixth one. An under-investigated area in existing endgame theory is the area just behind the pawn (B), and thus we ended up with 6 areas or zones for each pawn, from 1 to 4, as well as A and B.

The area in front of the pawn for the defending king (1) and the proximity zone (A) were generally not dealt with, and thus grey-coloured in all of the road maps. The reason for 1 is that it secures the draw under normal circumstances, whereas the proximity zone (A) depends too much on the concrete circumstances of the position.

After a brief overall introduction, I concerned myself with only positions featuring the zone B – the area just behind the pawn.

In our treatment of a rook's pawn, we used an example with a pawn on a7 (Q-1): the defending black king should stay on a1 or a2. Black cannot avoid a queen check on the a-file that forces the king onto the b-file, but the a3-square has to be vacant for queen checks later, and to avoid counter-checks that force the exchange of queens. Here, the a3-square proved to be unfortunate for the king, whereas a1 and a2 worked well.

Regarding a knight's pawn, we saw a position with a pawn on b6 (Q-2). This example was the first to introduce the drawing method if the defending king is in the area just behind the pawn (B). The basics of how this plan works was used in all the remaining similar positions of the chapter.

The method is as follows: avoid a check on the b-file that forces the king onto the a- or c-file (not part of the 4-square B-zone). If the king is forced onto the c-file or further back along the a-file, then an counter-check that forces the exchange of queen is looming.

Meanwhile, Black can make waiting moves on the long diagonal with the queen, keeping the b-pawn pinned.

In comparison with a b6-pawn, we saw that a position with a pawn on b7 has limitations regarding our drawing method of staying in the area just behind the pawn (B). The reason is that White can use tactics with his pawn close to promotion. We witnessed the tactics in the studies by both Louis van Vliet and myself.

We learned that it was okay for the queen to stay on f3, but that both g2 and h1 were fatal. In the study by Louis van Vliet, White had a strong first move that forced the queen onto an unfortunate square due to zugzwang.

With a c-pawn we saw that the defending king cannot hide in the diagonally opposite corner (2) as was the case with a b-pawn. The reason for this is the extra space created on the short side of the board (now consisting of both the a- and b-files) that the white king can use.

We saw that there was a huge difference between the pawn being on c4 and c5. With the pawn on c4 (Q-5), both the passive and the active defence worked out for Black because there was enough space between the c4-pawn and its promotion square for the (defending) black queen to launch a counterattack. That is, from c4 to c8. This was not the case with a c5-pawn (Q-6).

The realization that it is possible to successfully fight a c-pawn by staying in the area just behind the pawn (B) is important. The existing endgame theory relies on Black occupying the area in front of the pawn (1) to secure the draw. But with a c4-pawn, it is possible to make a draw under certain other circumstances.

The difference between a pawn on c4 (Q-5) and d4 (Q-7) was discussed. Here the mate on b3 is *the* valid argument if White is not careful. Against a d-pawn, there is no mate on b3 (in fact, c3) as White has the extra space on the shorter side at his disposal, which means that he can escape with the king on the a-file.

Basically, this is why a central pawn is always winning in these cases – if Black cannot get his king in front of the pawn (1) in time, then his only hope is that staying in the proximity zone (A) under favourable circumstances will save him.

The Lund line summed up the conclusions of the many road maps presented. With White having the passed pawn and Black defending, the conclusion was:

> If the pawn is still behind the given line, then there are chances to save the game if the black king is positioned correctly in one of the four zones 2, 3, 4 or B.
>
> The two cases 1 and A are not considered here, as they are usually clear-cut (1) or too dependent on the concrete circumstances in the position (A).

Chapter 4

Main Exercises

We have come to the main exercise section. There are 39 exercises based on six different material configurations. The numbers in the parenthesis refer to the exercises:

- Knight exercises (1-16)
- Rook exercises (17-20)
- Bishop versus knight exercises (21-25)
- Rook versus bishop or knight exercises (26-30)
- Other endgame exercises (31-35)
- Queen exercises (36-39)

Exercises 31-35 are positions with other material distributions that those of the five main chapters. They are also the only exercises with no introduction in Chapter 3.

The solution to every exercise has an overview at the beginning, to say if there are extra exercises attached to the exercise. The extra exercises can be found in Chapter 6. My idea of extra exercises is to exhaust an exercise and use as much from it as possible. To qualify as an extra exercise, it basically has to live up to the same criteria as the main exercises. Naturally, these extra exercises tend to be slightly easier to deal with than the main exercises, since they spring from them.

There are two types of extra exercises that I would point out:

- 'Alternative-try' exercise
- 'Turn-the-board' exercises

In the first type of exercise, there are other routes to be tested in the exercise, and each extra option gives a separate exercise.

In the second type of exercise, the board is turned around at a move where you made a mistake. In this way, it is possible to play the position from the other side of the board, with a new challenge. For instance, if White were to win and played wrongly in the exercise, the new task could be to draw with Black from that position.

The main reason for including these extra exercises is another though: while solving the main exercise, you probably thought about some of the sidelines, and you might have wondered what would have happen if...? Therefore, this is a way to get deeper into the exercises.

Every exercise has a level and a recommended time. These are the five levels with standard times attached to them. The exercises are played with an increment of 30 seconds per move to avoid time-trouble running wild.

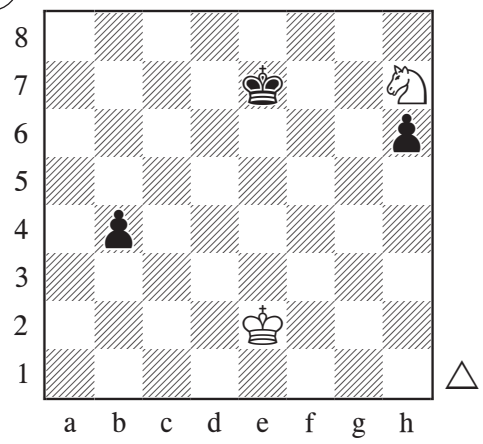
- Level 1: 5 minutes, rating span 1900-2000
- Level 2: 8 minutes, rating span 2001-2200
- Level 3: 10 minutes, rating span 2201-2400
- Level 4: 12 minutes, rating span 2401-2500
- Level 5: 15 minutes, rating span 2501-2600

In Chapter 9 you can see how to set up a position in Komodo 10 to get going with the exercises. If you have a different chess engine, it's not a big problem as long as you use the ChessBase interface.

Nikolai Grigoriev 1934

(Averbakh 22)

1

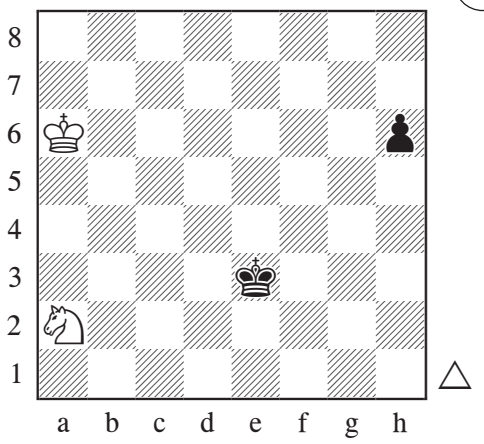


White to move and draw
Recommended time: 10 minutes
Level: 3

Nikolai Grigoriev 1932

(Averbakh 16)

3

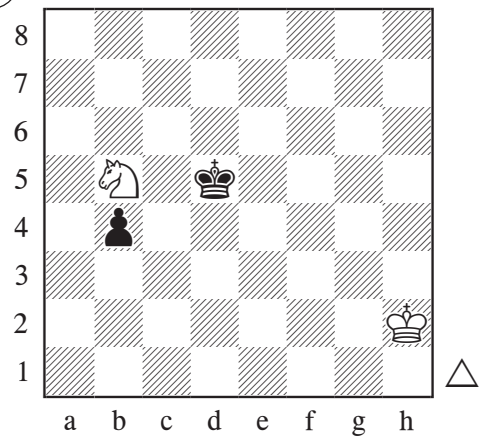


White to move and draw
Recommended time: 15 minutes
Level: 5

Nikolai Grigoriev 1938

(Averbakh 8)

2

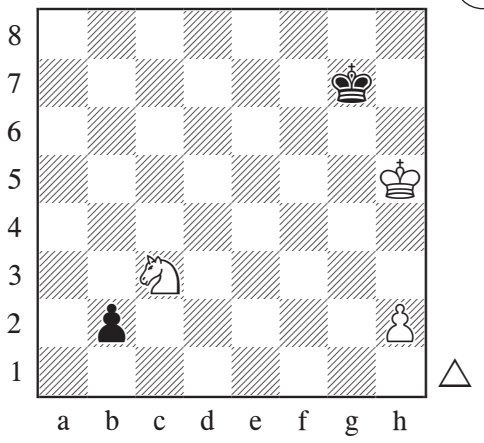


White to move and draw
Recommended time: 12 minutes
Level: 4

Yuri Averbakh 1955

(Averbakh 39)

4

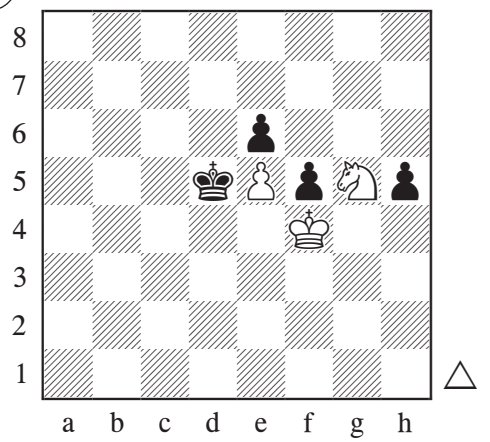


White to move and win
Recommended time: 8 minutes
Level: 2

Isaac Kashdan – Salomon Flohr

Hamburg 1930 – (Averbakh 55)

5

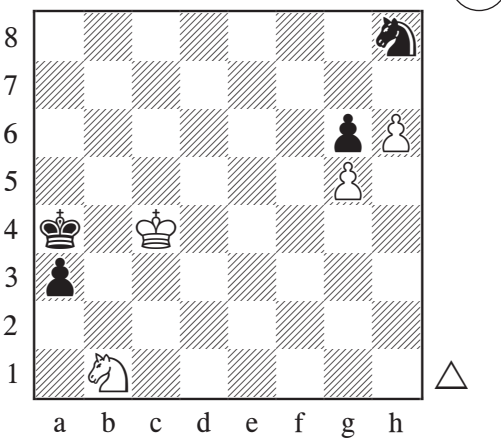


White to move and win
Recommended time: 10 minutes
Level: 3

Kornél Havasi

(Evans 181)

7

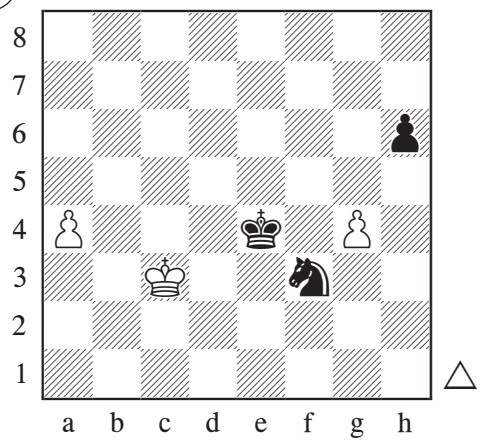


White to move and win
Recommended time: 10 minutes
Level: 3

Pál Benkö

(Evans 178)

6

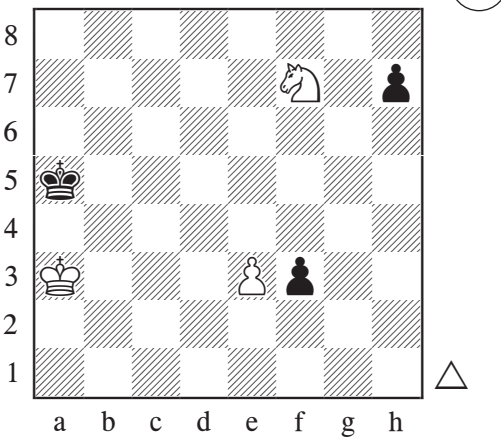


White to move and draw
Recommended time: 10 minutes
Level: 3

Leonid Kubbel 1924

(Averbakh 48)

8

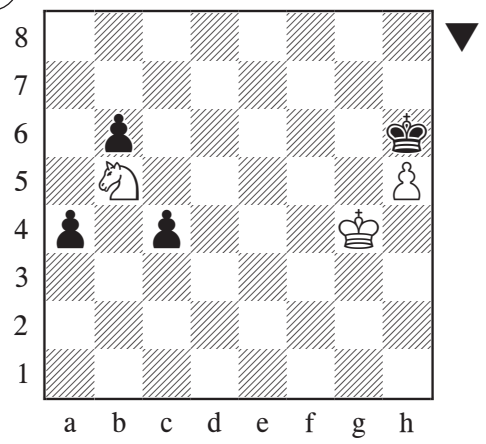


White to move and win
Recommended time: 10 minutes
Level: 3

Smorodski – Breitmann

Soviet Union 1933 – (Averbakh 54)

9

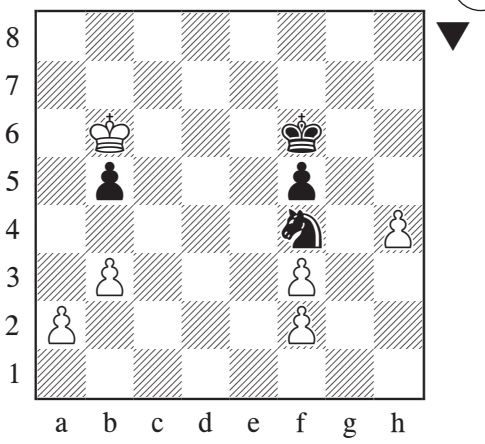


Black to move and draw
Recommended time: 8 minutes
Level: 2

Zhou Jianchao – Li Chao

Danzhou 2010

11

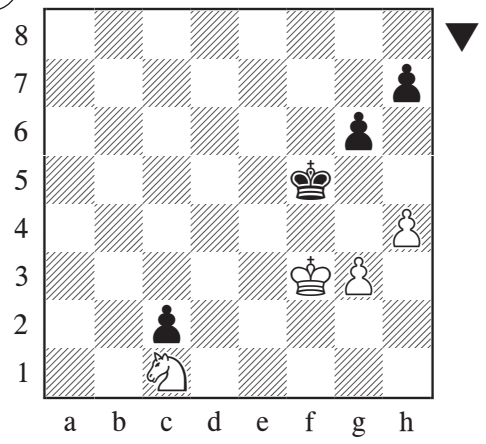


Black to move and draw
Recommended time: 15 minutes
Level: 5

Vitaly Chekhover – Igor Bondarevsky

Moscow 1945 (variation) – (Averbakh 66)

10

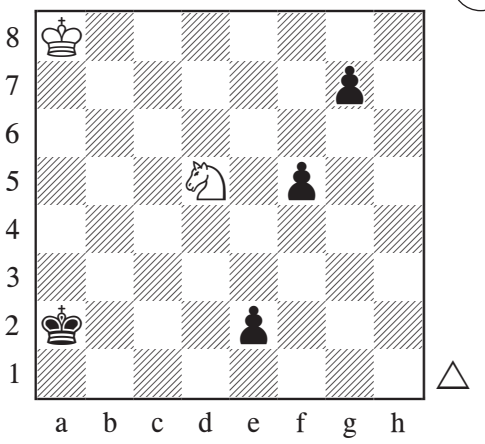


Black to move and draw
Recommended time: 15 minutes
Level: 5

Vitaly Chekhover 1955

(Averbakh 28A)

12

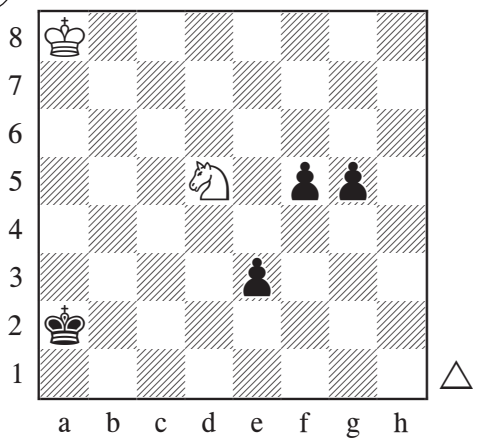


White to move and draw
Recommended time: 10 minutes
Level: 3

Vitaly Chekhover 1955

(Averbakh 28B)

13

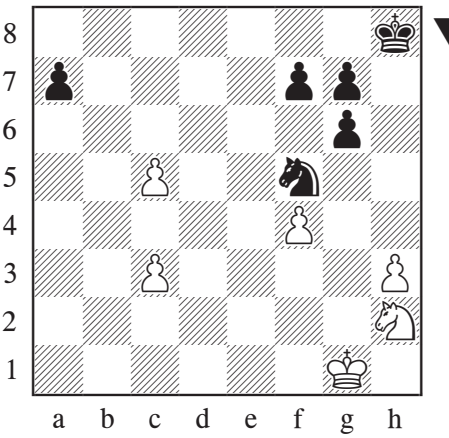


White to move and draw
Recommended time: 10 minutes
Level: 3

Sergey Lebedev – Peter Romanovsky

Moscow 1923 – (Averbakh 112)

15

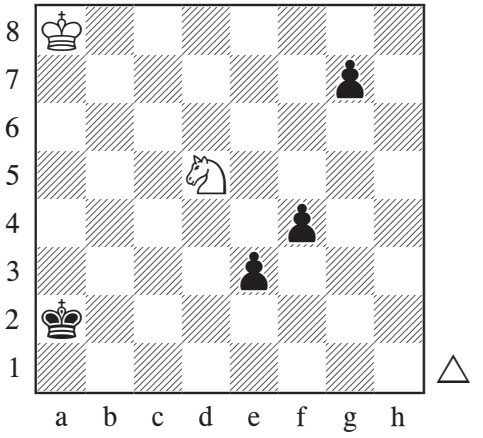


Black to move and win
Recommended time: 15 minutes
Level: 5

Vitaly Chekhover 1955

(Averbakh 28C)

14

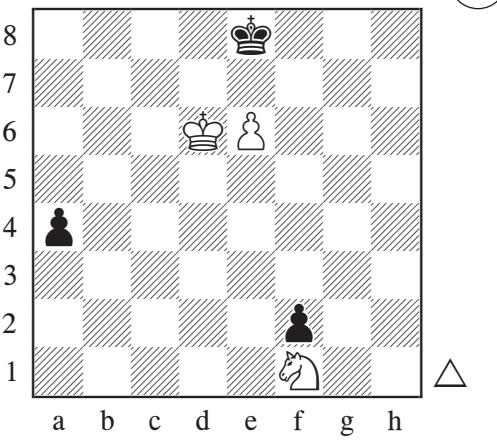


White to move and draw
Recommended time: 10 minutes
Level: 3

Francois-André Philidor – Thomas Bowdler

London 1749 – (Averbakh 50)

16

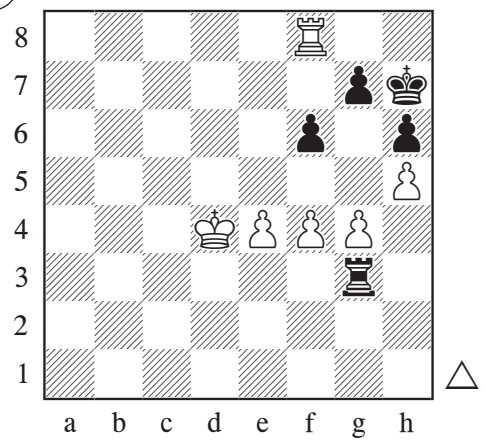


White to move and draw
Recommended time: 8 minutes
Level: 2

Viktor Korchnoi – Vladimir Antoshin

Yerevan 1954

17

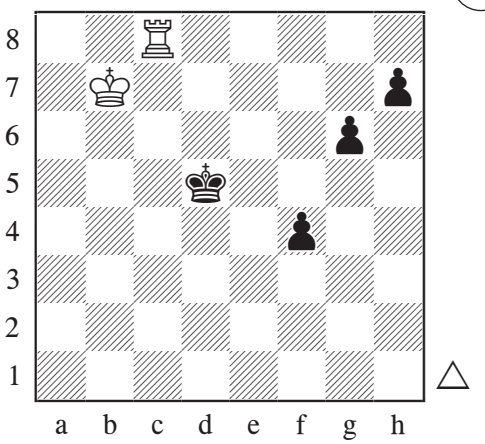


White to move and win
Recommended time: 10 minutes
Level: 3

Richard Lilja – Silas Esben Lund

Helsingor 2011 (variation)

19

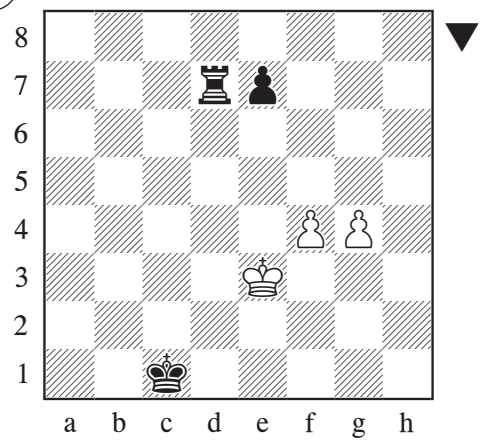


White to move and draw
Recommended time: 12 minutes
Level: 4

Luka Lenic – Hans Tikkanen

Rogaska Slatina 2011

18

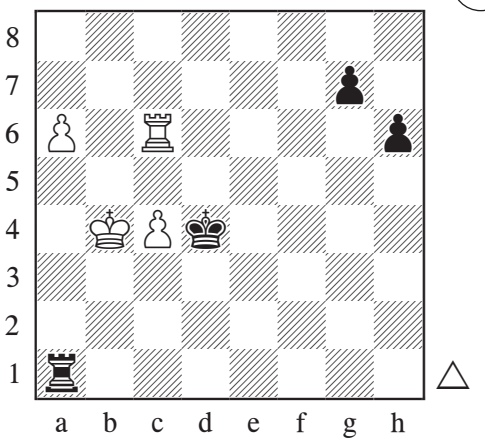


Black to move and win
Recommended time: 8 minutes
Level: 2

Ivan Saric – Dimitri Reindermann

Rotterdam 2014

20

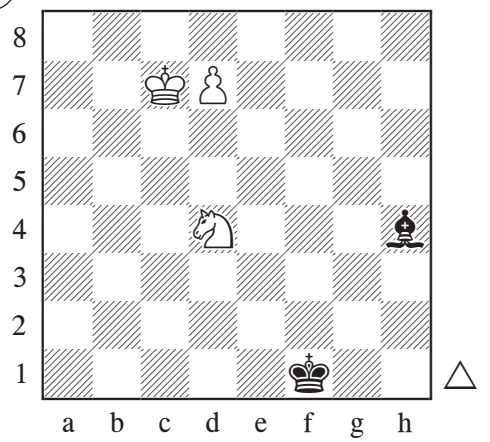


White to move and win
Recommended time: 10 minutes
Level: 3

Reuben Fine 1941

(Averbakh 57)

21

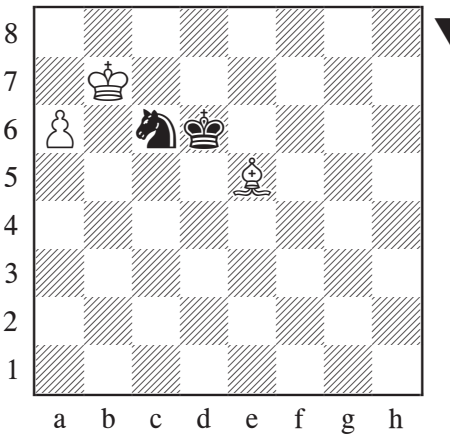


White to move and win
Recommended time: 10 minutes
Level: 3

Yuri Averbakh 1958

(Averbakh 40)

23

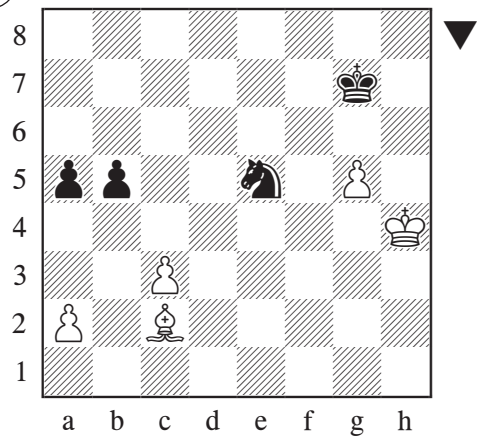


Black to move and draw
Recommended time: 8 minutes
Level: 2

Ian Nepomniachtchi – Wang Yue

Sochi 2009

22

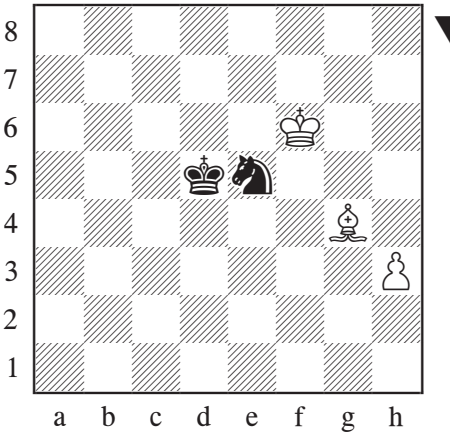


Black to move and draw
Recommended time: 15 minutes
Level: 5

Robert James Fischer – Mark Taimanov

Vancouver (2) 1971

24

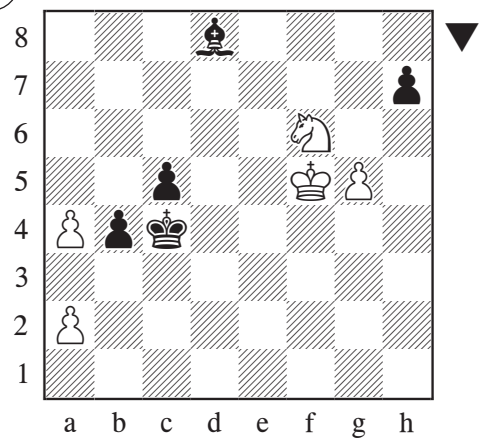


Black to move and draw
Recommended time: 8 minutes
Level: 2

Andrei Volokitin – Alexander Moiseenko

Kiev 2011

25

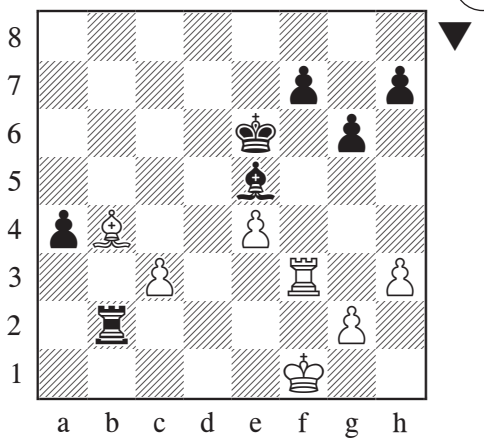


Black to move and win
Recommended time: 8 minutes
Level: 2

Richard Lilja – Silas Esben Lund

Helsingor 2011 (variation)

27

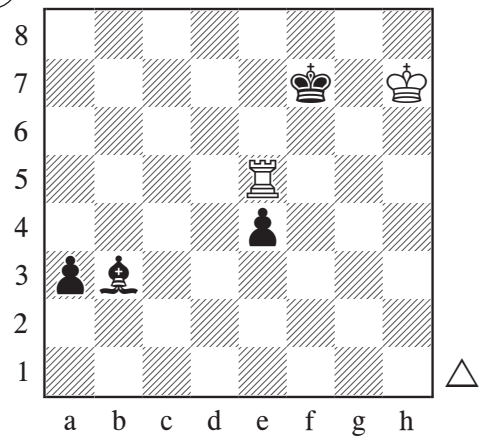


Show how Black wins after 33...♖xb4!?
Recommended time: 12 minutes
Level: 4

26. A. W. Daniel 1908

(Averbakh 394)

26

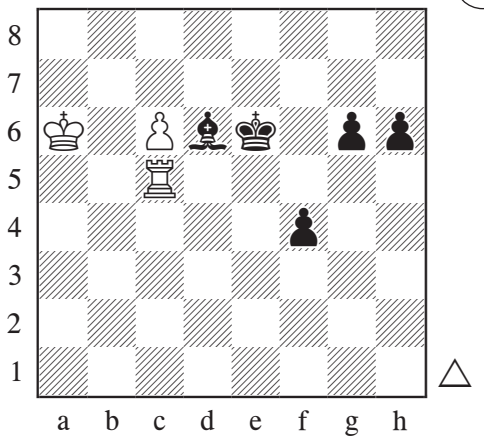


White to move and draw
Recommended time: 10 minutes
Level: 3

Richard Lilja – Silas Esben Lund

Helsingor 2011 (variation)

28

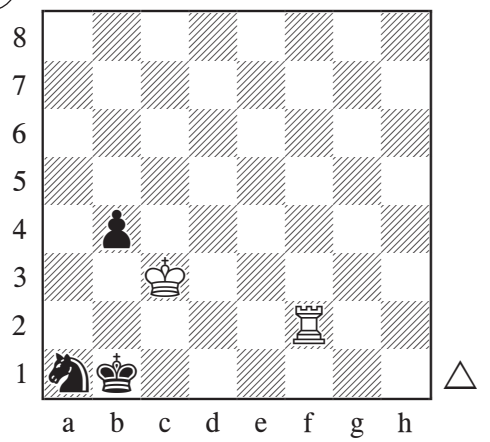


White to move and draw
Recommended time: 12 minutes
Level: 4

Sørensen – Nielsen

Esbjerg 1947 – (Averbakh 522)

29

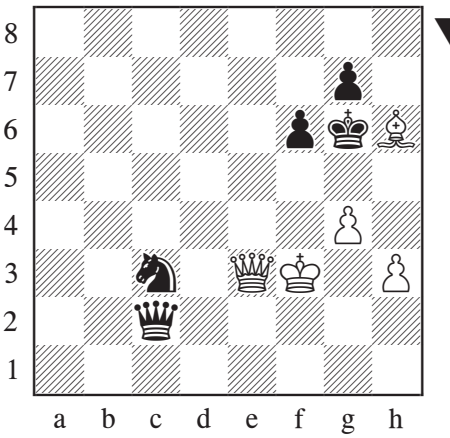


White to move and win
Recommended time: 12 minutes
Level: 4

Anish Giri – Yu Yangyi

Doha 2014

31

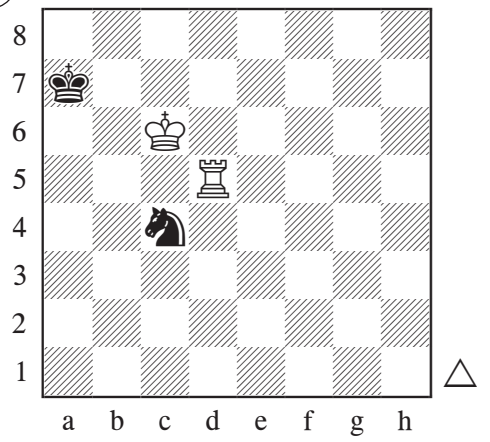


Black to move and win
Recommended time: 10 minutes
Level: 3

Yuri Averbakh

(Averbakh 512)

30

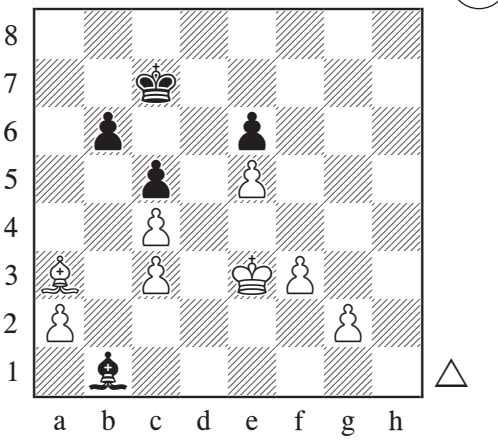


White to move and win
Use the method from Chapter 3.4 where the white king stays on c6 and White works with the rook to force mate or the win of the knight.
Recommended time: 12 minutes
Level: 4

Magnus Carlsen – Viswanathan Anand

Sochi (6) 2014 (variation)

32

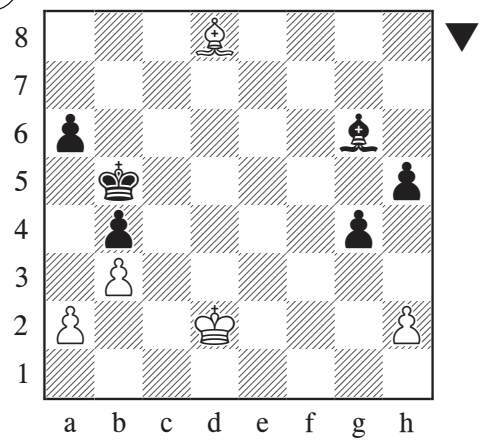


White to move: play ***38.♗xc5?!*** *and win!*
Recommended time: 15 minutes
Level: 5

Torsten Lindestrøm – Silas Esben Lund

Nyborg 2001

33

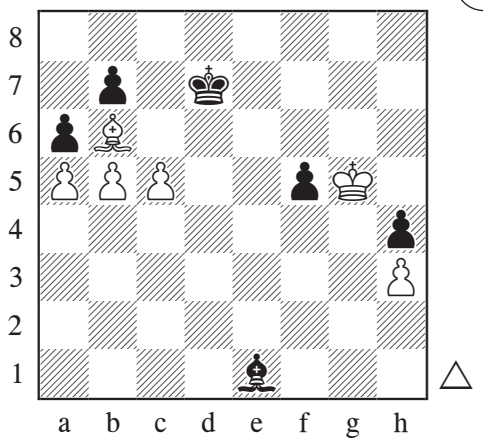


Black to move and win
Recommended time: 8 minutes
Level: 2

Yu Yangyi – Merijn van Delft

Rotterdam 2014

35

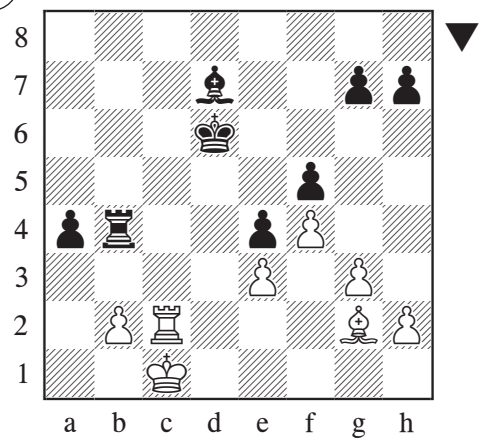


White to move and win
Recommended time: 12 minutes
Level: 4

Philip Lindgren – Silas Esben Lund

Helsingor 2013 (variation)

34

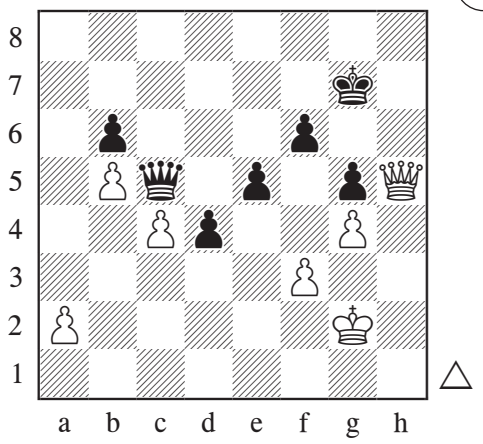


Black to move and win
Recommended time: 10 minutes
Level: 3

Hikaru Nakamura – Boris Gelfand

Rotterdam 2014

36

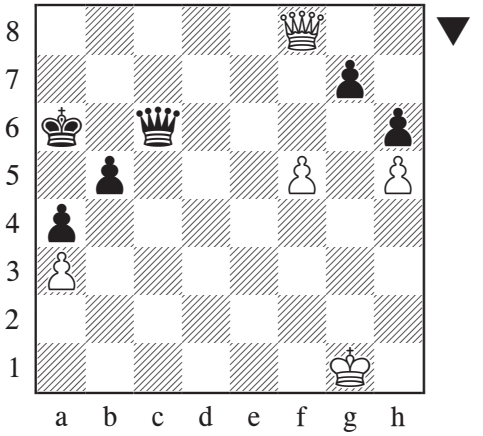


White to move and draw
Recommended time: 12 minutes
Level: 4

Merijn van Delft – Kayden Troff

Rotterdam 2014

37

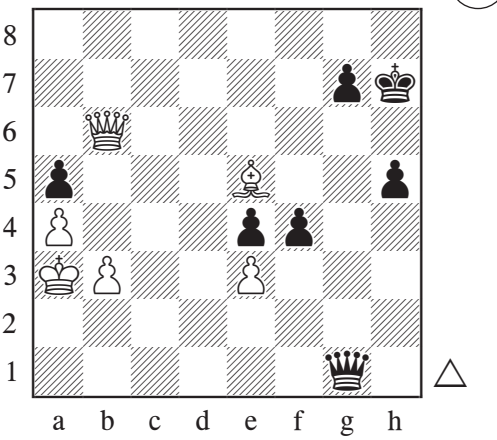


Black to move and win
Recommended time: 12 minutes
Level: 4

Hikaru Nakamura – Arkadij Naiditsch

Rotterdam 2014

39

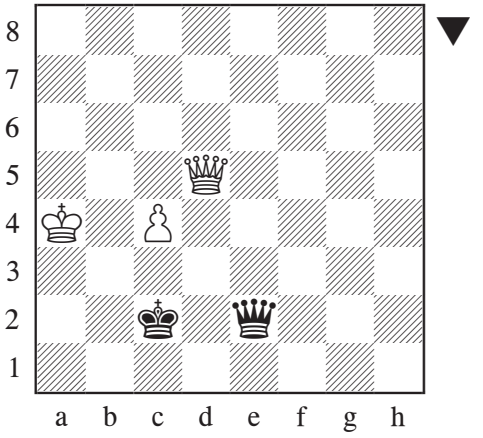


White to move and win
Recommended time: 12 minutes
Level: 4

Silas Esben Lund & Nikolaj Mikkelsen

Training Position 2016

38



Black to move and draw
Hold the balance for 15 moves
Recommended time: 15 minutes
Level: 5

Chapter 5

Solutions to Main Exercises

1. Nikolai Grigoriev 1934

(Averbakh 22)

There are **no** extra exercises from this exercise.

1.♔d3

Critical Moment 1. **Planning; Method of Elimination**. White hits upon the right idea – the king goes for the b-pawn, the knight is concerned with the h-pawn.

1...♔f7 2.♔c4 ♔g6!

2...♔g7 3.♔xb4 ♔xh7 4.♔c4= and the white king reaches f1 in time.

3.♘f8†

Critical Moment 2. **Method of Elimination**. White has to change plan – now the b-pawn can no longer be captured.

3.♔xb4? h5–+

3...♔f5 4.♘d7 h5 5.♘c5!

Critical Moment 3. **Method of Elimination**. White is at a crossroads and has to make the crucial decision here. Many go wrong at this point. One important detail is that the white king stands on the connecting point of Ring 2 (c4) – and thus White is unable to stop the pawn on h2.

5.♘b6? h4 6.♘d5 ♔e4–+

5...h4 6.♘b3!

Critical Moment 4. **Method of Elimination**. The previous knight move could be made by using the Method of Elimination, but with this knight move, White has found the drawing idea. The knight still has to go to f1, the additional point being a knight fork on g3.

6...h3 7.♘d2!

7.♘d4†? ♔g4–+

7...h2 8.♘f1 h1=♕ 9.♘g3†=

It is curious that the black king that was so well placed on f5 dominating the knight on f8, is now poorly placed and the reason for White's salvation. Let's just say that no luck is involved in the movements of the white knight, who moved virtually around the whole board.

½–½

2. Nikolai Grigoriev 1938

(Averbakh 8)

There are **no** extra exercises from this exercise.

1.♘c7†

Critical Moment 1. **Planning**; **Method of Elimination**. White has to realize that he has to work with the knight alone, and that it needs to move out of the area behind the pawn. b1 is the last square to stop the pawn. Ring 1 consists of the squares b1-a3-c4-d2, but White's problem is that a3 is covered by the pawn and therefore he has no immediate access to Ring 1.

1.♔g2? ♔c5 2.♘c7 b3–+

1...♔c4 2.♘e8!

Critical Moment 2. **Planning**; **Method of Elimination; Surprising Moves; Basic Endgame Knowledge**. White is entering the connecting point of Ring 3. Now he is ready to enter the connecting point of Ring 2 (d6). From e8 White has two roads to the saving square b1: either e8-c7-b5-a3-b1 or e8-f6-e4-d2-b1. Both roads consist of four squares and Black's king cannot control them both. This flexibility comes from the importance of the connecting points.

2...♔c5

Black takes control of the d6-square. 2...b3 3.♘d6† ♔c3! leads to the main continuation.

3.♘f6!

White aims for the e4-d2 route towards b1.

3...♔d4 4.♘e8!

Critical Moment 3. **Planning**; **Method of Elimination; Basic Endgame Knowledge**. White moves backward into the connecting point of Ring 3. This slightly counter-intuitive move is difficult to make unless you know the theory behind it (read my introduction!).

4...♔e5

Black is testing White. The position will be repeated several times now, but that does not matter: White has to stay focused and he cannot claim a draw by a three-fold repetition of the position!

5.♘c7!

White is ready to enter the b5-a3 route towards b1, if the pawn moves.

5...♔d6

5...b3 6.♘b5 b2 7.♘a3=

6.♘e8†!
Again, back to the connecting point of Ring 3.

6.♘b5†? ♔c5 7.♘c7 b3–+

6...♔c5 7.♘f6! ♔d4 8.♘e8! b3
Black has realized that covering the d6-square will not bring progress.

9.♘d6
The connecting point of Ring 2.

9...♔c3!
Giving White a crucial choice. The engine does not play this move as it sees the antidote right away. To the engine, Black's moves make no difference as the position is drawn. But for a human, there are still two obstacles to overcome after the text move. This is why the engine is not a good opponent in this exercise.

10.♘e4†!
Critical Moment 4. **Method of Elimination; Working with the King (**the opponent's**); Basic Endgame Knowledge**. White has to choose between two knight moves.

10.♘b5†? ♔b4!–+ The black king covers the a3-square and the connecting point of Ring 1 (c4) – and White does not have the check that eliminates the pawn.

10...♔c2
Black would love to play 10...♔d3, which covers the d2-square and the connecting point c4, but White has the check that eliminates the pawn: 11.♘c5†=

11.♘d6!
Critical Moment 5. **Method of Elimination**; **Planning; Basic Endgame Knowledge**. The only move. White moves backward into the connecting point of Ring 2. At this point, White is ready to play the position to a draw.

11...b2
Black has realized that he cannot keep c4 under control and thus he pushes the pawn.

11...♔d3 12.♘b5 b2 13.♘a3=

12.♘c4! b1=♕ 13.♘a3†=
½–½

Please notice the importance of the white king on h2 and not on the 1st rank: in that case Black could promote with check.

3. Nikolai Grigoriev 1932

(Averbakh 16)

There are **no** extra exercises from this exercise.

This is the most difficult of the exercises with knight against pawn when using the ring logic.

1.♘b4!!

Critical Moment 1. **Method of Elimination**; **A Feel for Details; Planning; Working with the King; Surprising Moves**. White has to realize that he cannot just enter the ring system and count on everything being fine. He will be short of one tempo if he mechanically manoeuvres his knight towards the squares c4 or a5. He needs to show flexibility in his play, and therefore this first move is the hardest Critical Moment of the exercise.

Ring 1 consists of the squares h2-f1-e3-g4. The connecting point of Ring 1 is e3.

Ring 2 has c4 as its connecting point. From c4 there are two roads to the saving square h2: either d2-f1-h2 or e5-g4-h2.

Ring 3 has a5 as its connecting point. From a5 there are two roads to h2: either b3-d2-f1-h2 or c6-e5-g4-h2.

1.♘c3? h5 2.♘d5† ♔f3

1...h5 2.♘c6!

This is the point of the previous move. By threatening to go to e5, White wins the crucial tempo to enter the Ring system.

2.♘d5†? ♔f3–+

2...♔e4

This tempo spent with the king is the reason why White draws.

2...h4 3.♘e5 h3 (3...♔f4 4.♘g6†! This check that eliminates the pawn is an important point of the whole line beginning with 1...♘b4!!.) 4.♘g4†=

3.♘a5!!

Critical Moment 2. **Planning**; **Method of Elimination; Surprising Moves; Basic Endgame Knowledge**. White moves backward into the connecting point of Ring 3.

3...h4

3...♔d4!? 4.♘c6†!

a) 4.♔b5!? is also possible: White covers the connecting point c4 with the king. The point is the following knight fork on f3. 4...h4 5.♘c4 h3 6.♘d2! There is a fork looming. 6...♔e3 (6...h2 7.♘f3†=) 7.♘f1†=

b) 4.♘b3†!? ♔e3 5.♘a5! is also possible.

4...♔e4 5.♘a5!

4.♘c4! ♔f3!
4...h3 5.♘d2† ♔e3 6.♘f1†=

5.♘e5†!
Critical Moment 3. **Method of Elimination**; **Planning; Basic Endgame Knowledge**. The right check with the knight. The argument is the knight check that eliminates the pawn.

5.♘d2†? ♔e2!
5...♔f2? 6.♘e4† ♔g2 7.♘g5= The luxury ring.
5...♔g2? gives White a chance to correct his mistake: 6.♘c4!
6.♘e4 h3–+

5...♔g3
5...♔f4 6.♘g6†=

6.♘c4!
Critical Moment 4. **Method of Elimination**; **Planning; Basic Endgame Knowledge**. White moves backward into the connecting point of Ring 2.

6...h3 7.♘e3=
½–½

4. Yuri Averbakh 1955

(Averbakh 39)

There is **1** extra exercise from this exercise. 1) After White's **1.♘b1?**: Black to move and draw. Go to Exercise 40 (4.1) in Chapter 6.

1.♔g5!
Critical Moment 1. **Method of Elimination**; **A Feel for Details; Working with the King; Planning**. White has a choice between two main continuations and he has to spot the difference between them.

1.♘b1? This is an **extra exercise**: Black to move and draw. Go to Exercise 40 (4.1) in Chapter 6.

1...♔f7 2.♘b1!
Critical Moment 2. **Planning; Basic Endgame Knowledge**. White finds the right idea – to bring the knight to f1 to support the h2-pawn from behind. The king will take care of the b-pawn and White is just in time.

2.h4? ♔g7 3.h5 ♔h7 4.h6 ♔g8= or 4...♔h8=. In the introduction to knight endgames, this idea worked because Black had a c2-pawn. Against a b2-pawn, the knight is simply too far away from the h8-corner.

2...♔g7
2...♔e6 3.♔g6 ♔e5 4.h4 ♔e4 5.h5 ♔d3 6.h6 ♔c2 7.h7 ♔xb1 8.h8=♕+–

3.♘d2 ♔h7 4.♔f5

Critical Moment 3. **Planning; Working with the King**. White releases the king and goes for the queenside. The winning idea is to get the knight to f1 to protect the pawn, and then bring in the king to help the pawn forward.

4...♔h6 5.♔e4 ♔h5 6.♔d3 ♔h4

6...b1=♕† 7.♘xb1 ♔h4 8.♘d2 ♔h3 9.♘f1+– makes no difference.

7.♔c2 ♔h3 8.♘f1+–
1–0

5. Isaac Kashdan – Salomon Flohr

Hamburg 1930 – (Averbakh 55)

There is **1** extra exercise from this exercise. 1) After **3.♘xf5?**: Black to move and draw. Go to Exercise 41 (5.1) in Chapter 6.

1.♘f3 ♔c4 2.♔g5!

Critical Moment 1. **Planning; Method of Elimination**. White has found the right regrouping: the king attacks e6 and the knight deals with the pawns (from h4).

2.♘h4?! ♔d5 3.♘xf5? (White can still return with his knight) This idea of sacrificing the knight on f5 does not work. This is an **extra exercise**: Black to move and draw. Go to Exercise 41 (5.1) in Chapter 6.

2...♔d5 3.♔f6 f4 4.♘h4

Critical Moment 2. **Planning; Change Gears; Transform-willingness**. Now Black has to abandon the defence of the e6-pawn. The game changes character now and becomes sharp.

4...♔e4 5.♔xe6 f3 6.♘xf3 ♔xf3 7.♔f5!

Critical Moment 3. **Planning; Working with the King; Method of Elimination**. White has to realize that both sides will queen and that his king is needed in the final attack on Black's king.

7.♔f6? h4 8.e6 h3 9.e7 h2 10.e8=♕ has the point 10...h1=♕?? 11.♕a8†+–. But instead Black plays 10...♔g2!= when the white king is too far away (outside the winning zone, if you refer to Averbakh), and the game is a theoretical draw with a rook's pawn.

7...h4 8.e6 h3 9.e7 h2 10.e8=♕ ♔g2 11.♔g4!

Critical Moment 4. **Working with the King; A Feel for Details**. Now and in the moves to come, White needs to keep the black king in the h1-corner through mating threats.

Also good is: 11.♕e2†!? ♔g1 12.♔g4 h1=♕ 13.♔g3+–

11...h1=♕ 12.♕e2† ♔g1 13.♔g3+–
1–0

6. Pál Benkö

(Evans 178)

There is **1** extra exercise from this exercise. 1) After **2...♘d2†!?**: White to move and draw. Go to Exercise 42 (6.1) in Chapter 6.

1.♔c4!

Critical Moment 1. **A Feel for Details; Method of Elimination; Surprising Moves; Planning**. White has to choose from three alternatives.

1.a5? ♔d5 2.a6 ♔c6 3.a7 ♔b7 4.♔d3 ♘e5† 5.♔e4 ♘xg4 6.♔f5 This idea does not work for White as Black places his knight behind the pawn: 6...h5 7.♔g5 ♘f6–+

1.♔b4? This allows the black king to the d-file and the knight to sacrifice itself for the a-pawn. The resulting pawn ending is won for Black: 1...♔d5 2.♔b5 ♘d4† 3.♔b6 ♘b3! 4.a5 ♘xa5 5.♔xa5 ♔e4 6.♔b4 ♔f4 7.♔c3 ♔xg4 8.♔d2 ♔f3 9.♔e1 ♔g2–+ Black covers f1 in time.

1...♔e5 2.a5!

Critical Moment 2. **A Feel for Details; Method of Elimination**. White needs to be precise.

2.♔c5? ♘d2! Again aiming for the b3-square. 3.♔b5 ♔d6 4.a5 ♔c7! Now the knight picks up the g4-pawn and Black wins in a similar way to the line after 1.a5? – by placing the knight behind the pawn. 5.♔c5 ♘e4† 6.♔d4 ♘f6 7.♔e5 ♘xg4† 8.♔f5 h5 9.♔g5 ♘f6–+

2...♔d6

2...♘d2†!? This is an **extra exercise**: White to move and draw. Go to Exercise 42 (6.1) in Chapter 6.

3.a6!

Critical Moment 3. **A Feel for Details; Method of Elimination**. White needs access to the d5-square to be able to approach the kingside and break the barrier set up by the knight.

3...♔c6

3...♘e5† 4.♔d4 ♘c6† 5.♔e4 ♔e6 6.♔f4 ♔f6 7.♔e4 ♔g5 8.♔f3=

4.a7 ♔b7 5.♔d5! ♘h2 6.g5!

Critical Moment 4. **Method of Elimination; Working with the King**. The only move, but White has to realize that. If White plays this, he has probably found the drawing conclusion.

6.♔e4?? ♘xg4 7.♔f5 h5 8.♔g5 ♘f6–+

6...hxg5 7.♔e4

7.♔e5 is also good enough.

7...♔xa7 8.♔f5

Critical Moment 5. **Working with the King**. White cannot allow the black knight to get behind the pawn.

8.♔e3?? ♘g4† 9.♔e4 ♘f6† 10.♔f5 g4–+

8...g4 9.♔f4 ♔b6 10.♔g3=
½–½

7. Kornél Havasi

(Evans 181)

There is **1** extra exercise from this exercise.
1) After **1.h7?**: Black to move and draw. Go to Exercise 43 (7.1) in Chapter 6.

1.♔d5!

Critical Moment 1. **A Feel for Details; Surprising Moves; Method of Elimination**. White needs to get his king to the kingside immediately.

Other options:

1) 1.♘c3†? ♔a5 2.♔c5 The idea of this strategy is to prevent the black king from reaching the kingside. But White will eventually have to eliminate the a-pawn and thereby allow the black king to go to the kingside. Remember that Black can create an eternal threat to the knight when it is fighting against a rook's pawn (and a knight's pawn as well). 2...♘f7 3.h7 ♘h8 4.♘a2 ♘f7 5.♔c4 ♔b6 6.♔b4 ♔c7 7.♔xa3 ♔d6=

2) 1.h7? This is an **extra exercise**: Black to move and draw. Go to Exercise 43 (7.1) in Chapter 6.

3) 1.♘xa3? ♔xa3 2.♔d5 ♔b4 3.♔e6 ♔c5 4.♔f6 ♔d6 5.♔g7 ♔e7 6.♔xh8 ♔f8!= The white king is trapped in the corner – he can either repeat the position or stalemate himself.

1...♘f7

1...♔b3 2.♘xa3 ♔xa3 3.♔e6+– and Black's king is too far away.

2.h7 a2

2...♔b3 3.♘xa3 ♔xa3 leads to the same.

3.♘c3† ♔b3 4.♘xa2 ♔xa2 5.h8=♕!

Critical Moment 2. **Method of Elimination; Working with the King; Basic Endgame Knowledge.** This is the way to break the barrier. Other continuations are too time-consuming. This is really the last hurdle on the way to victory. Once you spot this idea, the game is easily won. But if you don't spot this idea, it is even possible to spend a lot of time on the first move and go wrong early on. In such situations, the Method of Elimination can be a vital tool to make you at least play a move and reserve some time for later.

An IM on whom I tested the position played: 5.♔c6? White is trying to avoid the barrier, but it is too slow and allows Black to trap the king in the corner: 5...♔b3 6.♔d7 ♔c4 7.♔e7 ♘h8! 8.♔f8 ♔d5 9.♔g7 ♔e6 10.♔xh8 ♔f7 stalemate.

5...♘xh8 6.♔e6 ♔b3 7.♔f6 ♔c4 8.♔g7 ♔d5 9.♔xh8 ♔e6 10.♔g7 ♔f5 11.♔h6+–

The pawn on g6 will drop, and a position with the king on the 6th rank in front of the pawn always wins in these endgames.

1–0

8. Leonid Kubbel 1924

(Averbakh 48)

There is **1** extra exercise from this exercise.
1) After **1.♘e5?**: Black to move and draw.
Go to Exercise 44 (8.1) in Chapter 6.

1.♘d6!

Critical Moment 1. **A Feel for Details; Surprising Moves; Working with the King; Method of Elimination; Planning**. White has to choose the right knight move. It is important to cover the b5-square to prevent the black king from reaching c4, body-checking the white king. This move can be found be using the Method of Elimination: Once you realize that the other knight move only leads to a draw, you choose the correct continuation.

1.♘e5? This is an **extra exercise**: Black to move and draw. Go to Exercise 44 (8.1) in Chapter 6.

1...f2

1...♔b6 2.♘e4 ♔c6 3.♔b4 ♔d5 4.♘f2 h5 5.♔c3 h4 6.♔d3+–

2.♘c4† ♔b5 3.♘d2 f1=♕! 4.♘xf1 ♔c4 5.♔b2

Critical Moment 2. **Method of Elimination**. A difficult move to make if you do not see the follow-up. But other moves make no sense, since Black is threatening ...♔d3 following by the march of the h-pawn, eventually eliminating the e-pawn.

5...♔d3 6.♔c1 ♔e2!

6...h5? 7.♔d1 h4 8.♔e1 h3 9.♔f2+–

7.e4 ♔xf1 8.♔d2!

Critical Moment 3. **Method of Elimination; Basic Endgame Knowledge**. White uses his knowledge about queen vs. pawn endgames, as well as queen vs. queen endgames (in the main continuation).

The alternative only leads to a draw: 8.e5? h5 9.e6 h4 10.e7 h3 11.e8=♕ h2= The white king is too far away to pose problems to Black's king.

8...h5

8...♔f2 9.e5 h5 10.e6 h4 11.e7 h3 12.e8=♕ h2 Now the white king is close enough to the h1-corner: 13.♕e2† ♔g1 (13...♔g3 14.♕f1+–) 14.♔e3! h1=♕ 15.♕f2 mate.

9.♔e3! ♔g2

9...h4 10.♔f3 h3 11.♔g3+–

10.e5 h4 11.e6 h3 12.e7 h2 13.e8=♕ h1=♕ 14.♕g6†
Critical Moment 4. **Planning; Working with the King**. Now White only needs to find the mating idea: bringing the king to f2 after the queen has settled on g4.

14...♔h3 15.♕h5† ♔g2 16.♕g4† ♔h2
16...♔f1 17.♕e2† ♔g1 18.♕f2 mate.

17.♔f2+–
1–0

There are **2** extra exercises from this exercise.
1) After **1...a3?**: White to move and win. Go to Exercise 45 (9.1) in Chapter 6.
2) After **7.♘a2!?**: Black to move and draw. Go to Exercise 46 (9.2) in Chapter 6.

9. Smorodski – Breitmann

Soviet Union 1933 – (Averbakh 54)

1...c3!
Critical Moment 1. **Planning; Basic Endgame Knowledge**. Black needs an a-pawn later, as it will cover the h8-square when it promotes.

1...♔h7!? 2.♔g5 c3! works for Black as well. The important thing is to choose the right pawn to sacrifice.

The game instead went: 1...a3? This is an **extra exercise**: White to move and win. Go to Exercise 45 (9.1) in Chapter 6.

2.♘xc3 a3 3.♘a2 b5 4.♘b4 ♔h7 5.♔g5 ♔g7 6.h6† ♔f7!?
Played in the game and good enough, although it seems unnecessary to give White additional options. The essential thing is to spot that g6/h8 are mined squares for the kings. Or, in other words: with the kings on g6/g8, Black has to have the move.

6...♔h7 7.♔h5 ♔g8!= (7...♔h8?? 8.♔g6 ♔g8 9.h7† ♔h8 10.♘c6 a2 11.♘e5 a1=♕ 12.♘f7 mate)

7.♔f5
7.♘a2!? This is an **extra exercise**: Black to move and draw. Go to Exercise 46 (9.2) in Chapter 6.

7...♔g8!
Critical Moment 2. **Working with the King (mined squares); Surprising Moves; Planning; Basic Endgame Knowledge; Method of Elimination**. A typical theme of these positions: Black has to choose the back-rank squares with care.

7...♔f8?? 8.♔g6 ♔g8 9.h7† ♔h8 10.♘c6 a2 11.♘e5 a1=♕ 12.♘f7 mate.

8.♔g6 ♔h8= 9.♘c6??
White has to be content with a draw after 9.h7 a2 10.♘xa2 b4=. The text loses.

9...a2 10.♘e5 a1=♕ 11.♘f7† ♔g8 12.h7† ♔f8 13.h8=♕† ♕xh8 14.♘xh8 b4–+

10. Vitaly Chekhover – Igor Bondarevsky

Moscow 1945 (variation) – (Averbakh 66)

There are **4** extra exercises from this exercise.
1) After **1...♔e5?**: White to move and win. Go to Exercise 47 (10.1) in Chapter 6.
2) After **2...g5?**: White to move and win. Go to Exercise 48 (10.2) in Chapter 6.
3) After **9...♔f5?**: White to move and win. Go to Exercise 49 (10.3) in Chapter 6.
4) After **14...♔f4?**: White to move and win. Go to Exercise 50 (10.4) in Chapter 6.

1...h5!!

Critical Moment 1. **Positional Judgement; Method of Elimination; Planning; Basic Endgame Knowledge**. The only move to save the game. This decision is highly intuitive – the space that Black grabs by this move is essential for later.

1...♔e5? This is an **extra exercise**: White to move and win. Go to Exercise 47 (10.1) in Chapter 6.

2.♘d3 ♔f6!

Critical Moment 2. **Change Gears; Method of Elimination**. Black has to stay passive for the time being and wait for the right moment to initiate counterplay.

2...g5? This is an **extra exercise**: White to move and win. Go to Exercise 48 (10.2) in Chapter 6.

3.♔f4 ♔e6 4.♘c1 ♔f6 5.♘e2

The knight transfer to e2 prevents the black king from going to the e6-square, thus driving him further back.

5...♔f7 6.♔e3

6.♔g5 ♔g7 7.♘c1 ♔f7 8.♔h6 ♔f6 9.♔h7 ♔f5 10.♔g7 g5=

6...♔f6 7.♔e4 ♔f7!

Critical Moment 3. **Change Gears; Method of Elimination**. Black still has to stay patient. This exercise is about timing the counterplay and getting it in at the right moment.

7...g5? 8.♘c1 gxh4 9.gxh4 ♔e6 10.♔f4 ♔f6 11.♘e2 ♔g6 12.♔e5+– Play continues along similar lines as after 2...g5? – see Exercise 48 (10.2) in Chapter 6.

8.♔d3 ♔f6 9.♔xc2 g5!

Critical Moment 4. **Transform-willingness; Method of Elimination**. The right moment for counterplay with the white king on c2: now the black king has a path to the h4-pawn.

9...♔f5? This is an **extra exercise**: White to move and win. Go to Exercise 49 (10.3) in Chapter 6.

10.♘d4 gxh4 11.gxh4 ♔e5 12.♔d3 ♔f4 13.♔e2 ♔g4

Or 13...♔g3!?=.

14.♘f3 ♔g3!

Critical Moment 5. **A Feel for Details; Working with the King; Method of Elimination**. Black can still go wrong at this point.

14...♔f4? This is an **extra exercise**: White to move and win. Go to Exercise 50 (10.4) in Chapter 6.

15.♔e3 ♔g4 16.♔f2

16.♔e4 ♔g3 17.♔f5 ♔xf3 18.♔g5 ♔e4 19.♔xh5 ♔f5= does not help White either.

16...♔h3!=

Critical Moment 6. **Working with the King; Method of Elimination; Surprising Moves**. It is essential to be able to keep threatening the h-pawn and not let the white king approach it. If White reaches a position where he can free his knight, Black is badly off. I have seen many players come this far in the exercise, only to relax a little too soon, believing the draw is already secured. Accuracy is needed to the end.

16...♔f4? 17.♘h2+–

½–½

11. Zhou Jianchao – Li Chao

Danzhou 2010

There is **1** extra exercise from this exercise. 1) After **42...♘c1?**: White to move and win. See Exercise 51 (11.1) in Chapter 6.

40...b4

Critical Moment 1. **Method of Elimination**. All other continuations fail to offer any notable resistance.

41.♔c5

41.♔b5!? leads to the same thing. This king move does give Black additional options, albeit he should not consider them. Thus, we are dealing with the parameter **Working with the King**. 41...♘d5? 42.♔c4 ♘c3 43.a4!+– (43.♔xb4!? ♘xa2† 44.♔c4 is also winning – this position arises in Exercise 51 [11.1] in Chapter 6.)

41...♘d3† 42.♔c4

This is a crucial moment in the game.

42...♘xf2!

Critical Moment 2. **Method of Elimination; Positional Judgement; Planning**. Black needs to create counterplay of his own, and for this purpose he needs to get rid of both of White's f-pawns to open a path for his own remaining pawn. Taking the pawn on f2 is a very difficult decision to make, and this is indeed a point where many players go astray. The reason for this is mainly that it is difficult to calculate the position after 42...♘xf2! to something definite, as the position simply continues to be complicated with many options available for both players. So you simply have to take a deep breath and capture the f2-pawn.

The line with 42...♘c1 followed by 43...♘xa2 is more forced and thus more easily calculated. Once you realize that sacrificing the knight on b4 does not lead to a draw (through calculation), and that regrouping the knight to fight against the b-pawn later is also hopeless (based on **Positional Judgement**), then the decision to capture f2 is not that hard to make. An additional tool is a bit of worst-case calculation: if getting rid of the two f-pawns does not lead to a forced loss, then you can play it.

42...♘c1? is too passive. The idea behind the move is to reduce White's force on the queenside by eliminating the a2-pawn. But this is time consuming and leaves the knight temporarily out of play. This is an **extra exercise**: White to move and win. Go to Exercise 51 (11.1) in Chapter 6.

43.♔xb4 ♘d3†!

Critical Moment 3. **Prophylactic Thinking; Method of Elimination; A Feel for Details**. The natural follow-up to the decision made on the previous move. Black is going for the second f-pawn, but on the route to f3, the knight also threatens to eliminate the queenside pawns and thereby limits the movements of the white king.

For comparison, if Black only has an eye for the f3-pawn: 43...♘h3? 44.a4 ♘g1 45.a5 ♘xf3 46.a6 ♘e5 47.♔b5+–

44.♔c3

Notice that 44.♔b5 ♘c1!= now leads to a draw with only one f-pawn on the kingside: 45.a4 ♘xb3 46.a5 ♘xa5 47.♔xa5 ♔g6 48.♔b5 ♔h5 49.♔c5 ♔xh4 50.♔d5 ♔g3 This move is possible without the pawn on f2. 51.♔e5 ♔xf3 52.♔xf5=

44...♘e5!

Black logically follows his plan to clear the f-file for his own pawn.

44...♘e1! is equally good.

45.a4 ♘xf3 46.a5 ♘e5 47.a6 ♘c6 48.♔d2!?

A clever move from White that keeps putting Black under pressure.

The straightforward 48.b4 allows Black the possibility of forcing the draw: 48...f4! **Play the most forcing line if possible**. (48...♘a7!?= also leads to a draw – compare with the main continuation.) 49.b5 f3 50.bxc6 (50.♔d3 f2 51.♔e2 ♘d4† 52.♔xf2 ♘xb5=) 50...f2 51.a7 f1=♕ 52.a8=♕ ♕c1†= With the queen badly placed on a8, White cannot avoid the perpetual.

48...f4!

Critical Moment 4. **Planning**; **Change Gears**. Black needs to be ready for a shift in the position once White decides to trade the h-pawn for the f-pawn. When that happens, Black's knight needs to be on b5 to create a barrier.

48...♔e5?!

This is also good enough for a draw, but Black has to be very precise. A couple of unfocused moves like this one is often the reason for a defeat. This is why I don't like the move.

49.b4 ♘a7 50.♔e3 ♘b5!
Critical Moment. **Planning**. At this point Black must place his knight on b5 to be able to create a barrier.
51.h5
And here Black has to find an only move once again:
51...♔e6!
Critical Moment. **A Feel for Details; Working with the King; Basic Endgame Knowledge**. It turns out that the position is mutual zugzwang: the pair of squares f4/f6 are mined.
52.♔f3 ♔f7!
Critical Moment. **Working with the King**.
52...♔e5! is also good enough.
52...♔f6? 53.♔f4+– is zugzwang.
53.♔f4 ♔f6 54.h6 ♔g6 55.h7 ♔xh7 56.♔xf5 ♔g7 57.♔e5 ♔f7=
Black draws as in the game continuation.

49.b4 ♘a7 50.♔e2 ♔f5
Critical Moment 5. **A Feel for Details**. Again, Black needs the knight on b5 once the position transforms with the exchange of the f- and h-pawns.

50...♔e6? This move loses a crucial tempo compared to the game continuation. I believe it should be clear that Black's knight is better placed on b5 than a7, and so Black can still improve his position instead of just waiting. 51.♔f3 ♔f5 52.h5 ♔g5 53.h6 ♔xh6 54.♔xf4 ♔g6 55.♔e4+– Black has no time to form a barrier.

51.♔f3 ♘b5!
Critical Moment 6. **Planning; Method of Elimination**. The knight has to be on b5 to form a barrier when the white king tries to approach his pawns.

52.h5 ♔g5
Another way to draw is 52...♘d4† 53.♔f2 ♘b5, which leads to the same as the main line after: 54.h6 ♔g6 55.♔f3 ♔xh6 56.♔xf4 ♔g6 57.♔e5 ♔f7=

53.h6 ♔xh6 54.♔xf4 ♔g6 55.♔e4
Or 55.♔e5 ♔f7!=.

55...♔f6!
Very important: the knight makes a barrier. The game was agreed drawn at this point, although it is still possible to go wrong.

56.♔d3 ♔e5
Or 56...♔e6.

57.♔c4 ♘c7!
Critical Moment 7. **Method of Elimination**.

57...♘a7? Now both 58.b5 and 58.♔c5 win.

58.b5
58.a7 ♔d6=

58...♔d6!
Critical Moment 8. **Method of Elimination**.

58...♘a8?? 59.♔c5+–

59.a7 ♘a8=
½–½

12. Vitaly Chekhover 1955

(Averbakh 28A)

There are **no** extra exercises from this exercise.

The exercise position is after a possible first move of the Chekhover study given on page 74.

2.♘c3† ♔b3 3.♘xe2 ♔c4 4.♘f4!
Critical Moment 1. **Method of Elimination; Working with the King; Planning**. White makes a barrier with his knight, anticipating the movements of Black's king.

After 4.♘g3? g6 Black can start advancing his f-pawn and support it with his king.

Bringing the king in is too slow: 4.♔b7? g5 5.♔c6 f4–+

4...g5
4...♔d4 5.♘e6† ♔e5 6.♘xg7 f4 7.♘h5 f3 8.♘g3= The knight controls f1.

5.♘e6!
Critical Moment 2. **Play the most forcing line if possible; Working with the King (the opponent's – barrier); Method of Elimination**. White needs to continually attack the pawns to benefit from the position of Black's king – Black cannot be given time to improve his position. At this point, most players see the solution to the end.

5...g4 6.♘g7!
Critical Moment 3. **Play the most forcing line if possible; Method of Elimination; Logical Follow-up.**

6...f4
6...g3 7.♘xf5 g2 8.♘e3†=

7.♘h5!
Critical Moment 4. **Play the most forcing line if possible; Method of Elimination; Logical Follow-up**. It is likely that the player has seen the solution to the end, and therefore none of the remaining moves is a Critical Moment.

7...f3 8.♘f6! g3
Or 8...f2 9.♘xg4 f1=♕ 10.♘e3†=.

9.♘e4! g2 10.♘d2† ♔d3 11.♘xf3=
The knight controls g1 and moves within the ring g1-e2-f4-h3 to secure the draw.
½–½

13. Vitaly Chekhover 1955

(Averbakh 28B)

There are **no** extra exercises from this exercise.

The exercise position is after a possible first move of the Chekhover study given on page 74.

2.♘xe3 f4 3.♘g4!
Critical Moment 1. **Method of Elimination; Planning; Working with the King (the opponent's – barrier)**. The only move that draws. White has to put the knight in the right place and find the correct timing for bringing the king into the defence.

3.♘d5? f3 4.♘e3 f2 5.♔b7 g4 6.♘f1 ♔b3 7.♔c6 ♔c4 The body-check is not crucial here – Black's king only needs to get to d3 in order to secure victory. But why not show flexibility and play this prophylactic move? 8.♔d6 ♔d3 9.♔e5 ♔e2 10.♘g3† ♔f3 11.♘f1 g3–+

3...♔b3
3...f3?! is not the most testing for White. White now draws by approaching with the king: 4.♔b7 (4.♘f2? is no barrier as Black can approach the pawns via d4-e3: 4...♔b3 5.♔b7 ♔c4 6.♔c6 ♔d4 7.♔d6 ♔e3 8.♘g4† ♔f4 9.♘f2 g4–+) 4...♔b3 5.♔c6 ♔c3 6.♔d5 ♔d3 7.♔e5 ♔e2 8.♔f5=

4.♘h2!
Critical Moment 2. **Planning; Change Gears**. The knight controls both pawns from h2, and it is ready to jump to f3 at the right moment – thus the knight constructs a barrier. In the meantime, White will bring his king into the defence from a8. However, it is not an easy decision to make a further move with the knight and realize that you can wait to bring in the king.

An alternative solution is:
4.♔b7!?
Critical Moment. **Planning**. White approaches the kingside immediately. He wishes to let the king take care of the g-pawn while the knight controls the f-pawn.
4...♔c4
While approaching the kingside, the black king is body-checking the white king.
5.♔c6 ♔d4 6.♔d6 f3 7.♔e6 ♔e4 8.♘f6†!
Critical Moment. **Change Gears; Surprising Moves; Method of Elimination**. This is a point where many players go wrong. White changes his defensive plan slightly. With the following checks he will conquer the f5-square for the king.
8.♔f6? ♔f4–+

8...♔f4 9.♘d5† ♔g3
9...♔g4 10.♘e3† ♔g3 11.♔f5=
10.♔f5 g4 11.♘e3 f2 12.♔e4!
Critical Moment. **Working with the King**. White now conquers the f4-square for his king.
12.♘f1†? ♔f3 13.♘h2† ♔g2 14.♘xg4 f1=♕†–+ Black queens with check, so White has no fork on e3.
Also possible is: 12.♔g5!? Critical Moment. **Working with the King**; **A Feel for Details**.
12...♔f3 13.♘xg4 The point is the knight fork on h2. 13...f1=♕ 14.♘h2†=
12...♔h3 13.♔f4 g3 14.♔f3 f1=♕†
14...g2 15.♔xf2=
15.♘xf1 g2 16.♔f2!=
The final detail makes the draw clear.

4...♔c2
Black has to approach the kingside via d1.

4...♔c4? 5.♘f3 g4 6.♘e5†= wins the g-pawn.

4...♔c3? 5.♔b7 and the squares d2-d3-d4 form a barrier: 5...♔d3 6.♘f3 g4 7.♘e5†=

5.♔b7
Critical Moment 3. **Planning; Method of Elimination**. White brings in the king.

5...♔d1
5...♔d3? 6.♘f3 g4 7.♘e5†=

5...♔d2? 6.♘f3†=

6.♔c6 ♔e2 7.♔d5 ♔f2
Or 7...f3 8.♔e4 f2 9.♔f5=

8.♔e4
Or 8.♔e5 – the king is going for the g-pawn.

8...♔g2
8...♔g3 9.♘f1† ♔g2 10.♘d2=

9.♘g4 ♔g3 10.♔f5
White has many ways of drawing, so this exercise only contains one more Critical Moment: when you actually solve the exercise!

10...♔h4 11.♘f2 f3 12.♘g4=
Critical Moment 4. **Logical Follow-up**. White has solved the exercise.
½–½

14. Vitaly Chekhover 1955

(Averbakh 28C)

There is **1** extra exercise from this exercise. 1) After **5...♔d4!?**: White to move and draw. Go to Exercise 52 (14.1) in Chapter 6.

The exercise position is after a possible first move of the Chekhover study given on page 74.

2.♘xf4 ♔b3 3.♔b7

Critical Moment 1. **Planning.** White's defensive plan is to bring the king into the defence and place the knight on g2.

Another option is 3.♘g2! Critical Moment 1. **Planning; Play the most forcing line if possible**. 3...e2 4.♔b7 leads to the same thing. I like this option more for White, since it rules out some Black alternatives on move 5.

3...♔c4 4.♔c6 g5 5.♘g2!

Critical Moment 2. **Method of Elimination**. White chooses a square for the knight where it controls both pawns and is as far away from the black king as possible. This gives White time to bring the king into the defence.

5.♘e2? ♔d3–+ immediately attacking the knight.

5...e2

This is the line White had to consider, if he chose 3.♔b7 over 3.♘g2!: 5...♔d3 6.♔d5 g4 7.♔e5 g3 8.♔f4= By playing the most forcing line, White would have ruled out this option. This is arguable not the most difficult line to calculate, but the point is still clear: For the defender, it eases the defence to rule out extra lines, if possible. Usually the attacker benefits from the extra options, where the defender has a chance to go wrong.

An alternative try for Black is 5...♔d4!?. This is an **extra exercise**: White to move and draw. Go to Exercise 52 (14.1) in Chapter 6.

6.♔d6!

Critical Moment 3. **Planning; Method of Elimination**. The king goes for the g-pawn whereas the knight controls the e-pawn. These are White's priorities.

6...♔d4 7.♔e6 ♔e4 8.♔f6 ♔f3 9.♘e1† ♔f2 10.♘d3†!

Critical Moment 4. **Method of Elimination**. It is important not to lose any time. If Black gets an extra move, he will push the g-pawn.

10.♘c2? g4–+

10...♔e3 11.♘e1 g4 12.♔g5 g3 13.♔g4 ♔f2 14.♘d3†! ♔g2

14...♔e3 15.♘e1=

15.♘f4†!

Critical Moment 5. **A Feel for Details; Method of Elimination**.

15.♘e1†?? ♔f1 Black avoids the repetition and wins. 16.♘f3 g2 17.♔g3 e1=♕† 18.♘xe1 g1=♕†–+

15...♔f1 16.♘xe2= g2 17.♔g3

The final detail that secures the draw.

17.♔f3= or 17.♔h3= also draw.

17...♔xe2 18.♔xg2=

½–½

15. Sergey Lebedev – Peter Romanovsky

Moscow 1923 – (Averbakh 112)

There is **1** extra exercise from this exercise. 1) After **11.h4!?**: Black to move and win. Go to Exercise 53 (15.1) in Chapter 6.

1...a5!

Critical Moment 1. **Planning; Positional Judgement**.

1...♔g8? 2.♔f2 Now White is within reach of the a-pawn with the king, and the knight can become more active. This promises White great chances of survival. Black is better, but nothing is decisive – most probably it is a draw with the correct defence.

2.♘f3 a4 3.♘d2 a3 4.♔f2

4.c6? a2 5.♘b3 ♘e7 6.c7 ♔g8 7.♔f2 ♔f8 8.♔e2 ♔e8 9.♔d3 ♔d7–+ Black eliminates the dangerous c-pawn sooner than expected and can concentrate on White's vulnerable pawns on f4 and h3.

4...♔g8

Critical Moment 2. **Planning**. Black brings in the king against White's c-pawn(s).

4...a2 5.♘b3 ♔g8 is similar to the game.

5.♔e2 ♔f8 6.♔d3 a2!

Critical Moment 3. **Planning; Positional Judgement; Logical Follow-up**. Black forces White to defend with the knight against the a-pawn. This is far more disturbing for White, as the knight cannot both blockade and attack the pawn at the same time. A king is able to do just that. The most difficult point for Black at the beginning of the exercise is to realize that he needs to move the a-pawn, well aware that it will be lost eventually. In the meantime, Black will gain other advantages.

6...♔e7? 7.♔c2 and White keeps an active knight.

7.♘b3 ♔e7 8.♔c2 ♘e3†

Critical Moment 4. **Planning**. Black initiates an attack on White's kingside pawns. Points of attack are f4 and h3.

8...♔e6? 9.♔b2 ♔d5 This looks active, but is in fact setting the wrong priorities. After 10.♔xa2 ♘e3 11.♔a3 ♘g2 12.♔b4± it becomes evident that Black's time-consuming king manoeuvre did nothing to stop the c-pawn, and instead cost him valuable time. In this position, Black actually has to be careful not to lose. In short, centralizing the king without a clear goal is showing bad priorities from Black's side. Instead, the black king should concentrate on being ready to defend against the c-pawn for now.

9.♔b2 ♘g2

9...♘d5!?

This move is on principle more flexible than the one in the main line, since now both c3 and f4 are under attack. The question is, if the flexibility is for real, or if Black is going to capture f4 anyway. It does not change White's decision: a2 must be eliminated.

10.♔xa2 ♘xc3†!?

I don't really like this move. Black spends two moves on the doubled and hindmost c-pawn, which seems a bit greedy. I think the position is still won for Black, but now he has to walk a tightrope to show it – and especially so against the engine!

10...♘xf4 gives the main continuation.

11.♔a3 ♘d5

Prophylactic Thinking: on the way to f4, the knight covers the b4-square.

12.♔a4

This position was reached in one of my training sessions, a strong IM now showing inconsistency by playing:

12...♔d7?

Now the engine immediately claims a draw. As it turns out, it is Black who has to be careful. As I played along in the exercise, Black managed to display a good deal of **Composure** and draw this difficult position with the clock ticking down.

Instead, Black had to stay focused and play: 12...♘xf4! 13.♔b5 ♘xh3 14.♔b6 (or 14.c6 ♘f4 15.♘d4 ♔d6 16.♔b6 ♘d5† 17.♔b7 g5–+) 14...♘f4 The black knight returns in time to be able to sacrifice itself for the c-pawn. The position is winning. 15.c6 g5 16.♘d4 ♔d6 17.♘f5† ♔e5 18.♘g3 ♘e6–+

13.♔b5 ♔c7 14.♘d4 ♘xf4 15.h4 ♘g2 16.c6!?

The engine believes 16.♘f3= to be a draw as well, but I wanted to test Black to the maximum.

16...♘xh4 17.♔c5 ♘f5 18.♘b5† ♔d8

The first in a series of only moves.

19.♔b6 ♘e7 20.c7† ♔d7

Again, the only move.

21.♔b7 ♘c8

Only move. 21...g5? 22.♘a7+– with the deadly threat of ♘c6.

22.♘c3 f5 23.♘e2 g5 24.♘d4 g6 25.♘f3 ♘d6† 26.♔b8 g4 27.♘e5† ♔e7

Only move.

28.♘c4 g3 29.♘xd6 g2 30.c8=♕ g1=♕

There is no win, so I went against the engine and played:

31.♘xf5†=

The lesson from this display is that after Black's failure to cope with the position (first unfocused with 10...♘xc3†!? and then too passive with 12...♔d7?), he did show excellent **Composure** after that and was able to find the narrow path to the draw.

10.♔xa2 ♘xf4 11.♔a3

An alternative try for White is 11.h4!?. This is an **extra exercise**: Black to move and win. Go to Exercise 53 (15.1) in Chapter 6.

11...♘xh3 12.♔b4

Black now has two main plans. Plan No. 1: Black gets in front of the c-pawn with the plan of eliminating it. He will push the g-pawn far up the board, eventually sacrificing it. Meanwhile he will cash in on both of White's c-pawns, and with a solid configuration of knight on e6 and the f- and g-pawns, he will consolidate and win the game.

12...♔d7!

Critical Moment 5**. Prophylactic Thinking; Planning; Surprising Moves; Change Gears**. I especially like this move because of its coolness: Black sees that he doesn't need to advance his g-pawn just yet, and that he can prevent White's most dangerous idea for counterplay. Hence this prophylactic thinking leads to a fine sense of how and when to change gears in the position: Black can wait a little while before the position is sharpened. This Critical Moment is awarded for finding a clear plan and stick to it.

Plan No. 2 (favoured by most of the players I tested the position on) has a different approach: Black first pushes the g-pawn to create play. Against White's counterplay with the c-pawn and active king to support it, Black intends to counter with a timely knight retreat to either d6 or e6. From here, the knight is able to sacrifice itself for the c-pawn, leaving Black with an army of kingside pawns against a helpless white knight. This approach is slightly less sophisticated compared to the prophylactic approach in Plan 1, and Black needs to be more accurate:

12...g5

Critical Moment. **Planning**.

13.♘d4 g4 14.c6

Black now has several ways to win the game; the most important thing is to stay focused on a plan and execute it correctly.

14...♔d6!

Critical Moment. **Planning**; **Logical Follow-up**.

Other options are:

1) 14...♘f4? 15.♔c5 g6 16.♔b6 g3 17.♔b7⇄ Things are not so clear in the queen ending which arises: 17...g2 18.c7 g1=♕ 19.c8=♕

2) Bad is 14...g3? 15.♘f5†=.

3) Also possible is 14...♘f2!? aiming for the d6-square with the knight. 15.♔c5 The most

testing for Black. 15...♘e4† 16.♔b6 g6 17.c7 ♔d7 18.♔b7 ♘d6† 19.♔b8 g3 20.c4 g2 21.♘f3 ♔c6!–+ A timely defence against c4-c5. A nice finish is: 22.♘e5† ♔c5 23.♘xf7 g1=♕ 24.♘xd6 ♔xd6 25.c8=♕ ♕b6† 26.♔a8 ♕c6† 27.♕xc6† ♔xc6 and the g-pawn decides.

15.♔b5 ♔c7 16.♔c5 ♘f4 17.♘b5† ♔d8!

Critical Moment. **Working with the King; Method of Elimination**. This is a scary moment for Black, who only just holds back the c-pawn.

18.♔d6 ♘e6–+

13.♘d4 ♘f4

Critical Moment 6. **Prophylactic Thinking; A Feel for Details**. By waiting with the g-pawn, Black has prevented the most dangerous counterplay by White – plus he still has f5 under control.

14.♔c4

White would like to play 14.c6† ♔c7 15.♔c5 but Black can counter with 15...♘e6†–+ leading to a won pawn ending. This is why I clearly favour 12...♔d7! over 12...g5.

14...g5 15.c6† ♔c7 16.♘f5 g4

Critical Moment 7. **Planning; Transform-willingness**. Black pushes the pawn to keep the white knight under control, well aware that this pawn will be lost. However, White's c6-pawn will also be lost, and the transformed endgame on the board is a win for Black. Such a decision demands patience and **Transform-willingness** from Black.

17.♔d4 ♘e6† 18.♔e4 ♔xc6 19.♘g3 ♔c5

Critical Moment 8. **Planning**. This Critical Moment is for steering the game into a won endgame.

The engine suggest a tactical solution and stubbornly holds on to the g4-pawn: 19...g6!? 20.♔e5 ♘g7! Critical Moment. **Planning**. 21.♘e2 (21.♔f6 ♘h5†–+) 21...♘h5–+ etc.

20.♔f5 ♔c4 21.♔xg4 g6–+

For now, Black controls the white pieces, but the position still needs to be won. White should seek counterplay with 22.♔f3, aiming to attack the f7-pawn with the knight! Good luck with finishing off the engine.

0–1

16. Francois-André Philidor – Thomas Bowdler

London 1749 – (Averbakh 50)

There are **no** extra exercises from this exercise.

1.♘e3!

Critical Moment 1. **Method of Elimination**.

1...a3 2.♘d5!

Critical Moment 2. **Method of Elimination; Surprising Moves; A Feel for Details**.

White cannot switch the move orders: 2.e7? f1=♕! 3.♘xf1 a2–+

Bringing the knight to f5 does not save White: 2.♘f5? f1=♕ 3.♘g7† ♔f8 4.e7† ♔xg7 5.e8=♕ ♕f8†–+ Black exchanges queens and wins.

2...f1=♕ 3.♘c7† ♔f8

3...♔d8?? leads to a forced mate: 4.e7† ♔c8 5.e8=♕† ♔b7 6.♕a8† ♔b6 7.♘d5† ♔b5 8.♕c6† ♔a5 9.♕b6† ♔a4 10.♕b4 mate.

4.e7† ♔g7 5.e8=♕ ♕f4†!

This move poses the most problems for White. There are a couple of ways to go wrong here.

5...♕f8† 6.♕xf8† ♔xf8 7.♘e6†= and the knight stops the pawn in time on a1.

6.♔c5!

Critical Moment 3. **A Feel for Details; Surprising Moves; Basic Endgame Knowledge**. It is important to realize at this stage, that White has to be a bit careful and that he is not safe yet.

Another way to achieve the draw is: 6.♔c6! Critical Moment. **Planning**; **Basic Endgame Knowledge**. This is probably the most human solution. 6...♕a4† 7.♘b5 a2 8.♕e5†= With perpetual check.

6.♔d5? ♕xc7+–

Surprisingly enough, because of the bad position of White's king in the middle of the board, the position is won for Black. A sample line goes:

7.♕a4

Or 7.♕e1 a2 8.♕a1† ♔h7 9.♕h1† ♔g8 10.♕g1† ♕g7–+.

7...a2! 8.♕g4† ♔f8

There are counter-checks on f7.

9.♕b4† ♔f7

White has no more checks.

10.♕a3 ♕d7† 11.♔c4 ♕e6†

Black either forces the exchange of queens or promotes the pawn on a1. For instance:

12.♔b5

12.♔d3 ♕h3†–+

12...♕e5†–+

6.♔d7? ♕f7† 7.♔c6 ♕xe8† 8.♘xe8† ♔g6–+ The knight is too far away from the pawn.

6...♕xc7† 7.♔b4 a2 8.♕e1=

Critical Moment 4. **Planning; Basic Endgame Knowledge**. With the king and queen close to the a-pawn, the draw is easily secured.

½–½

17. Viktor Korchnoi – Vladimir Antoshin

Yerevan 1954

There is **1** extra exercise from this exercise.
1) After **59...h4**: White to move and win.
Go to Exercise 54 (17.1) in Chapter 6.

51.e5!

The move is not your decision, but it clearly shows **Transform-willingness**.

51...♖xg4

51...fxe5† 52.fxe5 ♖xg4† 53.♔d5 ♖g1 54.e6 ♖d1† 55.♔c6 ♖e1 56.♔d7 ♖d1† 57.♔e8+– is no better.

52.e6

Critical Moment 1. **Planning**; **Play the most forcing line if possible**; **Logical Follow-up**. White intends to win the black rook as quickly as possible, and then deal with Black's many pawns afterwards.

52.♔d5!? is also possible, giving Black more options, but also more ways to go wrong: 52...♖xf4 (52...fxe5 53.fxe5 ♖g1 54.e6 leads to a line we already looked at) 53.e6 ♖f5† With a transposition to the main continuation.

52...♖xf4† 53.♔d5

Critical Moment 2. **Working with the King; Logical Follow-up**. White has a chance to go wrong here. The move played again shows White's logical follow-up on his initial plan of promoting the pawn.

53.♔d3 ♖f3† 54.♔d2 ♖f2† White will eventually have to give up the h-pawn before winning the rook, and there is no getting around the king moving forward with 55.♔d3 etc.

53.♔e3?? ♖f5–+ with an upcoming check on e5.

53...♖f5† 54.♔d6 ♖xh5 55.e7 ♖e5 56.e8=♕ ♖xe8 57.♖xe8 ♔g6 58.♔d5

Critical Moment 3. **Planning; Positional Judgement; Change Gears**. White has many ways to win this position, but at some point he will have to realize that the most important priority is to get his king into the defence. Right now, it is not so easy, and White must be willing to sacrifice a couple of tempos to achieve his goal. After the previous forced sequence of moves which won the black rook, White now has to show a different mindset and change gears.

A pupil of mine played the unfocused move 58.♔e6?!. Objectively speaking, the position is still winning for White, but there is no natural follow-up, and for this reason, I dislike the move. This is a typical example of a slightly inferior move that does not throw away the win, but makes it much harder to achieve – and the risk of more inaccuracies is there, eventually letting the win slip away. If White was unfocused on this move, there is a risk that he will not be up for a tougher challenge later on.

Play continued: 58...h5 59.♖g8 h4 This is an **extra exercise**: White to move and win. Go to Exercise 54 (17.1) in Chapter 6.

58...♔f5!?

"All is not yet clear. With his king in front of the black pawns, somewhere in the region of f3, White would win easily, but here there are still some technical problems to solve." (Dvoretsky)

59.♖e1

Critical Moment 4. **Planning**; **Logical Follow-up**. White wants his king closer to the kingside.

59.♔d4 ♔f4 60.♔d3 ♔f3 61.♖g8 g5 62.♖f8+– is also strong. Again the priority is to get the king in.

59...h5 60.♖f1† ♔g4 61.♔e4 g5 62.♖xf6 h4 63.♔e3 ♔g3 64.♔e2

Critical Moment 5. **Logical Follow-up; Planning; Working with the King**. White will get his king in front of the pawns.

64...g4

64...♔g2 65.♖g6+–

65.♔f1 ♔h2 66.♖f4

Critical Moment 6. **Planning; Basic Endgame Knowledge**. There are other ways for White to win, but the core idea in the last phase of the game is to bring Black into zugzwang.

66...h3

66...♔g3 67.♖b4 h3 68.♔g1 and the zugzwang is not far off since Black needs to guard the g4-pawn: 68...♔h4 69.♔h2 ♔g5 70.♔g3+–

67.♖xg4 ♔h1 68.♔f2 h2 69.♔g3 ♔g1 70.♔h3†

Or White can win along the lines of Chapter 3.4 with rook vs. knight: 70.♖a4!? h1=♘† 71.♔f3 ♔h2 72.♖a7! ♔g1 73.♖a2+–

1–0

18. Luka Lenic – Hans Tikkanen

Rogaska Slatina 2011

There are **no** extra exercises from this exercise.

54...♔c2

Critical Moment 1. **Planning; Change Gears**. This is an exercise where many continuations win for Black. However, the priority should be to get the king into the defence and activate the rook at the right time.

A pupil rated 2150 played the unfortunate move: 54...e6?? This gives White an immediate opportunity to exchange the black pawn and create a strong passed pawn, without letting the black king into play. As long as the white king is allowed to stay on e3, it will be time consuming for the black king to get back into the defence. 55.f5 exf5 56.gxf5= The position is a draw.

Clearly, the pupil was not able to sense the tempo of the exercise – how much time he could afford himself before taking more concrete action against White's plan. This is why **Change Gears** is a parameter here.

The following variation shows how much freedom Black has: 54...♔d1?! 55.g5 ♔c2 (but not 55...♔e1?? 56.f5=) Going to c2 admits the mistake on the previous move, and the position is still winning. 56.f5 ♖d1 57.♔e4 ♖f1 White has no good way of improving his position, at least nothing that Black cannot counter. 58.♔e5 ♖g1 59.g6 ♖e1† 60.♔d5 ♔d3–+

Activating the rook immediately with 54...♖d1–+ also wins.

Another pupil played: 54...♖d8 55.f5 ♖g8 Attacking the pawn from the front is also possible but, when choosing this line, Black should do some accurate calculation. 56.♔f4 ♔d2 57.g5 ♔d3 58.f6 exf6 59.gxf6 ♔d4 60.♔f5 ♔d5 61.f7 ♖f8 62.♔f6 ♔d6 Zugzwang – White will drop the pawn. 63.♔g7 ♔e7–+

One pupil played the nervous-looking 54...♖d5?!, yet after 55.♔e4 he can activate the rook at eiher end of the board with 55...♖d1 or 55...♖d8, when the position is still winning. Again, this shows how much freedom the Black player has. Nonetheless, many players feel uncomfortable playing this position.

55.f5 ♔c3 56.g5 ♖d1

Critical Moment 2. **Planning**. The activation of the rook is essential to take home the win.

56...♔c4 57.♔e4 ♖d1 is merely a transposition of moves.

57.♔e4 ♔c4 58.f6 exf6 59.gxf6 ♖e1†
0–1

19. Richard Lilja – Silas Esben Lund

Helsingor 2011 (variation)

There are **no** extra exercises from this exercise.

51.♖h8!

Critical Moment 1. **Planning; Positional Judgement; A Feel for Details; Method of Elimination**. The only move that draws. White has to eliminate one pawn quickly in order for Black to remain with only one pawn once the rook has to sacrifice itself for pawn No. 2. The white king can then successfully deal with pawn No. 3.

Notice that 51.♖c7? is less flexible. After 51...h6! (the only move that wins), White has no good way of returning to the main continuation without losing a vital tempo.

The following line shows why it is important for White to eliminate a pawn in time: 51.♖d8† ♔e4 52.♔c6 f3 53.♖e8† ♔f4 54.♔d5 f2 55.♔d4 ♔g3 56.♖f8 ♔g2 57.♔e3 f1=♕ 58.♖xf1 ♔xf1–+ The white king is not able to eliminate Black's two remaining pawns.

51...g5!?

This continuation poses different problems for White, as Black keeps his king on d5 for as long as possible – forcing White to find a couple of only moves. To my mind, this is the most testing continuation.

51...f3 In this continuation, the black king leaves the d5-square early to support the passed pawns. White needs to be precise and approach the pawns with the king in the right way: 52.♖xh7 ♔e4 53.♔c6 f2 54.♖f7 White has other options at this point, but the overall idea is to find a way in for the white king. 54...♔e3 55.♔d5 g5 56.♖e7†! Critical Moment. **Planning**. White has to get his king into the defence, so he keeps checking the black king until it moves away. 56...♔f3 57.♖f7† ♔g2 58.♔e4 Critical Moment. **Planning; Method of Elimination**. The king must eliminate the g-pawn after the rook sacrifices itself for the f-pawn. 58...g4 59.♔e3! Critical Moment. Planning; Logical Follow-up. 59...f1=♕ (59...g3 60.♔e2 ♔g1 61.♖f6= White simply play a waiting move and draws.) 60.♖xf1 ♔xf1 61.♔f4=

52.♖xh7 f3

52...♔e4!? 53.♔c6 g4 Black wishes to push his pawns forward as a pair, at the same time keeping the white king out. The key for White is to disturb the black king and get his own king into the defence. One sample variation is: 54.♖e7† ♔d4 55.♖d7† ♔e3 56.♔d5 f3 57.♖e7† Once again, checks until White gets his way. 57...♔d2 58.♖f7 ♔e2 59.♖e7† ♔f2 60.♔e4 g3 61.♖f7=

Notice that 52...g4?! is answered with 53.♖h4=, demanding no special effort from White to achieve the draw.

53.♖g7!

Critical Moment 2. **Method of Elimination; Planning; Change Gears**. White realizes that he cannot check the king immediately and, since he cannot get his king in either at the moment, he makes a useful (and patient) move that improves his position.

Other moves fail:

53.♖h5? f2! 54.♖xg5† ♔e6 55.♖g6† ♔f7–+

53.♖d7†? ♔e6! Covering f7 and preparing to push the f-pawn: 54.♔c6 f2 55.♖d1 g4–+

53...♔e4 54.♖e7†!

Critical Moment 3. **Method of Elimination; Change Gears**. At this point White has to realize that the only route to a draw is to force the black king in front of the f-pawn. Therefore, White needs to keep checking.

54...♔d3

54...♔f4 55.♖f7† ♔g3 Now the black king is on the other side of the pawns, and the white king can quickly rush to the defence: 56.♔c6 Critical Moment. **Planning; Method of Elimination**. 56...f2 57.♔d5 ♔g2 58.♔e4 g4 59.♔e3!= Critical Moment. **Method of Elimination**. This is the only move that draws. 59...f1=♕ (or 59...g3 60.♔e2 ♔g1 61.♖f6=) 60.♖xf1 ♔xf1 61.♔f4=

55.♖d7† ♔e2

After 55...♔c2 the simplest is: 56.♖f7 g4 57.♖f4=

55...♔e3 56.♖e7† ♔f4 57.♖f7† ♔g3 Again the white king is in time: 58.♔c6 f2 59.♔d5 ♔g2 60.♔e4 g4 61.♔e3 g3 (61...f1=♕ 62.♖xf1 ♔xf1 63.♔f4=) 62.♔e2 ♔g1 63.♖f6=

56.♖e7† ♔f2 57.♖g7!=

Critical Moment 4. **Method of Elimination**. The last obstacle – White successfully eliminates both pawns with the rook.

57.♔c6?? This move is wrong for many reasons, the most important being that White is missing an easy draw. Also, by playing the less forcing option, White allows extra possibilities later on – in this case it is easy to miss Black's 59th move. 57...g4 58.♔d5 g3 59.♔e4 ♔g2! (59...g2? 60.♖g7 allows White to draw. After 60...♔e2 61.♖g6!= White is just playing a waiting game.) 60.♔e3 f2 61.♖f7 f1=♕ 62.♖xf1 ♔xf1 63.♔f3 g2–+ Black promotes his last pawn.

½–½

20. Ivan Saric – Dimitri Reindermann

Rotterdam 2014

There are **no** extra exercises from this exercise.

56.♖d6†!

Critical Moment 1. **Planning; Prophylactic Thinking**. In the moves to come, Black's king in the middle is in no man's land: not really helping to stop the white c-pawn nor supporting his own kingside pawns.

56.♔b5!?

Critical Moment. **Planning; Working with the King**. This move is also good enough for a win, as White can do without the c-pawn and focus entirely on the far-advanced a-pawn. One important point behind the king move forward is that it also protects the a-pawn and thereby frees the rook of its defensive duties. Attacking g7 becomes an option now.

56...h5

56...g5 57.♖xh6+–

57.♖g6 ♖b1† 58.♔c6 ♔xc4 59.♖xg7 h4 60.a7

Or 60.♖h7+–. Again, the black king is in a bad position, neither fighting against White's pawns nor supporting his own pawn.

60...♖a1 61.♔b7 ♖b1† 62.♔c7 ♖a1 63.♔b8 ♖b1† 64.♖b7+–

56...♔e3!

Since the engine believes White is winning anyway, and that the line with queen against rook is winning with a big margin, it fails to appreciate the detail that the black king is covering the d2-square. For a human, this is the most resilient defence to face.

56...♔e4?! 57.♔b5!

Critical Moment. **Prophylactic Thinking; Planning**.

The game continued: 57.c5!? h5 58.♔b5 (58.c6 ♖xa6 59.c7 ♖xd6 60.c8=♕+– This would have been the logical follow-up to the push of the c-pawn, but the position is not easy for a human to win. But otherwise, why push the c-pawn? After 60...g6, winning against the engine is definitely not easy!) 58...h4 59.c6 ♖b1† 60.♔a5 ♖a1† 61.♔b6 ♖b1† 62.♔a7 ♖c1 63.♔b7 ♖b1† 64.♔c8 h3 65.♖d2! Nice prophylaxis: the rook is covering h2 and preparing to get behind the a-pawn. 65...g5 66.c7 ♔e3 67.♖a2 g4 68.a7+– One can say that White's 'sloppiness' with the c-pawn did not matter since he had access to the d2-square. But compared to the continuation that I suggest, this definitely required more work from White's hand in order to win.

57...h5

57...g5 58.♖xh6 g4 59.♖g6 ♔f3 60.c5 g3 and already here the engine suggests that White sacrifices the rook for the g-pawn. It is not necessary yet, but it shows that White is winning fairly easily with his two passed pawns supported by the king.

58.♖g6!

Critical Moment. **Logical Follow-up; Planning**. This is a clinical way to end the game and would have saved White a lot of energy. You still need to play on and win against the engine here though.

57.♔b5!

Critical Moment 2. **Prophylactic Thinking; Planning**. Again, White focuses entirely on the far-advanced a-pawn, and the main point behind the king move forward is to protect the a-pawn and allow the rook to perform its defensive duties. Now it is ready to attack g7.

For comparison with the game continuation, I give the following lines:

57.c5!? h5 58.♔b5

To my mind, 58.c6!? ♖xa6 59.c7 ♖xd6 60.c8=♕+– would have been the logical follow-up to pushing the c-pawn, but this position is not easy to win.

58...h4 59.c6 ♖b1† 60.♔c5 ♖c1† 61.♔b6 ♖b1† 62.♔a7 ♖c1 63.♔b7 ♖b1† 64.♔c8 h3

Here White has to be precise as he cannot retreat to d2:

65.♖g6!

Good enough for a win is: 65.♖d8!? g5 66.♖h8 g4 67.a7 ♖a1 68.♔b7 ♖b1† 69.♔a6 ♖a1† 70.♔b6 ♖b1† 71.♔c5 ♖c1† 72.♔d5 ♖a1 73.a8=♕ ♖xa8 74.♖xa8 h2 75.♖a1 g3 76.c7 g2 77.c8=♕ h1=♕ 78.♖a3†+– and White mates.

65...h2 66.♖g3† ♔f4 67.♖h3 h1=♕ 68.♖xh1 ♖xh1 69.c7+–

Two pawns on the 7th rank is too much for the rook to deal with.

57...h5 58.♖g6!

Critical Moment 3. **Logical Follow-up**. When White is unable to retreat to the d2-square with the rook, this continuation seems to be by far the most focused one. Again, you still need to play on and win against the engine, but you have already saved a lot of energy with focused play, and the win should not be far off.

1–0

21. Reuben Fine 1941

(Averbakh 57)

There is **1** extra exercise from this exercise.
1) After **1.♘f5?**: Black to move and draw. Go to Exercise 55 (21.1) in Chapter 6.

1.♘c6

Critical Moment 1. **Planning; A Feel for Details; Surprising Moves; Basic Endgame Knowledge**. White's plan is to block the d8-h4 diagonal with the knight on e7. Black is lost without the help of the king on f1 – since the shortest diagonal in front of the pawn is a5-d8. Once Black is forced onto this diagonal, White will win be placing the knight on c6 and king on b7 – leaving no room for the bishop on the diagonal. Therefore, the black king is needed.

1.♘f5? This is an example of too slow manoeuvring by White. We have an **extra exercise**: Black to move and draw. Go to Exercise 55 (21.1) in Chapter 6.

1...♔f2 2.♔d6 ♗g3†

2...♔e3? 3.♘e7 ♗g3† 4.♔c6+–

3.♔c5!

Critical Moment 2. **Prophylactic Thinking; Working with the King; Surprising Moves**. White has to be precise here. If he wishes to bring the king to b7, every tempo counts.

3.♔d5? After this loss of tempo, Black is able to reach d6 in time: 3...♗c7 4.♔c5 ♔e3 5.♔b5 ♔e4 6.♔a6 ♔d5 7.♔b7 ♔d6=

An alternative solution is:
3.♔e7!? ♗c7 4.♘d4
Threatening ♘e6 followed by ♔d6.
4...♗a5
4...♔e3 5.♘e6 ♗a5 6.♔d6 ♗b4† 7.♘c5! This and the next move is the real point behind the alternative solution. 7...♗a5 8.♘b7! Black cannot change diagonal. 8...♗b6 (8...♗b4† 9.♔e6+–) 9.♔c6+–
5.♘e6
Threatening ♔d6.
5...♗b4† 6.♔f6 ♗a5 7.♔e5 ♔e3
Or: 7...♗c3† 8.♔f5 ♗a5 9.♔e4 White brings the king to c6 and closes the diagonal with the knight on c7. 9...♔g3 10.♔d5 ♔g4 11.♔c6 ♔f5 12.♘c7+–
8.♔d6 ♗b4† 9.♘c5 ♗a5 10.♘b7+–

3...♗h4

Black stays with the bishop on the long diagonal (d8-h4).

Going to the shorter a5-d8 diagonal is no better: 3...♗c7 4.♔b5 Critical Moment. **Planning**. White has found the plan of bringing the king to b7. 4...♔e3 5.♔a6 ♔e4 6.♔b7+– The knight covers a5 and d8 whiles the king covers b6 and c7 – and the black king is too far away from the pawn.

4.♔d5!

Critical Moment 3. **Planning**; **Prophylactic Thinking; Change Gears; Surprising Moves; Working with the King**. White has found the plan of bringing the king to e6 – simultaneously avoiding the dark squares that would enable the bishop to change diagonal. Many players overlook this option and only consider 4.♔d6?!.

4...♔e3 5.♔e6 ♔e4 6.♘e7+–
1–0

22. Ian Nepomniachtchi – Wang Yue

Sochi 2009

There are **2** extra exercises from this exercise.
1) After **57.♔d5!?**: Black to move and draw.
Go to Exercise 56 (22.1) in Chapter 6.
2) After **57...♔f7?**: White to move and win.
Go to Exercise 57 (22.2) in Chapter 6.

50...b4!

Critical Moment 1. **Planning**. Eventually Black will have to play this move.

Equally good is:
50...♘d7!?
Critical Moment. **Planning**. Black is aiming to reach the c3-square with his knight. This idea was played by an IM (now GM). White, however, can prevent this and steer the game towards the game continuation.
51.♗d3! b4 52.cxb4 axb4 53.♗c2!
White is preventing the knight from reaching the c3-square.
53.♔g3 ♘b6! Aiming for either a4 or d5. 54.♔f4 ♘d5† 55.♔f5 ♘c3 56.♗c4 ♘d1= Black simply keeps his knight close to the c3-square, attacking a2. White's bishop cannot protect both a2 and the g-pawn on the same diagonal, which means that once he tries to transfer the king to the queenside to attack b4, Black sacrifices the knight on a2 and eliminates the g-pawn with the king.
53...♘e5
Play has transposed to the position after 51...axb4 in the game continuation.

51.cxb4 axb4 52.♔g3 ♘c6!

Critical Moment 2. **Planning**. The knight is heading for the d4-square where it threatens to reach the c3-square via either b5 or e2 (that position is a draw), or to support the push of the b-pawn.

53.♔f4 ♘d4 54.♗d3

Covering both b5 and e2.

After 54.♗d1 ♘b5= the knight is going to c3, the same goes for 54.♗b3 ♘b5=.

54...b3!

Critical Moment 3. **Transform-willingness; Positional Judgement; Planning**. Black has two different ways of drawing, this move is the start of the active defence. By playing this way, Black is relying on the far-advanced b-pawn to secure the draw: this is not an easy decision to make.

An alternative way to draw is to undertake nothing for the time being: 54...♘e6†!? Critical Moment. **Transform-willingness; Positional Judgement**. Black exchanges the g-pawn for the b-pawn and rightfully relies on the ability to fight the white a-pawn that is not far advanced at the moment. For instance: 55.♔f5 ♘d4† 56.♔e5 ♘f3† If Black chooses this defence, he has to reckon with this winning try for White: giving up the g-pawn for Black's b-pawn. Black can fight the a-pawn with king and knight, but the task is not as easy as you might think. 57.♔d5!? This is an **extra exercise**: Black to move and draw. Go to Exercise 56 (22.1) in Chapter 6.

55.a3

55.a4?! ♘e6†! 56.♔e5 ♘c5= and Black eliminates the a-pawn.

55...♘e6†!

Critical Moment 4. **Planning; Method of Elimination; Positional Judgement; Transform-willingness**. Black has to eliminate the g-pawn first and then concentrate on the a-pawn afterwards. Even if you can't see the draw yet, this is the only chance – so you shouldn't use too much unnecessary time at this point to gather the necessary courage to enter this continuation.

If Black does not dare to enter the scary game continuation, this is a typical way he can lose without a fight: 55...♘c2? 56.a4 ♘b4 57.♔e3 White eliminates the b-pawn and is left with a pawn on each wing, winning easily. 57...b2 58.♗b1 ♔f7 59.♔d4 ♘a6 60.♔c3 ♔e7 61.♔xb2+–

56.♔e5 ♘xg5 57.a4

This position is difficult for Black, who has to manoeuvre his knight and approach his king towards the a8-corner on a completely open board.

57...♘f7†!

Critical Moment 5. **Planning; Working with the King**. One way or the other, Black needs f7 as a transfer square for his knight. At the same time, he must bring his king towards the a8-corner, not obstructing his knight.

Also possible is 57...♔f8!? aiming for e7. It is important that Black realizes the importance of using the f7-square for the knight, and thus the position usually transposes to one from the main continuation.

A typical mistake in this position is: **57...♔f7?** This is an **extra exercise**: White to move and win. Go to Exercise 57 (22.2) in Chapter 6.

58.♔d5

58.♔e6 covers the f6-square. Black responds with 58...♘d8†! and after 59.♔d7 it is interesting to see how much freedom Black has to make a draw. I give three different approaches:

1) 59...♔f6!? **Play the most forcing line if possible; Surprising moves**. I think this is the most focused continuation for Black: it is possible to calculate right to a draw. On the way, Black has to spot a surprising idea: 60.♔xd8 ♔e5 61.a5 ♔d4 62.♗f5 ♔c5 63.♗d3 ♔d4=

2) 59...♘b7 It is natural to stay in the area close to the a-pawn. 60.♔c6 ♘d8† 61.♔d5 ♘b7 It turns out to be very difficult to counter this defensive idea by Black. There are many knight checks looming. 62.♔c4 ♔f6! 63.♔b5 ♔e5 64.♔b6 Here the simplest way to the draw is 64...♔d4 followed by a knight manoeuvre to c4.

3) 59...♘f7!? The threat on e5 gives Black a crucial tempo: 60.♔c7 ♘e5 61.♗b1 ♘c4 Holding back the a-pawn for the moment, and giving Black just enough time to bring the king closer to the a8-corner. 62.♔c6 b2 63.♔c5 ♘d2 64.♗d3 ♔f6 65.♔b4 ♔e5 66.a5 ♔d6 67.a6 ♔c7=

58...♔f6

Critical Moment 6. **Method of Elimination; Planning**. The only move. Black has to use the e5-square for the knight transfer to the queenside in time.

Now 58...♘d8?? 59.a5 does not bring the knight to b7 in time and the pawn cannot be stopped. The position is very tempo sensitive.

59.a5 ♘e5

An important tempo on the bishop.

60.♗b1 ♘d7

Critical Moment 7. **Planning; Basic Endgame knowledge**. In this case, it is the endgame knowledge from the introduction to knight endgames from this book! Black is ready to enter the ring consisting of the squares a7-c8-d6-b5. The special challenge here is to get the knight into Ring 1 without losing time.

61.a6 ♘b6†!

Critical Moment 8. **Method of Elimination**. Black needs to bring the knight to c8. This move seems like a natural follow-up to the previous move, but the super-GM did in fact miss the draw on exactly this move.

The game continuation was 61...♔e7?? 62.a7 1–0. Black resigned as stopping the pawn on a8 gives no hope, as Black will eventually end up in zugzwang – White's bishop makes a waiting move on the diagonal in the end: 62...♘b6† 63.♔c6 ♘a8 64.♔b7 ♔d6 65.♔xa8 ♔c7 66.♗f5! b2 67.♗d3 White loses a tempo. 67...♔c8 68.♗b1 ♔c7 69.♗f5 A deadly zugzwang that helps the king to escape the corner. 69...b1=♕ 70.♗xb1 ♔c8 71.♗f5† ♔c7 72.♗g4+–

62.♔c6 ♘c8 63.♔c7 ♘a7 64.♔b7 ♘b5 65.♗d3 b2!=

Critical Moment 9. **Basic Endgame knowledge**. Because of the black pawn, the knight can stay in the ring. We saw the same theme in the game Hansen – Semcesen in Chapter 3.3, on page 120.

Because of the many Critical Moments, this exercise is probably one of the most difficult in the book.

23. Yuri Averbakh 1958

(Averbakh 40)

There is **1** extra exercise from this exercise.
1) After **1...♔c5?**: White to move and win.
Go to Exercise 58 (23.1) in Chapter 6.

1...♔d7!

Critical Moment 1. **Method of Elimination; Working with the King; Basic Endgame Knowledge**. Black has to find a way to avoid ending up in zugzwang. Other king moves fail:

1...♔d5? 2.♔b6+–

1...♔c5? This is an **extra exercise**: White to move and win. See Exercise 58 (23.1) in Chapter 6.

2.♗c7 ♘a7!

Critical Moment 2. **Method of Elimination; Basic Endgame Knowledge**. This move avoids the zugzwang. This is the first important defensive idea in the position.

3.♗f4 ♘c6!

Critical Moment 3. **Method of Elimination; Surprising Moves; A Feel for Details**. The knight returns to base. Black has to choose correctly from several knight moves:

3...♘b5? 4.♔b6+–

3...♘c8? 4.♗g3 ♔d8 5.♗h4† ♔d7 6.♗e7!+– This tricky move can easily be overlooked.

4.♔b6 ♘e7!

Critical Moment 4. **Method of Elimination; Basic Endgame Knowledge**. There is a knight fork looming on c8. This is the second important defensive idea in the position.

5.♗g3 ♘c6 6.♗e1 ♔c8!

Critical Moment 5. **Basic Endgame Knowledge**. The third important defensive idea for Black is bringing the king to a8. This is possible once the bishop leaves the h2-b8 diagonal.

Also possible is: 6...♘e7!? 7.♔b7 ♘c6 8.♗b4 ♘d8† 9.♔b6 ♘c6 10.♗a3 There is no zugzwang. 10...♔c8 11.♗d6 ♔d7 12.♗g3 ♘e7= etc.

7.♗g3 ♔d7=
½–½

24. Robert James Fischer – Mark Taimanov

Vancouver (2) 1971

There is **1** extra exercise from this exercise.
1) After **1...♔e4?**: White to move and win.
Go to Exercise 59 (24.1) in Chapter 6.

1...♔d6!

Critical Moment 1. **Planning; Basic Endgame Knowledge; Surprising Moves**. Black is waiting for White to show his hand. The knight can use either the d7- or f3-square and as long as the bishop stays on g4, the pawn cannot advance. The corner h8 is the wrong coloured square for the bishop, which means that the knight can be sacrificed if that will allow the king to get to the corner.

1) Also possible is: 1...♔d4!? 2.♗e2 ♔d5 3.h4 ♘d7† 4.♔f7 ♔e5 5.h5 ♔f5 6.h6 ♘f6 This line shows that Black has some freedom, and that this exercise is mostly about planning and knowing your basic endgames.

2) Taimanov played the unfortunate: 1...♔e4? This is an **extra exercise**: White to move and win. See Exercise 59 (24.1) in Chapter 6.

2.♗e2

2.♗c8 ♘f3 3.♗b7 ♘h4 (Or 3...♘e5 4.h4 ♘d7† 5.♔f7 ♘e5† 6.♔g7 ♔e7 7.h5 ♘d7 8.h6 ♘f6=. This is the standard drawing position in the main line.) 4.♔g5 ♔e7 5.♔xh4 ♔f6= In this line, Black simply sacrificed his knight on h4 to reach the h8-corner with the king.

2...♘d7†

Critical Moment 2. **Method of Elimination; Basic Endgame Knowledge**. Black keeps checking until he forces the white king back. At this point it is difficult to make moves if you don't know the position is a draw with the knight on f6. It is easy to think that Black will succumb to a zugzwang. So, taking the necessary decisions at this point is the test, even if you don't yet know what to do at the next Critical Moment.

3.♔f7 ♘e5† 4.♔g7 ♔e7!

Critical Moment 3. **Logical Follow-up**. White gets closer with the king and knight. This square for the king is essential in order to set up the drawing defence with the knight on f6. At this point, Black has decided upon the defensive set-up with the knight on f6.

5.h4 ♘d7! 6.h5 ♘f6 7.h6

The position is drawn whoever is to move. Black has three important resources that together avoid the zugzwang. We saw these methods in the previous exercise:

1) After ♗f7 he can play ...♘h7!.

2) After ♔g6 (with the bishop on the a2-g8 diagonal) he can play ...♘d7! with a check on f8 looming.

3) If the bishop goes to the h3-c8 diagonal and White plays ♔g6, Black replies ...♔f8! with access to the saving corner h8 if White captures the knight.

Each defensive idea is a Critical Moment and Black should be tested on these ideas. Keep posing problems to Black and see if he keeps a cool head and holds the position together. If a three-fold repetition arises, then let Black claim it – like he would have to do in a tournament game.

25. Andrei Volokitin – Alexander Moiseenko

Kiev 2011

There is **1** extra exercise from this exercise. 1) After **39...♔d3? 40.♘xh7**: Black to move and draw. Go to Exercise 60 (25.1) in Chapter 6.

White's last move **39.♘d5-f6?** was a grave mistake that should have lost the game. Instead, the game ended peacefully after the tame: 39...b3? 40.axb3† ♔xb3 41.♘xh7 ♗xg5 42.♘xg5 ½–½

The right move after White's blunder is:

39...♔d4!

Critical Moment 1. **Method of Elimination; Transform-willingness; Working with the King**. Black has to realize that the win is only achieved after both players promote to a queen.

39...♔d3? This is the kind of move that Black plays when he doesn't know what to do. Now he has no check on b1 when he promotes to a queen. 40.♘xh7 This position is an **extra exercise**: Black to move and draw. Go to Exercise 60 (25.1) in Chapter 6.

40.♘xh7 c4 41.g6 b3

Critical Moment 2. **Method of Elimination; A Feel for Details**. The right way to promote – on b1 there is a check.

42.g7

White has a tragic dilemma here: if he exchanges Black's last pawn, he will allow a deadly check on the a2-g8 diagonal.

42.axb3 cxb3 43.g7 b2 44.g8=♕ b1=♕† White will lose the unprotected queen on g8, after 45.♔e6 ♕a2†+– or 45.♔f4 ♕f1† 46.♔g3 ♕g1†+–.

42...b2 43.g8=♕ b1=♕† 44.♔e6 ♕e4†!

Critical Moment 3. **Method of Elimination**. Now either mate or the exchange of queens will follow, when the c-pawn will decide the game.

45.♔f7

45.♔d7 ♕e7† Now there is mate in three moves. (45...♕d5†!? 46.♕xd5† ♔xd5 47.♔xd8 c3–+ is a more prosaic win.) 46.♔c6 ♕c7† 47.♔b5 ♕b6 mate.

45...♕d5†

0-1

26. A. W. Daniel 1908

(Averbakh 394)

There are **no** extra exercises from this exercise.

1.♖xe4!

Critical Moment 1. **Method of Elimination**. White has to realize that this is the only move that offers resistance – all other moves fail.

1.♖f5†? ♔e6–+

1.♔h6? a2 2.♖f5† ♔e6 3.♖f1 e3 4.♔g5 e2 5.♖a1 ♗d1–+

1...♗c2 2.♔h8!

Critical Moment 2. **Method of Elimination**. The point of the previous move, but it still has to be played.

2...a2 3.♖e1!

Critical Moment 3. **Method of Elimination**; **A Feel for Details**. White had to compare this rook move with the immediate one to e5.

3.♖e5? a1=♖ 4.♖a5 ♖h1†!–+ With the bishop on c2 (instead of b1 in the main line), this devastating rook move is possible, and Black mates.

3...♗b1 4.♖e5!

Critical Moment 4. **Method of Elimination**. A fantastic defensive move.

4...a1=♖

4...a1=♕ stalemate!

5.♖a5!

Critical Moment 5. **Method of Elimination**.

5...♗a2

5...♖xa5 is once again stalemate.

6.♖a7†

With a theoretical draw.

Critical Moment 6. **Basic Endgame Knowledge**. It is still possible to go wrong. White has to realize that he cannot allow the black king to remain on the 6th rank if he is unable to carry out the 2nd-rank defence (in this case, using the g-file).

One player chose the unfortunate: 6.♖h5? Now Black loses after 6...♗e6 7.♖h7† ♔f8–+ or 6...♖f1 7.♖h7† ♔f8–+.

6...♔f6 7.♖a6†

If Black could play ...♗e6 he would win, but unfortunately, the a1-rook is undefended.

½–½

27. Richard Lilja – Silas Esben Lund

Helsingor 2011 (variation)

There are **no** extra exercises from this exercise.

33...♖xb4!? 34.cxb4 ♗b2

Critical Moment 1. **Planning; Method of Elimination**. If you wondered what the point behind the sacrifice was, then here is the answer: White has problems stopping the a-pawn.

35.e5 a3 36.♖f6† ♔d5!

Critical Moment 2. **Planning; Method of Elimination; A Feel for Details; Working with the King**. It is crucial for Black to head for the b3-square as quickly as possible to be able to support the march of the a-pawn.

36...♔xe5? Black should not go for material gains, as this gives the white king time to enter the defence: 37.♖a6 ♔d4 38.b5 ♔c5 39.b6 ♔c6 40.♔e2 ♔b7 41.♖a4 ♔xb6 42.♔d3 ♔b5 43.♖a7=

37.♖a6 ♔c4 38.b5!

38.♔e2?! It is possible that the engine chooses this continuation. If it does, then I suggest that you set up the position after the much tougher defence of 38.b5! and then try to solve it before you read on. At this point, the engine has already seen that all lines lose, and it does not see a difference between the defensive options. For a human, there are far more pitfalls after 38.b5!.

After 38.♔e2?! we have a more straightforward win with: 38...♔b3 39.b5 a2 40.b6 a1=♕ 41.♖xa1 ♗xa1 42.b7 ♗xe5–+

38...♔xb5!

Critical Moment 3. **Change Gears; Surprising Moves**. Black was on the way to support the a-pawn, but now he has to change his plans for the near future.

38...♔b3? It is easy to miss the rook checks on the 6th rank once the pawn reaches the b7-square! 39.b6 a2 40.b7 ♗xe5 White can draw with either 41.♖b6†= or 41.♖a8 ♔b2 42.b8=♕† ♗xb8 43.♖xb8† ♔a3 44.♖a8†=.

39.♖a7 ♔b4!–+

Critical Moment 4. **Working with the King; A Feel for Details**. It turns out that covering a3 and thereby freeing the bishop is more important than reaching the b3-square.

A strong IM played: 39...♔c4? This is a kind of pseudo-flexible move, where Black aims at b3 and at the same time body-checks the white king. The problem is: the body-checking is imaginary, and Black gains nothing from covering the d3-square. 40.♔e2 ♔b3 41.♔d3 Now the position is drawn – Black cannot escape the checks: 41...a2 42.♖b7† ♔a3 43.♖a7†=

40.♔e2 ♗d4!

Critical Moment 5. **A Feel for Details; Working with the King**. The main point of this move is that the bishop is removed from b2, giving room for the king manoeuvre via b2 to c1. Also, the move is with gain of tempo.

40...♔b3? 41.♔d3= Now there is no route for the black king to c1.

40...♗xe5? 41.♔d3=

41.♖a8 ♗xe5

41...♔b3 merely transposes to the main line after 42.♔d3.

If instead White meets 41...♔b3 with 42.♖b8†?! ♔c2–+ then the body-check is for real. 43.♖c8† ♗c3 44.♖a8 ♗b2 Followed by ...♔b1 and ...a2-a1. The counterattack with the king is not enough: 45.♔e3 ♔b1 46.♔e4 a2 47.♔d5 a1=♕ 48.♖xa1† ♗xa1 49.e6 fxe6† 50.♔xe6 ♔c2 51.♔f7 ♔d3 52.♔g8 ♔e4 53.♔xh7 ♔f5–+

42.♖a7 ♔b3 43.♔d3 a2

Critical Moment 6. **Logical Follow-up**. Black finds the win and executes it.

An alternative win is 43...♗d6, with the idea of blocking the checks on the b-file: 44.♖xf7 a2 45.♖b7† ♗b4 46.♖a7 ♔b2–+

44.♖b7† ♔a3 45.♖a7† ♔b2 46.♖b7† ♔c1–+
0–1

28. Richard Lilja – Silas Esben Lund

Helsingor 2011 (variation)

There is **1** extra exercise from this exercise. 1) After **47.c7? ♗xc7 48.♖xc7**: Black to move and win. Go to Exercise 61 (28.1) in Chapter 6.

It turns out that there is more than one way to achieve the draw.

47.♖c1!

Critical Moment 1. **Planning**. White makes the rook retreat immediately, preparing for various ways to attack Black's pawns as a defensive measure.

Bad is 47.c7? ♗xc7 48.♖xc7. This is an **extra exercise**: Black to move and win. Go to Exercise 61 (28.1) in Chapter 6.

47...g5 48.♔b5!

Critical Moment 2. **Planning; Basic Endgame Knowledge**. This is perhaps the most human way to draw the game: White wishes to bring the king into the defence. A concrete approach is to sacrifice the rook for Black's f- and g-pawns, when the resulting position is a fortress with the white king on h1.

Another way of defending is:
48.♖h1!?
Critical Moment. **Planning; Logical Follow-up**.
48...♔f5!
The most testing defence.
48...g4?! allows White to force the draw: 49.♖xh6† ♔e5 50.♖xd6 ♔xd6 51.♔b7 g3 52.c7 g2 53.c8=♕ g1=♕ 54.♕b8†= White eliminates the last pawn on f4. For a human, this defence is easier to deal with, as you can calculate one branch without too many deviations. The main move demands flexibility from White.
49.♖xh6 ♗e5
Now White is forced to come up with new defensive resources.
50.♔b7
Critical Moment. **Planning; Change Gears**. As it turns out, White has some freedom of choice here, and it is helpful to see the defensive options. The main option is to sacrifice the rook for the bishop to enter a drawn queen endgame. The king move seems the most focused continuation to me, as White is making himself ready for various transformations of the position. For now, he can wait with the rook. It is far from easy to make such quiet improvements in a very sharp position.
For 50.♖h1 or even 50.♖h7!? – see the main continuation.
50...f3 51.♖h1
Also possible is 51.♖h7!? getting behind the f-pawn: 51...♔g4 The most testing for a human. Black avoids the obvious roads to a rook sacrifice. 52.♖f7 ♔g3 53.♖f5! ♗f4 54.c7 ♗xc7 55.♖xg5† ♔f4 56.♖g1=
51...♔f4!
Again, 51...g4 52.♖h5† leads to a forced draw after rook takes bishop.
Please notice the difference with the king move to g4: 51...♔g4!? 52.♖e1 f2 53.♖xe5 f1=♕ 54.♖xg5† The capture on g5 with check makes this line more forcing. 54...♔xg5 55.c7= With the pawn on c7, we have a book draw. The black king is outside the winning zone.
52.♖e1
Critical Moment. **Surprising Moves; Planning; Basic Endgame Knowledge**.
52...f2
52...♗d6 53.♖d1 The black king is blocking the b8-h2 diagonal: 53...♔e5 54.♖xd6 ♔xd6 55.c7 f2 56.c8=♕ f1=♕ 57.♕d8†= Eliminating the last pawn on g5.
53.♖xe5 f1=♕ 54.♖xg5!!=
Critical Moment. **Logical Follow-up.** Curiously enough, this version of the rook sacrifice on g5 is also a draw, even when the pawn is only on c6.

Another way of drawing is not so human-like: 48.♖e1†!? Critical Moment. **Planning; Logical Follow-up**. White plans to go all-in on the rook sacrifice for the bishop. 48...♔f5 49.♖d1 ♔e5 (49...♗e5?? 50.♖d5!+– loses for Black!) 50.♖xd6 ♔xd6 51.♔b7 f3 52.c7 f2 53.c8=♕ f1=♕ 54.♕c6† ♔e5 55.♕xh6= This is a theoretical draw since the black king is in the diagonally opposite corner to the promotion square against a knight's pawn. For a human defending this position, the risk of an error is big. If you got to this position, you have my blessing to use the 15-move rule instead of the tougher 50-move rule.

48...f3 49.♔c4 ♔f5 50.♔d4

This position is a draw in many ways. I shall give two different main ideas on how to test White. For now, Black can avoid the sacrifice of the rook on f3 to bring about the desired fortress. Instead, drawing the rook vs. three pawns ending might seem unpleasant to some players, who aren't too sure about the basic endgame theory.

50...♗c7

This is perhaps the most testing continuation, as White has to realize that he has enough time to break the blockade on c7 with a rook manoeuvre. He has to change plan and show flexibility.

50...g4 51.c7 Critical Moment. **Planning**. Winning the bishop is a safe choice: 51...♗xc7 52.♖xc7 ♔f4 53.♖f7† There are other ways to draw, but this brings the white king closer to the pawns. 53...♔g3 54.♔e3 h5 55.♖d7! Critical Moment. **Basic Endgame Knowledge; A Feel for Details**. White has to bring his rook to the 1st rank in time. (After 55.♖h7? h4 56.♖b7 h3 57.♖b1 h2–+ Black covers the g1-square.) 55...h4 56.♖d1 ♔g2 57.♖d2† ♔g3 58.♖d1=

51.♔e3 g4 52.♖b1!

Critical Moment 3. **Prophylactic Thinking; Planning**. The logical next step is to activate the rook and break the blockade on c7. I like this move for its prophylaxis: threatening to go to b7 and simultaneously covering the b6-square.

Objectively speaking, White does not have to fear the bishop check on b6. If he plays another rook move, he can shift plan and go for the rook sacrifice for the f- and g-pawns. A sample line goes:

52.♖a1?!

Critical Moment. **Planning**. This is less subtle – White only seeks activity without taking Black's moves into account.

52...♗b6† 53.♔d3 g3 54.c7!

Critical Moment. **Method of Elimination**; **Surprising Moves**. At this point, this is the only move to save the game.

54.♖b1? g2–+

54...♗xc7 55.♔e3 f2

55...♔g4 56.♖a4† ♔h3 57.♔xf3 g2 58.♖h4†!? A bit dramatic, but fun. (58.♖g4= is less fancy.) 58...♔xh4 59.♔xg2=

56.♔f3!

Critical Moment. **Method of Elimination; Surprising Moves**.

It is still possible to go wrong: 56.♖f1?? ♔g4 57.♖xf2 ♗b6†!–+

56...h5 57.♖f1

Critical Moment. **Method of Elimination; Logical Follow-up**. White needs to take on f2 as soon as he can.

57...h4

If Black had time to play ...h3, he would win the game, so time still matters. However, now:

58.♖xf2 gxf2 59.♔xf2 h3 60.♔g1!=

Critical Moment. **Method of Elimination**. White makes the draw clear. Instead, 60.♔f3?? would lose: 60...♗h2! 61.♔f2 ♔g4–+ White's access to h1 has been denied.

52...h5 53.♖b5† ♔g6 54.♖b7 ♗d8 55.♖b8!?

Critical Moment 4. **Planning**. White has a clear plan for the draw at this point of continually threatening the bishop; in fact it is Black who should be careful. It is obvious that the move 52.♖b1! was by far the strongest continuation.

White can also simply cash in on the bishop: 55.c7 ♗xc7 56.♖xc7 ♔h6= In this basic endgame, it is Black who has to display accurate basic endgame knowledge. It is important to know that the rook cannot be allowed to deliver a check from behind, either from the 8th or the 7th rank. This area must be covered, and such endgames with a pawn chain on the 4th, 5th and 6th ranks is then always a draw. I treated a similar position in my previous book for Quality Chess, *The Secret Life of Bad Bishops* (page 101). 57.♖c8 ♔g7! (or 57...♔h7!) 58.♖c7† ♔g6! (or 58...♔h6!) The white attack on h5 fails: 59.♔f2 ♔h6! 60.♔g3 ♔g6! 61.♖c5 ♔h6! 62.♔h4 ♔g6! 63.♖a5 ♔f6!= There is no zugzwang, and White cannot capture the h5-pawn.

55...♗a5 56.♖b5=
½–½

29. Sørensen – Nielsen

Esbjerg 1947 – (Averbakh 522)

Black has just been forced to play 1...b4† as a result of zugzwang.

There is **1** extra exercise from this exercise. 1) After **5.♔b3? ♔c1 6.♖e4**: Black to move and draw. Go to Exercise 62 (29.1) in Chapter 6.

2.♔xb4 ♘c2† 3.♔c3!

Critical Moment 1. **Method of Elimination; Basic Endgame Knowledge**.

3.♔b3? ♘e3 4.♖e2 ♘d1= The diagonal opposition of the knight and White's king is a draw – there is no way to put Black into zugzwang.

3...♘e3 4.♖e2 ♘d1†

4...♘d5†!? 5.♔c4!+– Critical Moment. **Method of Elimination**. The only move that wins. White's strategy is now entirely to trap the knight with the king and rook.

If instead 5.♔b3? ♔c1, the position is only a draw, albeit not so easy to prove: 6.♖e4 This is an **extra exercise**: Black to move and draw. Go to Exercise 62 (29.1) in Chapter 6.

5.♔d2!

Critical Moment 2. **Method of Elimination; Basic Endgame Knowledge**.

5.♔b3? ♔c1=

5...♘b2 6.♖h2!

Critical Moment 3. **Planning**. White sticks to the strategy of keeping the king on c3 to create mating threats in the a1-corner. Now the knight has to leave the black king.

6.♖e4!?

Critical Moment. **Planning**. White's idea here is to win a position with the knight on b2.

6...♔a2 7.♔c1!

Critical Moment. **Method of Elimination**. The only move that wins – the point is that White has to leave the 2nd rank open to a pin by the rook that picks up the knight.

7.♔c2 ♔a3 8.♖e3† ♔a2= and White cannot pin the knight on the 2nd rank.

7...♘d3†

7...♔a3 8.♖e3† ♔a2 9.♖e2+–

8.♔c2 ♘c5 9.♖c4!+–

Critical Moment. **Basic Endgame Knowledge**. It is still possible to go wrong: 9.♖e5?? ♘a4= is a book draw.

6...♘c4†

6...♘a4 7.♖h4 ♘c5 (7...♘b2 8.♖b4+–) 8.♔c3 ♔a2 9.♖c4 leads to the following exercise.

7.♔c3 ♘e3 8.♖h4

Critical Moment 4. **Planning**. The rook is aiming for one of the four central squares.

White can also return to an earlier position with 8.♖e2.

8...♔a2 9.♖a4†!

9.♔d2?! ♘d5 10.♖d4 ♘c7 11.♖b4 ♔a3 12.♖b7 ♘d5=

9...♔b1 10.♖e4 ♘f5

The typical trick: 10...♘d5† 11.♔b3 ♔c1 12.♖c4†! ♔b1 13.♖d4+–

11.♖e5+–

Critical Moment 5. **Planning; Basic Endgame Knowledge**. White centralizes the rook and prepares for the following winning transformations. After this move, Black's troubles mount, for instance:

A) 11...♘d6 Now the typical trick wins: 12.♔b3 ♔c1 13.♖c5†! ♔b1 14.♖d5+–

B) After 11...♘g3, the easiest for White is to trap the knight with: 12.♔d2 ♔b2 (or 12...♘f1† 13.♔e2 ♘h2 14.♖g5 [or 14.♖e4 ♔c2 15.♖h4+–] 14...♔c2 15.♖g2+–) 13.♔e1 ♔c2 14.♔f2 ♘h1† 15.♔g2+–

C) After a move like 11...♘g7, the knight is out in the open, and the dance of the rook can begin: 12.♖e1† ♔a2 13.♖e2† ♔b1 14.♖b2† ♔a1 15.♔c2 ♘f5 OK, this time it comes with a twist as White cannot rule out knight checks totally: 16.♔c1 ♘d4 17.♖b4 ♘e2† 18.♔c2+–

30. Yuri Averbakh

(Averbakh 512)

There are **no** extra exercises from this exercise.

1.♖c5

Critical Moment 1. **Planning**. White chases the knight further away from the black king.

1...♘e3 2.♖a5† ♔b8 3.♖a4!

Critical Moment 2. **Prophylactic Thinking**. The clearest continuation: White forces a knight move as Black cannot move his king without getting mated. Thus, compared to the other rook move, this is more prophylactic.

An alternative win is: 3.♖e5!? Critical Moment. **Planning**. 3...♘c4 4.♖e4 ♘a5†? (4...♘d2 and the fight continues. Here White can try to chase the knight out into the open, or simply try to trap it with the king and rook.) 5.♔b6+– Again, White combines mating threats with threats to the knight.

In the end, White's rook should land on one of the four central squares, and the white king should stay on the c6-square.

3...♘f5 4.♖e4!

Critical Moment 3. **Planning; Basic Endgame Knowledge**. We have reached Lund's Position. White's main plan is to stay with the king on c6, since from here he can create mating threats along the 8th rank as well as the a-file.

4...♘g3

Now the knight is out 'in the open' and the dance of the rook can begin.

The typical trick: 4...♔a7 5.♔c7! ♔a6 6.♖e6†! ♔a7 7.♖e5+–

5.♖e8† ♔a7 6.♖e7† ♔b8 7.♖b7†!

Critical Moment 4. **Basic Endgame Knowledge**. The essence of the 'dance of the rook' is this intermediate check.

7...♔a8

7...♔c8 8.♖g7+–

8.♖b3

Or 8.♔c7+– or 8.♔b6+–.

8...♘e4 9.♔c7+–

1–0

31. Anish Giri – Yu Yangyi

Doha 2014

There are **no** extra exercises from this exercise.

87...♕h2!
Critical Moment 1. **Method of Elimination**. The only move that plays for a win.

87...gxh6? 88.♕e8† ♔g7 (88...♔g5?? 89.♕h5 mate would be embarrassing) 89.♕e7†=

88.♕e8†
88.♗f4 ♕xh3† 89.♗g3 ♕h1†–+

88...♔h7
Critical Moment 2. **Method of Elimination**.

A pupil of mine actually played 88...♔xh6?? 89.♕h5 mate! He only looked at 89.♕h8†, but even so, there is mate on h5: 89...♔g6 90.♕h5 mate.

89.♗xg7 ♕h1†!
Critical Moment 3. **Planning**. Black has found the right idea – next comes a knight check on e4. The knight cannot be captured by the king due to a skewer on the e-file winning the unprotected queen on e8.

Also possible is: 89...♕xh3†!? 90.♔f2 ♕h2† (But not 90...♔xg7?? 91.♕d7†!= and White secures a perpetual, as the planned escape with 91...♔h6?? is punished by 92.g5†!+– winning the queen and the game.) 91.♔f3 ♕h1†!–+ Black then wins as in the game continuation.

90.♔f2 ♘e4†
Critical Moment 4. **Planning; Surprising Moves**.

91.♔e2 ♕g2†
Here White resigned. A possible continuation is:

92.♔d3 ♕d2†
Critical Moment 5. **Logical Follow-up**. Black has clearly found the win now.

93.♔c4
93.♔xe4 ♕e2†–+

93...♘d6†–+
In both cases, the placement of the queen on e8 was unfortunate.
0–1

32. Magnus Carlsen – Viswanathan Anand

Sochi (6) 2014 (variation)

There is **1** extra exercise from this exercise. 1) After **43.g4?**: Black to move and draw. Go to Exercise 63 (32.1) in Chapter 6.

38.♗xc5 bxc5

38...♗xa2 39.♗d6† ♔d7 40.c5+–

39.a4!!

Critical Moment 1. **Method of Elimination; Transform-willingness; A Feel for Details; Working with the King; Positional Judgement**. White has to realize that he needs to advance the a-pawn further to create winning threats, and that Black is able to hold the position if given time. The position is now sharpened, but it's the only way to play for a win. A very difficult decision.

39.a3? ♗c2 40.♔f4 ♔d7 41.♔g5 ♔e7 42.f4 ♔f7 43.g4 ♗a4 44.f5 ♗c2 The position is a fortress unless White does something drastic. It is not possible to break through on the queenside, so he breaks up the kingside: 45.fxe6† ♔xe6 46.♔h6 ♔xe5 47.g5 ♗b3 48.g6 ♗xc4 49.a4 ♔d6 50.♔h7 ♔c6 51.g7 ♔b6 52.g8=♕ ♗xg8† 53.♔xg8 ♔a5 54.♔f7 ♔xa4 55.♔e6 ♔b3 56.♔d5 ♔xc3 57.♔xc5=

39...♔b6!

The most testing defence for a human, albeit not the first choice of the engine. Now the position is sharpened, and White needs to be precise.

Black's has no chance without active defence: 39...♗a2?! 40.♔f4 ♔d7 41.♔g5 ♔e7 42.♔g6! Black can capture the c4-pawn, stop the a-pawn before promotion (both the a6- and a8-squares are options) and still keep his bishop flexible. Had it only been one square, the bishop would have been tied down by the one-diagonal principle. However, the important point in this position is that the white king has been given access to the vital g6-square, and this means that the g-pawn becomes a winner. 42...♗xc4 43.♔g7! White is ready to sacrifice the f-pawn and instead get his g-pawn to g6. Then he can divert the bishop by sacrificing the a-pawn. In the end, the g-pawn will promote. Notice how Black has no counterplay at all in this position, and he can only wait for White to execute his winning plan. For a human, this is child's play compared to the sharp main continuation. 43...♗f1 44.g4 ♗e2 45.g5 ♗xf3 46.g6 ♗e4 47.a5 ♗d3 48.a6! ♗xa6 49.♔h8+–

40.♔f4

Critical Moment 2. **Logical Follow-up; Method of Elimination; Planning**. The king is heading for the f6-square, attacking the e6-pawn and supporting the g-pawn.

40...♔a5 41.♔g5 ♔xa4 42.♔f6 ♔b3 43.♔xe6!

Critical Moment 3. **Prophylactic Thinking; Logical Follow-up; Method of Elimination**.

43.g4? This is an **extra exercise**: Black to move and draw. Go to Exercise 63 (32.1) in Chapter 6.

43...♔xc3

Again, not the first choice of the engine, but the only move to keep on fighting. Black needs the c-pawn for counterplay.

43...♔xc4?! 44.♔d6! Attacking the c-pawn and stopping Black's counterplay.

44.g4!

Critical Moment 4. **A Feel for Details; Planning**. There are two good options here with some minor differences, and White has to realize that the differences do not matter. Taking with the bishop on c4 does not help Black in the defence, as it is too time consuming, so the lines transpose to each other.

44.♔f6!? leads to similar lines.

44...♔xc4 45.♔f6!

Critical Moment 5. **A Feel for Details; Method of Elimination**. The only move to win. Pushing the e-pawn must be a threat for Black to deal with, and the bishop manoeuvre to a4 will cost him valuable time as it interferes with the advance of the c-pawn.

45.g5? ♔b3! Black avoids time-consuming bishop moves. 46.♔f6 c4! 47.e6 c3 48.e7 c2 49.e8=♕ c1=♕=

45...♔b4 46.e6!

Critical Moment 6. **Logical Follow-up; Method of Elimination**. Only this move wins. Now there are two defensive bishop moves.

46...♗c2!?

This defence forces White to find an important idea and an only move later on.

46...♗d3!? A clever defence, immediately forcing an only move from White's: 47.g5! Critical Moment 7. **Change Gears; Prophylactic Thinking**. By postponing the push of the e-pawn for a move, White forces the loss of a tempo for Black in the race. (White needs to be precise. He cannot allow both sides to queen simultaneously: 47.e7? ♗b5 48.g5 c4 49.g6 c3 50.g7 c2 51.g8=♕ c1=♕=) 47...♗b5 48.g6 c4 49.g7 c3 50.g8=♕+–

47.e7

Critical Moment 7. **A Feel for Details; Planning**. White realizes that he can push either pawn for now, but that he must eventually push the e-pawn forward.

Also possible is 47.g5!? c4 48.g6 c3, but here White has to push the e-pawn: 49.e7 ♗a4 50.g7 and so on, as in the main continuation.

47...♗a4 48.g5 c4 49.g6 c3 50.g7 c2 51.g8=♕ c1=♕ 52.♕g4†!

Critical Moment 8. **Method of Elimination; Transform-willingness; Basic Endgame Knowledge; Surprising Moves**. The only way to win is to sacrifice the queen.

52...♔a3 53.♕xa4†! ♔xa4 54.e8=♕†+–
Black is unable to place his king behind the f4-pawn, which is the only way to draw the game when a bishop's pawn has not crossed the 4th rank.
1–0

33. Torsten Lindestrøm – Silas Esben Lund

Nyborg 2001

There are **no** extra exercises from this exercise.

52...♗b1!
Critical Moment 1. **Method of Elimination; Transform-willingness**. The idea is to sacrifice the bishop for the two pawns. Black has to play this move now, before White sets up a defence.

53.♔c1 ♗xa2! 54.♔b2 ♗xb3 55.♔xb3 a5
This position is winning for Black. White can try placing his bishop on f6, where it covers h4 and b2. Then White is at least able to eliminate the two queenside pawns. This is my main line.

56.♗f6 a4† 57.♔c2 ♔c4 58.♔b2 ♔d3
Critical Moment 2. **Planning; Transform-willingness**. Black brings the king to the kingside.

59.♗e7 b3 60.♗f6 ♔e2 61.♔a3 ♔f1 62.♔xa4 h4!
Critical Moment 3. **Transform-willingness**. Overloading the bishop.

Also possible is: 62...♔g2 63.♗e5 (or 63.♔xb3 ♔xh2 64.♔c2 g3 65.♔d3 g2 66.♗d4 h4 67.♔e2 g1=♕ 68.♗xg1† ♔xg1–+) 63...b2!–+ Critical Moment. **Method of Elimination**. Again, the bishop is overloaded.

63.♔xb3 g3!
Critical Moment 4. **Method of Elimination; Logical Follow-up**. The only move that wins.

64.h3
64.♗e5 g2! Critical Moment. **Method of Elimination**. 65.♗d4 g1=♕ 66.♗xg1 ♔xg1–+

64.hxg3 h3!–+ Critical Moment. **Method of Elimination**.

64...g2
Critical Moment 5. **Method of Elimination**.

64...♔g2? 65.♗xh4 ♔xh3 66.♗xg3=

65.♗d4 g1=♕ 66.♗xg1 ♔xg1 67.♔c2 ♔g2 68.♔d2 ♔xh3 69.♔e2
White is one move away from the saving f1-square.

69...♔g2–+
0–1

34. Philip Lindgren – Silas Esben Lund

Helsingor 2013 (variation)

There are **no** extra exercises from this exercise.

34...♖b3!

Critical Moment 1. **Planning; Positional Judgement**. Black has found a point of attack on e3, and the evaluation of the position after the rook exchange on c3 also has to be evaluated correctly as a win for Black.

34...♗b5?! 35.♖c3 and White is hanging on.

35.♖c3

Even if this is not the first choice of the engine, it has to be played. White cannot just give up the e3-pawn.

35.♔d2 ♗b5–+ and White will lose either the e3- or the b2-pawn. Curiously enough, the rook check on d3 is not the main threat, as White can safely walk into a discovered check on e2. Rather, the simple bishop move to d3 will leave the b2-pawn defenceless.

35...♖xc3†

Critical Moment 2. **Logical Follow-up**.

36.bxc3 a3

Critical Moment 3. **Planning; Transform-willingness**. Black is covering the b2-square for now, and will later be ready to sacrifice the a-pawn to get the king in. Points of attack in White's position are c3 and e3.

After 36...♔c5, White should try 37.g4!? with similar lines to the main continuation. Otherwise:

a) The point of Black's king move was: 37.♔b2 a3†! 38.♔xa3 ♔c4 39.♔b2 ♔d3–+ Black's e-pawn is a winner.

b) Passive defence such as 37.♗f1 will not do: 37...a3 Critical Moment. **Planning; Transform-willingness**. 38.♔b1 ♗b5 39.♗h3 g6! Critical Moment. **Change Gears**. Black can allow himself to spend one tempo on a defensive move; next move he will continue to penetrate into White's position with the king. 40.♔a2 ♗e2 41.♔xa3 (41.♔b3 a2–+) 41...♔c4 42.♔b2 ♔d3–+

37.g4!? fxg4!

Critical Moment 4. **Transform-willingness**. Black gives up his space advantage in return for potential passed pawns on the kingside.

The game continuation was: 37...g6? This is the turning point; this passive move allows White to create a point of attack. 38.gxf5 gxf5 The point of attack on f5 gives White enough counterplay for a draw. 39.♔c2 The position is no longer winning, and White managed to hold

the draw (½–½, 62). My own conclusion from this game is that I can improve on my overall transform-willingness. That I was in time trouble until move 40 is no excuse.

38.♗xe4 h5!

Critical Moment 5. **Prophylactic Thinking**. Black pushes his pawn, simultaneously avoiding its capture by the bishop. With far-advanced pawns on both sides of the board, the win is there, but the position still needs to be won against the engine. Here are some sample lines:

39.♔b1 h4

Critical Moment 6. **Planning**. Black is threatening to enter the a8-h1 diagonal with the bishop.

Also possible is 39...♗c6!? Critical Moment. **Planning**. 40.♗f5 ♗f3–+ Followed by pushing the kingside pawns. Actually, this way of playing is more clean-cut, and White could resign already at this point.

40.♗g2

40.♔a2 ♗c6–+ and one of the kingside pawns promote (or cost White his bishop).

40...♗c6 41.e4 ♔c5

Critical Moment 7. **Planning; Transform-willingness**. Again, Black lets go of the a-pawn to penetrate White's position.

42.♔a2 h3 43.♗h1 ♔c4 44.♔xa3 ♔xc3 45.f5 ♔d4–+
0-1

35. Yu Yangyi – Merijn van Delft

Rotterdam 2014

There are **no** extra exercises from this exercise.

Black has just played 1...♔d7 to try to defend against the white queenside pawns.

2.c6†!

Critical Moment 1. **Method of Elimination; Positional Judgement**.

2.bxa6? bxa6 3.♔xf5 ♔c6= is not winning for White.

2...♔c8!?

Black can also try:

2...bxc6!? 3.bxa6 ♔c8 4.♔xf5!

Critical Moment. **Planning; Surprising Moves**. White should wait with the a-pawns, as forcing the black king into the a8-corner yields nothing. In fact, Black can use stalemate motifs to his advantage.

4.a7? throws away the win: 4...♔b7 5.a6† ♔a8 6.♗c5 ♗g3 7.♔xf5 ♗f4!? 8.♔g4 (8.♔xf4 is stalemate) 8...♗g3 9.♗d4 Here Black has two defensive strategies that work: 1) To change the position radically and go for the counterattack; 2) To stay put and defend passively.

1) The active defence: 9...♗d6 10.♔xh4 c5 11.♗f6 ♔xa7 12.♔g4 ♔xa6 White's h-pawn is balanced by Black's c-pawn. 13.h4 ♗f8 14.h5 ♔b5 15.♔f5 c4 16.♔g6 ♔b4 17.♗g5 c3 18.♔f7 ♗d6 19.h6 ♗e5 20.h7 c2=

2) The passive defence: 9...♗e1 10.♗c5 ♗g3 11.♔f5 White goes for the c6-pawn. 11...♗e1 12.♔e6 ♗c3 13.♔d6 ♗e5†!? 14.♔xc6 ♗d4 Black uses the possibility of stalemate to free his king from the corner. 15.♗b4 ♗f2 16.♗d6 ♔xa7 17.♔b5 ♗e3 18.♗e7 ♗f2= As long as White's bishop does not control the g1-a7 diagonal, Black is holding on.

4...♗d2 5.♔e6

Critical Moment. **Planning**. White is aiming for the c6-pawn (and square), and only then will he think about advancing the a-pawn(s).

5...♗b4 6.♗f2

Critical Moment. **Transform-willingness; Planning**. It is not important for White to keep two a-pawns, so he continues to improve his position.

6...♗xa5 7.♔d6

7.♗xh4!?+– is also possible.

7...♗d8 8.♔xc6

Critical Moment. **Planning**. As it turns out, we have reached a position similar to the passive defence in the line beginning with 4.a7?, but this time White controls the crucial g1-a7 diagonal with the bishop. With Black unable to attack the a-pawn, White's king is free to attack Black's h4-pawn, and this is sufficient for victory.

8...♔b8 9.♔d7 ♗f6 10.♔e6 ♗d8 11.♔f5 ♗e7 12.♔g4 ♗d8 13.♗xh4 ♗b6

Comparing this position to the main line, Black is way behind on tempos, as he still needs to eliminate the a-pawn before he can relocate his king towards the h8-corner.

14.♗g3† ♔a7 15.h4 ♔xa6 16.h5+–

White wins easily.

3.cxb7†!

Critical Moment 2. **Transform-willingness; Positional Judgement; Planning; Method of Elimination**. This is not an easy decision: White aims for a position where he is superior positionally, instead of one where he is materially on top. A good choice, since the extra pawn would not bring him the desired win.

3.bxa6? bxa6 4.♔xf5 may look promising, but there is no win for White. As soon as he tries to eliminate the h4-pawn, he will quickly lose his own a- and c-pawns.

3...♔xb7 4.bxa6† ♔xa6 5.♔xf5 ♔b5 6.♔g5

Critical Moment 3. **Planning; A Feel for Details**. White has to realize that he can force Black into a zugzwang. The way to do this is with a triangular king manoeuvre around Black's h4-pawn on the squares g5-h5-g4 to gain/lose a tempo.

Let us see what happens if, instead of going for zugzwang, White mistakenly captures on h4 with the black king ideally placed on the b5-square: 6.♔g4 ♔c6 7.♗d8 ♔b5 8.♗xh4?? ♗xa5 The king is on b5 here instead of the inferior a6. 9.♗g3 ♗d8 10.♗f4 ♔c6 11.♗g5 ♗c7 12.h4 ♔d7 13.♔f5 ♔e8 14.♔g6 ♔f8 15.h5 ♔g8 16.♗f6 (or 16.h6 ♗e5=) 16...♗f4= White is lacking one tempo.

6...♗g3 7.♔g4 ♗e1 8.♗d8

Critical Moment 4. **Planning**. White has arrived at the desired zugzwang. Black's bishop cannot move as it must be ready to capture on a5 once White captures on h4, and in response to White's triangular king manoeuvre, Black's king has only the two squares a6 and b5, as he cannot allow the a5-pawn to advance.

8...♔a6

8...♗f2?! 9.♗xh4 ♗c5 10.♗e1+–

9.♗xh4

With the king on a6 instead of b5, Black's king is one more move away from the h8-corner. This proves sufficient for White to win. The game concluded:

9...♗xa5 10.♗g3 ♔b5 11.h4 ♔c6 12.h5 ♔d7 13.h6!

Critical Moment 5. **A Feel for Details; Surprising Moves; Method of Elimination**. It is still possible to go wrong, and White needs a clever tactic to conclude the game.

13.♔f5? ♗d2= and when White tries to block the c1-h6 diagonal to push the h-pawn, the black king will be in time to reach the corner.

13...♗c3

After 13...♔e6, White wins with 14.♗e5!+– or 14.♔h5 ♔f6 15.♗e5†!+–.

14.♔f5 ♔e7 15.♔g6

Critical Moment 6. **Method of Elimination**.

15...♔f8 16.h7

Critical Moment 7. **Method of Elimination**. Just in time.

16...♗h8 17.♗h4
1–0

36. Hikaru Nakamura – Boris Gelfand

Rotterdam 2014

There are **no** extra exercises from this exercise.

1.♕e8!

Critical Moment 1. **Planning; Method of Elimination**. White needs to get into Black's position to fish for counterplay. A queen check on d7 is threatened, and b6 is a point of attack.

1...♕xc4

Black is ready to interpose the queen on f7 if White starts checking.

2.a4!

Critical Moment 2. **Planning; Prophylactic Thinking; Change Gears**. This is a difficult move to find for many players. White is using his pawn majority on the queenside actively and wants to create a passed pawn, at the same time avoiding the a2-pawn being captured with check. If Black takes the pawn on a4, there will be perpetual check.

Here are typical ways for White to go astray in the position:

2.♕e7†?! ♕f7 3.♕a3 e4! 4.fxe4 ♕d7∓ Threatening the b5- and g4-pawns and getting behind the d-pawn. Black has a clear, perhaps winning advantage here.

2.♕c6?! ♕xa2† 3.♔g3 ♕a7 Although White still has some compensation after 4.♕d6, this continuation is definitely inferior to pushing the a-pawn. If you deliberately planned for this position and went into it, then good luck with defending it against the engine.

2...♕c2†

2...d3 3.♕d7† ♔h6 4.♕f5= Attacking d3 and f6 is annoying for Black. The position is equal.

3.♔g3 ♕c7 4.♕c6

Critical Moment 3. **Planning; Logical Follow-up**. White is serious about creating a passed pawn on the queenside.

4.♔f2!? Critical Moment. **Planning; Change Gears. Prophylactic Thinking**. White's plan is to stop Black's two main ideas (pushing the d- and e-pawn), and otherwise just hold the position for the time being. This is not necessarily a passive approach, since once White gets his king in front of the d-pawn, he can plan to push the a-pawn at the appropriate moment. Changing Gear is about pausing the active play for a time, but still having an eye for it. 4...d3 5.♔e3= is the point.

4...♕d8 5.a5!

Critical Moment 4. **Play the most forcing line if possible; Transform-willingness; Logical Follow-up**. White actively creates counterplay, instead of just waiting for Black to show his hand.

5.♔f2!? Critical Moment. **Planning; Change Gears; Prophylactic Thinking**. If White gets in front of the d-pawn, he can think about pushing the a-pawn later. So this move could be dangerous for Black too. An important point is: 5...d3 6.♔e1 d2† 7.♔d1 ♕d3 8.♕e4! From e4, the queen is centrally placed and is covering the weaknesses on a4 and f3, and Black cannot exchange it. 8...♕d7= The position is balanced.

5...bxa5

Another option is:

5...d3!?

White has to be a little careful here.

6.♕xb6!

Critical Moment. **A Feel for Details**.

6.axb6?! d2 7.♕c7† ♕xc7 8.bxc7 d1=♕ 9.c8=♕ ♕g1† 10.♔h3 ♕f1† 11.♔g3 ♕xb5 12.♕c7† ♔g6 13.♕d8 ♕c4∓ Black is a pawn up, but the position is likely to be a draw. However, good luck defending against the engine!

6...♕d7 7.♕c6!

Critical Moment. **A Feel for Details; Transform-willingness**. When White is comparing different lines involving queen promotion, he is completely safe if he can get his queen to e7 at the end of the calculation – even if he is a pawn down.

7.a6!? Critical Moment. **A Feel for Details; Transform-willingness**. This line also ends with the queen on the e7-square: 7...d2 8.a7 d1=♕ 9.a8=♕ ♕e1† 10.♕f2 ♕xf2† 11.♔xf2 ♕xb5 12.♕a7† ♔g6 13.♕e7=

7...♕xc6 8.bxc6 d2 9.c7 d1=♕ 10.c8=♕ ♕e1† 11.♔h3 ♕xa5 12.♕d7† ♔h6 13.♕e7=

6.b6 d3 7.♕c7†! ♕xc7 8.bxc7 d2 9.c8=♕ d1=♕ 10.♕c7† ♔h6

After this move, White gets the queen to e7.

10...♔g6 11.♕xa5∓ Again, this may be slightly unpleasant to defend against the engine. However, it is difficult to make real progress for Black.

11.♕e7!

Critical Moment 5. **Planning**. Black ignores the a-pawn to deliver a perpetual instead.

Bad is 11.♕f7? ♕d8∓ with winning chances for Black.

If White grabs the pawn on a5, he should be aware of the following trick: 11.♕xa5?! ♕g1† 12.♔h3 e4! 13.♕f5! Critical Moment. **Basic Endgame Knowledge; Method of Elimination**. The resulting two vs. one pawn ending is a draw. (After 13.fxe4?? ♕e3†–+ White is losing both pawns.) 13...♕h1† 14.♔g3 ♕xf3† 15.♕xf3 exf3 16.♔xf3 ♔g6 17.♔e4 ♔f7 18.♔d4 ♔e7 19.♔e3! Critical Moment. **Basic Endgame Knowledge**. The squares e4 and e6 are mined. 19...♔d6 20.♔d4 ♔e6 21.♔e4=

11...♕g1† 12.♔h3

½–½

37. Merijn van Delft – Kayden Troff

Rotterdam 2014

There is **1** extra exercise from this exercise. 1) After **66...b4 67.axb4**: Black to move and win. Go to Exercise 64 (37.1) in Chapter 6.

66...♕f6!

Critical Moment 1. **Prophylactic Thinking; Planning**. Black secures his position by covering the g7-pawn. At the same time he is ready to attack the white pawns on f5 and h5, and – more importantly – he is ready to take his king on a march across the board. The a3-pawn is also a target in White's position.

66...b4!? 67.axb4 leads to an **extra exercise**: Black to move and win. Go to Exercise 64 (37.1) in Chapter 6.

67.♕c8† ♔b6 68.♔f1 ♕d6

Critical Moment 2. **Change Gears**. Black needs to find the moment to transform the position to be able to take his king on a march towards the a1-corner. The move played in the game is slowly preparing to bring in the queen with checks (this is unpleasant for a human player defending, and therefore a good practical choice). The Critical Moment is for the moment where Black transforms the position and takes his king on a march.

For comparison, the engine suggests taking immediate action with:

68...♕a1† 69.♔f2 ♕b2† 70.♔f1 ♕xa3!

Critical Moment. **Change Gears; Transform-willingness; Planning; Working with the King**.

71.♕b8† ♔a5 72.♕a7† ♔b4 73.♕e7† ♔b3

The intention is to hide on a2.

74.♕e6† ♔c2 75.♕e2† ♔b1!

Critical Moment. **Transform-willingness; Working with the King**. Black is ready to sacrifice the b5-pawn to hide his king. The a-pawn is enough to secure victory.

76.♕xb5†

Or 76.♕e4† ♔a2 77.♕e2† ♕b2 78.♕e6† ♔a1–+.

76...♕b3–+

The position of White's king on f1 makes it especially hard for White to keep checking the black king – there are several ways to counter-check and exchange queens.

77.♕a5 a3 78.♕e1† ♔c2 79.♕e2†

79.♕e4† ♕d3†–+ forces the exchange of queens.

79...♔c1

The final Critical Moment is awarded for Black when the position is brought to victory.

69.♕e8?!

Not the most testing defence. White should instead wait a while and let Black show how he intends to win the game.

The engine's main line is: 69.♔e2! ♕e5† 70.♔f1 This forces Black to play along the lines of 68...♕a1† as in the previous sideline. I think it makes a lot of sense to hang on to the f5-pawn and cover the c-file to prevent the black king from marching towards the a3-pawn. Against this approach, Black needs to **Change Gears** and show **Transform-willingness** in order to win.

69...♕d3†

I shall use the actual game continuation as our main line. The engine will defend differently with White.

70.♔e1 ♕xf5

Now Black remains in control and it is easier for him to initiate a king march with the f-pawn missing.

71.♕b8† ♔c6 72.♕a8† ♔d6 73.♕d8† ♔e5

Critical Moment 3. **Planning; Logical Follow-up**. The black king is on the way forward to attack White's pawns or to head towards the a1-corner.

74.♕e7† ♔f4 75.♔f2

A sample line to illustrate White's problems, if he keeps checking the black monarch: 75.♕h4† ♔e3 76.♕g3† (76.♕e7† ♕e4–+ and White has run out of checks, due to the coming discovered check by the king if White doesn't exchange queens.) 76...♔d4 77.♕d6† ♔c3 78.♕b4† ♔c2 79.♕d2† ♔b1 80.♕b4† ♔a2 If White keeps checking, the black king will simply grab the a3-pawn. 81.♕d2† ♔xa3 82.♕c3† ♔a2 83.♕d2† ♔b3 Now there is no check on b4, and as a response to other queen checks, the black king simply marches on, either hiding or grabbing more pawns. White will at some point run out of checks.

75...♕c2† 76.♔g1 ♕d1†

Black exchanges queens on either e3 or g5.

0–1

38. Silas Esben Lund & Nikolaj Mikkelsen

Training Position 2016

There are **no** extra exercises from this exercise.

Black has to avoid the push of the c-pawn, and this narrows it down to two moves to begin with. In the following lines I shall try to outline the typical tricks in such a position – how you actually play and (hopefully) hold the position for at least 15 moves against the engine, I cannot predict.

1...♔c3

Black plays a waiting game for now, by making sure that the pawn does not advance to c5. To recap: if the pawn advances to c5 and Black does not have a perpetual, the position is lost under normal circumstances. As we saw in Chapter 3.5, Black usually lacks space in front of the pawn once it reaches c5, compared to when it is on c4.

Black can also choose an active defence: 1...♕e8†!? 2.♕b5 (2.♔a5 ♕e1†) 2...♕a8† 3.♔b4 ♕f3! 4.♕a4† ♔b2 5.c5 (The engine will probably try something more testing against you!) 5...♕e4† 6.♔a5 ♕a8† 7.♔b5 ♕b7† 8.♔c4 ♕e4†= I shall focus on the waiting strategy in my sample main line.

The waiting strategy with 1...♕f1?? is no good here: 2.c5 ♕a6† 3.♔b4+– There are no more checks.

2.♔b5

2.c5?? ♕a6 mate is embarrassing.

2...♔b3 3.♕f7 ♕d3 4.♕e6 ♕f1?!

After this move which decentralizes the queen, Black has to step carefully over the next couple of moves.

4...♔c3! I like this move, which keeps an eye on the c4-pawn. 5.♕e5† ♔b3 etc. This looks very solid with the queen on d3, not allowing the white queen to creep in with checks on the 3rd rank like in the main continuation.

4...♔b2? loses to: 5.♔c6 ♕f3† 6.♕d5 ♕f6† 7.♔b5 ♕f1 8.♔b6 ♕f6† 9.♔a7!+– White has a counter-check on b7 that exchanges queens. (Or 9.♕c6 ♕d8† 10.♔a6+– and Black has run out of checks.) All this was difficult to foresee, but the defensive task is much easier if Black keeps an eye on the c4-pawn.

5.♕e3† ♔c2!

The only move.

5...♔b2? 6.♕d2† ♔b3 7.♕b4† ♔c2 8.♕a4† ♔c3 9.♕a2! Black is in zugzwang here as he cannot keep the queen on the f1-a6 diagonal while keeping his king in the area just behind the pawn consisting of b2-c2-b3-c3. 9...♕f7 Preventing the pawn advance for a moment, but after 10.♕a5† ♔d4 11.c5+– Black has no perpetual.

6.♕a3 ♕e1!

The only move, but difficult to see.

7.♕a2† ♔d3!

Again the only move.

8.♕b3† ♔d4 9.♕b2† ♔d3 10.♕a3† ♔c2

Black is barely holding on here, all these moves are only moves. Let us investigate how Black can keep the balance for a further five moves:

11.c5 ♕e8†

Only move.

12.♔b4 ♕e4† 13.♔a5 ♕a8† 14.♔b4 ♕e4† 15.♔b5 ♕b7†=

Black has a perpetual.

½–½

39. Hikaru Nakamura – Arkadij Naiditsch

Rotterdam 2014

There are **no** extra exercises from this exercise.

52.♕b7!

Critical Moment 1. **Prophylactic Thinking; Method of Elimination**. The only move that keeps the winning advantage. The white queen is eyeing e4 and g7, thus restricting the black queen, and at the same time stepping out of the pin on the a7-g1 diagonal.

52...fxe3
52...♕c1†? 53.♗b2 ♕c5† 54.♔a2+– Now e4, f4 and g7 are all under attack.

53.♕xe4† ♔h8 54.♗d4
Critical Moment 2. **Planning**. White plans to get rid of the e3-pawn for a start, and then later deal with Black's h-pawn.

There was a stronger continuation than the one played in the game: 54.♕f5! Critical Moment. **Prophylactic Thinking**. White wins the h-pawn and keeps the e-pawn under control at the same time due to tactics. 54...♔g8 (54...h4 55.♕h5† ♔g8 56.♕xh4 ♕c1† [56...e2 7.♕c4† picks up the e-pawn] 57.♗b2 ♕c5† 58.♔a2 e2 59.♕d8† ♔h7 60.♕d3† again winning the e-pawn) 55.♕xh5 White covers the e2-square.

54...♕c1† 55.♗b2 ♕c5† 56.♔a2
Black will lose the e3-pawn now, after a bishop transfer to d4 or c1.

Of course not: 56.b4?? ♕xb4† 57.♕xb4 axb4† 58.♔xb4 e2 59.♗c3 h4–+

56...♕g5
Black puts his money on the h-pawn instead.

57.♗c1 h4 58.♗xe3 ♕h5 59.♗f4
Critical Moment 3. **Planning**. Ultimately, White plans to transfer his bishop to c3 where it protects the king and attacks a5 and g7. For now, he chooses to stop the pawn on h2, only to regroup the bishop later. There are also other ways to continue to play for a win in this position; I shall give the game continuation.

59...♕g4
59...h3 60.♕e5 ♕f3 could also be tried.

60.♕e3 h3
60...♔g8!? was worth a try. Probably the engine will play this, to keep g3 under control for the time being.

61.♕g3
Critical Moment 4. **Planning**. The queen is perfect on g3, where it covers the h2-square and attacks g7.

61...♕e2† 62.♔a3 ♕e7† 63.♗d6 ♕d7 64.♗e5 ♔g8 65.♗c3
Black resigned here – a thing the engine will not do!
1–0

Chapter 6

Extra Exercises

We have come to the section with extra exercises. There are 25 exercises based on six different material configurations. The numbers in parentheses refer to the exercises:

- Knight exercises (40-53)
- Rook exercises (54)
- Bishop versus knight exercises (55-60)
- Rook versus bishop or knight exercises (61-62)
- Other endgame exercises (63)
- Queen exercises (64)

Exercise 63 has a different material distribution to those of the five main types of endgames that were examined in Chapter 3.

The exercises stem from the main exercises of Chapter 4. However, you don't need to solve the main exercises first before turning your attention to the extra exercises. The exercises in this section work well as separate exercises and, naturally, these extra exercises tend to be easier to deal with than the original main exercises. This is due to there being fewer Critical Moments in these exercises. There are more Level 1 exercises in this section than in the main exercise section.

The main reason for including these extra exercises is to get the most out of the original main exercise. While solving the main exercise, you probably thought about some of the sidelines, and you might wonder what would have happened if... Therefore, this is a way to get deeper into the exercises.

Every exercise has a level and a recommended time. These are the 5 levels with standard times attached to them. The exercises are played with an increment of 30 seconds per move to avoid time-trouble running wild.

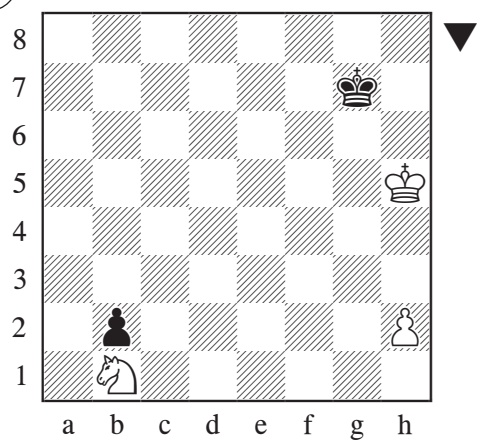
- Level 1: 5 minutes, rating span 1900-2000
- Level 2: 8 minutes, rating span 2001-2200
- Level 3: 10 minutes, rating span 2201-2400
- Level 4: 12 minutes, rating span 2401-2500
- Level 5: 15 minutes, rating span 2501-2600

In Chapter 9 you can see how to set up a position in Komodo 10 to get going with the exercises. If you have a different chess engine, it's not a big problem as long as you use the ChessBase interface.

(4.1) Yuri Averbakh 1955

(Averbakh 39)

40

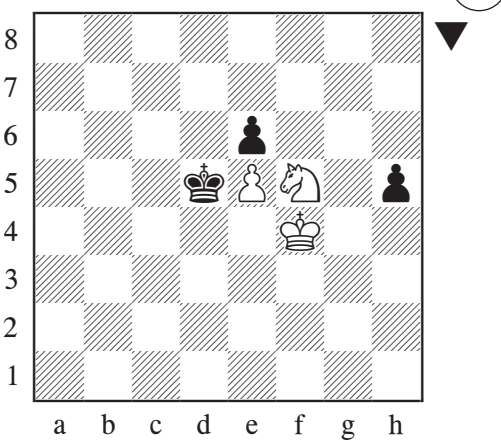


Black to move and draw
Recommended time: 5 minutes
Level: 1

(5.1) Isaac Kashdan – Salomon Flohr

Hamburg 1930 – (Averbakh 55)

41

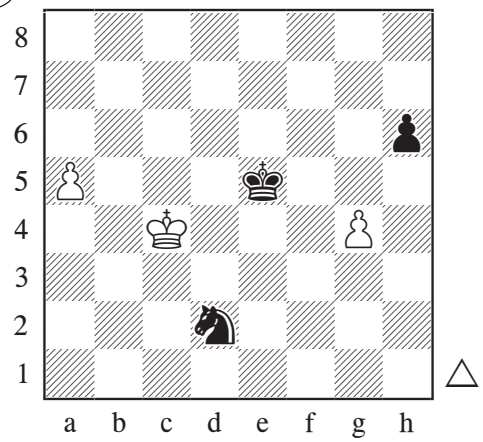


Position after **3.♘xf5?**
Black to move and draw
Recommended time: 5 minutes
Level: 1

(6.1) Pál Benkö

(Evans 178)

42

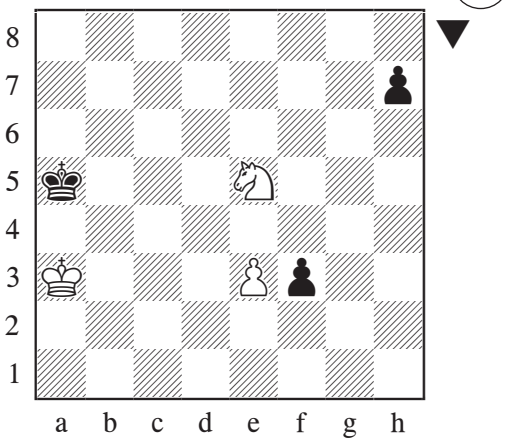


White to move and draw
Recommended time: 8 minutes
Level: 2

(8.1) Leonid Kubbel 1924

(Averbakh 48)

44

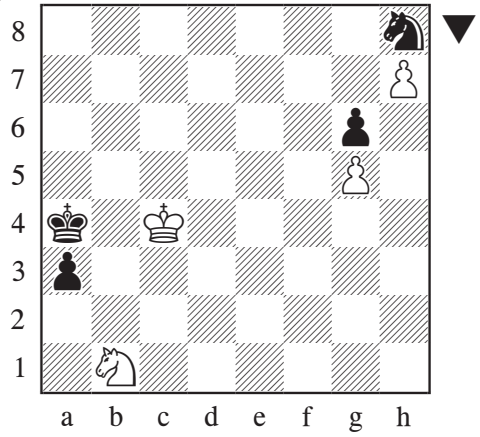


Black to move and draw
Recommended time: 10 minutes
Level: 3

(7.1) Kornél Havasi

(Evans 181)

43

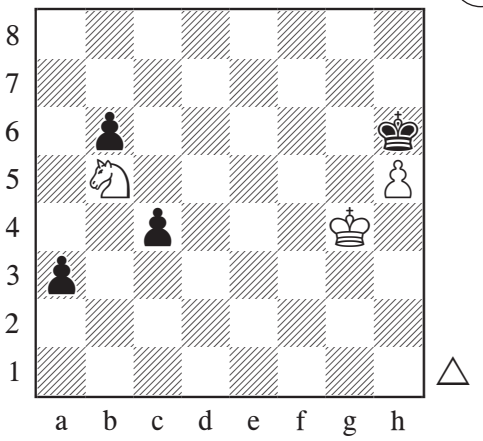


Position after **1.h7?**
Black to move and draw
Recommended time: 5 minutes
Level: 1

(9.1) Smorodski – Breitmann

Soviet Union 1933 – (Averbakh 54)

45

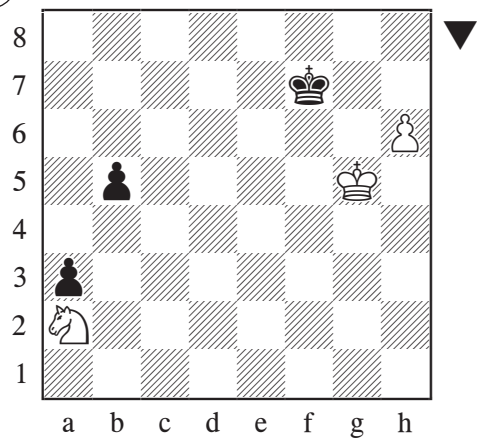


White to move and win
Recommended time: 8 minutes
Level: 2

(9.2) Smorodski – Breitmann

Soviet Union 1933 – (Averbakh 54)

46

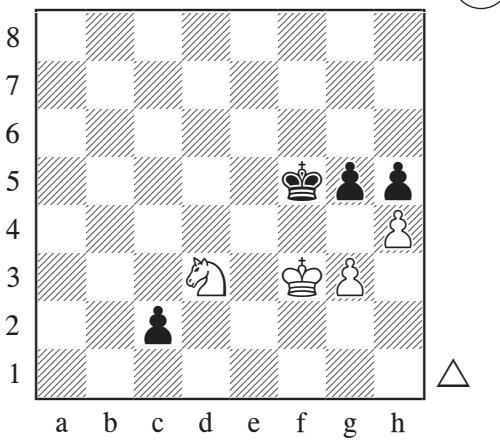


Black to move and draw
Recommended time: 8 minutes
Level: 2

(10.2) Vitaly Chekhover – Igor Bondarevsky

Moscow 1945 – (Averbakh 66)

48

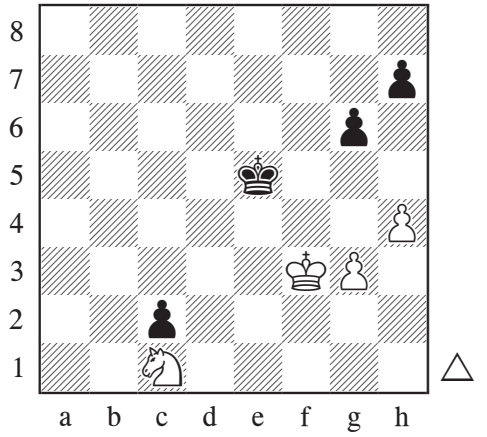


White to move and win
Recommended time: 5 minutes
Level: 1

(10.1) Vitaly Chekhover – Igor Bondarevsky

Moscow 1945 – (Averbakh 66)

47

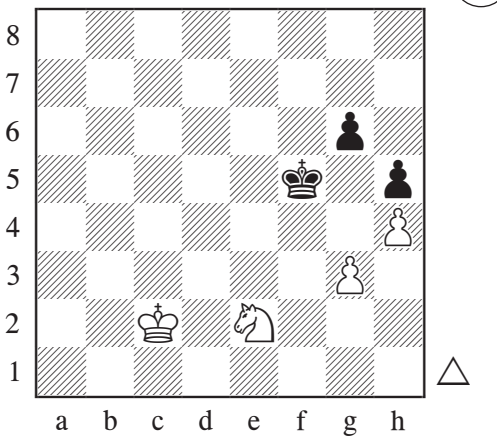


White to move and win
Recommended time: 8 minutes
Level: 2

(10.3) Vitaly Chekhover – Igor Bondarevsky

Moscow 1945 – (Averbakh 66)

49

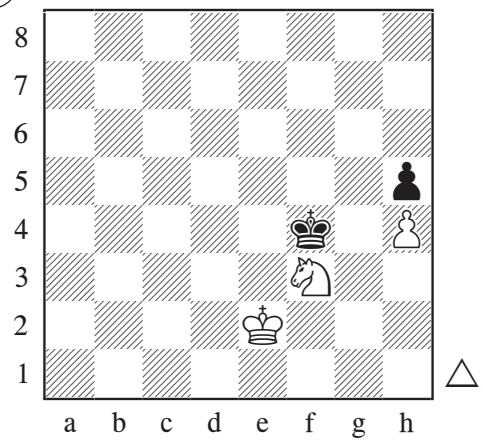


White to move and win
Recommended time: 8 minutes
Level: 2

(10.4) Vitaly Chekhover – Igor Bondarevsky

Moscow 1945 – (Averbakh 66)

50

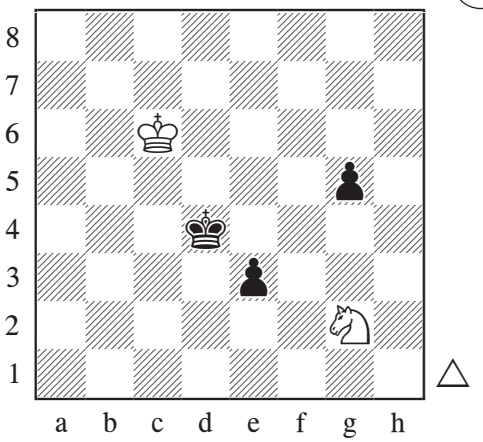


White to move and win
Recommended time: 5 minutes
Level: 1

(14.1) Vitaly Chekhover 1955

(Averbakh 28C)

52

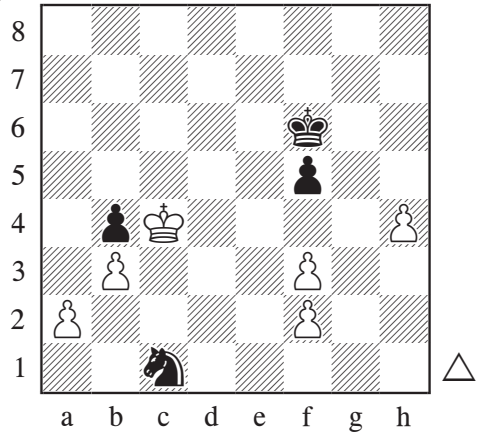


White to move and draw
Recommended time: 10 minutes
Level: 3

(11.1) Zhou Jianchao – Li Chao

Danzhou 2010

51

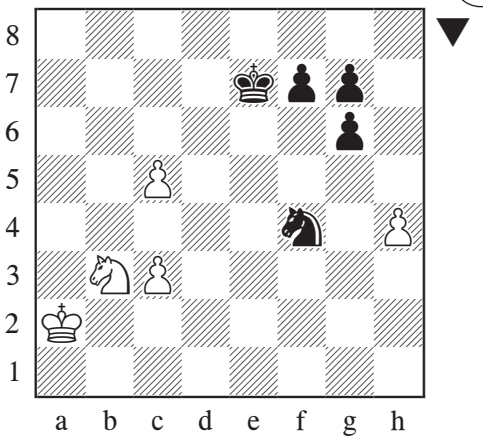


White to move and win
Recommended time: 10 minutes
Level: 3

(15.1) Sergey Lebedev – Peter Romanovsky

Moscow 1923 (variation) – (Averbakh 112)

53

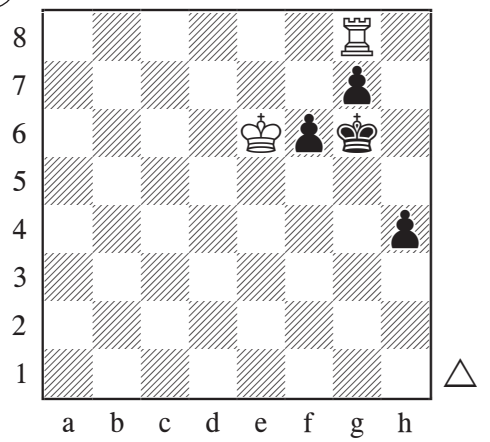


Black to move and win
Recommended time: 10 minutes
Level: 3

(17.1) Viktor Korchnoi – Vladimir Antoshin

Yerevan 1954 (variation)

54

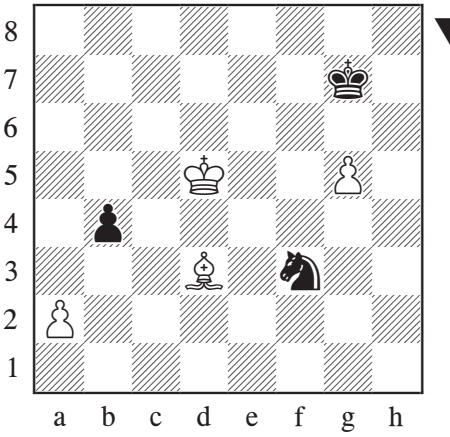


White to move and win
Recommended time: 10 minutes
Level: 3

(22.1) Ian Nepomniachtchi – Wang Yue

Sochi 2009 (variation)

56

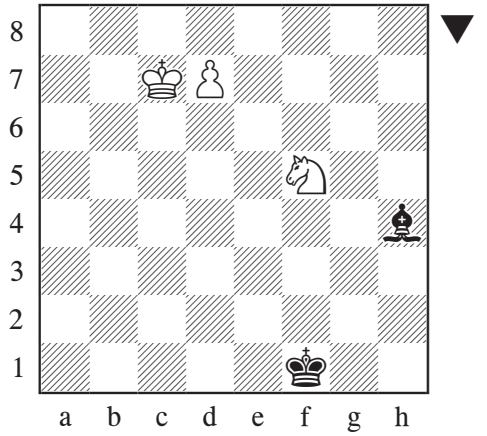


White has just played **57.♔d5!?**
Black to move and draw
Recommended time: 10 minutes
Level: 3

(21.1) Reuben Fine 1941

(Averbakh 57)

55

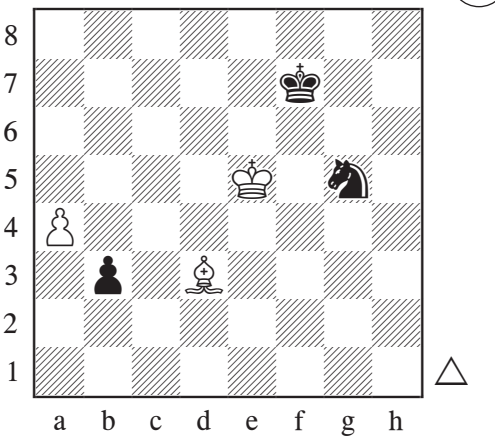


Position after **1.♘f5?**
Black to move and draw
Recommended time: 8 minutes
Level: 2

(22.2) Ian Nepomniachtchi – Wang Yue

Sochi 2009 (variation)

57

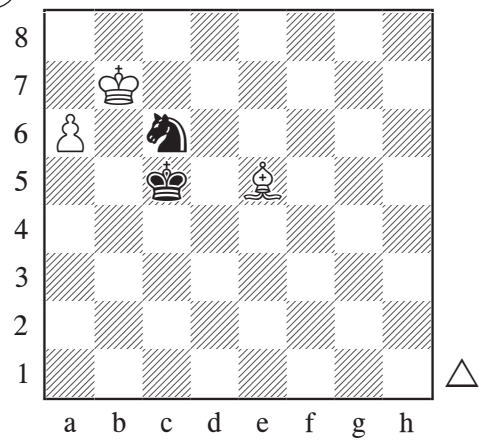


Black has just played **57...♔f7?**
White to move and win
Recommended time: 10 minutes
Level: 3

(23.1) Yuri Averbakh 1958

(Averbakh 40)

58

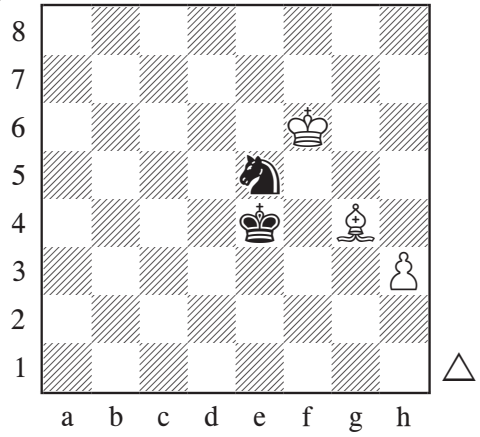


Black has just played **1...♔c5?**
White to move and win
Recommended time: 5 minutes
Level: 1

(24.1) Robert James Fischer – Mark Taimanov

Vancouver (2) 1971

59

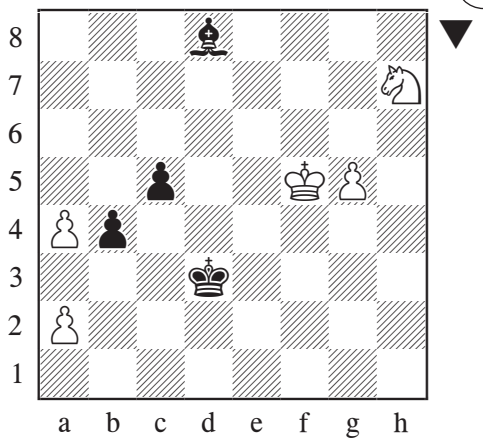


Position after Taimanov's move **1...♔e4?**:
White to move and win
Recommended time: 8 minutes
Level: 2

(25.1) Andrei Volokitin – Alexander Moiseenko

Kiev 2011 (variation)

60

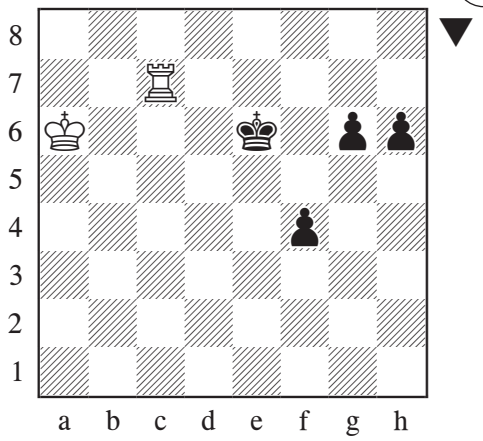


Position after **40.♘xh7**
Black to move and draw
Recommended time: 8 minutes
Level: 2

(28.1) Richard Lilja – Silas Esben Lund

Helsingor 2011 (variation)

61

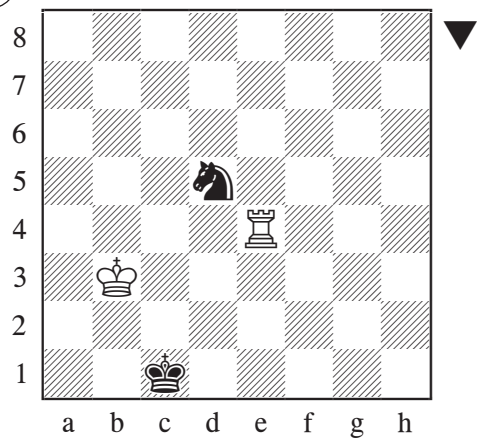


Black to move and win
Recommended time: 10 minutes
Level: 3

(29.1) Sørensen – Nielsen

Esbjerg 1947 – (Averbakh 522)

62

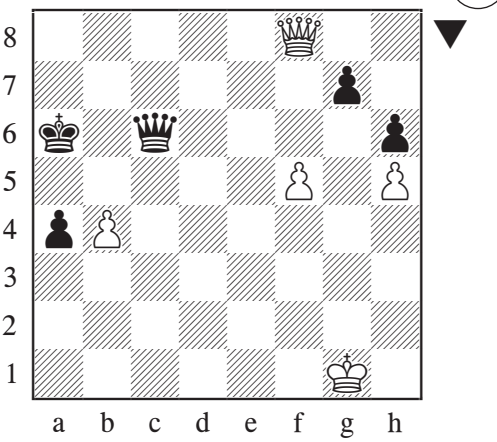


Position after **6.♖e4**
Black to move and draw
Recommended time: 10 minutes
Level: 3

(37.1) Merijn van Delft – Kayden Troff

Rotterdam 2014 (variation)

64

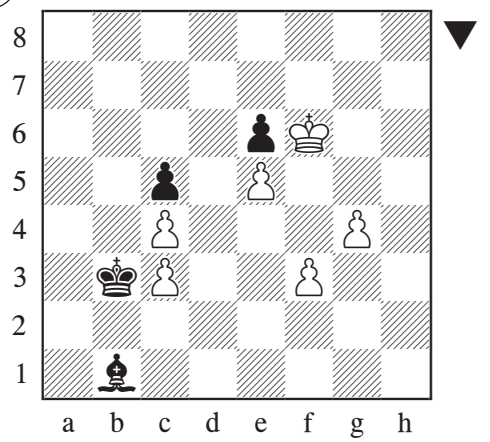


Position after **67.axb4**
Black to move and win
Recommended time: 10 minutes
Level: 3

(32.1) Magnus Carlsen – Viswanathan Anand

Sochi (6) 2014 (variation)

63



Position after **43.g4?**
Black to move and draw
Recommended time: 12 minutes
Level: 4

Chapter 7

Solutions to Extra Exercises

40. (4.1) Yuri Averbakh 1955

(Averbakh 39)

1...♔f6!

Critical Moment 1. **Method of Elimination; Planning; Basic Endgame Knowledge**. Black has to realize that White's only winning attempt when fighting against a knight's pawn is to eliminate the pawn with the king, and let the knight defend the h2-pawn from behind (from f1).

2.♔g4

2.♔h6!? ♔f5 3.h4 ♔e4 4.h5 ♔d3 5.♔g7 ♔c2 6.♘a3† ♔b3 7.♘b1 ♔c2 (7...♔a2?? 8.♘d2+– allows the knight to get to the other side of the pawn) 8.h6 ♔xb1 9.h7 ♔a2 10.h8=♕ b1=♕=

2...♔g6!

Critical Moment 2. **Method of Elimination; A Feel for Details**. Black should realize that there is only one way to the draw.

2...♔e5? 3.♔g5! (3.♔f3? ♔f5=; 3.h4? ♔f6=) 3...♔e4 (3...♔e6 4.♔g6 ♔e7 5.♔g7+–) 4.♘a3! Nice prophylaxis, and an easy move to miss: White prepares the knight transfer to d2 later, and avoids losing a tempo once the black king lands on c2. 4...♔d3 5.♔f4 ♔c3 6.♔e3 ♔b3 7.♘b1 ♔c2 8.♘d2+–

3.♘d2 ♔h6=

Critical Moment 3. **Logical Follow-up**. Black sticks to his defensive plan. If the white king runs for the b2-pawn, Black is ready to run up the h-file.

3...♔f6? allows White to go for the b-pawn: 4.♔f4! ♔g6 5.♔e4 ♔g5 6.♔d3 b1=♕† 7.♘xb1 ♔g4 8.♘d2 ♔h3 9.♘f1+–

½-½

41. (5.1) Isaac Kashdan – Salomon Flohr

Hamburg 1930 – (Averbakh 55)

3...exf5

Critical Moment 1. **Method of Elimination**. Black has to take the knight.

3...♔c4? 4.♘h4 The simplest for White is to place the knight on g6 and transfer the king to f6. 4...♔d4 5.♘g6 ♔d5 6.♔g5 ♔e4 7.♔f6 ♔d5 8.♘f4†+–

4.♔xf5 h4 5.e6 ♔d6!

Critical Moment 2. **Method of Elimination; A Feel for Details; Working with the King**. By inserting this king move, Black avoids the skewer on a8.

5...h3?? 6.e7 h2 7.e8=♕ h1=♕ 8.♕a8†!+–

6.♔f6 h3 7.e7 h2 8.e8=♕ h1=♕ 9.♕d8† ♔c5=

Critical Moment 3. **Method of Elimination**.

9...♔c6?? 10.♕a8†+–

½-½

42. (6.1) Pál Benkö

(Evans 178)

3.♔c3!

Critical Moment 1. **Method of Elimination; A Feel for Details; Planning; Working with the King; Surprising Moves**.

3.♔d3?? ♘b3 4.a6 ♘c5†–+

3.♔b4? Now both 3...♔d5 and 3...♔d6 win for Black, with lines similar to 3.♔b5.

3.♔b5? ♔d6! White has two continuations, but neither saves the position: 4.♔b6 (4.a6 ♔c7 5.♔c5 ♘e4† 6.♔d4 ♘f6 7.♔e5 ♘xg4† 8.♔f5 h5! The only way. 9.♔g5 ♘f6–+) 4...♘c4† 5.♔b5 ♘xa5 6.♔xa5 ♔e5 7.♔b4 White is heading for the saving f1-square, but in vain: 7...♔f4 8.♔c3 ♔xg4 9.♔d2 ♔f3 10.♔e1 ♔g2!–+

3...♘e4† 4.♔d3!

Critical Moment 2. **Method of Elimination**. The white king must aim for the kingside.

Other king moves lose as White is not able to support the a-pawn anyway, for instance: 4.♔c4? ♔d6! and Black can grab the g-pawn and win.

4...♘c5† 5.♔e3=

White will not succumb to zugzwang – it is always possible to protect the g4-pawn. At the same time, the knight is occupied with the a-pawn, so the game is drawn.

½–½

43. (7.1) Kornél Havasi

(Evans 181)

1...a2!

Critical Moment 1. **Method of Elimination; Surprising Moves**.

1...♘f7? 2.♔d5 a2 (or 2...♔b3 3.♘xa3+–) 3.♘c3† ♔b3 4.♘xa2 ♔xa2 5.h8=♕! The only move to break the barrier, but sufficient for a win. 5...♘xh8 6.♔e6 ♔b3 7.♔f6 ♔c4 8.♔g7 ♔d5 Black sacrifices the knight but is still one move short of saving the game. 9.♔xh8 ♔e6 10.♔g7 ♔f5 11.♔h6+– Zugzwang.

2.♘c3† ♔a3 3.♘xa2 ♔xa2 4.♔d5 ♔b3!

Critical Moment 2. **Method of Elimination; Basic Endgame Knowledge**. With a rook's pawn on the 7th rank, there is always the possibility of stalemating the king in the corner.

Again, 4...♘f7? loses to: 5.h8=♕!+–

5.♔e6 ♔c4 6.♔f6 ♔d5 7.♔g7 ♔e6 8.♔xh8 ♔f7=

½-½

44. (8.1) Leonid Kubbel 1924

(Averbakh 48)

1...♔b5!

Critical Moment 1. **Method of Elimination**; **Planning**. The king is headng for the kingside to threaten the e-pawn and support the h-pawn.

1...f2? 2.♘c4† ♔b5 3.♘d2 gives the main continuation of Exercise 8.

2.♘xf3

2.♘d3 ♔c4 3.♘f2 ♔c3=

2...♔c4 3.e4 h5

Critical Moment 2. **Method of Elimination**. This counterplay is the only way to break the barrier of the knight.

4.♔b2 h4

Critical Moment 3. **Logical Follow-up; Method of Elimination**.

5.♔c2
5.♘xh4 ♔d4=

5.e5 ♔d5=

5...h3 6.♔d2 h2 7.♘xh2 ♔d4=
Black eliminates the pawn and secures the draw.
½-½

45. (9.1) Smorodski – Breitmann

Soviet Union 1933 – (Averbakh 54)

2.♘xa3 c3 3.♘c2
Critical Moment 1. **Planning**. White transfers the knight to b4.

3...b5 4.♘b4 ♔h7 5.♔g5 ♔g7 6.h6† ♔f7 7.♔f5 ♔g8 8.♔g6 ♔h8 9.♘c6!
Critical Moment 2. **Transform-willingness; Method of Elimination; Basic Endgame Knowledge**. The position is sharpened, but White will mate in time.

9.♘d3!? c2 10.♘e5 transposes to the main continuation.

Also possible is 9.h7!? c2 10.♘d3! Critical Moment. **Basic Endgame Knowledge; Planning; Method of Elimination; A Feel for Details**. From c1, White has a direct route to mate on f7. (10.♘xc2? b4= White is not in time to reach f7 since promotion on b1 is with check!) 10...c1=♕ 11.♘xc1 b4 12.♘d3 b3 13.♘e5 b2 14.♘f7 mate.

9...c2 10.♘e5 c1=♕ 11.♘f7† ♔g8 12.h7† ♔f8 13.h8=♕† ♔e7 14.♕d8† ♔e6 15.♕d6
Mate!
1-0

46. (9.2) Smorodski – Breitmann

Soviet Union 1933 – (Averbakh 54)

These positions are tricky for Black, who has to be precise with the king.

7...♔g8
Also possible is: 7...b4!? 8.♘xb4 ♔g8! Critical Moment. **Planning; A Feel for Details; Working with the King**. (8...♔f8 9.♔g6 ♔g8 10.h7† As we shall see throughout this exercise, Black cannot allow this check when the knight is ready to jump to f7. 10...♔h8 11.♘d3 a2 12.♘e5 a1=♕ 13.♘f7 mate.) 9.♔g6 ♔h8=

8.♔g6
8.♘b4 ♔h7 9.♔h5 ♔g8! Again, Black cannot allow h6-h7 with check in the position with the knight ready to jump to f7. 10.♔g6 ♔h8=

8...b4!

Critical Moment 1. **Method of Elimination; Planning**.

8...♔h8? 9.♘b4 Black is in zugzwang. 9...♔g8 10.h7†! ♔h8 11.♘c6 a2 12.♘e5 a1=♕ 13.♘f7 mate.

9.♘xb4 ♔h8=

Critical Moment 2. **Basic Endgame Knowledge**. Black should be aware when this position is a draw. The player should be tested to the maximum in this position, and therefore I suggest a mix between a triangular king movement and a knight manoeuvre to c1 to begin with. This might confuse Black, for instance:

10.♔h5 ♔g8 11.♔g5 ♔h7 12.♘a2

Here Black has to find the only move:

12...♔h8!

Critical Moment 3. **Method of Elimination; A Feel for Details; Working with the King; Basic Endgame Knowledge**.

12...♔g8 13.♔g6 ♔h8 14.♘b4 ♔g8 15.h7†! White checks and forces Black's king into the corner, and then delivers checkmate on f7. With the king on h8, this would not have been possible. 15...♔h8 16.♘c6 a2 17.♘e5 a1=♕ 18.♘f7 mate.

½–½

47. (10.1) Vitaly Chekhover – Igor Bondarevsky

Moscow 1945 – (Averbakh 66)

2.g4!

Critical Moment 1. **Method of Elimination; Planning**. White has to grab space on the kingside before Black corrects his error.

2...h6 3.♔e3 ♔f6 4.♔e4 ♔e6 5.♘e2 ♔f6 6.♔f4 ♔e7 7.♔e5 ♔f7 8.g5

Critical Moment 2. **Planning**. There are several ways for White to win the position; the important thing is to find a plan and stick to it. White now fixes the g6-pawn and uses reserve moves with the knight to bring Black into zugzwang and win it.

8...hxg5 9.hxg5 ♔e7 10.♘c1 ♔f7 11.♔d6+–

48. (10.2) Vitaly Chekhover – Igor Bondarevsky

Moscow 1945 – (Averbakh 66)

3.♘c1!

Critical Moment 1. **Method of Elimination; Basic Endgame Knowledge**. White takes it easy as he knows that an h-pawn wins with a knight against a c2-pawn, no matter which side is to

move when the black king has to choose between g8 and h8. Either Black is mated on h8 or e6, once White liberates the knight.

3...gxh4
3...♔e5 4.♘e2 forces the black king back due to the looming knight fork on d4.

4.gxh4 ♔e5 5.♘e2
Critical Moment 2. **Planning**. The black king is being forced back due to the looming knight check on d4. Once White has won the h5-pawn, we have a win following the instructions from Chapter 3.1.

5...♔f6 6.♔e4 ♔g6 7.♔e5 ♔h6 8.♔f6 ♔h7 9.♔g5 ♔g7 10.♔xh5 ♔h7 11.♔g5 ♔g7 12.h5 ♔h7 13.h6 ♔g8 14.♔g6 ♔h8 15.♘c1
Critical Moment 3. **Planning; Basic Endgame Knowledge**. The knight is heading for e5, it does not matter if Black's king is on g8 or h8 at any given time, when fighting a bishop's pawn on the 2nd rank.

15...♔g8 16.♘d3 ♔h8 17.♘e5 c1=♕ 18.♘f7† ♔g8 19.h7† ♔f8 20.h8=♕† ♔e7 21.♕d8† ♔e6 22.♕d6 mate.
1-0

49. (10.3) Vitaly Chekhover – Igor Bondarevsky

Moscow 1945 – (Averbakh 66)

10.♔d3
Critical Moment 1. **Method of Elimination**. The only move that makes sense, even if you don't see the follow-up.

10...g5 11.♘d4†!
Critical Moment 2. **Method of Elimination**.

11.hxg5? ♔xg5 followed by 12...h4=.

11...♔g4 12.hxg5 ♔xg5 13.♔e4!
Critical Moment 3. **Method of Elimination**. White has to transfer the knight to f5 to stop Black from exchanging the pawns. It is possible that White has not yet found the win, but nonetheless this has to be played.

13.♔e2 ♔g4 14.♔f2 h4=

13...♔g4 14.♘f5 ♔g5 15.♔e5
Critical Moment 4. **Planning**. The white king approaches the h-pawn via f6.

15.♘e3!? Critical Moment. **Planning**. 15...h4 16.g4 h3 17.♔f3+–

15...♔g4 16.♔f6+–

50. (10.4) Vitaly Chekhover – Igor Bondarevsky

Moscow 1945 – (Averbakh 66)

15.♔f2

Critical Moment 1. **Method of Elimination; Planning; A Feel for Details**. White is taking g3 under control.

15.♘e1?? was played by a pupil of mine (and thus he failed at the end of a long exercise). 15...♔g3 16.♘f3 ♔g4! Black does not allow White to correct his mistake. 17.♔f2 ♔h3!= Black has the squares g4, g3 and h3 available and will not end up in zugzwang. White has no way of freeing and regrouping the knight.

15...♔g4 16.♔g2!

Critical Moment 2. **Planning; Method of Elimination**. Now g3 and h3 are under control – and Black has to release the pressure on h4.

16...♔f4 17.♘h2!

Critical Moment 3. **Planning**. Now White will protect the pawn with the king, thus freeing the knight. The next step thereafter will be to transfer the knight to f4, forcing the black king to h6. At this point, White has a free hand with his king.

1-0

51. (11.1) Zhou Jianchao – Li Chao

Danzhou 2010

43.♔xb4 ♘xa2† 44.♔c4

Critical Moment 1. **Method of Elimination; Basic Endgame Knowledge**. This is a typical dominant distance between king and knight, and also the only move that wins.

44...♘c1

After 44...♔g6 45.b4 Black is unable to sacrifice the knight for the pawn to draw the game: 45...♘xb4 46.♔xb4 ♔h5 47.♔c4 ♔xh4 48.♔d5+– Black would draw the game if he was able to bring his king to f4 – but this is not possible. White wins in the diagram position due to his doubled f-pawns. 48...♔g5 (or 48...♔h3 49.♔e5 ♔g2 50.f4+–) 49.♔e5 ♔g6 50.f4 ♔g7 51.♔xf5 ♔f7 52.f3+– Black is in zugzwang.

45.b4!

Critical Moment 2. **Planning; Method of Elimination**. To many, the push of the b-pawn seems natural, so they don't even consider it a Critical Moment. But as will be clear from the next note, pushing the b-pawn quickly is essential.

45...♘e2 46.b5!

Critical Moment 3. **Logical Follow-up; Method of Elimination; Planning**. White has to realize that Black cannot be allowed to get his knight via e6 to d8 in time to stop the b-pawn. This would free the black king who is then able to eliminate the h-pawn. As a consequence, White has to push the b-pawn to ensure the black king is occupied with the b-pawn.

46.h5? ♘f4 47.b5 ♘e6! 48.b6 ♘d8=

46...♔e6

46...♘g1!? demands an only move: 47.f4!+– Critical Moment. **Prophylactic Thinking; Method of Elimination; Basic Endgame Knowledge**. White not only avoids the capture on f3, but also covers the important e5-square, which prevents the knight from entering the ring of the b-pawn.

47.h5

Critical Moment 4. **Planning**. There are other move orders and ways to win at this point, the important thing is to come up with a clear plan and follow it. The one I suggest as the main line is pushing the h-pawn to make the knight passive. At the right moment, White can go all-in on the kingside, and for this purpose it makes sense to keep the pawn on b5, as it is further away for the black king to capture.

47...♘f4 48.h6 ♔d6 49.h7

If White plays the h-pawn to the 7th rank, he has to be aware of stalemate sacrifices in the corner.

An alternative approach is to only push the h-pawn as far as h6, and instead sacrifice the b-pawn to get the king in on the kingside: 49.b6 ♔c6 50.♔d4 ♘g6 51.b7! The only winning move at this point. 51...♔xb7 52.♔d5 f4 53.♔e6 ♘f8† 54.♔f7 ♘h7 55.♔g7 ♘g5 56.h7 ♘xh7 57.♔xh7+– White picks up the f4-pawn and wins because of the doubled f-pawns. 57...♔c6 58.♔g6 ♔d6 59.♔f5 ♔e7 60.♔xf4 ♔f6 With only one f-pawn, this would have been a draw, but White can use the second f-pawn to break the zugzwang.

49...♘g6 50.♔d4 ♘h8 51.f4!

Critical Moment 5. **Method of Elimination; Planning; Change Gears**. Many players fail in this position because they believe that almost every way of playing wins. However, it always seems to come down to one only move at some point, and this is the instance in this line – pushing the f-pawn at this point is the only path to victory. This is a difficult move to find, since after pushing forward for some moves, White steps back a while to prepare the final assault.

It is tempting to play 51.b6? but after 51...♘g6!= we get lines similar to the next note.

51...♘g6 52.f3

Critical Moment 6. **Planning**. A clever waiting move: White only pushes the b-pawn when he has access to the e5-square.

52.b6? ♔c6 53.b7 ♔xb7 54.♔d5 ♔c7 55.♔e6 ♘h8! (Not the tempting knight fork 55...♘f8† 56.♔f7 ♘xh7 57.♔g7+– and the knight is trapped on h7. Thus, this position is not about setting up a barrier, but rather the fact that White has pushed his pawn to h7 makes stalemate options in

the corner possible.) 56.♔xf5 ♔d7 57.♔f6 ♔e8 58.♔g7 ♘f7= The knight simply jumps between h8 and f7.

52...♘h8

52...♔e6 is answered with 53.♔c5 when White has improved his position. (It is also possible to win by force: 53.b6 ♔d6 54.b7! Only move. 54...♔c7 55.♔d5 ♔xb7 56.♔e6 ♔c7 57.♔f7 ♘h8† 58.♔g7 ♔d7 59.♔xh8+– Black is one tempo short of trapping the white king in the corner.) 53...♔d7 54.♔d5+–

53.b6

Critical Moment 7. **Change Gears**. It is time to take action.

53...♔c6 54.♔e5!

Critical Moment 8. **Method of Elimination**. The only move at this point.

54...♔xb6 55.♔f6 ♔c6 56.♔g7 ♔d7 57.♔xh8+–

Again, White is one tempo short of trapping the white king in the corner. The conclusion from this exercise is that it is easy to think that the position wins itself, but actually White has to be precise and also be ready for the moment where he has to display an only move in order to win.

52. (14.1) Vitaly Chekhover 1955

(Averbakh 28C)

6.♘e1!

Critical Moment 1. **Method of Elimination; Planning**. White has to realize that the usual way of defending this position – attacking the g-pawn with the king from the rear – does not work here.

6.♔d6? g4 7.♔e6 ♔e4 8.♔f6 ♔f3 9.♘e1† ♔e2 10.♘g2 g3 11.♔f5 ♔f2–+ White is a tempo short.

6...g4!

The most testing for White.

After 6...e2 it works for Black to attack the g-pawn: 7.♔d6 g4 8.♔e6 ♔e4 9.♔f6 ♔f4 10.♔g6= White is ready to attack the g-pawn from the rear before Black can win the knight for the e-pawn.

7.♔b5!

Critical Moment 2. **Method of Elimination; Planning**. The white monarch has to find new ways. The king is heading to fight the e-pawn instead.

7...g3 8.♔b4 e2 9.♔b3!

Critical Moment 3. **Logical Follow-up; Method of Elimination**. The king is aiming for d2.

9...♔e3 10.♔c2 ♔f2 11.♔d2=
½–½

53. (15.1) Sergey Lebedev – Peter Romanovsky

Moscow 1923 (variation) – (Averbakh 112)

11...♘g2

Critical Moment 1. **Planning; Method of Elimination**. Going for the h4-pawn is the only way to play for a win in the position. For some players, who see White's counterplay with the c-pawn, this seemingly simple pawn capture can be a challenge to their nerves. But it has to be played.

12.♔a3 ♘xh4 13.♔b4

The knight is on h4, compared to h3 in the main continuation of the game (Exercise 15). Many of the points are the same as in that exercise, but the specifics differ. I will show a plan where Black pushes the g-pawn and prepares the manoeuvre ...♘g6-e7 to defend against the c-pawn.

13...g5

Critical Moment 2. **Planning**. Black needs to find a plan and stay focused on it at this point. The one I show below is not the only one, but it was the most focused I could come up with.

14.♔b5 g4

Critical Moment 3. **Logical Follow-up; Planning; Prophylactic Thinking**. Black's main idea now is to make the white knight passive by pushing the pawn as far as g2. Then it is easier to cope with White's counterplay with the c-pawn. At this point, Black has to be ready for White's counterplay with the c-pawn.

15.♘d4

15.c6!? g3 16.c7 ♔d7 17.♔b6 ♔c8!–+ This wins because the promotion on g1 is with check. (Also possible is: 17...♘f5!? 18.♔b7 ♘d6† 19.♔b8 g2 20.♘c5† ♔c6 21.♘e4 The last trick. 21...g1=♕ 22.♘xd6 ♕b6†–+) 18.♘d4 g2 19.♘c6 g1=♕†–+

15...g3 16.c6 g2 17.♘e2

The white knight is now passively defending the promotion square g1, thus easing the defence against the c-pawn for Black.

17...f5

Critical Moment 4. **Planning**. White sees that White pushing the second c-pawn is not a problem, so he simply advances his own pawns.

18.♔b6 ♘g6 19.c7 ♔d7 20.♔b7 ♘e7 21.c4 f4

Critical Moment 5. **Planning**. Black needs to see that pushing the second c-pawn is not dangerous. Meanwhile, White's knight cannot hold back three black pawns.

22.♘g1 g5 23.c5 g4 24.c6† ♔d6–+
0-1

54. (17.1) Viktor Korchnoi – Vladimir Antoshin

Yerevan 1954 (variation)

60.♔d5

Critical Moment 1. **Planning**. White's priority is to get the king closer to the kingside.

60...♔f5!

This is possibly not the engine's first choice, although I believe it is the most testing for a human: by giving up the g-pawn, Black activates the king and keeps the white monarch out, and later White has to show precision in order to win.

61.♖xg7 ♔f4

61...h3 62.♖g3! h2 63.♖h3+– is an easy win.

62.♖h7

Critical Moment 2. **Planning; Basic Endgame Knowledge; Logical Follow-up**. White still needs to get his king into the defence. White also needs to correctly judge the key endgame position with kings on e3 and g3 – only with an extra f-pawn as well as the h-pawn.

Also possible is: 62.♔d4 Critical Moment 2. **Planning; Basic Endgame Knowledge; Working with the King**. 62...h3 63.♖h7 ♔g3 64.♔e3 This leads to the same thing as the main line.

62...♔g3 63.♔e4 h3

63...f5† 64.♔e3 f4† 65.♔e2 f3† 66.♔f1+– Focused play: with the king in front of the pawns, the win is not far off.

64.♔e3

Critical Moment 3. **Logical Follow-up**. With an extra f-pawn Black loses, as he cannot play for stalemate on h1!

64...♔g2 65.♔e2!

Critical Moment 4. **Method of Elimination; Basic Endgame Knowledge; Logical Follow-up**. No later than this point, White should realize that he will have to win a rook versus knight endgame.

65.♖g7†?! ♔f1! and White has nothing better than to return with 66.♖h7 ♔g2.

65...h2 66.♖g7† ♔h3!

The best chance.

66...♔h1 67.♔f2 Normally a stalemate, but the extra f-pawn allows mate in two moves: 67...f5 68.♖a7 f4 69.♖a1 mate**.**

67.♔f2

Critical Moment 5. **Method of Elimination**.

67...h1=♘† 68.♔f3 ♔h2

White usually wins positions with a knight in the corner through zugzwang, but the extra f-pawn forces him to let the knight out. From there, he can implement the two plans outlined in the Chapter 3.4. Here is a sample line to show a win:

69.♖g6 f5 70.♖g5 f4 71.♔xf4

Critical Moment 6. **Planning; Basic Endgame Knowledge**. By playing this way, White has realized that he cannot keep the knight in the corner and remove the pawn. Accepting the coming knight hunt is the key to the decision here, and basic endgame knowledge helps to make this decision.

71...♘f2 72.♔f3 ♘d3 73.♖d5

Critical Moment 7. **Planning**. Please notice that White already had the rook on the 5th rank, covering e5 and ready to land on one of the central squares. The knight is now driven further away.

73...♘b4 74.♖d6

Critical Moment 8. **Planning; Change Gears**. Typical for these positions: White is handing over the move to Black, confident that semi-zugzwangs will occur.

74...♔g1 75.♔e2!

Critical Moment 9. **Prophylactic Thinking**. White intends to hunt down the knight, at the same time keeping the black king out.

75...♘c2 76.♖g6†!

Critical Moment 10. **Planning**. Transferring the rook to the 4th rank is the most convincing plan.

76...♔h2 77.♖g4 ♘a1

77...♘a3 78.♔f2 Threatening mate. 78...♔h3 79.♖g3†+– and wins the knight.

77...♔h3 78.♖a4 Trapping the knight. 78...♔g2 79.♔d2+–

78.♖b4 ♘c2 79.♖a4+–

Again trapping the knight.

1–0

55. (21.1) Reuben Fine 1941

(Averbakh 57)

1...♗g5!

Critical Moment 1. **Planning; Method of Elimination; A Feel for Details**. Black is ready to enter the h2-b8 diagonal (through the f4-square).

1...♗f6?

The crucial difference between this bishop move and the correct one is that now the bishop will be unable to enter the h2-b8 diagonal (here the e5-square) in time.

2.♘d4! ♔f2

2...♗e5† 3.♔c6 ♗f6 4.♔d5+– followed by ♘c6, is no improvement for Black.

3.♘c6

The e5-square is covered and Black cannot shift diagonal with the bishop.

3...♗g5 4.♔d6 ♗f4†

The extra move spent on the bishop proves fatal for Black.

5.♔c5 ♗c7

5...♗g5 6.♔d5!+– followed by ♔e6 and ♘e7, and then queening. Again, this is surprising to many that White simply avoids the light squares, not giving Black the chance to check and reach the a5-d8 diagonal.

6.♔b5 ♔e3 7.♔a6 ♔e4 8.♔b7+–

2.♔d6

Threatening 3.♘e7.

Now if 2.♘d4 ♔f2 3.♘c6 Black can continue with 3...♔e3! and after 4.♔d6 it is possible to enter the h2-b8 diagonal with 4...♗f4†=. The extra tempo in this line compared to the main line will save Black, whose king is now closer to the d7-pawn.

2...♗d8!

Critical Moment 2. **Method of Elimination; Surprising Moves**. To many players, it is a surprise when the white king avoids playing into Black's hands by side-stepping the dark squares. Thus, Black is unable to just return to an earlier position:

2...♔f2? 3.♘e7 ♗f4† 4.♔c6+–

2...♗f4†? 3.♔d5! Very flexible: White keeps the options of both ♘c6 and ♘e6 open, and the king can also go to either side of the pawn to block the bishop's access to the promotion square. 3...♗g5 4.♘d4 The threat is ♘c6, ♔e6 and then ♘e7, so Black has no time to bring in the king. 4...♗d8 5.♘c6 Forcing Black away from the longer d8-h4 diagonal (5 squares), and onto the shorter d8-a5 one (4 squares). 5...♗c7 6.♔c5+– The king march to b7 decides, because the black king is too far away.

3.♘d4 ♔f2!

Critical Moment 3. **Basic Endgame Knowledge; Planning**. Four squares for the bishop on the shortest diagonal in front of the pawn (the d8-a5 diagonal) is not enough, so the king is needed in the defence. Black plans to bring the king to d6 in time.

4.♘c6 ♗b6 5.♔d5 ♔e3 6.♔c4 ♔e4 7.♔b5 ♗c7 8.♔a6 ♔d5 9.♔b7 ♔d6=

With the king on d6 protecting c7, the bishop can stay on the short diagonal, securing the draw.

56. (22.1) Ian Nepomniachtchi – Wang Yue

Sochi 2009 (variation)

57...♘xg5 58.♔c5 ♔f6

Critical Moment 1. **Planning**. Clearly, Black needs to approach the queenside to be able to defend against the a-pawn. The promotion square a8 is the same colour as the bishop, so no knight sacrifices are possible. The first part of Black's defensive plan that I suggest is to get the knight to c5.

59.♔xb4 ♔e5 60.♔c5 ♘e6† 61.♔c6 ♔d4

Critical Moment 2. **Planning; Positional Judgement**. Of course, Black has other ways to defend. By choosing this plan that brings the knight quickly to c5, Black accepts that the king is going further away from the a8-corner. Black knows that some kind of zugzwang will force the knight away from c5, but he (correctly) relies on other defensive resources.

62.♗f5

62.a4 is answered with: 62...♔xd3 Critical Moment. **Play the most forcing line if possible**. 63.a5 ♔c4 64.a6 ♘d4† 65.♔b6 ♘b5=

62...♘c5 63.♔b5 ♔d5 64.♗g4 ♔d6 65.♗f3

This is the zugzwang I was talking about, very typical of bishop vs. knight endgames. Black has to move the knight.

65...♘e6

This is not the only way, but this example from the hand of a student shows a correct plan, though it also shows later that a small slip of concentration can cost you dearly.

66.♔b6 ♘c5 67.♗c6

The aforementioned zugzwang again.

67...♘d3

Critical Moment 3. **Prophylactic Thinking; Planning**. Black is ready to counter the quick advance of the a-pawn, at the same time heading for b2.

68.a3

68.a4 ♘b2 69.a5 ♘c4†= eliminates the pawn.

68...♘b2 69.♔b5 ♔c7!?

Critical Moment 4. **Planning**. Black approaches the corner and still correctly assesses that he can cope with the a-pawn with the knight. However, the game continues and Black has to show flexibility in the defence. This increases the possibility of errors.

69...♘c4! Critical Moment. **Play the most forcing line if possible**. This leads to a forced draw: 70.a4 ♘a3† 71.♔b6 ♘c4†= White cannot escape the perpetual without losing the bishop.

70.♗g2!?

A very clever waiting move, and Black does not sense the danger in the coming moves. Maybe he would have, had the bishop gone directly to e4.

70...♔b8 71.♗e4 ♔a7?

A terrible move that loses the game. However, these kind of mistakes happen after a prolonged and nervy defence, and this is why it is so important to take the chance to force the draw if possible. The more Critical Moments the player has to endure, the greater the risk for errors. The player being tested in this game was an IM, so this advice really goes for all levels: it is much more difficult to stay flexible in the defence than to simply find and play the forced draw if given the chance.

71...♘d1! Critical Moment 5. **Method of Elimination; Surprising Moves**. The knight moves avoid the trap. After a continuation like 72.♗c2 ♘c3† 73.♔c4 ♘e2 74.a4 Black still needs to be slightly alert in the defence. Good luck with defending it against the engine!

72.♗c2+–

The knight on c2 is trapped and will be picked up by the king next.

1–0

57. (22.2) Ian Nepomniachtchi – Wang Yue

Sochi 2009 (variation)

58.♔d6!

Critical Moment 1. **Method of Elimination; Planning**. Now Black's knight is deprived of the f7-square and his king has lost access to the queenside as well.

58.a5? ♔e7 59.a6 ♘e6 60.a7 ♘c7=

58...♔e8

No better is:

58...♔f6 59.a5!

Critical Moment. **Method of Elimination**.

59...♘f7† 60.♔c7!

Critical Moment. **Method of Elimination**.

60...♘e5 61.♗b1!

Critical Moment. **Method of Elimination; A Feel for Details**.

61.♗e4? ♘c4 62.a6 ♔e5! 63.a7 Black was threatening to enter the ring consisting of the squares d6-c8-a7-b5. 63...♔xe4! 64.a8=♕† ♔d3!= Curiously enough, this position is only a draw.

61...♘c4 62.a6 ♘a3

Threatening the bishop and hoping to enter the ring via b5 – but White can sacrifice the bishop:

63.♔c6!

Critical Moment. **Method of Elimination; Transform-willingness**.

63...♘xb1 64.a7 b2 65.a8=♕ ♘c3 66.♕f8†

Critical Moment. **Planning**. White will eventually get a check on either b4 or the 2nd rank, and the Critical Moment is for planning and playing this idea. For instance:

66...♔g6 67.♕d6† ♔f5 68.♕c5† ♔g6 69.♕g1† ♔f5 70.♕f2†+–

59.a5

Critical Moment 2. **Method of Elimination**.

59...♔d8 60.a6

Critical Moment 3. **Play the most forcing line if possible; Planning**. As this continuation narrows Black's choices and seems like a fast road to victory, I definitely prefer it over the alternative win.

60.♔c6!? Critical Moment. **Planning**. This is also good enough for the win, but White does have to take two scenarios into account – that of the main continuation by a transposition, but also the knight transfer to c7: 60...♘e6 61.a6 ♘c7 62.a7 ♔c8 63.♗f5† ♔d8 64.♔b7 Critical Moment. **Planning; Basic Endgame Knowledge**. White only needs to bring about this position with Black to move – and the bishop is good at losing a tempo in these kind of positions. 64...b2 65.♔c6 ♘a8 66.♗e4 ♘c7 67.♗h7 ♔c8 68.♗f5† ♔d8 69.♔b7+– Zugzwang.

60...♔c8 61.♔c6 ♔b8

61...♘e6 62.♗f5+–

62.♔b6

Unfortunately for Black, he cannot use his knight in the defence.

62...b2 63.a7†

Critical Moment 4. **Planning**. White has seen the upcoming zugzwang.

63...♔a8 64.♗b1

A waiting move that forces the knight to abandon e4. White mates on the next move.

1–0

58. (23.1) Yuri Averbakh 1958

(Averbakh 40)

2.♗c7

Critical Moment 1. **Method of Elimination**. The only move, avoiding annoying knight checks on a5 then c6, and preparing the coming zugzwang.

2...♔d5

2...♔b5 3.♗b6+– immediately leads to a zugzwang position.

3.♔b6 ♘e7 4.♗g3

Critical Moment 2. **Planning**. White's idea is eventually to place the king on c7 (to cover d6) and transfer the bishop to the g1-a7 diagonal. This zugzwang position will be lethal.

Of course not: 4.a7?? ♘c8†=

4...♘c6 5.♗f4

Critical Moment 3. **Planning**. White makes a waiting move on the diagonal, before he rearranges his pieces.

5...♘e7 6.♔c7

Critical Moment 4. **Planning**. White senses the moment to move the king and bring Black into a deadly zugzwang.

6...♘c6 7.♗e3+–

Zugzwang – Black can no longer hold back the a-pawn.

59. (24.1) Robert James Fischer – Mark Taimanov

Vancouver (2) 1971

2.♗c8!

Critical Moment 1. **Method of Elimination; Planning; Basic Endgame Knowledge**. Now Black cannot play the saving knight move to f3, and it is not possible for him to return to the drawing set-up outlined in the main exercise.

After a move like 2.♗e2? Black is able to set up the drawing defence: 2...♔d5 3.h4 ♘d7† 4.♔e7 ♔e5!= With the help of this tactical trick (sacrifice of the knight to reach the h8-corner), Black is able to get his knight to f6.

2...♔f4

Trying to stop the pawn from the rear is hopeless, but at this point, Black has no way to save the game.

2...♘d3 3.♗f5†+–

2...♘f3 3.♗b7†+–

3.h4

Critical Moment 2. **Method of Elimination; Logical Follow-up**.

3...♘f3 4.h5 ♘g5 5.♗f5

Critical Moment 3. **Planning**. Black is in zugzwang and has to allow the further advance of the h-pawn.

5...♘f3 6.h6 ♘g5 7.♔g6+–

Critical Moment 4. **Planning**. The final zugzwang.

60. (25.1) Andrei Volokitin – Alexander Moiseenko

Kiev 2011 (variation)

40...c4!

Critical Moment 1. **Method of Elimination; Transform-willingness**.

40...♗xg5? 41.♘xg5 c4 42.♘e4! A move that is easily overlooked. 42...c3 43.♘c5†+– White transfers his knight to b3 and wins easily.

41.g6 b3!

Critical Moment 2. **Method of Elimination**. Black needs the discovered check from a queen on b1 to win the knight on h7. Even if you haven't yet spotted the solution to the exercise at this point, this move has to be played.

42.axb3 cxb3 43.g7 b2 44.g8=♕ b1=♕ 45.♕xd8† ♔c4†!

Critical Moment 3. **Basic Endgame Knowledge**. It is much easier to defend against an extra pawn in these queen endgames with the king close to the pawn.

45...♔e3†!?= Critical Moment. **Basic Endgame Knowledge**. The black king is heading for Drawing Zone 2 (lower right-hand corner). The corner diagonally opposite the promotion square is also a theoretically valid option – however, errors in the defence are much more likely to occur here than in the main continuation.

46.♔e5 ♕xh7=

The black king is in the proximity zone (close to the pawn). I suggest that you use the 15-move rule against the engine to see if you can still hold the balance for that long.

½–½

61. (28.1) Richard Lilja – Silas Esben Lund

Helsingor 2011 (variation)

48...g5!

Critical Moment 1. **Planning; Method of Elimination**. Black has to realize two things in the position:

1) It is important to keep the white king out as long as possible, forcing his opponent to lose valuable time.
2) Black should focus on the f- and g-pawns only, with the f-pawn being the front runner.

48...f3?? 49.♖c3= eliminates the f-pawn.

49.♔b5 f3!

Critical Moment 2. **Method of Elimination; Positional Judgement**. The important point here is that White has to spend a tempo on the rook now, before he can approach further with the king. Black should realize that the position is very move sensitive: in fact, one move makes the difference.

49...g4? This unfocused move gives White a range of moves to choose from, three of them leading to a draw. For starters, the desired 50.♔c4= is enough for a draw, since now White can approach with the king and keep the rook perfectly placed on c7: here it can attack from the rear (7th rank) or retreat to the 1st rank, depending on the circumstances.

50.♖c1 ♔d5!

Critical Moment 3. **Prophylactic Thinking; Planning; Logical Follow-up**. Body-checking the white king is prophylaxis: Black moves his king forward (his own plan), while simultaneously preventing the white king from approaching the kingside.

50...♔e5!? Critical Moment. **Planning**. As it turns out, Black also wins with the less prophylactic move. The point is that 51.♔c4 ♔e4 52.♖e1† does not really help White, since after 52...♔f4 53.♔d3 which may appear to help to get the white king in, Black responds with 53...f2 attacking the rook, followed by 54.♖a1 ♔f3–+ with a won position. But I definitely prefer the prophylactic option since, in that line, displaying multiple ideas on one move, Black reduces the risk that something unforeseen turns up.

White is utterly helpless here as the following lines show:

51.♖c8

Or 51.♖d1† ♔e4 52.♔c4 f2–+.

51...g4 52.♖d8† ♔e4 53.♔c4 f2 54.♖f8 g3–+
0-1

62. (29.1) Sørensen – Nielsen

Esbjerg 1947 – (Averbakh 522)

6...♘f6

Critical Moment 1. **Method of Elimination; Planning**. The only rescue plan for Black is to unite the king and knight and, with that aim, Black tries to transfer the knight towards king via the kingside.

6...♘b6?? 7.♖d4+– will soon drop the knight, either to a check or to zugzwang, since Black is unable to move his king due to the back-rank mate.

7.♖d4 ♘h5!

Critical Moment 2. **Method of Elimination; Basic Endgame Knowledge**.

Black must stay on the correct path and should not be tempted to think that any other moves are playable. He should sense the danger of keeping the knight and king apart – his understanding of these positions should tell him not to waste any time. A careless move in the position would be 7...♘e8?, after which White is winning.

8.♔c3 ♘g3!

Critical Moment 3. **Method of Elimination; Logical Follow-up**.

9.♔d3

9.♖g4 ♘e2† 10.♔d3 ♔d1= and Black is ready to deliver a check on c1.

9...♔d1!

Critical Moment 4. **Method of Elimination**. Again the only move in the position. The king and knight will be united on either e2 or f1.

10.♖f4 ♔e1=

½-½

63. (32.1) Magnus Carlsen – Viswanathan Anand

Sochi (6) 2014 (variation)

43...♔xc4!

Critical Moment 1. **A Feel for Details; Planning; Method of Elimination**.

43...♔xc3?

The reason for this move coming up short is really subtle. The black king must be able to go to b2 later, and the bishop should be transferred to the a4-e8 diagonal via c2 – so as to have flexible extra moves with the c-pawn before deciding which of White's pawns (e- or g-) to stop.

44.♔xe6 ♔xc4

Now the king is unable to get to b2.

44...♗d3 45.♔f6 ♗xc4 46.g5 ♔b2 47.g6 Unfortunately for Black, he has to choose between White's pawns already, since the bishop is blocking the march of the c-pawn: 47...♗b5 (or 47...♗g8 48.e6+–) 48.g7+–

45.♔f6 ♔b4 46.e6 ♗c2

46...♗d3 47.g5 ♗b5 48.g6 c4 49.g7 c3 50.g8=♕+–

47.g5 c4 48.g6 c3 49.e7! ♗a4 50.g7 c2 51.g8=♕ c1=♕ 52.♕g4†! ♔a3 53.♕xa4†! ♔xa4 54.e8=♕†+–

This endgame is winning for White; the only chance for Black to draw would be having the king in the area just behind the pawn. The point of this variation is the same as in the main exercise (32) related to this exercise.

44.♔xe6 ♔xc3 45.♔f6 c4

Critical Moment 2. **Planning; Prophylactic Thinking**. With this and the next move, Black stays as flexible as possible, waiting for White to show his hand as to which pawn he wants to advance.

46.g5 ♗c2 47.g6 ♔b2!!

Critical Moment 3. **A Feel for Details; Surprising Moves; Working with the King; Basic Endgame Knowledge**. The only square for the king – Black is preparing to enter a queen ending in which he can eliminate the f3-pawn and draw the game.

47...♔d2? 48.e6 c3 49.e7 ♗a4 50.g7 c2 51.g8=♕ c1=♕ 52.♕a2†!+– The bishop on a4 is hanging.

47...♔b4? leads to the line we saw above with the queen sacrifice for the a4-bishop: 48.e6 c3 49.e7 ♗a4 50.g7 c2 51.g8=♕ c1=♕ 52.♕g4†! ♔a3 53.♕xa4†! ♔xa4 54.e8=♕†+–

48.e6 c3

So far, so good – both sides have played flexibly up to this point. Now White can either push the e- or g-pawn.

49.g7

Or 49.e7 ♗a4. Critical Moment. **Method of Elimination**. 50.g7 c2 51.g8=♕ c1=♕= There are no decisive queen checks.

49...♗h7

Critical Moment 4. **Method of Elimination**.

50.e7 c2 51.e8=♕ c1=♕=

As in the line after 49.e7, Black is ready to check on either c3 or f4 to eliminate the f-pawn.

64. (37.1) Merijn van Delft – Kayden Troff

Rotterdam 2014 (variation)

67...a3!

Critical Moment 1. **Method of Elimination; Planning**. The only move – it is not enough simply to create a passed pawn, it must be pushed immediately as well. White will quickly create counterplay, either with annoying checks or by capturing the g7-pawn, opening the way for his own f-pawn. So time matters, and Black should realize that.

67...♔b5? 68.♕xg7 a3 69.♕e5† ♔xb4 70.f6= White has enough counterplay for a draw.

67...♕f6? 68.♕a8† ♔b5 69.♕a5†= White eliminates the dangerous a-pawn.

68.♕e7!

The toughest defence, forcing Black to find new resources.

68.b5†?! The problem with this line for White is that Black can easily calculate it all the way to a win. For a start, the first couple of moves are forced, easing his task: 68...♔xb5 69.♕xa3 ♕c5†! 70.♕xc5† ♔xc5 71.♔f2 ♔d4 72.♔f3 ♔e5 73.♔g4 ♔e4–+ Zugzwang. This time there is no saving push with the f-pawn.

68...♕b6†!

Critical Moment 2. **Prophylactic Thinking; Planning; A Feel for Details**. Black is preparing to push the a-pawn under favourable circumstances. At the same time, he tries to find a way in with the queen, to attack the other weaknesses on f5 and h5.

68...♔b5!? is a slower approach, but also good enough for the win. Black simply moves the king forward to support the a-pawn. He can even avoid capturing of the b-pawn and instead use it as an umbrella.

69.♔h2

69.♔f1 a2! with the point 70.♕e2† ♕b5 pinning the queen.

69.♔g2/69.♔h1 is answered with: 69...♕b7†–+ The queen exchange is fatal for White.

69...♕f2†

Critical Moment 3. **Logical Follow-up**. Black is primarily interested in pushing the a-pawn. If White's start checking, the black king can pick up the b-pawn and later seek refuge.

70.♔h1

70.♔h3 ♕xf5†–+ followed shortly by a queen exchange on g5.

70...a2!

Critical Moment 4. **Positional Judgement; Transform-willingness; Change Gears; Surprising Moves; Method of Elimination**. Black is not afraid of the many queen checks. He can even consider hiding behind the white b-pawn in order to reduce the scope of the white queen.

70...♕xf5? A very tempting move but, amazingly enough, this only leads to a draw. 71.b5† ♔xb5 72.♕xa3= The engine claims a draw in this position. This is quite surprising, since h5 can be captured with check, when Black will have two connected passed pawns. The problem for Black is the position of the king on b4, and White is able to find perpetual check. A human defending with White will have a hard time, but my strong engine supported by tablebases is in no doubt about the result. This is where the Positional Judgement of the player is of great help. 72...♕xh5† 73.♔g2= A truly amazing drawing position: Black is unable to escape the perpetual without losing one of his pawns. And Black needs both of them in order to win, since the white king is placed in front of the pawns.

71.♕d6† ♔b5

Critical Moment 5. **Basic Endgame Knowledge**. Black is ready for a king march across the board until White runs out of queen checks. There are targets on b4 and h5, as well as interposing checks along the a8-h1 diagonal and the 1st rank.

72.♕d5† ♔xb4

Black can also use the b-pawn as an umbrella and play 72...♔a4–+.

73.♕d6† ♔b3 74.♕d3† ♔b2 75.♕b5† ♔c3 76.♕a5† ♔d3

Critical Moment 6. **Planning**. Black is eyeing the weaknesses on f5 and h5. Later he can hide from the queen checks. The white queen is unable to pose threats on its own.

77.♕a6† ♔e4 78.♕c6† ♔f4

Again it is possible to hide behind the white pawns. With the f5-pawn still on the board, Black can hide on h3.

79.♕d6† ♔g4 80.♕g6† ♔h3

White is getting mated in the corner.

0–1

Chapter 8

Exercises from My Other Books – A List of Recommendations

As I mentioned at the beginning of the book, the exercises in this book are carefully chosen, and the main criteria are:

- In order to be *playable*, there has to be at least one Critical Moment.
- The positions are endgames with relatively limited material. This means that the basic endgame knowledge is within reach, and thus the sharp endgames are indeed the phase before the basic endgames.
- There is a clear verdict to the exercise, either drawn or won, based on analysis of the position.
- However, the sharp endgames are not (yet) part of the established (basic) endgame theory.

Multiple solutions are not a problem – the main priority is to solve the exercise satisfactorily.

Having the above in mind, it is possible for the reader to find more positions that qualify as sharp endgames. Understanding the logic of my book, it is possible to find other games and turn them into sharp endgames, thus acquiring new training material.

While you search for new training material, I recommend the following positions from my two previous books as a good place to start. As the positions are used in a different context, you will probably have to work a bit on the solutions. I do give the most important main line plus sidelines in my books, but of course I do not indicate any Parameters or Critical Moments. If you want to use my framework, you will have to put in an effort yourself.

However, the good news is that you can get started with the exercises for self-training right away – just set up the position in Komodo 10 like I recommend in Chapter 9. Afterwards, you can work on your performance in the exercises.

As a general guideline, I advise you to take 10 minutes + 30 seconds increment per move for each exercise as standard.

Note: My reference to the move played prior to the position in the exercise is for those who do not have the book. In general, it is possible to follow the instructions already given in the exercises, although sometime I have altered the instructions to make the exercise playable. The instructions below should suffice to get you started.

The Secret Life of Bad Bishops:

Positions from the Endgame Section (Chapter 4):

Page 91: Jens Enevoldsen 1949 (Averbakh 437, colours reversed) (White to move and win)
Page 95: Kholmov 1973 (Averbakh 481) (Black to move and win)
Page 97: Levenfish – Freiman, Leningrad 1934 (White to move and win after **41...a5**)
Page 97: Lasker – Ragozin, Moscow 1936 (Black to move and win after **31.♗d3**)
Page 114: Averbakh 172 (White to move and win, Black to move and draw)
Page 115: Ernst Holm 1910 (Averbakh 91) (White to move and draw)
Page 116: Sandor – Benko, Budapest 1949 (Averbakh 116) (Black to play and win after **1.♘c6**)
Page 117: Zoltan Vecsey 1934 / Yuri Averbakh 1956 (Averbakh 180) (White to move and win)
Page 123: City of Liverpool – City of Glasgow, corr. 1905-06 (Averbakh 281) (White to move and win)
Page 124: G. Fedotov, 1954 (Averbakh 227) (White to move and win)
Page 125: Korolev – Lund, Taastrup 2002 (White to move and draw after **52...♘f5**)
Page 131: Laksman – Lund, Copenhagen 2006 (Black to move and win after **42.♔xa3**)

Exercises (page 141 onwards): Nos. 1, 4, 6, 8, 10, 12, 14, 15, 16, 17, 18, 21, 26, 28, 29 and 30

1. Kramnik – Anand, Wijk aan Zee 2007 (White to move and win after Black's move 52)
4. Radjabov – Bacrot, Khanty-Mansiysk 2011 (White to move and win after Black's move 30)
6. Averbakh 119 (White to move and win)
8. Johannesson – Lund, Reykjavik 2007 (White to move and draw after Black's move 80)
10. Lund – J. Åkesson, Sweden 2009 (White to move and win after Black's move 31)
12. Trifunovic – Pirc, Birmingham 1951 (White to move and win after Black's move 67)
14. Horwitz & Kling, 1851 (White to move and win)
15. Sozin – Alatortsev, Moscow 1931 (Black to move and win after White's move 44)
16. Sam Loyd, 1860 (White to move and draw)
17. Henri Rinck, 1923 (White to move and draw)
18. Genrikh Kasparian, 1958 (White to move and draw)
21. Dominguez – Polgar, Khanty-Mansiysk 2011 (White to move and draw after Black's move 78)
26. Lund – A. Smith, Borup 2009 (Black to move and win after White's move 52)
28. Gashimov – Ponomariov, Khanty-Mansiysk 2011 (Black to move and win after White's move 99)
29. Kanli – Lund, Rogaska Slatina 2011 (Black to move and win after White's move 39)
30. Silas Lund, 2013 (White to move and win)

Rook vs. Two Minor Pieces:

General Exercises (page 123 onwards): Nos. 1, 2, 4, 7, 8, 12, 19, 26 and 29

1. Tal – Savon, Baku 1972 (Play **24.♘xb7!** and win)
2. Navara – Tiviakov, Plovdiv 2003 (White to move and win after Black's move 23)
4. Shomoev – Iljushin, Russia 2003 (White to move and win after Black's move 42)
7. Balogh – Pinter, Hungary 2003 (White to move and win after Black's move 20)
8. Glek – Ikonnikov, Belgium 2001 (White to move and win after Black's move 15)
12. Ivanchuk – Rogers, Istanbul 2000 (White plays **25.♘dc5!** and wins)
19. Lugovoi – Vera, Montreal 2003 (White to move and win after Black's move 21)
26. Roeder – Schneider, Germany 1987 (Black to move and win after White's move 23)
29. Stean – Browne, Buenos Aires 1978 (White to move and win after Black's move 27)

Chapter 9

How to Set Up a Position in Komodo 10

I have chosen to provide a detailed description of how to do set up an exercise in Komodo 10. Players who are not 100% familiar with Komodo 10 will find this useful.

For those who want fewer details, I recommend that you at least go through the first three sections: 1) Before the exercise, 2) Setting up, and 3) After the exercise.

I will recommend Komodo 10 as it is the reigning computer world champion at the time of writing. However, other chess engines can be used within the ChessBase interface.

1. Before the exercise – general preparations

A) **File** -> **Options** is the main place to make adjustments to how you want your training session. I recommend that you only mark:
   - Clocks + Notation: A) Clocks: *Double digital* B) Notation: *Figurines* and *1.d4* C) *Store thinking time* and *Store evaluations* (time and evaluation per move is in the spirit of Deliberate Practice!)
   - Game: A) Resign: *Never* B) Draw: *Never* C) *Mark Move With Arrow* (You don't want the engine to offer a draw or resign; I like to see the last move made with an arrow, to avoid any doubt)
   - Multimedia: A) Audio: *Off* B) Boards sounds: Off C) Chatter (messages): *Off* (You don't want any fancy multimedia effects that only disturb you during the exercise)
   - Engine: (You don't want any of *Coach is Watching*, *Spy* or *Threatened Squares*.)
   - Design, Language, Clipboard: Let your taste guide you, but why not stick with the standards
   - Tablebases: if you have them, it is nice to know if a position with 6 or fewer pieces is a draw or a win afterwards

B) **Training**: here you can unmark *Dynamic Hints, Opening Hints, Threatened Squares* etc.

C) **Board**: A) you have already unmarked *Board Sounds* B) it is important that you unmark *Always Promote To Queen* as well C) I recommend that the *Coordinates* are shown during the playing exercises

D) **Home**: You have already unmarked *Coach is Watching*

2. Setting up the first playing exercise – getting started

A) Make sure only the board is visible on the screen. I recommend that you follow my instructions in exactly this order, to avoid inconvenience.
B) **Insert** -> *Position Setup*: set up a new position with either White or Black to move, and push OK.
C) **Ctrl + f** flips the board, if necessary.
D) **Board** -> *Clocks*: this opens up the *Double digital* clock (the one where both the total time and the time per move is shown – for both players).
E) **Home** -> *Levels* -> *Blitz Game*: set the time with increment for the exercise. Ignore the *Human bonus*, and push OK.
F) **Home** -> *Stop Clocks*: by this selection, the game starts with your move.

3. After the exercise – solution and analysis

A) **Home** -> *Stop Clocks*. After that, you simply close down the clock window as it is not needed anymore. Now only the board with the final position is visible on the screen.
B) **Engine** -> *Switch off Engine*: now the engine doesn't start thinking when you make moves on the board.
C) **View** -> *Notation* to see the moves of the exercise with **time** and **evaluation** per move (this was prepared prior to the exercise).
D) **View** -> *Main Engine Window*: now the analysis by Komodo 10 is visible as you go through the exercise with sidelines. (Otherwise, go to **Engine** -> *Add Kibitzer* to activate Komodo 10).

To sum up: When you run through the solution on the screen, you have a **View** with *Notation* and *Main Engine Window* beside the position on the board.

You can now analyse the playing exercise by looking at the solution (in this book) and typing in the moves on the board.

4. Setting up the next exercise

Go back to Section 2 to get started with a new exercise. To avoid any distractions, make sure only the board is visible on the screen to begin with.

5. Possible scenarios during an exercise:

First, a **Minor detail**: if you get impatient during an exercise, you can use **Home** -> *Move Now* to force a move from the engine (Space Bar is a shortcut for that function). However, in a highly complex situation you should let the engine take its time. Also, when the engine is thinking, you have more time to consider your own options.

Here are three possible scenarios:

1) **The engine has made a silly and desperate move**: you want to go back, correct its move and play on in the exercise with the best continuation according to my solution.
2) **You play wrongly and don't solve the exercise**: you want to go back to the point where you went wrong and try to solve the exercise from there.
3) **You want to set a new time within an exercise**: for instance, you wish to give yourself additional two minutes on the clock.

1. The engine has made a silly and desperate move

- First, congratulations for having solved the exercise! Even if it wasn't the most testing defence for a human, you still beat the engine.
- Check the solution to find out where the engine played the silly move that offered little resistance. You notice the next obvious move you have to make, and start the exercise anew.
- Shut down the clock window and stop the engine. Now only the board position remains on the screen.
- Set up a new position and get started with the new exercise as explained in Section 2.

2. You play wrongly and do not solve the exercise

- First, try to answer the question: where did I go wrong? The Parameter *Move sensitivity* shows your ability to know afterwards where you went wrong in the exercise.
- Check the solution to find out where you went wrong. You notice the right move you have to make in order to continue the exercise.
- Shut down the clock window and stop the engine. Now only the board position remains on the screen.
- Set up the desired position and get started again as explained in Section 2.

3. You want to set a new time within an exercise

- Start by shutting down the clock window and stopping the engine. Now only the board position remains on the screen.
- **Board** -> *Clocks* opens up the *Double digital* clock, and **Home** -> *Levels* -> *Blitz Game* sets the time with increment (as described in Section 2).
- By first closing down clock and engine before building up for the next round, you avoid any problems with the program.

I wish you a lot of fun with the playing exercises!

Chapter 10: Index of Games and Studies

This is a list of the games and studies used in the book. Most games analysed are also used as pre-chapter exercises. Those that are analysed, but not used as exercises, are highlighted in *italics*. The number attached to a main exercise (Chapter 4) indicates how many extra exercises it has.

Chapter 1: The Aim of the Book
Ferenc Berkes – Peter Acs, Paks 2011
David Navara – Alexander Grischuk, Khanty-Mansiysk 2011 (variation)
Peter Heine Nielsen – Andreas Hagen, Køge 2013

Chapter 2: General Introduction
John Weber – Frederik Rhee, corr. 2003-04
Silas Esben Lund – Eric De Haan, Schwarzach 2011
Silas Esben Lund – Eric De Haan, Schwarzach 2011
Alexey Troitzky 1925 (Study)
Gustavus Reichhelm / Evans 176 (Study)

Chapter 3.1: Knight Endgames
Silas Esben Lund 2016 (Study N-1)
Mark Dvoretsky / DEM 2-10 (Study)
Frantisek Prokop 1925 / Averbakh 15 (Study)
Nikolai Grigoriev 1932 / Averbakh 14 (Study)
Zhou Jianchao – Li Chao, Danzhou 2010 (variation)
Vitaly Chekhover 1955 / Averbakh 28D (Study)
Alexey Troitzsky 1906 / Averbakh 18 (Study)

Chapter 3.2: Rook Endgames
Ilya Maizelis 1950 (Study)
Sarunas Sulskis – Silas Esben Lund, Kaunas 2009
Leonid Kantorovich 1989 / DEM 9-138 (Study)
Leonid Kantorovich 1989 / DEM 9-138 (Study)
Leonid Kantorovich 1989 / DEM 9-138 (Study)
Leonid Kantorovich 1989 / DEM 9-138 (Study)
Jens Ove Fries-Nielsen – Silas Lund, Fredericia 2013

Chapter 3.3: Bishop versus Knight Endgames
Yuri Averbakh / Averbakh 49 (Study)
De Giess – Jean Louis Preti, 1849 / Averbakh 141
Dmitry Jakovenko – Vassily Ivanchuk, Moscow (blitz) 2009 (variation)
Dmitry Jakovenko – Vassily Ivanchuk, Moscow (blitz) 2009 (variation)
Yuri Averbakh / Averbakh 36 (Study)
Sune Berg Hansen – Daniel Semcesen, Gothenburg 2011 (variation)
Zhou Jianchao – Li Chao, Danzhou 2010 (variation)

Chapter 3.4: Rook versus Bishop or Knight Endgames (exchange up)
Lund's Position 2016 (Study RN-1)
Carlo Salvioli 1887 / Averbakh 521 (Study)
Arabic handwriting 1257 / Averbakh 514 (Study)
Oleg Romanishin – Amador Rodriguez, Moscow 1985
Oleg Romanishin – Amador Rodriguez, Moscow 1985
Leon Ehrlich 1928 / Averbakh 337 (Study)
Vladislav Tkachiev – Etienne Bacrot, Fujairah City 2012

Chapter 3.5: Queen Endgames
Yuriy Kryvoruchko – Stanislav Bogdanovich, Lviv 2014
Ruben Felgaer – Salvador Alonso, Praia da Pipa 2014
Silas Esben Lund 2016 (Study Q-1)
Silas Esben Lund 2016 (Study Q-2)
Silas Esben Lund 2016 (Study Q-3)
Louis van Vliet 1888 / Averbakh 170 (Study)
Silas Esben Lund 2016 (Study Q-4)
Silas Esben Lund 2016 (Study Q-5)
Silas Esben Lund 2016 (Study Q-6)
Silas Esben Lund 2016 (Study Q-7)

Chapters 4 & 5: Main Exercises & Solutions
1. Nikolai Grigoriev 1934 / Averbakh 22 (Study) (0)
2. Nikolai Grigoriev 1938 / Averbakh 8 (Study) (0)
3. Nikolai Grigoriev 1932 / Averbakh 16 (Study) (0)
4. Yuri Averbakh 1955 / Averbakh 39 (Study) (1)
5. Isaac Kashdan – Salomon Flohr, Hamburg 1930 / Averbakh 55 (1)
6. Pál Benkö / Evans 178 (Study) (1)
7. Kornél Havasi / Evans 181 (Study) (1)
8. Leonid Kubbel 1924 / Averbakh 48 (Study) (1)
9. Smorodski – Breitmann, Soviet Union 1933 / Averbakh 54 (2)
10. Vitaly Chekhover – Igor Bondarevsky, Moscow 1945 (variation) / Averbakh 66 (Study) (4)
11. Zhou Jianchao – Li Chao, Danzhou 2010 (1)
12. Vitaly Chekhover 1955 / Averbakh 28A (Study) (0)
13. Vitaly Chekhover 1955 / Averbakh 28B (Study) (0)
14. Vitaly Chekhover 1955 / Averbakh 28C (Study) (1)
15. Sergey Lebedev – Peter Romanovsky, Moscow 1923 / Averbakh 112 (1)
16. Francois-André Philidor – Thomas Bowdler, London 1749 / Averbakh 50 (0)
17. Viktor Korchnoi – Vladimir Antoshin, Yerevan 1954 (1)
18. Luka Lenic – Hans Tikkanen, Rogaska Slatina 2011 (0)
19. Richard Lilja – Silas Esben Lund, Elsinore 2011 (variation) (0)
20. Ivan Saric – Dimitri Reindermann, Rotterdam 2014 (0)
21. Reuben Fine 1941 / Averbakh 57 (Study) (1)
22. Ian Nepomniachtchi – Wang Yue, Sochi 2009 (2)
23. Yuri Averbakh 1958 / Averbakh 40 (Study) (1)

24. Robert James Fischer – Mark Taimanov, Vancouver (2) 1971 (1)
25. Andrei Volokitin – Alexander Moiseenko, Kiev 2011 (1)
26. A. W. Daniel 1908 / Averbakh 394 (Study) (0)
27. Richard Lilja – Silas Esben Lund, Elsinore 2011 (variation) (0)
28. Richard Lilja – Silas Esben Lund, Elsinore 2011 (variation) (1)
29. Yuri Averbakh / Averbakh 512 (Study) (0)
30. Sørensen – Nielsen, Esbjerg 1947 / Averbakh 522 (1)
31. Anish Giri – Yu Yangyi, Doha 2014 (0)
32. Magnus Carlsen – Viswanathan Anand, Sochi (6) 2014 (variation) (1)
33. Torsten Lindestrøm – Silas Esben Lund, Nyborg 2001 (0)
34. Philip Lindgren – Silas Esben Lund, Elsinore 2013 (0)
35. Yu Yangyi – Merijn van Delft, Rotterdam 2014 (0)
36. Hikaru Nakamura – Boris Gelfand, Rotterdam 2014 (0)
37. Merijn van Delft – Kayden Troff, Rotterdam 2014 (1)
38. Silas Esben Lund & Nikolaj Mikkelsen 2016 (Study) (0)
39. Hikaru Nakamura – Arkadij Naiditsch, Rotterdam 2014 (0)

Chapters 6 & 7: Extra Exercises & Solutions

40 (4.1) Yuri Averbakh 1955 / Averbakh 39
41 (5.1) Isaac Kashdan – Salomon Flohr, Hamburg 1930 / Averbakh 55
42 (6.1) Pál Benkö / Evans 178
43 (7.1) Kornél Havasi / Evans 181
44 (8.1) Leonid Kubbel 1924 / Averbakh 48
45 (9.1) Smorodski – Breitmann, Soviet Union 1933 / Averbakh 54
46 (9.2) Smorodski – Breitmann, Soviet Union 1933 / Averbakh 54
47 (10.1) Vitaly Chekhover – Igor Bondarevsky, Moscow 1945 / Averbakh 66
48 (10.2) Vitaly Chekhover – Igor Bondarevsky, Moscow 1945 / Averbakh 66
49 (10.3) Vitaly Chekhover – Igor Bondarevsky, Moscow 1945 / Averbakh 66
50 (10.4) Vitaly Chekhover – Igor Bondarevsky, Moscow 1945 / Averbakh 66
51 (11.1) Zhou Jianchao – Li Chao, Danzhou 2010
52 (14.1) Vitaly Chekhover 1955 / Averbakh 28C
53 (15.1) Sergey Lebedev – Peter Romanovsky, Moscow 1923 (variation) / Averbakh 112
54 (17.1) Viktor Korchnoi – Vladimir Antoshin, Yerevan 1954 (variation)
55 (21.1) Reuben Fine 1941 / Averbakh 57
56 (22.1) Ian Nepomniachtchi – Wang Yue, Sochi 2009 (variation)
57 (22.2) Ian Nepomniachtchi – Wang Yue, Sochi 2009 (variation)
58 (23.1) Yuri Averbakh 1958 / Averbakh 40
59 (24.1) Robert James Fischer – Mark Taimanov, Vancouver (2) 1971
60 (25.1) Andrei Volokitin – Alexander Moiseenko, Kiev 2011 (variation)
61 (28.1) Richard Lilja – Silas Esben Lund, Elsinore 2011 (variation)
62 (29.1) Sørensen – Nielsen, Esbjerg 1947 / Averbakh 522
63 (32.1) Magnus Carlsen – Viswanathan Anand, Sochi (6) 2014 (variation)
64 (37.1) Merijn van Delft – Kayden Troff, Rotterdam 2014 (variation)

Chapter 11: List of Parameters

The exercises: 12 parameters

1) **Transform-willingness**: are you ready for a radical shift in the type of position that implies a new material balance on the board?
2) **Change Gears**: the ability to change the tempo of the fight during the course of the game if demanded by the circumstances – both in attack and defence. At times, one needs to play forcefully, only to change gears on the next move and play more strategically. Sensing the ups and downs of the fight and reacting accordingly, is one of the most difficult things in chess. The term is taken from the world of poker, and to my knowledge, the Danish GM Sune Berg Hansen is the first to have used it in a chess context.
3) **Positional Judgement**: how well knowledge and intuition are used in the decision-making process.
4) **Basic Endgame Knowledge**: the ability to navigate in the position and make decisions based on your basic endgame knowledge (positions that are either drawn or won).
5) **Method of Elimination**: you do not spot the idea of the next CM, but you are still able to play the right move over the board anyway. The correct use of Method of Elimination is about making the right choice.
6) **Prophylactic Thinking**: moves that support one's own play and simultaneously prevent or suppress the plan of the opponent. This is a special case of **displaying multiple ideas in one move**, where the focus is on *both attack and defence.* Please also notice the difference between prophylaxis and passivity: a passive move has no eye for the active potential of the move. We usually evaluate a move as passive if there are other and better alternatives in the position.
7) **Planning**: setting priorities and finding concrete points of attack. This ability is usually important when the position has 'geared down' for a moment, and before it becomes sharp again.
8) **Logical Follow-up**: the plan you initiated earlier is followed up by a focused display of moves. Already when you planned the idea, you were aware that the position could in fact arise on the board, and you are ready to go through with the planned moves.
9) **A Feel for Details**: spotting important minor differences between similar lines that have a huge impact on the resulting position.
10) **Working with the King**: precision when the king moves across the board. The ability to display multiple ideas with the king is also important.
11) **Surprising Moves**: the ability to spot surprising game-changing moves, both for yourself and for the opponent. Especially the surprising ideas from the opponent can easily be overlooked. And surprising ideas and tactics do appear in sharp positions.
12) **Play the most forcing line if possible**: forcing play reduces the possibilities of the opponent. As a defender, it makes the task a lot easier if you can force the draw. The alternative is to be constantly on the guard for new attacking ideas by the opponent, and then adjust accordingly. In general, unforcing play is a way to put pressure on your opponent if you have the upper hand – but be aware in the exercises that you cannot fool a strong engine!

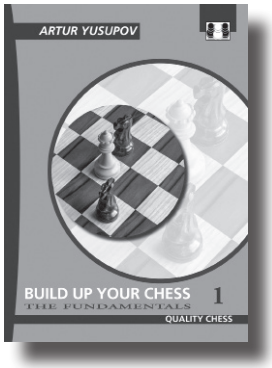
Follow-up on exercises: 4 parameters

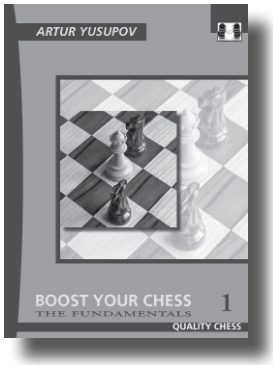
13) *The right decision*: the ability to spot Critical Moments (CM) and play the critical line over the board. If you saw the critical line but for some reason didn't play it, it is useful to try to figure out why you refrained from it.
14) *Move sensitivity*: the ability to know afterwards exactly where you played wrongly in the exercise. This shows how conscious you are about your choices during the exercise.
15) *Composure*: for how long did you stay in the exercise? How many CM did you manage? Or did you crack under the (time) pressure? Remember that the moves played on the board are *the* argument for success, and that ending up in time pressure is your own responsibility. The term *Composure* shows the player's ability to keep the nerves under control and avoid a sudden collapse.
16) *Calculation ability under time pressure*: it is easy to dismiss calculation and make moves on general grounds in time pressure – often with fatal consequences ("This *looks* too dangerous, I'll play something safer..."). If this happens often to you in the exercises, you should carefully check the distribution of your time.

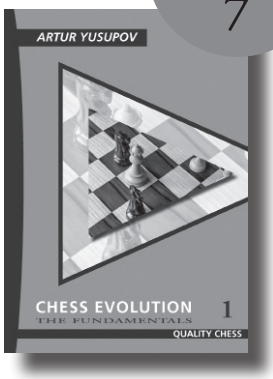
Yusupov's Chess School

9 hardbacks for the price of **7**

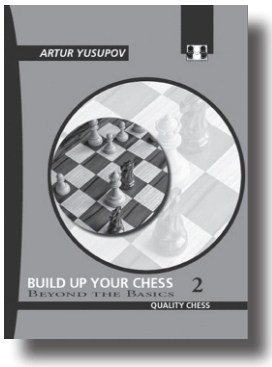
Fundamentals *a good place to start*



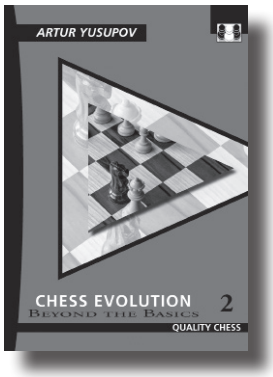




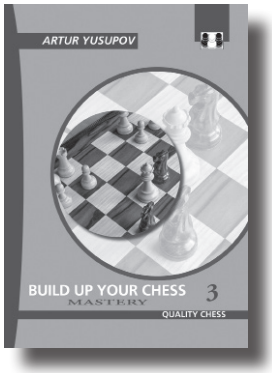
Beyond the Basics *where you go next*

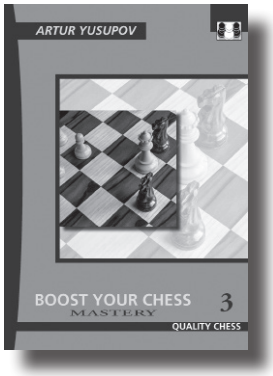


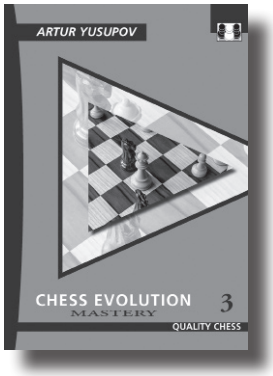




Mastery *worth aspiring to!*

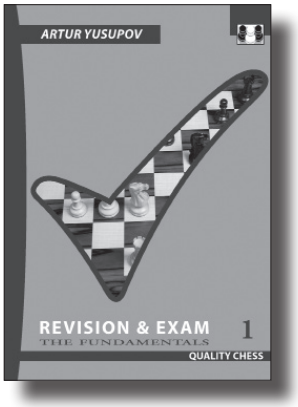


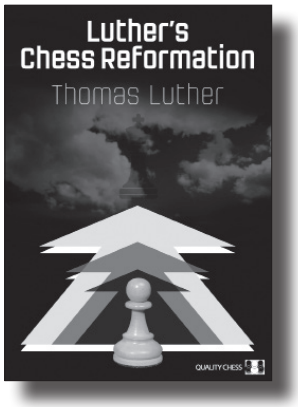


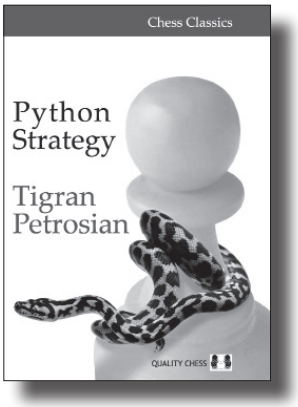


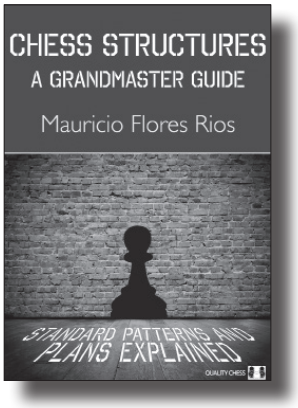
GM Artur Yusupov's groundbreaking series was recognized by the World Chess Federation as the best instructional chess books with the first ever Boleslavsky Medal (ahead of Garry Kasparov and Mark Dvoretsky in 2nd and 3rd place).

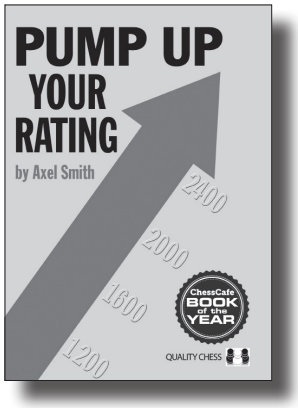
Improvement books

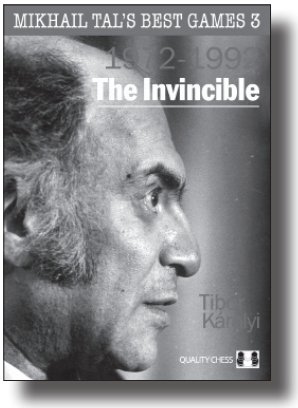


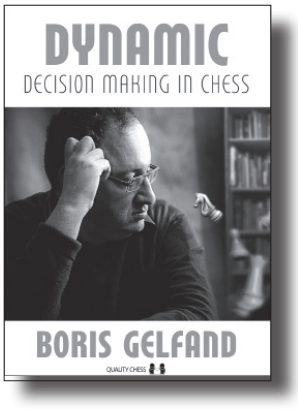


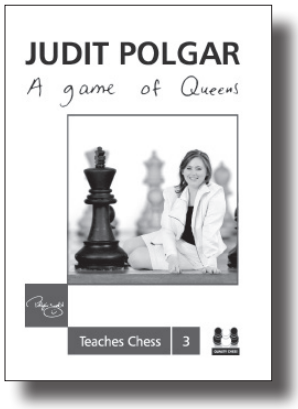


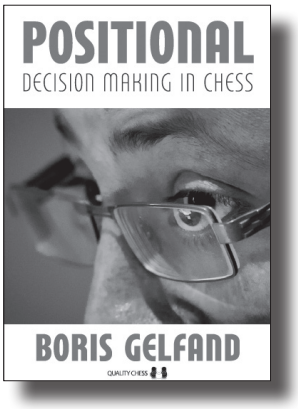




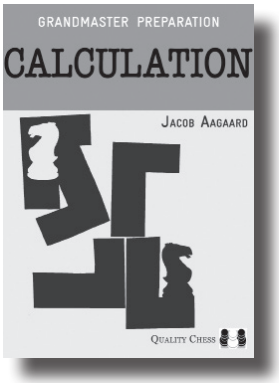


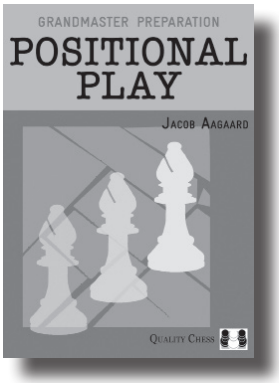


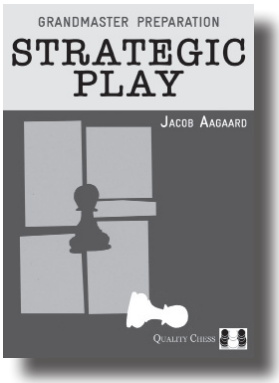


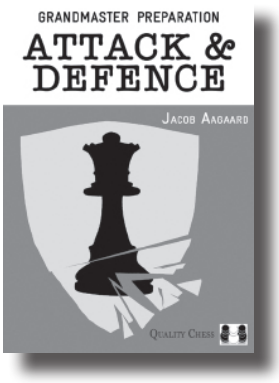


Grandmaster Preparation

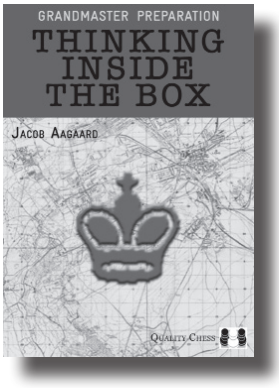






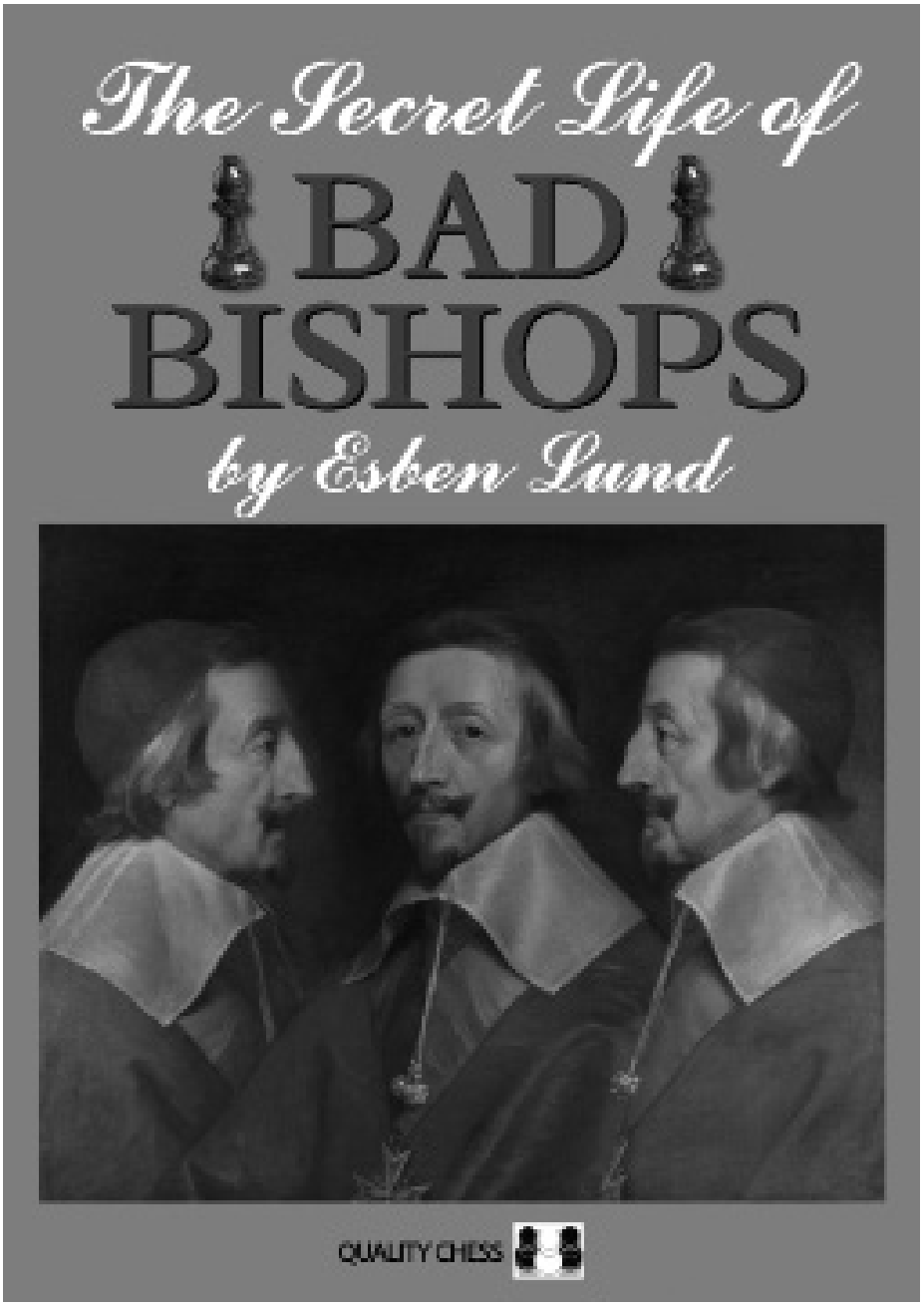






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