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Preface

My fascination for endgame studies, even in my younger years, was mainly caused by the fact that they forced you to think backwards. It had always been so self-evident to think forwards, to ruminate about how a position would develop. This was a new experience that gave me an intellectual stimulus.

In compositions, generally, the final position is critical. This position has to be spectacular in a certain way; a hidden, beautiful theme which requires some work to fathom. Once the end position has been discovered, the moves leading up to that position need to be determined. You have to wonder all the time: what was White's/Black's last move? And in this way, you achieve retrograde thinking.

In his book *Common Sense in Chess*, Emanuel Lasker states: 'By some ardent enthusiasts, chess has been elevated into a science or an art. It is neither; but its principal characteristic seems to be – what human nature mostly delights in – a fight'.

With the endgame study, the situation is more or less the opposite: the competitive element is shifted to the background; scientific and artistic elements are central. In each study, White's moves are forced, whether he is supposed to win or draw. Mistakes are not allowed in the course of the play, which, as a rule, is pleasing to the eye.

It is a well-known fact that various top chess players occupy themselves with endgame studies. This is regarded as a good method for finding practical solutions in the endgame and – possibly – for discovering secrets.

The idea for this book originated during a brainstorming session with Allard Hoogland, Dirk Jan ten Geuzendam and Remmelt Otten. The title is derived from Jesus de la Villa's successful book *100 Endgames You Must Know*. Therefore, I'd like to thank Jesus de la Villa for giving me permission to use a variation of his title for this book.

The book is structured in such a way that the simplest studies are presented first. I have strived as much as possible for an order of increasing degree of difficulty. Thus, I created five chapters, each chapter of a higher level than the last, and within the chapters the degree of difficulty also increases. This way, the reader can take in the material at his own tempo.

In the first chapter, I start by discussing four quite elementary pawn endings. Next are famous studies like the Réti manoeuvre and

the Saavedra. After the Saavedra, I give other examples of promotion combinations that are mainly of practical use.

The second chapter also starts with a few pawn endings, and then follows the Lasker manoeuvre, which every chess player has to know. In this second chapter, too, I mainly discuss classical studies that are not too difficult. In the third chapter, things become a little more complicated, while the fourth chapter deals with special themes. I have reserved the really complicated studies for the fifth chapter. However, I have still avoided studies that are hard to explain.

In general, I have strived to find a balance between the practical and the artistic value of the endgame studies presented. Both aspects make the endgame study attractive for those who want to further deepen their knowledge of our game and want to experience its beauty.

All kinds of themes are dealt with in this book, such as the bishop and the wrong rook's pawn, promotion, mutual zugzwang, the systematic manoeuvre, minor promotion, domination, the Novotny, the Prokes manoeuvre, and Karstedt's fortress. In most cases, I have not put the themes in any stringent order: the reader is presented with differing study images all the time. In my short introductory pieces to the studies, I have sketched a concise image of the history of the endgame study.

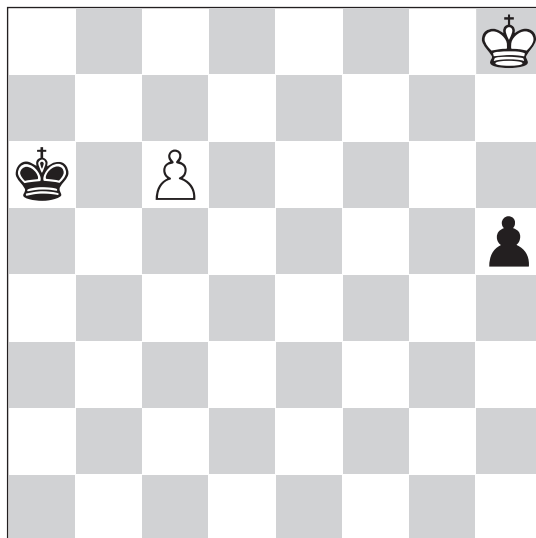
Computers, ever increasing in strength, have greatly influenced the endgame study. They are not only an important aid during composition, but today it is also possible to examine earlier studies with a critical eye; a significant number of them have been found to be incorrect. In some cases it was possible to make corrections without damaging the ideas of the study. The Ukrainian endgame study composer Sergey Didukh is a past master in this area. On his website, which is brimming with interesting facts, he has published various older studies that have been skilfully restored. I have included four of his study versions in this book. I have also dedicated myself intensively to the correction of studies. Not only that, but I also saw possibilities to add ideas to existing studies. This conscientious work is quite satisfying; I believe it is a form of cultural preservation. I have given my own study version in 21 cases in this book.

Jan Timman, July 2024

Study 1

Richard Réti

Deutsch Österreichische Tageszeitung 1921



White to play and draw

Richard Réti (1889-1929) was not only a prominent player, he was also known for his magnificent endgame studies. He died at the young age of forty due to scarlet fever. Had he lived longer, how many more beautiful games and studies would he have given us? Réti's most famous study is the one presented here.

The white king is far removed from the battle scene, and Black's h-pawn seems to have free passage. Because of this, the starting position has the characteristics of an optical illusion, because there still turns out to be a way for White to save himself.

First of all, he brings the king nearer.

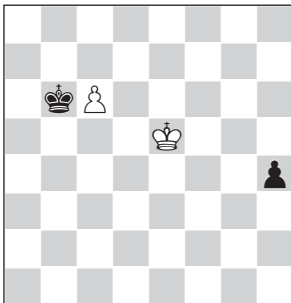
1. ♔g7 h4

The situation still seems hopeless for White.

2. ♕f6 ♖b6

Black brings his king closer, since after 2...h3 White would react with 3. ♕e6 or 3. ♕e7. The white king will support the pawn and both sides' pawns will promote simultaneously.

3. ♕e5!

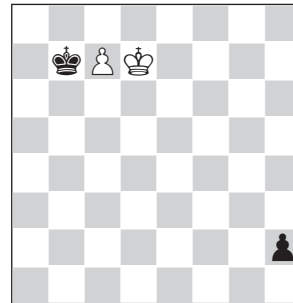


The fourth diagonal king move and also the climax of the study. Slowly White's intention is becoming clear. White's king can move in two directions: if Black takes the c-pawn, it goes to f4.

3...h3 4. ♕d6

And now it supports the c-pawn.

4...h2 5.c7 ♖b7 6. ♕d7 ½-½

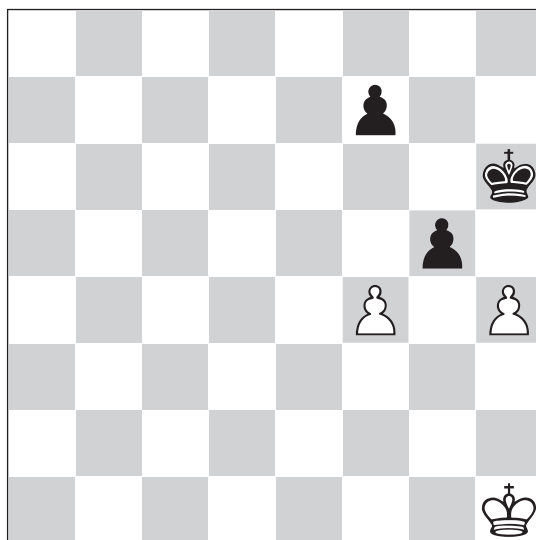


The king's march from the corner to the centre, creating the possibility to diverge either to the queenside or to the kingside, is called the 'Réti manoeuvre'. In practice, this manoeuvre will not occur in its entirety, but parts of it will. In pawn endings, diagonal king moves can bring unexpected salvation.

Study 2

Herman Mattison

Deutsches Wochensach 1918



White to play and draw

Herman Mattison (1894-1932) was a very strong Latvian player. One year before his untimely death, he beat Alekhine and Rubinstein in the Prague Olympiad. He was also a gifted endgame study composer. In general, his studies are characterized by natural starting positions. The study given here is one of the four pawn endings he has composed. It is above all an instructive study.

I remember I was given the starting position as an exercise when I was eleven, and found the solution immediately, as I knew how the distant opposition worked.

Although White is a pawn up after the capture on g5, he will lose both his pawns due to the bad placement of his king.

1.hxg5+

The only move. After 1.fxg5+ ♔h5

2.g6 fxg6 Black would win easily.

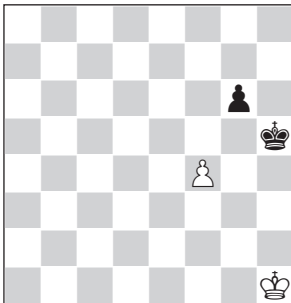
1...♔h5

What can White do now?

2.g6!

Actually, this is not a pawn sacrifice, since the g-pawn would be lost in any case. The aim of the text move is to lure the black pawn forward.

2...fxg6



3.f5!

Again with the same purpose: the black pawn is lured further forward.

3.♔g1 was insufficient in view of 3...♔g4 4.f5 ♕xf5! and Black wins.

3...gxh5 4.♔g1!

Only now that the black pawn is on the fifth rank, White can make the distant opposition work.

4...♔g5

Black follows in White's footsteps in the hope of gaining the opposition.

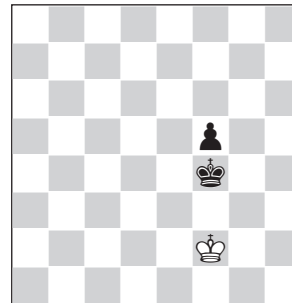
5.♔f1

White persists; the black king has to move forward.

5...♔g4

Or 5...♕f4 6.♔f2 and White has the opposition.

6.♔g2 ♕f4 7.♔f2

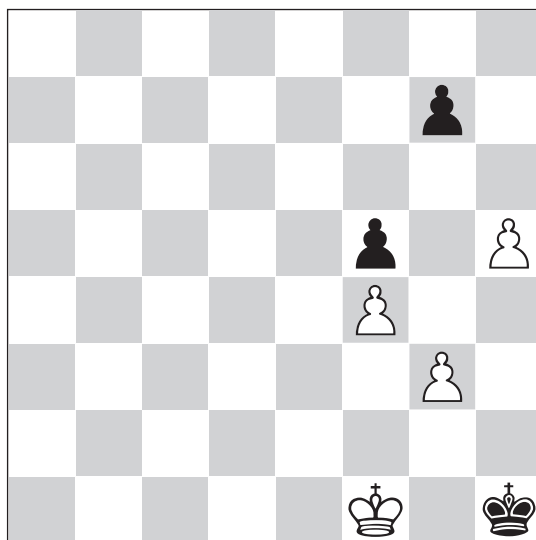


And Black can't make progress; it's a draw.

Study 3

Johann Behting

Rigasche Rundschau 1905



White to play and win

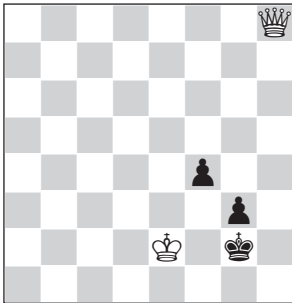
Sometimes in a pawn ending, everything revolves around finding the right king move. This is also the case in the study by Johann Behting (1856-1947) presented here. Like Mattison, Behting was of Latvian descent. Johann had a brother, Karl, who was eleven years younger and also composed endgame studies. Like Mattison, the Behting brothers belonged to a Baltic-German intellectual scene in the early twentieth century. Curiously, the brothers didn't compose any studies together. Each of them had their own ideas, and many of them were worthwhile, like this study.

White is a pawn up, but the question is how he can convert this advantage into a win.

1.♔e1!

Very subtle. Other king moves were insufficient.

After 1.♔e2 ♔g2 2.g4 fxg4 3.f5 g3
4.f6 gxf6 5.h6 f5 6.h7 f4 7.h8♚,



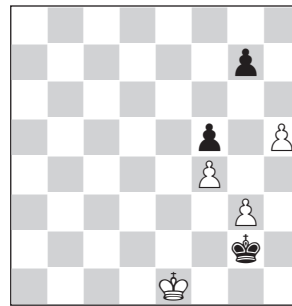
Black has 7...f3+ with check and is saved; for example, 8.♔d2 f2 9.♚a8+ ♔g1 and White cannot make progress. On the first move White has to envisage the finesse Black has six moves later. In endgame study jargon, 1.♔e1! is called 'foresight'.

It is also important that White can't win after 1.♔f2 ♔h2 2.♔f3 ♔h3 because now it is his turn. This is called 'reciprocal zugzwang' in endgame study terminology.

1...♔g2

The alternative was 1...♔h2, but then it is Black's turn after 2.♔f2 ♔h3 3.♔f3 – now the reciprocal

zugzwang works to White's advantage.



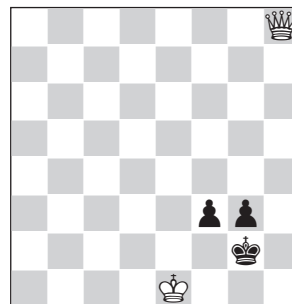
2.g4!

The breakthrough. The rest plays itself.

2...fxg4 3.f5 g3 4.f6 gxf6 5.h6

Black's problem is that his king is in the way of the g-pawn; it cannot move to the h-file since then White promotes with check.

5...f5 6.h7 f4 7.h8♚ f3



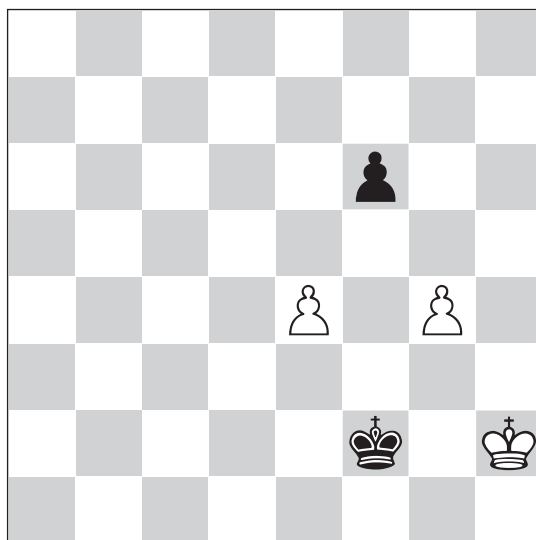
8.♚a8

The quickest road to mate, but 8.♚f8 and 8.♚f6 also suffice to win.

Study 4

Harold van der Heijden

Algemeen Dagblad 2003



White to play and win

A leap in time of almost a century brings us to Harold van der Heijden (born 1960). He is the man behind the famous endgame study database, an undertaking of gigantic proportions that has been a blessing for every fan of the genre. Van der Heijden is also an excellent endgame study composer who has netted various first prizes. The present study is a refinement of Behting's idea. It's curious that Van der Heijden published it in a national newspaper and did not send it in for a tournament; it would probably have earned him first prize.

It seems as if Black draws without trouble, since the breakthrough with the e-pawn doesn't yield White anything.

1. ♔h1!!

An unbelievable starting move. Black's king is already much more active, and now White places his king in the corner too, on what seems like the worst square.

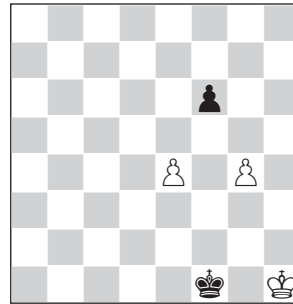
However, this is again a case of foresight, as in the previous study. The alternative 1. ♔h3 doesn't bring White any benefit after 1... ♔f3 2.e5 fxe5 3.g5 e4 and both sides promote at the same time.

1... ♔f1

This king move leads to the most beautiful variation.

Also after 1... ♔f3, White has to play accurately. This variation continues as follows: 2.e5! fxe5 3.g5 e4 and now White keeps the enemy e-pawn under control with 4. ♔g1!

e3 5. ♔f1, after which his g-pawn decides.



2.e5!

The right moment for the breakthrough.

2... fxe5 3.g5 e4 4.g6 e3

The race continues.

5.g7 e2 6.g8 ♚ e1 ♚

Both sides have promoted simultaneously; now follows the denouement.

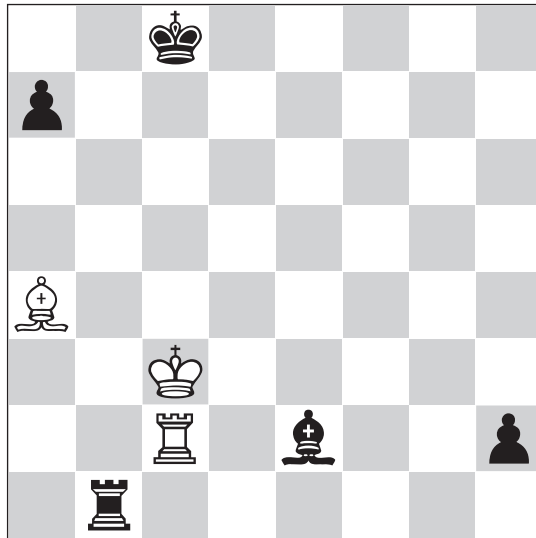
7. ♚g2#

White's king turns out to be excellently placed in the corner.

Study 65

Jan Timman

The Art of the Endgame 2011



White to play and draw

I once asked a grandmaster colleague, ‘Can you think of a position in which White has a rook, bishop and pawn against a bare king, and he also has the move, and still it’s a draw?’ My colleague couldn’t think of an answer. The study presented here provides the answer.

The first move is forced.

1. ♖c6

Now Black has various bishop moves at his disposal.

1... ♗d1

Prevents the capture on h2. After 1... ♖a6 2. ♖xh2 ♖c1+ 3. ♖c2 White has no problems.

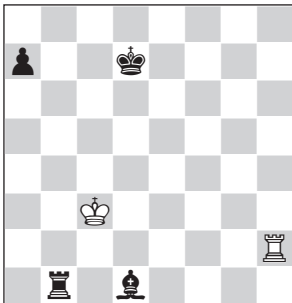
1... ♗b5 brings Black no benefits either after 2. ♖e4 h1♔ 3. ♖xh1 ♖xh1 4. ♖b4+ and White wins back the bishop.

After the text move, however, White has a big problem.

2. ♖d7+!!

The only way out. White's bishop was doomed anyway, and therefore he sacrifices it to force the black king to move to d7. 2. ♖xh2 was insufficient in view of 2... ♖c1+ 3. ♖d2 ♖c2+ and Black wins.

2... ♔xd7 3. ♖xh2



A fascinating situation. Black has a winning material advantage and it is his move; still, White can hold the draw in a miraculous way.

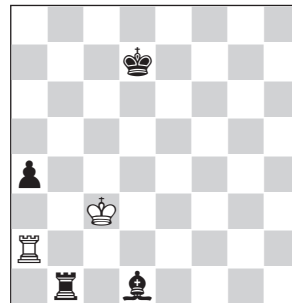
3... a5

The alternative was 3... ♖c6 when White continues 4. ♖h1! a5 5. ♖d2 a4 6. ♖xd1 and after the rook trade White's king is within the square of the a-pawn.

4. ♖a2!

Now, 4. ♖h1 was insufficient in view of 4... a4 5. ♖d2 a3 and the a-pawn decides. The text move introduces an attractive finish.

4... a4



5. ♖a1!

After the bishop, White also sacrifices his rook.

5... ♖xa1 6. ♖b2

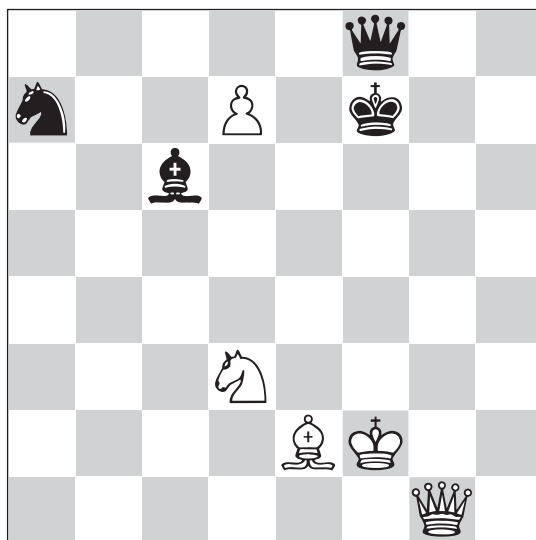
Completing this *pièce de résistance*. The final position was discovered in 1896 by both the Estonian chess historian and endgame study composer Friedrich Amelung (1842-1909) and by Alexey Troitzky, independently.

½-½

Study 66

Alexander Seletsky

Shakhmaty v SSSR 1933



White to play and win

Alexander Seletsky has only a modest output in the area of the endgame study. We find only 12 studies by him in the database. Two of those are of exceptional quality. Probably, Seletsky composed many more studies, but his life is shrouded in mystery. For example, his birth date is not known. He probably died in 1938, but this is not certain either. His best study created a furore in broad chess circles.

At a casual glance, this endgame does not look so dangerous for Black. He has a discovered check in reserve, and so he will be able to eliminate the white d-pawn.

1. ♖g5!

White commences the attack. By putting his queen in position, he limits the mobility of the black king. At the same time, he threatens to promote his d-pawn, limiting Black's defensive options. The alternative 1. ♖e1 wins a piece by force, but after 1... ♔xd7 2. ♚xa7, Black, according to the Tablebase, has two moves to save himself: 2... ♗e7 and 2... ♗d6.

1... ♖e6+

Black has to flee with his king. After 1... ♔xd7 2. ♗f4 White would obtain a mating attack.



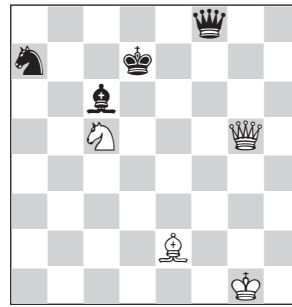
2. ♖g1!

It is important to find the right king move. On g1, the king is sheltered from later queen checks by Black. Incidentally, after the alternative 2. ♖e1 Black also has to defend very carefully. There can follow: 2... ♖xd7 3. ♗c5+ ♖c8 4. ♗e5 and now Black has to watch his

step, as White threatens to give a devastating check on g4. The only way out is 4... ♔d7!. After 5. ♗a6 ♔d8 6. ♗c7+ ♖e7, White can capture the knight, but this is insufficient for the win. And after 7. ♗c5+ ♖f7 8. ♔c4+ ♖g7 9. ♗g5+ ♖h8 the black king is safe on the kingside.

2... ♖xd7 3. ♗c5+

The second piece is employed for the attack.



3... ♖c8

The alternative 3... ♖d6 is elegantly refuted. After 4. ♗g3+ ♖d5 White has the pretty bishop sacrifice 5. ♔c4+! when the follow-up is forced: 5... ♖xc4 6. ♗d3+ ♖b4 7. ♗b3+ ♖a5 8. ♗a3+ ♖b5 9. ♗a4+ ♖b6 10. ♗a6+ and now finally Black has to take the knight. After 10... ♖xc5 11. ♗a3+ White wins the queen.

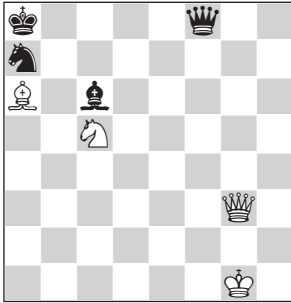
4. ♔a6+

The bishop is also involved in the attack; the black king is driven further and further into the corner.

4... ♖b8 5. ♗g3+

Forcing the black king to move into the corner.

5... ♖a8



At first sight, it still looks as if Black is not in any danger. However, the mate is close:

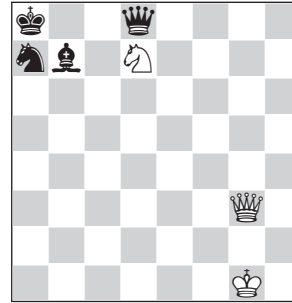
6. ♖b7+! ♗xb7 7. ♘d7

The point of the bishop sacrifice.

The knight is put in position for a smothered mate combination.

Only now does it become clear why White had to put his king on g1 on the second move, and not on e1: in that case, Black would have a check on b4 now.

7... ♜d8



8. ♜b8+!

The traditional queen sacrifice that always precedes the smothered mate.

8... ♜xb8 9. ♘b6#

This mating pattern contains two so-called self-blocks, meaning that during the course of the study Black is forced to block an escape square for his king with one of his pieces or pawns. The knight doesn't count in this case, since it hasn't moved.



Richard Réti



Herman Mattison



Henri Rinck

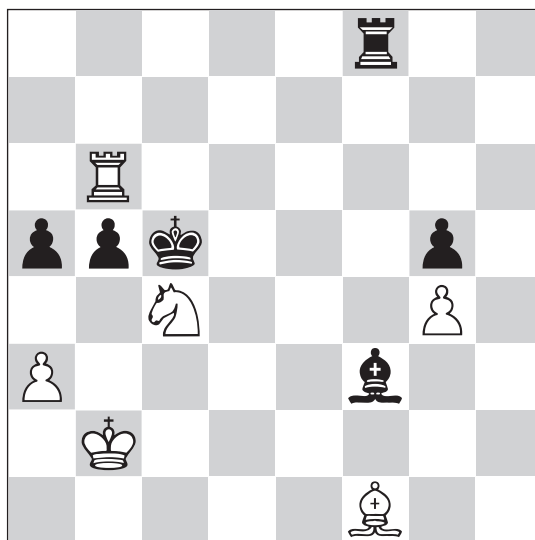


Alexey Troitzky

Study 67

Yochanan Afek

Tidskrift för Schack 1972



White to play and win

Yochanan Afek (1952-) is an Israeli endgame study composer who has been living in the Netherlands for a long time. Through the years, he has composed more than 400 studies with diverging themes. I have known Afek for almost a quarter of a century, and during those years I have learned a lot from him about endgame studies. Afek was awarded the grandmaster title as a composer in 2015. He had composed his best study already 43 years before that! It is a textbook example on the theme of domination.

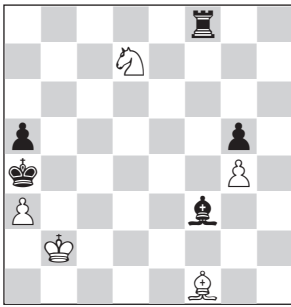
1. ♖xb5+

This rook sacrifice is forced. If
 1. ♘e5 ♗xb6 2. ♘d7+ ♖c6 3. ♘xf8
 ♙xg4, Black has no trouble holding
 the draw.

1... ♖xb5 2. ♘e5+

An unpleasant discovered check for
 Black. To prevent a family check,
 he has to move his king to an
 endangered square.

2... ♖a4 3. ♘d7

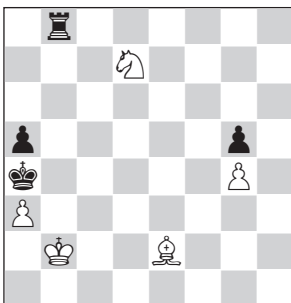


White seems to be easily winning
 here. However, Black has a hidden
 resource:

3... ♙e2!

Black is going to play for stalemate.

4. ♙xe2 ♜b8+

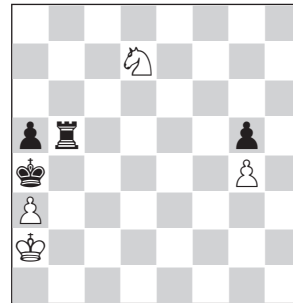


White may not capture the rook,
 but he comes up with a surprise in
 turn:

5. ♙b5+!!

An astonishing move. White
 sacrifices his bishop to avoid
 stalemate. On 5. ♖a2 Black has the
 saving move 5... ♜b2+!.

5... ♜b2+ 6. ♖a2



A fascinating position. The black
 rook is completely dominated by
 the white knight. Please note that
 this is a mutual zugzwang, and the
 difference is between winning and
 losing.

6... ♜d5

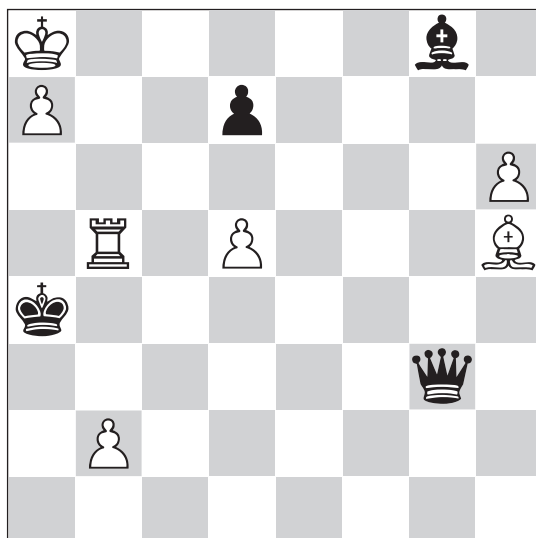
Or 6... ♜b7 7. ♘c5+ and White wins.

7. ♘b6+ ♖b5 8. ♘xd5 1-0

Study 68

Alexander Kazantsev

Shakhmaty v SSSR 1953



White to play and win

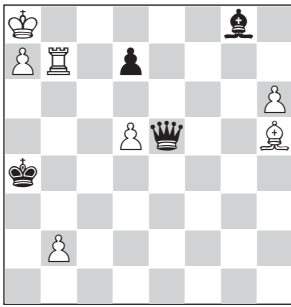
Alexander Kazantsev (1906-2002) was one of the most colourful persons in the history of the endgame study. He wrote science fiction books and was even a firm believer in UFO's and aliens. During the war, he worked his way up to colonel in the army. His studies stand out for the grandness of their themes. You could say they are gripping. In the study presented here, White drives the black king into a tight spot.

1. ♖b7!

A strong first move. White has a clear threat: 2. ♔d1+ followed by 3.b4+ and 4. ♔e2+ and mate.

1... ♗e5

The best defence: Black defends the e2-square and keeps the white king in the corner. The alternative 1... ♖e1 fails to 2. ♖b8 ♗g3+ 3. ♖c8 followed by promotion of the a-pawn.



2. ♔d1+!

According to plan. White drives the black king to a5.

2... ♖a5 3.b4+ ♔a6 4. ♔e2+! ♗xe2

5. ♖b8 ♗e5+

The only queen check that poses White any problems. After 5... ♗e8+ 6. ♖c7 ♗e5+ 7.d6 ♗c3+ 8. ♖b8 Black would get mated.

6. ♖c8!

Definitely not 6. ♖c7? in view of 6... ♔xd5 and Black wins.

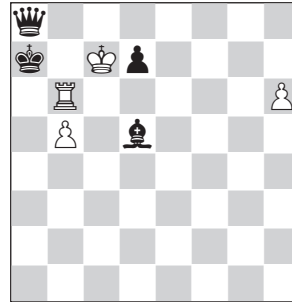
6... ♗e8+ 7. ♖c7 ♔xd5

Black has no choice. After 7...d6 8.a8 ♗+ ♗xa8 9. ♖b6+ ♖a7 10. ♖b5 he would lose without a fight.

8.a8 ♗+!

Forcing the first self-block.

8... ♗xa8 9. ♖b6+ ♖a7 10.b5!



The mating net is drawn tighter.

10... ♔b7

There is no other way to prevent mate on a6.

11. ♖a6+!

Forcing the second self-block.

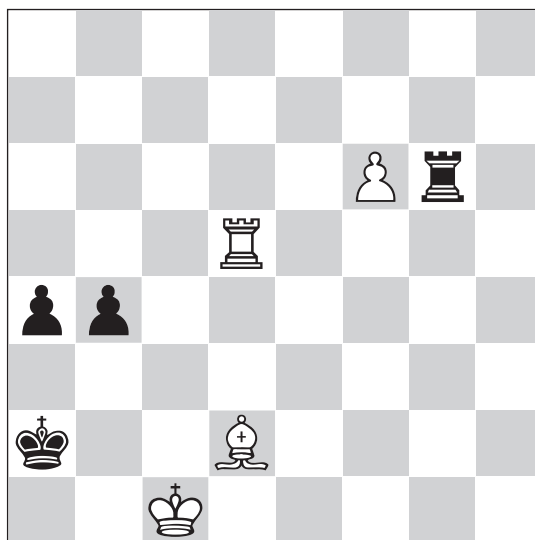
11... ♔xa6 12.b6

Again, the pawn has the last word – checkmate.

Study 69

Ghenrikh Kasparian

Shakhmaty v SSSR 1939



White to play and win

Ghenrikh Kasparian (1910-1995) was for a long time regarded as the greatest endgame study composer of all time. Nowadays, the multiple World Champion Oleg Pervakov is also a contender for this title. Kasparian composed more than 750 studies and wrote several books on endgame studies. He was also a very strong chess player. Kasparian won the Armenian Championship ten times and competed four times in the USSR Championship, with satisfactory results. The study given here is one of his most famous; it was immortalized on a postage stamp released in Armenia in 2010 in celebration of Kasparian's 100th birthday.

1. ♖g5!

The only move to maintain the f-pawn.

1...b3

Black has to create counterplay by pushing his pawns. After 1...♖g8 2.♗d2+! ♖b3 3.f7 ♗f8 4.♗f2 White wins without effort.

2. ♗d2+

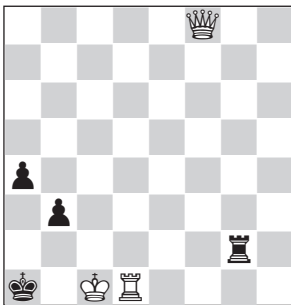
Prevents the further march of the b-pawn and forces Black's king to move to the corner square.

2...♖a1 3.f7 ♗xg5

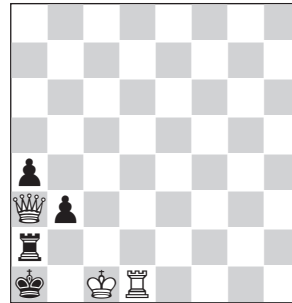
A surprise; Black allows the promotion. The alternative 3...a3 fails to 4.♗d1! ♗d6 5.f8♗ b2+ 6.♖c2+ ♗xd1 7.♗xa3#.

4.f8♗ ♗g1+ 5.♗d1 ♗g2!

The point of the third move. Suddenly Black has two mate in one threats. The alternative 5...b2+ was insufficient due to 6.♖c2+ ♗xd1 7.♗a3#.

**6. ♗a3+**

The only move to get further.

6...♗a2

But now what?

7. ♗d2!

The climax of the study. White sacrifices his queen to introduce an unexpected mating pattern. The logical 7.♗xa2+ was just insufficient to win. After 7...♖xa2 8.♗d2+ ♖a1! 9.♗b2 a3 10.♗xb3 a2 White cannot prevent stalemate. Nor does 7.♗c5 bring White anything after 7...♗h2 (only not 7...b2+ 8.♖d2+ b1♗+ 9.♖e1 and White wins.)

7...♗xa3

The alternative 7...b2+ leads to a prosaic winning line: 8.♗xb2+ ♗xb2 9.♗xb2 a3 10.♗b1+! ♖a2 11.♗b8 ♖a1 12.♖c2 a2 13.♖b3 ♖b1 14.♖a3+ and the black a-pawn will be lost.

8. ♗b2! ♗a2 9. ♗b1#

After we have seen several studies in which a knight gave mate to the black king in the corner, now it's the turn of the rook.