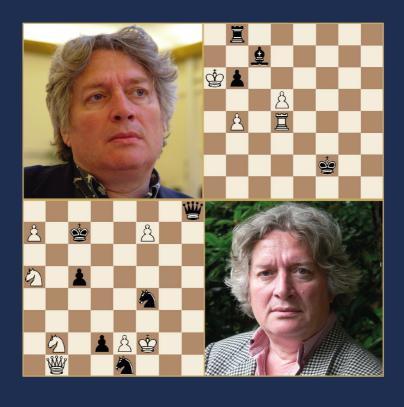
# TIMMAN'S STUDIES



My Collected Endgame Studies and Their Origins

Jan Timman

# **Contents**

Preface	
Chapter 1	20th century studies
Chapter 2	2001-201153
Chapter 3	2012-2017107
Chapter 4	2018-2020
Chapter 5	2021-2022217
Chapter 6	2023-2025
Chapter 7	New, unpublished studies
Glossary of te	rms449
Bibliography	452
Index of nam	es
Explanation of	f symbols455

### **Preface**

It's a simple fact: as soon as you learn the rules of chess, you want to play. Inevitably, though, a moment of saturation will appear sooner or later. I remember a conversation in 1994 with my three-year-older brother Ton, who had taught me the game when I was eight. He asked me, 'Don't you ever get tired of chess? Imagine our father still participating in integral calculus contests at the age of 42?'

Now, my father was a mathematician, and it's unlikely that he would have found such contests appealing, if they had even existed. So, Ton's second question was rhetorical, but it did give me food for thought. By that age, Fischer and Kasparov had already quit competitive chess, and Kramnik called it a day when he was 44. I, on the other hand, continued playing for more than three decades, though not with the same conviction as before, when my ambitions were still completely intact.

Over time, I became increasingly immersed in endgame studies. I had been fascinated by them since my younger years, but later in life this fascination came into full bloom. It is a domain in which mistakes may never occur; the scientific aspect of chess is paramount.

While the ever-stronger computers diminished my love of practical play, they sparked my enthusiasm for the endgame study. It's hard to imagine today how anyone could compose an endgame study without computer assistance.

I have also greatly benefited from Yochanan Afek's advice. He is a grandmaster of chess composition and was already composing excellent endgame studies at 21. At the time he still lived in Israel, but he has been living in Amsterdam for many years now. Whenever I showed him one of my own studies, he always gave me a well-founded reaction.

'Keep it light,' Afek would say whenever I had used too many pieces to realize a certain idea in a study. This concept of striving for economical starting positions with no superfluous material has helped me to compose various successful studies.

For this book, I have made a selection of 186 of my endgame studies, composed from 1971 to 2025. The studies are arranged chronologically; the final chapter contains exclusively new work – 31 studies in total. In recent years, I have increased my output, and the studies have become more complicated in general. I have included nine studies based on practical games, which is a relatively rare procedure as invented ideas

are usually the best ones. I have also included studies that were based on those of other composers from the past, and enriched them with new ideas and corrections. As it turns out, a large number of studies from the pre-computer age do not stand up to computer scrutiny, no matter how ingenious the ideas behind them may have been. I regard the enrichment and correction of those works as a conservation of cultural heritage.

Ten of my endgame studies have won first prizes, nineteen second prizes, and nine third prizes (not counting shared prizes). Thirteen studies received a special prize; these are generally awarded to studies in which known themes have been developed in an extraordinary, beautiful way.

The term 'endgame study' is misleading to a certain extent. This book features various studies that start with a middlegame position. This allows me to present a broad range of themes to readers who are interested in chess— combinations, strategic and tactical twists and turns. I have always endeavoured to explain everything as clearly as possible.

I have noticed that many endgame study composers have different opinions about studies than practical players. They primarily want to see if themes have been developed well and new ideas have been added. For practical players, such elaborations and ideas are often nothing special, since they are very obvious; they are more interested in the amount of beauty a position contains – in the truly profound ideas hidden in a study.

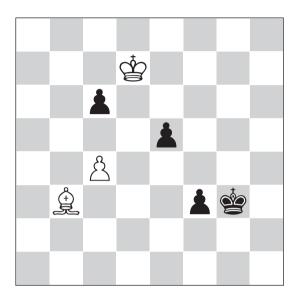
In commentaries and jury reports, I have regularly read condescending remarks about my studies. Here are some examples of what various endgame study composers had to say: 'Annoying lines', 'It's not interesting', 'Noise and turmoil', and 'The fight is not really memorable'. In actual fact, I was showcasing real chess – deep, rich variations that every practical player will appreciate.

In that sense, this book can be seen as a manual; the subject matter consists of the depth and the beauty that lies hidden in the game of chess.

Jan Timman, Arnhem, August 2025

# Study 4 Jan Timman & Hans Böhm

Man en Paard 1981



White to play and draw

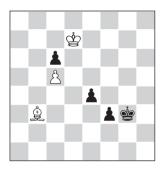
In 1980, I used to swim laps with my friend Hans Böhm (born 1950) in the Zuiderbad, a swimming pool in the Oud-Zuid district in Amsterdam. While we were swimming, we were discussing an endgame-theoretical curiosity: in certain circumstances, White can make a draw with a pawn on c6 against a black queen. At the time, we didn't know that the Czecho-Slovak endgame study composer Josef Moravec (1882-1969) had discovered this already three decades earlier. However, our swimming-pool variation on the theme is superior to his in many respects.

It's clear that Black's mighty passed pawns will be faster. White has to sacrifice his bishop for one of the pawns, but how?

#### 1.c5!

It is absolutely essential to make this pawn push before carrying out the main idea of the study. The immediate 1. 2d1 is met by 1...c5!.

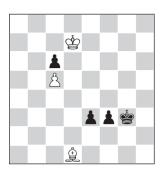
#### 1...e4



#### 2. ⊈d1!

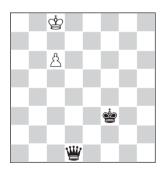
The essence of the study is that White has to attack the enemy f-pawn. After the logical 2.堂xc6? White is lost. The main line continues 2...e3 3.皇c4 e2 4.皇xe2 fxe2 5.堂d7 e1豐 6.c6 豐d1+ 7.堂c8 豐g4+! with an elementary win for Black.

#### 2...e3



#### 3. <u>\$</u>xf3!

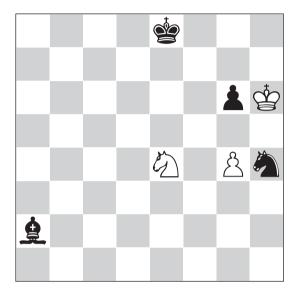
The point of the previous move.
The black king is forced to move to f3, limiting the possibilities of the promoted black queen later on.
3... \$\ddots\$xf3 4.\$\ddots\$xc6 e2 5.\$\ddots\$d7! e1\$\ddots\$ 6.c6



Draw; the black queen's path to g4 is cut off. Black can't prevent the white c-pawn reaching the safe seventh rank.

# Study 5 Jan Timman

Man en Paard 1981



White to play and draw

In the 1970s and 80s, Hans Böhm and I hosted a radio show called Man en Paard. Hans did the presentation, while I answered the questions he asked me either in the studio or while I was abroad playing in a tournament. We also discussed endgame studies which could then be solved by the audience. The swimming pool study was a tough task for them, but this miniature was not so hard. It's all about the key move.

#### 1.∅d2!

A subtle retreat by the knight, controlling the crucial squares b1 and f3. The logical 1.\$\dispsimes 5? fails to 1...\$\dispsimes f3 \dispsimes 42.\$\dispsimes xg6 \dispsimes b1 3.\$\dispsimes f5 \dispsimes d2 and Black wins the knight. But now, of course, 2.\$\dispsimes 5 is a threat; Black will have to protect the g-pawn.

#### 1...**∲**f7

The alternative 1... 全f7 leads to virtually the same thing: after 2. 全g5 公g2 3.公f3 全f8 4.公e5 全g7 5.公xg6 全xg6, it's stalemate.

#### 2.當g5

Forcing the black knight to an unfavourable square and at the same time making the f3-square available to his own knight.

#### 2...∮g2



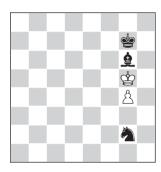
#### 3.**公f3**

The position plays itself for White; the knight is on its way to the central e5-square.

#### 3... \$g7 4. De5 \$b1

Giving extra coverage to the g-pawn, but it won't help Black.

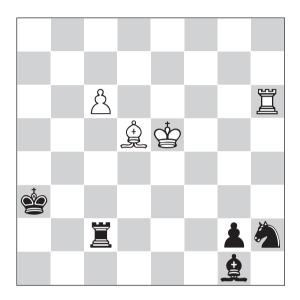
#### 5. 2 xg6 \( \hat{2} xg6



Stalemate. A nice study for all its simplicity. I have to admit, though, that more ingenious studies have been composed with this stalemate pattern.

# Study 6 Jan Timman

Second prize Chess Life 1982/2023



White to play and draw

The original version of this study won me a second prize in the annual Chess Life tourney in 1982. I had already invented the scheme, based on a pin, three years earlier. The version I present here dates from four decades later; the introduction is worth seeing.

#### 1. Ih3+

#### 1...少f3+!

Here, too, this check is Black's best chance. Black sacrifices the knight on the intersection of the third rank and the long diagonal, disturbing the action range of White's rook and bishop. In chess composer's jargon, such a move is called a Novotny, after the Czech problem composer Antonin Novotny (1827-1871).

The alternative 1...\$b4 makes things easier for White: after 2.皇xg2 置xg2 3.c7 置c2 4.\$d6 the c-pawn guarantees him a draw.

#### 2. \(\bar{\pi}\)xf3+ \(\dot{\phi}\)a4

#### 3.罩f4+ 含b5 4. 2xg2 2h2

Introducing a pin which White has no good way of removing.

#### 5.c7!

White pushes his passed pawn to lure the black rook to a less favourable square. Bishop moves are insufficient; for example, 5. \$\overline{2}\$h3 \$\overline{2}\$c5+ 6.\$\overline{2}\$e4 \$\overline{2}\$c4+ and Black wins.

#### 

Now we have landed in a mirrored version of the original study.



**6.2h3!** The climax of the study. White weaves a deeply hidden point into the position.

#### 

The most direct continuation. However, Black also has a subtle way to maintain the pin with 6...\$b6. Now the only way to remove the pin is 7.\$\delta e6!\$. Black has the quiet little move 7...\$\delta c6\$, maintaining the pin, and again White has to find the right square for his bishop. 8.\$\delta b3!\$ is the only way to save himself. On 8...\$\delta c3\$, he has 9.\$\delta d4\$.

#### 7. \$\docume{e}\$e4 \(\mathbb{Z}\)c4+



8. \$\displays f3! \quad xf4 + 8... \displays xf4 is met by 9. \displays f1, pinning the black rook.

#### 9.**⋭g2**

The black bishop is caught, guaranteeing White the draw.

#### 

This rook sacrifice enables White to open the b1-h7 diagonal. Insufficient was 1.罩5g2 due to 1...豐e3+ 2.쉏b1 豐e4+ 3.쉏a1 c2 4.쉏b2 d3 and Black has enough counterplay.

#### 1...gxh5

Black has to take the rook, as 1... 當g7 does not hold in view of 2. 置xg6+! 當xg6 3. 急b1 營xb1+ 4. 當xb1 當xh5 5.e6 當g6 6.h5+ 當f6 7.h6 and White wins.

#### 2. **≜**b1



The case seems closed, but Black has a finesse up his sleeve:

#### 2...c2! 3.≜xc2 **\$**h6!

The point of the previous move; if White takes the queen, it is stalemate.

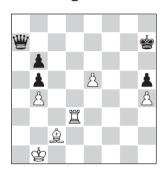
#### 4.⊈b1!

A subtle move to avoid the stalemate. Now we have a mutual zugzwang; if it were his move, White would not be able to win.

#### 4... ₩a3!

The introduction to a subtle defensive plan. Black is going to set up a new stalemate construction.

#### 5. Ig6+ 含h7 6. Ig3+ d3 7. Ixd3 營a7



The point of the fourth move.

#### 8.<sup>□</sup>d7+

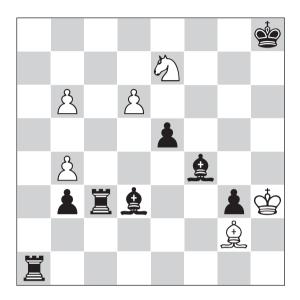
But not 8. 基a3+ because of 8... 堂h6 and stalemate is unavoidable.

#### 8...⊈h6 9.\hat{\textsq}h7+!

Thus, White prevents stalemate and liquidates into a winning pawn ending: **1-0**.

## Study 53 Jan Timman

First honorary mention Jenever Tourney 2015



White to play and win

From 2008 to 2022, there was a nice tradition: the Jenever Tourney. In a relatively short time span – usually a few weeks – the participants had to compose a study on a given theme. The winner got a bottle of jenever, the Dutch equivalent of gin.

For the seventh edition, a diversity of themes was allowed: the Novotny, but also studies with a Plachutta, a Grimshaw, a Wurzberg-Plachutta or a Pickabish – all of these were welcome. I was only conversant with the first two of these themes. I had a study with a repeated Novotny lying about, and decided to send it in. I didn't win the bottle of jenever, but I did get the first honorary mention.

In the starting position, White is no less than two rooks behind. However, this is compensated by two mighty passed pawns. Which one should he push first?

#### 1.d7

#### 1....皇f5+

If Black now plays 1... êe4, White has 2.d8豐+ 含g7 3.含g4! êxg2 4.分f5+ with checkmate.

#### 2. ②xf5 ≌a8!

Black also has to give one of his rooks to control the white passed pawns – for the moment.

#### 3. ≜xa8 **罩**d3



#### 4. **≜**d5!

This bishop sacrifice forces Black to leave the third rank with his rook. If 4.b7 e4 5.\(\Delta\)d6 g2+ 6.\(\Delta\)xg2 \(\Bar{2}\)g3+.

#### 4...g2+ 5. \$\div xg2 \textsq xd5 6.b7 e4



#### 7. 夕d6

The second Novotny, in the main line this time.

#### 7... **Ĭ**g5+ 8. **\$**h3 **Ĭ**g8

Again, the black rook manages to stop the pawns. However, the white knight is indefatigable:

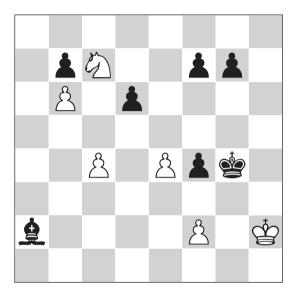
#### 9. ②e8 **罩g3+ 10. \$h4 罩d3**



The black rook is back on d3. **11. ②d6** And the third Novotny. **11... Zxd6 12.b8 + 1-0** 

# Study 54 Jan Timman

Berger 170 MT 2015



White to play and win

This is above all an amusing study. After an attractive promotion combination in which White sacrifices his knight twice, the white king embarks on a long march. He is chased all the way from h2 to c7, where he finally finds peace.

#### **1.e5**

A breakthrough to create a strong passed pawn on the queenside.

#### 1...dxe5 2.c5 \$b1

The bishop changes diagonals – the only way to prevent promotion.

#### 3.f3 +

An important little check, in combination with the next move.

#### 3...**⊈**xf3



#### 4.5 e6!

With this knight sacrifice, White guarantees promotion.

#### 4...**∲e3**

If Black accepts the sacrifice, White wins easily: 4...fxe6 5.c6 e4 6.cxb7 e3 7.b8\ e2 8.\ e5 \(\frac{1}{2}\)e4 9.\ e62 to 10.\ e52 to 10.\ e52 to 10.\ e54 to 10.

#### 5.c6 f3 6.cxb7 f2 7.b8 f6!

White has promoted his pawn without any problems, but now Black is also going to promote his pawn.

#### 8.b7

Or first 8. a7 followed by a discovered check.

#### 8...f1 學 9. 學a7+ 含f3



#### **10**. 夕g5+!

The second knight sacrifice, eventually clearing the path for the white king's march to the queen's wing.

#### 10...fxg5 11.營a3+ 含e4 12.營b4+ 含e3 13.營c3+ 含e4 14.b8營

After a few preparatory checks, it is now time for the second promotion. **14**...**#f2+** 



#### 15.⊈h3

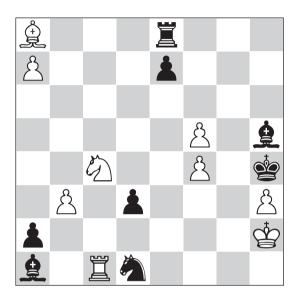
Initiating the king's march. **15...豐f1+ 16.堂g4 豐f4+ 17.堂h5 豐h4+ 18.堂g6 豐h6+ 19.堂f7 魚a2+**Or 19...豐f6+ 20.堂e8 豐e6+ 21.堂d8
豐g8+ 22.堂c7 and wins.

#### 20. ģe7 **豐**e6+ 21. **ģ**d8 **豐**g8+ 22. **ģ**c7 1-0

The white king has safely reached the queenside.

## Study 55 Jan Timman

First prize Belyavsky 80 JT 2015



White to play and win

Geertje and I were invited by Oleg Skvortsov as guests of honour at his special tournament in Zurich, 2014. In our hotel room, I put the finishing touches to a study that is characterized by symmetry in the introduction. I sent the study in to the Belyavsky 80 Jubilee Tourney. The announcement of that tourney mentioned that the first-prize winner would receive 'a picture of the composer'. I did not discover what that entailed until four years later, after Albert Belyavsky (1934-2018) had passed away. When Yochanan Afek joined me for a Dutch league match in Arnhem, he brought me a stylish painting that he had received during a congress of endgame composers. On the back stood, in Russian, the title 'Morning mist' and my name. This landscape painting received a special place in my home, and I often look at it.

#### 1. **≜c6**

Attacking the rook, which has only one good square.

#### 

Otherwise White takes on a1 and wins easily.

#### 2. @xa8 @d4

Attacking the white a-pawn.

#### 

And White too has to sacrifice his rook! After 3. \( \hat{2}e4 \) \( \hat{2}xa7 4. \) \( \hat{2}a1 \) \( \hat{2}b8! \) 5. \( \hat{2}xd3 \) \( \hat{2}xf4 + 6. \) \( \hat{2}g2 \) \( \hat{2}c3 7.b4 \) \( \hat{2}f7 \) Black holds his own easily.

#### 3... **≜**xa1



The starting position is again on the board, but now without both sides' rooks. So far, both sides have made almost identical moves. This process continues for a few more moves.

#### 4. **û**h1!

The principle of this Bristol theme stems from the Ukrainian study composer Lazar Zalkind (1886-1945). White vacates the g2-square for the future queen.

This thematic 'Bristol manoeuvre' was named after the Bristol

Tourney in 1861, where the English endgame study and problem composer Frank Healy (1828-1906) earned second prize with a problem that started with this manoeuvre.

#### 4... ⊈h8!

Black has to follow White's movements: the g7-square has to be cleared for the future black queen.

#### 5.a8豐 a1豐 6.豐g2 豐g7



So far the identical moves on both sides.

#### 7. Øe3!

Sharp and strong. Black cannot take the knight, since he has to control the f2-square. White threatens to exchange queens, followed by mate on g2. So he has to make a move with his bishop.

#### 7... **≜e8**

The alternative 7... êe2 has the drawback that the second rank is blocked. White profits from that with 8. ②94 \$\\$h5 9. \\$\\$g3 and Black has no defence; for example, 9... êe3 10. \\$\\$xe3 \\$\\$xg4 11.f6! exf6 12.hxg4+ \$\\$\\$xg4 13. \\$\\$f3+ \$\\$f5 14. \\$\\$e4#.



#### 8.**₩f3!**

Depriving the black king of the h5-square. Again, a devastating check on g2 is threatened.

#### 8...**≜c**6!



With this bishop sacrifice, Black reminds White that his king is in danger too. He cannot take the bishop on account of mate in one.

#### 9.f6!

Again this important intermediate move. White clears the f5-square for his knight.

#### 9...**₩g6**

Covering the f5-square.

#### 10. Øg2+ ₩xg2+



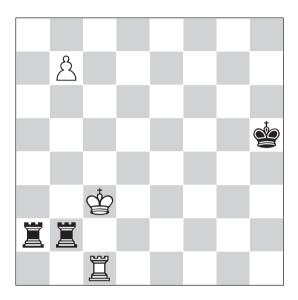
#### 11. **₩**xg2!

But not 11. \(\hat{2}xg2\) \(\hat{2}xf3\) 12.fxe7 on account of 12...\(\hat{2}h5\), stopping the e-pawn.

#### 11... gxg2 12.fxe7 1-0

# Study 156 Jan Timman

2025



White to play and draw

This miniature is based on several studies by David Gurgenidze, who often worked with this kind of limited material. In my study, the theme emphasizes slightly different aspects.

White has to start with a rook check:

#### 1.罩h1+

An important idea is 1.\(\beta\)a1. After this move, Black wins with a systematic manoeuvre: 1...\(\beta\)c2+ 2.\(\dec{\phi}\)d3 \(\beta\)d2+ 3.\(\dec{\phi}\)e3 \(\beta\)e2+ 4.\(\dec{\phi}\)f3 \(\beta\)f2+ 5.\(\dec{\phi}\)g3 \(\beta\)g2+ 6.\(\dec{\phi}\)h3 \(\beta\)h2+ 7.\(\dec{\phi}\)g3 \(\beta\)a2+ 8.\(\dec{\phi}\)f3 \(\beta\)b2 and the white b-pawn is eliminated.

#### 1... \$g6 2. **2**g1+

An obvious-looking idea is 2. \$\bar{2}\$h2, but this runs into a surprising refutation. After 2...\$\bar{2}\$xh2 3.b8\$\bar{2}\$\$\bar{2}\$



the white king is driven upward and into a corner, as follows: 4.堂c4 罩a4+5.堂c5 罩h5+6.堂c6 罩a6+7.堂c7 罩h7+and Black wins. Therefore, White has to continue giving checks.

#### 2...⊈f6

On the alternative 2...\$f5 White can safely play 3.\$\mathbb{Z}g2!\$ since the black king stands in the way of the later rook checks. But not 3.\$\mathbb{Z}f1+?\$ in view of 3...\$\mathbb{Z}e4!\$ and Black wins.

#### 3.罩f1+

White has to give a third rook check. After 3. \$\mathbb{I}g2\$ \$\mathbb{I}xg2\$ 4.68\$

□g3+ his king would be driven up the board again.

#### 3...**⊈**e6

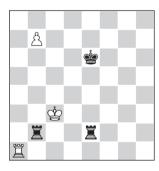


The black king has to enter the e-file to make progress. However, now White changes plans:

#### 4.**¤a**1!

Now that the black king is on the e-file, this idea works.

4... \( \bar{L} \) c2+ 5.\( \psi \) d3 \( \bar{L} \) d2+ 6.\( \psi \) e3 \( \bar{L} \) e2+ 7.\( \psi \) d3 \( \bar{L} \) ad2+ 8.\( \psi \) c3 \( \bar{L} \) b2



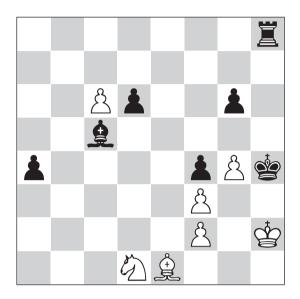
Because of the checks, Black seems to control the position, but now follows the final point:

#### 9.**\(\mathbb{E}\)e1!**

This move is only possible with the black king on the e-file. It's a draw.

# Study 157 Jan Timman

2025



White to play and win

This study is related to Study No. 93. It is, above all, a humoristic study in which the white bishop sets out to give check and then follows the road back.

The first move is clear:

#### 1. ≜c3 **⊑c8**

The alternative is 1... If 8 to prevent check on f6. Also in that case, an interesting battle unfolds. It goes like this:

2.c7 \$\delta g5 3.\delta g7 \$\vec{a} c8 4.\delta c3 (threatening mate) 4...d5 5.\delta xd5 \delta f8 6.\delta e5 \$\delta h6 7.\delta h6 \$\vec{a} xc7 8.\delta xc7 a3 9.\delta d5 a2 10.\delta e5 \$\delta g7 11.g5+! \$\delta h7 12.\delta f6+ and White wins.

#### 2. £f6+

Thus, White keeps the enemy king locked up.

**2...g5 3.≜c3!** And back.

3...**≝**xc6 4. <u>\$</u>e1!



White has travelled the road back, and now he threatens 5. △e3 followed by mate on f5 or g2.

#### 4... **≜b4**

Black has to give his bishop to prevent the mate threat.

#### 5. **≜**xb4 **\(\beta\)**c4

The alternative 5...a3 doesn't save Black either. After 6. ♠xa3 d5 7. ♠g2 d4 8. ♠b2 the white knight interferes decisively.

#### 6. **≜**xd6

Introducing a slightly different mate picture.

#### 6...**≝**d4

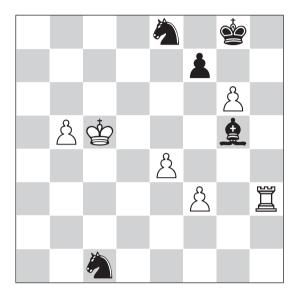


With a double attack, but White still has the same finesse:

7. 2e3! fxe3 8. 全g3#

# Study 158 Jan Timman

2025



White to play and win

For this study, I set myself the task of finding a position in which a white pawn on the seventh rank wins against three light pieces. In the end, it is all about White's king manoeuvres; he has to find the right square every time. As usual, it was hard to find a good introduction; in the end, I kept things as economical as possible.

#### 1.f4!

A pawn sacrifice introducing a promotion combination.

#### 1... **≜**xf4

If Black declines the sacrifice with 1... \( \)ec7+, White wins with 2.\( \)ec6; for example, 2...\( \)2d6 3.b6 fxg6 4.\( \)\( \)aand the rook invades decisively on the a-file. The black knight on c1 is not involved in the play.

#### 2.罩h8+!

The point of the previous move.

#### 2...⊈xh8

Black can try to build up a defensive line with 2...\$g7 3.\(\beta\)xe8 f6. White wins with 4.\(\beta\)d5!; for example, 4...\(\beta\)e3 5.e5 fxe5 6.\(\beta\)e4 \(\beta\)d4 7.\(\beta\)f5 and the passed pawns decide.

#### 3.gxf7 **②**b3+

The best chance. After 3... 总d6+ 4. 公c6 公f6 5. 公xd6 公g7 6.b6 Black cannot stop the promotion of the b-pawn: 6... 公xf7 7.b7 公xe4+ 8. 公c6 or 8. 公d5 and Black's knights are not coordinated.



#### 4. **\$**c6!

Now a battle of a king against minor pieces unfurls, in which the king has to find the right square every time.

#### 

Now White has no good square for his king, and he has to sacrifice his b-pawn.

#### 7.b6!

Forcing the black bishop to move to a less favourable square.

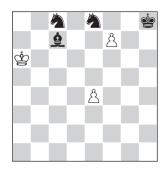
#### 7... 2xb6+ 8. 2b8 2c7+

An important alternative is 8... 27. After 9.f8 + \$\\$h7 Black has a solid fortress at first sight. White can only break through with 10. \$\\$b4!\$ \$\\$\@e5 11. \$\\$\\$d6!\$. It will take some time, but eventually White wins a piece; for instance, 11... \$\\$\\$d4 12. \$\\$\\$\\$b7 \$\\$\\$c3 13. \$\\$\\$c5 \$\\$\\$b2 14. \$\\$\\$f2 \$\\$\\$c3 15. \$\\$\\$\\$e3 \$\\$\\$a1 (or 15... \$\\$\\$b2 16. \$\\$\\$\\$h3+ \$\\$\\$g8 17. \$\\$\\$\\$b3+) 16. \$\\$\\$\\$a8 and Black is in zugzwang. 16... \$\\$\\$\\$\\$g8 runs into 17. \$\\$\\$\\$\\$h3+ \$\\$\\$\\$g8 18. \$\\$\\$g2, winning a piece.

#### 9. **∲a8!**

White needs the corner square to gradually get away from the black checks.

#### 9... 4b6+ 10. \$\dia a7 4\dia c8+ 11. \$\dia a6



Finally, Black's checks are exhausted.

#### 11... 公cd6 12.f8 響+