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## Preface

In my early youth, there were fascinations. I imagined how it would be to live in a house in the woods. Castles would bring me to raptures. I remember my excitement when I was standing with my parents on the ferry that transported visitors to Loevestein Castle. I dreamed that on the playground in our neighbourhood there was a castle you could play in.

In the summer holidays, we travelled along the Rhine in a Ford Taunus - my father behind the wheel, my mother next to him and we, the four kids, pressed together on the back seat. Our destination was Tuscany: Siena and Lucca, with its all-embracing city wall, which we rounded again and again during our long walks.

Along the Rhine stood the robber baron castles with their impressive names: Reichenstein, Rheinfels, and the Fürstenberg, the ruin that towered high above the Rheindiebach village. There we used to find lodgings in a little hotel, concluding the first stage of our trip. At home, in the living room, I would build Lego cities and Citadel castles.
M.C. Escher's 'Metamorphosis' starts with black-and-white squares that transform into salamanders. The salamanders become beehives. Out of these, bees emerge, which are ingeniously transformed into birds. Then there are fish, and in the accompanying pattern - birds again.
Here the 'Metamorphosis' arrives at things made by human hands. The new birds transform into blocks. Out of these, houses in the southwestern Italian town of Atrani are formed. Now the systematic pattern of forms is broken. A bridge connects the town with a chessboard. On a3 is a white rook, which also exists in the other reality. On the chessboard, a position is depicted where White perishes due to a smothered mate. And then Escher is back at the black-and-white squares.

From building miniature cities to chess: this was a step I already made in my youth.

The world of chess was the most fascinating. I devoured Euwe's books. The memory of the game Réti-Alekhine, annotated in his book Practical Chess Lessons, which never ceased to amaze me: the black rook appearing on e3 and remaining en prise there for several moves. Another game that was indelibly printed in my memory was Tartakower-Botvinnik from Hans Müller's Mikhail Botvinnik, One Hundred Selected Games. It was an impressive
image: the white king was pinned down in the corner by a knight on f3, supported by a mighty pawn front.

Within the romantic world of chess there was a sector that was even more hermetically closed off from the outside world. I first became acquainted with it when I read Herbstman's book De schaakstudie in onze dagen (i.e. 'Contemporary Chess Studies'). In this new world there was no struggle in the sense of a man-to-man fight. The competitive element was gone only scientific and artistic elements remained. The studies by Troitzky and Kubbel had a special magic. I felt that their masterpieces were made for eternity.

It is the strict regulations that lend a special status to the endgame study. White always has only one move to reach his goal, whether it is to force a win or a draw. Black, on the other hand, may have alternatives, and these extra possibilities can enhance the content and the richness of a study.

In practical chess, you think about what lies in the distance. You make plans and calculate variations. Creating an endgame study requires a significantly different thinking process. As a rule, the endgame study composer has an end position in mind, which contains a spectacular hidden point. Then comes the stage of retrograde thinking: he investigates the position backwards, asking himself: 'What was White's last move?' and then: 'What was Black's last move?' Today I still ask myself these questions in my mind.

I composed my first studies in the early 1970's, when I had just finished my secondary school education and the world was my oyster. Now that I look back on this, four decades later, it strikes me how uncomplicated these early pieces of work look. The points are nice, but the play misses the depth of my later studies. Not until the 1980s did I manage to create a few high-level studies.

Nowadays I can hardly imagine how it was to compose studies without a computer. In those days it was extremely difficult to work out all the tactical details. You could spend days eliminating little tactical tricks that upset the play. And then sometimes, there would still remain questions. Nowadays you can simply move your pieces and pawns to the right squares on the analysis board of your computer. Tactical snags are often useful for adding new elements to the study.

In December 2010, I decided to write The Art of the Endgame. I wanted to show systematically, guiding the reader along themes and genres,
why endgame studies are so beautiful and so interesting. Especially the systematics were important. It had struck me that most books on endgame studies were quite random collections. My intention was to reveal the secrets from the world of endgame studies in 14 chapters. I also had a second intention: in 1991, my book Schaakwerk II had appeared in Dutch (later translated as 'Studies and Games'). In the second part of this book, I had included a number of endgame studies. I wanted to put this material under the microscope one more time. With the help of the computer I would establish if the studies were correct, after polishing them up in some cases.

In January 2011, I started my journey in the world of endgame studies. I kept making new, fascinating discoveries. This stimulated me to create new studies. Before, I had never occupied myself with the question how you could incorporate the Novotny theme and the related Plachutta theme in studies. Studying a number of examples pointed me in the right direction. Never before have I been so productive as an endgame study composer as in the seven months that I wrote this book. It was a sensational experience. Whether I looked at bishop promotions, systematic manoeuvres, or the Valladao Task, I kept finding new paths.

The computer has refuted a number of studies by great composers. Nowadays there is a trend to publish such refutations as if they were great achievements. In this book I have striven to use the computer in a constructive way. An impressive work of art that has been damaged, must be repaired with great care. I have treated studies with such defects in the same way. I corrected them in ways that did not affect the brilliant ideas.

In the first chapter I discuss miniature studies, i.e. pieces of work that are often closely related to the theoretical side of the endgame. The second chapter continues on this path, and is purely theoretical. Then we come to the real romanticism. Pawn promotion is an important factor in chess. First I discuss several methods to prevent pawn promotions, and after that the various promotion combinations are reviewed. I have given a representative picture of the themes. As with every theme, I cannot pretend to be comprehensive; there are more than 75,000 studies in existence!

In the chapter on knight promotions, I've had to restrict myself even further. This is the type of pawn promotion that is most frequent after the regular queening, in practice as well as in studies. I have exclusively dealt with knight promotions that repeat themselves according to a
certain pattern. With bishop promotions I could paint a slightly more comprehensive picture again, even though I was forced to make choices here as well.

In the chapters on mate and stalemate, I have selected those studies that appealed to me most. That was anything but easy. Each study (or game) ends in mate or stalemate, and the motifs can be surprising and beautiful.

Mutual zugzwang and building a fortress are themes that can be of practical use. It is remarkable how often strong players do not recognize these themes. For this reason, I think that Chapters 9 and 10 are highly instructive.

On the other hand, the next two chapters contain themes that are entirely disconnected from practice. Systematic manoeuvres do not occur in games. Nor will a player strive to lose pieces in the course of a variation. However, it is worthwhile to see how these offerings are justified in studies.

In the chapter called 'Three Themes' I have dealt with three of my favourite themes. The final chapter is a collection of remaining studies. Again, I had to make a selection here. There were studies from the past with nice ideas, which nevertheless had to be rejected for publication, either because the computer refuted certain variations or because the variations were insufficiently special.

And that is how my seven months' journey came to an end. It was not only a fascinating experience, but also an instructive one. It seemed as if I was finally allowed to probe depths in the endgame that had been hidden from me before. I have tried to describe and explain my findings as clearly as possible. And I sincerely hope that the depth and beauty of endgame studies will also move the reader.

Jan Timman,
August 2011

## Preface to this revised edition

For this revised edition, I have made a number of corrections to the text and the diagrams. In the past decade, computers have become stronger and stronger. Engines showed that some of the studies in this book had defects; they were incorrect, or there were alternative solutions. Because of this, I felt the need to remove six studies and replace six others with better versions. Apart from that, I have added fourteen new studies, two of which are published here for the first time. The structure of the book has remained intact.

Jan Timman,
Arnhem, July 2023

## CHAPTER 3

## Preventing pawn promotion

In a simultaneous game Lasker-
Loman, London 1910, the following happened:

31



This seems winning, but Black has a nasty riposte.
38... ̈. $4+39$. ${ }^{\text {gigg }} 5$

39... $\mathbf{m} h 4!!$

Thus Black succeeds in preventing the promotion of the h-pawn.
 This is probably the best-known simultaneous fragment in chess history.

The following study was based on Loman's 39th move.

32


Timman 2008
White to play and win
White is a piece up, but Black has all kinds of counterchances

- especially with the pawn on e3, which will play an important role.


## 1. \#d 1 a3!

The start of a clever action. After

White would have a technically winning position.
2.bxa3

Forced, as otherwise Black would obtain another dangerous passed pawn.
2....Еа4+ 3.f4!

Before retreating his king, White first sacrifices a pawn. Only at the end of the study will it become clear why this is necessary.

This is the point of Black's play.
If White does not take the rook, a
rook ending ensues that cannot be won.

## 5. ${ }^{\text {Exd }} 4$ e2



How can White stop the pawn now? His task is much more difficult than Loman's.

## 6. ${ }^{\text {end }} \mathrm{d}$ +!

The first rook sacrifice.
6...䵟h7
6...cxd6 is met by the winning 7. 鼻 a 5.

## 7. ${ }^{\text {Enh }} 6+$ !

The second rook sacrifice. Black is forced to accept this one, as otherwise his king will be caught in a mating net.
7... ${ }^{\text {graxhx }}$ 6


## 

Now the point of White's third move becomes clear: the square f2 is vacated for the white king, after
which the remote passed pawns decide the issue. The combination carried out by White in this study is called a 'magnet combination'. The black king is drawn towards the fatal square g 5 as if by a magnet. This study received second prize in the annual tourney of the magazine The Problemist.

It is also possible to use Loman's move to clear the way for a bishop, which then saves the day. By way of an illustration I give the following little study.

33


Timman 2011 White to play and draw

White is truckloads of material up, but once the enemy h-pawn queens, he will be mated soon. Therefore, drastic measures are called for.

## 1. 2 e4!

With the winning threat $2 . \triangle \mathrm{f} 2+$, so Black has to take the knight.
1...dxe4 2. ${ }^{\text {min5! }}$

Loman's move.

## 

Draw.
Sometimes White has to sacrifice a rook to prevent a pawn promotion.

34


Prokes, ‘Schackvarlden’ 1939 White to play and draw

The situation looks hopeless for White because his king is so far away. But he has a miraculous saving clause.

## 1. .̛gg 4 e2

An important alternative is $1 . . \mathrm{d} 2$,
 Then White has 3. 를, saving the draw. The rook will keep giving lateral checks.

## 



Now comes the crucial move.

## 4. ${ }^{\text {elc }} \mathbf{c} 4+!$ !

You could call this rook check a 'desperado', i.e. the sacrifice of a piece which is lost anyway, in a way that yields the best result. But then this is a very special desperado. Everything revolves around the fact
that the d-pawn, which is on the verge of promotion, comes within reach of the white king.
 Draw.

White's 4th move is known as the Prokes Manoeuvre. There are various examples with this theme from tournament practice. Also, numerous other studies have been made with the Prokes Manoeuvre as a theme.

In June 1993, I was in Moscow, where a blitz tournament was held in memory of Misha Tal. I was working on a study that would feature the Prokes Manoeuvre via a hidden mechanism. Eventually it worked out, and I decided to dedicate the study to Tal. I give the new version that I composed 29 years later.

35


Timman 1994/2023 White wins (in memory of Misha Tal)

Again we see that Black has several far-advanced passed pawns. White must bring his king closer to the fray.



A thematic rook sacrifice that White has to accept.

## 2. ${ }^{\text {E.xb1 c2 }}$

 Black has a draw within reach.
Therefore White has to try and find a path towards the black king.

## 3. ${ }^{\text {U.xg6 }}$

Threatening mate in one.

## 3...fxg6

Forced, as after 3...﨡xg6 4. ${ }^{\text {E.b }} \mathrm{b}+$
 away.



The climax of the study. Again White threatens mate in one.

## 5....gexh5

The same position occurs as two moves ago, but without the white knight. Alternatives weren't satisfactory either, viz.: and again the rook has found its way towards the enemy king;


 amazingly enough, a technical bishop endgame has come on the board. White continues with 12. 睎b3, followed by 13 .
winning due to the fact that the black kingside pawns are very weak.

## 6.g4+!

Opening the short diagonal for the white bishop.

## 6...fxg4

But now what?

## 

Here we have the hidden mechanism.

My interest in the Prokes
Manoeuvre was aroused by Tim Krabbé. In the summer of 1992 we met on an estate in the south of France, in the vicinity of Sainte Maxime. Misha Tal had just died, and I was analysing games for an 'In Memoriam'. After I had showed Krabbé a couple of findings, he started talking about the 'Double Prokes'. From that moment on it seemed as if my chess understanding had changed. A fascinating world opened itself before my eyes. Was it really possible that such an ingenious idea could be doubled in a study? Krabbé had thought up the following scheme.


Krabbé 1992
White to play and draw

The intention was that White would draw as follows：



With a draw．
The idea is fantastic，but this construction contains many flaws． Krabbé realized this all too well． He asked me to make a version that worked．I toiled over this for days． The Double Prokes turned out to be a head－spinning task．My intuition told me I could make an award－ winning study of it，but I couldn＇t come up with a good version．All the studies I published in the 1990s turned out to be incorrect．
Not until 18 years later did I manage to make a good，solid version．

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In fact，all the elements of Krabbé＇s scheme have been retained．
Only here White has two highly dangerous passed pawns，which forces Black to act quickly．White＇s first move is forced．

## 1．${ }^{[⿰ 日 月}$ h

On 1．．．áa2 Black would save himself
 1．．．e3！
Still the best chance，even in these circumstances．

## 

The first Prokes Manoeuvre．

## 4．．．bxc4 5．稢xe2 c3

The white king has come closer，but in the meantime Black has created a mighty pawn pair．
6．${ }^{\text {Eff }}$ \＃b1
The second black rook offers itself． After other moves the white passed pawns would quickly decide the game．

## 7．${ }^{\text {U．xb1 }} \mathrm{c} 2$



## 8．${ }^{\text {unb }} 4+$ ！

The second Prokes Manoeuvre．

And wins．
The solution is also identical to what Krabbé had envisaged．

Now that I had finally made this old dream come true，I decided to find out if I could achieve more with this theme．This led to the following spectacular study．

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Again, White has a powerful pawn pair. But first he will have to do something about Black's threat of promoting the f2-pawn.

## 

The best chance. The thematic 1...f3 would have been prospectless in view of 2. ©c $4+$ ! g b4 3. 2 e , and the black pawns are harmless.
Also insufficient was $1 . .$. eg d6 on account of 2. कg 2 2 当 $6 x d 2$. . $x$ xf2
 passed pawns decide.

## 2. ${ }^{\text {ucc1 }}$

 would not be able to win.
2...f3


## 3. 혀ํg! ! = d1!

Both sides make the moves we know by now. Black's last move is a
so-called 'switchback', i.e. a piece in this case, the rook - moves back to a previously used square. White must be very careful now: only one move wins, all other moves lose.


## 4.b4+!!

The path to the black king must be opened by force. White could not wait with this check, since after 4. ${ }^{(y x d x} 1$ ? fxe2 5.b4+ 훌a6! Black would gain the upper hand. After

 c-pawn decides the issue.

## 

Alternatives wouldn't do either:
 wins;
 and wins. In this line, one Prokes Manoeuvre suffices.

## 

The first Prokes Manoeuvre.

The second rook sacrifice.

The second Prokes Manoeuvre.

And wins. With this I had concluded a magical chapter.

180


White has an overwhelming material surplus，but Black now sets up a lethal battery．

## 

Only by attacking the bishop with the rook can White defend himself．

 pawn ending．
3．．．賭d5
The only safe square on the long diagonal．The bishop has to be on a protected square．

## 4．Uff3＋

With clear intentions：after 4．．．鼻xf3
White forces stalemate with 5．耧h4＋．

## 4．．．＂tg3 5．宸e4！



Generally the queen doesn＇t get a defensive role，but necessity knows
no law．Now 5 ．．．g5 would not yield

5．．．g6！
An extremely level－headed reply． Black prevents check on h 7 and again puts the question to White： how does he want to lose both of his pieces？

## 6．宸 $f 5+$ ！

Bull＇s eye．Black must take the queen，and then the stalemate is achieved．

Stalemate in the corner can be much more subtle．


The white king is in danger．More－ over，he cannot exchange on f 6 as then the bishop on f 7 will be lost．

## 1．是d5！＂e 7 ！

Threatening mate in one．
2．宣e5！
A beautiful，problem－like move which serves to bring the bishop to the h －file．

## 

White seems to have warded off the danger．However，now Black starts an interesting combination：


With this knight sacrifice，the f－file is closed．
4．鼻f
The only move．After 4．gxf3 鼻e5
White would be irrevocably mated．
4．．．鼻 5


## 5．宜h5！

In turn，White sacrifices his king＇s bishop in order to re－open the f－file．

## 5．．．巴xh5 6．${ }^{\text {Uxxf5＋！}}$

This rook sacrifice is the consequence of the bishop sacrifice．

## 

The only square for the rook．Now comes the climax of the study．


## 8．臬f4！

With this second bishop sacrifice White puts the black rook in a predicament．Black cannot capture the bishop，as that would mean stalemate．

A last try．
11．息d4＋draw．
The construction of the following study is even more complex．


Timman 2010
White to play and draw（dedicated to Geertie）
Both sides have a far－advanced passed pawn，so White＇s first move speaks for itself．

## 1．h7 寊b2

But now things become complica－ ted．Not only has Black prevented promotion，but he also threatens to give a devastating rook check．
2．$饣$ c5 5 ！！
This knight sacrifice introduces a stalemate combination eight moves deep．Alternatives were：
 （it looks as if Black cannot win，as after the mutual promotions，the white king would be safe enough）
4．．．崰f6＋！！（a tremendous surprise）
5．家xf6 al唇 and wins；
 Eg7！（an echo of Variation A）

 and $8 . . .{ }^{\text {d．}} \mathrm{d} \mathrm{d} 5$ suffice for the draw．

The point of the text move will be revealed later on．
Incidentally，White could not switch round the first and second moves．After 1． $0 \mathrm{C} 5+\mathrm{dxc} 52 . \mathrm{h} 7$ Black would win with 2 ．．．eble ！for example，3．岜xa2 followed by 5 ．．．鼻d $4+$ ．

## 2．．．dxc5

On the alternative 2 ．．．dac6 White had the following road to a draw：

 by promotion．The knight is used to protect the rook．Now stalemate motifs start to play a role．

## 

The stalemate trap is set．Black cannot promote to a queen．

## 4．．．＂घg2！

The best try．After 4．．．a1兑 5．를 $2+$ White would have a＇rampant rook＇． This means that he can keep giving checks with his rook，even in it is en prise．If the opponent accepts the sacrifice，White is stalemated．


## 5．${ }^{\text {\＃̈b1！}}$ ！

A fantastic riposte．Firstly White threatens 6 ．${ }^{\text {eld }}$ d1＋，when he would again have a rampant rook．And on 5．．．量h2，6．． e a1 suffices for the draw．

## 5．．．ฮّg8＋！

A stunning attempt．Black also sacrifices his rook，steering towards a queen ending where he has two extra pawns．

## 

The only correct check．He must not let the black king escape via c8．

## 



There＇s nothing to be done about it． Now White finally forces stalemate －with a queen sacrifice．
10．嵈g6＋！浸xg6 stalemate．
For this study I received second prize in the Nona 2010 tourney． It is dedicated to my wife Geertje， because I made it just before her 36th birthday．

The study was received enthusias－ tically and published in many places．Unfortunately，later it was discovered that it contained a dual． In Variation B，in the comments to White＇s second move，3．${ }^{\text {enc }} \mathrm{c}$ 2
 6．$\ddagger$ h8 leads to a draw．Here，too， White gets a rampant rook；I hadn＇t thought of that possibility at all．I had to construct a new version．It looks like this：

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Timman 2011
White to play and draw
White＇s king is stuck in the corner． He has to give check．

## 

With this knight sacrifice，Black creates space for his rook，although this cannot be seen at this point． After other moves White could play 2．．${ }^{3}$ g8 without trouble．

## 

On 2．．．的e6 White would already have 3． $0 \mathrm{c} 5+$ ．

## 3．${ }^{\text {Ee2＋}}$

White has to keep giving checks．

 would be winning．The white passed pawn is not strong enough．

## 3．．．${ }^{\text {tobld }} \mathrm{d} 7$



## 4． $0 \mathrm{c} 5+$

The well known sacrifice－only the knight comes from the other side this time．

## 4．．．dxc5 5．相g8 鼻b2 6．

And we know the rest．
The echo variations are lost，but instead a pretty knight sacrifice for Black has been added．

Besides a rampant rook，there is also such a thing as a rampant bishop．

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Kubbel，＇Könische Volkszeitung＇ 1926 White to play and draw

The white king has so many squares that stalemate looks improbable．Nevertheless，the decisive stalemate trick will appear soon enough．

## $1 . e 7$ 宝b8

The only way to stop the foremost e－pawn．

## 2．e5！

An important pawn sacrifice．

The king barricades itself on the edge of the board．

Black cannot capture the bishop in view of stalemate．


And the black bishop cannot escape the attacks．

The same principle is also possible with the king in the corner．

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Timman 1983／2009 White to play and draw

This is an extended version of an old study of mine．White must push his f－pawn．

## $1 . f 6$ 鼻b4 $2 . f 7$

Threatening 3．${ }^{\text {是g7，so Black＇s reply }}$ is forced．
2．．．鼻f8
Now what is left for White to do？
Black threatens to collect the f－pawn with his king．

## 3．b4！

Threatening 4．© C 5 ，so Black has to take en passant．

## 3．．．cxb3 4．．áb2

Now a new motif emerges．If White managed to exchange bishops，the position would be a dead draw， even without the f－pawn，since the black queen＇s bishop is very unfortunately placed on a2．If Black succeeds in avoiding this exchange， then he will bring his king to d 1 and give check on c1，driving the white king into the corner．Next
he will play his king to c2 and his queen＇s bishop to b1，and give mate． In order to avoid this scenario， White has a hidden manoeuvre at his disposal that gives him a rampant bishop．



## 6．鼻b2！

The bishop retreats to make the drawing mechanism work．

9．臬b2 鼻h6 10．鼻c1
Draw．
A follow－up study shows how accurately the attacking side must play in order to avoid the exchange of bishops．

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Timman，‘Ausgewählte Endspielstudien’ 1995 Black to play－White wins

I composed this study in 1993.

## 1．．．e4！

The only try．

## 2．畀a7！

White could not take the pawn
 with a draw．
The text is not obvious，but well founded．White threatens to push the b－pawn，so Black is forced to move his king to the c－file．The alternative 2．宽c7 息e6 3．畕e5 東c6 4．堺d4 崽d5 would lead nowhere．

In these circumstances White can take the pawn．
3．．．畕d7


Again the only way．If the black bishop reaches the long diagonal，he has nothing to fear．White＇s queen＇s bishop is on the wrong square．
4．矛d5！
The white king moves away from the kingside．

## 

On 5．．．崽c6 White wins by 6．寞b8！ getting his queen＇s bishop back in play．
6．鱼d4
Now the king returns to the king－ side．



## 9．罗e1！

An important moment．After
9．噚g3 置h5 10．．
11．寞g2 宽e2 again．So White has to triangulate with the king to get the same position with Black to move．
9．．．象b7
On 9．．．鬼h5 White has 10．${ }^{(6)}$ f1．
10．．． b d 1 ！
Now the black f－pawn is pinned．

followed by 11．．．寞g2．

 White wins．

## CHAPTER 14

## Various endgame studies

## 1．Studies with others

Some endgame study composers regularly create studies in collaboration with colleagues． I have also done this once in a while．One example of such a collaboration was a study together with Harold van der Heijden，the man who created the database of endgame studies．The WCCT theme for 2012 was the queen sac．Van der Heijden had an interesting scheme for a study on this theme which I elaborated further．

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Timman／Van der Heijden，WCCT－9 2012 White to play and win

A very complex position．White is a rook up and the black king is locked in，but the black queen is very versatile．It is not easy to get a grip on the position．

## 1． 0 g 6 ！

The main purpose of this knight sac is to force Black＇s f－pawn to g6． Eventually this will help White to open the long diagonal for his
bishop．The alternative 1．$£ \mathrm{f} 5$ didn＇t work because of 1 ．．． $\begin{aligned} & \text { evf } \\ & \text { 2 } \\ & 2 . e 3 ~ d 3+!~\end{aligned}$ and Black wins．

## 1．．．fxg6

The alternative is $1 . . . \mathrm{d} 3+$ to open the way for the queen to the queenside．
 seems to get an attack．White， however，has the strong rejoinder 4．Uubc2！，forcing the exchange of queens．White wins，since the black king remains in a mating net．Note that it is important that White controls square f4．

## 2．Еe3！！

A tremendous move．The main purpose of the sacrifice is to bring the rook to d3．It was premature to play 2．鼻 g 7 since Black takes over after 2．．．d3＋！3．exd3 彭a4＋．

## 2．．．dxe3

Now the long diagonal is opened for the white bishop．Again there was the alternative $2 . . . \mathrm{d} 3+$ ．After $3 . \operatorname{exd} 3$
 White wins；the mating threat of 7．．${ }^{3}$ ch 2 can＇t be met．

## 

The first queen sacrifice．
4．．．b6 5．鼻h8！
A quiet move．Black is in zugzwang．
5．．．）${ }^{\text {g }} 3$
Black has to give up the control of square b4．
6．寝b4！
The second queen sacrifice．

## 6．．．崰xb4 7．宣xf6＋

White wins．
Four years later I cooperated again with Van der Heijden．

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Van der Heijden／Timman， 3．p Moscow tourney 2016 White to play and win

The first move is obvious．
1．a6 光e2＋
The best chance．On 1．．．${ }^{\text {gl }} 2$ White
等c2 4.27 with an easy win．

## 2．．．did

 holds．
2．．．h3
The alternative is 2 ．．．巴e5．After 3．a7道 a White has the winning move 4．© A 7 ！．That＇s the reason why the white king went to d8：to keep square d 7 for the bishop．White
 6．鼻e6！h3 7．．gb7 h2 8． E h8．

## 3．${ }^{\text {宜b3＋！}}$

It is important to sacrifice the bishop．


9．${ }^{\text {昗 } x h 1 ~ a 2 ~ B l a c k ~ i s ~ o n ~ t i m e . ~}$
3．．．${ }^{6} x$ xb3

On 3．．．我a1 White has the winning


 11．${ }^{\text {m }} \mathrm{h} 8$ and wins．

## 

A last ditch attempt；Black plays for stalemate．
6．．ixxe8 h2 7．a8䖝！
Bishop promotion is the only way．
The position after 7．a8宸 h1遃 would normally be winning，but the white queen has no checks．

## 

Accuracy till the end．White has to bring his rook to the second rank to control the a－pawn．

## 

11．皿e4＋＋
White wins．
Israeli Grandmaster Emil Sutovsky is known to be well－disposed towards endgame studies．Together with Boris Gelfand，he has composed one magnificent study，published in New In Chess Magazine．During the closing ceremony of the third Inventi tournament in Antwerp he showed me an interesting idea for a finish．

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Sutovsky

Black to move achieves a surprising draw with 1．．．g6！2．囬xg6 鼻xf5＋！ 3．．a．xf5 g4，and in order to prevent stalemate White has to consent to playing a pawn ending that offers him no chances．
Working backwards，I made the following study，which shows the idea in a slightly more pronounced way．

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Sutovsky／Timman 2009 White to play and win

Material is depleted．White must exploit the exposed position of the black king．

## 1．f4！

Insufficient for the win was 1 ．${ }^{\text {d }} \mathrm{d} 3$

 White does not have enough pawns．
1．．．g5
With 1．．．寊g2 Black could have aimed for further simplifications． But then White liquidates to a winning rook ending：2．g4＋© ${ }^{\text {gh}} \mathrm{h} 4$
 and the white f－pawn decides the battle．

## 

In order to avoid mate，Black has to give the exchange．



## 5．．．寊g2

The bishop harasses the white pawns from behind．
Inadequate was 5 ．．．鼻d7 in view of $6 . f 5 \mathrm{~g} 47 \mathrm{~h} 4 \mathrm{~g} 5$ 8．．⿱丷⿴囗十⿱一⿴⿻儿口一⿺辶 e ！gxh4 9．gxh4 and again，the f－pawn decides．

## 6．f5！

White always has to strive to obtain a strong f－pawn．

## 

Here we have Sutovsky＇s clever discovery．


However，now that the black bishop is on h3 instead of g4，White has something up his sleeve．

## 8．g4＋！

This little check eliminates the stalemate threat．
8．．．賭xg4 9．${ }^{\text {enxg6 }}$
And wins．

2．Studies with no specific theme
In the following study，many themes are combined．

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Timman 2010
White to play and draw
White cannot take on c7 immediately since after 1．bxc7鼻h4＋he cannot protect his king from rook checks．

## 1．定b4＋gat

The only square for the king．
2．自c4＋！
With this bishop sacrifice，White blocks the c－file for the black rook．



Now Black has two bishop checks， which White has to play accurately to parry．
3．．．是h4＋

On 3．．．恖e5＋White has to prevent Black from giving a winning rook check．The play continues as follows：
监d5＋7．．d．f4！and it＇s a draw．The black rook blocks the long diagonal for the black queen＇s bishop，and so the white c－pawn cannot be stopped．

## 4．혛́ 臬e4＋

Without this bishop sacrifice it＇s impossible for Black to keep any winning chances．After 4 ．．．${ }^{\text {ed }}$ d5＋ 5．${ }^{\text {g }} \mathrm{f} 4 \mathrm{it}$ would be an immediate draw．



It looks as if Black will triumph． However，White has a beautiful finesse up his sleeve．
7．鼻e7！
By sacrificing his second bishop， White conquers the e6－square for his king．

Draw．
Sometimes a strong passed pawn can almost compensate for a rook， as in the following study．

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White will have to lift the blockade on a7 by playing his queen＇s bishop to c5．But first he has to do something about the unprotected position of his other bishop．

Before the bishop goes to c5，the black king has to be driven to a less favourable square．Later we will see why．

## 

This check is necessary too．



Only now．The king is not well placed on h3．
4．．．暻b5＋！
Without this surprising finesse，
White would attain the draw with ease．

## 

An unpleasant pin．Now，however， it is White＇s turn to sacrifice a bishop．

The point of the bishop sacrifice．
Black is forced to take on c5 with the rook，closing in the bishop on a7．

## 



Without the white e－pawn it would be a draw without further ado．But the extra pawn may play tricks on White．Thus，Black would be winning if his king were on g 3 or g4．Then he would succeed in blocking the e－pawn．

## 9．．．．するg 4 10．e4！

Cutting off the king．

 time to catch the white king in a mating net．
10．．．혈f4 11．e5！
According to the same principle．
11．．．dか5 12．e6
The last accurate move．After

15．e7 ${ }^{\text {en en }}$ White would get mated after all．
Draw．

In the Mario Garcia 75 Jubilee Tourney，the theme was：＇Mate with a bishop in the central area of the board，from c3 to f3 and c6 to f6＇． Not really a striking theme，but I had a study ready for this．

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Timman 2018 White to play and win

## 1．宜d3＋

White has to force the black king
 Black draws easily．
 4．현h！


Suddenly the black king is trapped in a mating net．
4．．．是e7＋
There is no time for promotion：


Black has to drive back the white king．


The mating net has moved．


## 9．鼻b8！

White has to use the far ends of the board to continue the hunt of the black king．
9．．．颜a1
Black could have prevented an immediate mate by $9 . . . \frac{4}{6} \mathrm{~g} 5$ ，but White＇s attack prevails anyway．
 12．鼻xc5＋d bh1 13．鼻f3＋mate follows．
10．（2a6！
Another long bishop move．White secures square a7 for the other bishop．
10．．．d ${ }^{\text {ghf }} 2$
The black king must flee，but it will not reach a safe zone．


All the white pieces cooperate in the final mate．

