

Amateur to IM

**Proven Ideas
and Training
Methods**

Jonathan Hawkins

Rising Through
the Chess Ranks
with a Self-taught
International Master



Jonathan Hawkins

AMATEUR TO IM

Proven Ideas and
Training Methods



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Introduction

Hello, chess friends!

This is International Master Jonathan Hawkins from England. You find me just as I am finishing writing this book. I will try to keep this introduction short...

We can trace the history of the book you now hold back in time eight years. Somewhere around that time there came a point when I decided I'd had enough. Being a (relatively) weak chess player wasn't for me. I committed a large portion of my time to studying chess, which was, in hindsight, quite a bad idea since I was starting university at the time.

I always had quite a strong memory for chess. Ever since I learned the game I could recall all of my games – and the games of others – easily. So openings were my topic of study and I could memorize opening theory with no problem. I actually made some improvement in playing strength with this rather artificial method of study. At some point though, this all changed and I became addicted to studying the endgame. I filled notebook after notebook with endgame analysis. This is what led to my biggest improvement. It also felt as if my better understanding helped me to assimilate more knowledge.

Now – eight years, approximately 400 rating points and two GM norms later – I am passing on some of the endgames I studied to you. These represent literally my first steps up the chess ladder. I hope you will find the material interesting and that it will help you in some way.

Why the Endgame?

Why did I choose the endgame for the subject of this book? Why will it improve the reader's chess?

The simple answer is that I am convinced a careful study of the endgame sparked the biggest leap forward in my own game. Can it really be that the endgame is more important than other phases of the game?

I would say that it is more a question of balance than of one phase being more worthy of our study time than another. Let us sketch the portrait of a modern player to illustrate the typical imbalance:

- With the wealth of opening literature, and the ease of access to the latest Grandmaster games on computer databases, it is no great task to build up a high-level opening repertoire. Time consuming perhaps, but the path to take is not a difficult one.

Indeed, I have listened to Grandmasters lament the unfairness of this. Gone are the days when the ‘weaker’ player can be routinely dispatched in the opening.

- Combined with the knowledge of standard schemes in the middlegame – linked to their opening repertoire (which is relatively easy to attain, by playing through master games in the relevant openings) – we have painted the picture of quite a formidable foe.

All of this is perfectly reasonable, and I encourage the reader to spend time doing exactly these things.

We have, however, a clear motivation here for focusing (at least some) of our chess energy on the endgame:

- Our opponents will typically have a clear weakness in this area.
- We want to fortify our game with a strong endgame foundation; otherwise we will be throwing away many good positions (and points!).

Of course, we must expect a certain amount of crossover between the phases of the game. Knowledge of endgames is useful when studying the openings; often modern opening theory is so deep that it transposes directly into endgames.

All of this not new advice; in fact, most players know this already. Why then is the endgame such a neglected phase of the game?

There is no question it is more difficult to study than, say, the opening. Most endgame works, typically featuring general rules and many theoretical positions, are rather too dull to study. By the time we get the theoretical position we memorized, many years may have passed and we have forgotten the details. Computers often offer little help. I found this very evident when analyzing the opposite-colored bishop endgame Aronian-Bacrot in ‘Endgame Exploration 2’.

Introduction

We are all guilty of mimicking the world's strongest players to some degree, and it is true that they work considerably on openings. The reason is that they are already proficient in theoretical and technical endgames. Occasionally this is not the case and, as we do a few times throughout this book, we can enjoy the feeling that we know something an elite player did not!

Aims of the book

I did not intend in any way for this to be an exhaustive theoretical manual.

My aim was always just to start the ball rolling and help the reader to think about chess in a different and more coherent way. Everything we learn we will try to understand to the level where it can be used in a practical game.

- I wanted to show that chess is an interesting game which is definitely *not* played out; there are often countless possibilities in even the most innocent looking position (take the Aronian – Bacrot game I discuss later, for example).
- I wanted to teach good principles in the endgame and (although it was not my primary goal) to show some important theoretical endgames. Some of the theoretical endgames in the book are not essential knowledge, but I saw no reason to dumb anything down if they were relevant to the analysis.
- I also wanted to spark the reader's interest in analysis and investigation of chess positions. Always search for the truth, and never pass something by without understanding it.

The astute reader will notice that some of the examples in the book are quite recent. It is true that I updated some of the games from my original notebooks. Be assured I only did this when I felt the new example was stronger than the old.

I should say a few words about the structure of the book and how best to use it:

- It is split into two main parts. The first half is quite lightweight, and focuses on some thinking techniques, principles and some essential theoretical endgames. The second half is quite deep and involves analysis and discussion of some very specific types of endgame. There is also a short section of exercises.
- Most chapters have a 'Theoretical Notes' section at the end. Any theoretical endgames or particularly interesting variations which cropped up in the main lessons and required further coverage are discussed there.

When we encounter a specific theoretical position (or type of position) I would recommend playing it out several times, against a playing partner or an engine. My favorite way to do this is to play without studying the position at all. Only afterwards do I study the analysis of the position and repeat the process. In this way you will see the problems in the position really clearly, since you are already committed to thinking rather than just memorizing.

When playing over the annotated games (or game fragments) the primary goal is to retain the patterns and ideas, and the secondary goal is to use the arising positions to hone your analytical skills. Memorizing the game, move by move, is not something you need to consciously try to do. Once you understand the moves and ideas this will happen automatically. To this end I would recommend playing over the games quite rapidly in order to digest the main points. Later, upon completion of the chapter in question, you can look at the games and side variations in more detail.

OK, we will leave it there. Let's play some chess!

Jonathan Hawkins
March 2012

Part 1

THINKING TECHNIQUES

In this part we will look first at calculation in the endgame. We will see that this is often not as daunting as it may seem. Having solid reference points where we can stop our lines and evaluate the position is the key. This will form the basis for Lesson 1.

Then we will introduce planning in the endgame. The fundamentals of this are easy to grasp. Usually we are targeting a weakness, looking to somehow ultimately promote a pawn, or a combination of the two. We will look at some examples to make this clear in Lesson 2.

In Lesson 3 we will examine examples of how to combine these two basic skills. That is, how calculation moves us along to the realization of a plan. If we imagine a starting point and a destination we wish to reach, then the tactics (calculation) form the sides of a path from one to the other. We cannot stray from the path in favor of a more direct route, lest we run headlong into these tactical problems. Sometimes a destination will prove unreachable without leaving the safety of the path, so we must choose a more realistic goal.

Finally in Lesson 4 we will look a little deeper at the art of planning, and introduce what I call ‘little plans’. These are short-term plans which improve the position and can be realized one after the other. While never losing sight of our grand ideas to win (or draw) the game, we recognize that in practice it is often done in small, cumulative steps.

Generally the examples are quite simple in this part, in order to make the techniques easier to understand. As well as the techniques it is important that the reader can also grasp the actual theoretical positions we are studying. These fundamental endings are important for any aspiring player to know.

Lesson 1

Reaching the Horizon – Reference Points in Calculation

LESSON AIMs

- Realize the importance of calculating with a goal in mind.
- Master the concept of key squares in king and pawn endgames.
- Understand the ideas of opposition and outflanking in king and pawn endgames.
- Realize the importance of having an arsenal of positions we can evaluate accurately without calculation.

So we put aside some time to work on our chess. How do we use that time? The most common method is to either study openings, or solve chess problems.

Consider the following problem:

(Diagram in the next column)

After some examination of the various knight discoveries we hopefully find the solution.

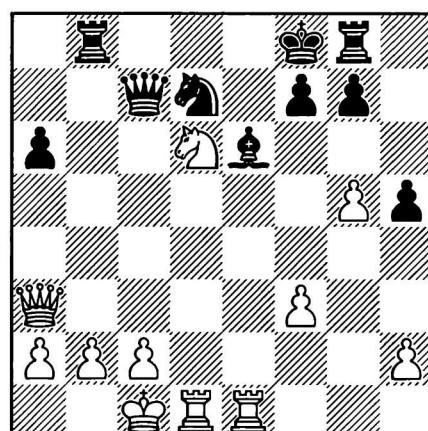
27.♘c8+! ♘c5

27...♗c5 28.♗xc5+ ♘xc5 29.♕d8#,
27...♔e8 28.♗e7#.

28.♗xc5+ ♗xc5

Kupreichik – Tseshkovsky

USSR Ch., Moscow, 1976



White to play and win

29. $\blacksquare d8\#$

The problem was made easier for us in two ways.

- We knew White had a winning position.
- We had obvious points at which to stop our calculation, namely when Black was checkmated.

As soon as we see the words ‘White to play and win’, we begin calculating, using the tactical patterns in the position, looking to achieve one of two things.

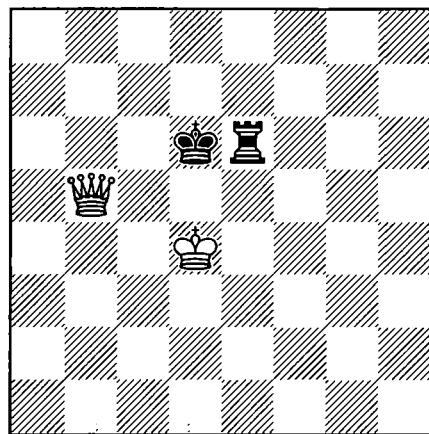
- Checkmate.
- Decisive win of material.

In most game situations, this is not plausible. The depth of calculation required to see a forced checkmate, for example, is beyond even a computer in all but the simplest of situations.

The idea that strong players calculate to the end, seeing everything along the way, is simply not true. In certain situations they will calculate deeply because the position demands it. However, knowledge of specific positions and types of positions makes their job much simpler than this in the majority of situations. This is similar to formulae and other such methods in mathematics which reduce a problem and solve it much more easily than through a brute-force method.

Let us take a situation without pawns,

to illustrate the difficulty in calculation without a goal in mind.

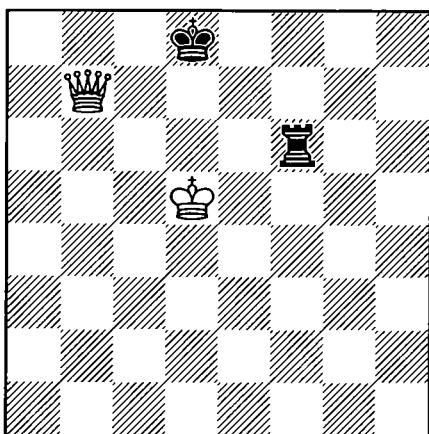


The notorious Queen vs. Rook endgame

What is our plan to win this position? Intuitively we think of:

- Winning the rook (then we can stop calculating).
- Checkmating the black king.
- We also have a vague notion that it will be good to drive the king to the side of the board.

Attacking the king and the rook is indeed the correct plan (there is nothing else to attack!). After a short piece of calculation we conclude that winning the rook is no easy task, and checkmating the king is also much too difficult to calculate. The horizon is too distant for these aims, but maybe forcing back the king will be achievable. Let us suppose we achieve this and reach the following position:

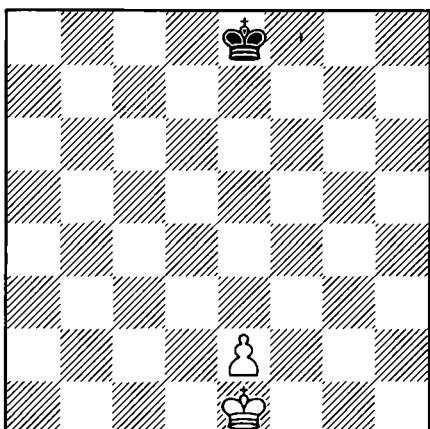


Now what?

What next? Still there is no obvious way to win the black rook or checkmate the black king. We don't actually know if we made progress in the last few moves. How can we tell? In effect our calculations are wasted since any position we see in our mind's eye we cannot evaluate.

➤ Calculation without a goal is wasted.

A simple example of effective calculation



White to play

Is White winning?

Perhaps you already know the answer, but let us think how we would set about evaluating the position.

Can we calculate to checkmate?
Every possible variation?

No, clearly this is ridiculous.

Can we calculate until we queen the pawn? That would truncate our calculations; we only need to calculate to the moment we queen the pawn as after that we can use our knowledge of king and queen vs. king to win the game.

Still, it seems difficult (perhaps not impossible, but this is only a simple example) to calculate every variation until we achieve a supported advance of the pawn to e8.

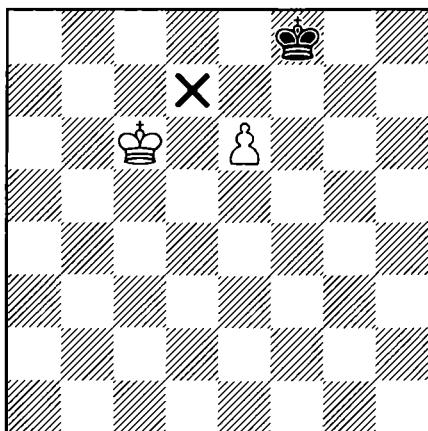
Crash Course in Key Squares

In the endgame of king and pawn vs. king, it is useful to talk about the concept of *key squares*.

Some readers will already be familiar with these ideas, but I have encountered 2200+ rated players who are not. Even if you are familiar with this, I urge you to read on in any case to refresh your memory as these concepts will be important later.

A *key square* is a square on which if the stronger side's king stands, the pawn achieves a supported promotion by force.

For instance:



White to play

Obviously White plays the move:

1. $\text{d}7$

Which achieves a supported promotion of the pawn.

The square d7 we call a *key square* of the pawn on e6. This means its occupation leads to a winning position for White.

A pawn anywhere on the board (excluding a rook's pawn) has either three or six key squares, depending on the pawn's location.

➤ A pawn that is in its own half of the board has three key squares.

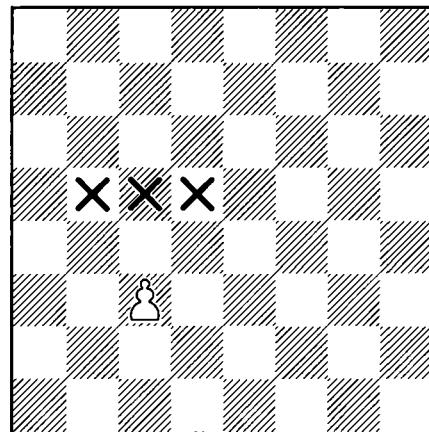
➤ A pawn that has advanced into the enemy half of the board has six key squares.

So, for example, a white pawn on e4 has three key squares. A black pawn on e6 has three key squares. A white pawn on g5 has six key squares. A black pawn on b4 has six key squares.

How do we find the location of the key squares for a given pawn position?

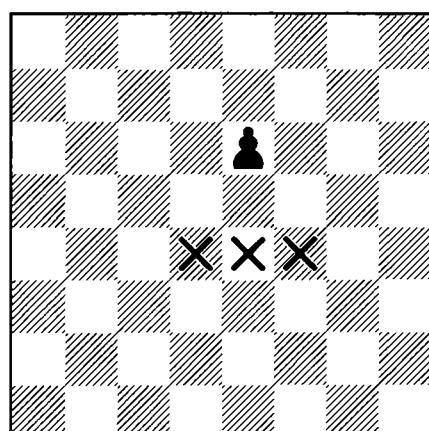
As we have already mentioned it depends of whether or not a pawn has crossed into the enemy half of the board.

They are located as follows:



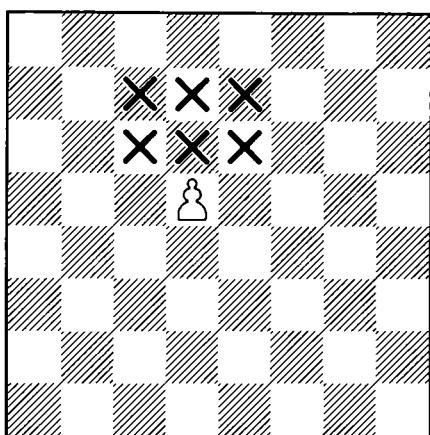
Key squares of the white c3-pawn

A white pawn on c3 is in its own half of the board, so we know it has three key squares. These squares are located as shown in the diagram: two ranks ahead of the pawn on its own file, and the two adjacent files.



Key squares of the black e6-pawn

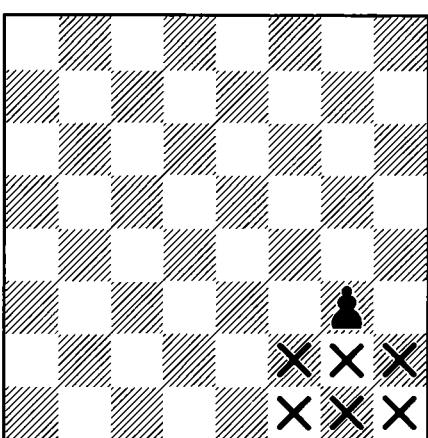
Similarly the black pawn on e6 is in its own half of the board and has three key squares. These squares are d4, e4, and f4.



Key squares of a white d5-pawn

The white pawn on d5 keeps its key squares as in the earlier example (c6, d6, e6), but because the pawn has ventured into the enemy half of the board it acquires some extra ones. These are located one rank nearer to the pawn, so it is in a sense ‘easier’ to reach the key squares of this further advanced pawn. Reaching any of these six squares with the white king will ensure victory.

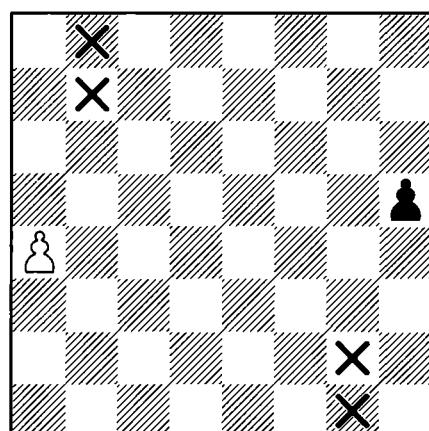
One final example:



Key squares of the black g3-pawn

The black pawn on g3 has the key squares as marked in the diagram. With the pawn so well advanced it becomes more intuitive – and easier – to visualize that occupation of these squares would ensure a supported promotion.

A rook’s pawn, as you might expect, is much harder to promote so has less key squares, and they are correspondingly harder to reach (usually impossible if the defender’s king is reasonably placed). The squares for a rook’s pawn are fixed and don’t depend on how far it is advanced.



Key squares of a rook’s pawn

A white a-pawn has key squares b7 and b8. A black h-pawn has key squares g2 and g1.

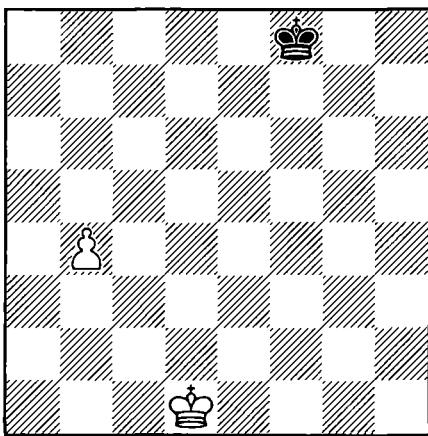
What all of this means is that any king and pawn vs. king situation is reduced to essentially one question.

- Can the stronger side’s king reach any of the key squares of the pawn?

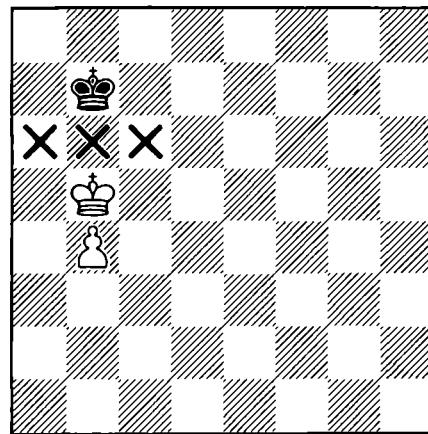
- If the answer is yes, then the position is winning; if the answer is no then the position is a draw.

Temporarily preventing access to the key squares.

5. ♜ b5!



*White to play.
Can he win?*



First we identify the key squares of the pawn on b4: these are a6, b6 and c6. Now we calculate until White either reaches a key square or until we decide it is impossible to do so.

1. ♜ c2 ♛ e7

2. ♜ b3 ♛ d6

3. ♜ a4!

After 3. ♜ c4?? ♛ c6! it is impossible to reach the key squares.

3... ♜ c6

4. ♜ a5

Threatening to move to a6 which we know is winning, therefore we only need to calculate one response by Black.

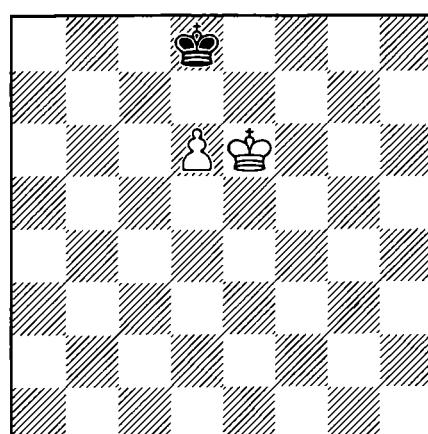
4... ♜ b7

Forcing access to a key square

Utilizing the opposition of the kings to force access to one of the key squares on the next move. So we can conclude White is winning in the initial position.

Squeezing

In one specific case, that of a pawn on the sixth rank, there is a modification to the rule.



Black faces the squeeze

White to move is unable to reach the key squares (c7, d7, e7, c8, d8 and e8) without losing the pawn.

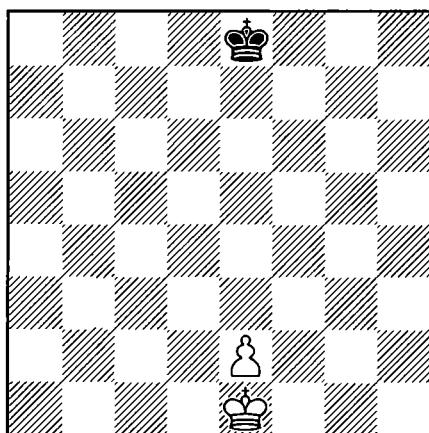
However, the black king can be squeezed out by the following sequence.

1.d7 ♔c7

2.♔e7

This is a function of the fact that it is no longer possible for the black king to step backwards. Note also that by advancing the pawn, White can access the key squares of the pawn on d7 in this case.

Now, finally, we can return to the original problem...



White to play

With knowledge of key squares, the calculation is very simple. It takes only a second or two to convince ourselves that Black is powerless to prevent the white king from reaching any of the three key squares (d4, e4 and f4).

If it was Black to move first, it is also

simple to see that White cannot reach the key squares, so the position is a draw.

Using knowledge to evaluate positions dramatically increases the accuracy and dramatically decreases the amount of calculation involved.

Crossing the bridge when you come to it

It is worth mentioning that a popular approach I have encountered, especially regarding some endgame positions, is the idea that you can figure out the position when you reach it.

For example in the king and pawn vs. king situation we have just discussed there are two different approaches.

➤ Player A understands the idea of key squares and wins the position easily.

➤ Player B has some vague notions about ‘opposition’ and ‘putting the king in front of the pawn’; he feels intuitively that the position is probably winning, but he isn’t certain. Player B is, however, a reasonably strong player and he wins the position with only a tiny amount of extra effort than Player A.

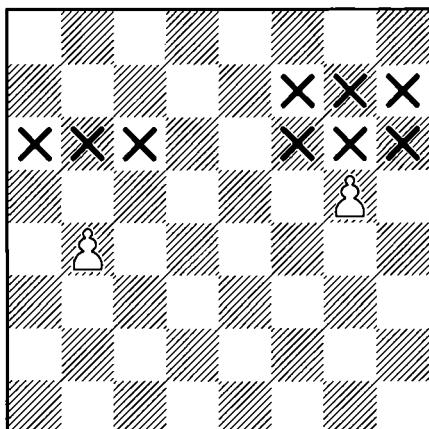
The problem with Player B’s approach is to be found some moves earlier in the game, before we even reach the position in question. Seeing this position only in his mind’s eye and not having the opportunity to play the position out he cannot tell if he should head for it or steer toward something else. He is forced to guess.

SUMMARY OF IDEAS

- Deep calculation is usually not necessary and will often be inaccurate.
- Without a goal in mind, calculate loses much of its power.
- Your goal should be to build up an arsenal of patterns and pieces of knowledge which allow you to evaluate certain situations. When you reach these situations in your calculations you can decide whether to head towards or steer clear of them.

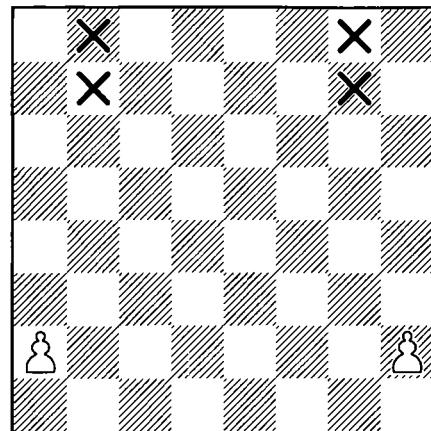
We also studied some theoretical positions:

- Positions of king and pawn vs. king can be solved using the concept of key squares. The defender must guard these squares to achieve a draw; the stronger side must strive to reach the squares with his king.



'X' marks the spot

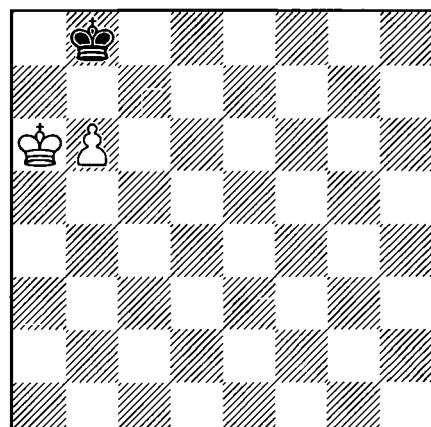
Rook pawns have their own set of key squares.



Key squares for rook pawns

Note that we are talking about ‘normal’ positions of the kings in these examples. Obviously if the weaker side can trivially capture the pawn then the key squares are irrelevant.

- The only real exception to the rule is the sixth rank squeeze.



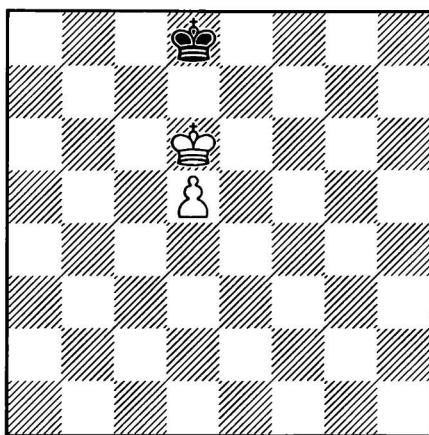
Squeezed out

Black to move draws, but White to play wins by squeezing out the black king with 1.b7 and 2.♔a7.

THEORETICAL NOTES

A word on the idea of opposition

Before we leave the world of king and pawn vs. king I think this is a good time to mention the sacred concept of the opposition; the idea of opposing the kings to create a *Zugzwang* situation such as the following:



Step aside

A familiar situation. Black to play loses, because after

1... \hat{e} e8

White answers with

2. \hat{c} c7

...and the pawn promotes.

Note though that after

2.... \hat{e} e7

White has actually lost the opposition, but he doesn't care as the pawn is now promoting.

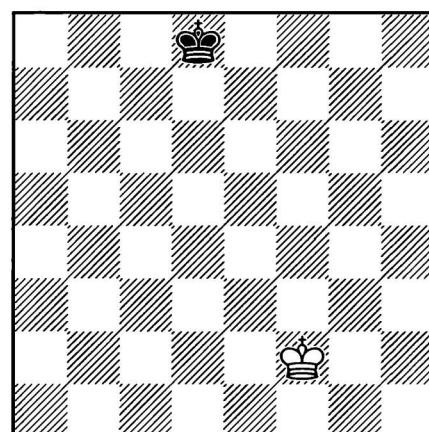
➤ The opposition is only a means to an end.

➤ The use of opposition is to lose the opposition in a favorable way, usually by *outflanking*.

Distant opposition and outflanking

Perhaps you have come across the definition of opposition which is usually given as something like:

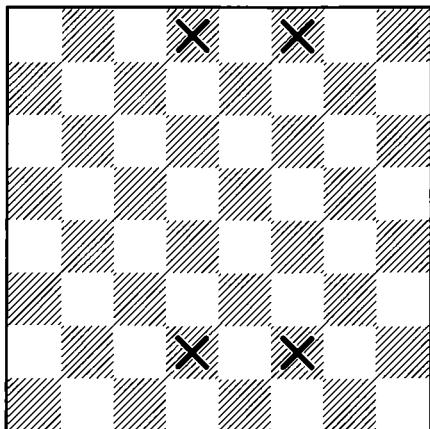
➤ *If we can draw on the board a rectangle with all four vertices the same color, and if the two kings stand on two of these vertices, then the side who is to move does not have the opposition.* This sounds confusing but it is simple when seen graphically:



White to play.

Who has the opposition?

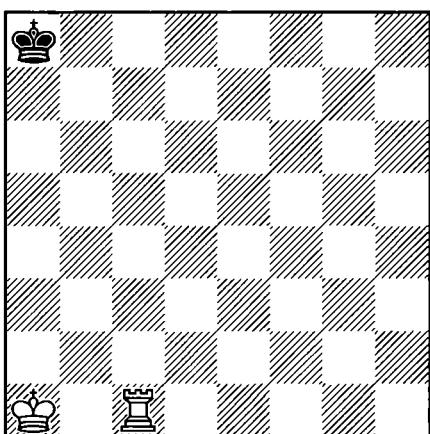
We can draw a rectangle where all four vertices are dark squares, and the kings sit on two of these.



A dark-cornered rectangle

Since it is White to move, then we conclude that Black has the opposition. However having the opposition is one thing, but whether it is useful is another thing altogether.

Consider the following problem.



White to play and win!

Before you throw the book away, one stipulation:

- White may move the ♕c1 once and only once.

This is a good exercise in the usefulness of opposition and teaches the con-

cept of outflanking. I suggest you try it yourself, ideally playing against a friend before playing over the analysis.

1. ♔a2!

Taking opposition.

1... ♔b8!

If 1... ♔a7 then 2. ♔a3 takes opposition again.

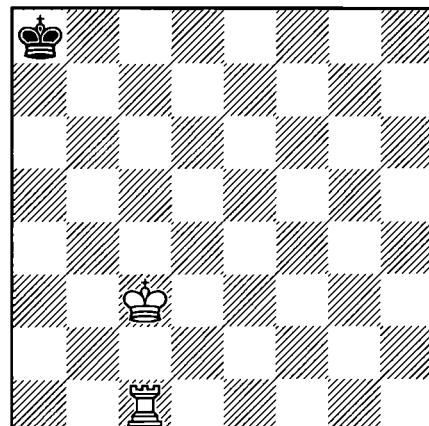
2. ♔b2!

Taking opposition.

2... ♔a8

Now comes a key moment. White could maintain opposition with 3. ♔a2 (or 3. ♔c2) but clearly repeatedly taking opposition on the second rank isn't going to achieve any progress. Also if we blindly advance with 3. ♔b3 Black will play 3... ♔b7 taking direct opposition and checkmate is no longer possible.

3. ♔c3!



Outflanked

Outflanking the black king. Outflanking means making forward progress but placing a file between the kings (in this case the b-file). This file prevents Black from taking direct opposition (opposition on the same file).

3... \hat{c} b7

Black can claim the opposition with 3... \hat{c} a7, but White outflanks again with 4. \hat{c} c4. If Black continues to keep opposition he is mated with 4... \hat{c} a6 5. \hat{c} c5 \hat{c} a7 6. \hat{c} c6 \hat{c} a8 7. \hat{c} c7 \hat{c} a7 8. \hat{c} a1# At some stage Black will have to return to the b-file after which White will retake direct opposition as in the main line.

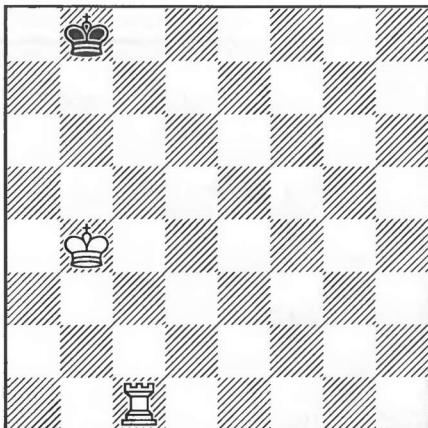
4. \hat{c} b3!

Retaking opposition, and beginning to repeat the method.

4... \hat{c} a7

5. \hat{c} c4! \hat{c} b8

6. \hat{c} b4



Opposition again

Slowly White is making progress by repeatedly taking opposition then using it to outflank.

6... \hat{c} a8

7. \hat{c} c5 \hat{c} b7

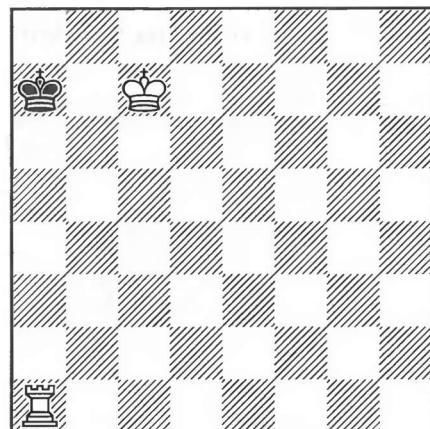
8. \hat{c} b5 \hat{c} a7

Or 8... \hat{c} a8 9. \hat{c} a6 \hat{c} b8 10. \hat{c} b6 \hat{c} a8 11. \hat{c} c8#

9. \hat{c} c6 \hat{c} a8

10. \hat{c} c7 \hat{c} a7

11. \hat{c} a1#



Nowhere left to run

Now practice the problem again from the beginning. Once you have mastered it you will understand outflanking and how the concept of opposition translates onto the chessboard.

Lesson 2

A Short Introduction to Planning in the Endgame

LESSON AIMS

- Recognize the basic methods by which an endgame can be won.
 - Understand how to identify the long-term goals of both sides in a given endgame.
-

The first question which arises in any position is a general one: “What should I be doing?”

It is of course nice to have a grand plan, even if its realization is distant and move-to-move matters are more reliant on smaller, shorter plans (more on this later).

Strategy (or the accumulation of strategy) is ultimately either an attack on some aspect of the enemy position, or the promotion of a pawn. If we reduce this specifically to the endgame we can amend this slightly and state our two fundamental ideas as:

- Promoting our pawns.
- Attacking the enemy structure.

In an endgame the material will often be too reduced to mount a successful attack on the king, so in most cases when we discuss objects of attack we are talking about pawns and pawn structures.

We should also keep in mind the defensive corollaries of this:

- Improving our own structure.
- Blockading passed pawns.

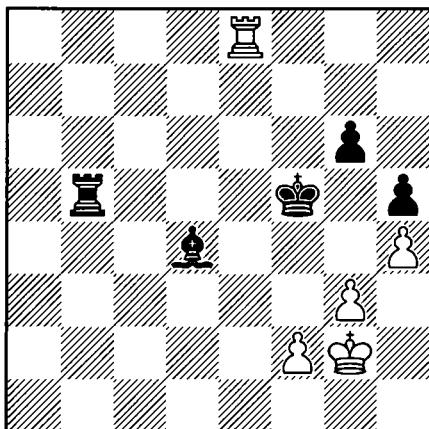
We will now examine five positions and decide which of these ideas (or both – greed is always good in chess!) is appropriate for each. Some of the positions also occur elsewhere in the book.

My aim is not to do rigorous analysis of games or positions (although some of

the positions will be subjected to this in later chapters), but rather to draw some logical conclusions and make verbose assessments.

Let us begin!

POSITION 1
Tseitlin – Finkel
 Beersheba, 1996



Black to play

What observations can we make regarding Black's long-term strategy to win this game?

We will brainstorm and then draw conclusions at the end:

➤ The h1 square is the wrong color for Black's bishop, which will affect how we carry out any simplifications. Hence in general Black cannot even exchange rooks here, as White could quickly play f2-f3 followed by g3-g4 exchanging Black's g-pawn.

➤ The f2 pawn is the only vulnerable point in White's camp.

➤ Creation of a passed pawn for Black is impossible, unless he can somehow win the white pawns for free.

➤ The only way to force a change in the pawn structure is to advance ...g6-g5, this does not seem helpful to Black as after White captures hxg5 Black is left only with his (wrong) rook's pawn. Furthermore this altering of the structure does not yield any weakening of White's structure.

The conclusion is that we cannot create a passed pawn by changing the structure. Therefore we **MUST** attack the f2-pawn as it is the only possible idea here.

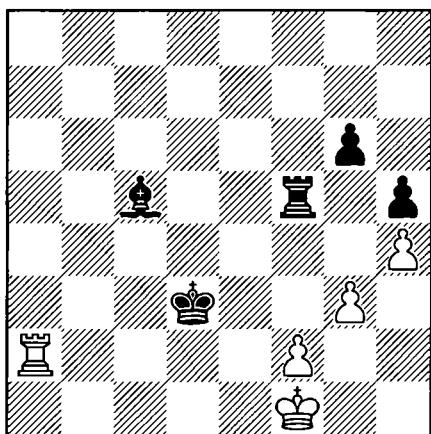
If the f2-pawn moves to f3 maybe we can attack the g3-pawn and force it to move also, then maybe we gain some chances against the white king and create some routes of infiltration for the black king.

Maybe – but we must attack f2, that much is clear.

Note that despite the extra piece, it seems unlikely that we can crash through on f2 since it will be difficult to attack it enough times.

Perhaps the only possible chance would be a large scale sacrifice/exchange on f2 (at the right moment) leaving a winning king and pawn endgame. This actually occurred in the game, although White could have avoided it with correct play.

We can jump ahead to the moment when this occurred:



Black to play

69...♝xf2!

And Black crashed through, winning a pawn. If White continues:

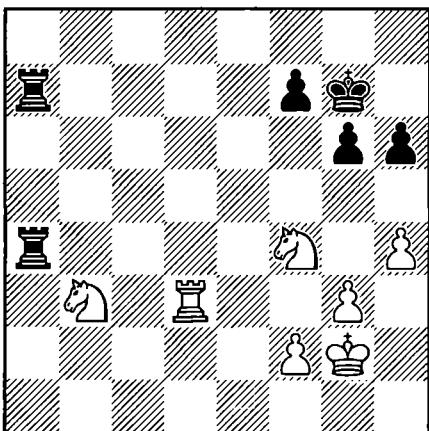
70.♜xf2

then Black replies not with 70...♝xf2+ which leads only to a draw, but with

70...♛e3!

After the forced sequence 71.♜xf5 gxf5 72.♚g2 ♛e2 Black has a winning pawn endgame.

POSITION 2
Larsen – Marianovic
Bled/Portorož , 1979



White to play

White again has the material advantage, but what should he be doing?

➤ Black's pawn structure at the moment is very solid and restricts the white knights.

➤ f7 is a potential point of attack in Black's pawn structure. If White could win this pawn for free then a combined attack against Black's remaining pawns, king, and the creation of a passed white f-pawn would easily be enough to win the game.

➤ Despite what I said at the beginning of this chapter, White does have enough firepower to mount a significant assault on the black king here. White's attack will only be successful if White can break down the solid pawn structure which is at the moment giving the black king a relatively safe haven.

➤ Black's rooks are not insignificant and could mount an attack of their own against White's f2-pawn, so it would be good to tie them to defensive roles.

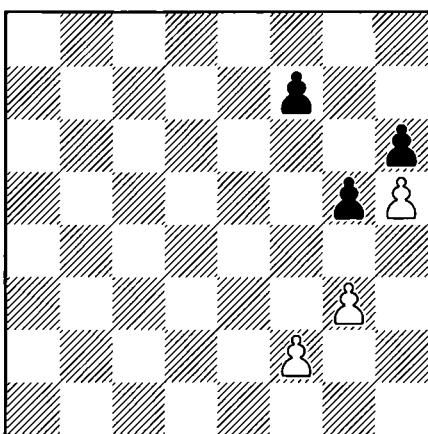
➤ An exchange of rooks would clearly favor Black, who would be left with the only remaining major piece.

➤ White's options would be restricted should Black play the move ...h6-h5. The resulting structure would be difficult for White to alter favorably, although he would still have the plan of attacking the f7-pawn.

➤ If White advanced with h4-h5 then Black would face significant prob-

lems resolving the tension. Allowing White to capture on g6 would severely expose the black king and give White the additional possibility of creating a passed e-pawn. Capturing ...g6xh5 or advancing ...g6-g5 would massively improve the value of White's knights, and dramatically weaken the black structure and the black king.

It is worth taking a closer look at why this is so:



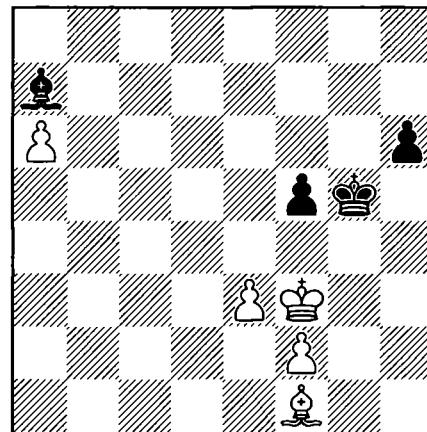
Weakened black pawn structure

In this structure (or a similar one without the h5- and g5-pawns) the white knights would have much more scope to find posts from which they can put serious pressure on the black structure and king. In particular, a white knight on f5 would be a tower of strength, perhaps cemented in by the white pawn advancing to g4. The pressure on the h6-pawn would probably be enough to tie the black king to the h7 square. Notice also that Black simply has more pawn weaknesses; both h6 and f7 are now weak. White may even be able to win after an exchange of rooks in this case.

So we can conclude that the advance h4-h5 is highly desirable for White. However, once we select a destination we must then consider how we will reach it. In the game Larsen in fact rejected the immediate h4-h5 on tactical grounds (I presume he was concerned that after the reply ... $\mathbb{Q}a4-a3$ followed by ... $\mathbb{Q}a7-b7$ may ultimately force him to exchange a pair of rooks).

Of course this type of judgment call is normal; chess is all about making decisions. Here the decision is whether to play h4-h5 and allow ... $\mathbb{Q}a3$, or to avoid ... $\mathbb{Q}a3$ but allow Black to play ...h6-h5.

POSITION 3 Aronian – Bacrot FIDE World Cup, Khanty-Mansiysk, 2005



White to play

What are our observations this time?

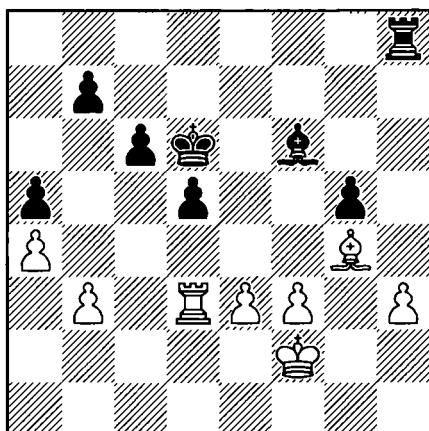
➤ White has no real targets to attack. Attacking the f5-pawn (e.g. by moving the king to e6 and bishop to d3 or h3) would be ineffective as Black would simply advance ...f5-f4.

➤ White must queen a pawn to win the position. Moving the king up to b7 to force through the a-pawn suggests itself but White cannot afford to lose his e- and f-pawns.

➤ The correct plan is to use the 2 vs. 1 majority on the e- and f-files to create an additional passed pawn, then to attempt to queen one of these pawns. This is the only possible winning attempt.

POSITION 4 Hawkins – Short

98th British Championship
Sheffield, 2011



Black to play

Black has more of a choice this time.

➤ Black can clearly create a passed pawn on the c-file, either simply by ...c5-c4, or ...b7-b5 and capturing on a4.

➤ Can Black attack the white structure? At first it seems he can – but not very effectively. Perhaps by ... \mathbb{Q} c5-b4, or some piece pressure on the e3-pawn...?

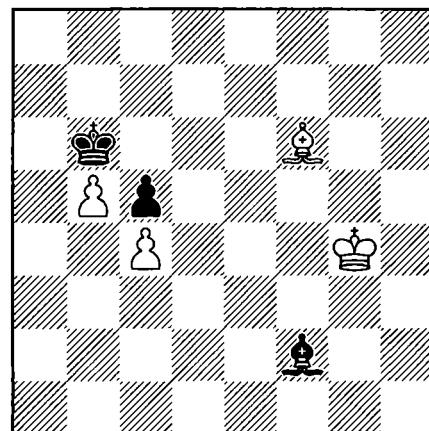
➤ The idea played in the game was ... \mathbb{R} h8-a8-a6-b6(-b4), attacking the weakness on b3. Notice how the white rook is short of squares from which it can protect this pawn.

➤ It seems likely that Black will be able to improve his pieces sufficiently to put significant pressure on the white pawn weaknesses, but not enough to win the weak pawns outright. The additional plan of creating a passed pawn on the c-file remains in the position and can be used in conjunction with the pressure.

➤ This is key, when both ideas are possible: use both resources (attacking the structure and creating/pushing passed pawns).

POSITION 5 Nakamura – Kudrin

Western States Open, Reno, 2004



White to play

What should White be looking for here?

➤ If White can flush out the king with \mathbb{Q} d8+, while controlling the b7

square with his king, he may be able to simply push through the b-pawn. However, this cannot be forced, as White cannot prevent Black from putting his king on b7 and leaving it there if he wishes.

➤ We quickly realize that an attack against the c5-pawn is the correct plan. The evaluation is completely dependent on whether or not White can win this pawn.

➤ He certainly cannot win the c5-pawn in any trivial way, but some patterns suggest themselves. By using the fact that Black cannot exchange bishops, White can force the black bishop from the g1-a7 diagonal and occupy this himself. Then perhaps he can arrange ♔d5 ♕d6 with the black bishop on f8 (for example).

The specifics must be worked out, but the plan to attack (and win) the c5-pawn is the foundation of White's strategy.

Lesson 3

Capablanca's Pawn Endgame

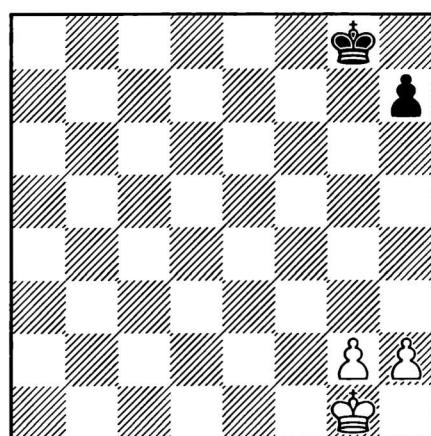
LESSON AIMS

- Understand the example of how to combine planning with calculation.
 - Master the key position and the overall play of Capablanca's pawn endgame.
 - Realize through training games how effective the calculation becomes when it is combined with key reference points and achieving clear plans.
-

In a practical game, combining good planning with good calculation is key to playing the position well. In this chapter we will see an example of calculation and planning working together. I also urge the reader to pay special attention to the methodology we use to 'learn' this endgame position.

In his book *Capablanca's Last Chess Lectures*, Capablanca discusses a set of endgames of the type featuring king and two pawns (connected) against king and a single pawn (on the same file as one of the stronger side's pawns). In each case all three pawns are on their starting squares, so each time it is an exercise in using good technique, leading to a triumph for the stronger side.

Mostly these are reasonably simple, but in Capablanca's final case precise technique is required. I am referring to the following situation.



White to play

Before we proceed, the reader may wish to take some time to practice play-

ing this position against a partner (human or silicon). It can be useful to get a ‘feel’ for a position by playing it out before studying the theory.

Our plan is not complicated. We want to create a passed pawn and queen it. Exactly how we go about it is the important part as we want to avoid stumbling into a theoretically drawn position.

Also it is important to ask ourselves: “What positions/ideas that I know/have studied are relevant here?”

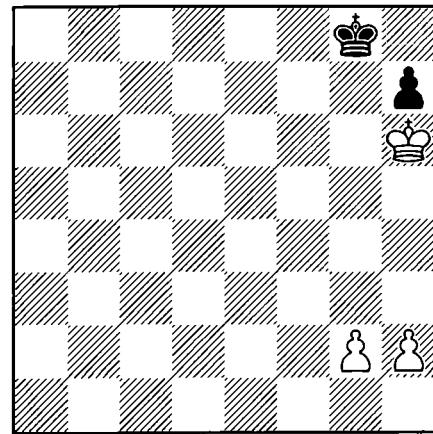
Every position is made up of layers of building blocks (positions which could potentially be reached from the given position). Of course we must also consider general ideas and principles that could also be relevant.

In our position the most important thing for us to recall are the king and pawn versus king positions we examined earlier (paying particular attention to the notion of key squares).

Other building blocks are at work in the position too (the reader may know some), which we will examine now.

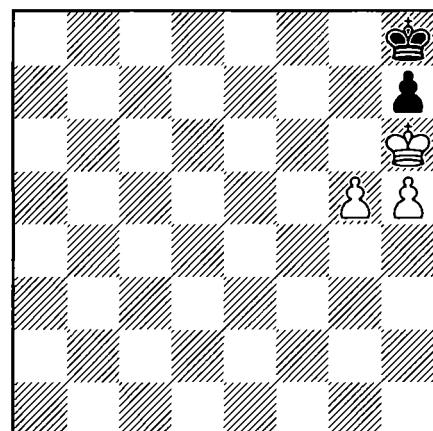
Building Block A

This first building block will be a discussion of the set of positions where the white king has reached the square h6. In this circumstance Black can do little other than alternate his king between the squares g8 and h8.



Careful with the tempi!

Here White’s plan is to place the pawns on g5 and h5, and play the breakthrough g5-g6. It is vital though that the black king sits on the square h8 when White plays g6. Let us see why:



White to play – White wins

From here White can proceed:

1.g6 hxg6

If 1... $\mathbb{Q}g8$ then 2.g7 $\mathbb{Q}f7$ 3. $\mathbb{Q}xh7$ and wins.

2.hxg6

Lesson 3. Capablanca's Pawn Endgame

Reaching a position we already know as winning. Of course not 2. $\mathbb{Q}xg6??$ with an immediate draw.

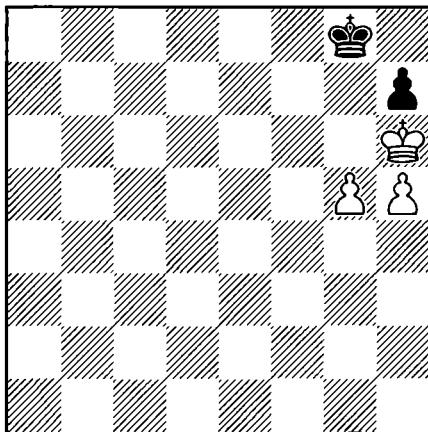
2... $\mathbb{Q}g8$

3. g7 $\mathbb{Q}f7$

4. $\mathbb{Q}h7$

And the pawn promotes.

But what if the black king sits on g8?



White to play – draw

This small change makes the world of difference. White can no longer win.

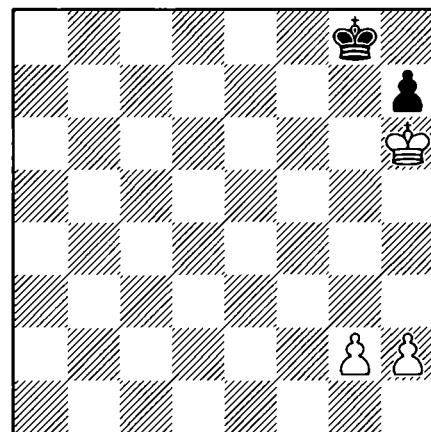
1. g6 $\mathbb{Q}xg6$

1... $\mathbb{Q}h8$ is also drawn.

2. $\mathbb{Q}xg6 \mathbb{Q}h8$

Reaching a drawn position.

Returning to the start position of Building Block A, our plan is now clear.



Time to calculate

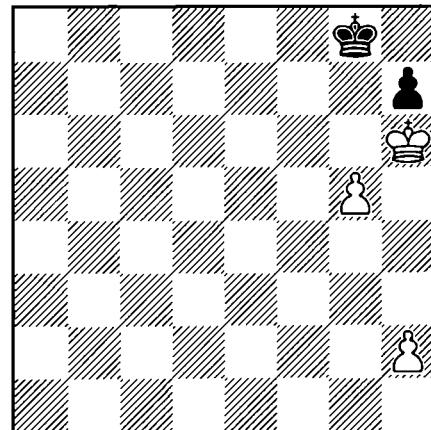
We need to achieve the advances h5 and g6 with the black king on h8 and avoid the scenario with the king on g8!

Now that we know what to aim for, as usual this means we can perform effective calculations.

First pushing the pawn to g5 cannot do any harm to our position, since we can control the black king position by choosing whether to play h2-h3 or h2-h4 with our h-pawn (this is called having *reserve tempi* - tempi we can choose whether or not to use).

1. g4 $\mathbb{Q}h8$

2. g5 $\mathbb{Q}g8$



h3 or h4?

Now hopefully the reader will be able to choose correctly between the possibilities 3.h3 and 3.h4...

3.h3!

3.h4?? is to be avoided. Note that the error is irreversible as there is no way to give back the tempo after this move. 3... ♜h8 4.h5 ♜g8 5.g6 hxg6 6.hxg6 ♜h8 draw.

3... ♜h8

4.h4 ♜g8

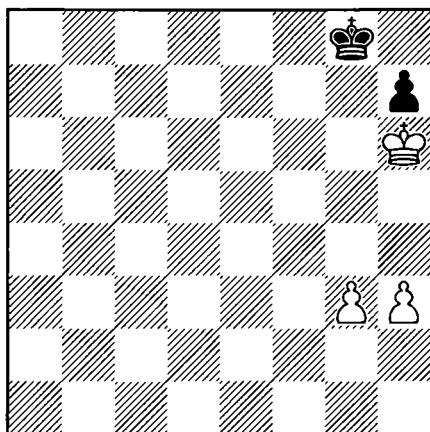
5.h5 ♜h8

6.g6 hxg6

7.hxg6

Winning.

As a final illustration, consider the following variant of Building Block A.



White to play – no reserve tempi

Notice here White has no flexibility in carrying out his pawn storm. He will

take exactly five moves to play h5 and g6 (g4, g5, h4, h5 and finally g6 in some order).

If both sides fell into this position then whether or not White is winning is essentially a matter of luck.

A quick calculation tells us that it is not White's lucky day:

1.g4 ♜h8

2.g5 ♜g8

3.h4 ♜h8

4.h5 ♜g8

5.g6 hxg6

6.hxg6 ♜h8

draw

We can now draw some conclusions about Building Block A:

➤ After the white king reaches h6, he plans a supported advance of the pawn to g6.

➤ The advance g6 must be made with the correct tempo, so that after the exchange of pawns a winning king and pawn vs. king endgame is reached.

➤ By keeping at least one pawn on the second rank, White ensures victory because of his option to push his pawn one or two squares according to circumstance (creating *Zugzwangs*).

Lesson 3. Capablanca's Pawn Endgame

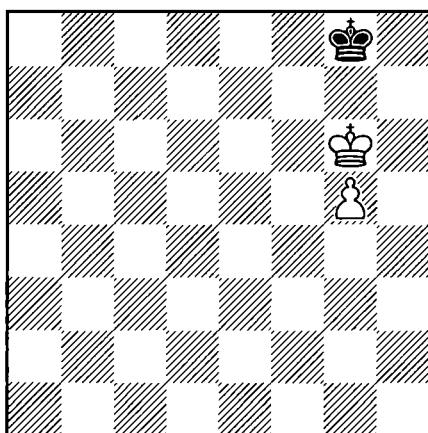
This idea of ‘reserve tempi’ is often referred to as ‘Steinitz’s rule’ after the first world champion, Wilhelm Steinitz, who in his book *The Modern Chess Instructor* (1889) wrote:

“The option of moving (the pawns) one or two squares ought to be reserved for the ending.”

Maybe you were wondering...

Perhaps when playing the training game, some readers attempted to occupy f6 rather than h6 with the king.

As we saw in the endgame king and knight’s pawn vs. king, it is better to occupy the rook’s file with the king to squeeze out the enemy king into the large part of the board. Squeezing the enemy king into the corner introduces stalemate defenses.



Remember me?

Recall that:

1. $\text{Kf6}?! \text{Kh7}$

2. $\text{Kf7} \text{Kh8}$

...is not working because 3.f7?? is stalemate. Of course, White is still winning if he plays 3.g6 and backtracks.

Instead the winning sequence is:

1. Kh6! Kh8

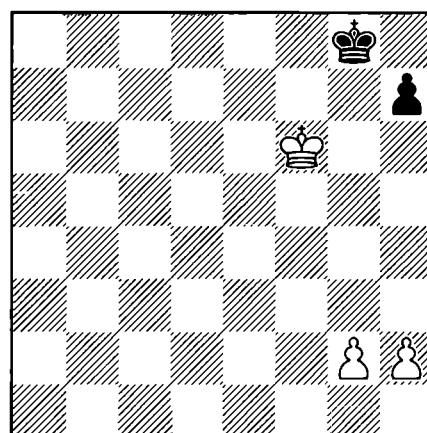
Or 1... $\text{Kf7} 2. \text{Kh7}$

2. g6 Kg8

3. g7

Pushing the black king into the large part of the board and queening the pawn.

A similar principle applies in the endgame we are discussing:



Looks good – but isn’t

Even here, in a situation which would appear to be the best possible version for White (both white pawns on their initial squares, so maximum flexibility with tempi), his strategy is still flawed.

With White following an analogous strategy to that when the white king was on h6, the game could continue:

1.g4 ♔f8!

Any movement of the h-pawn results in its immediate loss. 1...♔h8?? Is similarly weak because of 2.♔f7! forcing the h-pawn to move.

2.g5 ♔g8

3.h3

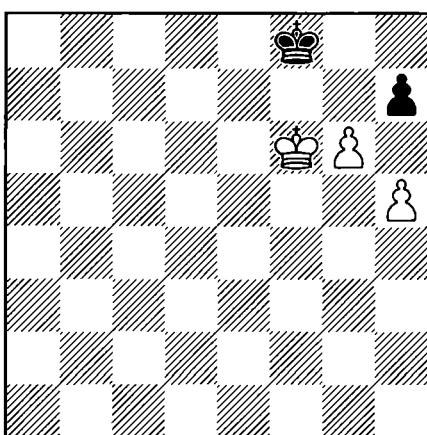
Trying to cash in the reserve tempi so that when g5-g6 arrives the black king is on f8.

3...♔f8

4.h4 ♔g8

5.h5 ♔f8

6.g6



Stalemate tricks are on the way

The culmination of White's strategy. Now 6...hxg6?? 7.hxg6 ♔g8 8.g7 wins for White, but...

6...♔g8!

6...h6 also draws

7.g7

After any other move Black can capture on g6 securing a simple draw by protecting the key squares.

7...h6

White has no time to capture the h6-pawn with 8.♔g6 since he will create a stalemate. Any other move and the g7-pawn is lost.

Draw

Note we considered here the worst case scenario for Black, and concluded White's plan still wasn't working (we cannot say the position was not winning, as White could admit his mistake and reposition his king to h6).

In many chess situations it is useful to think in terms of how bad the worst case scenario is (and how good the best case scenario). If we calculate that even if things go as badly as they can, we can still defend, we are probably on safe ground.

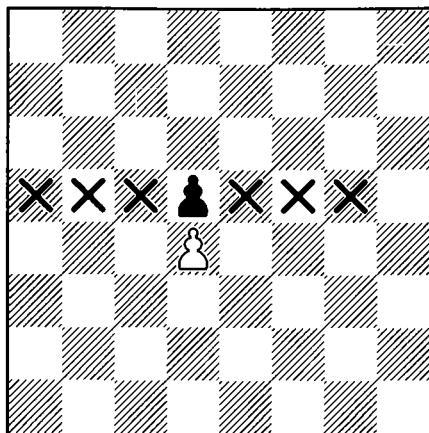
Important aside – Critical squares

Before going any further it will be useful to add an extra idea to our arsenal, that of critical squares.

Earlier with regard to the endgame king and pawn vs. king, we discussed the key squares (squares which win the game

Lesson 3. Capablanca's Pawn Endgame

if the stronger side can reach them). Now we will extend this idea to include the endgame king and pawn vs. king and pawn, in particular the situation where the pair of enemy pawns is blocked.

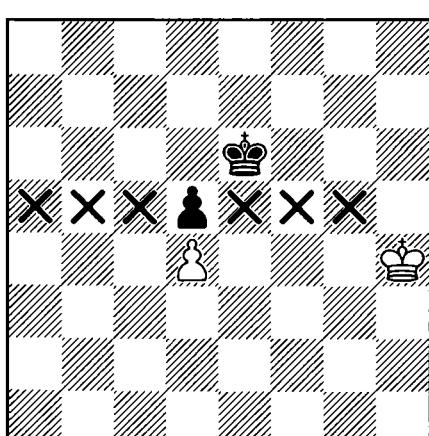


Critical squares of the d5-pawn

The critical squares form this pattern, namely the three squares on either side of the pawn.

In chess terms the importance of this is that if the white king reaches any of these six squares marked 'X' then the black pawn will fall by force.

All will become clear with a handy example.



White to play and occupy a critical square

1. $\hat{g}5$

Occupying one of the critical squares of the d5-pawn. This means now that the d5-pawn will fall by force. Let us see how this works:

1... $\hat{d}6$

2. $\hat{f}5$

2. $\hat{f}6$ is just as effective. Black cannot stop the white king occupying e5 next. This progression along the critical squares towards the target pawn is typical.

2... $\hat{d}7$

3. $\hat{e}5$

Now it is clear the d5-pawn must fall by *Zugzwang*, since White can attack it from both e6 and e5 and it can only be defended from c6.

3... $\hat{c}6$

4. $\hat{e}6$

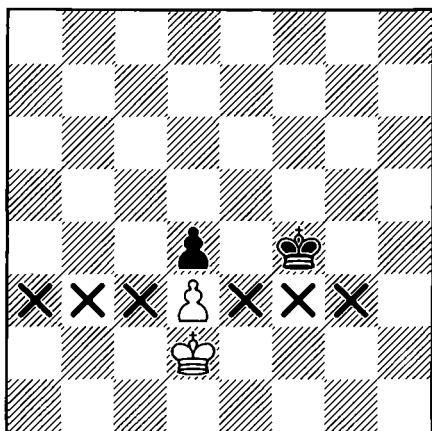
Winning the pawn on the next move. However, White should not celebrate too much as this does not necessarily equate to winning the game. Indeed, here the position is drawn.

4... $\hat{c}7$

5. $\hat{x}d5 \hat{d}7$

Reaching a drawn endgame, the key squares c6, d6 and e6 are out of White's reach.

In situations with a pawn which has crossed into the enemy half of the board ("passed the demarcation line" as Averbakh would say), then the stronger side can win.



Black to play and win the d3-pawn

Here we can quickly make an assessment of the position. Black should win because:

By playing 1... $\mathbb{Q}f3$ (or even 1... $\mathbb{Q}g3$) Black will occupy a critical square of the d3-pawn, therefore the pawn d3 will fall.

➤ With the white pawn gone, the key squares of the d4-pawn will be c3, d3 and e3. Upon winning the d3-pawn, the black king will stand on the square d3 itself, a key square. Therefore Black is winning.

1... $\mathbb{Q}f3$

2. $\mathbb{Q}d1 \mathbb{Q}e3$

Walking along the line of critical squares.

3. $\mathbb{Q}c2 \mathbb{Q}e2$

Winning the d3-pawn.

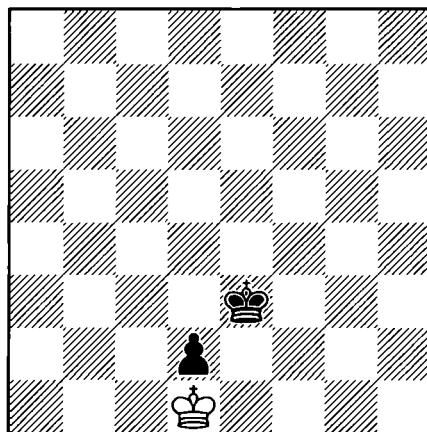
4. $\mathbb{Q}c1 \mathbb{Q}xd3$

We know Black is winning this position as his king has reached the key square d3.

5. $\mathbb{Q}d1 \mathbb{Q}e3$

6. $\mathbb{Q}e1 d3$

7. $\mathbb{Q}d1 d2$



*White to play –
Black wins, as predicted*

And Black wins, as we predicted.

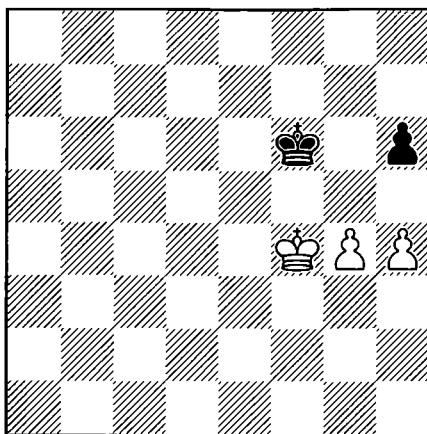
Building Block B

(See diagram)

Our second building block considers a position where Black has ex-

Lesson 3. Capablanca's Pawn Endgame

plored a different defensive method, namely advancing his pawn to the h6 square.



White to play

This is really two positions in one, as the evaluation is changed completely depending on which side is to move. With White to move he cannot make progress and the game should be drawn.

1. $\hat{\square}e4$

1.h5 $\hat{\square}e6$ will transpose to the main line.

1... $\hat{\square}e6$

2. $\hat{\square}d4 \hat{\square}d6$

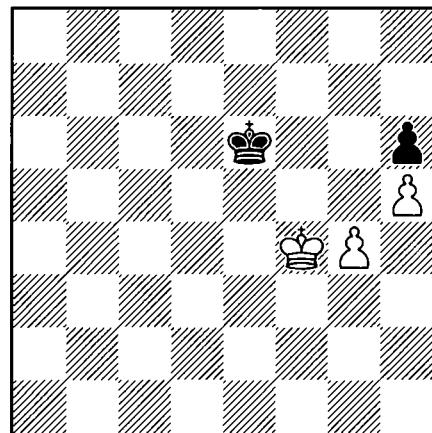
3.h5

Sooner or later White must play this move to win the opposition, otherwise no forward progress via outflanking is possible. An attempt to drag the black king to the queenside with 3. $\hat{\square}c4!$? (hoping for 3... $\hat{\square}c6??$ 4.g5! when White wins) fails to 3... $\hat{\square}e5$ with an attack against the white pawns.

3... $\hat{\square}e6$

4. $\hat{\square}e4 \hat{\square}f6$

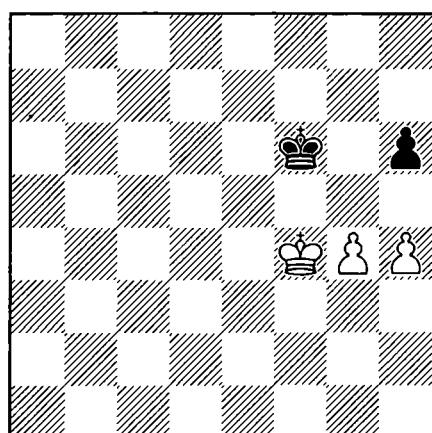
5. $\hat{\square}f4 \hat{\square}e6$



White to play

White can make no further progress without playing the move g4-g5 which will result in a simple drawn endgame (we know the black king has only to return to f8 to draw).

With Black to move, the situation is drastically changed. White now has two trumps: the opposition and an optional reserve tempi with h4-h5.



Black to play

1... $\mathbb{Q}e6$

1... $\mathbb{Q}g6$ is similar but makes White's task slightly easier. There follows 2. $\mathbb{Q}e5$ $\mathbb{Q}f7$ 3. $\mathbb{Q}f5$ $\mathbb{Q}g7$ 4. $\mathbb{Q}e6$ $\mathbb{Q}g6$ 5.h5+! transposing to our main line, only with fewer moves played.

After 1...h5 White of course replies 2.g5+! and the position is winning. Only a modicum of care is needed e.g. 2... $\mathbb{Q}f7$ 3. $\mathbb{Q}e5$! (3. $\mathbb{Q}f5$?! $\mathbb{Q}g7$ 4.g6?? $\mathbb{Q}h6$! and Black is saved by stalemate themes.) 3... $\mathbb{Q}g6$ (or 3... $\mathbb{Q}e7$ 4.g6) 4. $\mathbb{Q}e6$ $\mathbb{Q}g7$ 5. $\mathbb{Q}f5$ $\mathbb{Q}f7$ 6.g6+ $\mathbb{Q}g7$ 7. $\mathbb{Q}g5$ and wins.

2. $\mathbb{Q}e4$

Now Black is in *Zugzwang* and must allow an outflanking.

2... $\mathbb{Q}f6$

3. $\mathbb{Q}d5$

White performs the outflanking.

3... $\mathbb{Q}e7$

4. $\mathbb{Q}e5$ $\mathbb{Q}f7$

5. $\mathbb{Q}f5$

Here the outflanking 5. $\mathbb{Q}d6$ is not effective due to 5... $\mathbb{Q}f6$, keeping the white king out via side opposition. White instead retains his opposition for now, and forces another *Zugzwang* situation.

5... $\mathbb{Q}g7$

6. $\mathbb{Q}e6$

This is the outflanking White had in mind when he declined to play 5. $\mathbb{Q}d6$, because...

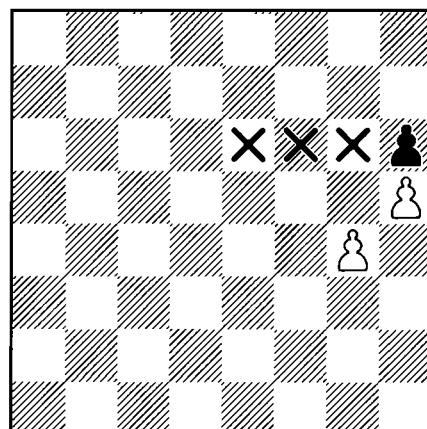
6... $\mathbb{Q}g6$

7.h5+!

...this vital move breaks Black's side opposition. We have now reached the position which, as was mentioned in the notes, could also be reached after 1... $\mathbb{Q}g6$. It was also important for White to calculate here the line 7... $\mathbb{Q}g5$ which is insufficient for Black in view of 8. $\mathbb{Q}f7$ $\mathbb{Q}xg4$ 9. $\mathbb{Q}g6$ and White wins.

7... $\mathbb{Q}g7$

We can consider this position as a critical squares situation due to the blocked pawns on h5 and h6.

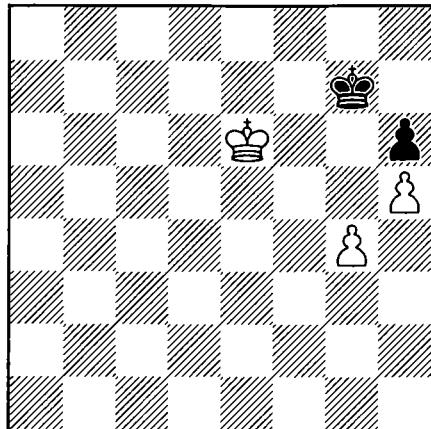


Critical squares of the h6-pawn

The addition of the g4-pawn does not change the critical squares (but does change the result of the game, since after the capture on h6 White will be two pawns up).

Lesson 3. Capablanca's Pawn Endgame

Because of the geometry of the board (i6, j6 and k6 do not exist!) the h6-pawn has only three critical squares.



h6 is falling; White wins easily

We can see that the white king stands on the critical square e6, thus the h6-pawn will fall. So no calculation is needed; clearly the winning of the h6-pawn will win the game.

For completeness, here's a sample continuation.

8. ♔e7 ♔g8

9. ♔f6 ♔h7

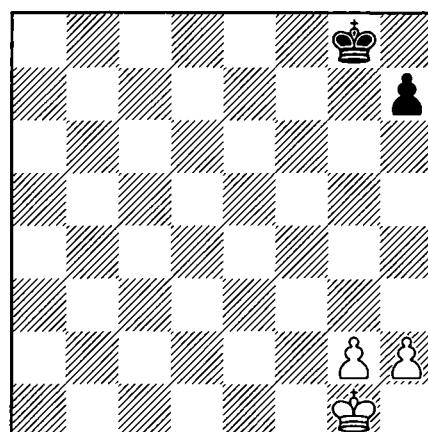
10. ♔f7 ♔h8

11. ♔g6

White wins.

Using the blocks – White's route to victory

Now that we have our building blocks and prerequisite knowledge, we can consider White's plan to win the game in this endgame in general.



White to play

➤ Infiltrate with the king to the h6 square (attack on the defender's structure). Try to achieve this with a minimum of pawn moves. Leaving one or both pawns on their initial squares will keep reserve tempi, which may be useful later.

➤ Once the king reaches h6, push the pawns to g6 and h5 in such a way to achieve a winning king and pawn endgame (i.e. play the move g5-g6, creating a passed pawn, at the moment Black's king is on the h8 square).

➤ If Black changes the position by playing the move h7-h6 at any stage, bring the king to f4 and push pawns to h4 and g4 in such a way that Black has ♔f6 and the move (*Zugzwang* situation in Building Block B).

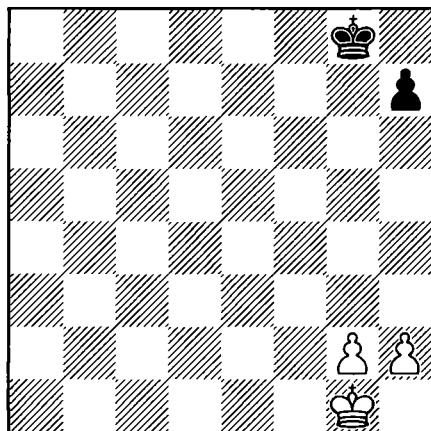
➤ If Black plays his pawn to h5 at any stage, White should be able to win the pawn. This will be achieved either by playing h2-h4 (if the white pawn is still on g2) and entering the critical squares of the h5-pawn, or by blocking with g4-g5 (if the white pawns are already on g4 and h4).

Three training games

We now have all the tools to play this endgame to a high level and it is time to play the position and test out our skills. To do this we will now examine three informal training games I played with a friend (although I would advise the reader to play his own too). In each case I took the black pieces.

First training game

This game (and the three subsequent games) commenced from the standard position below:



White to play

1. ♔f2

Beginning a journey on the long road to h6.

1... ♔f7

It is key for Black's defensive chances that he establishes as strong a king position as possible. Although ultimately he may be pushed back he hopes at the very least that White will have to expend some of his reserve tempi (with the pawns) in doing so.

2. ♔f3 ♔g6

To be able to take opposition when the white king advances to the fourth rank.

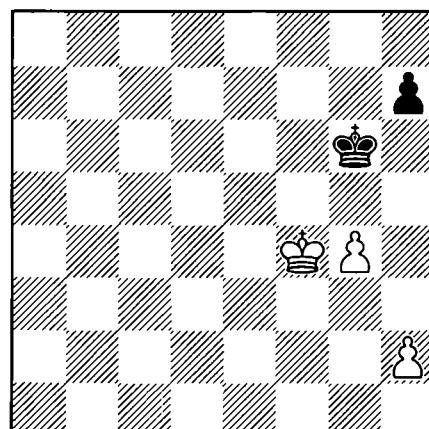
3. ♔f4 ♔f6

Since now shuffling along the fourth rank will not progress White's cause, Black has ensured the expenditure of at least one of White's reserve tempi to reverse the opposition. But how will he choose to cash in one of his tempi?

4. g4??

This is in fact a terrible mistake as we will see.

4... ♔g6



Route to h6 blocked

Lesson 3. Capablanca's Pawn Endgame

White's problems become clear. How is his king to reach the square h6?

5.h3!?

A tricky attempt, but the downside is that White has no reserve tempi left after this. Still, Black's task is made much easier if the white king leaves the f4 square, which would allow h7-h5. For example 5.♔e5 ♔g5 6.h3 h5 or 5.♔g3 h5, in both cases securing a simple draw.

5...♔g7!

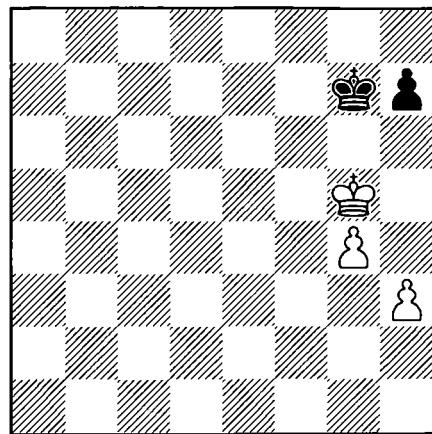
What's this? Black retreats voluntarily! Black can draw also by maintaining his king position, but he heads immediately for the drawn version of Building Block A. The point is that from g7 Black can choose whether to go first to g8 or to h8 so he controls the tempi, since if White has no reserve tempi left then Black should be able to draw if he calculates correctly.

6.♔g5

Forcing access to h6. 6...h6+ is not sufficient to draw because of 7.♔f5 (not 7.♔f4?? ♔g6! 8.h4 ♔f6 reaching the drawn version of Building Block B since it is White to move) 7...♔f7 8.h4 ♔g7 9.♔e6 with a winning outflanking maneuver.

A critical decision now awaits Black. The outcome of the game depends on making the correct choice between 6...♔g8 and 6...♔h8. Remember that with the white king established on h6, if White achieves the advance g5-g6 and

the black king is on h8, then White will squeeze out the black king and win the game.



**Time to Calculate!
Should ♔g8 or ♔h8 be played?**

6...♔g8!

Correct! After 6...♔h8?? 7.♔h6 ♔g8 8.g5 ♔h8 9.h4 ♔g8 10.h5 ♔h8 11.g6 hxg6 12.hxg6 ♔g8 13.g7 ♔f7 14.♔h7 and White wins.

7.♔h6

If White does not occupy h6 then Black will simply return to g7 with his king and make the decision again on the next move. 7.♔f6 does not help as discussed earlier in the chapter.

7...♔h8

8.h4 ♔g8

9.h5 ♔h8

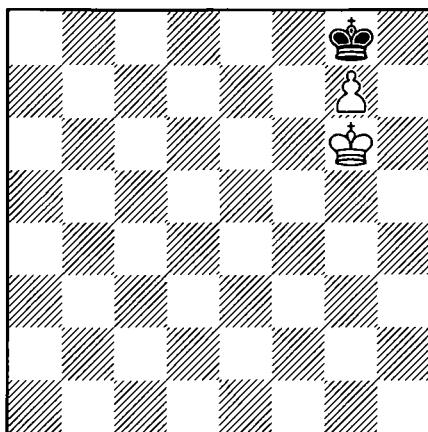
10.g5 ♔g8

11.g6 hxg6

12.hxg6 ♔h8

13.g7+ ♔g8

14.♔g6 stalemate



Stalemate

A very good effort for a first attempt; White did almost everything right apart from 4.g4. Even so it isn't obvious at first why 4.g4 is so bad.

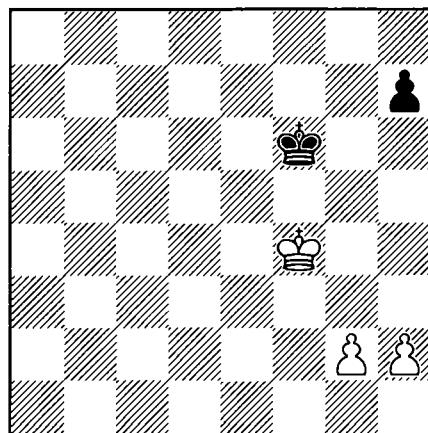
In general in this endgame, if White has a choice of waiting moves, usually putting a pawn on g4 is the least desirable (the major exceptions are if White is immediately forcing one of the winning building block positions). There are two principle reasons for this:

➤ White is obstructing his king's route from f4 to h6 (and sometimes from h5 back to f4 should Black play h7-h6).

Black gains the resource h7-h5 (or h6-h5) which can cause undesirable simplifications for White in many positions.

Second training game

The initial moves of this game were the same and the following position was reached.



White to play

1.h3!

A big improvement from the previous game. White gains the opposition without obstructing his king's path to h6.

1...h6!?

A different defensive idea to game one. I knew if I played with the pawn on h7 again I would lose as we had just finished analyzing this situation. I wanted to wait some time before testing this knowledge. So I tried a different idea.

2.g3!

2.h4?! complicates matters because of the stalemate trick 2...♔g6 3.g3?? (3.♔f3 and White can still win) 3...♔h5!

2...♔e6

Lesson 3. Capablanca's Pawn Endgame

3.h4 ♔f6

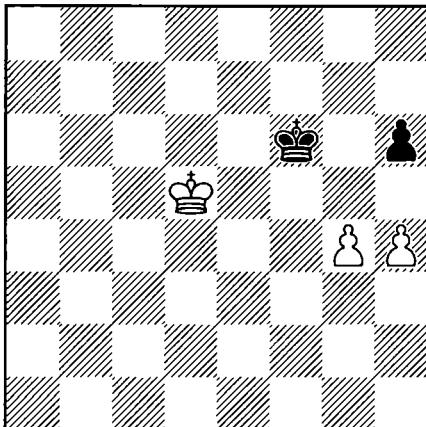
4.g4

Reaching the version of Building Block B with Black to move. As we know, this should be winning for White.

4...♔e6

5.♔e4 ♔f6

6.♔d5



So far so good – Black to play

So far White has done everything correctly.

6...♔e7

7.♔e5 ♔f7

8.♔f5 ♔g7

9.♔e6 ♔g6

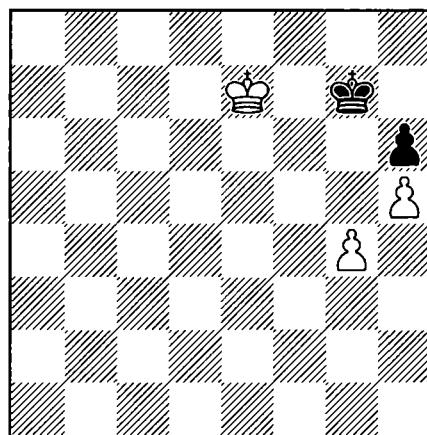
10.♔e7

We have seen this position before and it is clear that 10.h5! is the quick-

est way to win. However, this method of attempting to encircle the black king is also logical and winning.

10...♔g7

11. h5



Black to play

11...♔g8

12.♔f6 ♔h7

13.♔f7 ♔h8

14.♔g6 ♔g8

15.♔xh6

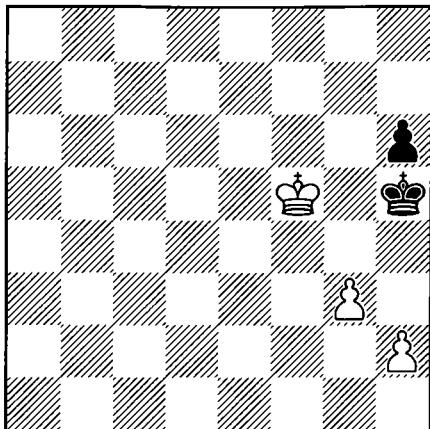
White wins easily.

Black resigns.

Summarizing the key ideas from this game:

➤ If Black advances his pawn to h6, White retreats his king to f4 and plays g4 and h4, making sure Black is to move with his king on f6 (Building Block B).

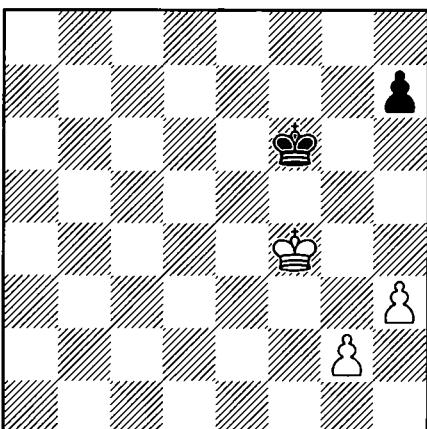
Be wary of the stalemate pattern with a black pawn on h6 and king on h5 against a white pawn on g3.



Oops!

Final training game

To check one final piece of technique we decided to play one final game. The first moves followed game two, reaching the following diagram with Black to play.



Black to play

1... \mathbb{Q} g6

My idea for this final game was to check White's technique if I kept the black pawn on h7.

2. \mathbb{Q} e5 \mathbb{Q} g5

3. \mathbb{Q} e6 \mathbb{Q} g6

If 3...h5 probably the simplest way is 4.g3 \mathbb{Q} g6 5.h4! and the white king sits on a critical square of the h5-pawn.

4. \mathbb{Q} e7 \mathbb{Q} g7

5.h4!

Again the idea 5.g4?? is poor, as Black gets the opportunity to play 5... \mathbb{Q} g6 followed by h7-h5.

5... \mathbb{Q} g8

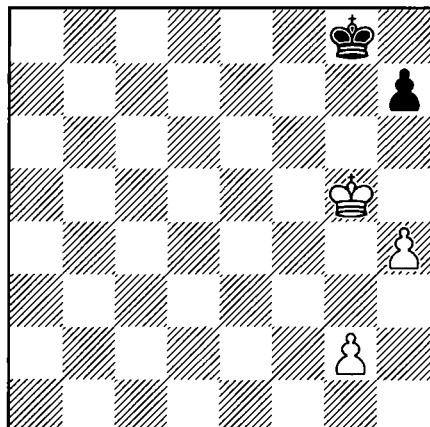
5... \mathbb{Q} g6!? is an interesting try, but White is in time with 6. \mathbb{Q} f8! \mathbb{Q} h5 7.g3 \mathbb{Q} g4 8. \mathbb{Q} g7 \mathbb{Q} xg3 9.h5.

6. \mathbb{Q} f6 \mathbb{Q} f8

As we have seen 6... \mathbb{Q} h8 makes things easier after 7. \mathbb{Q} f7! and White will win the black pawn.

7. \mathbb{Q} g5

Heading for the h6 square.



Black to play

Lesson 3. Capablanca's Pawn Endgame

7... $\hat{g}7$

8. $\hat{h}5$

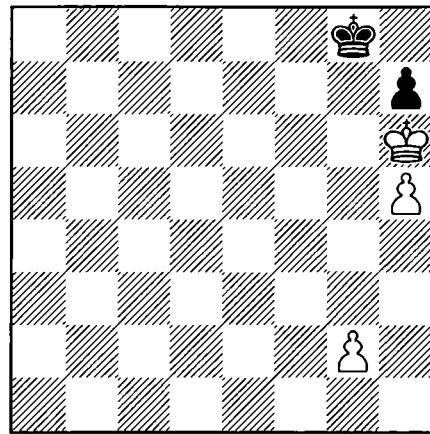
Sticking rigidly to our principles. It is hard to criticize this move since it either forces access to the square h6 or in the event Black plays 8...h6 White can reply 9. $\hat{g}4!$ heading for f4 with the king and eventually reach the winning version of Building Block B.

In this specific position, however, it is simpler to play 8.h5 and after 8...h6 (otherwise 9. $\hat{h}6$) then 9. $\hat{f}5$ $\hat{f}7$ 10.g4 and next White will access the critical square e6 of the h6-pawn (and thus winning this pawn).

8... $\hat{g}8$

9. $\hat{h}6$ $\hat{h}8$

10.h5 $\hat{g}8$



Steinitz would be proud

Of course White is totally winning thanks to keeping his pawn on g2. All that remains is the now familiar calculation.

11.g3! $\hat{h}8$

12.g4 $\hat{g}8$

13.g5 $\hat{h}8$

14.g6

Black resigns, **1-0**

SUMMARY OF IDEAS

There are many theoretical and general lessons to be taken from this chapter, which have all been pointed out a number of times in summaries already, so I will not repeat them all now. However there are two key messages I would like to highlight:

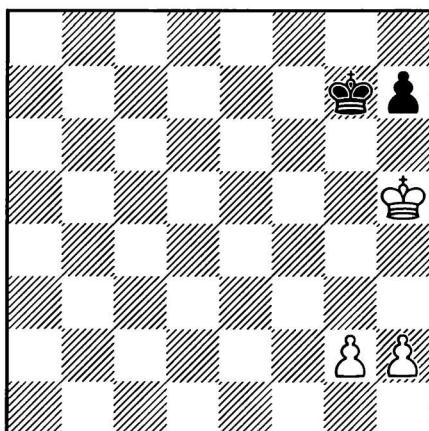
- In chess we use our experience and knowledge to formulate ideas in the position. Based on these patterns and ideas we decide what needs to be done, be it a short or long plan. Only then do we calculate. Calculation alone without direction will most often achieve nothing (other than causing you to use a lot of time).
- To learn a particular endgame (or to acquire any other area of knowledge, this method applies equally to the opening) we followed a followed essentially a three step process:

- First review the available material and try to identify the key positions and ideas which you will need (the Building Blocks).
 - Study these Building Blocks thoroughly. They act as checkpoints which help us navigate through practical play in the position.
 - Practice playing the position/*tabiya*. Only by playing (and caring about the result) do we truly see the problems and nuances.
- Re-reading the material in more detail after acquiring all of this knowledge and experience will also help; you may understand and pick up things which you missed the first time around.

THEORETICAL NOTES

I would like to briefly add a few things which did not seem to fit into the main body of this chapter.

Firstly, in a position such as this:



White to play – find the worst move

White is happily on his way to reaching h6 with his king, on the next move Black will have to yield access. The most efficient move is 1. ♔g5, not using any reserve tempi at all, although h3, h4 and g3 are also fine, but the careless move...

1. g4??

...is again a gross mistake. It is actually the only legal move which does *not* win for White!

1...h6!

Black changes the terrain! Now we know White should return to f4 with his king, but how?! Again the g4-pawn acts as a double agent, hindering its own king's progress.

2. ♔h4

There is nothing better.

2... ♔g6

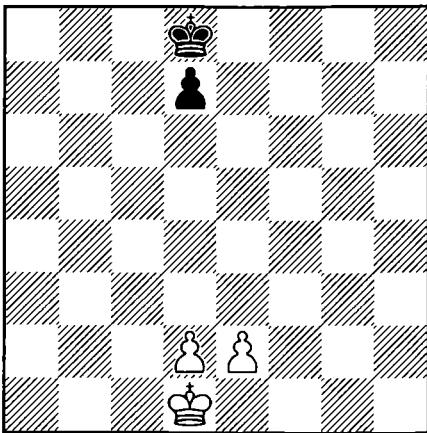
3. ♔g3 h5

Liquidating into a drawn position.

Finally it is useful to note how big a role stalemate themes played in this

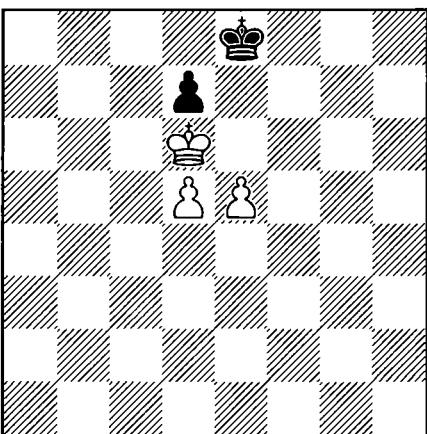
Lesson 3. Capablanca's Pawn Endgame

chapter and we can do this by seeing how trivial the same endgame is when placed in the center of the board.



No stalemates today

Here no reserve tempi (or indeed any particular care) are needed. We will examine only one possible resulting position.



White to play

So White has put his king on d6 (by analogy with our usual h6), but he has not taken particular care about tempi when pushing his pawns.

1.e6 ♔d8

Of course 1...dxe6 2.dxe6?? is a draw,

but simply 1...dxe6 2.♔xe6! instead wins (in the endgame with g- and h-pawns this was not possible since it would have left us with only a single h-pawn).

Instead Black tries the stalemate defense by ignoring the pawn. This works very well in the g- and h-pawn position, but does not work here. Notice this is almost a ‘worst case’ for White, but still it is winning.

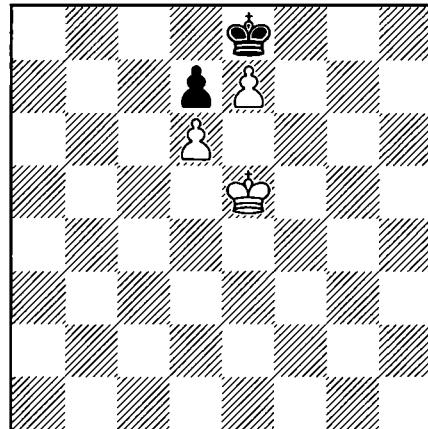
2.♔e5! ♔e8

Black still cannot capture on e6 because of the recapture with the king. 2...♔e7 is met in the same way as the main line.

3.d6 ♔d8

3...dxe6 4.♔xe6 ♔d8 5.d7 is winning too.

4.e7+! ♔e8



White to play – White wins

There is in fact no problem for White to win this position. Simply transfer the king to queenside and Black is helpless.

PART 1. Thinking techniques

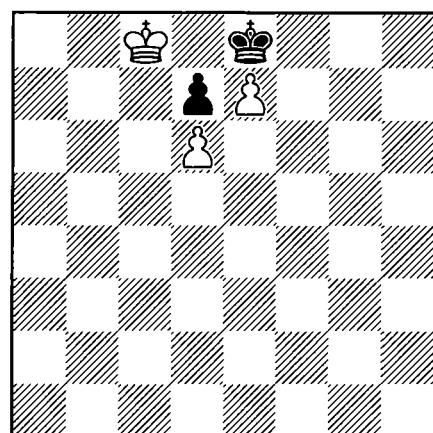
5. $\text{Qd5} \text{ Qf7}$

6. $\text{Qc5} \text{ Qe8}$

7. $\text{Qb6} \text{ Qf7}$

8. $\text{Qc7} \text{ Qe8}$

9. Qc8



d7 drops off

Black is helpless; **1-0**

Lesson 4

Step by Step – A Guide to Little Plans

LESSON AIMS

- Learn how to optimize pieces in preparation for progressing the position.
 - Understand the concept of ‘little plans’ and how they represent the practical nature of planning.
-

It was once suggested to me that, in any given position, you should have a clear map in your mind of how the rest of the game will pan out. A nice thought, but this kind of chess is the exception rather than the rule. Often a player will have a general scheme in mind (as we have already discussed), but the specifics of progressing the position toward the goal are dealt with only in the short term.

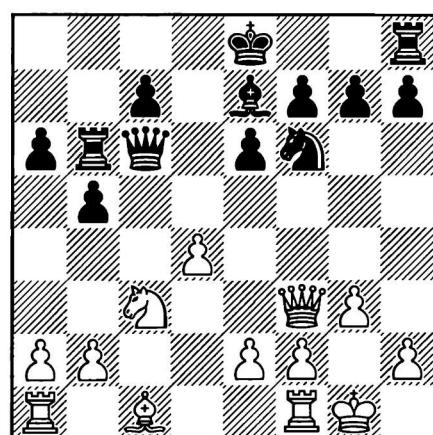
Almost always the master will progress in the game using a series of ‘little plans’. The reasons for this are clear. Firstly, the opponent can take many different paths so we constantly need to update our plans. Secondly, as we discussed in Lesson 1, the goal of winning the game is usually too distant to visualize in any useful way. It is more useful to visualize ways to improve our

position and damage our opponent’s position. Through repeated application of this we can hope to build up a winning advantage.

Let us see some examples of little planning at work.

Andersson – Huebner

Johannesburg, 1981



PART 1. Thinking techniques

We join the game after Black's 14th move (14... $\mathbb{Q}c6$). White is to play. Let us begin to consider White's move, and his plan.

Clearly allowing 15... $\mathbb{Q}xf3$ 16. $\mathbb{Q}xf3$ leaving ourselves with a weakness on d4 is not an option.

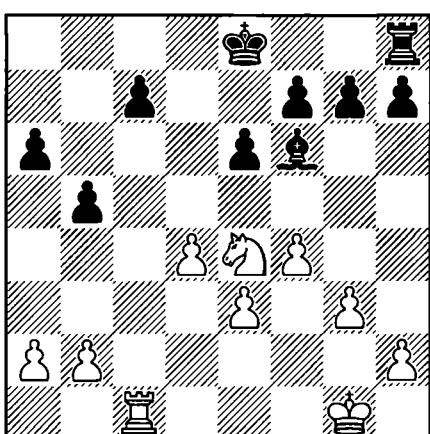
15. $\mathbb{Q}g2$ is possible intending to meet 15... $\mathbb{Q}xf3+$ with 16. $\mathbb{Q}xf3$, however after 16... $c5$ Black is ridding himself of his weak c-pawn. White would retain only minimal pressure in this case after 17. $dxc5 \mathbb{Q}xc5$.

Instead White plans the following:

Plan A

Exchange the queens to misplace the black rook, and then play $\mathbb{Q}g5$ with three ideas.

➤ Capture on f6 and follow up with e2-e3, $\mathbb{Q}ac1$ and later $\mathbb{Q}e4$ and f4, dominate the c5 square and retain the weakness on c7.



Fantasy position

➤ With the c1 square empty, Black will not be able to ever play ...b5-b4 kicking the knight away, followed by ... $\mathbb{Q}c2$, due to $\mathbb{Q}c1$.

➤ After $\mathbb{Q}g5$ Black could respond with ... $\mathbb{Q}d5$, but then we can eliminate all of the minor pieces and play $\mathbb{Q}c1$. With the black pawn on d5 the d4-pawn will be very secure (no ...e6-e5) and the weak c5 square will be become more pronounced.

15. $\mathbb{Q}xc6 \mathbb{R}xc6$

Now the Black rook stands poorly on c6, preventing the liberating ...c7-c5.

16. $\mathbb{Q}g5$

Reaching a crossroads.

16... $\mathbb{Q}d5$

Black chooses to eliminate all of the minor pieces (and almost certainly one pair of rooks). As mentioned before this makes his weaknesses more pronounced and difficult to get rid of, but he believes the reduced material will reduce White's hopes of winning the game.

17. $\mathbb{Q}xd5 exd5$

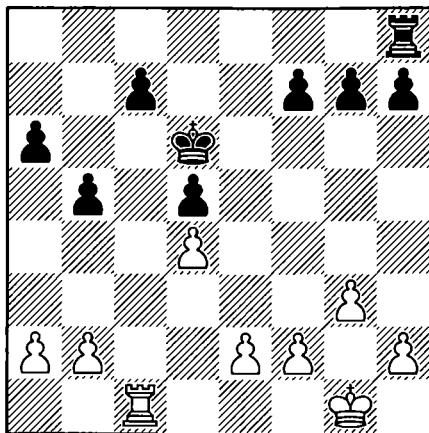
18. $\mathbb{Q}xe7 \mathbb{Q}xe7$

19. $\mathbb{R}fc1$

Clearly White must challenge and take the semi-open c-file.

19... $\mathbb{R}xc1$

20. $\mathbb{B}xc1 \mathbb{Q}d6$



PLAN C

- Breaking on the queenside with a2-a4.
- Breaking in the center with e2-e4.
- A general space gaining operation on the kingside to cramp Black's position. This may also make space for the white king to advance into a stronger position.

Time for stage 2

Now we have reached a new situation, and must make a new plan.

PLAN B

- In situations like this with no obvious breakthrough, but no counterplay for the opponent (... $\mathbb{B}c8$ can always be met by $\mathbb{B}c5$, so Black has no breakout) it is OK to play without a concrete plan but simply optimize the pieces first.

21. $f3 c6$

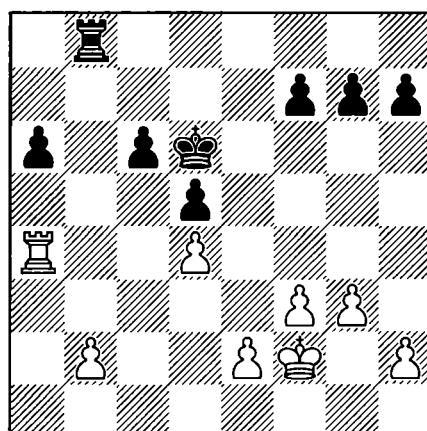
22. $\mathbb{Q}f2 \mathbb{Q}e8$

With the king position improved, and the structure kept flexible, White must once again decide his plan of action for the next period of play. There are three main ideas he can use.

In addition there is an idea to play b2-b4 to fix the weakness on c6 further.

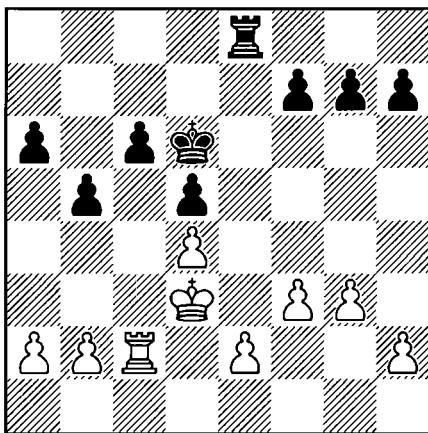
Which one, or combination, of these ideas would give us the best chances?

Breaking on the queenside with a2-a4 would be successful if Black was forced to react with ...b5-b4. In that case after $\mathbb{B}c5$ White could attack a new weakness on a6 (or a5 if the pawn moves). However instead Black could capture on a4 and play ... $\mathbb{B}b8$, the white pawn on b2 becomes a weakness.



Creating and giving a weakness

On reflection it seems by this we have lost control of the position somewhat, and after $\mathbb{Q}xa6 \mathbb{Q}xb2$ the reduced material makes Black's task easier. Breaking in the center with e2-e4 and potentially pushing e4-e5 appears desirable, but would require preparation by moving the king to d3.



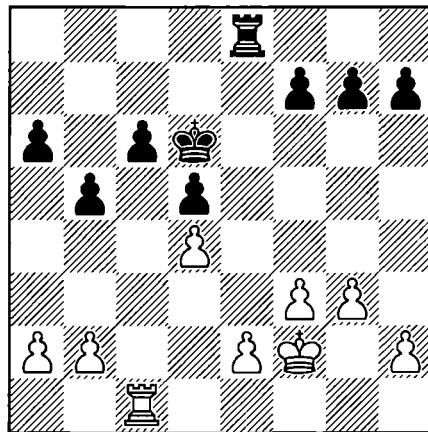
Ready for e2-e4

However, Black could advance with ...f7-f5 and prevent our advance. So we can conclude that e2-e4 is desirable but difficult to achieve.

➤ Expanding on the kingside will not win the game in itself, but gaining more space and maybe fixing another weakness in the black camp would be significant progress for White. The advance would involve g3-g4 which serves a dual function as it would also dissuade Black from playing ...f7-f5 (which would prevent a later e2-e4 advance).

➤ For the moment playing b4 just seems to hand Black counterplay with ...a6-a5.

Returning to the game:



Position after 22...Qe8

23.g4! a5

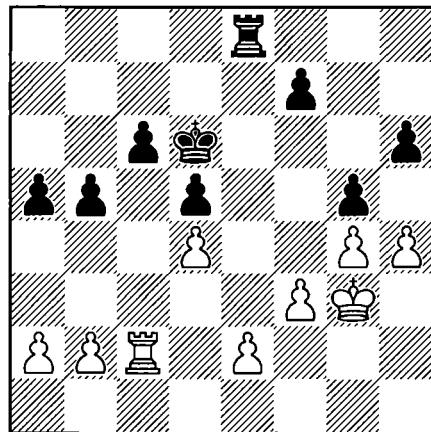
24.h4 g6

25.Qc2

Freeing the white king to advance.

25...h6

26.Qg3 g5?



Black slips

It is quite understandable that Black

Lesson 4. Step by Step – A Guide to Little Plans

does not want to allow the white king to advance further, but waiting with 26... $\mathbb{E}e6$ would have been a better strategy. 27. $\mathbb{K}f4$ can be met with 27... $\mathbb{F}f6+$ forcing the white king to retreat.

27.h5!

An easy decision to make, as the h6-pawn could become a serious weakness if White manages later to successfully carry out a pawn break in the center, leading to penetration by his rook.

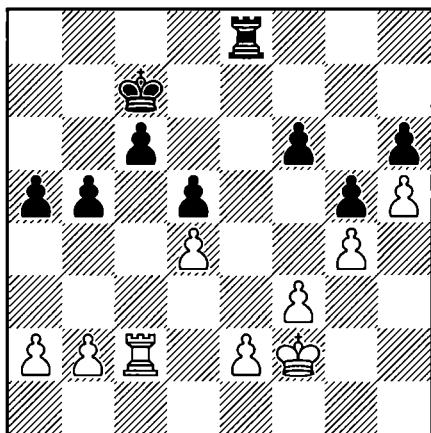
27.hxg5 hxg5 would only hand additional activity to the black rook.

27...f6

28. $\mathbb{K}f2$

There is nothing else for the king to do on the kingside so it returns to the center.

28... $\mathbb{C}c7$



Success!

Our space-gaining plan has been a

success, but still a breakthrough plan is needed. Preparing e4 suggests itself. If White is allowed to capture on d5 then the weak black pawns on b5 and d5 will leave him with little hope. If Black captures on e4 then White will gain a potential passed pawn in the center and the fifth rank will open up, allowing the maneuver $\mathbb{R}c5-f5$.

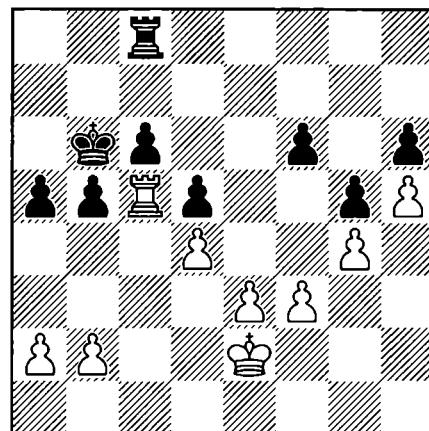
29.e3

Preparing to transfer the king to d3.

29... $\mathbb{K}b6$

30. $\mathbb{K}e2 \mathbb{R}c8$

31. $\mathbb{R}c5$



Potential play across the fifth rank

The rook is optimally placed here, preventing a breakout with ...c6-c5, and preparing to play across the fifth rank after White achieves e3-e4.

31... $\mathbb{R}e8$

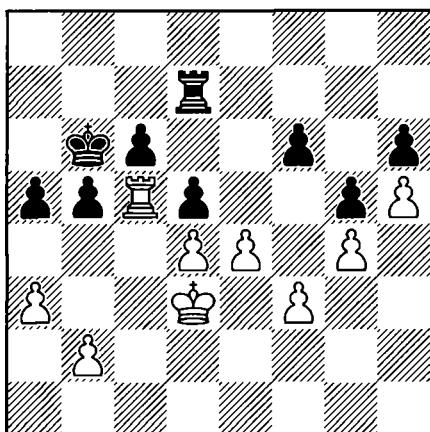
32. $\mathbb{K}d3 \mathbb{R}e7$

33.e4 ♜d7

If 33...dxe4 then White need not look any further than his planned 34.fxe4 ♜d7 35.♕f5 ♜d6, achieving total domination. He can then calculate a new plan to finish the game.

After 33...♜d7 now 34.exd5 ♜xd5! is ineffective for White, so we need an alternative plan.

34.a3



Time for plan D!

Plan D

➤ A simple plan to play a2-a3 and b2-b4 securing the ♜c5. Then White will follow with exd5 and after ...♜xd5 he can play ♔e4.

34...♜d8

Waiting, but it was essential to play 34...a4 (now or on the next several moves) to cut across White's plan. White's rook is then no longer secure on

the c5 square, and it is not clear how he will win the game.

35.♖c1 ♜d7

36.♖c2 ♜d8

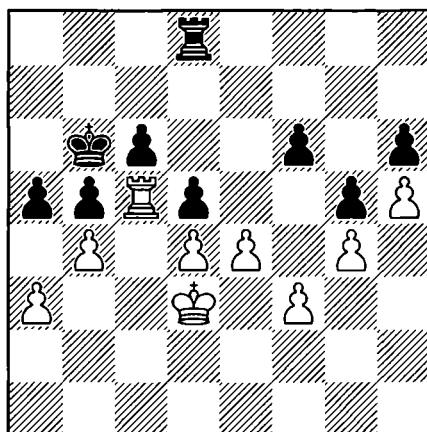
37.♖c3 ♜d7

38.♖c2 ♜d8

39.♖c1 ♜d7

40.♖c5 ♜d8

41.b4!



♜c5 secured, White is ready for exd5

After wasting some moves to reach the time control (presumably move 40), White plays his b2-b4 trump.

41...axb4

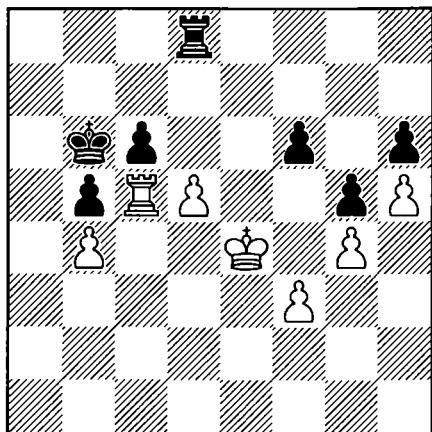
42.axb4 ♜d7

43.exd5 ♜xd5

44.♔e4 ♜d8

Lesson 4. Step by Step – A Guide to Little Plans

45.d5



Final breakthrough

Removing the weakness on d4 after which Black's kingside pawns will fall.

45... $\text{e}8+$

46. $\text{f}5$

Black can no longer put up any resistance.

46... $\text{cxd}5$

47. $\text{xd}5 \text{e}3$

48. $\text{xf}6 \text{xf}3+$

49. $\text{g}7 \text{f}4$

50. $\text{d}6+ \text{c}7$

51. $\text{xh}6$

White wins.

Piece by piece, White improved his position without ever looking too far

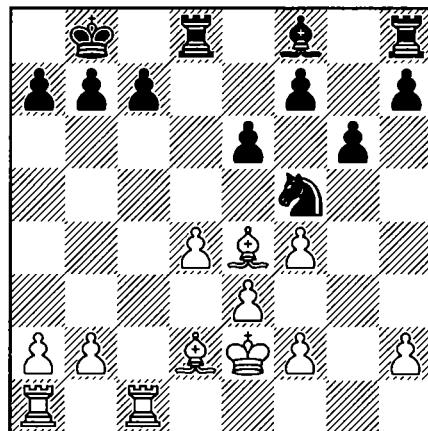
ahead. Only when his small improvements had built up a large advantage did White think directly about winning the game.

Now an example from my own play, but from the wrong side as I am chopped down piece by piece by the little plans of Nigel Short.

This game is a wonderful example of *little planning*, but also shows the difficulty in playing a position without a clear plan to work with.

Hawkins – Short

98th British Championship,
Sheffield, 2011



After being somewhat move-ordered in the opening into a line where my knowledge was fairly poor, I was moderately pleased to have reached what appeared to be a fairly level position. Surely with my strong (or so I thought) central structure and reasonably placed pieces I would not be in any danger...? It seems that White can't be worse; indeed, any computer program will tell you White is slightly better! However, the difficulties

of playing without a plan against an (admittedly much stronger) opponent with a clear plan made this an unpleasant experience.

16.a4?!

Weakening my pawns for no reason and totally underestimating Black's scheme. That said, it is not clear what else White should do. Indeed, even before this move the position is slightly difficult for White.

16...h6!

Plan A

- Force a concession from White with an eventual ...g6-g5 break.
- If White responds with a capture then the h2 weakness will become exposed and allowing Black to capture on f4 will create a host of new weaknesses.

Notice the ‘reflex’ 16...h5 has no function here, and in fact ends all of Black’s counterplay, there is no pawn which can come to g4 to kick away the knight.

17.♕c3 ♕h7

17...♕g8 was also good, but Black elects to keep a rook on the h-file to increase the strength of ...g6-g5.

18.♗d1 ♔e7

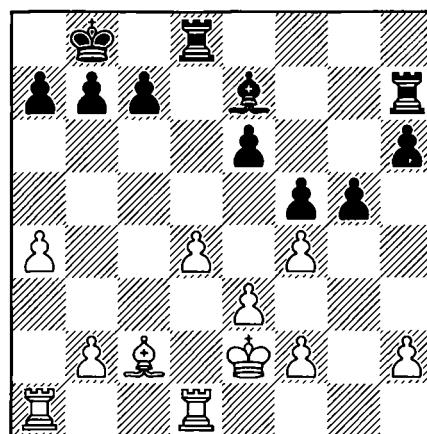
A dual purpose move. The knight

may want to come to the d5 square, from which it is very hard to remove (without significantly weakening the white structure). Also, Black prepares to push ...f7-f5 followed by ...g6-g5.

19.♔b4 f5

20.♕xe7 ♕xe7

21.♔c2 g5



The h2 weakness rears its head

Now the situation is unpleasant for White as his structure is being broken.

22.d5

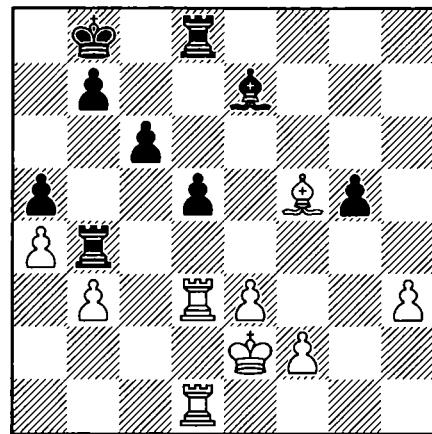
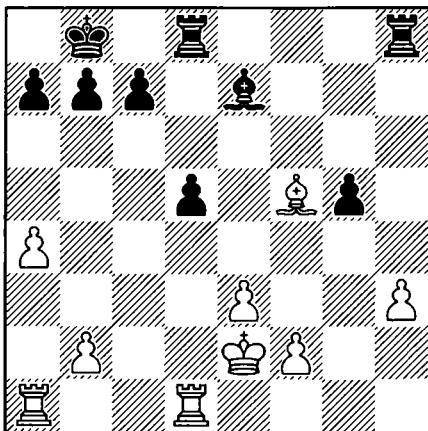
Initiating a forced sequence after which I thought I should be able to hold the position.

22...exd5

23.♔xf5 ♕hh8

24.fxg5 hxg5

25.h3



Crisis averted?

Everything defended

This is the position I had in mind.

25...a5!

Plan B

Fix the white b-pawn as backward with the move ...a7-a5. Follow this with a rook transfer to b6 (and later b4) to optimize one rook and put pressure on the b2-pawn (this can be increased with ♜e7-f6).

26.♖ac1 ♖h6

27.b3

At least on b3 the pawn cannot be attacked by the black bishop.

27...♗b6

28.♗c3 ♗b4

29.♗cd3 c6

Again it seemed the crisis was over. Clearly, Black has improved his position over the past few moves, but still everything is defended again and there is no clear path to victory.

30.f3 ♔f6

Plan C

➤ White is paralyzed, so without a clear breakthrough it is best to simply optimize the black pieces.

➤ The ♕d8 can go to h8 (then maybe h4) black bishop to f6, and the black king can think about encroaching on the dark squares with ♔c7-d6-c5.

31.♕g1 ♕h8

32.♔f2 ♔c7

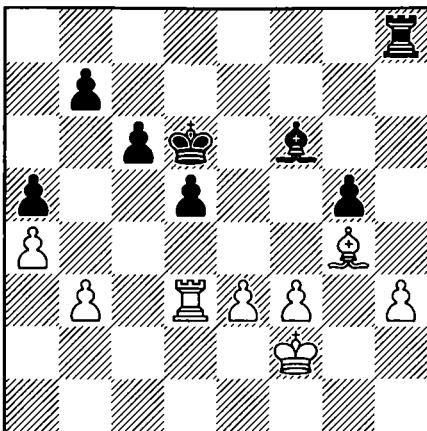
33.♕g4

Trying to reduce the material and remove the strong rook on b4.

33... \mathbb{R} xg4

The rook is optimally placed here, pressurizing e3.

34. \mathbb{Q} xg4 \mathbb{Q} d6



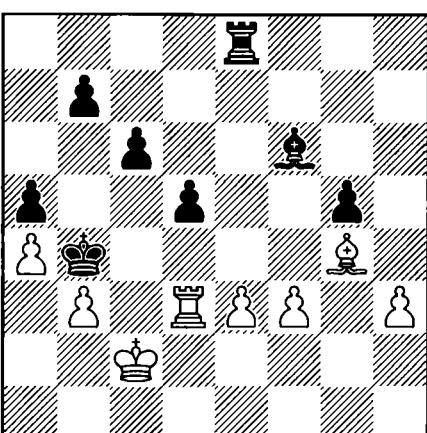
White to play

Continuing with the plan to optimize the pieces. As so often in chess, when you gain in one area you lose in another. Although the b4 rook has been removed, which was a strong rook, this exchange has given Black an additional opportunity to put his king on b4.

35. \mathbb{Q} e2 \mathbb{Q} c5

36. \mathbb{Q} d1 \mathbb{Q} b4

37. \mathbb{Q} c2 \mathbb{Q} e8



Powerful black pieces

38. \mathbb{Q} f5 \mathbb{Q} e5

39. \mathbb{Q} d7 \mathbb{Q} h8

40. \mathbb{Q} c8 \mathbb{Q} e7

41. \mathbb{Q} f5 \mathbb{Q} e5

42. \mathbb{Q} d1 \mathbb{Q} f6

43. \mathbb{Q} d3

After some moves back and forth to reach the time control Black needs to develop a new plan. It seems he cannot improve his pieces any further (unless he wishes to play \mathbb{Q} a3 and possibly \mathbb{Q} a2, although it is not clear what this achieves). Black develops a strong idea:

PLAN D

➤ Play the pawn break b7-b5 which forces the capture on b5. Recapture with the king and then return the king to its optimal post on b4.

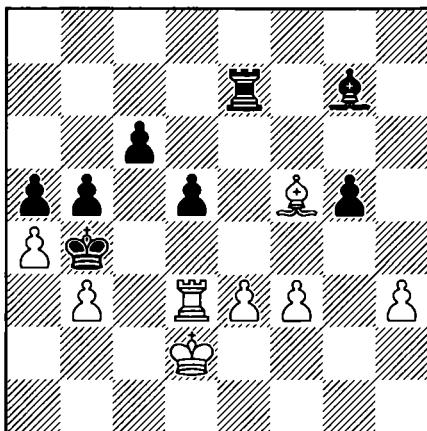
This has two possible ideas

- To create passed pawns with c6-c5-c4.
- To open a route to improve the black rook further by bringing it to c5. After this Black may be able to occupy c3 with a piece to tie down White further and weaken his protection of the b3-pawn.

43... \mathbb{Q} g7

Lesson 4. Step by Step – A Guide to Little Plans

44. $\mathbb{Q}d2 b5$



Changing the pawn structure

45. $a \times b5 \mathbb{Q} \times b5$

46. $\mathbb{Q}g6 \mathbb{Q}b4$

47. $\mathbb{Q}c2 \mathbb{Q}b7$

The rook begins its journey to c5.

48. $\mathbb{Q}f5$

Sitting passively hoping to hold the position, but for better or worse White needed to try 48.f4

48... $\mathbb{Q}b5$

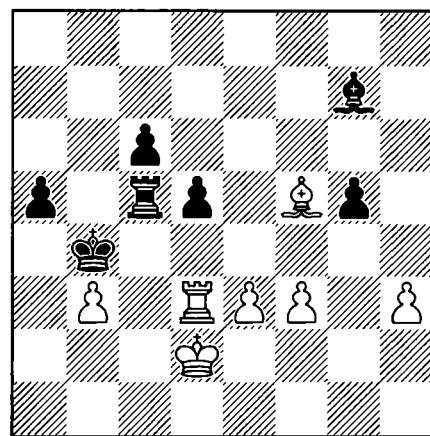
49. $\mathbb{Q}d2 \mathbb{Q}c5$

(See diagram)

50. $\mathbb{Q}e6 \mathbb{Q}c3+$

51. $\mathbb{Q}c2$

Black has no immediately winning discoveries and b3 must be protected.



White to play

51... $\mathbb{Q}e5+$

52. $\mathbb{Q}d2$

Plan E

► Optimize the king further with $\mathbb{Q}a3-b2$.

This will also give additional opportunities for the black rook potentially on c3, c2 or c1.

52... $\mathbb{Q}a3$

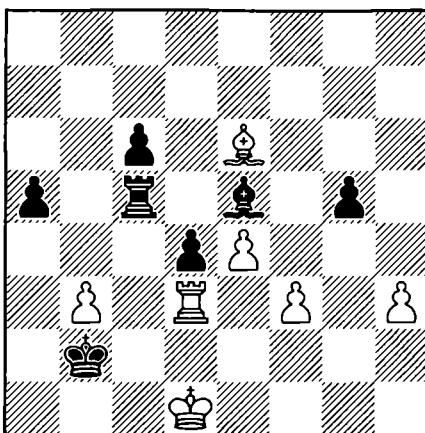
53. $e4$

If White waits then Black should also be winning, for example 53. $\mathbb{Q}d7 \mathbb{Q}b2$ 54. $\mathbb{Q}e2 \mathbb{Q}c3$ 55. $\mathbb{Q}e6 \mathbb{Q}b4$ (55... $\mathbb{Q}xb3$ 56.e4!) 56.f4 gxf4 57.exf4 $\mathbb{Q}c3$ 58.f5 $\mathbb{Q}c2$ 59. $\mathbb{Q}e3 \mathbb{Q}b5$

53... $d4$

54. $\mathbb{Q}d1 \mathbb{Q}b2$

PART 1. Thinking techniques

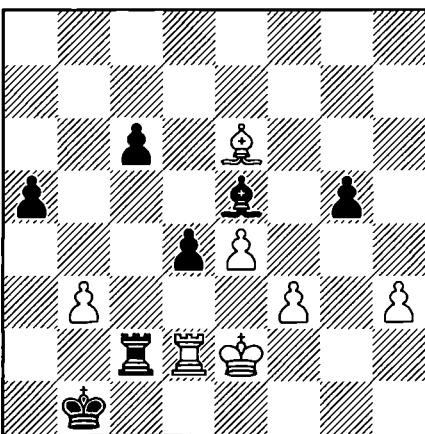


White to play

55.  d2+  b1

For a split second I thought Black had put his king in jeopardy after 56. $\hat{Q}c4$ but unfortunately there is 56... $\hat{K}xc4$ and the black pawns decide the game.

56. ♔e2 ♕c2



White to play

The opposite bishop endgame is no salvation, 57.♗xc2 ♛xc2 58.♗c4 c5 is a fatal Zugzwang.

57 ♔d3 ♕c3+

58. e2 c1

59. d1+ c2

60. c1

61. d1+ b2

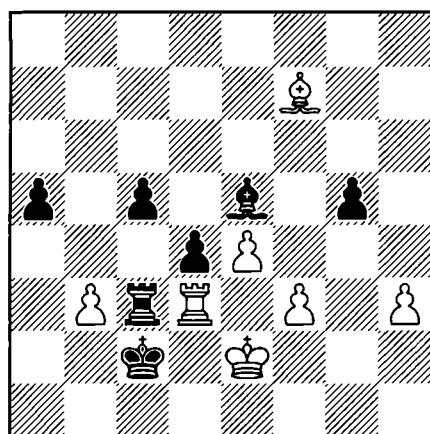
62. d2+ a3

63.  d3 c5

64. ♕ f7 ♔ f4

65. d1 b2

66. $\text{d}3 \text{ c}2$



The impressive culmination of the black king's march

0-1

67. $\mathbb{Q}xc3+$ $dxc3$ or 67. $\mathbb{Q}c4$ $\mathbb{Q}xd3$
 68. $\mathbb{Q}xd3+$ $\mathbb{Q}xb3$ and Black wins easily.

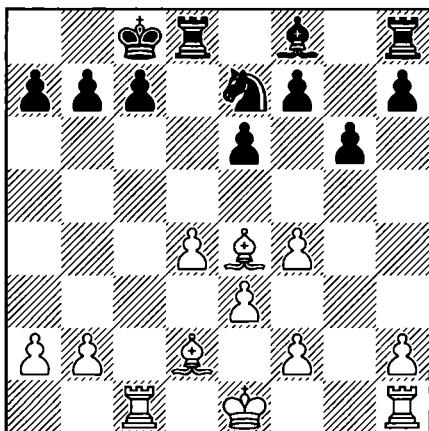
SUMMARY OF IDEAS

- A grand plan is a good thing. The move-by-move specifics are dealt with in the framework of little plans to achieve short-term goals.
- Remember always that while the direction of travel (where you want to take the position) is determined by your plans, tactics are always present and form the pathways which you can take to your destination.

Postscript

After my game with Short, I found a game he had played 18 years previously which followed a very similar path. Previous experience of a position or structure and the plans associated with it are key components of chess strength and gives the possessor a huge advantage.

Christiansen – Short
Amber Blindfold/Rapid,
Monte Carlo, 1993



Black to play

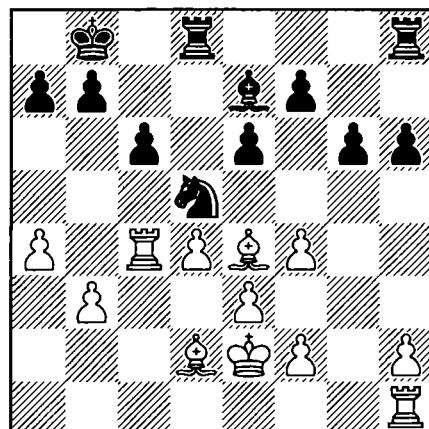
14...d5

16.♘c4 ♛b8

17.b3 c6??!

I believe that in this game Short played weaker than in his game against me. Rather than a function of the time control involved I think the reason is that he understood the position much better the second time around. The weakening pawn moves on the queen's flank gave White some counterplay in this game which I did not have.

18.a4 h6!



White to play

We are familiar with this idea.

15.♔e2 ♜e7

19.h3

Of course it is possible to try to hold the position by putting a pawn on h4, but it will be blockaded and exposed to the bishop on e7.

19...a6

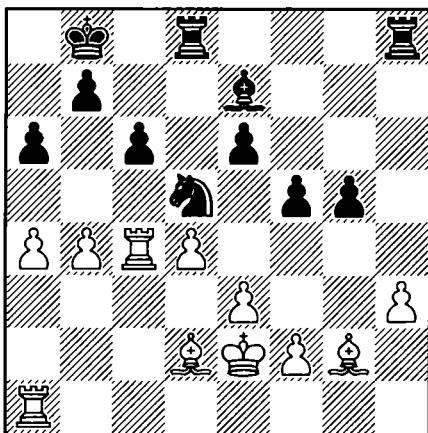
Again weakening the queenside, but White had counterplay with b4-b5 in any case after Black's earlier move c7-c6.

20.♘a1 f5

21.♗g2 g5

22.fxg5 hxg5

23.b4!



Counterplay for White

This is the difference between the two games. Here White has a plan of his

own so Black does not have things all his own way. 18 years later Short would omit the moves c6 and a6.

23...♝d7

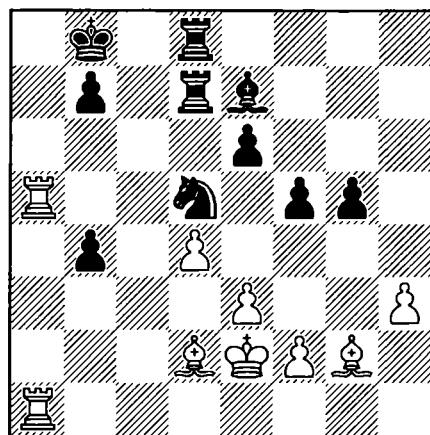
24.b5 cxb5

25.axb5 axb5

26.♖c2 b4

27.♖ca2 ♜hd8

28.♖a5



Black to play

The position became quite sharp. Black held some advantage but White's counterplay proved enough of distraction and he was able to eventually draw the game in 45 moves.

Part 2

PRINCIPLES AND ESSENTIAL THEORY

After our look at the mechanics of planning and thinking in the endgame, the next step is to increase our arsenal a little more. In this part we will be focusing on some theoretical positions which are too important *not* to know, but mainly on principles and patterns relating to piece handling.

Lesson 5 is the only purely theoretical section in the book. We will familiarize ourselves with some basic rook endgames and strive to really understand how they work. These endings are among the most common in practice, so it is giving up too much not to simply learn them.

In Lessons 6, 7, 8 and 9 we will examine different types of endgames involving minor pieces. There are some theoretical positions involved, but primarily we will be looking to improve our feel of when the pieces work poorly and when they work well (and the related positional patterns).

Lesson 5

Essential Rook Endgames

LESSON AIMS

- Master Lucena's winning position, including all of the relevant techniques and variants.
 - Understand how to use Philidor's sixth rank defense.
 - Know in which cases passive back rank defense holds and in which it loses – and why.
 - Grasp the geometry of checking distance.
 - Be able to quickly evaluate positions with the strong side's extra pawn on the fourth, fifth and sixth ranks, and know the attacking and defensive procedures involved.
 - Understand how to use the short-side defense.
-

A short disclaimer

I really didn't want to write this chapter. Not due to idleness, strangely enough, but teaching the basic rook plus pawn versus rook positions feels clichéd and unoriginal. On the other hand I couldn't see how the reader could get the most out of the rook endgames I analyzed for subsequent chapters without knowing the basic positions. Finally I decided to

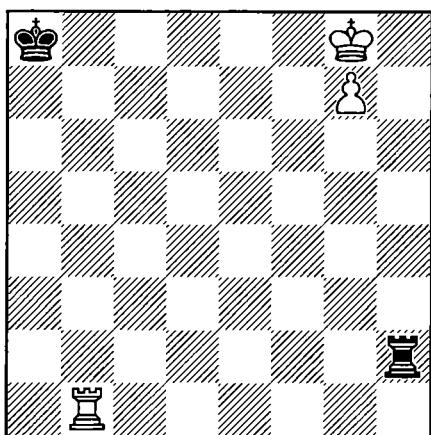
just write it, as there really is no substitute for knowing these standard theoretical positions. Unfortunately there are no revelations in the next few pages; I did not manage to refute the Lucena position or prove Philidor's defense doesn't work. So, please make an effort to understand the positions in this chapter, if you don't already. It is for the greater good and will make study of several later chapters much more rewarding.

Lesson 5. Essential Rook Endgames

Shall we begin?

If the endgame king and pawn vs. king that we examined previously is the simplest case of fulfilling the plan of pushing and queening a pawn then the endgame king and rook and pawn vs. king and rook is probably the most frequently occurring example of the same plan. Again, the reader may be familiar with most or all of the ideas in this chapter. Nevertheless I still suggest reviewing the material.

The king breaks cover



Cut from the action

Let us consider this, admittedly fairly extreme, position. What are the key features here?

➤ The black king is ‘cut’ from the action completely, so the only question is whether the black rook can stop the pawn all on its own.

➤ Probably as a result of Black making harassment checks from the back, White will be using his advanc-

ing pawn for cover until it has reaches the seventh rank. Once there, the pawn need take just one more step to end the game.

At the moment the only shelter the white king has is on g8. This is unfortunate, as we need to queen the pawn on that square. This means that the immediate 1.♔f7 is not helpful as the white king will be met with a barrage of checks. Escaping the checks would mean losing contact with the pawn, and an eventual ♜g2 by Black would round it up.

So we need to use the white rook to complete the plan. There are three patterns to do this:

- 1.♕f1 is perhaps the most obvious, preventing any checks on the f-file and intending ♔f7 followed by g8=♕.
- 1.♖g1 is a different but equally effective method. The white king will emerge next move via ♔f7 and simply walk towards the checking rook. Once the checks run out the pawn will queen.
- 1.♗b4 with the defender’s king cut so far from the action this technique known as ‘building a bridge’ is rather cumbersome here, but still we can see its mechanics:

1...♔a7

2.♔f7 ♜f2+

PART 2. Principles and Essential Theory

White is well prepared for these checks now, which only delay the inevitable.

3. $\mathbb{Q}g6 \mathbb{Q}g2+$

4. $\mathbb{Q}f6 \mathbb{Q}f2+$

5. $\mathbb{Q}g5 \mathbb{Q}g2+$

6. $\mathbb{Q}g4$

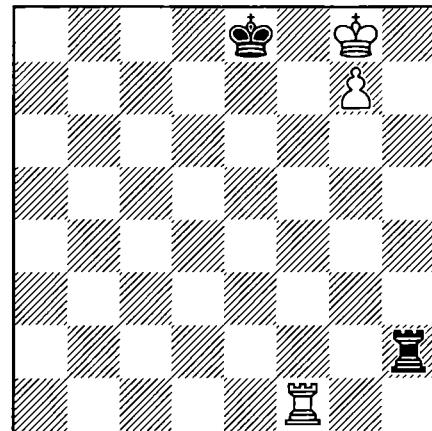
And White wins.

Note that the rook must be able to interpose at this moment. If the white rook was on b3 then White would have to return to g8 with his king to avoid losing the pawn. Building a bridge across the fifth rank is fully possible (and quicker) in this case, but often the rook can be harassed by the defender's king. So usually the fourth rank is used for this particular technique.

But...once our pawn reached the seventh rank we had to release the cut on the black king's prison in order to use our rook elsewhere. Of course it did not matter in the previous example, as the black king was cut very far, but what if the defending king was cut only a short distance away (as is much more likely in a game situation)?

'Lucena' position (actually Salvio 1634)

"*Trattato dell'Invenzione et Arte Liberale del Gioco Degli Scacchi*" (Treaty of the Liberal Invention of the Game of the Chess)



Black to play

1... $\mathbb{Q}h3$

Waiting. Note if Black waited with 1... $\mathbb{Q}g2$ then White could cover the h-file with 2. $\mathbb{Q}h1$ followed by 3. $\mathbb{Q}h7$.

Now how does White win this position?

2. $\mathbb{Q}e1+$

The black king is forced further away with a check. Note that even if the black king already stood on e7 then he would still have to step away, as after $\mathbb{Q}e7-f6$ White could play $\mathbb{Q}g8-f8$ queening the pawn immediately.

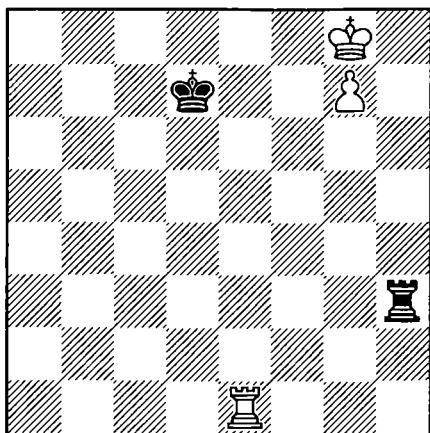
2... $\mathbb{Q}d7$

(See diagram)

Covering the f-file with 3. $\mathbb{Q}f1$ won't work as Black simply steps back onto the e-file with his king. 3. $\mathbb{Q}g1$ meets with the same response. To win we must build a bridge:

3. $\mathbb{Q}e4!$

Lesson 5. Essential Rook Endgames



White to play

Building the ‘small bridge’ with 3... \mathbb{R} e5 isn’t so attractive in view of 3... \mathbb{Q} d6 forcing the rook to move again.

3... \mathbb{R} h1

4. \mathbb{Q} f7

Winning as before, the white king will come via f7-g6-f5-g5 followed by \mathbb{R} g4.

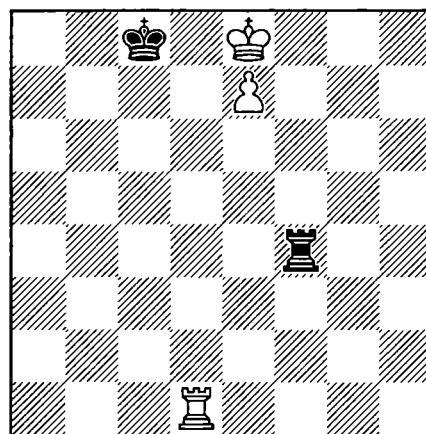
Any normal position of the Lucena type (with the stronger side’s pawn on the seventh and king on the queening square) is winning. Of course in practice, when you are very short of time, there is always some problem or another and the position is never exactly as given in the endgame textbooks. As long as you remember the three key winning ideas (rook behind the pawn, covering the file, building the bridge) then it should not be too difficult.

As stated in the introduction it is important to use your brain in these endgames and not just blindly follow the algorithms. The following positions show some twists on the Lucena position

which can cause problems for the player who is manically following the bridge-building algorithms.

Rook prevents the bridge

What if Black places his rook on the fourth rank, preventing a bridge from being built?



White to play

First we may as well cut an extra file (if the black rook was on c4 preventing this too then we would play 1. \mathbb{R} f1 covering the f-file [or 1. \mathbb{R} e1 forcing 1... \mathbb{R} f4 and only then 2. \mathbb{R} c1+])

1. \mathbb{R} c1+ \mathbb{Q} b7

Building the usual bridge with 2. \mathbb{R} d4 has tactical deficiencies, so what do we do?

2. \mathbb{Q} d7!

We can use the fact that the black rook does not have the checking distance from the fourth rank that it had on the second rank and we simply bring out the king. Alternatively it would also be possible to force a covering of the f-file

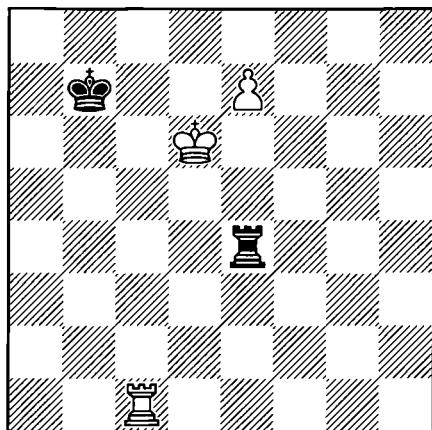
PART 2. Principles and Essential Theory

by the maneuver $\mathbb{R}h1-h8-f8$ followed by $\mathbb{K}f7$.

2... $\mathbb{R}d4+$

3. $\mathbb{K}e6 \mathbb{R}e4+$

4. $\mathbb{K}d6$



Black to play

If Black makes another check with $4... \mathbb{R}d4+$ then after $5. \mathbb{K}e5$ his checks run out. This is the problem with destroying his own checking distance.

4... $\mathbb{K}b6$

If Black waited with a different move, for instance $4... \mathbb{R}e2$, then White's idea is to build the short bridge with $5. \mathbb{R}c5$ followed by $\mathbb{R}c5-e5$. The text move sets a trap.

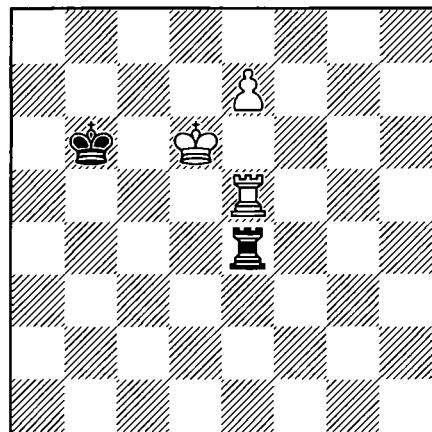
5. $\mathbb{R}d1$

$5. \mathbb{R}c8$ is another simple way to queen the pawn. The well-intentioned $5. \mathbb{R}c5??$ is the move to avoid, as Black has the tactical trick $5... \mathbb{R}xe7!$ With $5. \mathbb{R}d1$ White intends to bring the rook the fifth rank without allowing this swindle.

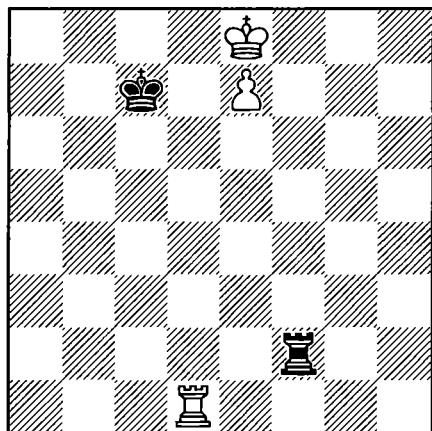
5... $\mathbb{K}b5$

6. $\mathbb{R}d5+ \mathbb{K}b6$

7. $\mathbb{R}e5$



It can also occur that the defender tries to disrupt the smooth winning process of building the bridge by harassing the stronger side's rook with his king, for example:



White to play

White makes the standard check:

1. $\mathbb{R}c1+ \mathbb{K}b6$

2. $\mathbb{R}c4 \mathbb{K}b5$

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Black could also try to disrupt the flow by attacking the rook later with 2... $\mathbb{Q}f3$ 3. $\mathbb{Q}d7$ $\mathbb{Q}d3+$ 4. $\mathbb{Q}e6$ $\mathbb{Q}e3+$ 5. $\mathbb{Q}d6$ $\mathbb{Q}b5$ but White then easily makes the short bridge with 6. $\mathbb{Q}c5+$ followed by 7. $\mathbb{Q}e5$

3. $\mathbb{Q}e4!$

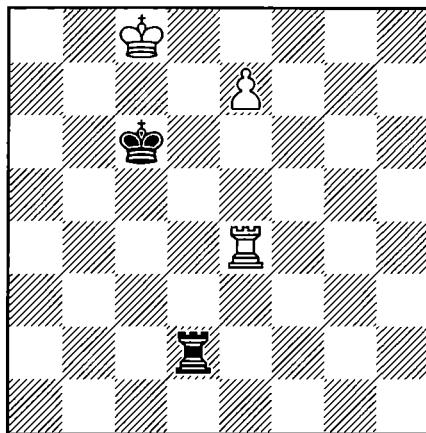
Behind the pawn is the best way. Next the white king will emerge on d7 or d8, the black king has wandered too far to return to control these squares.

3... $\mathbb{Q}c6$

4. $\mathbb{Q}d8$ $\mathbb{Q}d2+$

5. $\mathbb{Q}c8$

The pawn queens.



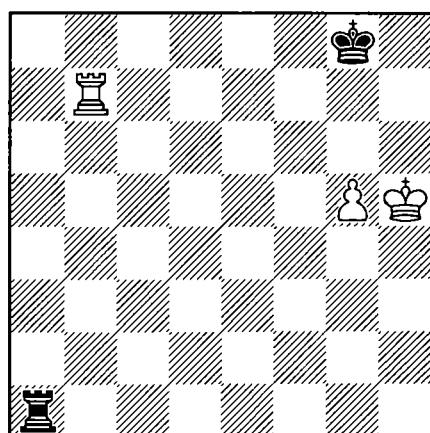
White wins

SUMMARY OF IDEAS

- Any normal ‘Lucena’ type position where the stronger side’s pawn reaches the seventh rank with his king sheltering on the queening square is winning.
- The main exceptions are the cases where some perpetual harassment of the king by rook checks (side checks) is possible (dealt with later in this chapter), and cases where the pawn is a rook’s pawn (this is usually quite a trivial draw, but I have included an analysis of in the notes at the end of this chapter as there are some interesting cases).

Preventing and reaching Lucena (1)

Now that we know exactly what the stronger side is aiming for, we can analyze in terms of whether he can reach it by force, or whether it can be prevented.



Black to play

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The primary obstacle to reaching a Lucena position for White here is that Black's king is sitting in front of the pawn. Almost always this means the defender should be able to make a draw. The defensive method attributed to Philidor (or sometimes called the "sixth rank defense") is well known:

1...♜a6!

2.g6

There are no other ideas.

2...♜a1

Mission accomplished for the black rook on a6; it returns to a1 and gives endless checks to the white king. Even if White can block the checks by interposing his rook and force Black to exchange the rooks (which he can't force), then still the position would be a draw as White has no hope of reaching the key squares of the g6-pawn.

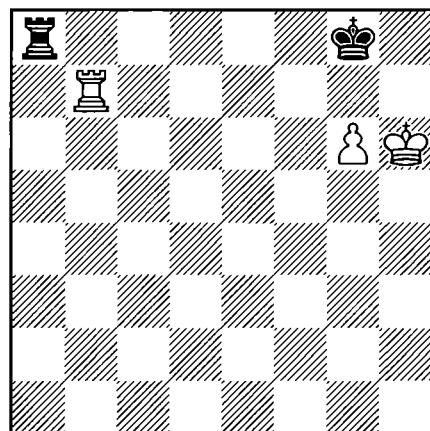
There is really nothing more to analyze, repeated checks secure Black a simple draw.

In fact even if Black butchered this simple defense the position would still be draw. For example, if he instead played:

1...♜a8?!

2.♔h6 ♜a6+

3.g6 ♜a8



White to play

Black can hardly be congratulated on his technique, but the position is still drawn. The reason why it is drawn is because White's pawn is too close to the edge of the board, this means he cannot perform a crushing switch with his rook to the other side of Black's king.

4.♕g7+ ♔h8

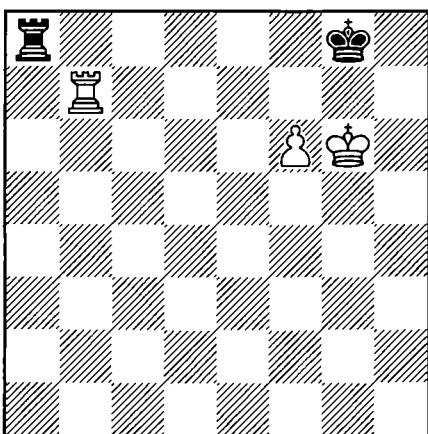
After 4...♔f8?? 5.♔h7! Black would successfully reach a lost position, something he has been trying hard to do over the last few moves.

5.♕c7 ♜b8

There are just no ideas to make progress, the game is hopelessly drawn.

If Black defended in this passive way with the white pawn even one file more central he would be completely lost:

Lesson 5. Essential Rook Endgames



White to play

1. $\text{R}g7+$ $\text{k}h8$

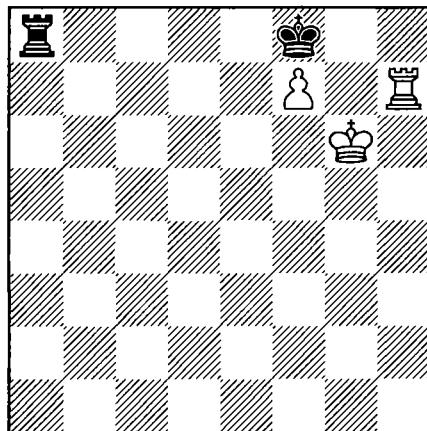
1... $\text{k}f8$ 2. $\text{R}h7$ $\text{k}g8$ 3. $\text{f}7+$ $\text{k}f8$

4. $\text{R}h8+$ comes to the exact same thing.

2. $\text{R}h7+$ $\text{k}g8$

3. $\text{f}7+$ $\text{k}f8$

White succeeded in getting his rook to the other side of the black king and the game is over.



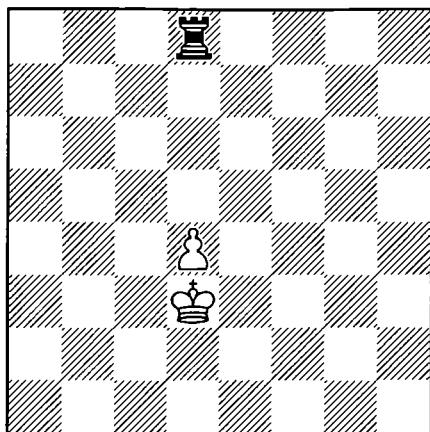
Easy!

4. $\text{R}h8+$ and White wins.

SUMMARY OF SIMPLE DEFENSIVE PROCEDURES

- Having the defending king in front of the pawn (as opposed to being cut off by the attacking rook) is clearly beneficial to the defender.
- Philidor's 'sixth rank defense' is the simplest defensive idea, based on perpetual harassment of the attacker's king.
- Passive defense (in any endgame) is rarely a good idea. Falling into the ultra-passive back rank defense in this endgame is asking for trouble, but the defender can still hold a draw if the pawn is a knight's or rook's pawn (because the attacking rook cannot switch sides).

Aside – A geometry lesson



White to play

Yet another illegal position! The object of this exercise is to decide whether or not the king can aid the pawn to promote without allowing the pawn to be captured for nothing.

Let's try...

1. $\text{Q}e4 \text{R}e8+$

2. $\text{Q}d5 \text{R}d8+$

3. $\text{Q}e5 \text{R}e8+$

4. $\text{Q}f6$

4. $\text{Q}d6 \text{R}d8+$ doesn't help.

4... $\text{R}d8!$

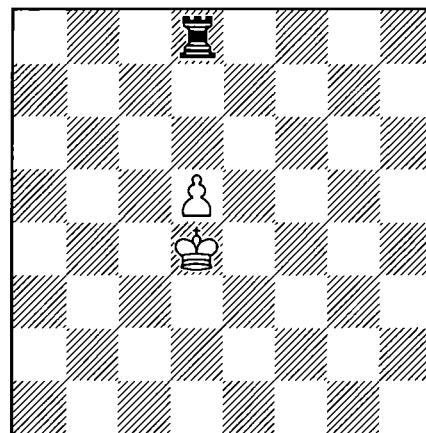
4... $\text{R}f8+$ 5. $\text{Q}e7 \text{R}f5$ 6. $\text{Q}e6$ and the pawn will advance next move.

5. $\text{Q}e5 \text{R}e8+$

It appears the black rook has too much distance for White to overcome

and he will not manage to ever advance his pawn a single square. This method of defense is referred to as frontal defense, defending with checks in front of the pawn.

What if we give the rook slightly less room by advancing the white pieces one square further up the board?



White to play

Visually it appears that Black has much less room, although in reality it is only one square less. In any event it is enough so that Black is helpless to stop the advance of the pawn.

1. $\text{Q}e5 \text{R}e8+$

2. $\text{Q}f6 \text{R}d8$

3. $\text{Q}e6 \text{R}e8+$

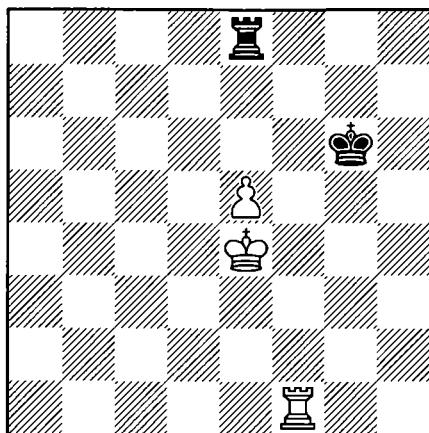
4. $\text{Q}d7$

And next move d5-d6. Of course with each step forward Black's situation becomes worse; if he cannot prevent the first step he has no chance to prevent any subsequent steps.

Lesson 5. Essential Rook Endgames

Back to the world of legal positions...

Preventing and reaching Lucena (2)



White to play

Can White win this position? He has several factors in his favor:

- The black king is cut off by the white rook, and cannot (at least for now) participate in the defense.
- The pawn is advanced past the halfway point. This is important because it means the (vertical) geometry is on White's side. If he emerges from behind the shelter of his pawn then checks from the back rank will not save Black.

However, Black has one factor which immediately makes the position a draw — he can check successfully from the side. Note that the distance from the a-file to the e5-pawn is behind the halfway mark, so Black has the horizontal geometry in his favor.

1. $\mathbb{Q}d5 \mathbb{R}a8!$

There is no reason to delay this idea.

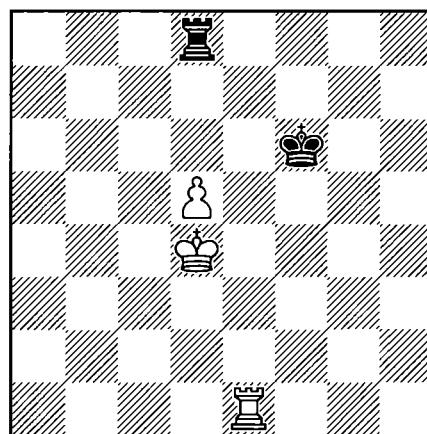
2. $\mathbb{R}c1$

How else to block the checks?

2... $\mathbb{K}f7$

As the king is now participating in the defense, Black should have no problem holding a draw.

If we alter the initial position slightly so that the checking geometry in both directions is unfavorable for him then he cannot hope to save the game:



White to play

1. $\mathbb{Q}c5 \mathbb{R}a8$

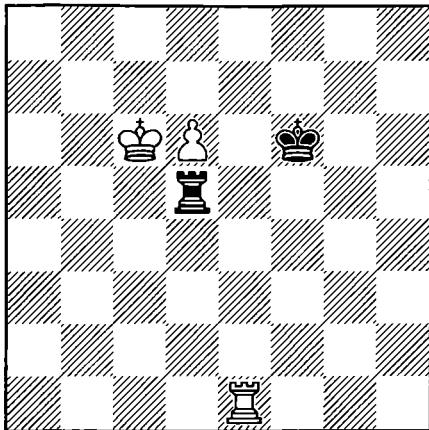
This is hopeless, but so is using the alternative checking direction with 1... $\mathbb{R}c8+$ 2. $\mathbb{Q}b6 \mathbb{R}d8$ 3. $\mathbb{Q}c6 \mathbb{R}c8+$ 4. $\mathbb{Q}d7$ followed by d5-d6. Notice how every move by White threatens to advance the pawn.

2. $d6 \mathbb{R}a5+$

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3. $\text{Q}b6 \text{Td}5$

4. $\text{Qc}6$



Black to play

The checks have run out, Black will now have to either resign, or check from behind. Then the white king will use the pawn as cover and reach a Lucena position.

4... $\text{Td}2$

5. $d7 \text{Tc}2+$

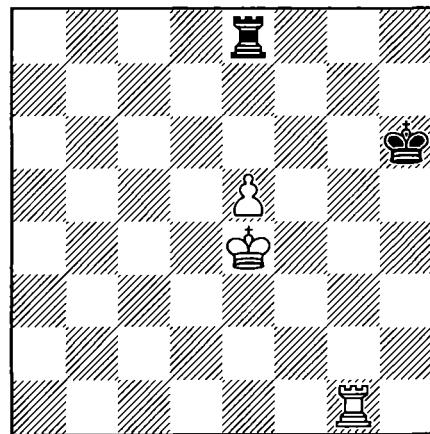
6. $\text{Qb}7 \text{Tb}2+$

7. $\text{Qc}7 \text{Tc}2+$

8. $\text{Qd}8$

White successfully reaches a Lucena position – his goal from the beginning – and wins.

As the following position shows, if the defender's king is cut off further than one file, even favorable checking geometry will not save him.



White to play

Here the cut is two files, but Black has checking potential from the side (from the a-file). This will not save the game though, because the extra file on the kingside gives White shelter which he did not have when the black king was closer.

1. $\text{Qd}5 \text{Ta}8$

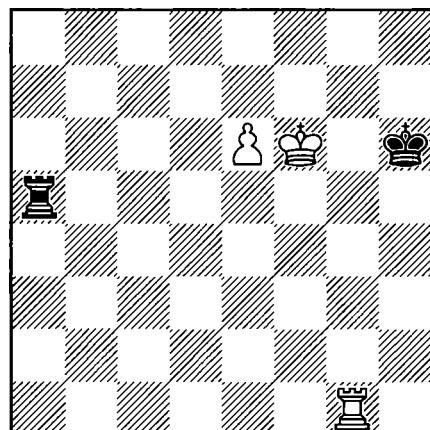
We already know 1... $\text{Td}8+$ is pointless.

2. $e6 \text{Ta}5+$

3. $\text{Qd}6 \text{Ta}6+$

4. $\text{Qe}5 \text{Ta}5+$

5. $\text{Qf}6!$



Black to play

Lesson 5. Essential Rook Endgames

Sheltering from the side-checks and incidentally creating mate threats too!

6.e7

The pawn is queening. White wins.

5... h5

SUMMARY: PAWN ON THE FIFTH RANK

With the pawn on the fifth rank and the defending king cut from the defense, the following rules apply:

- Frontal defense will never work as a defensive method because the pawn has crossed the halfway point.
- Side-checks are the only hope for salvation. If the defending king is cut only by one file then the result depends on if the defender has enough room to make successful side-checks.
- If the defending king is cut by more than one file, the position is always lost as the attacking king can shelter on both sides of the pawn.

Pawn on the fourth rank

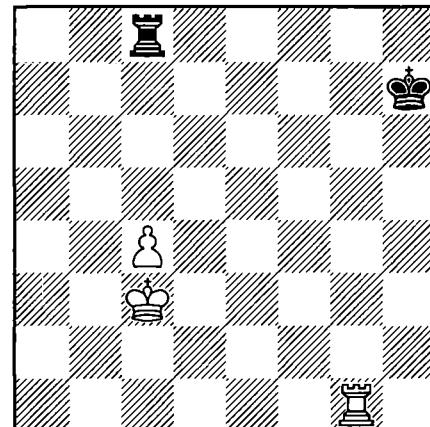
On the fourth rank, defensive chances increase and winning chances decrease. The important difference is that now frontal defense becomes a powerful weapon.

We will start by paying a visit to our old friend, the ridiculously extreme case:

(See diagram)

The black king is completely cut from the action, with no hope of ever returning. This should help us see the winning procedure, which consists of three distinct parts:

Bring the king to e6 (or a6) where Black cannot make another check and will have to return to c8.



White to play

- Protect the c4-pawn with the rook.

- Finally use the king to help the pawn advance one square.

PART 2. Principles and Essential Theory

It is easier to see this plan in action than to describe it:

1. $\text{d}4 \text{Bd}8+$

2. $\text{e}5$

Heading for the e6 square.

2... $\text{c}8$

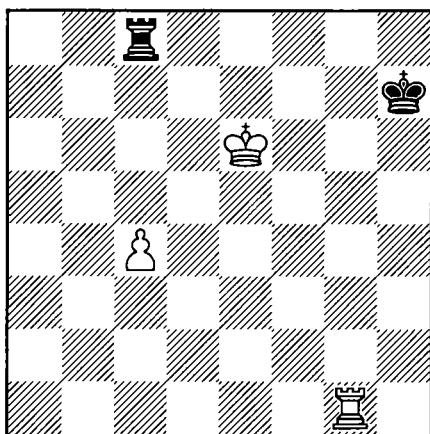
Or 2... $\text{e}8+$ 3. $\text{d}6$.

3. $\text{d}5 \text{Bd}8+$

The threat to advance the pawn is ever present, so Black must constantly react.

4. $\text{e}6 \text{Bc}8$

4... $\text{e}8+$ isn't advisable, as after 5. $\text{d}7$ the white pawn will step forward on the next move.



White to play

Now that the white king is installed on the powerful e6 square, it is time for the second part of the plan. We must protect c4 with the rook so that we can play $\text{e}6-\text{d}7$ on the next move. Then

Black's frontal defense will be destroyed as the pawn will move forward by force.

5. $\text{g}4$

5. $\text{c}1$ is equally good (if not better) here, however it is also nice (and might be essential if the defending king was closer) to protect the pawn while maintaining the cut on the defending king.

Notice also that the $\text{h}7$ is not so well placed; h6 would be a better square as the $\text{g}4$ could be harassed by $\text{h}6-\text{h}5$. Such matters may be vital when the defending king is closer than this, and could potentially join the fight if the cut was broken.

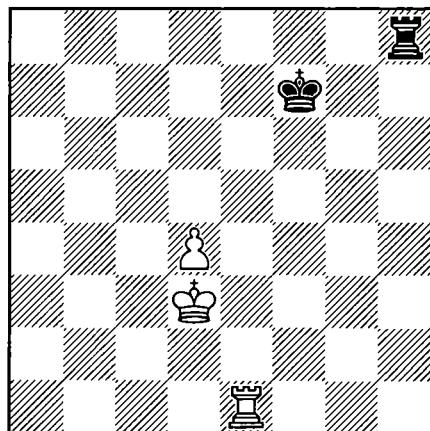
5... $\text{h}6$

6. $\text{d}7 \text{Bc}5$

7. $\text{d}6$

Hey, presto! The white pawn cannot be prevented from advancing on the next move.

What about this position?



White to play

Lesson 5. Essential Rook Endgames

Can White, to move, win this time?

1. $\text{Rc}4$

1.d5? is not good because after 1... $\text{Rh}4$ there is no way for the white king to support the pawn (without trading into a drawn king and pawn endgame).

1... $\text{Rc}8+$

2. $\text{Kb}5 \text{Rd}8$

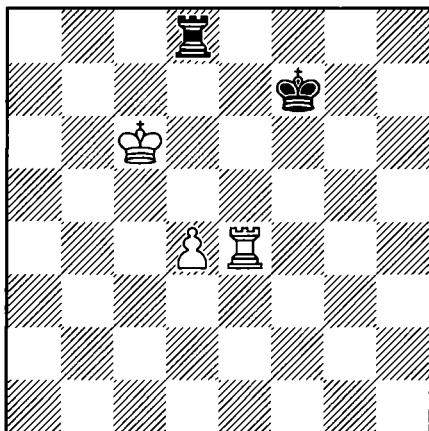
3. $\text{Kc}5 \text{Rc}8+$

4. $\text{Kb}6$

b6 was the king's target square this time (two squares diagonally forward from the pawn).

4... $\text{Rd}8$

5. $\text{Re}4!$



Black to play

5. $\text{Rd}1$ is not effective this time, as the black king is close enough to benefit from the breaking of the cut after 5... $\text{Ke}7$.

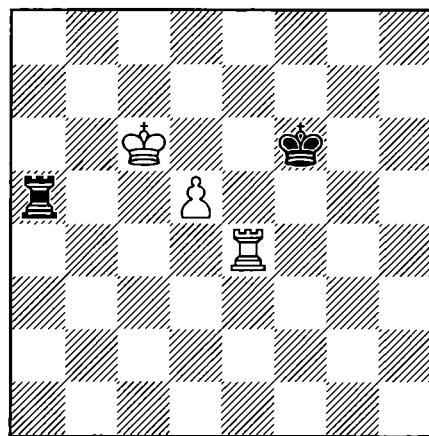
5... $\text{f}6$

6. $\text{Kc}7 \text{Ra}5$

The attempt to counterattack with 6... $\text{f}5$ loses the rook after 7. $\text{Re}5+$

7. $\text{Kc}6 \text{Ra}5$

8. d5



Taking stock

Now that the pawn has moved forward we can take stock:

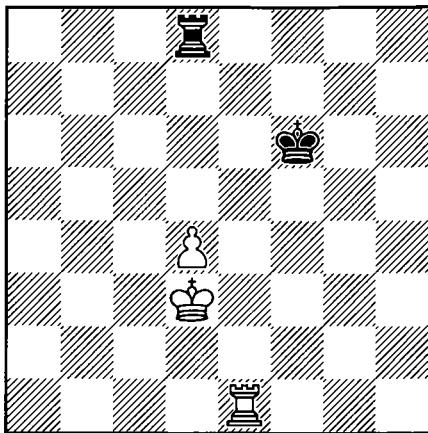
➤ We have a pawn on the fifth rank and the defending king cut off by one file.

➤ The defending rook has no scope for successful side checks.

Our conclusion is that the position is completely winning.

One final position to consider is when the defender's king is optimally placed (within the constraints of its cut).

PART 2. Principles and Essential Theory



White to play

Matters begin as before:

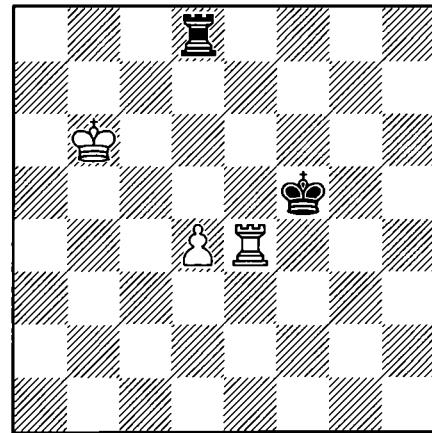
1. ♔c4 ♕c8+

2. ♔b5 ♕d8

3. ♔c5 ♕c8+

4. ♔b6 ♕d8

5. ♕e4 ♔f5!



White to play

White only needs his rook to remain on e4 for one move (time enough to play ♔b6-c7) but Black does not allow it to do so. By driving the rook from its optimal post on e4 Black will either win the white pawn or free his king.

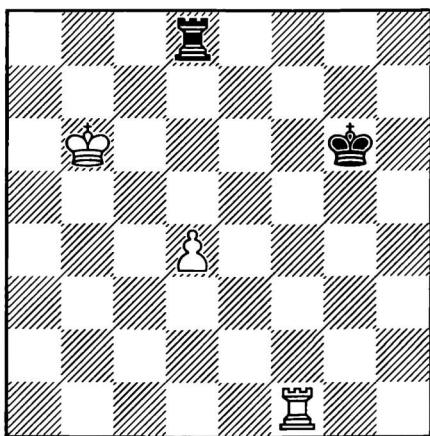
6. ♕h4 ♔e6

With the black king re-joining the defense the game should end in a draw.

SUMMARY: PAWN ON THE FOURTH RANK

- When deciding on the assessment of this class of position (pawn on the fourth rank, defending rook in frontal defense, defending king cut), we must consider the following:
 - If the defending king is cut only one file, can the procedure of advancing the king and defending the pawn with the rook be realized? This is dependent on the position of the defending king.
 - If the plan can be realized, does advancing the pawn transpose into a winning position with the pawn on the fifth rank?
 - If the defending king is cut by more than one file the position is always winning (with one exception – knight's pawn – that I will mention in the notes at the end of this chapter). This is because even if the defender's king is in a position to harass a rook on the fourth rank, the rook can switch behind the pawn instead. For instance we could reach this position:

Lesson 5. Essential Rook Endgames



White to play

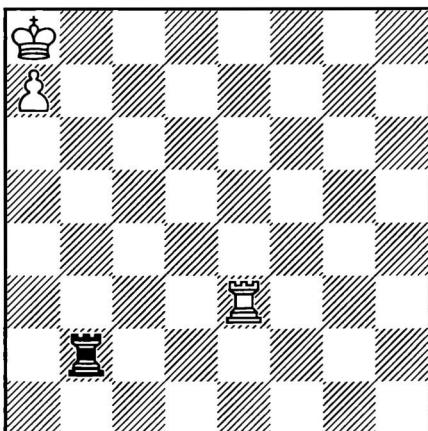
Black is well placed to meet the standard 1. $\mathbb{R}f4$ with 1... $\mathbb{R}g5!$, but instead White has time to play:

1. $\mathbb{R}d1$

THEORETICAL NOTES

'Lucena' with a rook's pawn is completely different from examples with more central pawns. Still, it is worth knowing.

The geometrical difference is that the pawn has only one 'side' so the attacking king is trapped in front of its own pawn and must be released.



White to play

The black king, because it is cut by two files, does not have time to rejoin the action. White is winning although he still needs to be accurate.

- 1... $\mathbb{K}f6$
2. $\mathbb{K}c7 \mathbb{R}d5$
3. $\mathbb{K}c6 \mathbb{R}a5$
4. $\mathbb{R}e1!$

Very precise. After 4. $d5?$ Black has time for 4... $\mathbb{R}e7!$ and should draw the game.

- 4... $\mathbb{R}a6+$
5. $\mathbb{K}b5 \mathbb{R}d6$
6. $\mathbb{K}c5$

And finally the pawn will be able to advance, leading to a known winning position.

You may have noticed I removed the black king. Now we can see the mechanism for releasing the white king from the a-file without worrying for now about calculating where the black king is.

To release the white king the white rook must contest the b-file; this much is clear.

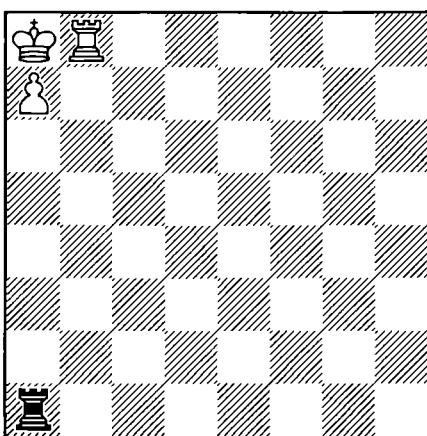
1. $\mathbb{R}e8 \mathbb{R}b1$

2. $\mathbb{R}b8$

...and the black rook must leave the b-file

2... $\mathbb{R}a1$

PART 2. Principles and Essential Theory



White to play

So far so good, and since the \mathbb{R} b8 supports the promotion of the pawn we can simply bring out the king now.

3. \mathbb{K} b7 \mathbb{R} b1+

4. \mathbb{K} c6 \mathbb{R} c1+

Of course the king is greeted with the usual torrent of checks.

5. \mathbb{K} b5

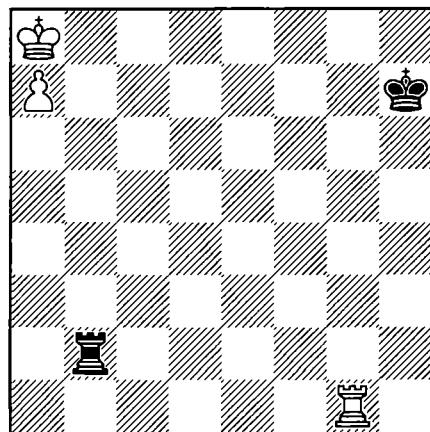
Or 5. \mathbb{K} d5. In any case the king is simply marching toward the rook, and once the checks are exhausted the pawn will achieve a supported promotion on a8.

So the strategy for winning Lucena with a rook's pawn is very simple, but of course the defending king will play a role.

Meanwhile, since the defending rook is cutting the attacking king, the attacking rook has to make a cut of the defender's king. The further the de-

fending king is cut, the more the position will play out like the last example with no black king.

For instance, in the most extreme case:



If this isn't winning, then nothing is!

1. \mathbb{R} c1

Any safe route to b8 will be equally good.

1... \mathbb{K} g7

The black king dreams of joining the action.

2. \mathbb{R} c8 \mathbb{K} f7

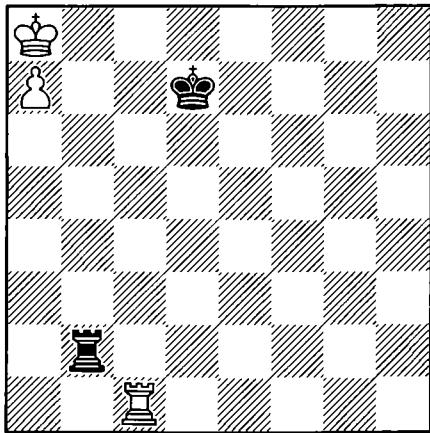
3. \mathbb{R} b8 \mathbb{R} a2

4. \mathbb{K} b7

White wins as before, by approaching the black rook until the checks run out.

What about a more realistic case?

Lesson 5. Essential Rook Endgames



White to play

Again the only plan is to bring the white rook to b8, although we may suspect this time that winning the game is not going to be so simple.

1. $\mathbb{R}h1 \mathbb{K}c7$

Clearly this time the black king will be a major factor.

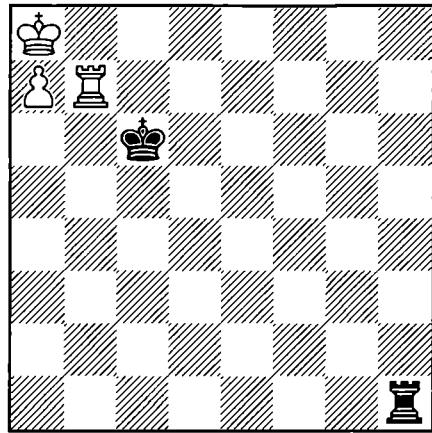
2. $\mathbb{R}h8 \mathbb{R}b1$

3. $\mathbb{R}b8 \mathbb{R}h1$

Probably the simplest way to draw, as now White cannot even release his king from the a-file. Black is also drawing with any other reasonable move. For example, 3... $\mathbb{R}a1$ is fine and after 4. $\mathbb{R}b2 \mathbb{R}c1!$ is simplest, preventing the black king from being checked away from c7.

4. $\mathbb{R}b7+ \mathbb{K}c6$

4... $\mathbb{K}c8$ 5. $\mathbb{R}b2 \mathbb{R}c1$ is also fine.

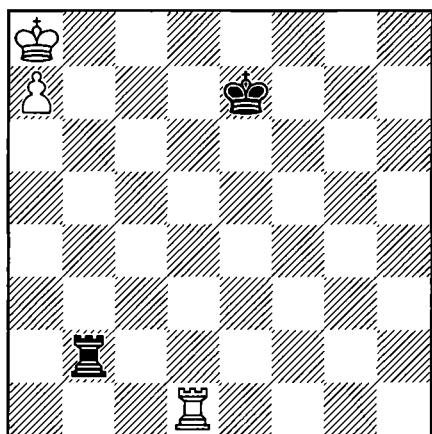


White to play

Black's next move will be $\mathbb{R}h8+$ (unless White plays 5. $\mathbb{R}b8$ in which case it will be 5... $\mathbb{K}c7$), and White can make no progress.

How far does the defending king need to be cut to win the game?

Let us try with the black king cut to the e-file:



White to play

1. $\mathbb{R}h1 \mathbb{K}d7$

It is never a good idea to somehow think to prevent the attacking rook from reaching the back rank by going 'the

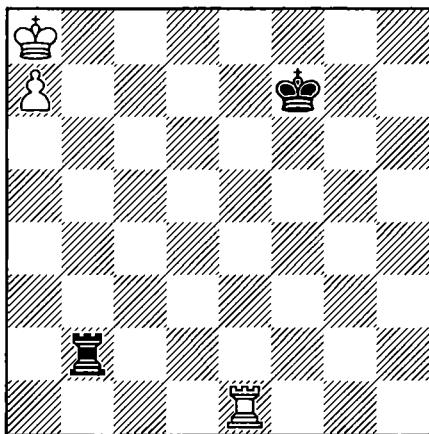
PART 2. Principles and Essential Theory

wrong way' with the king. For instance, 1. $\mathbb{R}g1$ $\mathbb{Q}f7??$ (preventing $\mathbb{R}g8-b8$) 2. $\mathbb{R}e1!$ and Black has a worse situation than he started with; his king is cut by an extra file!

2. $\mathbb{R}h8 \mathbb{Q}c7$

Just in time. This is the exact same drawing situation as we analyzed in the previous example.

The borderline case is when the defender's king is cut to the f-file (or the c-file if the pawn is an h-pawn).



White to play

1. $\mathbb{R}h1$

Or 1. $\mathbb{R}c1-c8-b8$

1... $\mathbb{Q}e7$

Again, 1... $\mathbb{Q}g7$ 2. $\mathbb{R}f1$ isn't helping matters for Black.

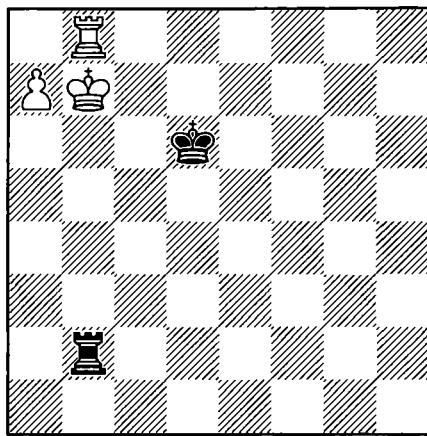
2. $\mathbb{R}h8 \mathbb{Q}d6!$

The natural 2... $\mathbb{Q}d7$ loses in the same way as the previous examples with a far

cut black king: 3. $\mathbb{R}b8$ (critically there is a threat to the black rook, so there is no time for the black king to make the vital last step to c7) 3... $\mathbb{R}a2$ 4. $\mathbb{Q}b7 \mathbb{R}b2+$ 5. $\mathbb{Q}a6 \mathbb{R}a2+$ 6. $\mathbb{Q}b6 \mathbb{R}b2+$ 7. $\mathbb{Q}c5$ and the white king wriggles to safety, winning the game.

3. $\mathbb{R}b8 \mathbb{R}a2$

4. $\mathbb{Q}b7 \mathbb{R}b2+$



Which path?

A critical moment has arisen. Which path should the white king take?

5. $\mathbb{Q}c8!$

The usual plan with 5. $\mathbb{Q}a6$ leads nowhere, but is nevertheless instructive: 5... $\mathbb{R}a2+$ 6. $\mathbb{Q}b6 \mathbb{R}b2+$ and now we see why Black put his king on d6 and not d7 – he crucially covers the c5 square 7. $\mathbb{Q}a5 \mathbb{R}a2+$ and it becomes clear that White cannot free his king losing the a7-pawn. Of course at any stage White can admit his mistake and return with his king to b7 as he is still winning in that case.

Lesson 5. Essential Rook Endgames

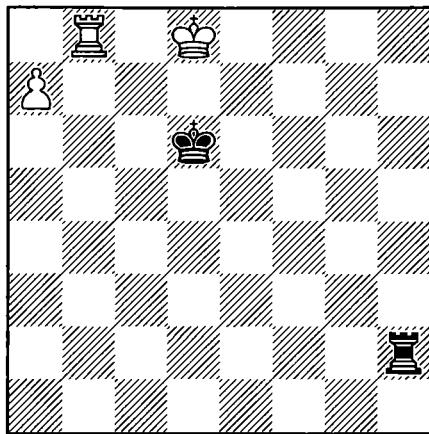
5... $\mathbb{R}c2+$

Black has no option except to keep checking.

6. $\mathbb{Q}d8$

And the white king has found safety...or has it?

6... $\mathbb{R}h2$



Be careful!

Suddenly Black creates mating threats! 7.a8=+=?? $\mathbb{R}h8$ mate does not seem attractive for White and neither does 7. $\mathbb{Q}e8?$ $\mathbb{R}h8+$ 8. $\mathbb{Q}f7$ $\mathbb{R}h7+$ picking up the a7-pawn.

7. $\mathbb{R}b6+!$

A tactical solution to the problem, breaking the mating net.

7... $\mathbb{Q}c5$

The best try. White wins more easily after 7... $\mathbb{Q}e5$ 8. $\mathbb{R}a6!$

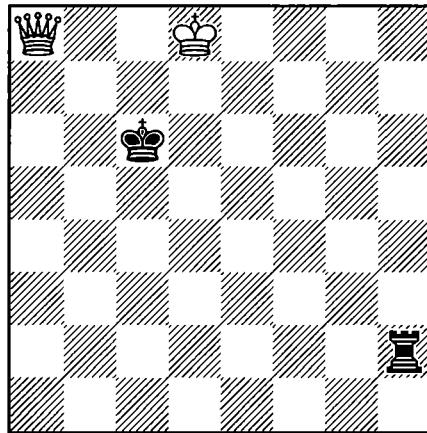
8. $\mathbb{R}c6+!!$

Giving up the rook in order to promote with check is the only way. 8. $\mathbb{R}a6?$ falls short because of 8... $\mathbb{R}h8+$ 9. $\mathbb{Q}e7$ $\mathbb{R}h7+$ and White must either allow perpetual check or move his king to the kingside when Black will draw comfortably with $\mathbb{R}h8-a8$ followed by $\mathbb{Q}c5-b5-b6$.

8... $\mathbb{Q}xc6$

If Black does not capture the rook he also loses, albeit in different ways depending on where he moves his king. 8... $\mathbb{Q}b5$ loses to 9. $\mathbb{R}c8!$ and 8... $\mathbb{Q}d5$ loses to 9. $\mathbb{R}a6!$

9.a8=+=



Black to play

White is left to win this tricky endgame. Fortunately in this specific position the black king and rook are separated and cannot re-join, so White can take a shortcut and win the rook with a series of checks.

9... $\mathbb{Q}c5$

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Other moves lose more quickly.

10. $\mathbb{Q}c8+$ $\mathbb{R}d4$

11. $\mathbb{Q}g4+$

By placing itself between the black king and rook, the queen ensures they stay separated.

11... $\mathbb{R}d5$

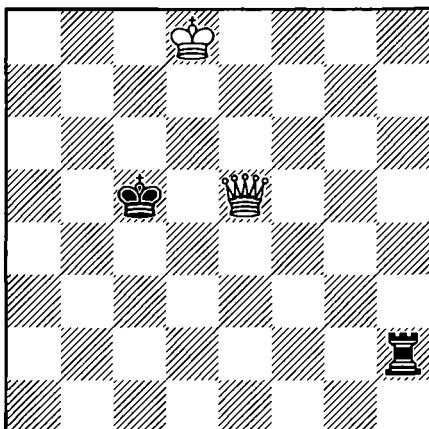
12. $\mathbb{Q}f5+$ $\mathbb{R}c6$

13. $\mathbb{Q}e6+$ $\mathbb{R}c5$

13... $\mathbb{R}b7$ 14. $\mathbb{Q}c8+$ and next move
15. $\mathbb{Q}c7+$ will win the black rook.

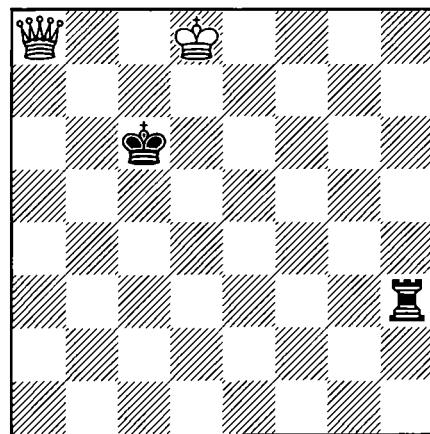
14. $\mathbb{Q}e5+$

Winning the black rook.



Game over

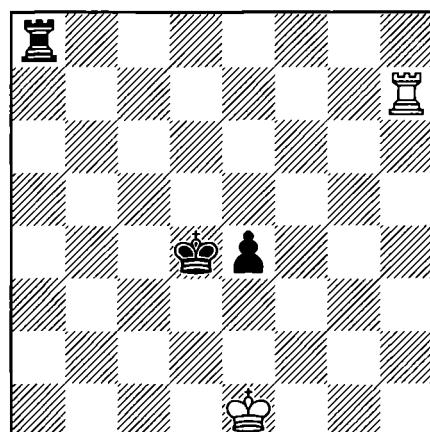
It is perhaps worth mentioning that if the black rook was specifically on h3 when White queens on a8, he cannot win the rook with a series of checks.



Black to play

Following 1... $\mathbb{R}d6!$, the black king and rook should be able to re-join and White will have to win the endgame without any shortcuts.

Philidor denied! – A backup defense



Black to play

Imagine you have this position as White and on the next move you are planning $\mathbb{Q}h7-h3$ with a simple draw using the Philidor position. Suddenly your opponent plays...

1... $\mathbb{R}d3?$

Lesson 5. Essential Rook Endgames

1... $\mathbb{R}a3$, again preventing the Philidor setup, is tricky too: 2. $\mathbb{R}e7!$ ($2.\mathbb{R}d7+\mathbb{K}e3$ is bad as in the main line) 2... $\mathbb{K}e3$ 3. $\mathbb{K}f1!$ using the same drawing technique as we will see in the main line.

2. $\mathbb{R}e7!$

Amazingly, this is the only drawing move in this position! The reflex check 2. $\mathbb{R}d7+$ is very bad here as after 2... $\mathbb{K}e3$ White will fall either into a losing passive back rank defense, or into a Lucena position, e.g. 3. $\mathbb{K}f1$ $\mathbb{R}a1+$ 4. $\mathbb{K}g2$ $\mathbb{K}e2$.

2. $\mathbb{R}e7!$ Intends to chain the black king to the pawn, after all the king needs to progress forward to e1 to reach a Lucena setup.

2... $\mathbb{K}e3$

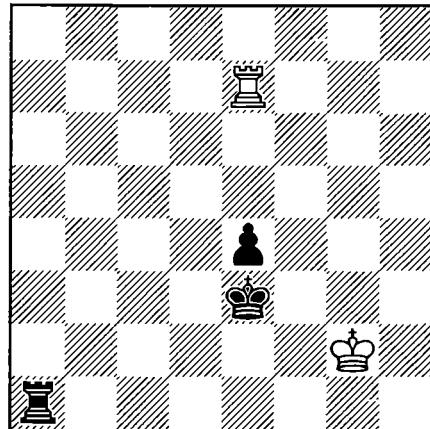
3. $\mathbb{K}f1!$

The king must move one way or the other and this is the most logical choice. The reasoning behind this becomes apparent in a few moves. For the record 3. $\mathbb{K}d1$ is also drawing (just) but there is no need to even consider this move.

3... $\mathbb{R}a1+$

Upon a neutral move such as 3... $\mathbb{R}a2$, Black replies in kind with 4. $\mathbb{R}e8$ maintaining the same defensive stance.

4. $\mathbb{K}g2$



Black to play

Black has seemingly made substantial progress by flushing out the white king. However, making the next step towards a Lucena position proves impossible. Advancing the king at the moment is out of the question as the pawn must be protected. The only hope seems to be to temporarily assign the black rook the task of protecting the e4-pawn, advance the king, then advance the pawn.

4... $\mathbb{R}e1$

The other way to protect the e4-pawn 4... $\mathbb{R}a4$ also falls short as White simply returns his king with 5. $\mathbb{K}f1$ preparing endless checks once the black king breaks cover.

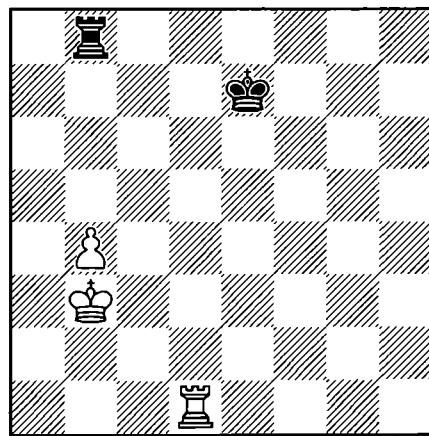
4... $\mathbb{K}d3$ is met with 5. $\mathbb{K}f2!$ stopping the e4-pawn nicely. All Black can really do here is to play 5... $\mathbb{R}a2+$ and return to an earlier position and try something else, for example 6. $\mathbb{K}e1$ $\mathbb{K}e3$ 7. $\mathbb{K}f1!$

4... $\mathbb{R}e1$, however, appears to set White genuine problems. Black continues to hold the back rank, and prepares to advance his king and pawn.

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5. $\mathbb{R}a7!$

The point of 3. $\mathbb{K}f1!$ is revealed! With the white king going to the kingside the white rook is afforded maximum room with which to deliver unpleasant side-checks. This defensive procedure is often referred to as ‘short-side defense’, the defending king goes to the ‘short-side’ so as to allow the defending rook to have maximum checking distance from the ‘long-side’.



White to play

5... $\mathbb{R}d1$

In case of 5... $\mathbb{K}e3$ a torrent of checks begins with 6. $\mathbb{R}a3+$, Black’s only shelter will be on f4, but then the white king will simply return to the defense with $\mathbb{K}f2$.

With 5... $\mathbb{R}d1$ Black hopes to block the checks using his rook. In fact 6. $\mathbb{R}a3+$ does not lose the game but requires White to switch to a completely different defensive setup. There is a much easier way:

6. $\mathbb{R}e7!$

Simply return! It becomes apparent that Black has made no progress whatsoever over the last few moves. Indeed, the position is almost identical to the previous diagram (after 4. $\mathbb{K}g2$).

Knight’s pawn on the fourth rank

A curious problem arises in the case of a knight’s pawn on the fourth rank.

The square we want to get our king to (two squares northwest of b4) isn’t on the board! The square c6 would suffice as a substitute (note this only available because the black king is cut by two files) however reaching c6 is not simple.

1. $\mathbb{R}d4!$

The only way. After 1. $\mathbb{K}c4 \mathbb{R}c8+$ White experiences another problem; he cannot step with his king to the d-file. 2. $\mathbb{K}b5 \mathbb{R}b8+$ 3. $\mathbb{K}c5 \mathbb{R}c8+$ 4. $\mathbb{K}b6 \mathbb{R}b8+$ and it is clear White cannot reach c6 without losing the b4-pawn.

1... $\mathbb{K}e6$

2. $\mathbb{K}c4 \mathbb{R}c8+$

2... $\mathbb{K}e5$ is tricky, but White can still win after 3. $\mathbb{R}d5+! \mathbb{K}e6$ 4. $b5!$

3. $\mathbb{K}b5 \mathbb{R}b8+$

4. $\mathbb{K}c6$

The point. b4 is already protected so this move is possible.

Lesson 5. Essential Rook Endgames

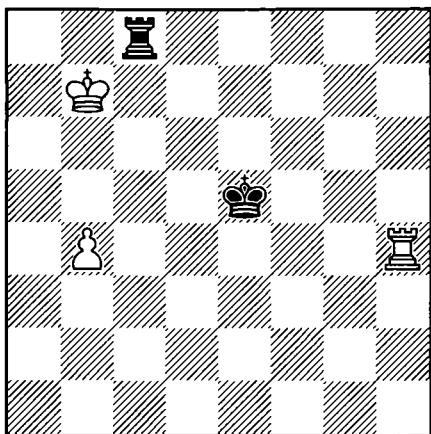
4... $\hat{\square}e5$

5. $\hat{R}h4 \hat{R}c8+$

6. $\hat{\square}b7$

The pawn will advance.

If the black king stood on e6 in the initial position, so that 1. $\hat{R}d4$ can be met with 1... $\hat{\square}e5$, then the position is just completely drawn.



Lesson 6

Bishop and Pawn Connections – Dynamic Defense

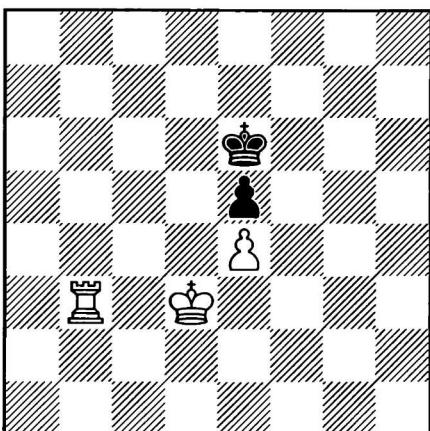
Lesson Aims

- Realize in which cases the endgame $\text{R} + \text{P}$ vs. $\text{R} + \text{P}$ with blocked pawns is drawn, and in which case it is winning for the stronger side.
- Know which setups can form fortresses in the endgame $\text{R} + 2\text{P}$ vs. $\text{R} + 2\text{P}$ with pawns on the knight and rook files.
- Understand the positional ideas related to these evaluations.
- Understand how the positional concepts, and the potential to simplify into a known drawn endgame, contributed to the result in the main game.

In this chapter I would like to share an important lesson I learned regarding the interaction between bishops and pawns. Along the way we will pick up several more useful pieces of theoretical knowledge.

We begin with the following diagram, and a challenge for the reader...

Take your pick!



Rules of the challenge:

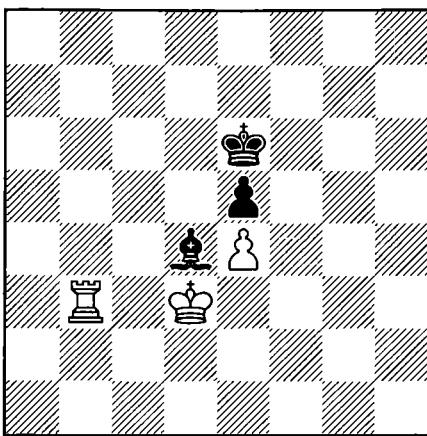
- You may place a black bishop on any unoccupied square on the board.
- After you have placed the bishop it will be White to play.
- You must then try to draw the game playing with the black pieces.

Which choice of square will give you

Lesson 6. Bishop and Pawn Connections – Dynamic Defense

the best chance to defend? After you have made your choice then read on...

I have posed this riddle many times and the overwhelmingly most popular response is “d4” (or sometimes f4, which is essentially the same). Let us examine the consequences of this:



Solid or passive?

The unit of e5+ $\hat{d}4$ looks very solid, but there is a problem. The bishop is condemned to a purely defensive role and moreover Black has no counterplay at all and no hope of fighting for the light squares. He must sit and wait. Black's defensive plan will be simple (keep the bishop and pawn connected, and move the king) but not necessarily successful.

In fact the position is a relatively easy win for White! For example, with White to move, the game may proceed:

1. $\hat{c}4 \hat{d}6$

2. $\hat{h}3 \hat{e}6$

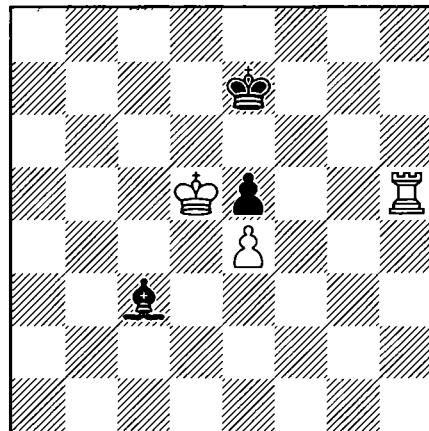
3. $\hat{h}6+ \hat{e}7$

4. $\hat{d}5$

The light squares are extremely weak and White has no problem advancing into the black position.

4... $\hat{c}3$

5. $\hat{h}5$



Threatening $\hat{h}xe5$, after which the result of the exchanges would be a lost king and pawn endgame.

5... $\hat{f}7$

6. $\hat{d}6 \hat{e}8$

The most stubborn. After 6... $\hat{d}4$ 7. $\hat{d}7 \hat{c}3$ 8. $\hat{f}5+ \hat{g}6$ 9. $\hat{e}6$ White will capture the e-pawn next move, and reach the key square on d6.

7. $\hat{e}6 \hat{d}8$

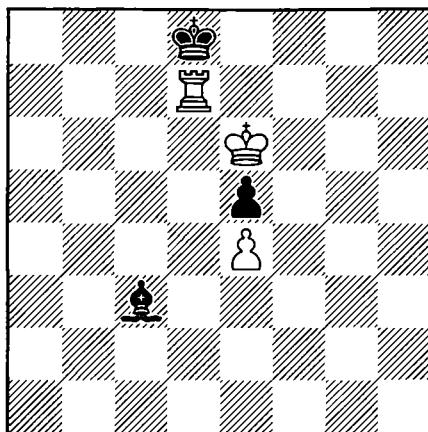
8. $\hat{h}7 \hat{d}4$

9. $\hat{g}7!$

White waits until the bishop moves to an unprotected square. The reason for this is given in the next note.

9...♝c3

10.♝d7+!



Forcing the fatal cut

The point is that after 10...♚e8 11.♝c7! wins the bishop, so Black's king is forced into a fatal cut.

10...♝c8

11.♝d5

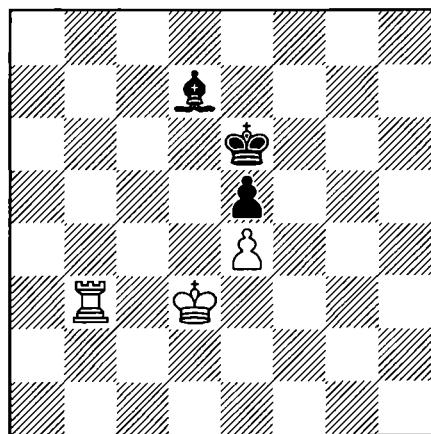
Followed by 12.♝xe5 and the white king will reach the key square on f6. White wins.

An active defense

What about placing the bishop on a light square such as d7?

(See Diagram)

This time the bishop can attack the e4-pawn *and* cover light the squares when the white king attempts to approach. This is much more important than the apparent weakness of the e5-pawn. Of course if White can attack e5



Fighting for the light squares

with both king and rook the pawn will fall, but as we will see this cannot be favorably achieved.

1.♝b6+ ♚e7

2.♝c4 ♜e6+

3.♝c5 ♜f7

Already it is apparent White is experiencing much greater difficulties this time: the bishop, pawn and king work very well together to cover both light and dark squares.

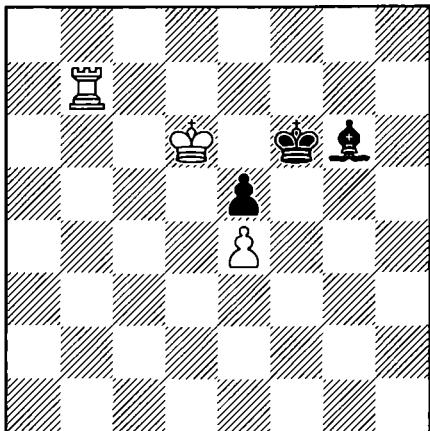
4.♝b7+ ♚f6

5.♝d6

Initially it seems that White is doing very well, but the weakness of his e4-pawn prevents him from any further progress.

5...♝g6!

Lesson 6. Bishop and Pawn Connections – Dynamic Defense



Counterattack!

6. $\mathbb{B}b4 \mathbb{R}h7$

7. $\mathbb{K}d5 \mathbb{Q}g8+$

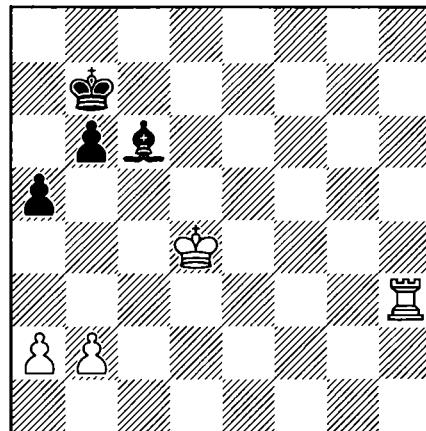
8. $\mathbb{K}c5 \mathbb{Q}f7$

In fact the position is a draw. By combining counterattack against the e4-pawn with restricting the white king, Black is able to hold the position. Note how the active bishop combines with the pawn to work as a unit, controlling squares of both colors.

In rook vs. bishop situations with a single pair of blocked pawns, it is worth remembering that the passive bishop protecting its own pawn is always losing. The active bishop – counterattacking the enemy pawn – gives much better chances of drawing the game. Note this is not so applicable to rook's pawns, which as usual have a completely different set of complications.

Two fortresses

The same principle of the active bishop and pawn unit enabling a dynamic defense is seen in the two ‘fortress’ positions we will now consider.



No way past the bishop and pawn unit

It quickly becomes apparent that White cannot breach this fortress by maneuvering his king and rook. The black king will cover the squares c7 and c8 (either from b7 or b8) and an attempt to play $\mathbb{K}c4-b5$ will fail as the bishop will sit on c6. Nevertheless we will try:

1. $\mathbb{K}e5 \mathbb{Q}g2$

2. $\mathbb{B}h7+ \mathbb{K}b8$

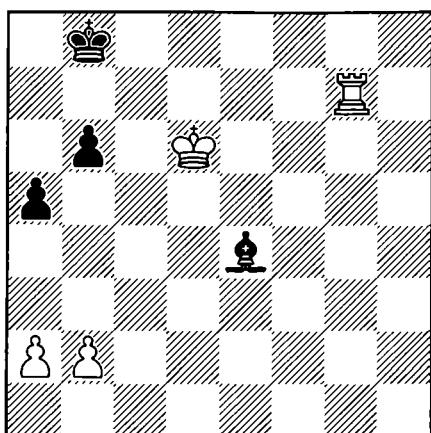
3. $\mathbb{K}d6$

White's advance has already reached its maximum.

3... $\mathbb{K}f3$

4. $\mathbb{B}g7 \mathbb{Q}e4$

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The barrier holds firm, so White tries another route.

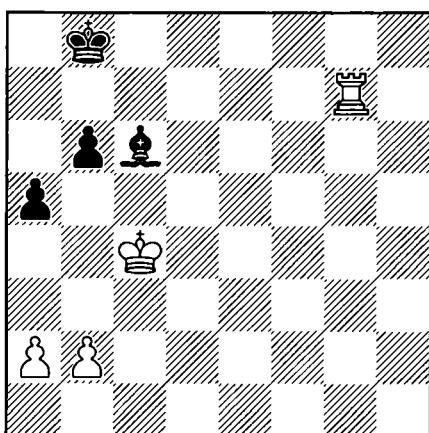
5. $\mathbb{K}e5 \mathbb{R}f3$

6. $\mathbb{K}d4 \mathbb{B}h1$

7. $\mathbb{K}c4$

Trying to access the b5 square.

7... $\mathbb{B}c6!$



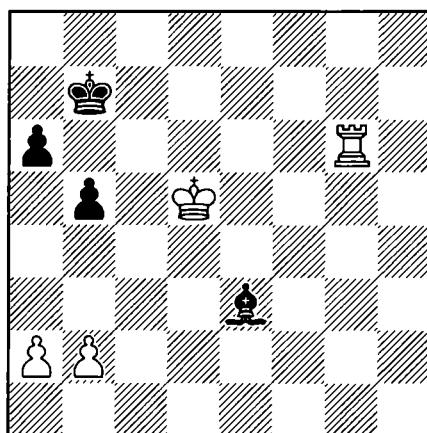
The bishop slams the door in White's face.

8. $\mathbb{B}h7 \mathbb{K}c8$

The white rook would easily be flushed from a7, so Black can wait in this way while the white king remains on c4. White has made no impression at all on Black's setup.

It is clear that in order to break into this fortress, the structure must be changed by means of a pawn break, although it turns out there is no forced win. We will revisit this position later in the chapter but for now we can easily observe that Black's setup is very harmonious and difficult to breach.

A similar setup, where the bishop does not cover the corner square is the following.



Tough to breach

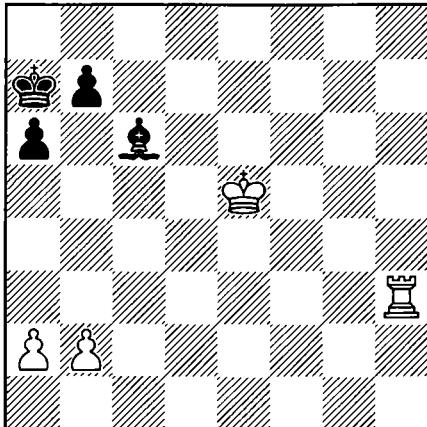
Again there is no entry for the white king, and from b6 the black bishop will prevent the access of a white king on b4. This is an excellent defensive setup and again we will revisit it later in the chapter.

The passive non-fortress

Again it is important to realize that an attempt to construct a 'solid' fortress

Lesson 6. Bishop and Pawn Connections – Dynamic Defense

with two pawns and a bishop against two pawns and a rook has no chance to succeed. Consider the following position:



No harmony between bishop and pawns

On the surface Black's position appears solid, but White will easily penetrate on the dark squares. The bishop and pawns are performing similar roles and make for an ineffective unit.

1. $\text{Rd}6 \text{ Rb}8$

2. $\text{Rh}8+ \text{Ka}7$

3. $\text{Rc}7$

The progress of the white king on the dark squares is unhindered.

3... $\text{Rd}5$

4. $\text{a}3 \text{ Rc}6$

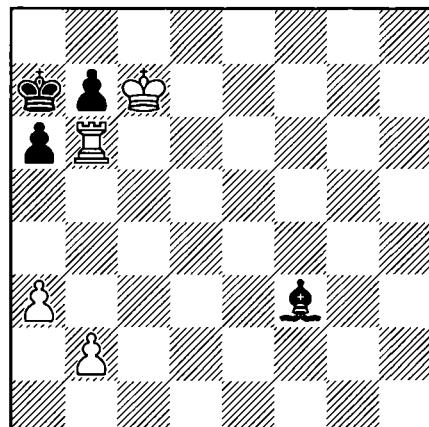
5. $\text{Rh}6!$

The rook threatens to capture on c6, when Black avoids this the rook will transfer to b6. Note also that by denying

the bishop the c6 square, the pawn can freely advance to a4 later.

5... $\text{f}3$

6. $\text{Rb}6$



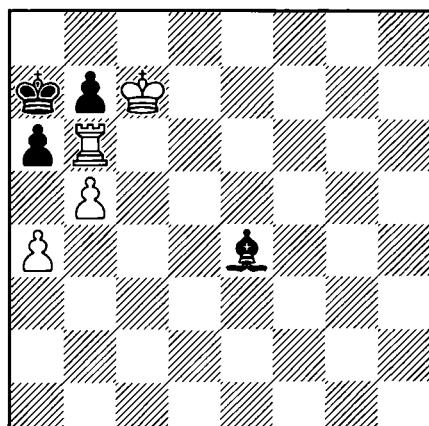
White has maximized both of his pieces and now the winning pawn presents itself – a pawn storm on the black king.

6... $\text{e}4$

7. $\text{b}4 \text{ f}3$

8. $\text{a}4 \text{ e}4$

9. $\text{b}5$



The pawn storm spells the end for Black

PART 2. Principles And Essential Theory

9...axb5

10.axb5 ♜d5

11.♝d6

Clearing the path of the white pawn to b6.

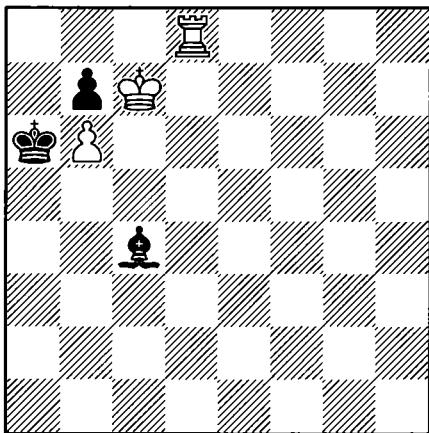
11...♞c4

12.b6+

Finally the black king will be flushed out, and White will capture the b7-pawn.

12...♚a6

13.♝d8



Followed by ♜a8+, ♜a7 and finally a capture on b7. White wins.

Carlsen defends dynamically

Sasikiran – Carlsen,
Sarajevo, 2006
Nimzo-Indian Defense

1. d4 ♜f6

2. c4 e6

3. ♜c3 ♜b4

4. ♜c2 d5

The (potentially) sharpest response to the Classical Nimzo-Indian. Black immediately starts conflict in order to exploit White's slow kingside development. Recently the refinement 4...0-0 5.a3 ♜xc3+ 6.♕xc3 d5!? has become very popular. Previously it was thought this was a poor line due to 7.♗g5 but Black can continue either with 7...dxc4 followed by 8...b6 or with the gambit continuation 7...c5!? 8.dxc5 d4.

5. a3 ♜xc3+ 6. ♜xc3

Grabbing the bishop without spoiling the structure was the primary aim of 4.♕c2. With a spoiled structure the strength of the black knights would increase, but here White simply has a static advantage, which could make itself felt later in the middlegame and into the endgame. However, matters are not so simple because Black can use his advantage in development to drum up an initiative.

6...♝e4

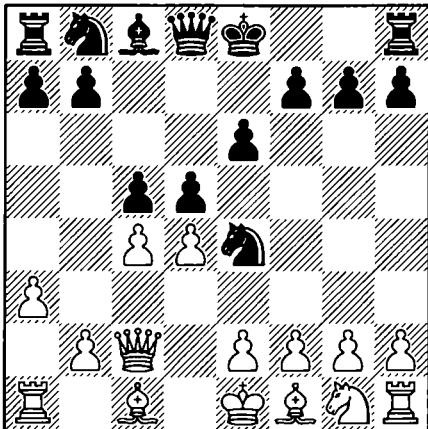
7. ♜c2 c5

(See Diagram)

One of the most heavily analysed positions in the theory of the Classical Nimzo.

8.dxc5 ♜c6

Lesson 6. Bishop and Pawn Connections – Dynamic Defense



9.cxd5 exd5

10.♘f3 ♕f5

11.b4 d4

It is difficult to give a verbose discussion of the next 25 moves or so, because the game is primarily tactical.

11...0-0 is played much more often than 11...d4, which has fallen into disuse. Like so many interesting opening tries, the latter move does not stand up to sustained scrutiny from powerful engines.

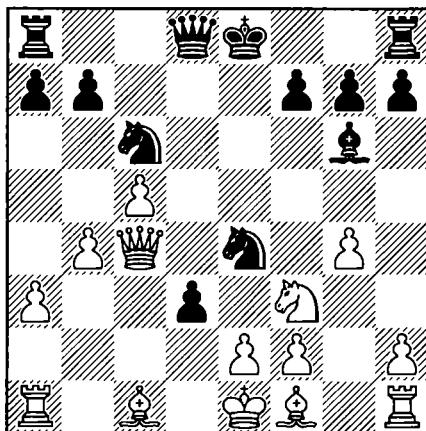
Note the tempting jump 11...♗g3 (11...♘xf2 12.♕xf5 ♘xh1 13.g3 and White will round up the ♘h1 shortly) runs into the forced sequence 12.♗b2! ♘xh1 13.♗xg7 ♜f8 14.♗h6 ♔e7 15.♗xf8+ ♔xf8 16.♗xf8 ♔xf8 17.g3 and after winning the ♘h1 White will have a huge advantage.

12.g4 ♔g6

Forced. It seems White has only weakened his position by including the moves g2-g4 and ♔f5-g6 because now

he must meet the threat of ♘e4-g3 by moving the queen anyway. The justification is that Black's queen has a natural and strong post on f6 and the g-pawn can advance later (g4-g5) to displace it from this square.

13.♔c4 d3!?



Trying to exploit the g2-g4 liberty taken by White by removing the only defender (pawn e2) of the white ♘f3 so that 14.exd3 can be met by the fork 14...♔f6. Play could continue 15.dxe4 ♔xf3 16.♗g1 0-0-0!? and although the position is still very unclear (indeed the engine evaluates it as better for White) I think most players would prefer to play Black here.

14.♔e3

It is logical to put another piece in front of the king and to prepare to meet ...♔d8-f6 with ♜a1-d1. Later games leaned toward playing 14.♔g2 here instead and on 14...♔f6 then simply 15.♗a2, although White must navigate his way against 15...♗e5! with 16.g5! ♔f5 17.♗d4.

PART 2. Principles And Essential Theory

14... $\mathbb{Q}f6$

15. $\mathbb{Q}d1$ O-O??

From this point onward Black seems to be fishing around for rather questionable compensation. It seems much stronger to hoist the pirate flag with 15...O-O-O! White has a wide choice of responses, but the main point is that the exchanging ... $\mathbb{Q}f6$ - $\mathbb{Q}c3+$ leads positions where Black is at least equal.

For example:

➤ 16.g5 $\mathbb{Q}c3+$ 17. $\mathbb{Q}xc3$ $\mathbb{Q}xc3$ 18. $\mathbb{Q}d2$ dxe2 19. $\mathbb{Q}h3+$ (19. $\mathbb{Q}xe2$? loses to 19... $\mathbb{Q}xe2$ 20. $\mathbb{Q}xe2$ [20. $\mathbb{Q}xe2$ $\mathbb{Q}e4$] 20... $\mathbb{Q}h5$ and suddenly White is helpless against $\mathbb{Q}c6-e5$) 19... $\mathbb{Q}b8$ 20. $\mathbb{Q}d4$ $\mathbb{Q}xd4$ 21. $\mathbb{Q}xd4$ $\mathbb{Q}e4$ 22. $\mathbb{Q}e5+$ $\mathbb{Q}a8$ 23. $\mathbb{Q}xd8+$ $\mathbb{Q}xd8$ 24. $\mathbb{Q}xe2$ $\mathbb{Q}xg5$ and Black is fine.

➤ 16.b5? $\mathbb{Q}e5!$ 17. $\mathbb{Q}xe5$ d2+ 18. $\mathbb{Q}xd2$ $\mathbb{Q}xd2$ 19. $\mathbb{Q}g2$ $\mathbb{Q}xe5$ 20.O-O h5! and Black's attack is very dangerous; probably even winning.

16. $\mathbb{Q}xd3$ b5

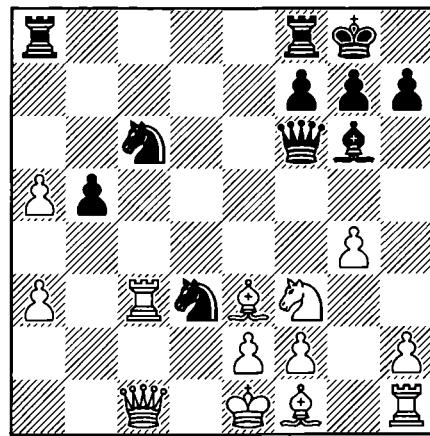
17. $\mathbb{Q}c1$

Of course not 17. $\mathbb{Q}xb5??$ $\mathbb{Q}a1+$ 18. $\mathbb{Q}d1$ $\mathbb{Q}xd1+$ 19. $\mathbb{Q}xd1$ $\mathbb{Q}c3+$

17...a5

18.bxa5 $\mathbb{Q}xc5!$

19. $\mathbb{Q}c3$ $\mathbb{Q}d3+$



20.exd3 $\mathbb{Q}xf3$

21. $\mathbb{Q}g1$ $\mathbb{Q}e5$

22.d4

The most natural, winning the exchange.

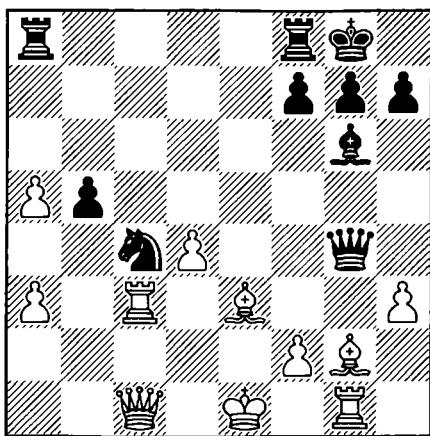
Although it appears risky, it may actually be quite safe to give back the exchange with 22. $\mathbb{Q}e2$ $\mathbb{Q}d5$ 23.f4! $\mathbb{Q}xd3$ (23... $\mathbb{Q}f3+?$ 24. $\mathbb{Q}xf3$ $\mathbb{Q}xf3$ 25.f5 and White should win because e3 can always be protected by $\mathbb{Q}g1-g3$) 24. $\mathbb{Q}xd3$ $\mathbb{Q}xd3$ 25. $\mathbb{Q}d2$ $\mathbb{Q}ad8$ 26. $\mathbb{Q}f2$. The tactics seem to work for White so he can reach an endgame a pawn to the good.

22... $\mathbb{Q}c4$

23. $\mathbb{Q}g2$ $\mathbb{Q}xg4$

24.h3

Lesson 6. Bishop and Pawn Connections – Dynamic Defense



24... \mathbb{Q} e6

24... \mathbb{Q} c8 is possible, intending to capture on a8 with the queen. At first sight it appears that 25.a4 is very strong, but after 25... \mathbb{Q} xa5! 26.axb5 \mathbb{Q} xb5 27. \mathbb{Q} xc5 \mathbb{Q} a6! Black is extremely active and has the concrete threat of ... \mathbb{Q} b5-b1.

The line should end in a draw but White is the one who must tread carefully:

28. \mathbb{Q} d2 \mathbb{Q} b1+ 29. \mathbb{Q} c1 \mathbb{Q} xc1 30. \mathbb{Q} xc1 \mathbb{Q} c8 31. \mathbb{Q} b2! (31. \mathbb{Q} d2?? \mathbb{Q} a1+ 32. \mathbb{Q} d1 \mathbb{Q} a5+ 33. \mathbb{Q} e2 \mathbb{Q} b5+ 34. \mathbb{Q} e1 \mathbb{Q} b4+ 35. \mathbb{Q} e2 \mathbb{Q} c2+ 36. \mathbb{Q} xc2 and White must suffer for the draw, although he should probably achieve it) 31... \mathbb{Q} a5+ 32. \mathbb{Q} d1 \mathbb{Q} a4+ 33. \mathbb{Q} e1 \mathbb{Q} a5+ and both sides should settle for perpetual check.

25. \mathbb{Q} xa8 \mathbb{Q} xa8

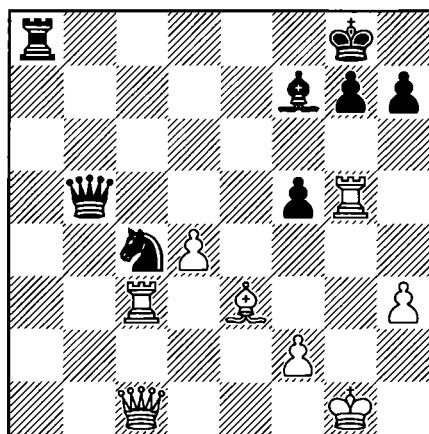
26.a4! \mathbb{Q} a6

27. \mathbb{Q} g5 f5

28.axb5 \mathbb{Q} xa5

29. \mathbb{Q} f1 \mathbb{Q} xb5

30. \mathbb{Q} g1 \mathbb{Q} f7



White has managed to navigate the complications, improve the safety of his king, and retain his extra exchange. However, Black still has partial compensation due to his strong pieces and control of the light squares. In addition the pawn count is quite low, increasing Black's chances of saving the game.

31. \mathbb{Q} f1 g6

32. \mathbb{Q} g3 \mathbb{Q} d5

33. \mathbb{Q} c1 \mathbb{Q} e8

34. \mathbb{Q} d1 \mathbb{Q} g7

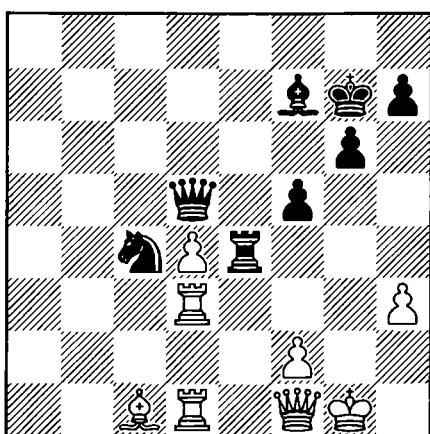
35. \mathbb{Q} c1 \mathbb{Q} e4

36. \mathbb{Q} gd3

Here we should pause to summarize the situation. In a game we must be able to use our knowledge to determine what to head for and what to avoid. The remainder of the game shows the ideas

PART 2. Principles And Essential Theory

examined so far in this chapter applied in a successful defense from a difficult position. Notice how Carlsen combines strong tactical awareness with envisaging the possible endgames that can arise and prepares for them by building a strong bishop and pawn unit.



Black is down a clean exchange, but clearly has some compensation. The black pieces are actively placed, apart from the bishop on f7. That piece does not combine well with the black kingside pawns. White is tied to the defense of the d4-pawn and his bishop does not have an effective post. Both kings are exposed, but White's more so; if the black bishop could effectively maneuver to c6 then White could have some problems. Weighing all of this up, it seems Black has reasonable play. However, I still think Black would be happy to draw this position as White's material could easily tell once the black pieces are evicted from their posts.

The logical attempt to improve the bishop with 36...♝e8 shows how quickly the black pieces can be driven back:

37.f3! ♜e6 38.♜e1

Suddenly Black must give up the e-file or allow exchanges.

38...♝c6 39.♜xe6 ♛xe6 40.♜c3
♝d5 41.♝f4

White's pieces begin to find good squares and Black has no threats. Black retains some chances as the white king will always be weakened, but clearly the black position has gone downhill.

Let us join the game:

36...f4!

An excellent move. Black realizes his bishop must stay on the kingside, so he begins building a strong structure in which the bishop will thrive. He will continue this work with h6 and g5, constructing a bishop and pawn unit similar to that we have already seen.

37.♛g2 h6

Preparing g6-g5

38.f3

To make progress White has to play this advance sooner or later.

38...♜e3

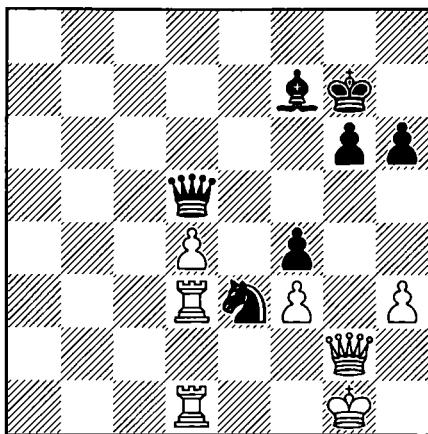
Showing another point to 36...f4, preparing to exploit the weakness that may appear on e3. Black embarks on favorable exchanges starting with this temporary sacrifice.

39.♝xe3

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It was also possible to decline the sacrifice with a neutral move such as 39.h4. After this, Black had prepared the tactical response 39... $\mathbb{B}xd3$ 40. $\mathbb{B}xd3$ $\mathbb{Q}e5!$ after which either the d4- or f3-pawn will fall.

39... $\mathbb{Q}xe3$



This is the type of position Black was aiming for with 36...f4. White now faces a major decision: to allow the capture on d1, or to capture himself on e3. As we will see by creating a harmonious structure for his bishop on the kingside, Carlsen was prepared for both.

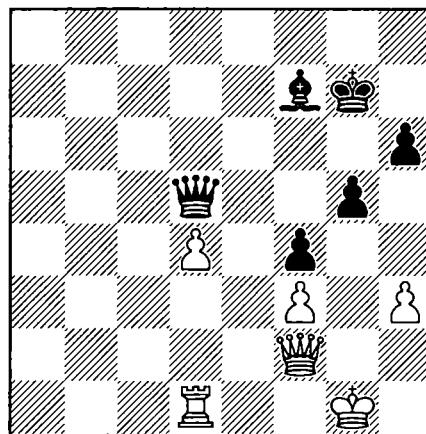
40. $\mathbb{W}f2$

The alternative was 40. $\mathbb{B}xe3$ $\mathbb{F}xe3$ 41. $\mathbb{B}d3$ (it is also interesting to try to prevent g6-g5 by playing 41.h4, however leaving the e3-pawn on the board is a double-edged decision 41... $\mathbb{W}b3$ 42. $\mathbb{B}e1$ $\mathbb{W}c3$ 43. $\mathbb{W}g3$ This seems like the best try, but after 43... $\mathbb{W}xd4$ 44.f4 e2+ 45. $\mathbb{W}f2$ $\mathbb{W}xf2+$ 46. $\mathbb{W}xf2$ $\mathbb{Q}c4$ I do not think White can win) 41... $\mathbb{W}d6!$ Preventing White from capturing the e3-pawn with the queen due to the check on g3, 42. $\mathbb{W}h2$ (or

42. $\mathbb{B}xe3$ $\mathbb{W}xd4$) 42...e2! 43. $\mathbb{B}e3$ $\mathbb{W}xd4$ 44. $\mathbb{W}xe2$ g5 Black has excellent chances to hold thanks to his very strong bishop and pawn unit on the kingside. This began with 36...f4 and 37...h6. It is hard for White to develop a meaningful attack with his own king so exposed.

40... $\mathbb{B}xd1$

41. $\mathbb{B}xd1$ g5



The plan beginning with 36...f4 has been a complete success. Black's pawn structure maximizes his pieces. Note how Black insisted on this structure, preparing himself for the endgame. His bishop and pawn unit gives rise to two important trumps in his quest to draw:

➤ If only the f3- and f4-pawns remain on the board, the rook vs. bishop endgame is a draw (compare with the correct solution to the 'riddle' earlier in this chapter).

Black has constructed the makings of one of the 'fortress' positions with the pawns on g5 and h6. In a rook vs. bishop endgame with for example f3, h3 vs. g5,

PART 2. Principles And Essential Theory

h6 Black should be able to hold the position.

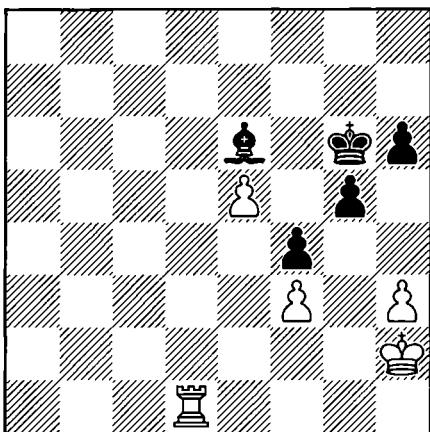
42. $\mathbb{Q}e2 \mathbb{Q}e6$

43. $\mathbb{Q}h2 \mathbb{Q}f5$

Encouraging White to exchange queens

44. $\mathbb{Q}xe5+ \mathbb{Q}xe5$

45. $dxe5 \mathbb{Q}g6$



46. $\mathbb{Q}d8$

Attempting to hold the e5-pawn will lead to a position such as 46. $\mathbb{Q}a1 \mathbb{Q}f5$ 47. $\mathbb{Q}a5 \mathbb{Q}d7$ 48. $\mathbb{Q}g2 \mathbb{Q}c6$ in which White will be tied forever to the weak pawns on f3 and e5.

46... $\mathbb{Q}f5$

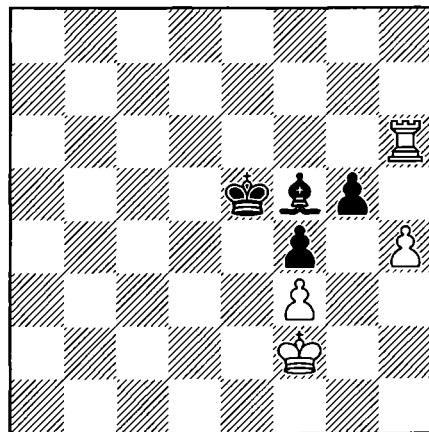
47. $\mathbb{Q}h8 \mathbb{Q}xe5$

48. $\mathbb{Q}xh6 \mathbb{Q}f5$

49. $\mathbb{Q}g2 \mathbb{Q}e6$

50. $\mathbb{Q}f2 \mathbb{Q}f5$

51. $h4$



Attempting to improve the king with 51. $\mathbb{Q}e2 \mathbb{Q}e6$ 52. $\mathbb{Q}d2 \mathbb{Q}f5$ 53. $\mathbb{Q}c3 \mathbb{Q}e6$ 54. $\mathbb{Q}b4$ is also fruitless. After 54... $\mathbb{Q}d5$ White cannot hold the f3-pawn.

51... $gxh4$

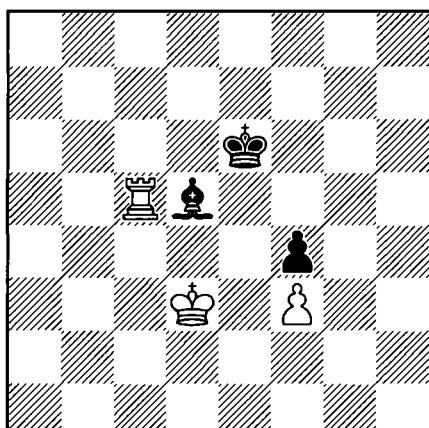
52. $\mathbb{Q}xh4 \mathbb{Q}e6$

53. $\mathbb{Q}h5+ \mathbb{Q}f6$

54. $\mathbb{Q}c5 \mathbb{Q}b3$

55. $\mathbb{Q}e2 \mathbb{Q}e6$

56. $\mathbb{Q}d3 \mathbb{Q}d5$



Lesson 6. Bishop and Pawn Connections – Dynamic Defense

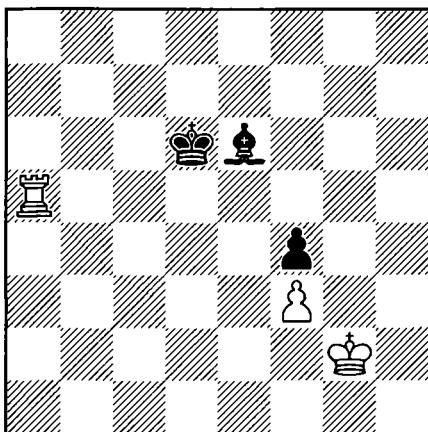
The bishop finds a strong diagonal, with f3 under attack White cannot make any further progress, although some accuracy is still required.

57. $\mathbb{Q}e2 \mathbb{Q}d6$

58. $\mathbb{B}a5 \mathbb{Q}e5$

59. $\mathbb{Q}f2 \mathbb{Q}d6$

60. $\mathbb{Q}g2 \mathbb{Q}e6!$



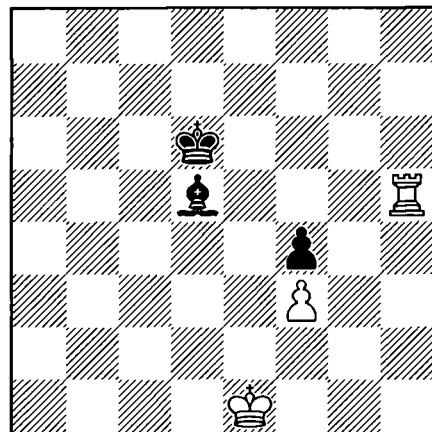
Keeping the white king out of the h3 square. 60... $\mathbb{Q}c6??$ would be a grave error, allowing 61. $\mathbb{B}f5$ and the f4-pawn is lost.

61. $\mathbb{B}h5 \mathbb{Q}d7$

62. $\mathbb{Q}f2 \mathbb{Q}e6$

63. $\mathbb{Q}e2 \mathbb{Q}c4+$

64. $\mathbb{Q}e1 \mathbb{Q}d5$



White tried for another 38 moves but made no progress.

$\frac{1}{2} - \frac{1}{2}$

SUMMARY

Lessons – General

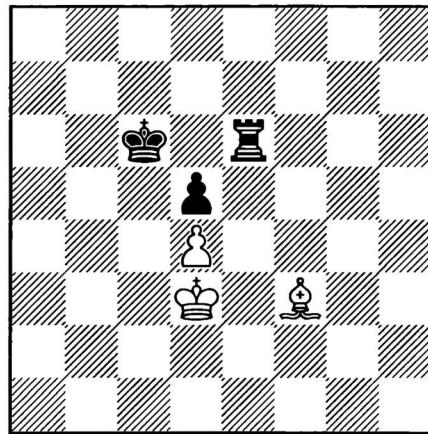
- Be sure not to confuse ‘solid’ with ‘passive’.
- If you are defending with a material disadvantage and have no counterplay it is likely you will lose.
- Maximize your pieces, make the best of them.
- Sometimes changing the pawn structure to improve your pieces is more effective than maneuvering.

PART 2. Principles And Essential Theory

- In more complex positions keep in mind specific pieces of endgame knowledge, such as fortresses and other defensive setups. Look for potential simplifications into these.
- The bishop combines best with pawns on the opposite-colored squares. As a unit they can cover many more squares.

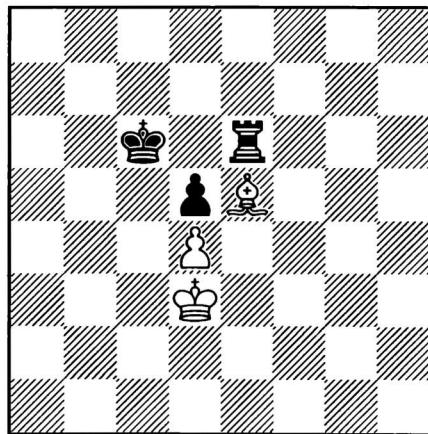
LESSONS – THEORETICAL

- In endgames featuring bishop and pawn vs. rook and pawn where the pawns are blocked, the color of the bishop most often determines the outcome of the game. If the bishop is able to attack the stronger side's pawn, the weaker side has good chances to draw.



Draw

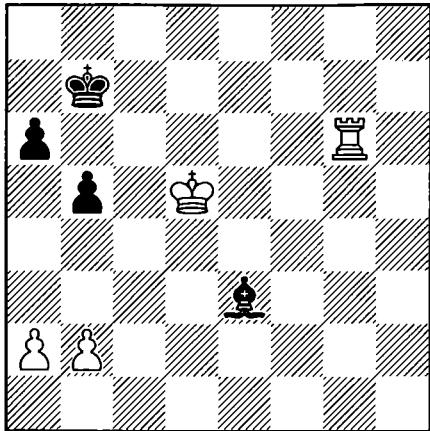
- If the bishop and pawn are passively defending each other, the position is almost always lost.



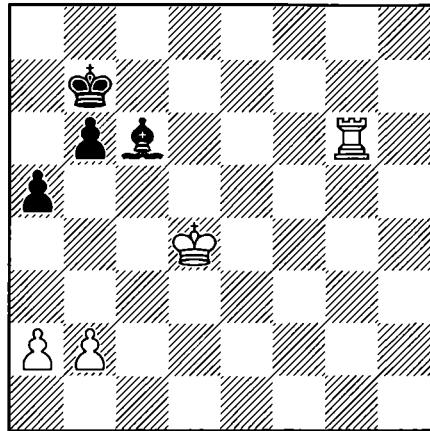
Lost

Lesson 6. Bishop and Pawn Connections – Dynamic Defense

- We also learned two excellent defensive setups for the weaker side, where the pawn structure maximizes the effectiveness of the bishop.



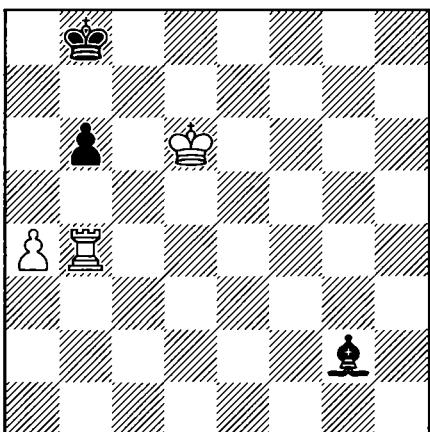
Fortress



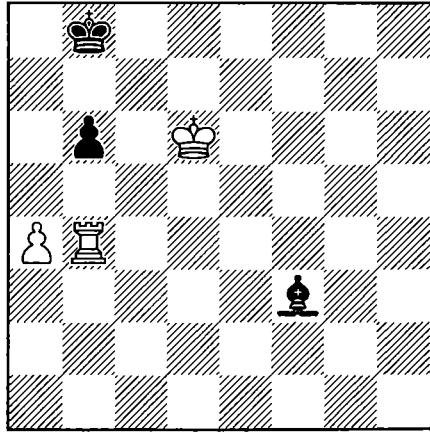
Fortress

Theoretical notes – Storming the fortresses

On two occasions in this chapter I promised to revisit a position for further analysis. Please note that it is not vital to remember the information in this part, but I have included it for completeness. Before we embark it is important to understand two near-identical positions, but with a subtle difference.



Position A



Position B

Black is to move in both positions.

PART 2. Principles And Essential Theory

In position A, White is winning:

1... \mathbb{Q} a7

Counterattacking against a4 with the king is Black's only chance.

2. \mathbb{Q} c7 \mathbb{Q} a6

3. \mathbb{B} xb6+ \mathbb{Q} a5

4. \mathbb{B} b2!

Attacking the bishop.

4... \mathbb{Q} f3

4... \mathbb{Q} d5 cleverly covers a2, but not so cleverly allows 5. \mathbb{B} b5+ winning the bishop.

5. \mathbb{B} a2

Protecting the pawn and White will win.

In position B, Black can draw:

1... \mathbb{Q} a7

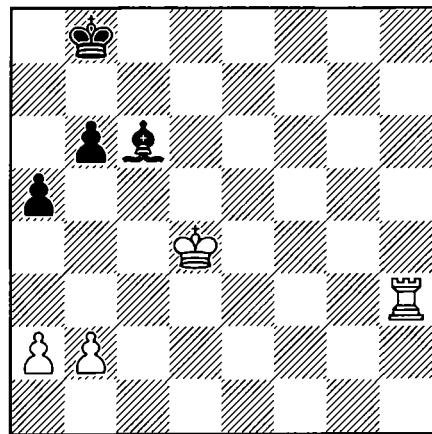
2. \mathbb{Q} c7 \mathbb{Q} a6

3. \mathbb{B} xb6+ \mathbb{Q} a5

4. \mathbb{B} b3 \mathbb{Q} d1!

And Black will remove the final white pawn.

Now we will revisit the two positions from earlier in the chapter, firstly:



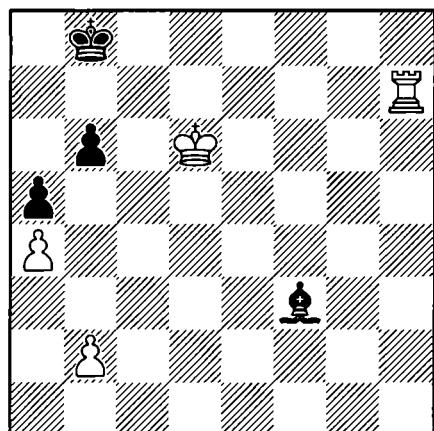
There is a well-analyzed attempt to break into this fortress by means of a timely b4 break as follows:

1. \mathbb{Q} e5 \mathbb{Q} c7

2. \mathbb{B} h7+ \mathbb{Q} b8

3. \mathbb{Q} d6 \mathbb{Q} f3

4.a4



We see now the relevance of position A and position B. White is planning \mathbb{B} h4 and b2-b4.

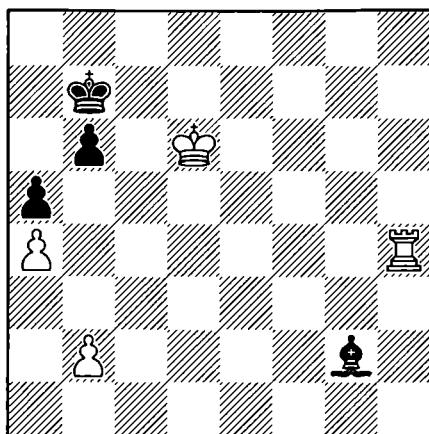
4... \mathbb{Q} g2!

4... \mathbb{Q} e4? Is a mistake after which

Lesson 6. Bishop and Pawn Connections – Dynamic Defense

White can force the winning version ‘A’ of the twin positions, 5. $\mathbb{B}h4$ $\mathbb{Q}f3$ 6. $\mathbb{B}f4!$ (not 6. b4 axb4 7. $\mathbb{B}xb4$ when we have the drawn version) 6... $\mathbb{Q}g2$ 7. b4 axb4 8. $\mathbb{B}xb4$

5. $\mathbb{B}h4$ $\mathbb{Q}b7$

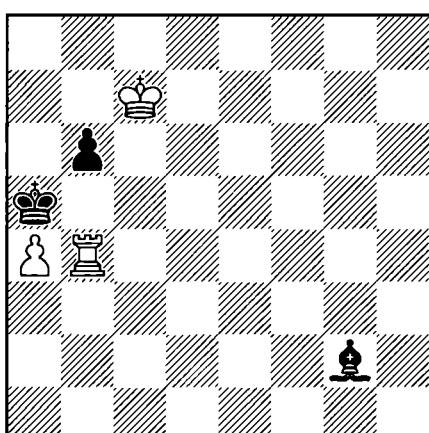


By activating the king Black ensures he is a tempo closer to winning the a4-pawn, and has no problem drawing.

6. b4 axb4

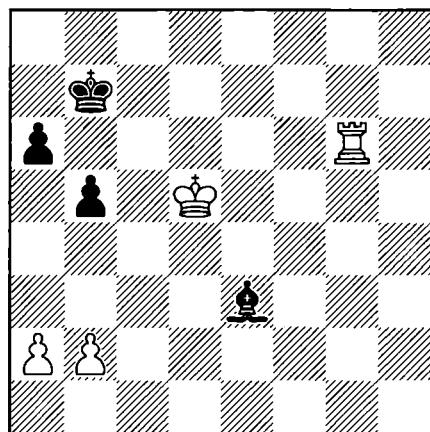
7. $\mathbb{B}xb4$ $\mathbb{Q}a6$

8. $\mathbb{Q}c7$ $\mathbb{Q}a5$



9. $\mathbb{B}xb6$ $\mathbb{Q}xa4$ With a draw.

The other position to revisit is:



Black to play

This position is extremely complicated and I do not want to attempt to analyze it in great detail, but for completeness I would like to make some comments. This position is given in several endgame books as a draw and I believe that for practical purposes we can consider it as such, but theoretically Black may be lost. For instance, after:

1... $\mathbb{Q}f2$

2. $\mathbb{Q}e4$ $\mathbb{Q}c5$

3. $\mathbb{Q}d3$ $\mathbb{Q}f2$

4. $\mathbb{Q}e6$ $\mathbb{Q}g1$

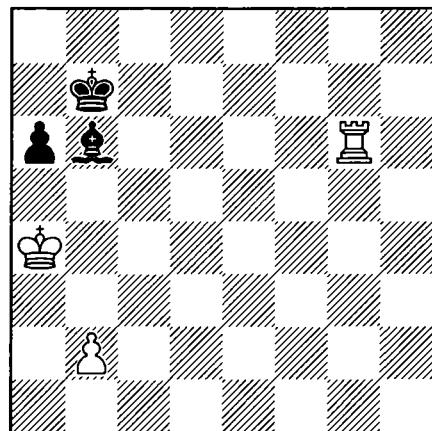
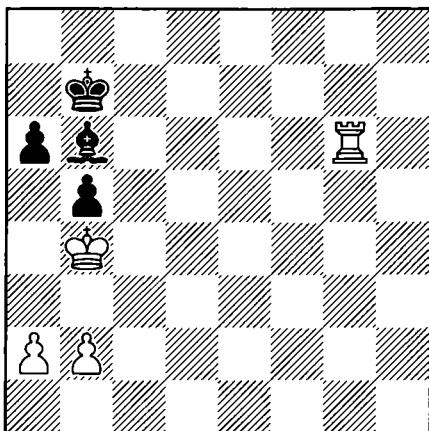
5. $\mathbb{Q}c3$ $\mathbb{Q}f2$

6. $\mathbb{Q}b4$ $\mathbb{Q}b6$

(See Diagram)

In accordance with the principles of this fortress, Black waits then meets $\mathbb{Q}b4$ with $\mathbb{Q}b6$. However after...

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7.a4!

...it seems Black is lost.

The best response is:

7...bxa4+

8.♔xa4

Black has a very solid setup and his position is extremely hard to break down but the tablebase informs us this is mate in 73. To human eyes, the tablebase's winning strategy is devoid of logic and I will not attempt to show it here. It is difficult to determine if White will overstep the 50 moves or not in attempting to win this position, but my feeling is that White will be able to play b2-b3 before reaching the 50 move count.

Again this is not important to know or understand; I merely think it is something theoretical manuals have overlooked.

Lesson 7

Pawn Walls Against Bishops

Lesson Aims

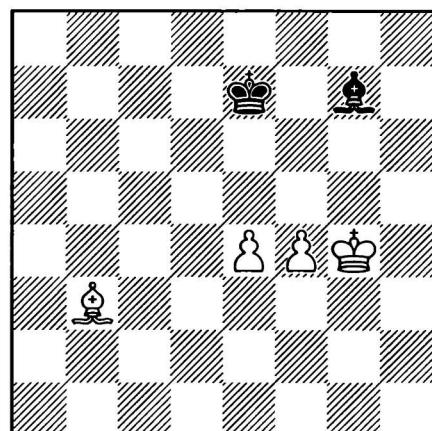
- Grasp the patterns of restraining a bishop with a pawn chain.
- Follow the example of how these ideas can be used in a game.
- Understand the endgame ♕+2 pawn vs. ♔, with opposite-colored bishops and connected pawns, in particular the defensive setups involved.

In the last chapter we discussed the coordination between a bishop and (friendly) pawns. A logical follow up would be to explore the relationship between a bishop and the enemy pawns. Capablanca has some general advice for us here:

“When the opponent has a bishop, keep your pawns on squares of the same color as your opponent’s bishop.”

- J.R. Capablanca in *Chess Fundamentals*

One of the easiest ways to see how this works is by looking at a position such as this:



White to play and build a wall

We will look deeper into the theory of this class of endgame in the notes at the end of the chapter, but for now there are two important points to consider:

PART 2. Principles and Essential Theory

Black's principle weapons to defend this endgame are:

- Blockading the pawns by fixing them on light squares. If White begins here with 1.f5?? then Black has an easy blockade. One way to proceed would be 1... \mathbb{Q} d6 2. \mathbb{Q} g5 \mathbb{Q} f6+ 3. \mathbb{Q} g6 \mathbb{Q} d8 and White cannot hope to make further progress.
- Sacrifice of the bishop to win both pawns.

Following the first move:

1.e5!

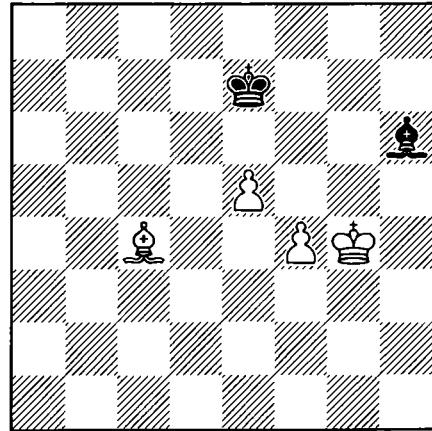
Black's problems become apparent. White's center acts as a wall against the \mathbb{Q} g7 (contrast with the position after 1.f5 when the black bishop slices across the board).

1... \mathbb{Q} h6

There is little choice but to accept the bishop's prison. An attempt to escape would have to involve retreating the king (say to e8) followed by \mathbb{Q} f8 but White would make huge progress against this by encroaching first with his king and then with his pawns. Moreover this regrouping by Black would not lead to any coherent defensive setup.

After 1... \mathbb{Q} h6 Black actually does succeed in making a good defensive set-up, but not quite good enough.

2. \mathbb{Q} c4!



Please misplace a piece

If 2.f5?? then 2... \mathbb{Q} g7! reaches a drawn position as we will see later (3.f6+ \mathbb{Q} xf6! is the main point).

The attack on the f4-pawn also makes penetrating immediately with the king impossible. The problem is the fragility of Black's setup; both the \mathbb{Q} e7 and \mathbb{Q} h6 are optimally placed but have no auxiliary positions from which they can perform the same tasks. After 2. \mathbb{Q} c4 a *Zugzwang* is created, and Black must misplace one of his pieces, which proves fatal.

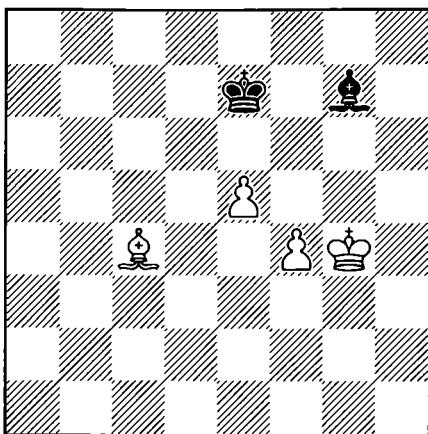
Later when we look more at this type of endgame we will see this concept a lot. Often the problem lies not in creating the defensive setup itself, but having sufficient non-damaging waiting moves to be able to maintain it against *Zugzwang* attempts.

2... \mathbb{Q} g7

Moving the bishop from h6 means it will never return there, as White is now playing \mathbb{Q} g5-g6 (2... \mathbb{Q} f8 would be met like this too).

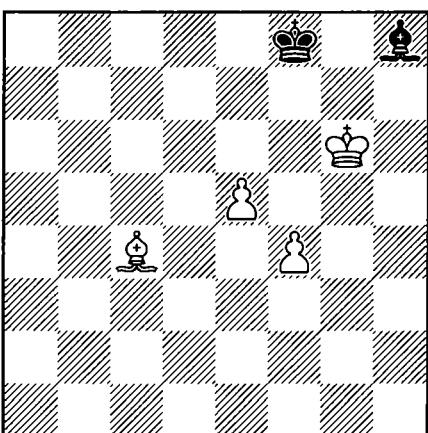
Lesson 7. Pawn Walls Against Bishops

On the other hand moving the king from e7 is not good because White will have time to advance f5-f6, for example 2... $\mathbb{Q}e8$ 3.f5 $\mathbb{B}g7$ 4.f6 (Black is in no position to sacrifice this time) $\mathbb{B}h8$ 5. $\mathbb{Q}f5$ and White wins; the simplest way being to advance e6-e7 and then play $\mathbb{B}b5+$, queening the e-pawn.



3. $\mathbb{Q}g5$ $\mathbb{Q}f8$

4. $\mathbb{Q}g6$ $\mathbb{B}h8$

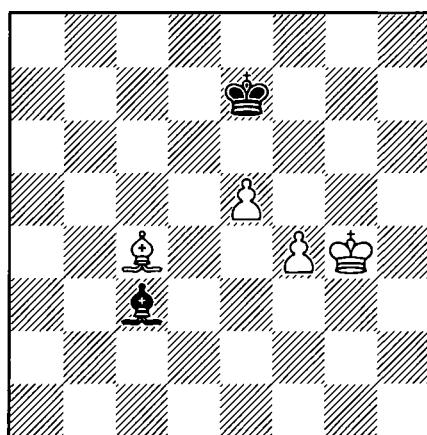


Black's setup is at least preventing the pawns from moving, but he has finally run out of squares.

5. $\mathbb{Q}h7!$

The $\mathbb{B}h8$ is lost and White wins.

Interestingly, even free from its cage, the bishop can do little against the restricting pawn wall.



Locked outside of the cage instead

Here we have the identical situation with the bishop transferred from g7 to c3. In this case the good news is that the black bishop is no longer in any danger of being trapped. On the other hand, the bad news is that the e5-pawn leaves the bishop with no influence over the kingside.

1... $\mathbb{B}b2$

There is little to do but wait.

2. $\mathbb{Q}f5$ $\mathbb{B}c3$

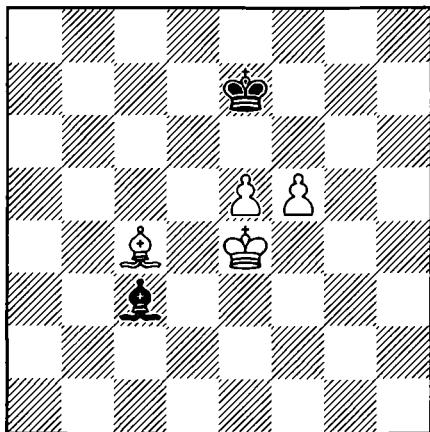
3. $\mathbb{Q}e4$

Repositioning the king to protect the e5-pawn as a prelude to f4-f5.

3... $\mathbb{B}b2$

4.f5 $\mathbb{B}c3$

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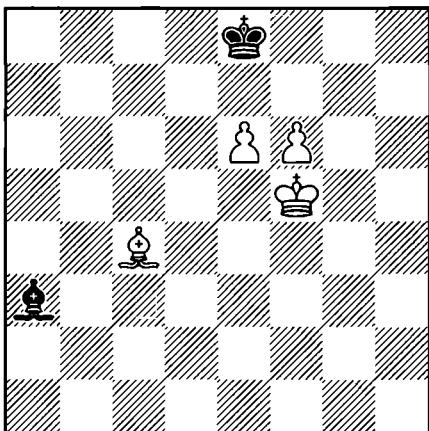
White's pawns cannot be stopped

The pawns cannot be stopped from taking up an overwhelming position on the sixth rank.

5.f6+ ♔e8

6.♔f5 ♕b2

7.e6 ♕a3



♕b5+ will force the king from e8

Attempting to counter the threat of ♕b5+ followed by e6-e7-e8.

8.♕b5+ ♔f8

Now that Black must wait with his bishop on the diagonal a3-f8 – to prevent e6-e7 – he has no time to counter attack the f6-pawn and the white king is free to move to d7. Of course if 8...♔d8 the white king would instead head for f7.

9.♔e4

9.♔e5 loses time due to 9...♗b2+ and White must return to f5 as after 10.♔d5?? Black has time for 10...♗xf6.

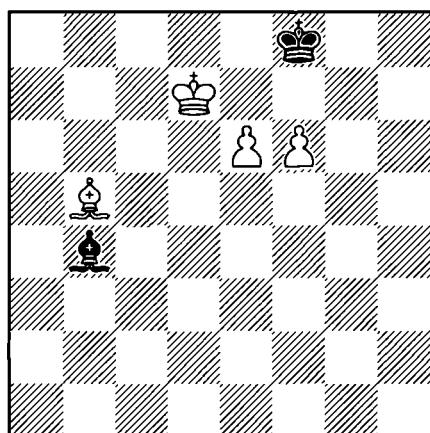
9...♗b4

10.♔d5 ♗a3

11.♔c6 ♗b4

Or 11...♗b2 12.e7+ ♔e8 13.♔d6+

12.♔d7



White's king march is complete

There is no defense against e6-e7-e8. White wins.

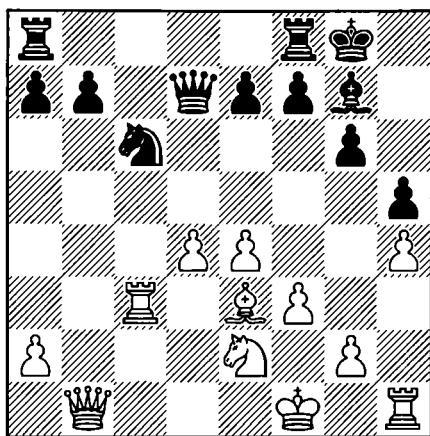
In the final round of the 2008 British Championship I played a game with

Lesson 7. Pawn Walls Against Bishops

an echo of this pattern. It began in the early middlegame, where it was not at all clear, but after many twists and turns persisted into the endgame where the effect of the wall was instructive.

We will take a glimpse at a middle-game first, to show how the endgame structure arose:

Hawkins – Gormally,
British Championship, Liverpool, 2008
Part 1



In this position (after 17 moves in a Grünfeld Defense) I made the decision to play:

18.e5

Sometimes in Grünfeld positions this move is forced, to protect the d4-pawn from the ♜g7 but here this is not so. A move such as 18.♔f2 followed by bringing the ♛h1 into the center was perfectly possible (indeed, perhaps even stronger).

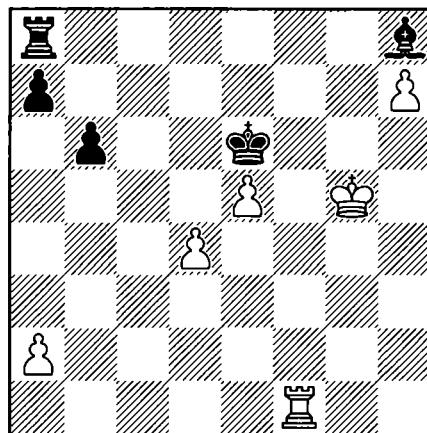
Having previously studied the variation played in this game, I decided

18.♔f2 wasn't in the spirit of the line and that 18.e5 was much more ambitious.

The idea is that the ♜g7 is blotted out and the center is more or less solidified. Eventually White hopes to create some attack on the kingside by means of g2-g4, ideally in conjunction with ♝e2-f4 (which also menaces e5-e6, so probably Black will play e6 himself). The white queen also gains a square on e4 which can sometimes be useful. In return of course Black has a monopoly on the central light squares.

Jumping ahead to move 39, the following position was reached:

Hawkins – Gormally,
British Championship, Liverpool, 2008
Part 2



Despite Black's material advantage, the situation is not at all clear. Black's bishop is hindered by White's center pawns set on the dark squares, but it does perform an important role stopping the h-pawn.

PART 2. Principles and Essential Theory

I felt, rather optimistically, that I should be better here. My opponent, I think, thought the opposite. Who was more correct is an open question. I now believe the position is drawn but there are some feasible ways either side could lose in over the board play.

The first point to make is that although the white pawns preserve a kind of status-quo against the black bishop, Black does have a 2 vs. 1 majority on the queenside and hence a very simple plan. If White does nothing he will lose to the advance of these pawns.

This leads to another issue, which is if White has to play dynamically it must involve advancing the central pawns to create counterplay. In doing so the wall against the ♜h8 will be removed and the bishop will become more useful, extending its influence to include the queenside.

Black's queenside play is straightforward; how White should create his counterplay is less clear. I had two ideas to make progress with the white position.

PLAN A

➤ Remove the white king from the g-file and maneuver the rook to g8.

➤ Black could respond by placing ♔e7 and ♕d8 (or e8) himself (we will see that Black has a more dynamic defense than this). The black pieces are paralyzed in this case though, and the white king is free to roam back to support the

center pawns. I felt given enough time White would win, but the black queen-side pawns would still be a problem.

PLAN B

➤ An alternative plan (which I did not consider enough in the game), is to play ♔g5-g6 followed by ♕f7.

I think this is a more problematic setup for Black to meet. If his rook ever leaves the back rank he will have to reckon with White taking this rank himself (and potentially winning the ♜h8). Moreover from the seventh rank the white rook is far more active than it would be on g8 and can harass the black queenside pawns, which at the very least would make it more difficult for them to advance.

39...♜d8

A natural enough move, which worked out well for Black in the game. The most accurate is probably 39...♜c8 intending 40...♜c2, since if White plays correctly Black will be a tempo down on this if he starts with 39...♜d8 (although still the game should be drawn).

After 39...♜c8 Black should have the better side of a draw after 40.♔g6 ♜c2 41.♜f8 ♜g2+ 42.♔h5 ♜g7 43.♜f3 ♜xa2 44.♜c3! intending ♜c7 with a perpetual attack against the black bishop, saving the game.

40.♜f4?!

I don't recall being in time pressure, in which case this is just a lazy move.

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Black was not threatening to capture on d4. Prophylaxis has its place, but in a situation such as this where every tempo of the black queenside pawns may be critical, then the first question to pose upon an opponent making a threat should be “can I ignore that?”

More logical and testing would be 40.♗g6! putting the second of the two plans discussed into action.

After for instance 40...b5 (it is not too late for 40...♝c8!) 41.♝f7! Black is already in serious trouble since 41...♝a8 42.♝b7 a6 is the only way to avoid losing a pawn immediately. Then comes 43.a3 and Black must shed a pawn anyway due to *Zugzwang* (unless he wishes to allow 43...♛d5 44.♚f7! which looks extremely dangerous).

Once Black loses one of his queen-side pawns he also loses his counterplay. A recipe for disaster.

The move 40.♝f4 has the effect of losing a tempo, the result is not changed but White is now on the worse side of a draw.

40...b5

41.♛h6

Pursuing the first plan (to place the rook on g8).

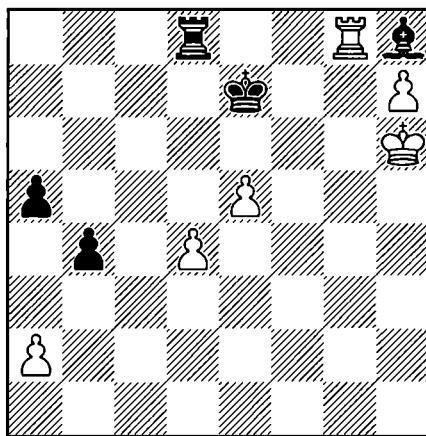
41.♛g6 was still possible intending ♜f7, even with the extra tempo (♝f1-f4-f7 rather than ♜f1-f7) Black would still be advised to play 41...♝c8 and force a draw.

41...a5

42.♝g4 b4

43.♝g8 ♛e7

Forced.



Having achieved this setup (albeit with Black having been allowed more progress on the queenside than was necessary) the next step is to bring the king back to support the center pawns and if possible halt the black queenside pawns.

44.♚g5?!

It would be more unpleasant to face 44.♛g6!, after which 44...a4 45.♝xd8 ♛xd8 46.♚f7 might worry Black, although a draw should result after 46...b3 47.e6 b2 (not 47...bxa2??) 48.e7+ ♛c7 49.e8=♛ b1=♛ 50.♛xh8 ♛f5+ (the reason it is important to queen on b1) with perpetual check.

Instead after 44.♛g6! Black should find 44...♝e8! 45.♚f5 a4 46.♛e4 b3 47.axb3 a3! (it is vital that White has to

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retreat his rook to stop the queenside pawn; after 47....axb3?? White catches the pawn with his king and maintains the paralysis on the black pieces) 48.b4 a2 49. $\mathbb{R}g1$ $\mathbb{R}a8$ with similar play to the game.

44...a4

45. $\mathbb{Q}f5$ b3

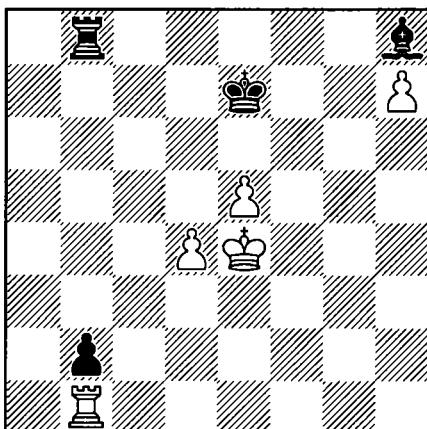
46.axb3 axb3

Unlike the situation in the previous note, White cannot catch even the b-pawn because of the lost tempo.

47. $\mathbb{Q}e4$ b2

48. $\mathbb{R}g1$ $\mathbb{R}b8$

49. $\mathbb{R}b1$



I believe the reason I discarded the superior plan with $\mathbb{Q}g6$ and $\mathbb{R}f7$ in favor of the $\mathbb{R}g8$ plan was that I knew that the worst case scenario after $\mathbb{R}g8$ would be precisely this type of position (I stress I was not aiming for this position, but was aware of it as a fallback).

Playing a higher rated player and wanting a safety net, I realized even in this situation I should draw because I can remove Black's final pawn and ultimately defend \mathbb{R} + \mathbb{K} vs. \mathbb{R} , an end-game with which I was reasonably familiar.

49... $\mathbb{Q}e6$

Our observation at the beginning that advancing the pawns will release the black bishop makes itself felt here. 50.d5+?? in fact loses the game, for example 50... $\mathbb{Q}d7$ 51. $\mathbb{Q}f5$ $\mathbb{R}b4!$ with a winning *Zugzwang*.

50. $\mathbb{Q}d3$

White has no choice but to remove the last black pawn at the cost of his own pawns.

50... $\mathbb{Q}d5$

51. $\mathbb{Q}c3$ $\mathbb{R}c8+$

52. $\mathbb{Q}xb2$ $\mathbb{Q}xd4$

Eventually the game was drawn after 50 moves of \mathbb{R} + \mathbb{K} vs. \mathbb{R} .

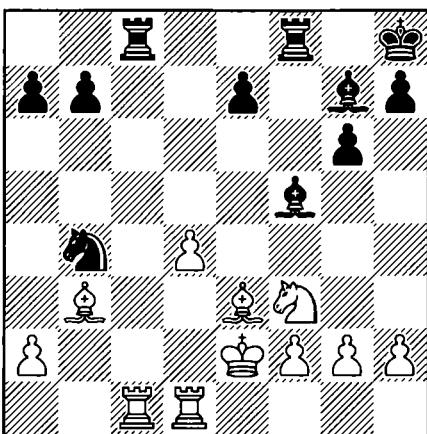
Now a second example, in which a difficult decision arises when a potential exchange will erect a powerful pawn wall for the opponent.

Speelman-Short,

Candidates Match, London, 1991

This was the position after White's 18th move.

Lesson 7. Pawn Walls Against Bishops



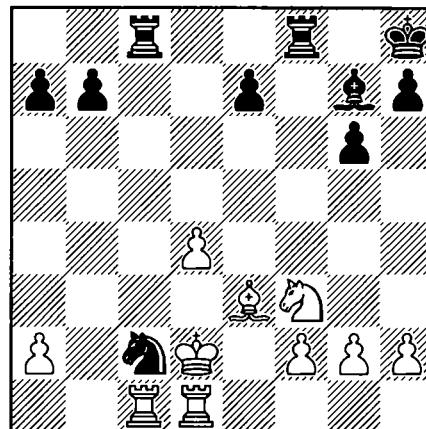
Initiating exchanges which will remove the light-squared bishops, maintaining an equilibrium on the c-file.

19. $\mathbb{Q}xc2$ $\mathbb{B}xc2$

After 19... $\mathbb{Q}xc2+?$ 20. $\mathbb{Q}xc2$ $\mathbb{B}xc2$ 21. $\mathbb{R}c1$ all of Black's work is undone and White gains the c-file with ease.

20. $\mathbb{Q}d2$

Putting the question to the $\mathbb{B}c2$, and reaching the critical decision of the game:



The first thing to notice is that Black actually has some problems contesting the c-file.

Given a chance White would play $\mathbb{Q}f3-g5$. Assuming Black deals with the threat of $\mathbb{Q}g5-f7+$ then White would instead play $\mathbb{Q}g5-e6$. Then Black will either have to tolerate a knight on e6 (not an attractive proposition) or capture the knight. After White's reply of $\mathbb{Q}xe6$, Black loses control of the c8 square and consequently the c-file.

18... $\mathbb{Q}g4$ solves the problem of the knight leaping to g5 but not of the c-file. After 19.h3 $\mathbb{Q}xf3+$ 20.gxf3 White will play $\mathbb{Q}b3-e6$ next and the control of the c-file will outweigh his pawn structure defects.

Trading all the rooks does not fully relieve the pressure either as the $\mathbb{Q}f3$ may still leap to g5 or e5, and then after the thrust d4-d5 the $\mathbb{Q}e3$ takes aim at the black queenside, while the $\mathbb{Q}g7$ merely shoots into thin air.

18... $\mathbb{Q}c2$

Clearly the knight must move from c2, but to where?

Of the three choices, 20... $\mathbb{Q}b4?$ is the easiest to dismiss. White can reply 21. $\mathbb{Q}xc8$ $\mathbb{Q}xc8$ 22. $\mathbb{Q}b1$ followed by the capture on b7, achieving a clearly better game as his rook takes up a powerful post on the seventh rank.

20... $\mathbb{Q}xe3??$

The alternative was 20... $\mathbb{Q}a3$ to post the knight on the c4 square. This does not solve all of Black's problems but

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nevertheless would have been preferable to the game continuation.

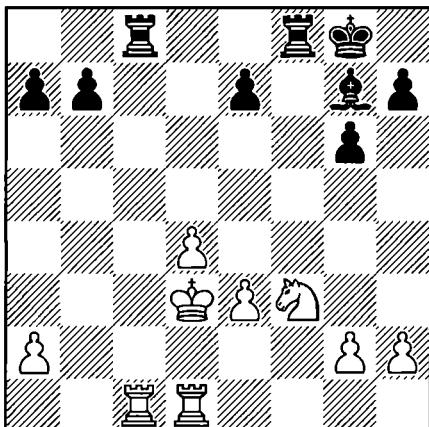
After 21.♕d3 b5 preventing the knight coming to c4 with 22.♘d2?! is not effective as White loses control of the center. After 22...♝fd8 Black is almost ready for e7-e5.

Instead 22.♝c5! is probably best, with White retaining some advantage.

21.fxe3 ♔g8

21...♝fd8 would be more logical, intending to play e7-e5. The threat of ♘f3-g5 is still in the position though and Black still has some difficulties after 22.♔d3 e5 23.♘g5 (or even 22.♘g5 immediately).

22.♔d3



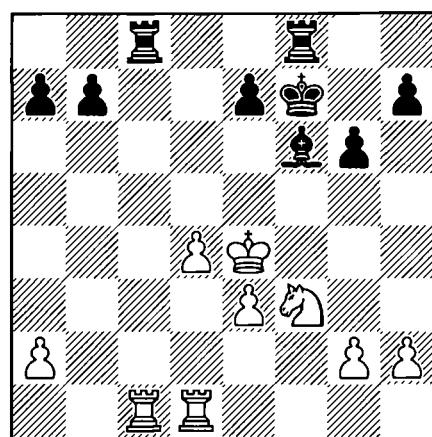
With the pawns e3-d4 placed on dark squares, the ♘g7 is locked from play so long as a favorable e7-e5 is not permitted. Now that his king has reached d3, White plans to further improve it with ♔d3-e4. He intends to maintain the pawns on their current squares in the center for the foreseeable future, so

there is no question of this hindering their advance.

22...♝f6

Removing the annoying ♘f3-g5 threat from White's arsenal.

23.♔e4 ♔f7



White has succeeded in achieving a certain degree of domination. He has the superior pawn structure, the superior minor piece and a strong king position.

However Black has no real weakness in his position (we can hardly call the e7-pawn a weakness at the moment) and he has established status quo on the c-file. To win the game some point of attack must be created. White's first plan would map out as follows:

➤ Reposition the knight from f3 to d3. From here it menaces a leap to c5 where it bites at e6 and d7, as well as attacking the pawn on b7.

➤ When Black plays the move b5-b6, as he surely will, the advance of the

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a-pawn (minority attack) will create a weakness in the black queenside.

24.♗e5+? ♔e6?

Of course in principle Black should play 24...♝xe5 to remove the bad minor piece imbalance. However this after 25.♔xe5 put White's king on an even stronger square. He must have judged he had more chances to hold the game with minor pieces on the board.

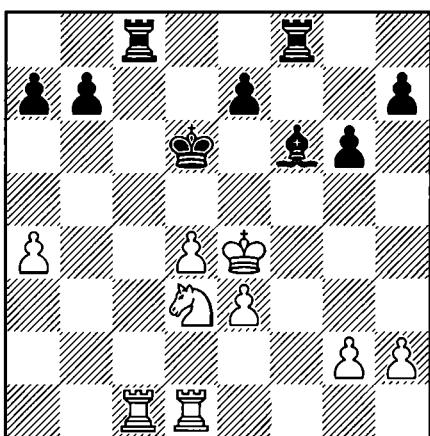
As Short himself later pointed out, Black should be able hold the game after 24...♝xe5 25.♔xe5 ♕fd8! 26.d5 ♔e8.

25.♗d3

The opportunity to remove minor pieces mentioned at the last note would have been prevented after the alternative route to ♘f3-e1-d3 starting with 24.♘e1!

25...♔d6

26.a4



Now that Black has covered the e6 and d7 squares with his king, following

26.♗c5 b6 White would have to first retreat with 27.♗d3 and only then advance the a-pawn.

Instead White saves a tempo by pushing the pawn to a5 immediately.

26...b6

Otherwise White would play 27.a5 with ideas of ♕b1 and ♘d3-c5, when b7 becomes a weakness.

27.a5! ♕xc1

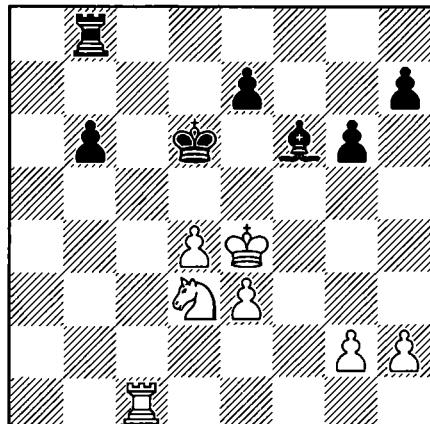
After 27...bxa5 White can post his knight to c5 to close the c-file, and win back the pawn with ♕a1.

28.♘xc1 ♕b8

29.axb6

Taking the principled decision to create the weakness. 29.a6 was also interesting, although it is difficult to arrange the desirable ♘b4-c6 follow-up without allowing a pin on the c-file.

29...axb6



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30. Qb4

White has the advantage, but the position is far from winning. He plans Qc1-c6 but there is no obvious way to bring further pressure to bear on b6.

30... $e6$

31. Qc6+ Qd7

32. $d5 \text{Qe8}?!$

The threats after 32... exd5+! 33. Qxd5 Qe7 34. Qd3 b5 35. Qe5+ are not too dangerous.

For instance 36... Qe8 37. Qe6 (better is 37. Qc7! Qd8 and White maintains a small advantage) 37... $b4$ and it is White who must be careful here. If White plays more slowly after 32... exd5+! then the black b-pawn should provide ample counterplay to draw the game.

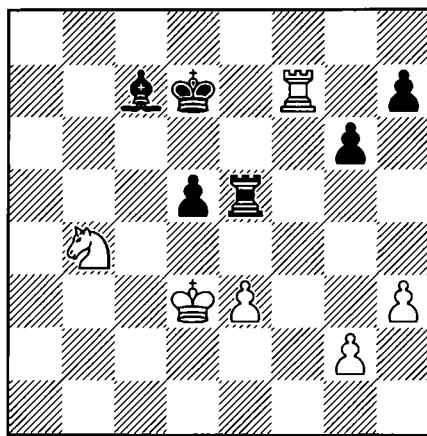
33. Qxb6 exd5+

34. Qd3 Qe5

35. h3 Qc7

36. Qf6 Qe5

37. Qf7+



White picks off a clean pawn with good winning chances (1-0 on move 44).

SUMMARY OF IDEAS

- The bishop operates most effectively when it can influence both sides of the board.
- Pawns can restrict the mobility and effectiveness of bishops if they are stable and placed on the same color as the enemy bishop (Capablanca's rule).
- Shutting down an enemy bishop can be a useful tool, but does not win the game in itself. Often later in the game the blockade will need to be broken in order to make progress.

Lesson 7. Pawn Walls Against Bishops

We did not encounter a great deal of theory in this chapter, but we did see an example of a theoretical opposite-colored bishop endgame with two connected passed pawns. This will be discussed in more detail in the theoretical notes.

First we will examine the themes from this lesson at work in a complete game:

**Akopian – Howell,
Corus, Wijk aan Zee, 2010
Grünfeld Defense**

1.d4 ♜f6

2.c4 g6

3.♘c3 d5

The Grünfeld Defense.

4.cxd5 ♜xd5

5.e4 ♜xc3

6.bxc3 ♜g7

7.♘f3 c5

It is important to strike the center now. If Black hesitates with 7...0-0?! then he is unable to put any meaningful pressure on the center at all, e.g. 8.♗e2 cxd4 9.cxd4 ♜c6 10.♗e3 ♜g4 and then 11.d5! is very strong.

8.♗e3

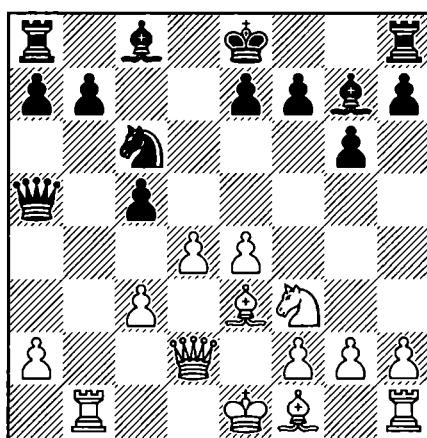
White is choosing a popular modern system. The ♛f1 is kept flexible for now

and the queenside is developed first, usually with ♕d1-d2 and ♜a1-c1.

8...♜a5

9.♕d2 ♜c6

10.♗b1



The most common, and natural, move here is 10.♗c1 in order to protect the pawn on c3 in preparation for d4-d5. 10.♗b1 is a slight refinement, creating the threat of ♗b1-b5 which would simply win the pawn on c5.

10...O-O!?

The other main option is to play 10...a6 here, to simply prevent ♗b1-b5. White then replies with 11.♗c1. His idea is that if Black continues with 11...cxd4 12.cxd4 ♜xd2+ 13.♔xd2 then the move a7-a6 is actually of negative value for Black as it has weakened the b6 square. However, it is debatable how valid this thinking is and in more recent games White has not had much success finding any advantage in this position.

PART 2. Principles and Essential Theory

11. $\mathbb{B}b5$ cxd4

Forced, otherwise White wins the c5-pawn for very little.

12. $\mathbb{B}xa5$ dxe3

13. $\mathbb{Q}xe3$ $\mathbb{Q}xa5$

As compensation for only having $\mathbb{Q} + \mathbb{R}$ vs. \mathbb{Q} Black has clear targets on the queenside, the bishop pair, and very comfortable squares for his rooks.

14. $\mathbb{N}d4$

The beginning of a setup to reduce the pressure that Black's pieces can exert.

It is clear that White cannot allow Black to simply develop his bishop on c8, play $\mathbb{B}f8-c8$ and capture on c3. 14. $\mathbb{N}d4$ removes the most natural square on e6 from the $\mathbb{B}c8$, where it would attack the a2-pawn and control the weak c4 square.

Previously 14.h4 was thought to be best, but Black experienced no particular problems after 14... $\mathbb{Q}e6$.

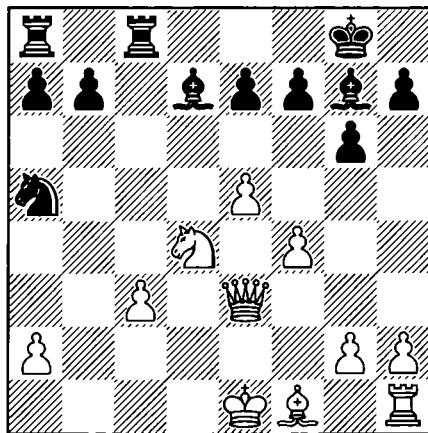
14... $\mathbb{Q}d7$

15. e5

Building a wall against the bishop on g7. For the moment the plan is restrictive, but later the e5-pawn could be used dynamically with the e5-e6 thrust.

15... $\mathbb{B}fc8$

16. f4



Another reason why it was important to put the knight to d4 in combination with e4-e5 is revealed; White wants to secure the e5-pawn and ensure it cannot be removed by a timely f7-f6. By keeping the position sufficiently closed White is able to neglect his development in order to be able to use his pawns to contest the dark squares.

16... $\mathbb{B}c7$

Very logical. Black organizes his counterplay as quickly as possible. 16... $e6$ has also been tried here, taking time out to solidify the center and prepare to perhaps reroute the $\mathbb{B}g7$ via f8. The downside (apart from being slow) is that after the aggressive 17. $h4!$ White can now use the h3 square, either for the queen in a mating attack, or for the rook to laterally defend the c3-pawn.

17. $\mathbb{Q}b5$

Stalling Black from doubling his rooks and removing Black's bishop pair.

Lesson 7. Pawn Walls Against Bishops

17... $\mathbb{Q}c6$

Leading to simplifications.

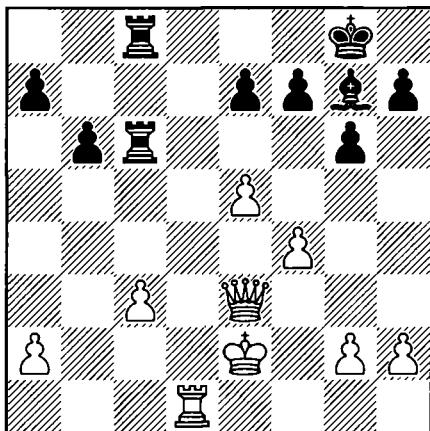
18. $\mathbb{Q}xc6$ $\mathbb{Q}xc6$

19. $\mathbb{Q}xc6$ $\mathbb{Q}xc6$

20. $\mathbb{Q}e2$ $b6$

After 20... $\mathbb{Q}ac8$ white can go ahead and play 21. $\mathbb{W}xa7$ since after 21... $\mathbb{Q}xc3$ 22. $\mathbb{Q}d1$ Black cannot continue his counterplay without exchanging a pair of rooks. Defending passively with 22... $\mathbb{Q}3c7$ runs into the strong idea 23. $\mathbb{W}b6!$ with ideas of $\mathbb{Q}d1-d8+$ removing a pair of rooks anyway. With only one remaining rook Black cannot hope to defend his remaining b7-pawn.

21. $\mathbb{Q}d1$ $\mathbb{Q}ac8$



22. $\mathbb{Q}d3$ $f6!?$

Weakening the king position, but Black is trying to activate his bishop. It feels as if Black should be lost after the opposite approach with 22... $e6$ although direct methods don't seem effective

eg. 23. $\mathbb{W}d2$ (threatening $\mathbb{Q}d3-d8+$) 23... $\mathbb{Q}f8!$ or 23. $\mathbb{W}d2$ $\mathbb{Q}f8$ 24. $\mathbb{Q}d7$ $a5$ and Black is able to take on c3.

23. $\mathbb{W}e4$ $fxe5$

24. $f5$

Keeping the $\mathbb{Q}g7$ under lock and key. After 24. $fxe5$ $\mathbb{Q}c5$ 25. $\mathbb{W}b7$ Black is still worse but at least gets to activate his pieces. Note how the black pawn does just as good a job of blocking the $\mathbb{Q}g7$ as the white pawn did earlier.

24... $g5$

24... $gxf5$ was a better chance. 25. $\mathbb{W}xf5$ $\mathbb{Q}xc3$ 26. $\mathbb{Q}xc3$ $\mathbb{Q}xc3$ and Black has some hope of defending, although his weak king will make this difficult.

25. $h4$

Playing to attack the weak black king-side. The other option was to exchange a pair of rooks with 25. $\mathbb{Q}d8+$ $\mathbb{Q}xd8$ 26. $\mathbb{W}xc6$. Probably White was afraid that Black would anchor his pieces on f6 and d6 and somehow create a fortress. It is difficult to see how this could hold though, because White will win the a7-pawn by force and have a 2 vs. 1 majority on the queenside.

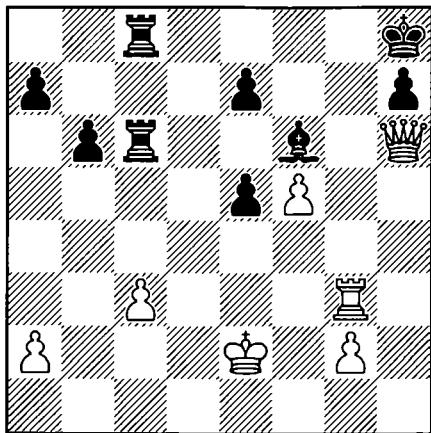
25... $gxh4$

26. $\mathbb{W}xh4$ $\mathbb{Q}f6$

27. $\mathbb{Q}g3+$ $\mathbb{Q}h8$

28. $\mathbb{W}h6$

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A key finesse. White is not winning after the obvious 32.gxf6 $\mathbb{Q}xf6$ e.g.. 33. $\mathbb{Q}h3$ a5! 34. $\mathbb{Q}e3$ $\mathbb{Q}g7$ 35. $\mathbb{Q}e4$ h6 36. $\mathbb{Q}xe5$ and he cannot make any progress here. His king cannot penetrate the black position if the black rook alternates between d6 and f6. The only idea for White would be to get his queen to e8 but Black can easily prevent this from happening.

Now we soon reach a very similar position, but with one crucial difference.

32... $\mathbb{Q}d6$

33.gxf6 $\mathbb{Q}xf6$

34. $\mathbb{Q}a8+$ $\mathbb{Q}f7$

35. $\mathbb{Q}xa7$ $\mathbb{Q}d6$

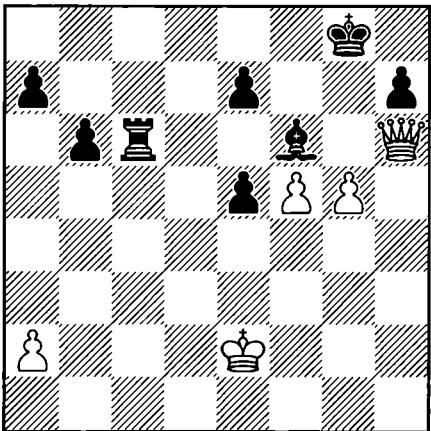
36. $\mathbb{Q}a8$ h6

37. $\mathbb{Q}e3$ $\mathbb{Q}d4$

38. $\mathbb{Q}h8$ $\mathbb{Q}d6$

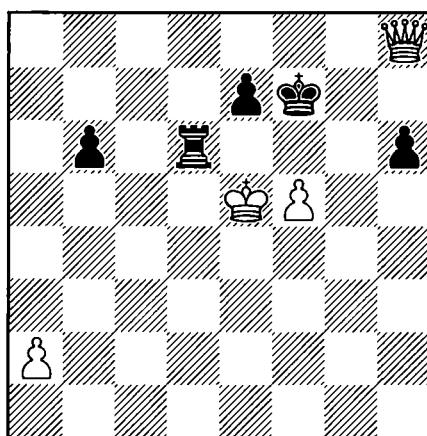
39. $\mathbb{Q}e4$ $\mathbb{Q}d4+$

40. $\mathbb{Q}xe5$ $\mathbb{Q}d6$



This attempt to construct a fortress is the only try. After 31... $\mathbb{Q}g7$ 32. $\mathbb{Q}e6+$ $\mathbb{Q}h8$ (or 32... $\mathbb{Q}f8$ 33.e6) 33.f6 White wins easily.

32. $\mathbb{Q}h1!$



Lesson 7. Pawn Walls Against Bishops

The crucial difference (compared to the fortress which we examined in the note to White's 31st move) is that White has won the a7-pawn. As a result he now has a plan: to sacrifice his queen for the rook and the b6-pawn, then win the race against Black's h-pawn.

41.a4 ♜c6

42.♔d4

The white king goes to attack the b6-pawn.

42...♜f6

43.♕c8 h5

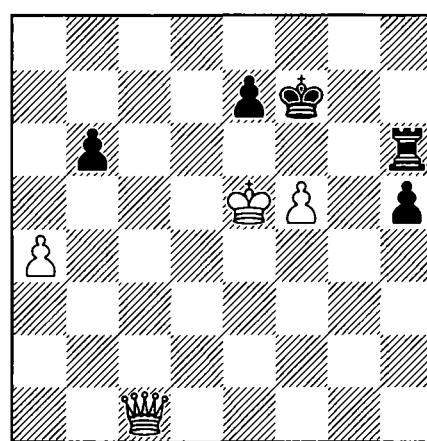
If Black maintains the fortress with 43...♜d6+ 44.♔c4 ♜f6 45.♔b5 ♜d6 46.♗b8 (not 46.♗e6+?? ♜xe6 47.dxe6+ ♔xe6 48.♔xb6 ♔d7! and White is almost losing, but can actually save himself by one tempo: 49.a5 ♕c8 50.♔a7 h5 51.a6 h4 52.♔a8 h3 53.a7 and White stalemates himself just in time) 46...♜f6 (if h6-h5 at any point, White will abort his plan and win the h-pawn as in the game) 47.♗xb6 ♜xb6+ (after 47...♜xf5+ the white a-pawn will win easily. Probably White could even avoid this altogether with a precise move order earlier, but it is not important to the result) 48.♗xb6 h5 49.a5 and White

queens first, covering the h1 square in the process.

Black's try 43...h5 puts his pawn one square ahead in the race, but unfortunately White can simply win the pawn.

44.♔e5 ♜h6

45.♔c1



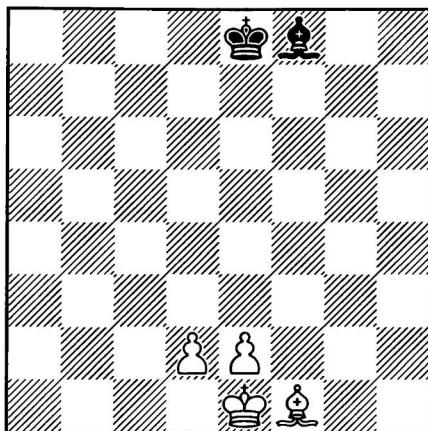
Black resigns.

Whatever Black does he will lose his h-pawn, eg. 45...♜d6 46.♗g5 or 45...♜h8 46.♗g5 (or 46.♔c6 winning the b6-pawn).

Once the h-pawn falls then the game is over. White will revert to his plan in the pawn race line by sacrificing his queen for the rook and the b6-pawn, but this time Black does not even have an h-pawn to race with.

THEORETICAL NOTES

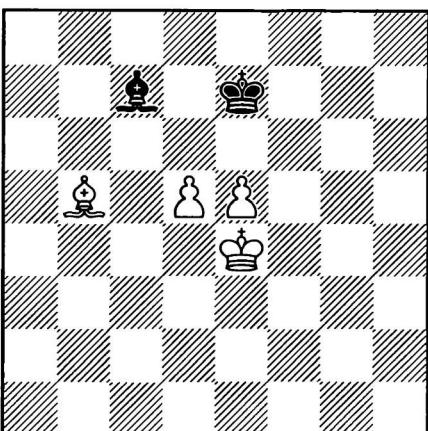
As mentioned earlier, it is worth looking more at the theoretical endgame of the type seen in the diagram below:



Any endgame of this type, with two connected pawns and a bishop against the opposite-colored bishop should be drawn, as long as:

- The defender is aware of the correct defensive setup.
- The defender has sufficient time to achieve the said setup.

The key defensive setup looks like this:



Remember this pattern

Note that the same pattern will work for any pair of connected pawns and on any rank (with the exception of when they are on the sixth rank, for reasons explained below).

There are three key features of this pattern which make the position a draw:

1. Neither pawn is able to advance; as e5-e6 leads to a trivial blockade and d5-d6 allows ♜xd6.
2. There is no scope for the white king to roam and find a more effective post since the e5 pawn is under attack and must be defended.
3. Black can maintain this defense, that is, it cannot be broken by *Zugzwang*. Alternating with ♜b8-c7-b8 is enough. If the position was shifted one rank further back (pawns on the sixth rank) the bishop would not have a secondary square to move to and would have to break the setup.

If it were Black to move he would be forced to continue with...

1....♝b8!

With the pawns so far advanced Black cannot afford to break the defensive set-up for a moment (not that he would ever want to!) so 1...♝b8 is the only move to achieve a draw here.

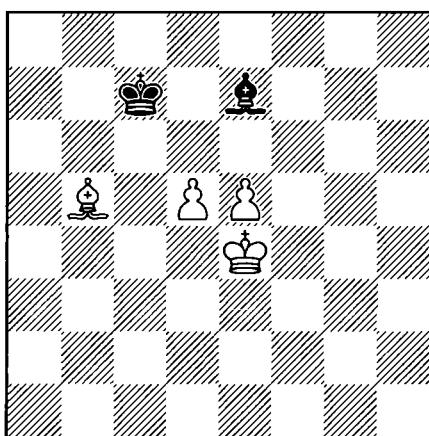
Lesson 7. Pawn Walls Against Bishops

After for instance 1... $\hat{b}6??$ Black is given no second chance 2.d6+ $\hat{e}6$ 3. $\hat{c}4+$ $\hat{d}7$ 4. $\hat{d}5$ and the pawns reach the sixth rank.

2. $\hat{f}5 \hat{c}7$

There is no scope for any analysis as clearly White simply cannot do anything to progress his position at all.

The second point above, that the bishop ties the king to one of the pawns, is vital. If for example the position instead looked like this:



Similar but not the same

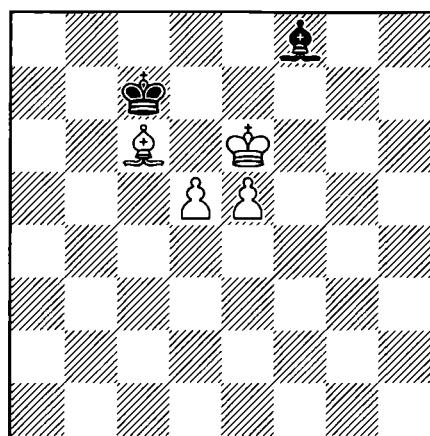
At first glance it appears the same. However with no pressure on the e5 the white king is free to roam (and can infiltrate immediately on the bishop's side). This is enough to mean that Black has no chance for a successful defense, e.g.

1... $\hat{f}8$

2. $\hat{f}5 \hat{b}6$

3. $\hat{c}6 \hat{c}7$

4. $\hat{e}6$



Upon reaching e6, the white king supports the advance d5-d6 and Black can no longer give his bishop for both pawns so the position is trivially lost.

4... $\hat{h}6$

5. $\hat{a}4 \hat{f}8$

6.d6+ $\hat{d}8$

7. $\hat{d}5$

7. $\hat{f}7$ wins slightly more quickly, but we know placing both pawns on the sixth rank is winning.

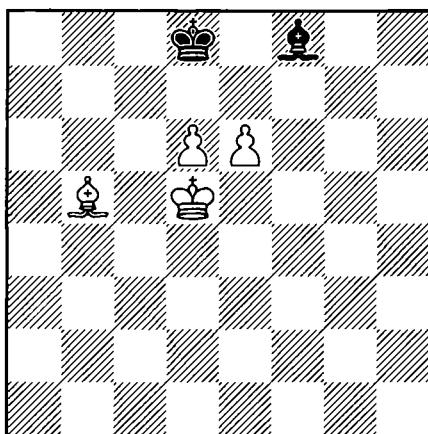
7... $\hat{g}7$

8.e6 $\hat{f}8$

Black reaches the defensive pattern which as we know does not work with the pawns on the sixth rank, because it is easily broken by *Zugzwang*.

9. $\hat{b}5$

PART 2. Principles and Essential Theory

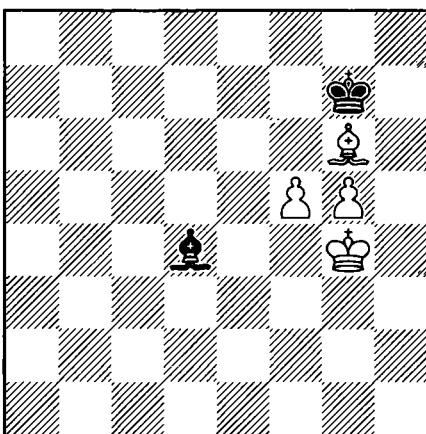


Black to play – Zugzwang!

As predicted *Zugzwang* ends the game, either king or bishop must leave their stations on f8 and d8, leaving the path free for e6-e7 to win the game. White wins.

Now a short example of the fortress being erected from scratch.

Henneberger, 1916
(End of a study)



Black to play

1...♝b6!

Using the fact that f5-f6+ would leave the ♜g6 *en prise* to bring the bishop to d8, thus completing the fortress (♜c5-e7 is equally good).

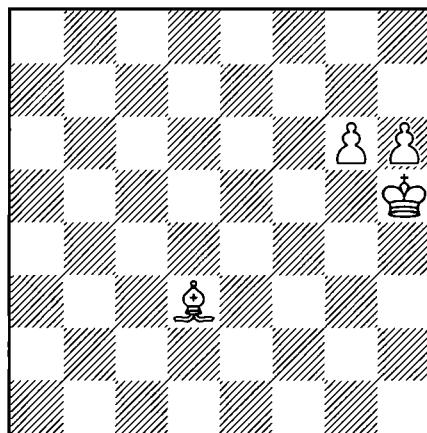
2.♜h5

Preparing f5-f6+.

2...♜d8!

The fortress has been completed.

Finally, to investigate the peculiarities of the case with knight's pawn and rook's pawn, we will place the pawns on their most menacing posts – the sixth rank – and play another ‘place the pieces’ game:

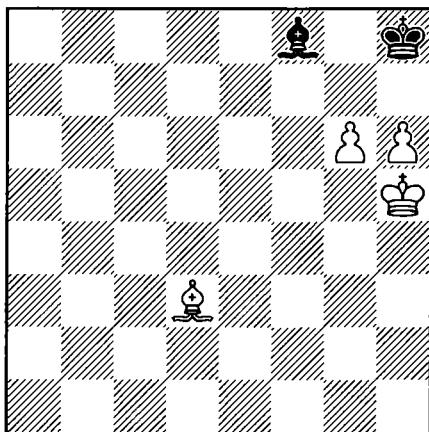


➤ Place a black king and dark squared bishop on the board so that the position is a draw with White to play.

As far as I can see there are three plausible attempts:

Lesson 7. Pawn Walls Against Bishops

Attempt 1 - ♜ f8 and ♛ h8



Black scrapes a draw

Maybe following the standard pattern like this is the most obvious solution. As we know with the pawns on the sixth rank, this would usually lose due to a *Zugzwang* but here is the case where it does not because of the geometry of the edge of the board.

1. ♜ e4

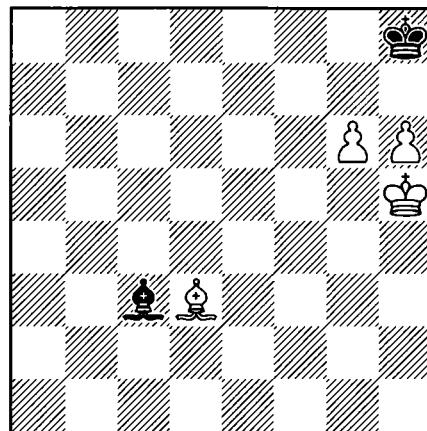
1. ♜ c4 is the *Zugzwang* idea which would win if the pawns were more centralized. Here the point is that 1... ♜ xh6! is possible, using a stalemate motive.

1... ♛ g8

2. ♜ g5 ♛ h8

The black king cannot be prevented from spending tempos (g8-h8) to keep the fortress intact. White can make no progress.

Attempt 2 - ♛ h8 and ♜ c3 (or bishop elsewhere on the a1-h8 diagonal)



Leaky fortress

Another attempt to halting the g-pawn's progress thanks to the threat of the bishop sacrifice. This time the fortress is not holding because of:

1. ♜ c4!

Ensuring the black bishop can never leave the long diagonal on threat of g6-g7.

1... ♜ b2

2. ♜ g4

Avoiding any checks on the dark squares. The white king is simply brought to f7 promoting the g-pawn and Black can do nothing.

2... ♜ c3

3. ♛ f5 ♜ b2

4. ♛ e6

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Any route to f7 will do, but this is the most direct.

4... $\hat{g}8$

5. $\hat{e}7+$ $\hat{h}8$

6. $\hat{f}7$

And the g-pawn promotes. White wins.

Attempt 3 - $\hat{f}8$ and $\hat{c}3$ (or elsewhere on the a1-h8 diagonal)

This is the most comfortable of the three attempts for Black. Simply marking time on the long diagonal is easily sufficient to draw the game.

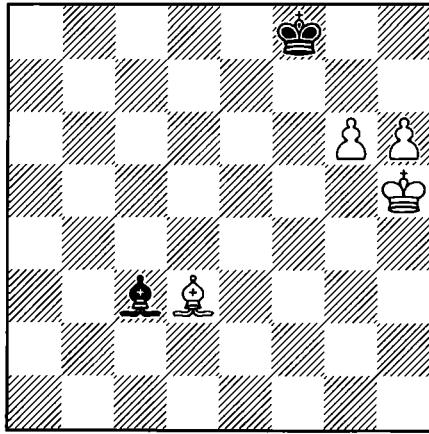
1. $\hat{g}4$ $\hat{b}2$

2. $\hat{f}5$ $\hat{c}3$

3. $\hat{e}6$ $\hat{b}2$

4. $\hat{d}7$ $\hat{c}3$

With no possible entry for the white king, White must acquiesce to the draw.



Solid fortress

Lesson 8

Dropping Down the Anchor

Lesson Aims

- Understand the nature and psychology of opposite-colored bishop endgames.
- Master the concept of the anchor.
- Be able to recognize situations where an anchor isn't possible.
- Understand the themes of *Zugzwang* and sacrifice, and why they can be effective in this class of endgame.

Counterplay, anyone?

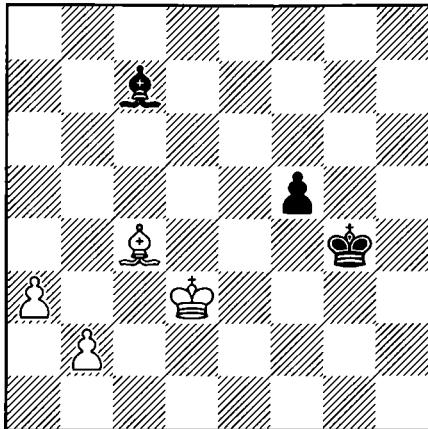
One feature of opposite-colored bishop endgames is that generally the players have their roles well defined: one plays the attacker, the other plays the defender. The attacker tries to promote his passed pawns, or at least use them to decisively win material. The defender tries to blockade and create a situation where progress is impossible. Sometimes there will be no attacker or defender, when the position and material is roughly equal, but these cases are simple draws and uninteresting to us.

The fair fight, with both sides pushing pawns and using their kings in an ag-

gressive role, is a rarity. These endgames are not to do with sharp fights and practical chances, they are to do with much more concrete matters: can the passed pawn be supported? Can the king infiltrate? And of course, whether the position is winning or drawing.

Intuitively the idea of counterplay is attractive; indeed in many positions seeking counterplay and avoiding passivity is a standard measure. Opposite-colored bishop endgames work in a different way. For instance, consider this position:

**Hammer – Deszczynski,
Najdorf Memorial
Warsaw, 2010**



White to play

Black's 'counterplay' only serves to misplace his king rather badly, and create a lost position for him. Even in the best case scenario, in which Black wins White's bishop for his f-pawn, Black's king will remain well out of the action. The result will be a contest between White's king and two pawns (which by this stage will be well advanced) and Black's bishop – a battle which the bishop cannot hope to win. Black would gladly jettison his f-pawn to bring his king to a purely defensive position on the queenside.

1.b4 ♜b6

An interesting but also insufficient try would be 1...♝d6, attempting to make it harder for White to advance his pawns since b4 must first be protected by his king. Play may proceed with 2.♜d5 ♛f4 3.♚c4 ♛e5 4.♜h1 (not 4.a4?? ♜xb4! and the f-pawn saves Black) 4...♛e6 5.a4 ♜g3 6.b5! (after 6.♚b5 ♜e1 it again is difficult to advance the pawns) 6...♜f2 7.♚b4 ♛d6

8.♚a5 and eventually the white king will support the pawns to a7 and b6.

2.♜g8

Making room for the king to advance while not allowing any potential tempi for the black king by attacking the bishop.

2...♚f4

Hoping to return to the queenside with the king.

A typical example of failed counterplay would be 2...f4 3.♚c4 f3 4.♚b5 f2 5.♜c4 ♜e3 6.a4 ♜g3 7.♚c6 and the white pawns are unstoppable.

3.♚c4 ♜e5

4.♚b5 ♜e3

5.♚c6

Now the pawns are free to advance and the black king has no path to the queenside. The game concluded:

5...♞d4

6.b5 ♛c3

7.b6 f4

8.b7 ♜a7

9.♚b5 f3

10.a4 f2

11.♚c4 ♛d4

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12.a5 ♕e5

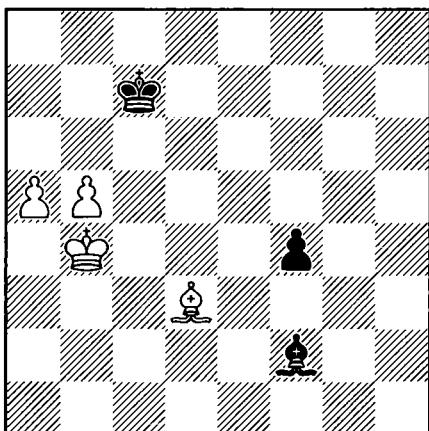
13.♔c6 ♕b8

14.a6

1-0

So the message is that counterplay for the weaker side in opposite-colored bishop endgames is usually not possible, or desirable. This is because it will involve a king operation, and the king is the strongest defensive piece.

Incidentally, Black would have little trouble drawing this endgame if his king was repositioned into a defensive role on the queenside. We will see more of this type of position in the next chapter, but for now we can mention that a position such as this:



...is easily enough to draw the game (with or without the f4-pawn).

No progress is possible as the white king cannot break through to support the pawn. Any advance b5-b6 is met

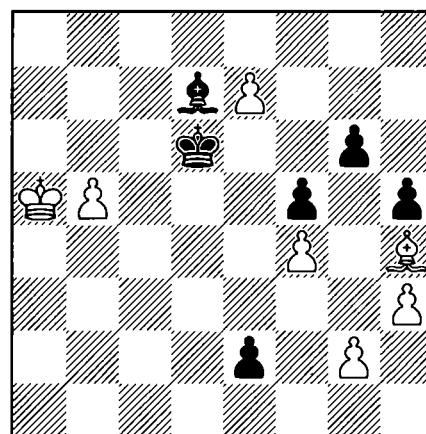
with ♘xb6 and an immediate draw (the idea of freezing connecting pawns by the threat of a bishop sacrifice is typical), and a5-a6 clearly leads nowhere.

Drawing scenario – The anchor

The only way to make a draw without the need for any calculation (or worry) is to reach a situation where the defending king blockades the passed pawns, and the defending bishop is able to anchor the remainder of the position. The role of the anchor is to prevent any breakthrough resulting in additional passed pawns.

Take the following example:

Halkias – Williams,
Reykjavik Open, 2011



Black to play

In this position, after a long defense, Black finally had the opportunity to simplify the position by exchanging e-pawns.

1...e1=♘ +!?

1...e1=♕ + would also have sufficed!

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Black correctly releases the e-pawn to reduce White to a single passed pawn. As we have just seen, using the e2-pawn for counterplay would be misguided as a king march to support this pawn would allow White to win very easily.

2.♗xe1 ♕xe7

3.♕a6 ♕d8

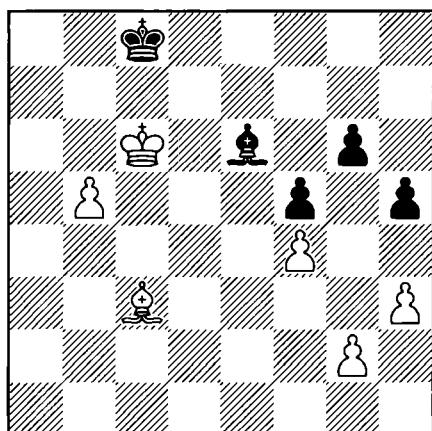
4.♔b6

4.♗c3 ♔c8 5.♗e5 trying to hinder the black king is possible, but the king is already where it needs to be on c8, Black can transfer the bishop to the h1-a8 diagonal and both king and bishop control the square b7.

4...♔c8

5.♗c3 ♗e6

6.♔c6



Preventing the black bishop from occupying the h1-a8 diagonal immediately, but the bishop finds another route...

6...♗c4

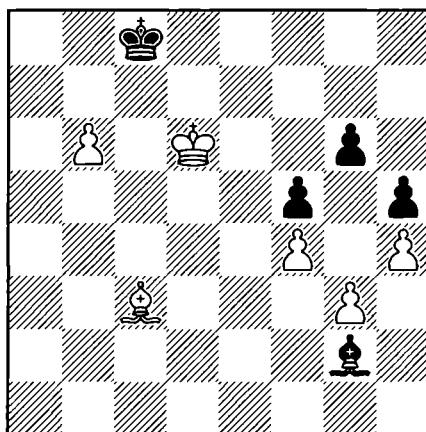
7.b6 ♗a6

8.♔d6 ♗b7

Black does not intend to blockade the white b-pawn with his bishop, but rather to force the white kingside pawns to move to create an anchor square on g4 for the bishop.

9.g3 ♗g2

10.h4



Now the draw is clear. The black bishop will anchor the kingside from g4 and the black king will blockade the b-pawn from b7.

10...♔b7

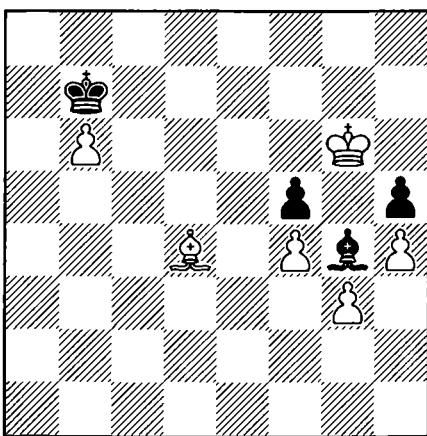
11.♗d4 ♗f3

12.♗e6 ♗g4

13.♔f6 ♔c6

14.♔xg6 ♔b7

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The position is a dead draw as the Rg4 prevents the creation of a second passed pawn.

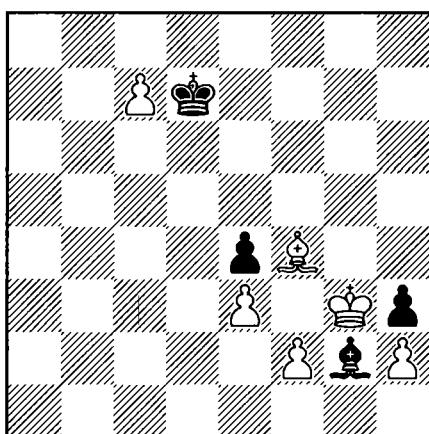
When an anchor isn't an anchor

In the next two games will we will see two scenarios where what appears to be an anchor turns out to be a leaky fortress.

Hidden breakthrough

The bishop must prevent any breakthrough on the side of the board it is anchoring.

Miralles – Prie,
French Championship
Schiltigheim, 1982



White to play

Here we have what appears to be the same situation as before. The black king halts the passer on c7, and the black bishop anchors the kingside.

Without the f2-pawn, the draw would be unquestionable, but its presence allows the surprising resource:

72.f3!

The only possible way to change the position, but an effective one.

72...exf3

On 72... Rxf3 there comes 73. Rxh3 and White obtains a passed h-pawn. This would win very easily as White would simply send the king to g5 and then march the h-pawn forward. The best defense is 72... Bf1 , which we will examine in the notes at the end of the chapter since it has some interesting points.

73. Rf2! Rc8

74.e4

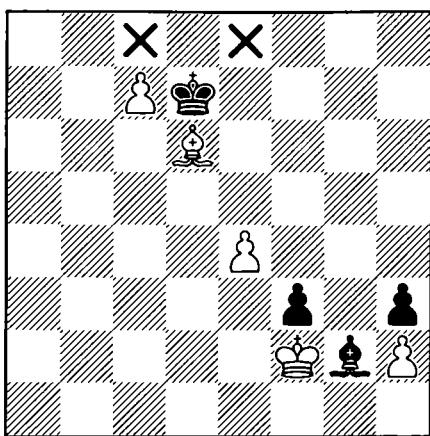
Winning – with a specific plan of keeping the Rg2 trapped. Playing in a normal way with 74. Rg3 followed by advancing the king would allow Black the pawn sacrifice f3-f2 to release his bishop and play would then be similar to that resulting from 72... Bf1 .

74... Rd7

And now the simplest win seems to be 75. Rd6 followed by pushing the e-

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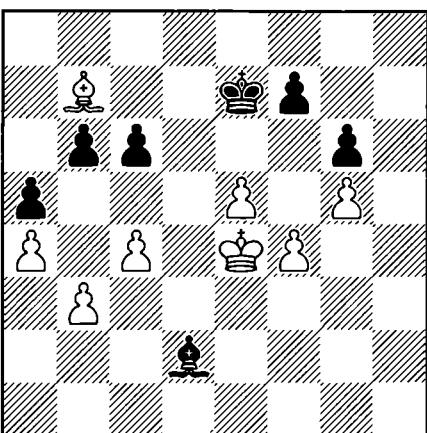
pawn to e8, although in the game White played 75.♗g3.



Any defense other than the rock solid anchor defense and things become much less reliable. Calculation and knowledge of motives are essential and often even the best players in the world get it wrong. I considered trying to categorize these methods but I decided it is easier to understand by analyzing examples to see the typical patterns and practice making the calculations.

Bishop sacrifice and Zugzwang

Sorokin – Yermolinsky,
Olympiad,
Elista, 1998



The position appears very drawish. Can White really make any use of his single extra pawn on the kingside? The immediate problem is that the c6-pawn is attacked.

While it is not so obvious that losing the c6-pawn would also lose the game, Black would prefer to remain only one pawn behind.

Black has a straight choice between 39...c5 and 39...♔d7, we will look at each in turn:

39...c5?

Certainly the most natural move. It seems now the only danger would be the white king infiltrating to the queenside via d5. However this would mean sacrificing the white kingside pawns, and besides can't we just anchor by putting the bishop on b4?

40.♗c8

Black can do nothing so White must not rush. His bishop on b7 is clumsily placed (especially if White is intending ♔e4-d5), so he repositions it to h3 where it covers some more useful squares.

40...♗c1

Waiting, but keeping the f4-pawn in sight.

41.♗h3 ♗d2

42.♔d5 ♗xf4

Lesson 8. Dropping Down the Anchor

Since Black has no useful waiting moves anyway, and he cannot save the b6-pawn, he may as well capture this pawn. If Black chooses not to take any pawns at all, and simply waits intending to anchor the bishop on f4 after White captures on b6, then he will lose in the same way as in the main line.

43.♔c6 ♔d2

The alternative is to continue the mutual pawn chomping with 43...♗xg5 or 43...♗xe5.

➤ 43...♗xg5 44.♔xb6 ♔d2 (Black must prevent White from capturing on a5, otherwise the game will be trivially lost after ♔b6xa5, ♔a5-b6, a4-a5-a6, ♔b6-b7 queening the a-pawn) 45.♔xc5 ♔c3 46.♔b6 ♔d8 47.c5 ♔d4 48.b4! axb4 49.a5 b3 50.♔f1 b2 51.♔d3 and White wins.

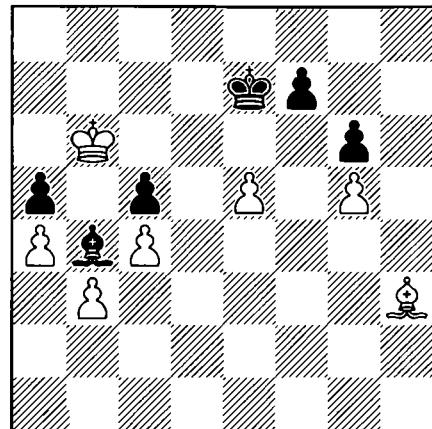
➤ 43...♗xe5 is similar, 44.♔xb6 ♔c3 (again Black's game is hopeless should White take on a5) 45.♔xc5 ♔d2 46.♔b6 ♔e1 47.c5 ♔d8 48.♔b7 ♔g3 49.c6 ♔e5 and white will win by simply capturing black's kingside pawns.

44.♔xb6 ♔b4

(See Diagram)

It seems Black has successfully achieved an anchor now that his bishop holds the queenside firmly in place. The problem is that the more fluid situation on the kingside still allows White some other ideas.

45.♔b5!



White's plan is fairly simple:

- Move his bishop around to the d5 square where it eyes the f7-pawn.
- Play ♔b5-c6 so that the king is in contact with the d7 square.
- Sacrifice the bishop with ♔d5xf7, and meet ♔xf7 with ♔c6-d7. The d-pawn will then be unstoppable.

The problem is that on the immediate 45.♔g2(??) there is 45...♔e6, and Black will capture the e5- and g5-pawns with his king (White may even be losing!).

Now we can clearly see the purpose of the move 45.♔b5: it puts Black in *Zugzwang*. Any bishop move loses an additional queenside pawn and any king move loses touch with the vital e6 square which is needed to prevent ♔h3-g2-d5.

45...♔e8

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White's task will be even easier if Black plays a bishop move instead.

46.♗g2 ♛e7

47.♗d5

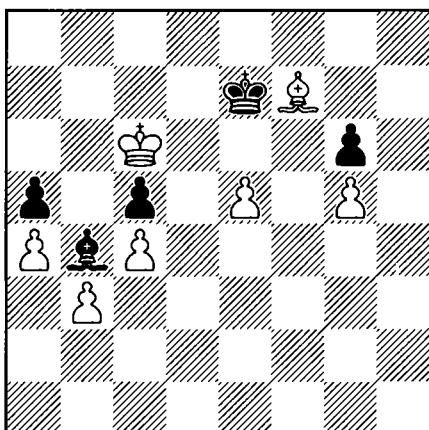
Just in time the bishop arrives on the optimal post.

47...♝e8

48.♔c6 ♛e7

This allows White to carry out his main plan. Another try would be 48...♗d2 49.♔xc5 ♗xg5 50.♔b5 ♗d2 51.c5 but Black's forces are spread much too thin, he cannot hold a5, f7 and stop the white c-pawn.

49.♗xf7!



48...♝d2

49...♝xf7 50.♔d7 and nothing can prevent d5-d6-d7-d8=♚

50.♗xg6

White simply collects all of Black's pawns.

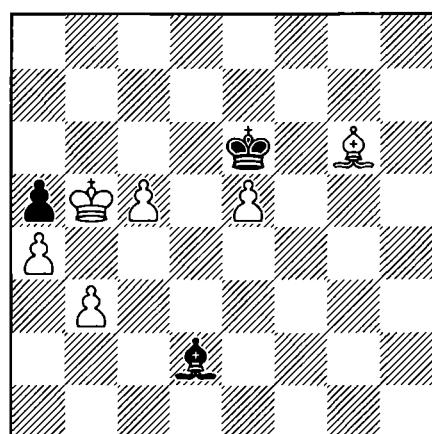
50...♝xg5

51.♔xc5 ♛e6

52.♔b5 ♘d2

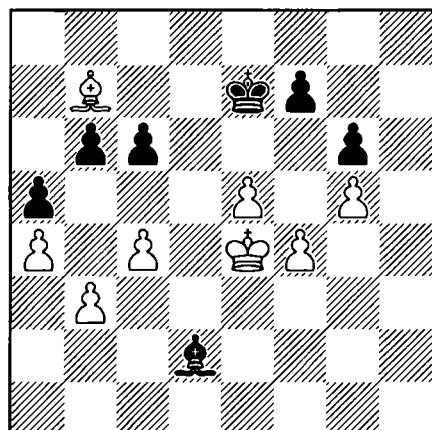
53.c5

White simply has too many powerful passed pawns and Black is helpless. He cannot even capture on e5 here because of 53...♝xe5 54.c6 and the pawn goes through.



White wins.

In the game position...



Lesson 8. Dropping Down the Anchor

Black chose the infinitely superior move:

39... \mathbb{Q} d7!

And White is almost devoid of ideas. It is even hard to see how he will release his bishop. He could sacrifice with c4-c5 and put the king on c4, but this achieves nothing. Black simply defends the c5-pawn (White cannot attack a5, and does not threaten to penetrate on d5 or b5).

Clearly, since White cannot attack anything, he must create a passed pawn to win. We know this must be the case from our earlier discussion of grand plans.

Can we arrange to play f4-f5 somehow and manufacture a passed pawn?

40. \mathbb{Q} f3

Trying for \mathbb{Q} f3-g4 and f4-f5.

40... \mathbb{Q} c1

41. \mathbb{Q} g4 \mathbb{Q} b2!

I don't think f4-f5 wins even if White successfully achieves it, but he cannot do so in any case. By simply having the bishop on the diagonal a1-h8 when the white king is on g4 (and c1-h6 when the white king is on e4) playing f4-f5 will always cost White a pawn.

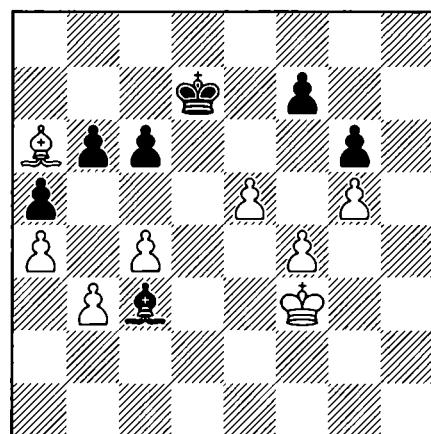
42. \mathbb{Q} a6

42.f5 \mathbb{Q} xe5

42... \mathbb{Q} c3

43. \mathbb{Q} f3

White cannot make progress. Draw agreed.



A word on the psychology of defense and attack

First though, a few words about the psychology of these endgames and other endgames where there is a clear designation of the roles of attacker and defender (although particularly in opposite-colored bishop endgames where often the game is walking in a gray area between a win and a draw).

When you are pressing to win these endgames it is usually the case that you can be satisfied with achieving incremental progress (as in the chapter on 'little plans'). Since there is typically little or no counterplay in a given position, the attacker is visualizing target positions and experiences little resistance in achieving them (or if they are not achievable then it will be obvious this is so).

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So in general there is little psychological burden on the attacker (at least not purely from the problems of playing the position).

It is still possible of course that he will be forced to make difficult decisions, which usually take the form of a critical junction (say where he can choose between two or more possible changes to the structure). This decision will take place over one or two moves, probably followed by a string of maybe 10 automatic moves.

In a practical game it is always important to recognize how high the value of the move is; 95% of the attacker's moves in these endgames are of low value (often even bad moves can be simply retracted without any harm). When a critical decision where the value of the move is very high arises it is important to recognize it and spend time (if possible) to make the correct decision.

The defender's task, as you might expect, is much less enviable. The fear of losing the game demands that he attempts to calculate lines as deeply as possible in the hope of saving the game.

That said, in our final game in this lesson we see Michael Adams using the drawish tendency of opposite-colored bishop endgames to draw effortlessly with former world champion Vladimir Kramnik. The final position is an iron-clad example of the anchor.

Kramnik – Adams,
London Chess Classic, 2009
Queen's Gambit Declined

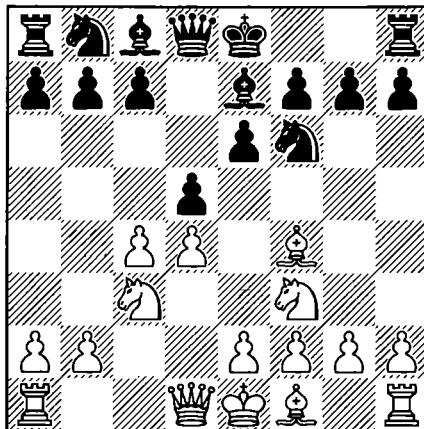
1.d4 $\mathbb{Q}f6$

2.c4 e6

3. $\mathbb{Q}f3$ d5

4. $\mathbb{Q}c3$ $\mathbb{Q}e7$

5. $\mathbb{Q}f4$



White opts for simple piece development rather than the traditional main line of the Queen's Gambit Declined with 5. $\mathbb{Q}g5$. Of course nowadays there is a lot of theory on 5. $\mathbb{Q}f4$ (sometimes called the Blackburn Variation) also. The downside of the move is that there is less pressure on the black d5-pawn, enabling the freeing ...c7-c5 break.

5...O-O

6.e3

I have tried the move 6.a3 in this position, which aims to prevent the plan

Lesson 8. Dropping Down the Anchor

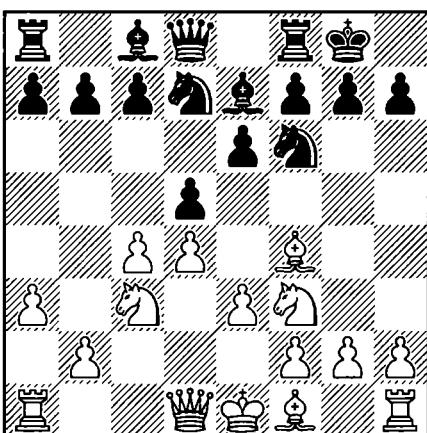
used in the game by means of 6... $\mathbb{Q}bd7$ 7. $\mathbb{Q}b5!$ which causes some problems for Black. Incidentally after 6.e3 $\mathbb{Q}bd7$ 7. $\mathbb{Q}b5?$ is an empty threat on account of 7...dxc4! and the option of ... $\mathbb{Q}e7-b4$ means the tactics work in Black's favor.

6... $\mathbb{Q}bd7$

The modern way to play this position, overtaking the old main line with 6...c5

7.a3

Essentially White has a straight choice between playing the advance 7.c5, which is a critical theoretical variation, or allowing Black to play c7-c5 by making some useful move. The move 7.a3 is quite useful to remove any problems on the a5-e1 diagonal and to play b2-b4 one day. Recently many players have experimented with the fresh idea 7. $\mathbb{Q}e2$ which is a more useful move than a3 should Black continue with 7...c5, but matters are not so clear should Black reply instead with 7...dxc4!



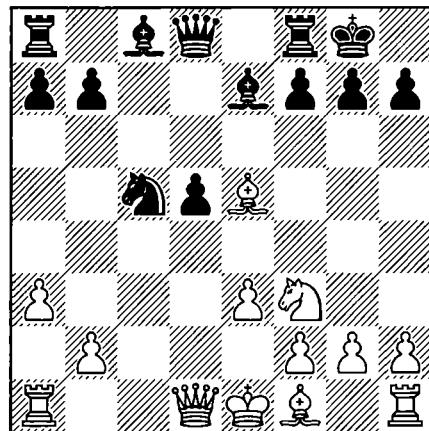
7...c5

8.cxd5 $\mathbb{Q}xd5$

9. $\mathbb{Q}xd5$ exd5

10.dxc5 $\mathbb{Q}xc5$

11. $\mathbb{Q}e5$



Reaching quite a typical isolated pawn position.

11... $\mathbb{Q}g4$

11... $\mathbb{Q}f6$ is also popular but Black will have to suffer a little after 12. $\mathbb{Q}xf6$ $\mathbb{Q}xf6$ 13. $\mathbb{Q}d4$

12. $\mathbb{Q}e2$ $\mathbb{Q}e6$

Intending to rid himself of the isolated d5-pawn by advancing it to d4.

13.h3 $\mathbb{Q}xf3$

14. $\mathbb{Q}xf3$ d4!?

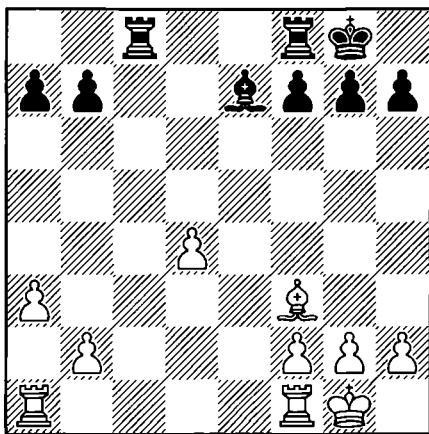
Not an equalizing attempt, but a direct drawing attempt; Black will go down a pawn.

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15.♕xd4 ♜xd4

16.♛xd4 ♛xd4

17.exd4 ♜ac8



18.O-O

It was possible to play 18.♕xb7, but after 18...♜b8 Black will regain one of his pawns on b2 and his activity will easily give him enough compensation for the single pawn deficit.

18...♜c7

19.♞ad1

How to assess White's winning chances in this position?

Although defending like this is not to everyone's taste, Black should make a draw without too much trouble. His plan consists of:

➤ Forcing the d4-pawn to advance to d5 where it can be easily blockaded.

➤ Keeping control of the c-file and any penetration squares on the e-file.

➤ To make progress White will then have to exchange all of the rooks, leading to an easily drawn end-game.

19...♝d8

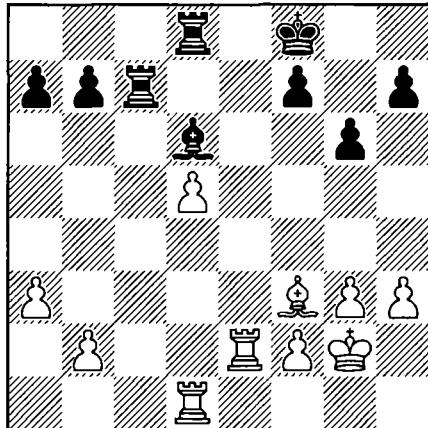
20.♝fe1 ♔f8

21.♝e2 g6

22.g3 ♔f6

23.d5 ♔e7

24.♔g2 ♔d6



25.♝de1 ♜c5

26.♔e4 ♜dc8

Seeking to proactively exchange a rook.

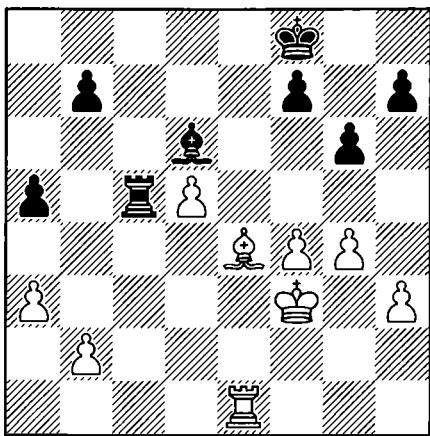
27.f4 ♜c1

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28.♔f3 ♜xe1

29.♜xe1 ♜c5

30.g4 a5



Improving the black position and waiting for White to show what his king-side advance is doing. The advance f4-f5 is not going to hinder the dark-squared blockade at all.

31.a4

This move allows Black to exchange the rooks directly.

31...♜c4

32.b3 ♜c3+

33.♝e3 ♜xe3+

34.♔xe3

Now to assure a draw all Black needs to do is create structures on both wings – which can be supported by his bishop – and put his king on d6.

34...h6

35.f5 gxg5

35...g5 is equally good

36.♝xf5 ♔e7

37.h4 f6

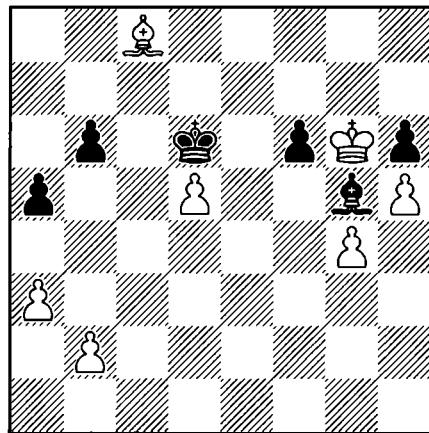
38.♚c8 b6

39.♔e4 ♛g3

40.h5 ♜h4

41.♔f5 ♛g5

42.♔g6 ♔d6



The anchor is complete. If the king ventures to the queenside that side of the board can also be trivially anchored by the bishop.

43.♚e6 ♔e7

The simplest, although Black could also give the f6 with a move such as 43...♝e3 since breakthrough is impossible.

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44. $\mathbb{B}c8 \mathbb{B}d6$

46. $\mathbb{B}c8 \mathbb{B}d6$

45. $\mathbb{B}e6 \mathbb{B}e7$

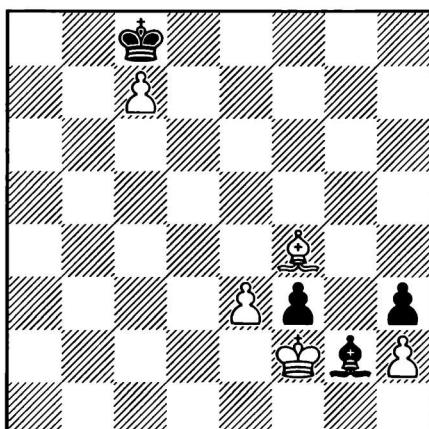
Draw Agreed

SUMMARY OF IDEAS

- The first line of defense in opposite-colored bishop endgames is the anchor.
- If the defender can stop the passed pawn(s) with his king, and prevent a breakthrough into the other side of the board using his bishop as anchor, this is the safest method of drawing the game.
- Take notice of whether the anchor is a true anchor or there is some clever breakthrough possible.
- Since passed pawns are of paramount importance, and the remaining pieces are quite weak, a bishop sacrifice to create additional passed pawns is often a possible idea in opposite-colored bishop endgames.

THEORETICAL NOTES

In the game Miralles – Prie after Black's 73rd move we had the following position:



White played the simplest winning plan beginning with 74.e4, intending to keep the black bishop locked from

the game. What would happen though after a sequence such as the following?

74. $\mathbb{B}g3 \mathbb{B}d7$

75. $\mathbb{K}e1$

75.e4 $\mathbb{B}c8$ 76. $\mathbb{B}e3$ would not be equivalent due to 76...f2!

75...f2+

Black must sacrifice this pawn eventually else play without his bishop.

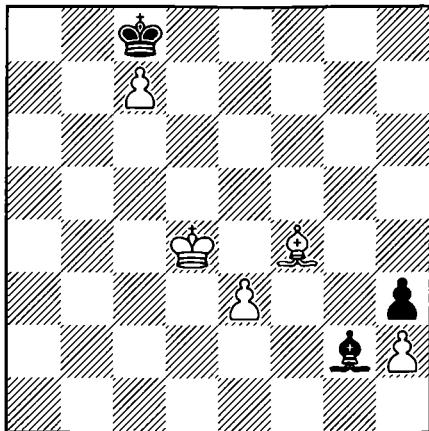
76. $\mathbb{K}xf2 \mathbb{B}c8$

77. $\mathbb{B}e2 \mathbb{B}d7$

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78. $\text{Qd}3 \text{ Qc}8$

79. $\text{Qd}4$



Is this type of position winning for White?

Black's hopes of drawing the game hang on two factors:

➤ The two white passed pawns are not a great number of files apart (only one!). This means the black king may be able to fight against both pawns at the same time.

➤ White's e-pawn is not so far advanced, and advancing it quickly is a problem since from e5 it leaves the c7-pawn. This means that the black bishop can fight against both pawns at the same time from the c8-h3 diagonal (where it would also protect the h3-pawn).

White can in fact win this position, but only because of the presence of the h-pawns, which tip the balance in his favor.

79... $\text{Qd}7$

80. $\text{e}4 \text{ Qc}8$

81. $\text{Qe}3$

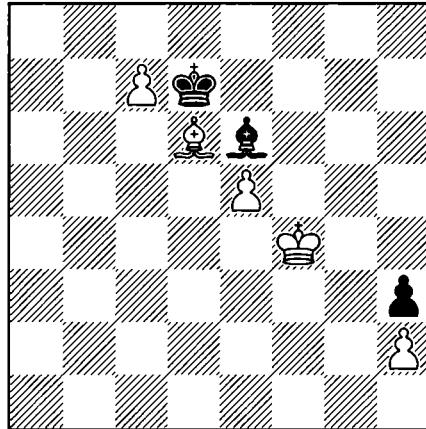
Stepping back to keep everything protected while arranging the setup $\text{Qd}6$, $\text{e}4-\text{e}5$, allowed by $\text{Qf}4-\text{g}5-\text{f}6$.

81... $\text{Qd}7$

82. $\text{Qd}6 \text{ Qf}1$

83. $\text{e}5 \text{ Qc}4$

84. $\text{Qf}4 \text{ Qe}6$



Play has proceeded logically for both sides. Now White will send the king to f6.

85. $\text{Qg}5 \text{ Qe}8$

If 85... $\text{Qc}8$ 86. $\text{Qf}6 \text{ Qd}7$ (86... $\text{Qd}7$ 87. $\text{c}8=\text{Q}+$) 87. $\text{e}6 \text{ Qb}5$ 88. $\text{e}7 \text{ Qe}8$ 89. $\text{Qg}7 \text{ Qd}7$ 90. $\text{Qf}8$ and White wins since after winning the black bishop for his c- and e-pawns he will easily capture the black h3-pawn, and since h8 is a dark square he will have no difficulties.

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86. $\mathbb{Q}f6 \mathbb{Q}d7$

Now that f8 is not covered White can finally play this advance.

87. $\mathbb{Q}a3$

Starting to re-route the bishop and not falling for the trick 87.e6?? when 87... $\mathbb{Q}xe6$ 88. $\mathbb{Q}xe6$ is stalemate!

87... $\mathbb{Q}g4$

88. $\mathbb{Q}b4$

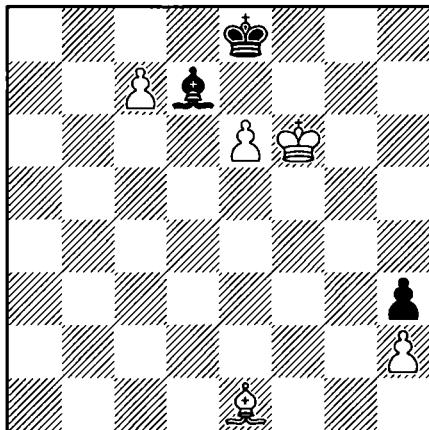
If 88. $\mathbb{Q}c1$ immediately then 88... $\mathbb{Q}d7$ is a problem, so White waits until Black places his bishop on the more awkward d7 or c8 squares.

88... $\mathbb{Q}c8$

After 88... $\mathbb{Q}d7$ 89. $\mathbb{Q}a5!$ Black is in *Zugzwang*.

89. $\mathbb{Q}e1 \mathbb{Q}d7$

90. e6



90... $\mathbb{Q}c8$

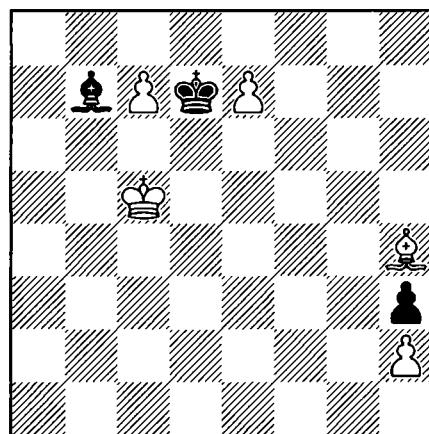
91. $\mathbb{Q}h4 \mathbb{Q}b7$

92. e7 $\mathbb{Q}c8$

93. $\mathbb{Q}e5 \mathbb{Q}d7$

94. $\mathbb{Q}d5 \mathbb{Q}b7+$

95. $\mathbb{Q}c5$



There is nothing Black can do to stop a white king march to b8, followed by e7-e8 and c7-c8.

Lesson 9

Back to Reality – Other Minor-Piece Endgames

Lesson Aims

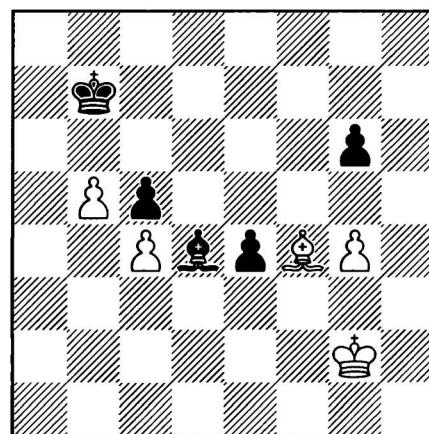
- Know how to evaluate endgames with bishops of the same color.
- Understand the theory of ♔+♝ vs. ♔ with same-colored bishops.
- See how a bishop can dominate a knight in the endgame and can sometimes squeeze a win from a seemingly equal position.

After our flirtation into the strange world of opposite-colored bishop endgames, we will now examine some endgames featuring bishop versus (same-colored) bishop and bishop versus knight (some pure knight endgames, which are comparatively rare, are examined in the practical section).

Thankfully in these endgames, normal factors such as extra pawns and king activity are important and easier to quantify.

We shall dive straight into an example and discuss the principles involved.

Nakamura – Kudrin,
Western States Open, Reno, 2004



White to play

How should we assess this position?

For same-colored bishop endgames we can consider the position in terms

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of the pawn structure and the king activity.

I think it is fairly obvious that White is better here; the question is only of degree. Let us make some observations:

➤ White has a protected passed pawn on b5. Black's king activity is hampered by this. White's king is restricted for the moment but has potential to become active.

➤ White's structure is clearly much superior. None of the black pawns look particularly safe. The e4-pawn is vulnerable where it stands, but if it advances it will certainly be lost. The g6-pawn also looks shaky, and will become a target if it advances to g5. The black c5 pawn looks relatively secure but also could later become a target. Black could be tied down to this pawn (if White arranged ♔d5 and also attacked c5 with his bishop).

➤ It is clear that as White we must attack the weaknesses to win, as the black king cannot be moved from the b7 square (in this regard same-colored bishop endgames can be similar to opposite-colored bishop endgames).

So should he target g6 or e4?

48.g5!

The correct idea. White has seen that after bringing his king to g4 he can eventually force the win of the e4-pawn (we will see exactly how in a moment, it is far from trivial).

The alternative was to try to infiltrate to g5 with the king to win the g6-pawn.

48.♔g3 ♔c8 (It is vital Black waits on a light square; we will shortly see why)
49.♗g5 (the immediate 49.♔h4 is met with 49...♗f6+ and White is not gaining access to g5 – he must first take control of the h4-d8 diagonal with his bishop)
49...♗c3 50.♔h4 (50.♔f4?? ♗d2+)
50...♗b7 51.♗e7 (if the black king was on b6 then ♗g5-d8+ followed by ♗h4-g5 would win) 51...e3! And White must lose his bishop for the e-pawn.

Of course if 48.♔g3 really does force a move such as 48...♔c8, it is perhaps a slightly more accurate way to play than the game, as long as it is followed by 49.g5!

48...♗b6

49.♔g3 ♔b7

50.♔g4 ♔b6

51.♗d2

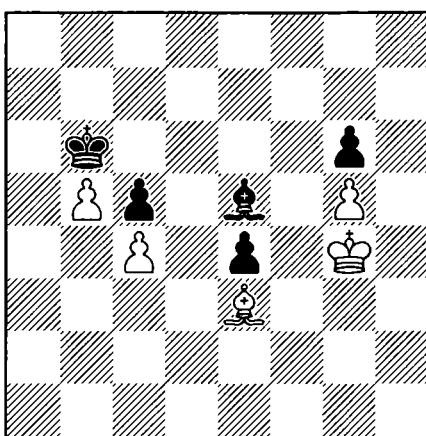
It is useful to prevent any ideas of ♔b6-a5 by Black and at the same time the f4 square is vacated for the white king.

51...♙e5

Forced, as Black cannot allow ♔g4-f4. After 51...e3 White will eventually round up this pawn with ♗d2-e1 ♔g4-f3 and ♗e1-g3-f4.

52.♗e3

Lesson 9. Back to Reality – Other Minor-Piece Endgames



Neat and tidy

A nice move, tying the black king to c5 and forcing the bishop to abandon its post on e5.

52...♝h2

Let us look at the alternative bishop moves:

➤ 52...♝b8 is just bad because of 53.♚f4 ♚a7 54.♝e5 followed by ♚g4-e4 winning easily.

➤ 52...♝c7 53.♚f4 ♚d8 54.♚d6! (gaining access for the king to f4, and preventing ♚b6-a5 on account of ♜d6xc5) 54...e3 55.♚f3 ♜xg5 56.♚h2 ♜h6 57.♚g1 and White will win the e3-pawn essentially transposing to the game.

➤ 52...♝d6 53.♚f4 ♚f8 54.♚e5 ♜e7 55.♚f4 and the black e-pawn will again be exchanged for the white g-pawn, transposing to the game.

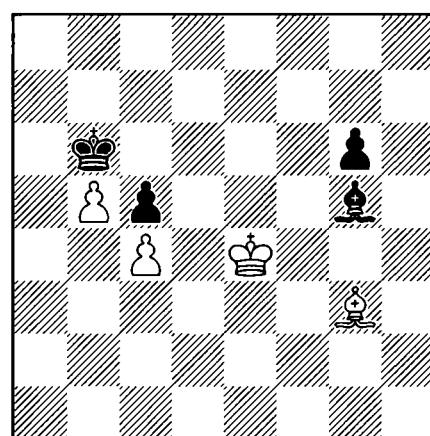
53.♚f2 ♜e5

54.♝g3 ♜c3

55.♚f4 ♜d2+

56.♚xe4 ♜xg5

By removing the black e-pawn the white pieces (in particular the king) have a lot more freedom. The next stage of the game begins. This time White's plan is very clear: he must win the black g-pawn (and he will, since White can easily attack it twice, and the black king cannot assist in the defense).



The g-pawn is doomed

57.♚e5 ♜e3

58.♚e6 g5

59.♚f5

Both of the white pieces prepare to attack the black g-pawn.

59...♝d2

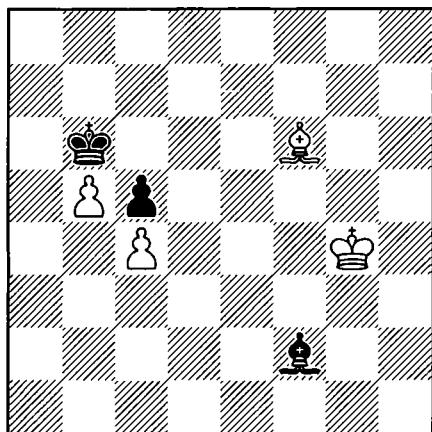
60.♚e5 ♜e3

61. ♜f6 g4

62. ♜xg4

And the final stage of the game begins, can White win this position? Notice that regardless of what the answer to this question is, White would have played the same way up to this point. He simply cannot hope for better than this from the position on move 48.

62... ♜f2



Can White win?

In general when trying to exploit an extra pawn in the endgame, a single pair of same-colored bishops is quite a favorable situation for the attacker (certainly far better than opposite-colored bishops or rooks). There are a couple of factors though that could hinder the winning process here with reduced material and all pawns on one side of the board:

➤ The bishop is too weak a piece to mate a bare king, so the defender can draw by sacrificing his bishop if he can remove all of the attacker's pawns.

➤ If the defending king takes up a powerful defensive post (such as in the path of a passed pawn, b7 in this position would be such a square), and it is on an opposite-colored square to the bishops, then it cannot be removed by normal means.

In this specific case though, the weakness of the c5-pawn makes the defense difficult. The black king cannot support this pawn from his safe square on b7, and on b6 he is not secure. Should Black lose the c5-pawn of course, the position is trivially winning for White.

How should White proceed? Do we target the c5-pawn? Or try to queen the b-pawn?

If we try to queen the b-pawn, we need to move the black king. One idea would be to play ♜g4-f5-e6-d7-c8, followed by ♜d8+ and b5-b6. This would certainly win the game, but can it be achieved? The problem is that when White plays ♜d7, Black will play ... ♜b7. It is impossible to move the black king from b7, so we would be forced to change plans and attack the c5-pawn instead.

So White's only hope is to somehow target and win the c5-pawn. At least, this must be his primary goal. We will see in the game that White manages to neatly combine both ideas.

63. ♜f3

White begins to optimize his pieces.

63... ♜e1

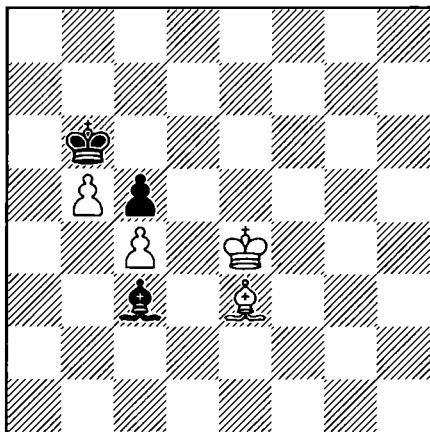
64.♔e4 ♕f2

65.♗g5 ♕d4

66.♗e3

Using the fact that Black cannot exchange bishops to push the black bishop onto an inferior diagonal.

66...♝c3



Forward or back?

With White's bishop deciding to use the g1-a7 diagonal to target the c5-pawn, it is clear that Black must defend from the diagonal a3-f8. He can do this either by putting his bishop on a3/b4 squares, or by putting it on the d6/e7/f8 squares.

67.♔d3

An interesting idea. White is trying to force the bishop away from the a3/b4 defensive squares (although this is the shorter defensive diagonal the white king from d5 cannot harass the bishop on these squares). Instead he would prefer the bishop to reside on the squares

d6/e7/f8, where the white ♔d5 can potentially remove squares from it and perhaps cause a *Zugzwang*.

It is also quite likely that both players were short of time. Sometimes the player who is in control (in this case White) but does not see the winning method will just make neutral moves to buy himself time to think.

In fact White is winning by force after 67.♔d5 ♘b4 68.♗g5 ♔c7 (if 68...♝a3 69.♗d8+ ♔b7 70.♗a5! transposes to 68...♔c7) 69.♗h4! (waiting for the black bishop to move to a3, freeing the a5 square) 69...♔b6 (or 69...♝a3 70.♗e7 ♔b6 71.♗d8+) 70.♗e7 ♘a3 71.♗d8+ ♔b7 72.♗a5! with a crippling *Zugzwang*, Black must either shed the c5-pawn, or allow the white king access to c6 (after which the b-pawn will simply advance, giving mate very quickly).

67...♝e1

Despite my previous comments on 67.♔d3, it is not clear how White would force the bishop from the corner after for instance 67...♝b2. Probably he would be forced to find the winning idea in the last note.

68.♗d2 ♕f2

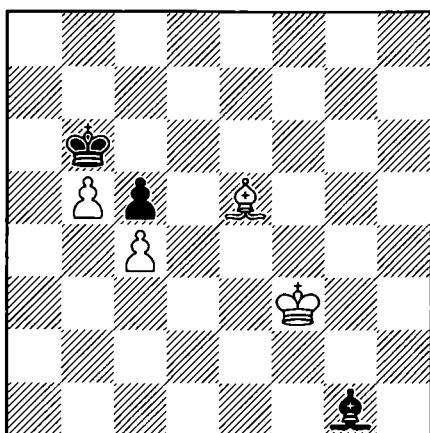
69.♗c3 ♘g1

70.♔e2 ♘h2

71.♔f3 ♘g1

72.♔e5

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♗g1 cannot move

Ingeniously encircling the black ♗g1, which now cannot move. We will see in a moment why White wanted to force the black king to temporarily leave the protection of the c5-pawn.

72...♔b7

73.♕f4 ♔b6

The point was that 73...♕d4, maybe intending to return to the a3/b4 squares, is impossible on account of 74.♗e3.

74.♗e3 ♕h2

Now it is clear the black bishop will have to defend from d6/e7/f8.

75.♕e4 ♕d6

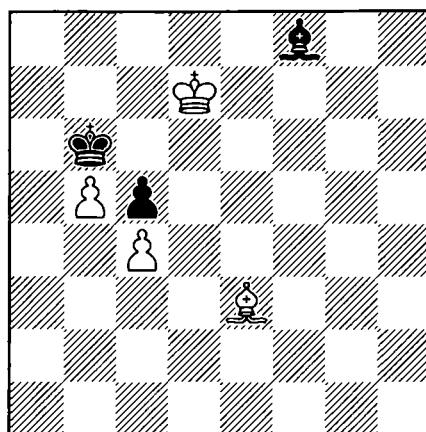
76.♔d5 ♕e7

White finally achieved his goal. Although 76...♗f8 is technically a better square for the bishop White would simply meet it with a random bishop move and Black would have to play 77...♗e7 on the next turn anyway.

The game continuation shows why White wanted to force the black bishop here so much. He manages to combine the plan of winning the c5-pawn with the plan to reach c8 with the king and queen the b5-pawn.

77.♔e6 ♗f8

78.♔d7



Perfect positioning

The king is beautifully positioned. Notice that not only does it threaten to come to c8 (or c6), but crucially it removes two of the three squares (d6 and e7) from the defending bishop's diagonal. Having enough squares on defending diagonals to avoid *Zugzwangs* is a critical aspect of same-color bishop endgames and of course we will see much more of this. If you can combine both plans (winning c5 and queening the b5-pawn) then why not do so?

78...♗g7

Also hopeless was trying to prevent the intrusion on c8 by playing 78...♔b7; White simply plays the *Zugzwang* 79.♗f2

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(or 79.♕g1) and Black must lose the c5-pawn or allow the white king to c8.

79.♔c8

The rest is simple. Without its rock solid blockading square on b7, the black king is flushed out.

79...♝e5

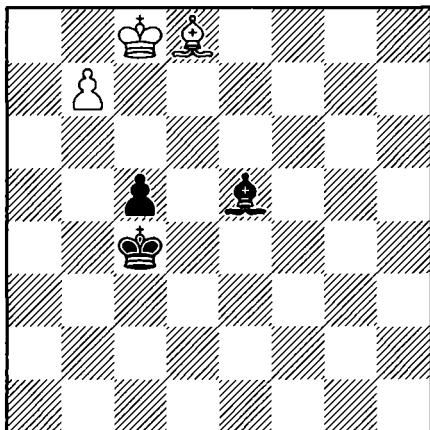
80.♗g5 ♔a5

This counterplay is of course much too slow.

81.♗d8+ ♔b4

82.b6 ♔xc4

83.b7



The b-pawn queens

With only one diagonal from which to control the b8 square, Black's bishop will be easily contested and removed.

83...♝d3

84.♗c7 ♔xc7

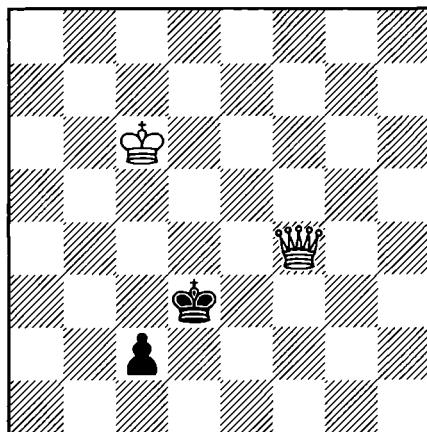
85.♔xc7 c4

Black plays on until the bitter end.

86.b8=♛ c3

87.♔c6 c2

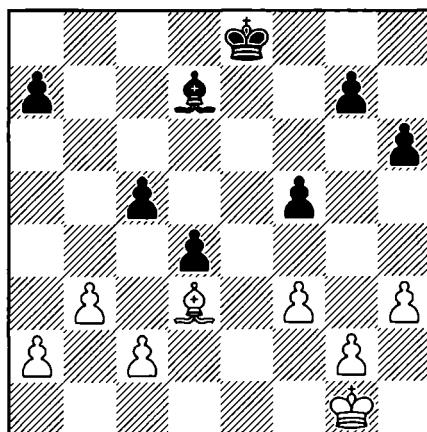
88.♔f4



♔c1 stops the pawn forever

Black resigns. The white queen is simply coming to c1.

Zhang Pengxiang – Motylev,
Sanjin Hotel Cup, 2005



Black to play

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What do we make of this position?

Firstly, it is very important that Black plays the correct move here:

25...f4!

Why is this so obviously the best move? Simple:

➤ It gives Black a permanent advantage in structure. The white pawns are fixed on the light squares and there is a glaring potential weakness on g2 (and dark invasion squares on the kingside).

➤ It gives Black an advantage in king activity. Now the white king cannot activate itself on the kingside dark squares. The black king can use the space advantage to move toward the white position; in particular the e5 and g5 squares are now useable.

➤ If Black does not put a pawn on f4 then White will do so (and later arrange all of his kingside pawns on dark squares).

Note we are not saying Black is winning, only that Black has the advantage in structure and king activity and therefore an advantage in the position. Of course White is still very solid. It remains to be seen if Black's advantage means anything in terms of the result; it may prove to be only symbolic.

26.♔f2 ♔e7

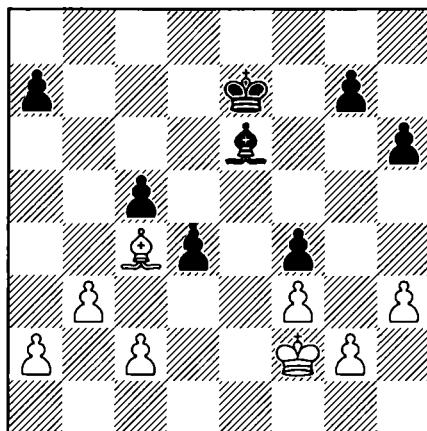
27.♗a6 ♗f5

28.♗d3 ♗e6

Black is only symbolically better in the pawn endgame after 28...♗xd3, for instance 29.cxd3 ♔f6 (after 29...♔d6 [intending to come to b4 and a3 with the king] I do not really see how Black can make any progress if White moves his king to the queenside and plays a2-a3 [probably even this is not strictly necessary]) 30.g4 fxg3+ 31.♔xg3 ♔f5 32.f4 and Black cannot win.

Instead Black is in no hurry, his advantage in the bishop endgame will not go away easily.

29.♗c4



Personally I wouldn't have played this move. Although White is (just) safe in the pawn endgame it is far less obvious than on move 28. Black was not threatening anything so White could make almost any move rather than risk this pawn endgame being lost.

29...♗f5

After 29...♗xc4 30.bxc4 ♔f6 31.♔e2

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(White must sit passively and allow the black king to g3 because 31.g4?? is no longer possible without a pawn on d3: 31...fxg3+ 32.♔xg3 ♔f5 and Black is winning. He is infiltrating with his king either on f4, or by the pawn sacrifice d4-d3 followed by ♔e5-d4) 31...♔g5 32.♔f2 ♔h4 33.♔f1 ♔g3 34.♔g1 a5 35.a4 g5 36.♔f1 h5 37.♔g1 g4 38.hxg4 hxg4 39.fxg4 ♔xg4 40.♔f2 (If Black could lose a move here he would be winning, but he cannot. The problem is he cannot lose a tempo earlier because it doesn't matter if the white king is on g1 or f1, it can still come to f2 in one move.) 40...♔f5 41.♔f1 ♔e5 42.♔e1 and White draws.

Still, I think it is difficult (and pointless) to be completely sure this is drawn when playing 29.♗c4, so there is really no need to offer this version of the pawn endgame.

Despite the fact that Black is reasonably close to winning the pawn endgame (and White most likely did not realize the danger), once he realizes it is drawn Black has to avoid it anyway (assuming he still wants to win the game). The reason is that there is no chance White will go wrong in this pawn endgame as all of his moves are forced.

30.♗d3 ♗c8

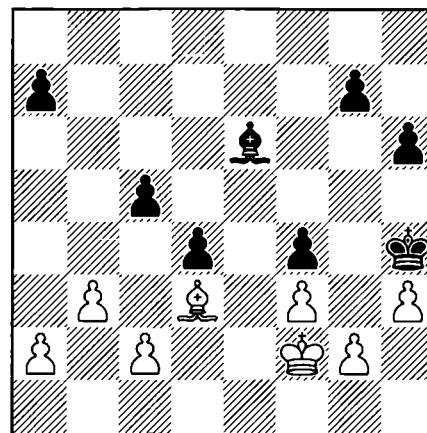
31.♔e1 ♔f6

The black king heads for h4, but there should be no way in.

32.♔d2 ♔g5

33.♔e1 ♔h4

34.♔f2 ♔e6



An interesting moment. Black cannot penetrate White's position. His only ideas are to change the structure or to exchange bishops.

➤ I think with 34...♔e6 Black is hoping White will be fearful that the pawn endgame (now that the black king is on h4) which could result after 35.♗a6 ♔f5 forcing 36.♗d3, might be losing (although as we will see, it isn't).

➤ If White were worried about the pawn endgame he would play a move such as 35.♗h7 leaving the bishop on the b1-h7 diagonal (he certainly would want to avoid making a king move and allowing ♔h4-g3, regardless of the objective assessment).

Black could then try to change the structure with c5-c4 and perhaps bring his king back to the center and queen-side. I am sure this is still not winning, but at least the position would be al-

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tered and the problems would be different.

35.♔a6 ♔f5

36.♗d3

White is not to be bluffed.

36...♝c8

The pawn endgame after 36...♝xd3 is much simpler than the potential pawn endgame on move 29. Black must put the king on g3 and play g5, h5, g5-g4, but with a white pawn on d3 it is easy to see the game will be drawn.

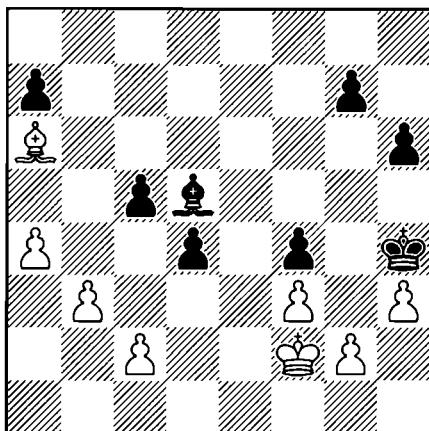
37.♗c4 ♔b7

38.♗d3 ♔c6

39.♔a6 ♔d5

Black has no particular ideas and he was probably already close to accepting the game was drawn.

40.a4?!



Still no way through

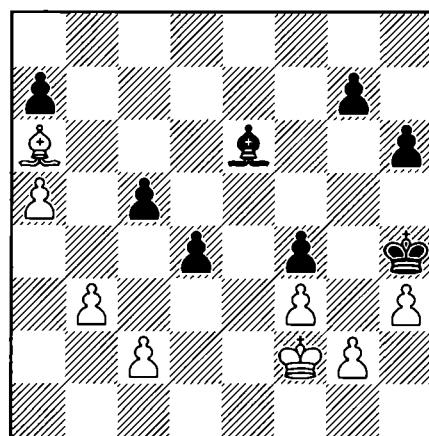
Not losing the game, but creating unnecessary problems for himself. The problem now is that Black can block the queen-side in one move (with a7-a5). In a pawn endgame this may be enough to cause a *Zugzwang*. The only way White can avoid this would be to play a4-a5-a6 but then his pawn would be extremely weak.

40...♝e6

41.a5?

White must play 41.♗d3 and keep the bishop forever on the b1-h7 diagonal to avoid the pawn endgame. Black could perhaps try playing ♘e6 and c5-c4 again, but White should easily hold the game.

A move such as 41.♗c4? also loses after 41...♝f5 42.♗d3 ♔xd3 43.cxd3 g5 44.♔f1 h5 45.♔f2 g4 46.hxg4 hxg4 47.fxg4 ♔xg4 48.a5 a6!



41...♝f5!

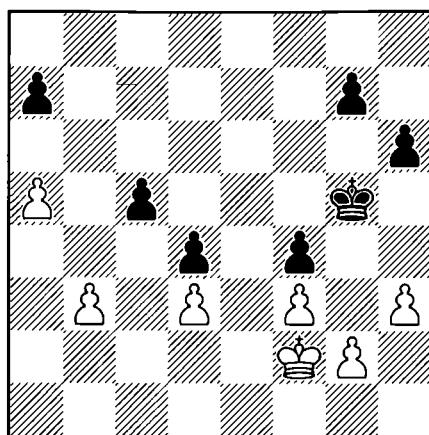
42.♗d3 ♔xd3

43.cxd3

Lesson 9. Back to Reality – Other Minor-Piece Endgames

With the pawn on a5, the pawn endgame is again lost, but this time for a different reason.

43... $\mathbb{g}5!$



Why did I move my a-pawn?!?

The plan of g5/h5 is not winning with the pawn on a5, because White can destroy Black's tempo move by pushing a5-a6 (and the black king cannot run to the queenside quickly to win this pawn due to being trapped on h4).

With 43... $\mathbb{g}5$ Black is simply marching his king to the queenside to win the a5-pawn.

44.g3

Waiting is no good either.

44... $\mathbb{f}5$

45.h4 fxg3+

46. $\mathbb{w}xg3$ g5

White resigned. There is nothing to be done. White must play 47.h5 to avoid

giving Black an outside passed pawn, but then comes 47...a6! 48. $\mathbb{g}2$ $\mathbb{f}4$ 49. $\mathbb{f}2$ g4 and White loses the h5-pawn.

Karpov – Su. Polgar,

Madrid, 1992

Semi Slav Defense – Anti-Meran Variation

1.d4 d5

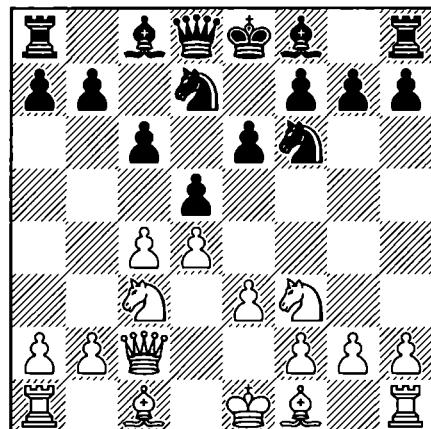
2.c4 c6

3. $\mathbb{c}c3$ $\mathbb{f}f6$

4.e3 e6

5. $\mathbb{f}f3$ $\mathbb{bd}7$

6. $\mathbb{w}c2$



Initiating the Anti-Meran Variation, avoiding the Meran which would begin with 6. $\mathbb{d}3$

6... $\mathbb{d}6$

7. $\mathbb{e}e2$ O-O

8.O-O $\mathbb{d}xc4$

9. ♜xc4 a6

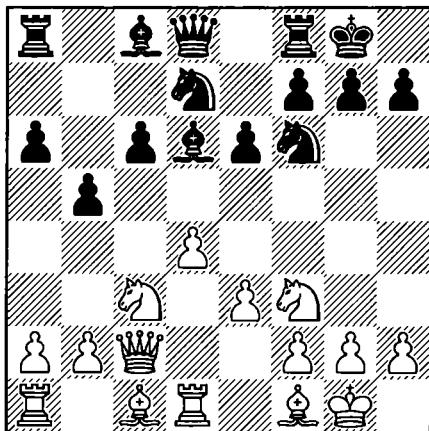
Black's most flexible choice in this position, not committing yet to any plan. She can continue in typical Meran style with ...b7-b5 followed by ...c6-c5, she can continue in Queen's Gambit Accepted fashion with ...c6-c5 directly, or she can play for ...e6-e5, depending on how White chooses to play.

10. ♜d1

White does not fully show his hand either. The move ♜f1-d1 is useful against all three of Black's potential setups.

10...b5

11. ♜f1



11...c5

This seems fine, but to my mind it somewhat justifies the placement of the white pieces. It makes more sense to start with 11...♝c7 to remove the queen from the d-file, planning to go ...c6-c5 next. If White plays 12.e4 then Black is

comfortably placed to switch plans with 12...e5.

12. dxc5 ♜xc5

13. ♜g5 ♜b7

14. ♜ce4

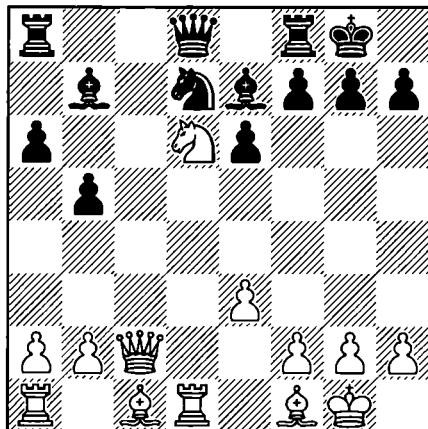
Creating the threat of ♜e4xf6+ when the pin on the d-file and the threats against h7 would win the game for White.

14...♜xe4

Still fine, but Black must be careful not to get too passive. I find it hard to believe that after (for instance) 14...♝b6, White has any advantage at all. He can capture the bishop on c5 but Black's pieces are perfectly placed and White's piece placement looks inoffensive.

15. ♜xe4 ♜e7

16. ♜d6



16...♜d5

Lesson 9. Back to Reality – Other Minor-Piece Endgames

The alternative was 16... \mathbb{Q} x d6 17. \mathbb{Q} xd6 \mathbb{W} e7 (not 17... \mathbb{Q} d5 18.e4 \mathbb{Q} c8 19. \mathbb{W} d1 with a big advantage to White) 18. \mathbb{W} c7 \mathbb{Q} fd8 19. \mathbb{Q} d1 \mathbb{Q} d5 20. \mathbb{Q} d2 and White is more comfortable; he can follow up with \mathbb{W} c7-g3 and \mathbb{Q} d2-c3.

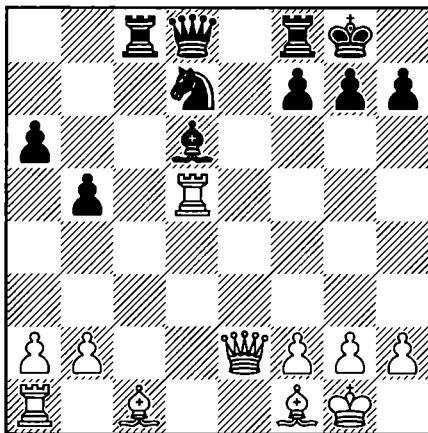
17.e4 \mathbb{Q} xd6

18.exd5 \mathbb{Q} c8

Accurately played. After 18...e5 19.a4! b4 20. \mathbb{Q} d3 g6 21. \mathbb{Q} e3 the white bishops exert unpleasant pressure on the black queenside.

19. \mathbb{W} e2 exd5

20. \mathbb{Q} xd5



20... \mathbb{Q} f6

This seems fine, although it would be more active to play 20... \mathbb{Q} b6 in order to leave the f6 square for the queen. In positions where the central structure has been completely removed it is the relative activity of the pieces which often decides the evaluation.

21. \mathbb{Q} d3 \mathbb{W} c7

22.g3 \mathbb{Q} c5

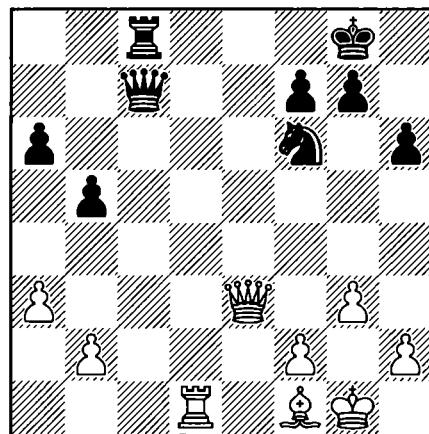
23. \mathbb{Q} e3 \mathbb{Q} xe3

24. \mathbb{Q} xe3 \mathbb{Q} fe8

25. \mathbb{Q} d1 h6

26.a3 \mathbb{Q} xe3

27. \mathbb{W} xe3



White is very slightly better thanks to his bishop vs. knight advantage.

27... \mathbb{Q} g4

28. \mathbb{W} e4 \mathbb{Q} e5

29. \mathbb{Q} d5 \mathbb{Q} c4

A difficult decision. After 29... \mathbb{Q} c4 White is achieving the simplifications he wants, although attempting to anchor the knight with 29...f6 is hardly attractive either while the white bishop remains on the board.

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30. $\mathbb{W}d4 \mathbb{E}e8$

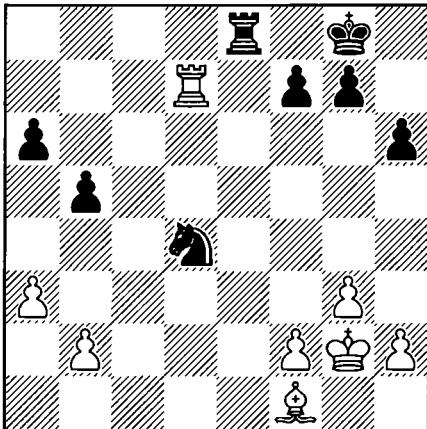
31. $\mathbb{B}c5 \mathbb{Q}d2!$

The tactical justification behind 30... $\mathbb{E}e8$, but it leads to exchanges to a favourable endgame for White.

32. $\mathbb{B}xc7 \mathbb{Q}f3+$

33. $\mathbb{W}g2 \mathbb{Q}xd4$

34. $\mathbb{B}d7!$



34... $\mathbb{N}c6$

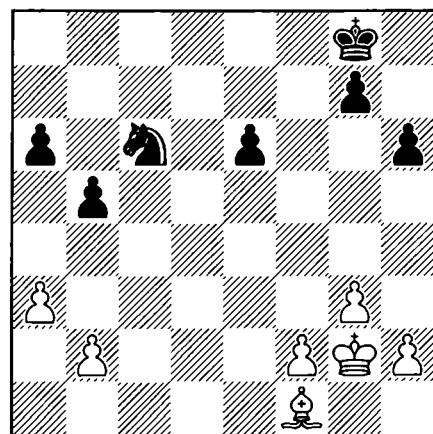
If the knight moves to another square then $\mathbb{B}d7-d6$ is hard to meet.

35. $\mathbb{B}d6$

Forcing an endgame with some chances to play for a win.

35... $\mathbb{E}e6$

36. $\mathbb{B}xe6 \mathbb{F}xe6$



Let us summarize the endgame which has arisen.

White has a bishop against a knight which, unless some particular feature of the pawn structure suggests otherwise, should be an advantage. All things being equal, the bishop is simply a slightly better piece. We can see the black queenside pawns look slightly shaky, and there is a potential weakness on e6. Also, the white king can come to the center very quickly.

Again it is a question of degree. White is certainly better, but is Black's situation bad enough for her to be lost?

37. $\mathbb{W}f3 \mathbb{W}f7$

38. $\mathbb{W}e4 \mathbb{W}e7$

White has secured an advantage in king activity, but the black e6-pawn and knight coordinate well to prevent any further penetration. Now what should White target? It is difficult to target the e6-pawn, and the king cannot break through to the kingside.

39. $a4!$

Cleverly exploiting the weakness on a6.

39...♞a7

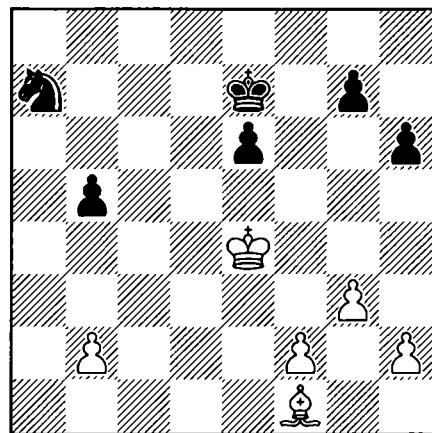
The alternative 39...bxa4 was not attractive; after 40.♕xa6 the black a4-pawn is chronically weak. It can easily be attacked by the bishop from b5, and there is no longer any issue of the white king being unable to penetrate to the pawn. It is also very difficult for the black knight to defend this pawn.

Note it was vital that White acted quickly with 39.a4!, for if he had pondered and allowed Black the extra move ...♚e7-d6 then Black would solve all the problems. Pushing a3-a4 would lose all its impact as Black could respond ...b5xa4, and after ♕f1xa6 simply play ...♚d6-c5!

After 39...♞a7 though, the black knight is frozen on this square for the immediate future.

40.axb5 axb5

The pawn ending with 40...♝xb5 41.♕xb5 axb5 is lost for Black; White's king position is too strong and the black b-pawn is too weak. For example, 42.♚e5 ♚d7 7.f4 (it is simplest to leave the white pawn on b2 for now, partly to keep reserve tempi and also because in some positions where White penetrates the kingside Black may be able to capture the white b-pawn and get counterplay) 42...♚e7 43.h4 g6 44.g4 ♚d7 45.g5 hxg5 46.hxg5 ♚e7 47.b4 and White penetrates to f6 or d6, winning the game.



41.f4

White actually would like to remove the weak looking e6-pawn with f4-f5, in order to gain access the black kingside pawns.

41...♚d6

42.♕d3

White believes that the black king stands sufficiently well on d6 and that it is worth delaying f4-f5 (which is also possible here, but White has to reckon with the reply 42.f5 e5!?) in order to force the black king to move to a less active square.

42...♚d7

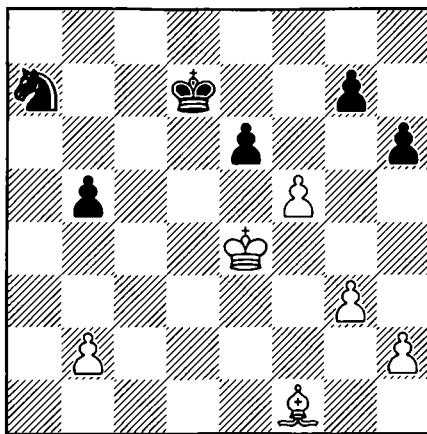
The only try to keep the king on d6 would be 42...b4, which also frees the black ♜a7. Of course we already know that creating far advanced pawns as the defender is rarely a good idea. Indeed, after 43.♕d4 ♜c6+ 44.♕c4 e5!? 45.♕e4 Black is in big trouble.

43.♕e2 ♚d6

PART 2. Principles And Essential Theory

44.♗f1 ♜d7

45.f5!



White had a rethink and decided he wanted the bishop on f1 and now finally the key advance f4-f5 comes.

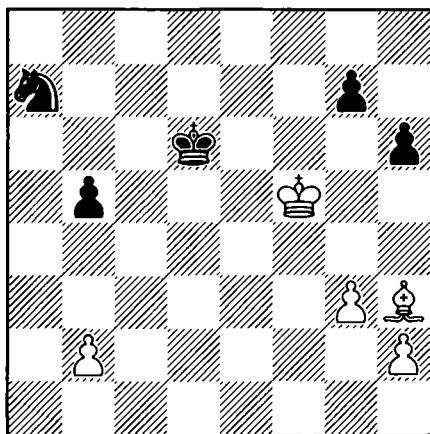
45...♝d6

45...exf5+ 46.♗xf5 speeds up the process for White as his king gains access to g6 right away.

46.fxe6 ♜xe6

47.♕h3+ ♜d6

48.♔f5



48...g5

Black could also defend passively with 48...♜e7 49.♔g6 ♜f8 50.♔f1! b4 (what else? If Black plays 50...♚g8 then simply 51.♔f5 coming across to win the b-pawn) 51.♔f5 ♜f7 52.♔e5 ♜e7 53.♔d5 and Black loses the b-pawn.

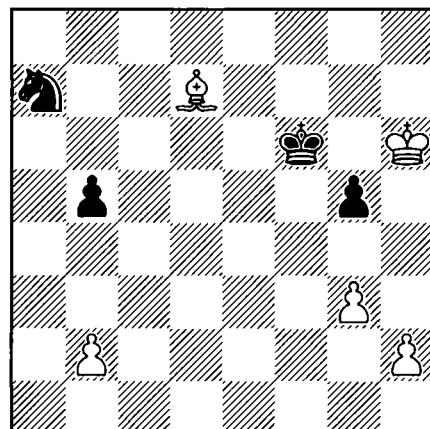
49.♔g6

White wins a pawn.

49...♚e7

50.♕xh6 ♜f6

51.♔d7!



Black knight is dominated...and something is happening on b5

Completely dominating the ♞a7.

51...♚e7

52.♔xb5!

After 52.♔g4 ♜f6 53.h4 Black can fight on. Although the position is probably lost there is still some work to do.

Lesson 9. Back to Reality – Other Minor-Piece Endgames

With 52... $\mathbb{B}xb5!$ the game is immediately finished as the black knight is completely overloaded.

52... $\mathbb{B}xb5$

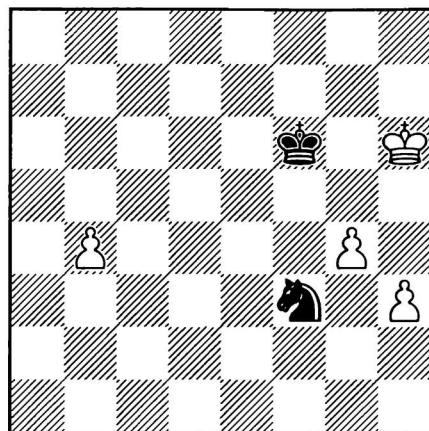
53. $\mathbb{Q}xg5 \mathbb{Q}f7$

54. $\mathbb{Q}h6 \mathbb{N}d4$

55.g4 $\mathbb{N}f3$

56.h3 $\mathbb{Q}f6$

57.b4



Pawns are too strong

Black resigns.

SUMMARY

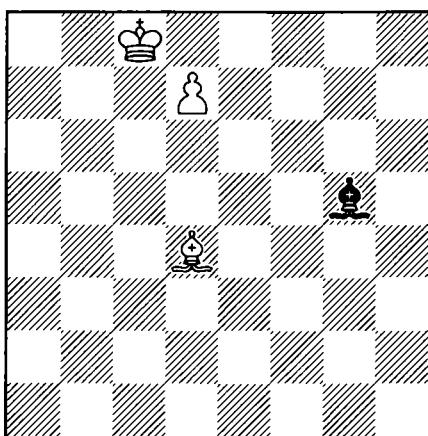
- In the absence of immediate tactical considerations, endgame with bishops of the same color can, typically, be evaluated in terms of pawn structure and king activity.
- When trying to exploit an extra pawn advantage, same-colored bishop endgames would rank highly on a list of desirable situations for the stronger side. All things being equal, an extra pawn will usually be decisive.
- Bishop vs. knight situations are more difficult to assess (we will look at more examples in the exercises). The usual universal factors apply, but pawn structure becomes more critical to the assessment. The more asymmetrical and non-compact the pawn structure is, the more the bishop's advantage grows, because it is a long-range piece which can function on both wings simultaneously.

THEORETICAL NOTES

We will take a look at some instructive theoretical positions from the endgame of bishop and pawn vs. bishop, showing the battle for key diagonals.

Consider this position which will demonstrate defense is always hopeless without a defending king:

PART 2. Principles And Essential Theory



The black bishop must be forced from the d8-h4 diagonal so that the pawn can safely step to d8.

1. ♜b6 ♜h4

2. ♜d8

The only chance for a defense now is to relocate the bishop to the a5-d8 diagonal. This is possible here because the d8 square is occupied by the white bishop, preventing the pawn from promoting.

2... ♜e1

3. ♜f6

Preventing the black bishop from returning to the h4-d8 diagonal.

3... ♜a5

4. ♜e5!

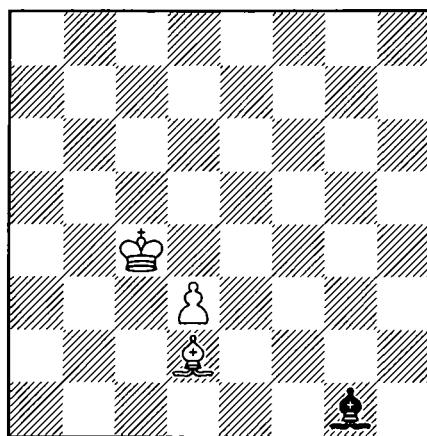
However, on this side of the pawn White's king can support his bishop coming to c7.

4... ♜b6

5. ♜c7

A much more effective way to drive the bishop from its protection of d8. Now Black has no time to switch diagonals and d7-d8=♕ cannot be stopped.

If we move the pawn further back it is the same story.

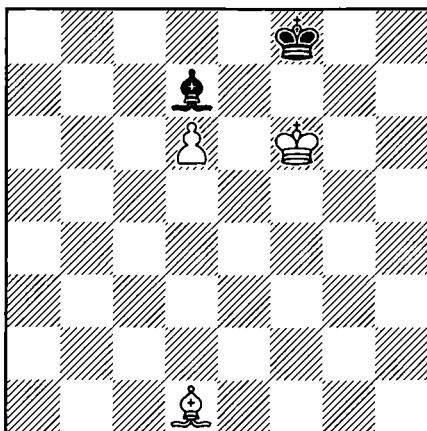


This is like having to win the previous position three times. White must safely get his pawn past the three dark squares in its path (d4, d6 and finally d8).

Obviously in real terms Black would be very likely to draw this, as he would likely reach d7 with his king. Without his king the pawn cannot be stopped as Black will continually be driven away from diagonals and the white pawn will gradually advance.

Let us take a real game situation, and see how the defending king can assist in the defense.

Averbakh, 1983



White to play

Can he win this position?

Note that although the white pawn is only on the sixth rank, and in our initial example the pawn was on the seventh rank, that it is not the correct way to differentiate between the positions. What we should be thinking is that in both cases the pawn has one important square to cross, here it is d7.

1. ♜h5!

This move is automatic. If White plays any other move Black will play ♜f8-e8-d8. How would we move the king from d8 to queen our pawn? It would be impossible. Even if this position were a draw anyway we must prevent the simplest defense.

1... ♜h3

2. ♛e5!?

The direct approach with 2. ♜g6 ♜d7! 3. ♜f5 is not effective, simplest for Black

is 3... ♔e8! (but not 3... ♜xf5?? 4. ♛xf5 and the pawn endgame is lost) and the pawn endgame is drawn (if White avoids the exchange then of course the black king reaches d8 with an easy draw).

With 2. ♛e5!? White is planning to reposition his king on the c7 square first and only then try to drive away Black's bishop from the key diagonals.

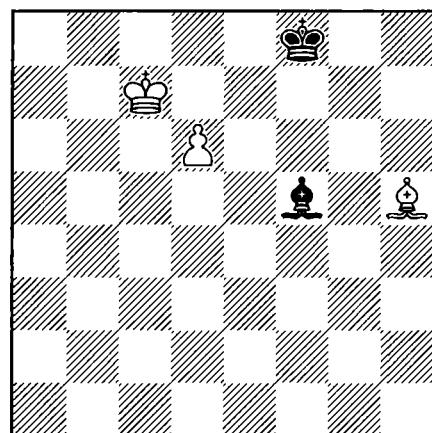
2... ♜d7

3. ♛d5 ♜h3??

Black continues to wait but this is in fact a losing move. We will see why and then see what Black should play instead.

4. ♔c6! ♜f5

5. ♔c7



The problem for Black is that his king is really doing nothing to aid the defense. White will simply maneuver his bishop to d7 and position the bishop on the h3-c8 diagonal. Black will be forced to relocate to the a4-e8 diagonal, then

PART 2. Principles And Essential Theory

the bishop comes to c6 with devastating effect.

5...♝h3

6.♝f3 ♚f5

7.♝c6

Following the normal procedure and coming to d7 when in fact it would be quicker to play 7.♝b7 followed by 8.♝c8 forcing d6-d7.

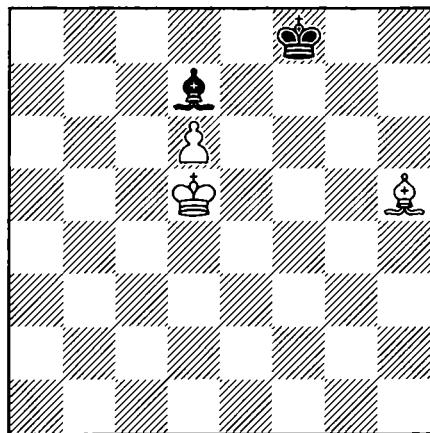
7...♝g4

8.♝d7 ♚e2

9.♝h3 ♚b5

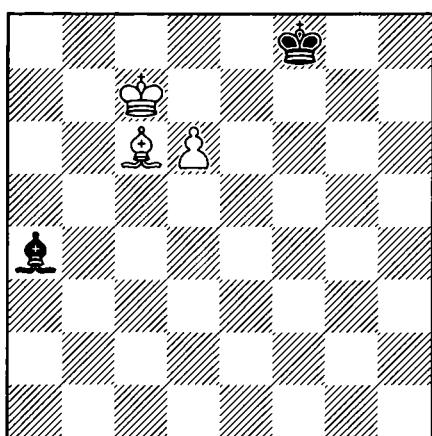
10.♝g2 ♚a4

11.♝c6



3...♚g7!

If the white king is heading for c7, the black king is heading for c5! This is actually a very strong square for the defending king. It prevents White's idea of playing 7.♝c6 and it also prevents the idea of 7.♝c8 (because Black could simply exchange and capture on d6 with his king).



4.♚c5 ♚f6

5.♚b6 ♚e5

6.♚c7 ♚h3

7.♚e2

White begins his standard plan to bring the bishop to d7, but this time Black is ready for it.

7...♚d5!

8.♝b5

And the pawn will shortly queen.
White wins.

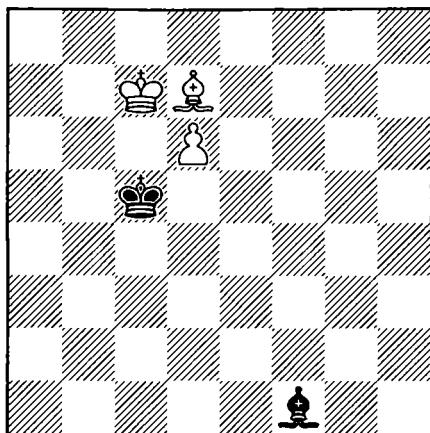
Returning to the position after 3.♚d5 we will now look at the correct defensive procedure:

As mentioned previously, with the d6-pawn attacked, the plan of ♜a6-c8 is no longer valid.

8... \mathbb{Q} c5

If Black cannot achieve a draw in a simple way by putting his king on a safe square in the pawn's path, then this is the second line of defense, taking opposition behind the attacking king.

9. \mathbb{Q} d7 \mathbb{Q} f1



Switching diagonals.

10. \mathbb{Q} g4 \mathbb{Q} b5

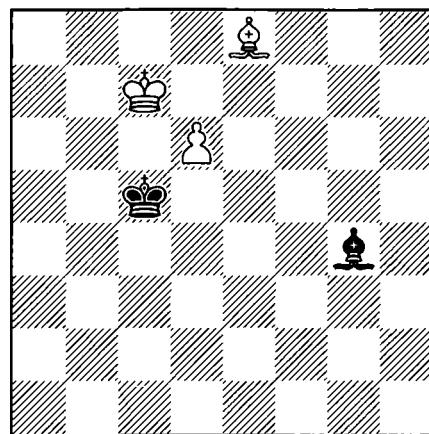
Now we see White's problem — the black bishop will simply make moves on the a4-e8 diagonal, alternating between a4, b5 and e8. White cannot play his bishop to c6 anymore, so his only way to remove the bishop from the diagonal is via \mathbb{Q} d7. This blocks the pawn, and gives Black time to switch to the h3-c8 diagonal, on which it also has plenty of squares to wait.

11. \mathbb{Q} f5 \mathbb{Q} a4

12. \mathbb{Q} h3 \mathbb{Q} b5

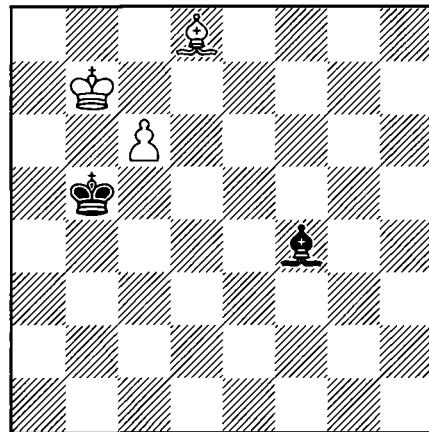
13. \mathbb{Q} d7 \mathbb{Q} e2

14. \mathbb{Q} e8 \mathbb{Q} g4



It is clear that White cannot make any progress.

If we shift the whole position to the left by one file, can Black still hold?



Let's find out. First of all White will force the black bishop onto the shorter of the two defensive diagonals (a5-d8).

1. \mathbb{Q} c7 \mathbb{Q} d2

2. \mathbb{Q} g3 \mathbb{Q} a5

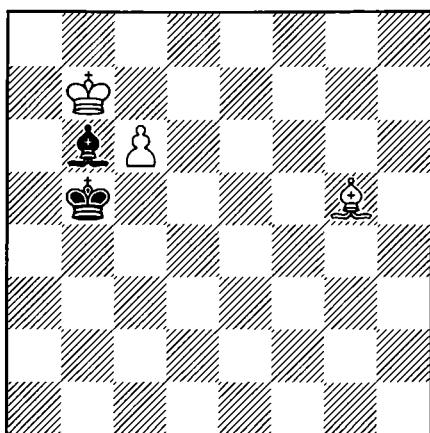
This time Black has fewer squares on the short diagonal, but just enough.

PART 2. Principles And Essential Theory

3. ♜f2 ♜d8

4. ♜e3 ♜a5

5. ♜g5 ♜b6



In this diagram we can see that one defensive diagonal, that of c8-h3, is very long, six squares. The other defensive diagonal, a6-c8, is very short, only three squares (remember the rules, three is less than four!). This means the defender is in serious danger of losing the game and actually here he is just dead lost.

1. ♜g2 ♜f5

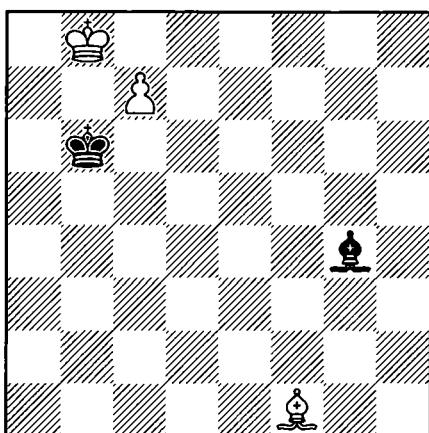
2. ♜b7 ♜g4

3. ♜c8

Driving the bishop to the short diagonal.

Black has just enough squares to draw.

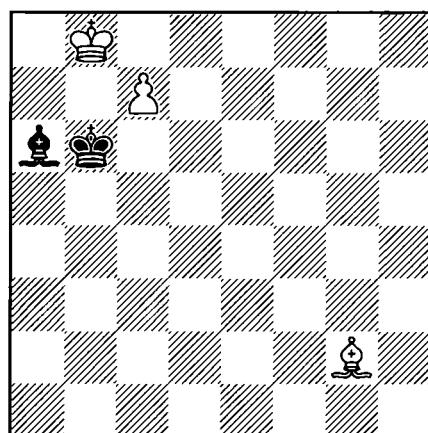
In general a four-square diagonal is enough for the defending bishop; therefore if both defending diagonals are four or more squares then defense is secured (if the kings are in rear opposition like this of course!).



3... ♜e2

4. ♜h3 ♜a6

5. ♜g2!



Black is devoid of waiting moves with his bishop and if he moves his king then our old friend ♜b7 will arrive. Black is lost.

Lesson 10

Exercises!

Before we move into Part 3 of the book, it is the turn of you, the reader, to do some work! All of the exercises are related, at least partially, to material we have covered in Part 1 and Part 2 of the book. They are deliberately placed here, and rather mixed up, so the reader has no free inkling of which material they are relying upon.

I would advise the reader to spend at least 15 minutes on each exercise (some of the simpler ones can be solved in much less time so if you are completely sure you have the correct solution then stopping is fine). If you cannot solve an exercise in this time, then read the solution in its entirety and revisit the relevant lesson on which the exercise was based.

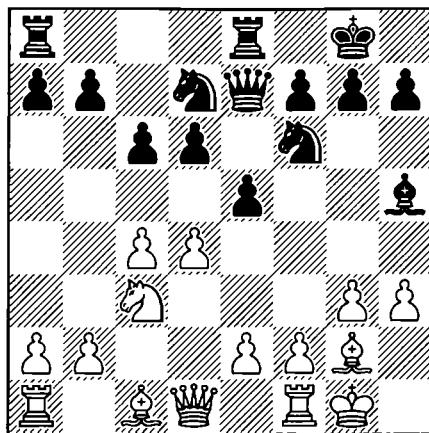
It is important that afterward, unless you solved the exercise flawlessly yourself that you:

Return to the exercise and repeat it, even though this time you know the solution.

Try to see everything in your head this second time, to show yourself that you can now visualize everything that was required to solve the exercise.

When reading the solution to Exercise 13, you will be asked a further question. Please solve this in the same way as the other exercises and find the solution in the section ‘Follow-up Solutions’.

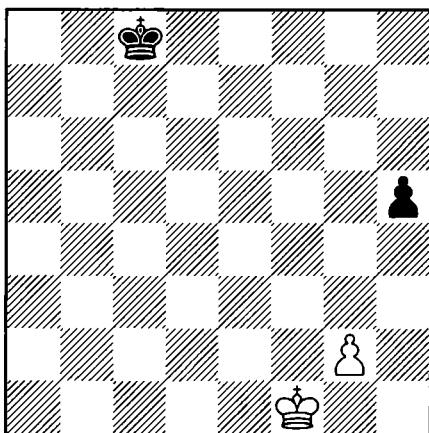
Exercise 1



White to play

Suggest a plan for White based on restricting the black ♔h5.

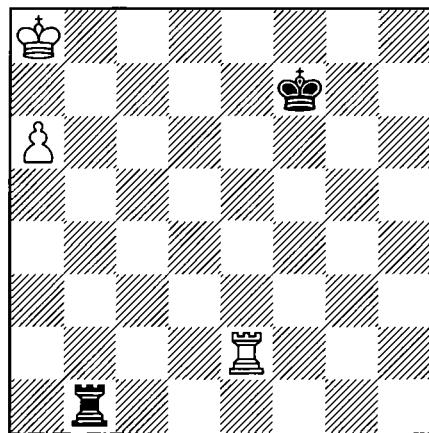
Exercise 2



White to play

Find the strongest continuation.

Exercise 3



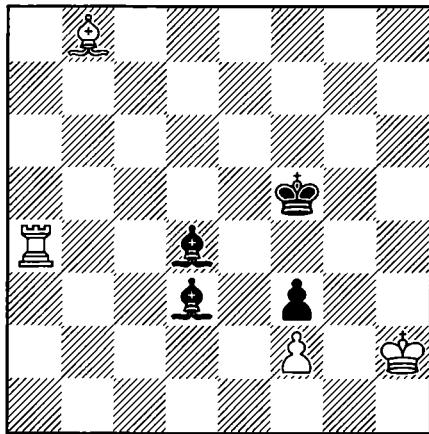
White to play

How do you assess this position?

How do you see the game playing out?

Does Black have any chances to hold the game?

Exercise 4



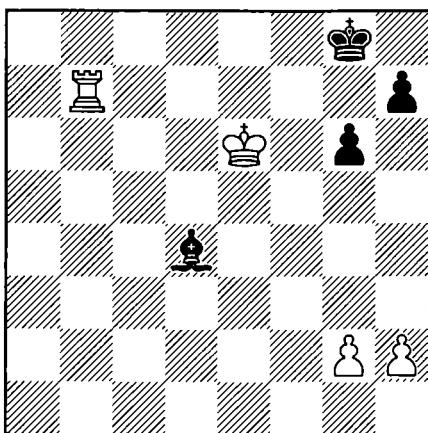
Black to play

Evaluate the endgame which results after 1...♔e5+

Can Black hold the position?

Lesson 10. Exercises!

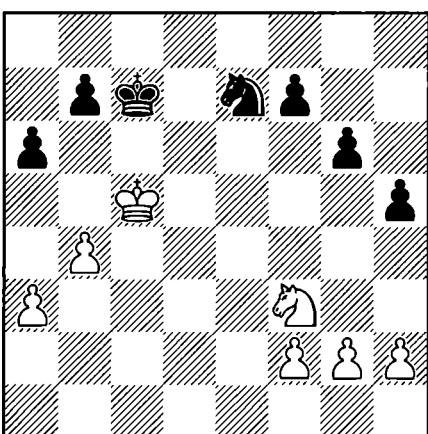
Exercise 5



White to play

Assess White's winning chances.
Find the strongest continuation for
White.

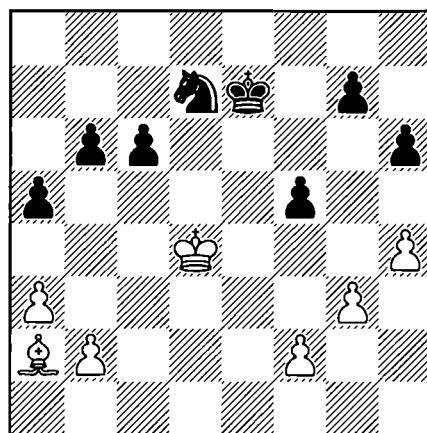
Exercise 6



White to play

Assess the position and suggest a plan
for White.

Exercise 7



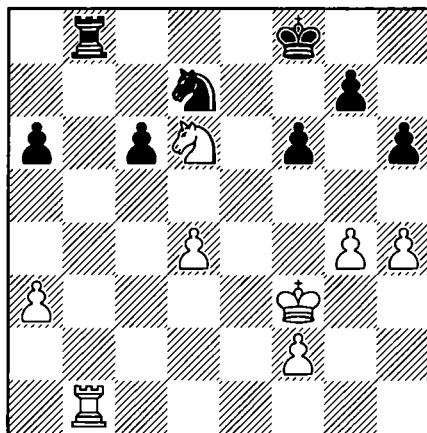
White to play

Assess the position: does Black have
winning chances?

In the game White played the move
1.b4 to exchange a pair of pawns and re-
duce the material.

What do you think of this move?

Exercise 8

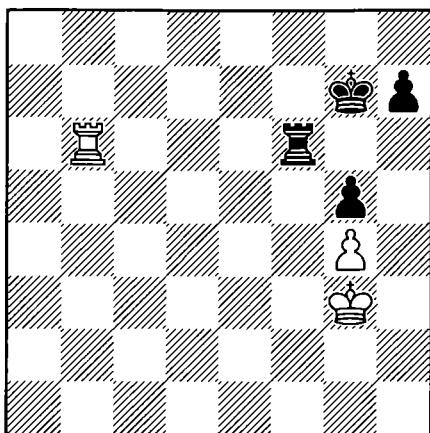


White to play

Assess the knight endgame which
could result from 1. \mathbb{Q} x b8+.

In the game White chose the move
1. \mathbb{Q} e1. What do you think of this deci-
sion?

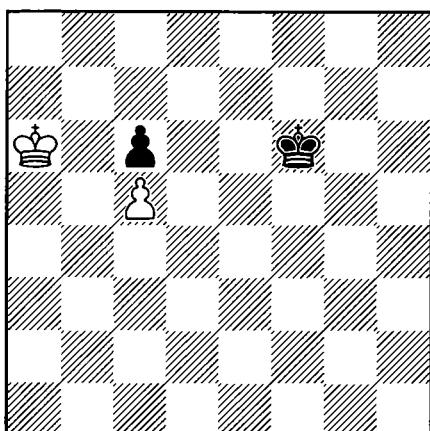
Exercise 9



White to play

In the game White avoided the exchange of rooks and drew easily, but was the exchange 1. $\mathbb{Q}xf6$ losing?

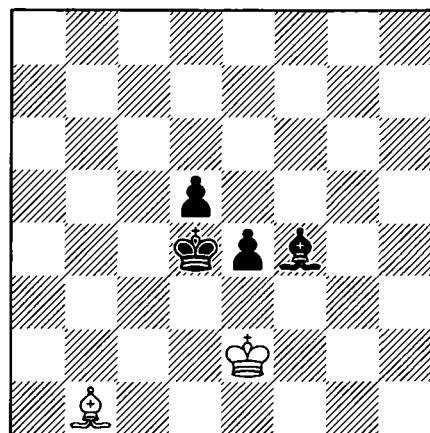
Exercise 10



Black to play

Can he save the game?

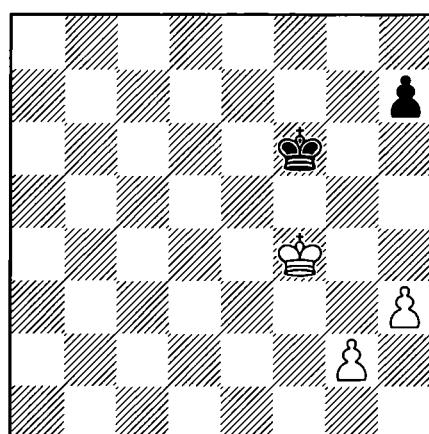
Exercise 11



White to play

Can he save the game and if so, then how?

Exercise 12

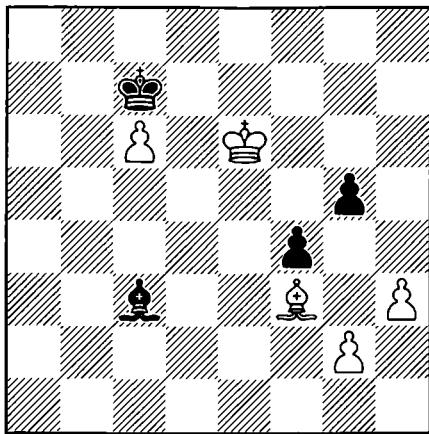


White to play.

Is he winning?

Lesson 10. Exercises!

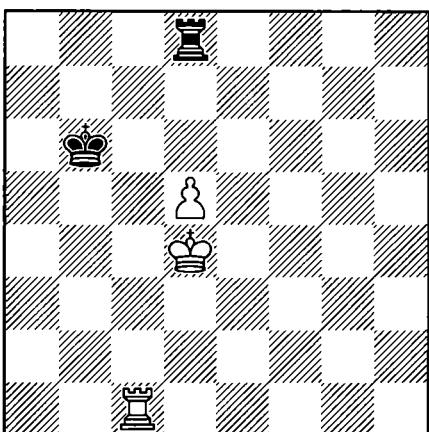
Exercise 13



Black to play

Can he draw?

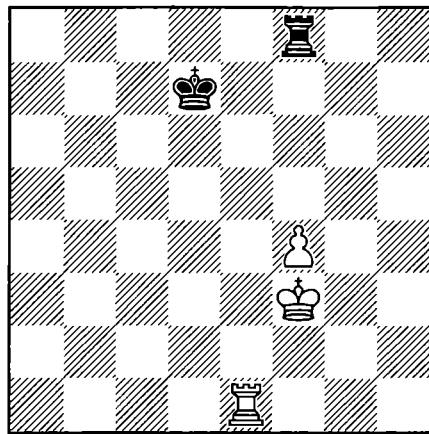
Exercise 14



White to play.

The black king is cut and the pawn is on the fifth rank. Is White winning?

Exercise 15



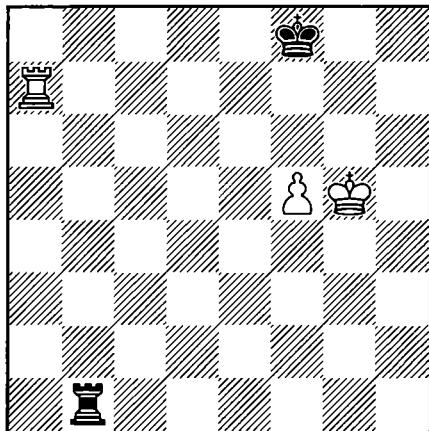
White to play

Is he winning and if so, how?

What positions is he aiming for?

Is the result changed if Black is on the move?

Exercise 16



White to play

Assess the position. What should White play?

Part 3

Endgame Explorations

Aside from the study of theoretical endgames and principles that we attained in the first half of the book, it is vital we make analyses of our own. This second half of the book is dedicated to deep analyses of either:

- Practical games which feature endgames of interest.
- Particular ‘endgame *tabiyas*’ which I felt were well worth the time to explore.

Note that this part is generally much more advanced, both in the depth of the analysis and in the difficulty of the theoretical positions we will study (as usual we will elaborate on any theoretical positions which occur incidentally in our games).

This is simply a selection of some of my more memorable and instructive investigations. After learning what they can from these, it is up to the readers to embark on explorations of their own. Deeply analyse the games of the endgame masters and explore for yourself any class of endgame you come across which appeals to you.

In ‘Endgame Exploration 1’ we investigate an endgame which I simply could not omit, because it is probably the one which first sparked my interest in analysis of this phase of the game. That is ♕+♝ vs. ♕, without pawns. There is a story behind this, as I will tell later, and it is a useful thing to study both for its own sake, and for the sake of the important coordination patterns it holds.

‘Endgame Exploration 2’ is the most difficult chapter in the book, but very useful in that it shows almost every facet of opposite-colored bishop endgames contained in a single game. The deceptive complexity of the position is amazing and although I refuted several published analyses, I still am not 100% sure of the final assessment.

A particular opening/middlegame structure can give rise to its own type of endgames, so it is always good to study the endgames which arise from the openings

Part 3. Endgame Explorations

you play. ‘Endgame Exploration 3’ investigates endgames which can arise from the famous minority attack in the Karlsbad structure, which is typically reached from the Queen’s Gambit Declined, but can also occur in many other openings.

‘Endgame Exploration 4’ and ‘Endgame Exploration 5’ can be grouped together to form one big investigation into the single rook endgame with pawns on one side of the board, bar one extra pawn for the stronger side on the opposite wing. This is an endgame which occurs quite a lot in practice. I delved into this endgame and gathered many practical examples together with all of the analyses I could find in books. I tried to create my own axioms and guidelines for playing it and along the way developed some extra theoretical positions of my own to aid in this. The reader can judge for himself how successful I was. In any case I thought it important to include, if only to show how the gathering of information and striving to get to the bottom of a particular *tabiya* works.

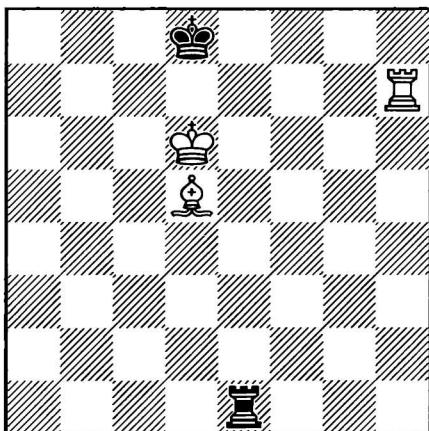
Finally, in ‘Endgame Exploration 6’ we enjoy a chapter fully devoted to the skills of the legendary Swedish Grandmaster Ulf Andersson. We investigate one particular opening *tabiya* of his, which transposes directly into an endgame that looks so barren that many players may simply agree a draw on the spot, yet our hero managed to squeeze out win after win! Although not possible to formulate precisely, the chapter has a theoretical undertone, as we will learn much about the endgame ♕+♝ vs. ♕+♟ (with pawns) and how to handle and evaluate it in practice.

Endgame Exploration 1: My Favorite Endgame

First encounter

During a small local tournament (I don't remember the exact year, but recall I was quite a weak player at the time) I was involved in a long game. There were many twists and turns, I was better, then it was equal, then I won a piece for some pawns in an endgame. Finally no pawns remained on the board at all, but I remained a piece to the good.

At some stage the position was something like this:



I searched my mental reserves of endgame knowledge for something on this material relation. Unfortunately

the extent of my knowledge was a single sentence, something to the effect of: "theoretical draw but difficult to defend – often won in practice etc. etc."

I tried to look confident and played a few moves:

1. $\mathbb{R}h8+$ $\mathbb{R}e8$

2. $\mathbb{R}h7$ $\mathbb{R}e1$

3. $\mathbb{R}a7$ $\mathbb{R}c1$

Swinging my rook from side to side is getting me nowhere, I thought. He just defends the mates with his rook!

4. $\mathbb{R}h7$ $\mathbb{R}e1$

5. $\mathbb{R}d7+$

A new idea!

5... $\mathbb{K}e8$

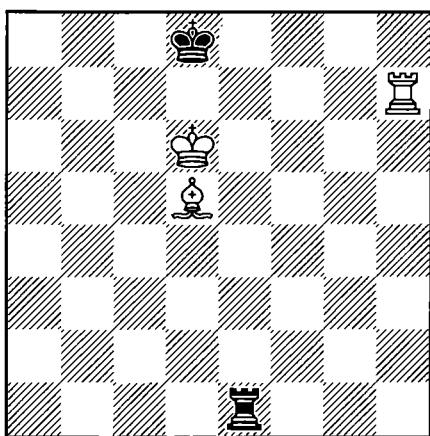
6. $\mathbb{R}a7$

I realized my intended 6. $\mathbb{R}h7$ would have been met with 6... $\mathbb{K}d8$!

PART 3. Endgame Explorations

6... f8

To cut a long story short, I got absolutely nowhere. After many moves not given here, we ended up back in approximately the same position we had started in:



Back to the beginning

Around this point my opponent very generously offered me a draw. Certainly there was an argument for accepting and quickly leaving the playing hall before I humiliated myself any further with my futile winning attempts.

Often these very simplified (perhaps the wrong word) endgames are played when both sides are very short of time, but as I recall that was not the case here. I had quite a reasonable amount of time, at least 30 minutes.

No, time was not the problem. The problem was I had no clue whatsoever about what I was doing.

I decided to have a long think, to try to come up with some new idea (if only to avoid a repetition of moves!).

Logically, I thought, it is hard to see how my pieces could be any better.

- My king is on the sixth rank.
- His king is cut on the back rank.
- My bishop is shielding my king from checks.

It is hard to imagine how my position could be any more favorable. Isn't this endgame supposed to be difficult to defend? Also nagging at me was the fact I remembered reading in a chess magazine how Short had lost this endgame against Nataf in the FIDE KO World Championship. How can this be? Everything pointed to a clear conclusion:

If this endgame is ever winning, it must be winning now.

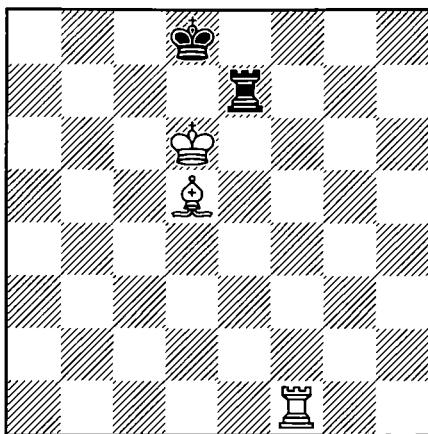
My reasoning, although it was logical, only succeeded in irritating me further. I couldn't even find a plausible idea. As it happened the game had a moderately amusing conclusion...

I played some more moves and nothing much happened. My opponent then called an arbiter and claimed a draw. Of course it is not easy to award a draw to a player who is a clean piece down, so we were asked to continue, under the gaze of the arbiter. One move into his demonstration to the arbiter that the position was drawn my opponent put his rook *en prise* and resigned.

Endgame Exploration 1: My Favorite Endgame

Gripped by an unusual feeling that the possibilities were there, but had been completely invisible to me, I made a point of studying this endgame. To my surprise immediately upon opening an endgame textbook (I can't recall which one) almost the identical position from my game was staring at me:

Philidor, 1749



White to play

1749?! Oh dear. A wave of realization came over me — just how little I knew about chess! Even with all today's information, literature, tablebases, computer databases...I still knew nothing. Yet this was all worked out in 1749!

It is perhaps just as well I was not investigating the endgame of R vs. K , where some positions date back to the 12th century! Before chess was even created in its modern form!

The position in theory

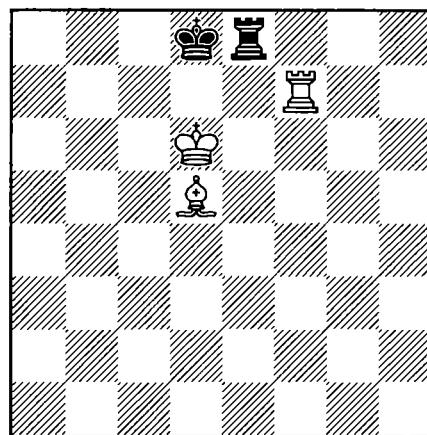
Let us delve into some of the theory of this endgame. Maybe it will kindle the

reader's interest in studying endgames as it did with me.

From the previous diagram:

1. Rf8+ Ke8

2. Rf7



Black loses if he tries to passively hold the back rank. For instance:

2... Kc8

2... Rh8 loses immediately to 3. Ra7 Rh6+ 4. Kc6 and Black is mated or loses his rook.

3. Ra7!

Switching sides is a natural way to exploit the fact the rook is only protecting the back rank on one side of the king

3... Rd8+

4. Kc6 Ka8

5. Rb7+ Ka8

5... Kc8 6. Kc6+ wins instantly

PART 3. Endgame Explorations

6. $\mathbb{B}b5!$

Black will be shortly mated thanks to the bishop's X-ray to a8

6... $\mathbb{R}a7$

6... $\mathbb{B}c8+$ 7. $\mathbb{Q}d7+$ loses the rook, and any other sixth move loses to $\mathbb{Q}c7+$ and $\mathbb{B}a5\#$

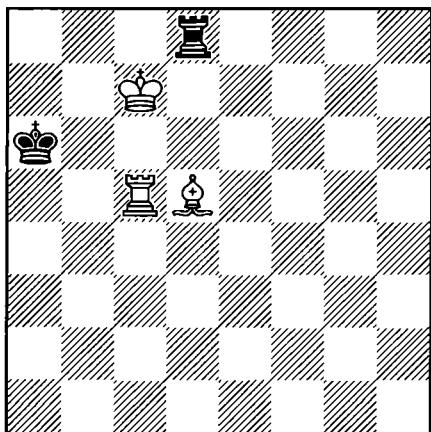
7. $\mathbb{Q}c7$

Threatening checkmate and the rook.

7... $\mathbb{R}a6$

The only try.

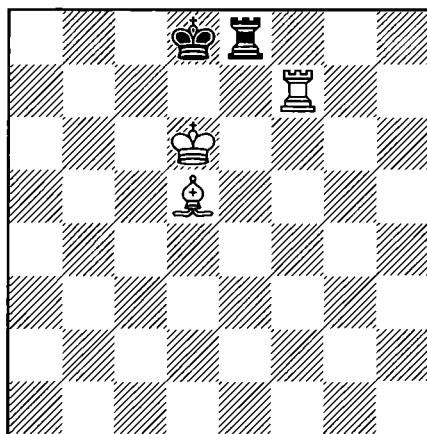
8. $\mathbb{B}c5!$



And when the black rook moves the black king will be mated by $\mathbb{B}c4+$ (or $\mathbb{B}b7+$) followed by $\mathbb{B}a5\#$.

The lines are a little tricky at first but after playing over them a few times you will see the mating patterns more easily.

We will return to the last diagram and look for other defenses:



Position after 2. $\mathbb{B}f7$

The only other defensive try is to move the rook somewhere down the e-file, to meet $\mathbb{B}f8+$ with $\mathbb{R}e8$ back. Three squares are available (e1, e2 and e3).

If you will trust me for now, I will tell you about these three options:

➤ The worst square is e3. They key reason for this (other than the fact it loses to a forced sequence) is that the white bishop controls some important squares on the third rank, which will be denied to the defending rook.

➤ e1 is the next best square. White's goal then is to force the rook from e1 to the inferior e3 square.

➤ The most flexible and best square is e2. In this case White is looking to force the rook first to e1, then to e3.

➤ Simple: e2>e1>e3

Endgame Exploration 1: My Favorite Endgame

Are we clear?

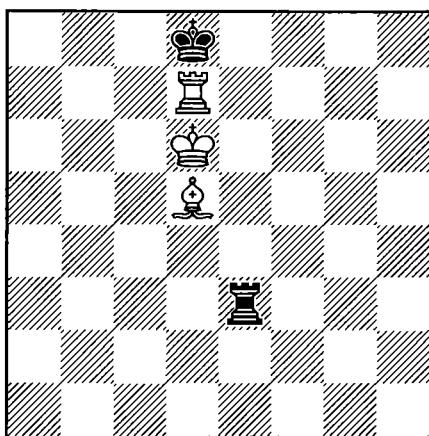
OK, let's see why e3 is so bad, and what the forced sequence is:

Starting from 2. $\mathbb{R}f7$:

2... $\mathbb{R}e3?!$

Not changing the theoretical assessment (losing for Black) but rather compliant.

3. $\mathbb{R}d7+!$



Remember this. When the black rook goes to the third rank, we force Black to make a decision with his king with a check between the kings. As it turns out it's not much of a decision...

3... $\mathbb{K}e8$

3... $\mathbb{K}c8$ 4. $\mathbb{R}a7$ is mating immediately. Notice here that the black rook cannot go to b3 to guard against the mate. If the rook was on the first or second rank then it could, but I did tell you the third rank was the worst choice!

4. $\mathbb{R}a7$

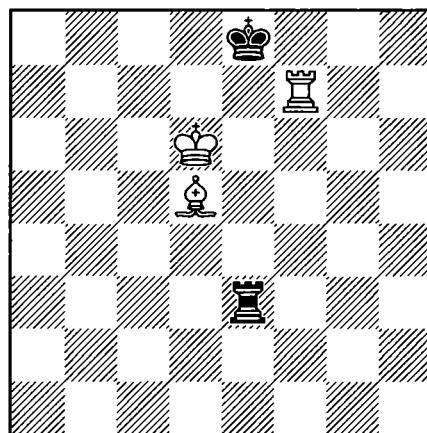
4. $\mathbb{R}b7$ is the same. The key point is that although 4. $\mathbb{R}g7?!$ may appear as if it mates as in the previous note, it does not because of the reply 4... $\mathbb{K}d8$. White has actually made zero progress in that case. So we commit the rook in the same direction no matter which way Black moves his king.

4... $\mathbb{K}f8$

The only move; anything else is mated immediately.

5. $\mathbb{R}f7+! \mathbb{K}e8$

5... $\mathbb{K}g8$ loses the rook to a discovered check, so our forced sequence continues.



The next step is to retreat the rook down the f-file. This will threaten $\mathbb{R}c6+$ followed by $\mathbb{R}f8+$ and mate since the e8 square will be attacked twice. Which square we move to on the f-file is important though:

6. $\mathbb{R}f4!$

PART 3. Endgame Explorations

Now Black has a choice of defenses to the threat of $\mathbb{B}c6+$. He can pin the bishop with $\mathbb{R}d3$ so it cannot move, or he can move his king back to d8 immediately.

6... $\mathbb{K}d8$

6... $\mathbb{R}d3$ goes down quickly after 7. $\mathbb{B}g4$, and again the perils of the third rank are shown; Black is denied the f3 square for his rook. Note that this 6... $\mathbb{R}d3$ defense would lose in the same way no matter where White retreated his rook on the sixth move.

7. $\mathbb{B}e4!$

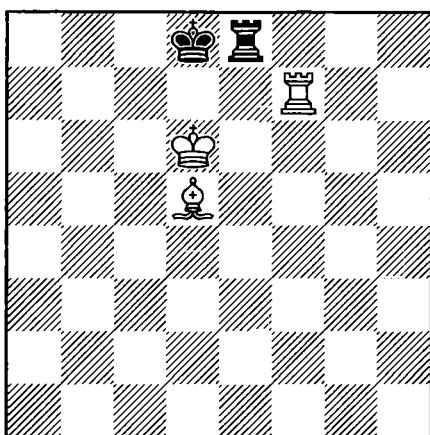
But this key interference move would not be possible with the rook otherwise placed on the f-file. The threat is $\mathbb{B}f8$ and mate!

7... $\mathbb{K}e8$

8. $\mathbb{Q}c6+$

And Black is mated.

Returning to the position after 2. $\mathbb{B}f7$.



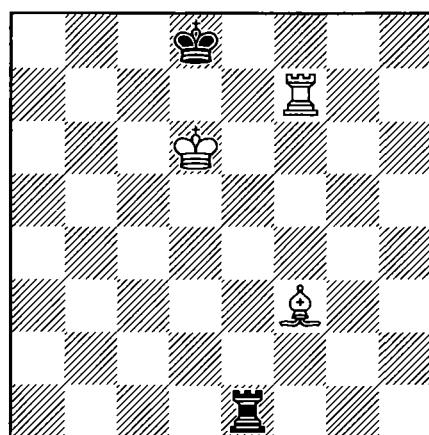
Position after 2. $\mathbb{B}f7$

Now we know on 2... $\mathbb{R}e3$, we initiate a winning sequence of forced moves with 3. $\mathbb{B}d7+$! We saw how clumsy the third rank is for the defender's rook in those variations. Now we should try:

2... $\mathbb{R}e1$

The same idea with 3. $\mathbb{B}d7+$ doesn't do White any good here. Black's best way to exploit the extra flexibility of his rook is to follow an analogous line to the previous one until close to the end: 3... $\mathbb{K}e8$ 4. $\mathbb{B}a7$ $\mathbb{K}f8$ 5. $\mathbb{B}f7+$ $\mathbb{K}e8$ 6. $\mathbb{B}f4$ $\mathbb{K}d8$ 7. $\mathbb{B}e4$ and now exploiting the extra mobility the rook enjoys on e1 by the simple 7... $\mathbb{R}d1+$.

3. $\mathbb{B}f3!!$



It turns out that White's rook is perfectly positioned on f7 for this. We will first see how the concept works, then we will look at how White would implement it if his rook was not so favorably placed.

The idea is to create a *Zugzwang* position. If Black can't move his king, and the white bishop controls both the e2 square and the checking square d1,

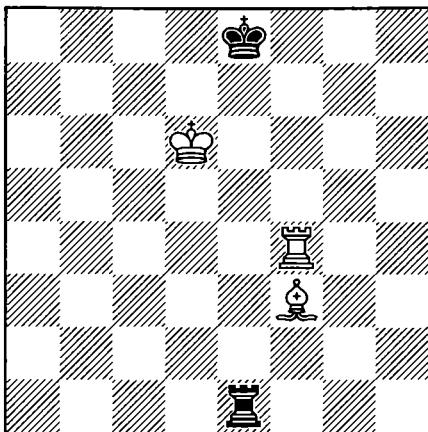
Endgame Exploration 1: My Favorite Endgame

then...maybe Black will be forced to put his rook on e3.

Can we avoid playing 3... $\mathbb{R}e3$? The only try seems to be to move the king. 3.. $\mathbb{K}c8$ 4. $\mathbb{B}f8+$ ends the game immediately, but perhaps we can try 3... $\mathbb{K}e8$.

3... $\mathbb{K}e8$

4. $\mathbb{B}f4$



The rook clearly must retreat, and on to the fourth rank becomes the reflex move. The threat is $\mathbb{Q}c6+$ and $\mathbb{B}f8+$.

4... $\mathbb{K}d8$

Forced.

5. $\mathbb{B}a4$

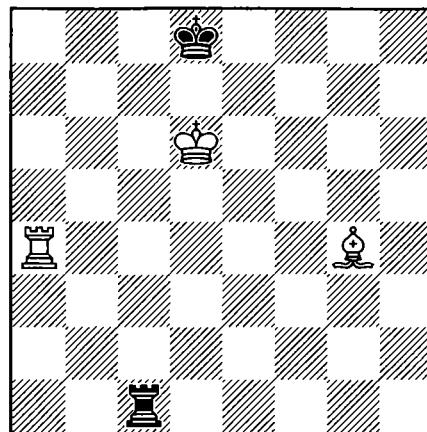
5. $\mathbb{B}b4$ is the same, but it always pleasant to create these patterns where both bishop and rook control the back rank mating square (in this case a8)

5... $\mathbb{R}c1$

5... $\mathbb{K}c8$ 6. $\mathbb{B}a8\#$ is still mate. 5... $\mathbb{K}e8$ loses to 6. $\mathbb{Q}d5$ threatening $\mathbb{B}a8\#$ 6... $\mathbb{K}f8$

7. $\mathbb{B}g4!$ with a beautifully coordinated and unstoppable mate on g8.

6. $\mathbb{B}g4!!$



A quite wonderful scene. Complete coordination of the white forces! Notice how Black's pieces are totally dominated.

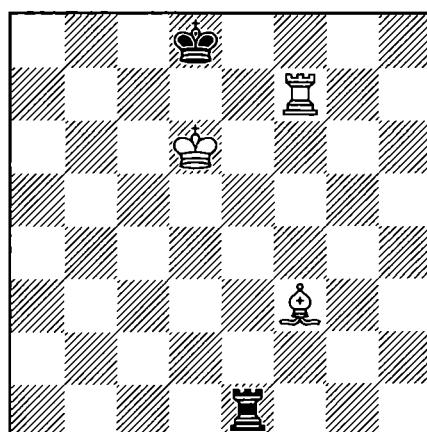
6... $\mathbb{K}e8$

7. $\mathbb{B}f4 \mathbb{Q}e1$

8. $\mathbb{Q}h5+$

Or 8. $\mathbb{Q}d7+$. Mate follows.

We should go back to the position after White's 3. $\mathbb{B}f3$:



PART 3. Endgame Explorations

The only remaining try is to fall in with White's wishes and play:

3... $\mathbb{B}e3$

The white bishop is on f3 though, not on d5. So it's not quite the same as before, perhaps Black can survive?

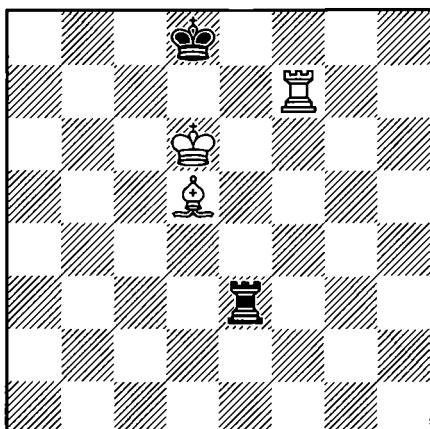
4. $\mathbb{R}c6!$

4. $\mathbb{B}d7+$ would be premature with the bishop still on f3. First a sequence of threats will bring us to a familiar position.

4... $\mathbb{B}d3+$

5. $\mathbb{B}d5 \mathbb{B}e3$

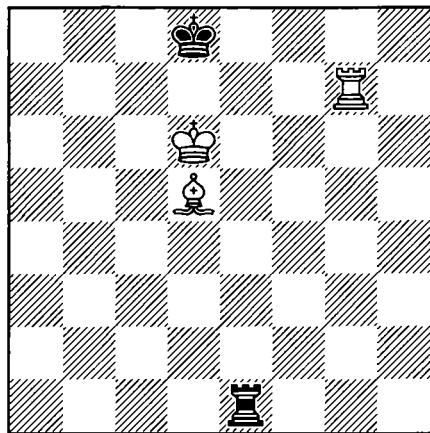
5... $\mathbb{Q}e8$ 6. $\mathbb{B}g7!$ is another nice mating pattern.



A position we have seen before. White wins, as we know, beginning with 6. $\mathbb{B}d7+$

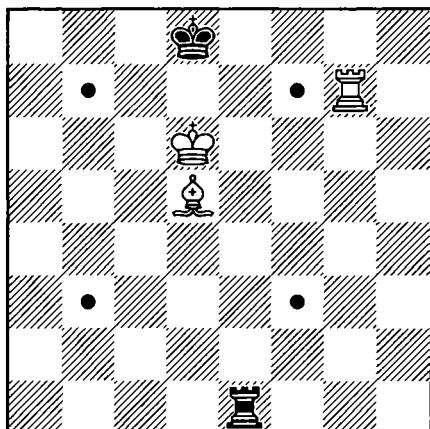
Getting the correct geometry

Imagine we had this situation:



This time the retreat 1. $\mathbb{R}f3$ doesn't make a good impression (in fact throws away the winning position). The coordination between White's pieces isn't good and following 1... $\mathbb{Q}e8$ 2. $\mathbb{B}g4$ there is no longer a threat of $\mathbb{B}c6+$ (not to mention the king is simply escaping with 2... $\mathbb{Q}f7$).

No, we must place the rook on f7 and the bishop on f3, or the rook on b7 and bishop on b3.



How do we arrange to do that? After 1. $\mathbb{B}f7$ $\mathbb{Q}e8$ we cannot go $\mathbb{R}f3$.

Endgame Exploration 1: My Favorite Endgame

1. $\mathbb{B}b7!$

Side to side is the way. Now if 1... $\mathbb{B}c1$ we can play 2. $\mathbb{B}b3$. If we liked we could even play 2. $\mathbb{B}f7$ $\mathbb{E}e1$ 3. $\mathbb{B}f3!$

1... $\mathbb{C}c8$

Trying to prevent White from achieving one of his ideal setups ($\mathbb{B}b7$, $\mathbb{B}b3$ or $\mathbb{B}f7$, $\mathbb{B}f3$)

After 1... $\mathbb{B}c1$ 2. $\mathbb{B}b3!$ The variations are of course analogous to those we have already examined 2... $\mathbb{B}c3$ 3. $\mathbb{B}e6$ $\mathbb{B}d1+$ 4. $\mathbb{B}d5$ $\mathbb{B}c3$ 5. $\mathbb{B}d7+$! and so on.

2. $\mathbb{B}a7!$

The quickest route, but 2. $\mathbb{B}b4$ is also fine and loses only a few moves.

2... $\mathbb{B}b1$

3. $\mathbb{B}f7!$ $\mathbb{C}b8$

Or 3... $\mathbb{B}b6+$ 4. $\mathbb{B}c6$

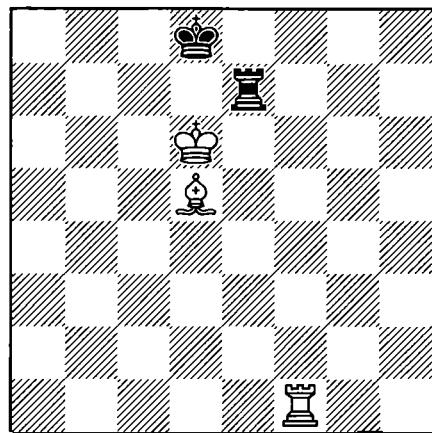
4. $\mathbb{B}f8+$ $\mathbb{C}a7$

5. $\mathbb{B}a8+$ $\mathbb{C}b6$

6. $\mathbb{B}b8+$

And Black loses his rook.

This time let us return all the way to the beginning, and using our new knowledge see how the position is solved completely.



1. $\mathbb{B}f8+$ $\mathbb{E}e8$

2. $\mathbb{B}f7$ $\mathbb{E}e2!$

Now we know this is the best square, and we know how to refute the other rook moves. Carrying out any complex maneuvers with the rook on e2 isn't going to work since the checking square on d2 is a dark square, which our bishop cannot cover.

3. $\mathbb{B}g7!$

Simple! We just waste a move and oblige Black to move his rook to one of the inferior squares.

3... $\mathbb{E}e1$

There is really no choice. Both king moves lose immediately to 4. $\mathbb{B}g8+$ and 3... $\mathbb{E}e3$ loses to 4. $\mathbb{B}d7+$

4. $\mathbb{B}b7!$ $\mathbb{C}c1$

5. $\mathbb{B}b3!$

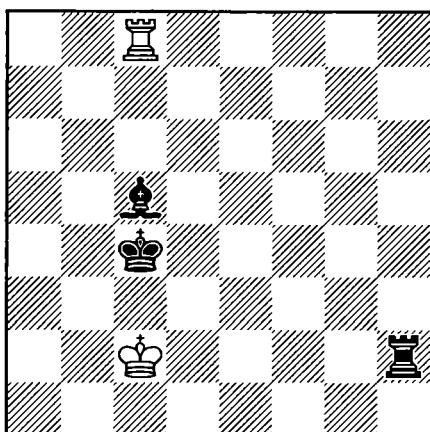
And White wins as before.

The position in practice

When I looked for examples of this type of position (winning positions in this endgame), I was surprised by what I found. Although there was no shortage of examples, I don't remember seeing a single case where a player can win this endgame 'properly' (that is, by the procedures I have just discussed). All of the games ended in one-move blunders into mates and losses of the rook.

It occurred to me that in this (admittedly very rare) specific situation, I probably had a better idea of what to do than most Grandmasters. I give two examples, both of which are more recent than the games I would have looked at back then, but are nonetheless typical. Please keep in mind both games were probably played at blitz speed by all of the players.

**Ferguson – Kotronias,
Isle of Man, 2007**



You may have deduced it is White to move. On which square should he put his king?

100. ♔d1??

The position is actually a well-known defensive setup. The idea is to avoid falling into Philidor type position by playing 100. ♔c1! (so that 100... ♔c3 threatening mate is impossible) and on 100... ♔d3 to play 101. ♔b1! (or 100... ♔b3 101. ♔d1!) In this way Black cannot achieve the opposition of the kings he requires. I will mention more about defensive setups in the notes at the end of this chapter.

For the record 100. ♔b1?! is also a draw (but clearly much harder to defend than 100. ♔c1!, hence the dubious annotation). Amazingly the position after 100... ♔b3 101. ♕b7+ ♔b4, although it is almost identical to the Philidor position, is a draw due to the kings being on the knight's file. I will discuss this in the end of chapter notes as well.

100... ♔d3!

101. ♕e8

After 101. ♕d8+ ♔d4 and 101. ♔c1 ♔d4 Black is also achieving a winning position.

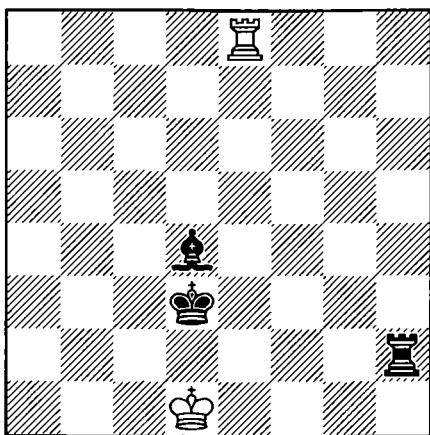
101... ♔e3

Pushing the game toward a winning Philidor position.

102. ♕d8+ ♔d4

103. ♕e8

Endgame Exploration 1: My Favorite Endgame

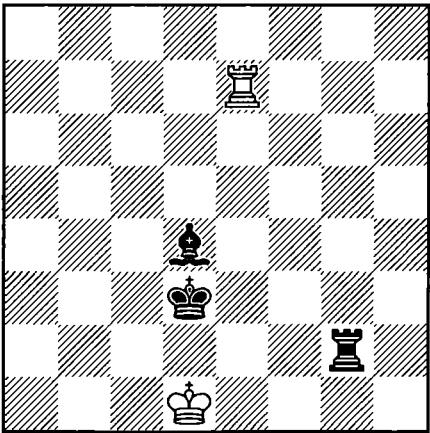


So far so good. Everything has gone perfectly for Black; he has a Philidor position and is completely winning. It is only now that things begin to go wrong...

103...♜g2?!

Very mysterious, *Zugzwanging* White's rook to a superior square! As we know, the correct continuation is 103...♜b2! 104.♜c8 ♜b6! 105.♜c6 ♜e3! 106.♜d6+ ♜d4 107.♜c6 ♜d2+! etc.

104.♜e7!



Taking up the best defensive position.

104...♝a2

Shades of my own futile winning attempts. Of course the best path would be to repeat with 103...♜h2.

105.♜c7 ♜d2+?!

Continuing to butcher the technique. Clearly this isn't going to work with the white rook optimally placed on the seventh rank.

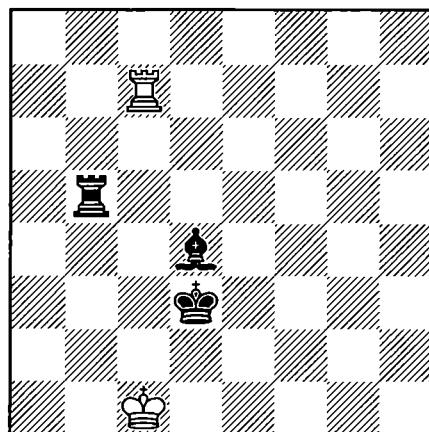
106.♔e1 ♜a2

107.♔d1 ♜b2

108.♔c1

It would be interesting to know if after 108.♜c8 Black would have played the correct 108...♝b6!

108...♝b5



109.♜c8??

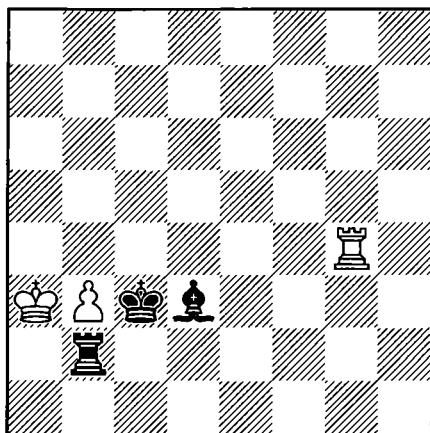
Of course after 109.♔d1 Black has made no progress whatsoever.

109...♝e3+

PART 3. Endgame Explorations

A familiar pattern, but not one which should have been allowed to occur considering the moves Black played.

Dominguez-Perez – J. Polgar,
FIDE World Cup,
Khanty-Mansiysk, 2011



79...♝xb3+

A rare case in that at the point when the material balance in question is reached, the stronger side is already winning.

80.♔a4 ♜b1

Threatening ♜a1+, so White's reply is forced.

81.♔a5 ♜b5+!

Stopping the white king from running away.

82.♔a4 ♜f5

83.♝g3?!

White should try 83.♔a3 and allow

a Philidor type of winning position (in fact when the kings are opposed on a bishop's file [equivalently third or sixth rank], the position is sometimes called Lolli's position. The dynamics are almost identical; I will mention this in the notes too).

After 83.♝g3 Black can win immediately.

83...♝f4+

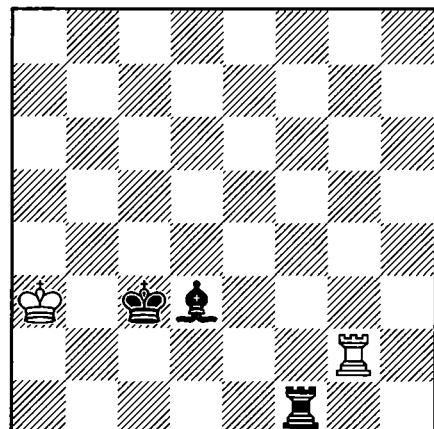
Well motivated, forcing the white king back to a3. However, 83...♝f1 wins immediately. The only way to prevent ♜a1 is to play 84.♔a5, but then the familiar jaws snap shut with 84...♜f6 followed to mate on a6.

84.♔a3

White has no choice, after 84.♔a5 ♜f6! he is mated as in the previous note.

84...♝f1

85.♜g2



Perfect, Black has got exactly what she wants. A winning Philidor/Lolli po-

sition. Now once again things begin to go wrong...

85... $\blacksquare h1?$!

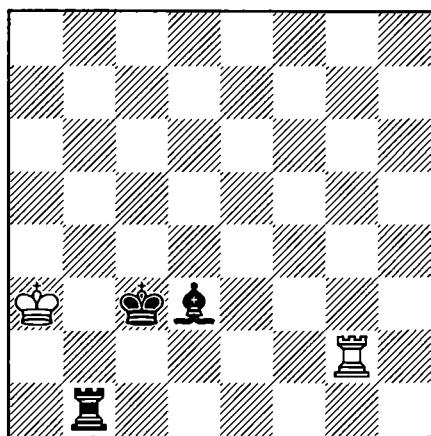
The first sign of uncertainty from Black. The tablebase shows 85... $\blacksquare b1$ is the quickest win. Personally I think the simplest is 85... $\blacksquare a1+$ 86. $\blacksquare a2 \blacksquare b1$ reaching a familiar situation.

86. $\blacksquare b2 \blacksquare a1+$

Now this is forced otherwise Black's control will be broken with $\blacksquare b3+$.

87. $\blacksquare a2 \blacksquare b1$

88. $\blacksquare g2!$



White repeatedly goes to the g-file (equivalent of the seventh rank) throughout this endgame. I think this shows he was familiar with the procedures and the toughest defense, more so than Black. Probably if colors were reversed he would demonstrate the winning procedure correctly.

88... $\blacksquare b3+??$

A similar mistake to the last game. White's rook is far too well placed to commence the forcing procedure. Correct of course was something like 88... $\blacksquare b8$ 89. $\blacksquare g4 \blacksquare b7!$ losing a tempo and obliging White to place the rook on an inferior square. Play could proceed 90. $\blacksquare h4 \blacksquare b1!$ 91. $\blacksquare h2 \blacksquare f1!$ and so on in the usual way.

89. $\blacksquare a4 \blacksquare b4+$

90. $\blacksquare a3$

White opts to return directly to a3. He could also try 90. $\blacksquare a5 \blacksquare b5+!$ 91. $\blacksquare a4 \blacksquare f5$ and we return all the way to the beginning (move 82).

90... $\blacksquare b6$

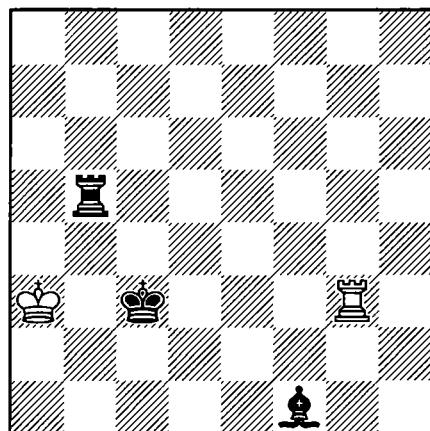
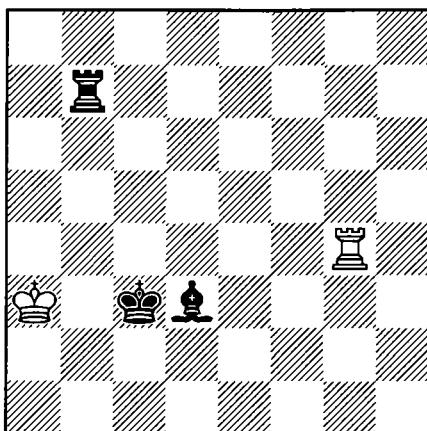
91. $\blacksquare g4 \blacksquare a6+??$

92. $\blacksquare a4 \blacksquare b6$

Black's play makes a curious impression. Playing over the moves I get a sense that she knows the position is winning, having looked at it a long time ago. You can almost feel her trying to dredge up the right procedure from the back of her mind. Each time she embarked on a completely false path she quickly cut it short, realizing things were not quite right. Probably she is also trying to make enough moves to build up some time (the game was played on increments/Fischer clocks) to remember.

93. $\blacksquare g4! \blacksquare b7!$

PART 3. Endgame Explorations



Correct! The white rook must move to a worse square. Progress at last!

94.♖h4 ♕b1!

95.♖h2 ♕b6?!

Just when it seemed Black had remembered the correct idea! 95...♔f1! was correct.

96.♖h4 ♔f1?!

This move clearly shows Black had some knowledge of the methods but here it is completely ineffective as Black's rook is not coordinating with the bishop at all.

97.♖g4!

Naturally White just steps back onto the optimal square with his rook.

97...♕b5

It would be better to return with 97...♔d3

98.♖g3+

An interesting decision, maybe ultimately the one which cost White the game. He could have played the move 98.♔a4, which is rather awkward for Black and exposes the fact that she has not made any progress lately.

On the other hand Black has not shown any signs of being able to win the situation which is going to arise after the objectively weaker 98.♖g3+ ♔d3 99.♖g4. Indeed, she could easily fall into a repetition with those king positions.

98...♔d3

99.♖g4 ♕b1?!

We already know losing a tempo with either ♕b6, ♕b7 or ♕b8 was correct.

100.♖g2 ♕b3+?!

101.♔a4 ♕b5

102.♖g4 ♕f5

103.♔a3

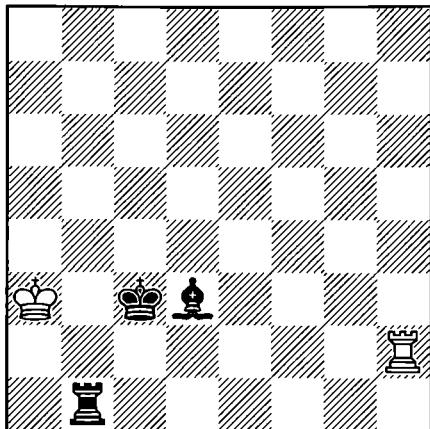
Endgame Exploration 1: My Favorite Endgame

All the way back to the beginning!
Black tries again...

103... \mathbb{Q} f1

104. \mathbb{Q} g2 \mathbb{Q} b1

105. \mathbb{Q} h2



Back at the key position for one more chance. Will Black play 105... \mathbb{Q} f1! This time?

105... \mathbb{Q} f5?!

Almost comically Black again plays a horrible twist on the correct idea.

106. \mathbb{Q} g2!

The tablebase tells us that 106. \mathbb{Q} a4 is the tougher defense, when Black must start all over again. However, in this particular case, 106. \mathbb{Q} g2! is actually stronger because it almost forces a threefold repetition!

106... \mathbb{Q} d3

Objectively best, but this is a repetition.

107. \mathbb{Q} h2

This position has occurred three times. It is difficult to be sure in a blitz finish and an incorrect claim carries a time penalty. Besides, Black has still shown no sign of being able to win the Lolli position...

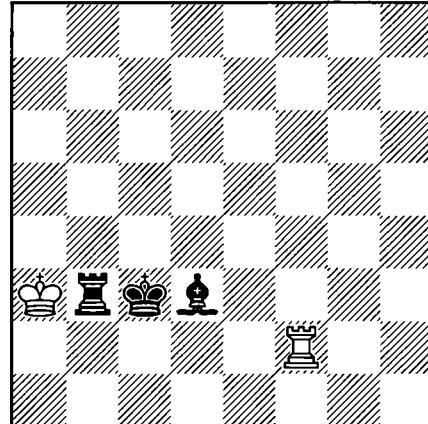
107... \mathbb{Q} f1!

Oh no! By process of elimination, after having tried almost every other legal idea, Black finally finds it!

108. \mathbb{Q} f2 \mathbb{Q} c4!

109. \mathbb{Q} f3+ \mathbb{Q} d3!

110. \mathbb{Q} f2 \mathbb{Q} b3+!



Suddenly it all comes flooding back!

111. \mathbb{Q} a2

111. \mathbb{Q} a4 \mathbb{Q} b6! Wins on the spot.

111... \mathbb{Q} b6

112. \mathbb{Q} a1 \mathbb{Q} g6!

The simplest in this position. It is also possible to follow an analogous path

PART 3. Endgame Explorations

to the Philidor position with 112... $\mathbb{B}b1+$ 113. $\mathbb{Q}a2 \mathbb{E}e1$ 114. $\mathbb{Q}f3$ (114. $\mathbb{Q}a3 \mathbb{Q}e2!$) 114... $\mathbb{Q}e6$ and mate follows.

After 112... $\mathbb{Q}g6$ White resigned in view of 113. $\mathbb{Q}h2 \mathbb{Q}g1+$ 114. $\mathbb{Q}a2 \mathbb{Q}c4+$ 115. $\mathbb{Q}a3 \mathbb{Q}a1+$ and mate.

How can we summarize the play in these two games?

➤ In the first game White defended pretty terribly, although of course anyone can blunder in time trouble. Black didn't show any sign at all of any knowledge of how to win Philidor's position. He made the same obvious but weak moves that I did during my first encounter.

➤ In the second game White defended well. My feeling is had he been on the stronger side he would have shown the correct winning technique and as it was if the endgame had not been losing from the beginning he would have successfully defended it. Black's play was somewhat more difficult to categorize. I think it is clear she had an extremely vague recollection of the ideas but found it hard to make things work without memory of the specifics. One person suggested to me this was an example of good technique, which is quite a leap, as the annotations show.

OK, we are cheating to some extent, but as one Grandmaster commented to me: it is a strange feeling to watch world class players (as the two players on the stronger side of this endgame were) and understand what to do much better than they do.

Three chess coincidences

In the style of Grandmaster Plaskett I would like to share three chess coincidences with you. One of which involved this very endgame:

➤ I was sitting in a car and commented to my friend I wasn't 100% sure if I would be able to mate with bishop and knight vs. king (I hasten to add this was a long time ago!). He showed me the procedure on a pocket set. When I got home I practiced the mate against an engine until I could mate the bare king in 10 seconds from any position.

○ The very next day I played a weekend tournament. In the first game I reached bishop and knight vs. king and mated my opponent. I recall him leaning across the board and saying, "Do you know how to do this?" My honest reply, "Yes, I learned it yesterday," failed to amuse him.

○ This is the one and only time in my life I have ever had this endgame (on either side).

➤ I read an article on the 'Reverse Halloween Gambit' against the Glek System and spent a day analyzing it. For the record this goes 1.e4 e5 2. $\mathbb{Q}f3 \mathbb{Q}c6$ 3. $\mathbb{Q}c3 \mathbb{Q}f6$ 4.g3 $\mathbb{Q}xe4!$? As silly as it looks it is possibly even sound.

○ In the very next game of chess I played my opponent opened with the Four Knights and a strange feeling came over me. Sure enough he played 4.g3. Despite the fact I play 1.e4 e5 in 90% of

Endgame Exploration 1: My Favorite Endgame

in my games this is the one and only time I have ever faced this opening in my life.

No less difficult to explain is the fact that after $4... \mathbb{Q}xe4$ my opponent decided not to take the knight. Later I won the endgame with an extra pawn...

➤ I discussed and analyzed the endgame rook and bishop vs. rook with GM Keith Arkell (who claims have 18/18 on the good side of it). In the final round of the same tournament I reached rook and bishop vs. rook.

○ Several years later I analyzed it again to refresh my memory during another tournament, and again I reached rook and bishop vs. rook.

Perhaps chess coincidences aren't as powerful as other types of coincidences, since we have a large amount of control over the positions we reach. Still, I have

always had the sensation that when I study something it crops up in my games. One thing which is certainly true is that when you understand the ideas of certain endgames (and equally other parts of chess) you will start to notice them a lot more when you watch and play over chess games.

I should also mention an idea unique to pawnless endgames – which may have had some bearing on the level of play in these two endgames – that of rotation. In any endgame book, most likely, you will be shown things with a standard rotation. For instance if you are reading how to mate with bishop and knight you will be shown how, playing White, to trap the king in the h8 corner, force him across to the a8 corner, and finally mate him. It can be confusing to have to play 'backwards' and 'sideways'. There is really no help for it, you have to be able to feel the patterns between the pieces so it makes no difference.

SUMMARY OF IDEAS

Aside from the theory of the Philidor and related positions I think my investigations into this endgame taught me two main things:

- Even the best players don't know everything.
- In the endgame the best players are strong mainly by their understanding of principles, rather than very specific theoretical knowledge.

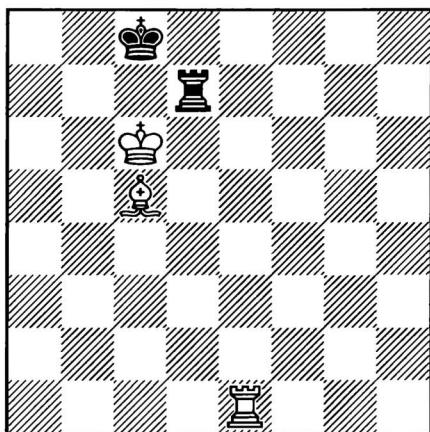
Knowing how to progress your position is vitally important. Without a clear idea of what to do (as can happen in pawnless endgames) even a very strong player can look silly. Calculating counts for nothing if you have no way to evaluate if the positions you are looking at are increasing your advantage or not.

THEORETICAL NOTES

Lolli's two positions

The Italian theoretician Lolli examined two twists on Philidor's position.

Lolli, 1763



White to play

Identical to Philidor's position, but shifted one file nearer the edge of the board. This does not change the result (White is winning) but the win feels slightly less comfortable than it is in the center of the board.

It is 90% the same procedure we already know, with two notable differences. I will just highlight these two instances where the play differs significantly from the Philidor technique.

1. $\mathbb{R}e8+$ $\mathbb{R}d8$

2. $\mathbb{R}e7$

First instance:

There is an extra defense which isn't available when the position is more central, namely:

2... $\mathbb{R}g8!?$

Previously this was a very weak defense, because the white rook would switch to the queenside and win very simply. Here however the rook would have less room on that side of the defending king.

3. $\mathbb{R}d6$

3. $\mathbb{R}a7$ is actually a quicker win with perfect play, but somewhat more difficult to play: 3... $\mathbb{R}b8$ (the difference from the Philidor position) 4. $\mathbb{R}b7+$ $\mathbb{R}a8$ (4... $\mathbb{R}c8$ 5. $\mathbb{R}d6$) 5. $\mathbb{R}d6$ $\mathbb{R}c8+$ 6. $\mathbb{R}c7$ $\mathbb{R}g8$ 7. $\mathbb{R}b5$ $\mathbb{R}g6+$ 8. $\mathbb{R}d6$ $\mathbb{R}g7$ 9. $\mathbb{R}e5$ $\mathbb{R}f7$ 10. $\mathbb{R}e8+$ $\mathbb{R}a7$ 11. $\mathbb{R}c5+$ is one possible line. This is quite hard to follow, 3. $\mathbb{R}d6$ is slightly longer but clearer as $b8$ is removed from the black king.

3... $\mathbb{R}d8$

Otherwise $\mathbb{R}a7$ comes with great effect.

4. $\mathbb{R}e6!$

The mechanics of Black's new defense can be seen after 4. $\mathbb{R}a7?$ $\mathbb{R}e8!$ and the black rook and king join together.

4... $\mathbb{R}h8$

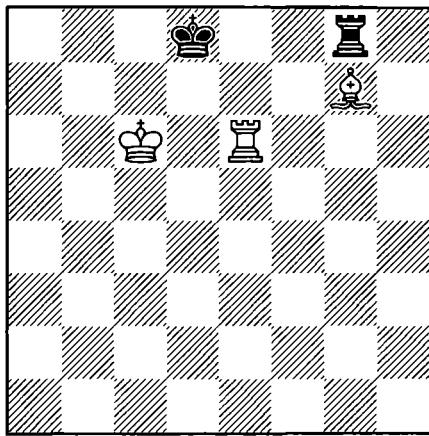
Endgame Exploration 1: My Favorite Endgame

4... $\mathbb{Q}c8$ loses rapidly to 5. $\mathbb{R}e5$ $\mathbb{Q}d8$ 6. $\mathbb{R}c7+$ $\mathbb{Q}c8$ 7. $\mathbb{R}b5$ $\mathbb{Q}g6+$ 8. $\mathbb{R}d6$ and mate shortly, and 4... $\mathbb{R}g7$ 5. $\mathbb{R}e5$ $\mathbb{Q}g8$ (else $\mathbb{R}e5-f6$ followed by $\mathbb{R}e6-e8$ will deliver mate) 6. $\mathbb{R}f6+$ transposes to the main line.

5. $\mathbb{R}e5!$ $\mathbb{R}f8$

5... $\mathbb{Q}g8$ transposes to the position after White's seventh move in the main line following 6. $\mathbb{R}f6+$

6. $\mathbb{R}g7$ $\mathbb{Q}g8$



7. $\mathbb{R}f6+$ $\mathbb{Q}c8$

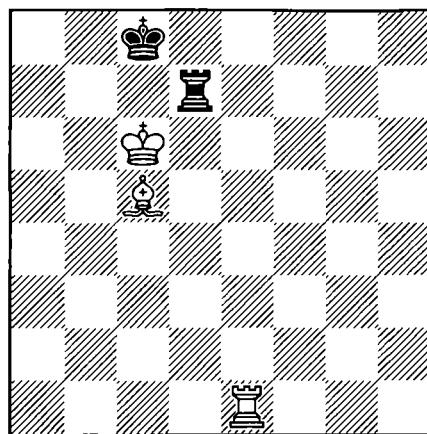
8. $\mathbb{R}e1$ $\mathbb{R}f8$

9. $\mathbb{R}g7$ $\mathbb{Q}g8$

10. $\mathbb{R}a1$

And White wins the rook or mates. Also possible is 10. $\mathbb{R}e2$ (showing White's domination here) 10... $\mathbb{Q}b8$ 11. $\mathbb{R}e5+$ $\mathbb{Q}c8$ 12. $\mathbb{R}d6$ $\mathbb{Q}d8$ 13. $\mathbb{R}c7+$ $\mathbb{Q}c8$ 14. $\mathbb{R}a1$ $\mathbb{Q}g6+$ 15. $\mathbb{R}d6$.

Second instance:



After...

1. $\mathbb{R}e8+$ $\mathbb{R}d8$

2. $\mathbb{R}e7$ $\mathbb{R}d3$

More likely Black will play 2... $\mathbb{R}d2!$ but the procedures are then the same as those for Philidor's position. The black rook is forced to the first rank and then to the third rank. We are only concerned here with the situation after the rook is forced to the third rank, since here there is a clear difference in winning procedure.

3. $\mathbb{R}a7!$

The problem after the standard 3. $\mathbb{R}c7+?!$ $\mathbb{Q}b8$ is that we cannot play the crushing swing to the queenside as we need to go one file off the left hand edge of the board.

3... $\mathbb{R}b3$

If 3... $\mathbb{Q}b8$ then 4. $\mathbb{R}a4$ (threat $\mathbb{R}d6+$) 4... $\mathbb{R}c3$ 5. $\mathbb{R}h4$ and mate.

4. $\mathbb{R}c7+!$

PART 3. Endgame Explorations

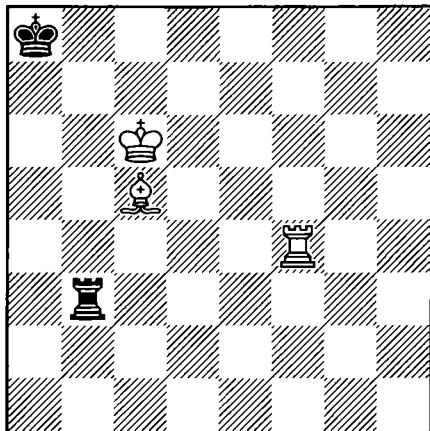
Now that we have lured the black rook to the b-file, normal service is resumed. Whichever way the black king moves the white rook will go onto the long side of the board, so there are no issues anymore with distance.

4... \mathbb{Q} b8

On 4... \mathbb{Q} d8 we have this time 5. \mathbb{Q} f7! winning immediately, the idea we couldn't play after 3. \mathbb{Q} c7+?!

5. \mathbb{Q} f7 \mathbb{Q} a8

6. \mathbb{Q} f4



As I mentioned in the game Dominguez-Perez – J. Polgar, there is nothing wrong with playing here akin to the Philidor position with 6. \mathbb{Q} a7+ \mathbb{Q} b8 7. \mathbb{Q} a4 \mathbb{Q} c3 8. \mathbb{Q} f4 and mate follows shortly.

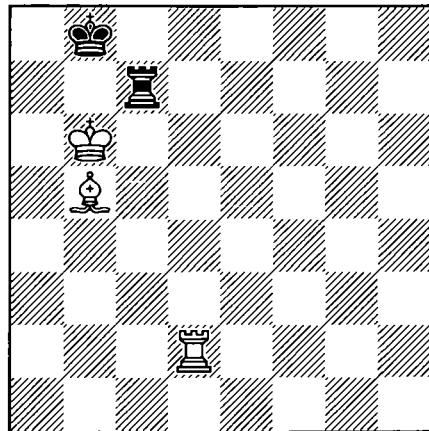
6... \mathbb{Q} b2

7. \mathbb{Q} a4+ \mathbb{Q} b8

8. \mathbb{Q} d6+

And mate follows.

Lolli, 1793



White to play

This was the other variant analyzed by Lolli. With the kings on the b-file he showed that the position is drawn with best play. Since many of the rules we have become accustomed to work differently here it is not essential, and indeed can be confusing, to study this position.

I give a short coverage for completeness, but I do not consider it essential knowledge. The basic idea is that the position is not statically winning anymore, because of the king's proximity to the edge of the board, and the only question is whether or not White can force a transposition into a Philidor or (first) Lolli position.

1. \mathbb{Q} d8+ \mathbb{Q} c8

2. \mathbb{Q} d7 \mathbb{Q} c2

2... \mathbb{Q} f8 is losing. The procedure begins in familiar fashion with 3. \mathbb{Q} c6 \mathbb{Q} c8 4. \mathbb{Q} d6! although it must be said the win is much more complicated than in the previous case.

Endgame Exploration 1: My Favorite Endgame

2... $\mathbb{B}c1$ and 2... $\mathbb{B}c3$ also are theoretically drawn with perfect play.

3. $\mathbb{B}f7 \mathbb{B}c3$

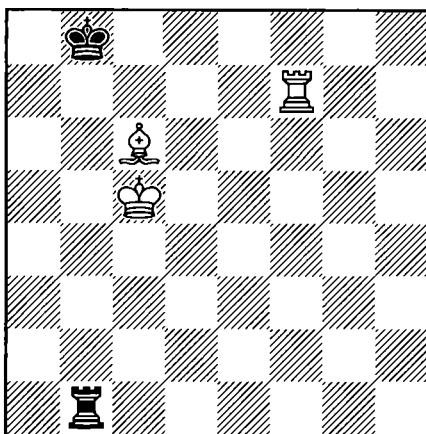
The third rank no longer holds the same dangers in this position.

4. $\mathbb{Q}a4 \mathbb{B}c1$

5. $\mathbb{Q}c6 \mathbb{B}b1+$

6. $\mathbb{Q}c5!$

Trying to transpose into a Philidor position.



6... $\mathbb{B}b2!!$

Amazingly, this is the only move which draws. A sample losing line would be 6... $\mathbb{B}c1+??$ 7. $\mathbb{Q}d6!$ $\mathbb{B}d1+$ 8. $\mathbb{Q}d5 \mathbb{B}c1$ 9. $\mathbb{B}b7+ \mathbb{Q}c8$ 10. $\mathbb{B}a7 \mathbb{Q}d8$ (10... $\mathbb{B}b1$ 11. $\mathbb{B}f7 \mathbb{Q}b8$ 12. $\mathbb{B}f8+$ and White picks up the black rook) and we have reached Philidor's position! The winning method would begin with 11. $\mathbb{B}f7!$ $\mathbb{Q}e1$ 12. $\mathbb{Q}f3!$ etc.

7. $\mathbb{Q}d5 \mathbb{B}h2!!$

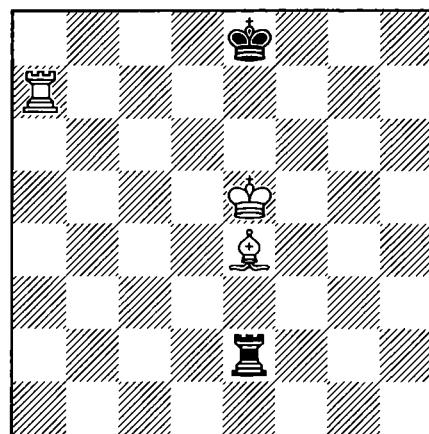
Again the only move!

8. $\mathbb{B}b7+ \mathbb{Q}c8$

9. $\mathbb{B}e7 \mathbb{Q}b8!!$

The series of only moves continues. I will stop here rather than confuse myself and the reader further. I don't claim to fully understand this second Lolli position myself. Clearly White is very close to achieving one of the winning positions, but in theory cannot quite do so.

Cochrane defensive position



This is the game Quinteros – Timman, Wijk aan Zee, 1983 (although many other games have reached this exact position).

How should Black proceed?

Many moves are possible, but the most logical approach was demonstrated by the Scottish Master John Cochrane (also known for his line in the Petroff Defense, 1.e4 e5 2. $\mathbb{Q}f3 \mathbb{Q}f6$ 3. $\mathbb{Q}xe5$ d6 4. $\mathbb{Q}xf7!?$):

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1... $\mathbb{B}e1!$

An effective pass. By staying on the e-file White is denied the opportunity to step forward and threaten mate. The moves to avoid are:

➤ 1... $\mathbb{Q}d8??$ Which allows White to shuffle his king and bishop one rank further up the board with 2. $\mathbb{Q}d6!$ $\mathbb{Q}e8$ 3. $\mathbb{Q}d5$ $\mathbb{Q}f8$ 4. $\mathbb{B}f7+!$ $\mathbb{Q}e8$ 5. $\mathbb{B}f4$ $\mathbb{Q}d8$ and we reach a winning Philidor position. This shuffle with $\mathbb{Q}e5-d6$ and $\mathbb{Q}e4-d5$ is what White is looking for in this position — and what the Cochrane defense is designed to prevent.

➤ 1... $\mathbb{B}d2$ is similarly plausible but bad: 2. $\mathbb{Q}e6!$ (threatening $\mathbb{B}a7-a8+$ followed by $\mathbb{Q}e4-g6+$) 2... $\mathbb{Q}d8$ (or 2... $\mathbb{Q}f8$ 3. $\mathbb{Q}f5!$ is similar, White will likely reach a Lolli's winning position on the f-file) 3. $\mathbb{Q}d5!$ and again White shuffles into a winning Philidor position.

2. $\mathbb{Q}d5$ $\mathbb{Q}f8!$

Black's move is not critical to the objective assessment (drawn), but the idea of Cochrane's defense is to move the king in the opposite direction to White's. If White had played 2. $\mathbb{Q}f5$ then of course Black would reply 2... $\mathbb{Q}d8!$

3. $\mathbb{B}h7$ $\mathbb{Q}e2$

Waiting for White to move the bishop.

4. $\mathbb{Q}f5$ $\mathbb{Q}e7!$

For the final part of the defensive procedure, the defending king is re-

leased from the back rank. White must start all over again.

5. $\mathbb{B}h1$ $\mathbb{Q}e2$

6. $\mathbb{Q}e4$ $\mathbb{Q}e7$

7. $\mathbb{B}f1$ $\mathbb{Q}d2+$

8. $\mathbb{Q}e5$ $\mathbb{Q}e2$

9. $\mathbb{B}b1$ $\mathbb{Q}d7$

10. $\mathbb{B}b7+$ $\mathbb{Q}e8$

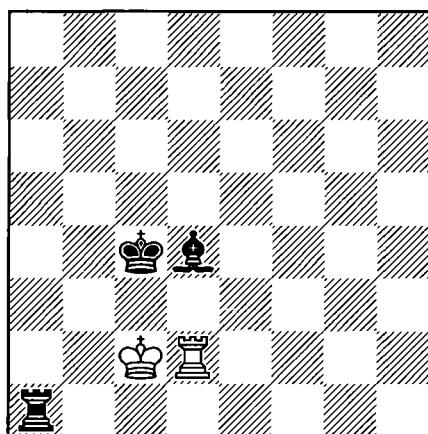
Another Cochrane position.

11. $\mathbb{Q}f5$ $\mathbb{Q}d8!$

The game was soon drawn by the 50 move rule.

Second rank defense

Following the introduction of computer tablebases, another defensive method was uncovered. The defense is quite surprising as it is so passive, but as it turns out, the attacker cannot make any progress.



Second rank defense – passive but holds

Endgame Exploration 1: My Favorite Endgame

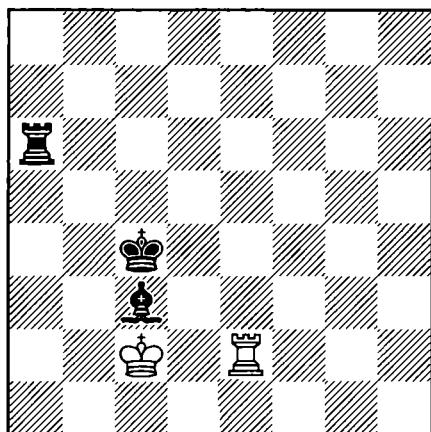
This position was reached in the game Hawkins – Gormally, Liverpool, 2008. Notice that one key idea is that attempting to push back the white king directly with 1... $\mathbb{R}a2+$ is not successful. After 2. $\mathbb{K}d1$ the black rook must leave the second rank to avoid the exchange, releasing the white king.

1... $\mathbb{K}c3$

2. $\mathbb{R}e2$

Maintaining the second rank.

2... $\mathbb{R}a6$



Attempting to *Zugzwang* the white rook away from the second rank (it is short of squares there). Black is not looking to directly achieve a winning position, but to end White's systematic play and make his defensive task more difficult.

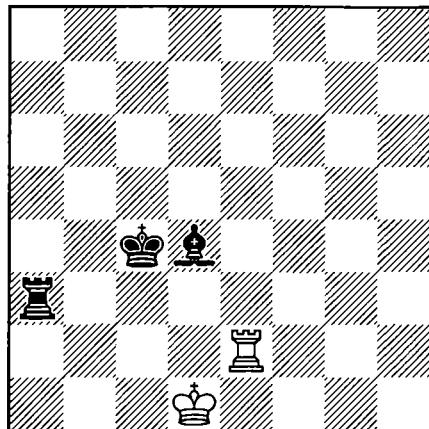
3. $\mathbb{R}e4+$

3. $\mathbb{K}d1$ is also in the spirit of the second rank defense and fine.

3... $\mathbb{K}d4$

4. $\mathbb{R}e2 \mathbb{R}a2+$

5. $\mathbb{K}d1 \mathbb{R}a3$



The white rook owns the second rank

The black rook must leave the second rank.

6. $\mathbb{K}c2 \mathbb{R}f3$

7. $\mathbb{R}g2 \mathbb{R}c3+$

8. $\mathbb{K}d2 \mathbb{R}a3$

9. $\mathbb{R}e2$

Probably simpler was to play 9. $\mathbb{K}e2$ and set up a new second 'rank' defense on the g-file.

9... $\mathbb{R}d3+$

10. $\mathbb{K}c2 \mathbb{R}e3$

A typical idea to smother the defender's rook.

11. $\mathbb{R}g2 \mathbb{R}c3+$

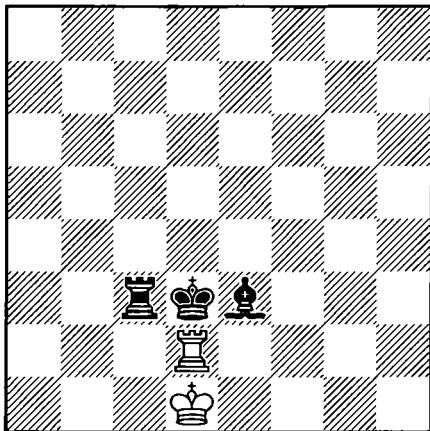
12. $\mathbb{K}d1$

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Although this allows White to demonstrate another typical motive for the second rank defense, it is simpler to play 12.♔b2 here. Black has made no progress at all and has to repeat the position to avoid an immediate draw (e.g. with 12...♕b4 13.♗g4+ or any bishop move allowing ♗g2-c2 exchanging the rooks).

12...♔d3

13.♗d2+



Stalemate trick

Forced – but easily sufficient. This stalemate trick is typical.

13...♔e4

Now I should continue with 14.♗c2 followed by 15.♔e2 and the second rank defense is again established. Instead for some reason I played 14.♗d8?! which does not lose the game but makes the defense more difficult.

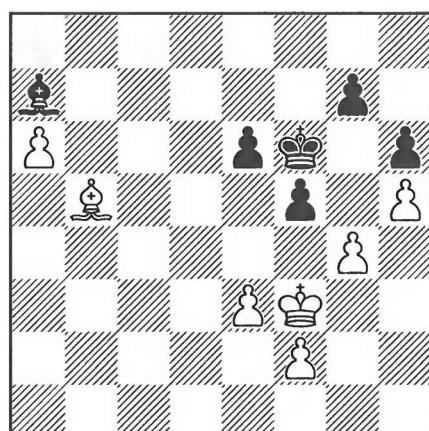
Endgame Exploration 2: A Long Discussion of a Short Endgame

When writing the earlier chapter on opposite-colored bishop endgames I was thinking how to present some guidelines for playing these endgames in practice. At first I composed a long and rather dull chapter of rules and principles. Eventually I decided to scrap it and present a long analysis of a very short game fragment I found in my notebooks. Probably this was the first non-theoretical endgame I analyzed in real depth and I have re-analyzed it for this book (and still there are some unanswered questions). This game and its analysis shows all of the same principles I wanted to mention, but also shows that principles (even those of the strongest GMs) are secondary to the concrete analysis of the position.

The game was played the semi-finals of the 2005 World Cup between Levon Aronian (who would eventually go on to win the tournament) and Etienne Bacrot. Thanks to a combination of the richness of the position, the importance of the game and, perhaps most of all, the bizarre end to the game (more on this later), it was analyzed extensively by several different annotators.

Aronian-Bacrot
FIDE World Cup,
Khanty Mansyisk, Russia, 2005

White had held a small advantage throughout the game. At several points Black was close to equalizing, but after White's 35th move the following position arose.



Black (Bacrot) to play

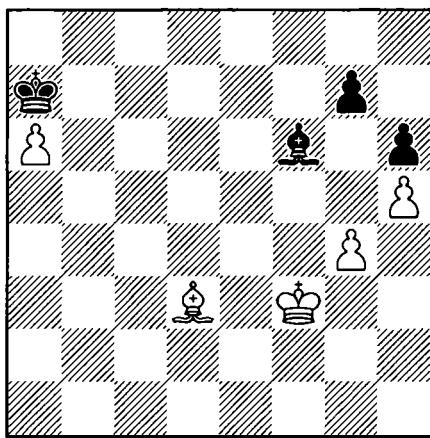
For perhaps the first time in the game, White had serious winning chances. Looking first at the situation very superficially we can see that after some degree of clarification on the kingside the white king will be looking to break through Black's defensive lines, ideally

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to b7 where it supports the queening of the a6-pawn.

We can also quickly see that there is no simple way for Black to draw using an anchor. Even if the black king could be transported to a7 and the black bishop to the kingside, there is simply no way to anchor the kingside. The situation is too messy over there, and White would somehow break through with his king and win a pawn.

So what is the ideal scenario for Black? Well, in a perfect world he would like the e- and f-files to be cleared of pawns and to anchor his bishop on f6 and king on a7.



Maybe, one day...

Act 1 – The game

Without going into deep analysis, I think first it will be useful to see how the game concluded. I will comment on the logic behind the moves played, but not yet on their objective strength.

35...g5

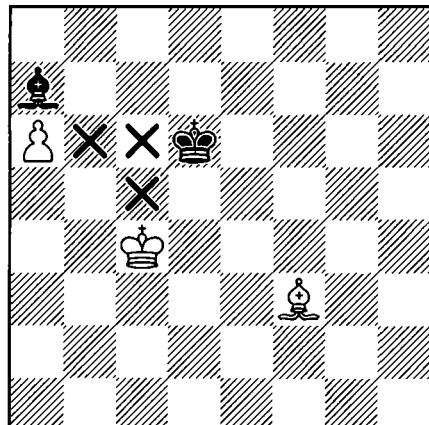
To understand this move it is necessary to take a little detour...

Detour – White's threats

The first thing to understand is that at some stage after the kingside situation becomes stable the white king will travel to the queenside in an attempt to win the black bishop for the a-pawn. Black's defensive task will then be to block the white king from doing this.

If you cannot defend using an anchor you must defend by creating a blockade which prevents the attacking king (and pawns) from breaking through.

The following pattern could arise. Note that I have removed the kingside pawns so they don't detract from the explanation of the queenside situation, but please imagine some stable (blocked, no passed pawns) configuration on the kingside:

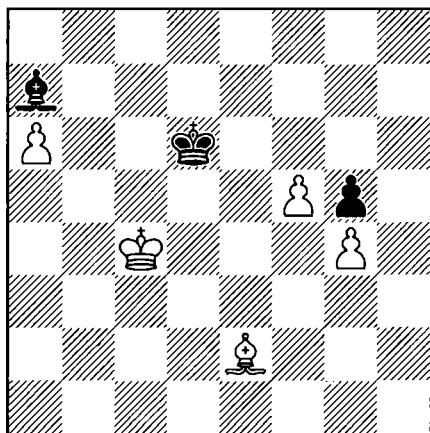


Black king and bishop form a barrier

Endgame Exploration 2: A Long Discussion of a Short Endgame

The barrier constructed jointly by the black pieces prevents the infiltration of the white king. The barrier cannot be broken by *Zugzwang*, since any safe square on the diagonal a7-g1 will be an equally good station for the black bishop.

Therefore when White runs into this problem, he will need to be ready to deflect Black's king from its post, otherwise the black bishop will make endless moves and he can make no further progress. To avoid this White must strive to make another passed pawn on the kingside. Its advance could deflect one of the black pieces from their blockading task, allowing the white king to penetrate. For example:



The f5-pawn deflects the black king

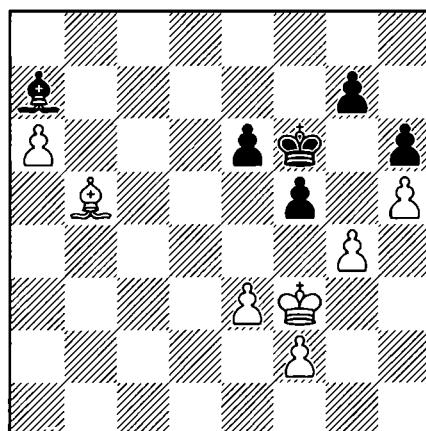
The pawn on f5 provides an unwelcome (from Black's point of view!) distraction. There is no need for specific variations here since White's path to victory is very simple, namely:

- White king goes to b5.

➤ White pawn goes to f6 (and f7-f8 if needed) until the black king moves.

➤ White king goes to b7 and the black bishop will be lost.

Back with Aronian – Bacrot, you will recall we had this position:



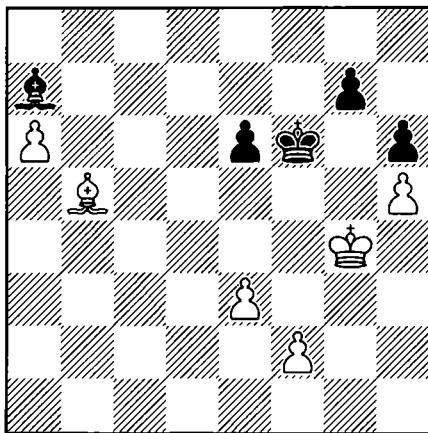
Because the pawn structure on the kingside will be defined over the next few moves, the value of the move here is high – for both sides.

Note that although it could be the case that the decisions taken over the next few moves are not critical (maybe all structures are winning for White, maybe all structures are drawn...), the fact that it could potentially make a difference to the whole evaluation of the position is enough to demand serious analysis.

First potential structure

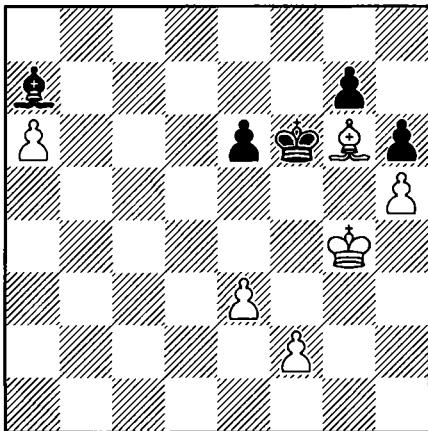
After the capture on g4 we get the following structure:

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Is this structure favorable for White? Does it allow him to somehow break through on the queenside with his king?

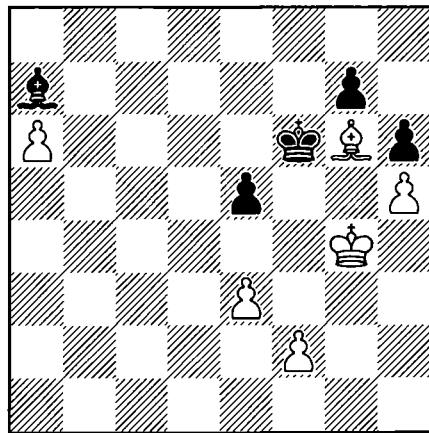
His first task is to bring his bishop to the g6 square, so that the h5-pawn is secured in preparation for the king march.



Black cannot prevent this transfer so we can calculate here in ‘jumps’; there is no need to calculate move by move in a stable situation like this.

Now the king must be put to work in conjunction with the e- and f-pawn duo, but we must also consider an important question:

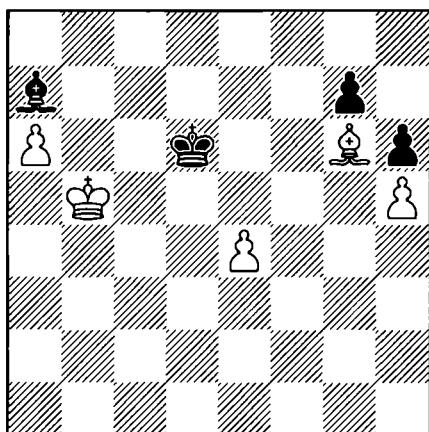
Question: How would you, as White, deal with the move e6-e5 here?



How should White proceed?

White’s plan would be as follows:

- Transfer the king to e4.
- Push f2-f4.
- After Black captures on f4 reply with ♜xf4. This is critical, since after exf4 White fails in creating the second passed pawn (and there is a real danger Black can setup an anchor by sending his king to the queenside and his bishop to f6).
- Push e3-e4 and transfer the king to b5, Black will place his king on d6 to form a barrier.

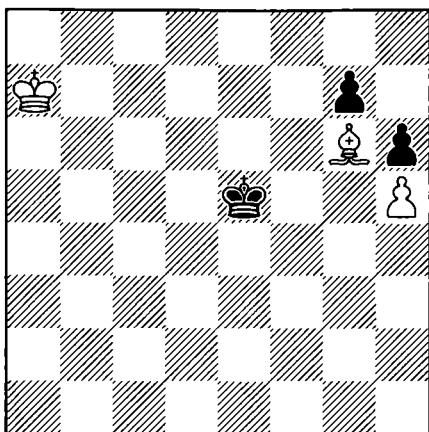


Black’s barrier is not holding

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Push e4-e5 to deflect the black king, and advance the king b5-c6-b7 winning the black bishop.

After all of that we will most likely be left with a situation featuring the following kingside structure:



Wait a minute...isn't this a draw?

Although h8 is the wrong color for White's bishop, the position is still winning because of the presence of Black's pawns (it is important both black pawns are on the board). Play could proceed:

1... $\text{f}6$

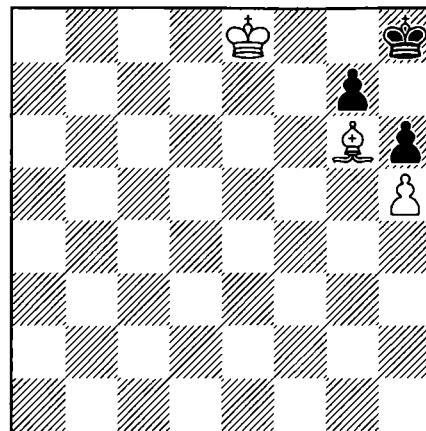
2. $\text{b}7 \text{ e}7$

3. $\text{c}7 \text{ f}8$

In accordance with the rules regarding wrong colored rook's pawns, Black runs his king into the corner. White does not try to prevent this.

4. $\text{d}8 \text{ g}8$

5. $\text{e}8 \text{ h}8$



Mutinous pawns

White cannot approach any further at the moment for fear of stalemate, but he sets about organizing a *Zugzwang* which will compel Black to fatally move the g-pawn.

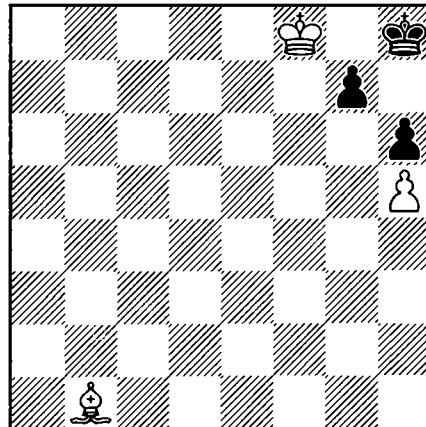
6. $\text{e}7 \text{ g}8$

7. $\text{f}7+ \text{ h}8$

8. $\text{f}8 \text{ h}7$

9. $\text{g}6+ \text{ h}8$

10. $\text{b}1$

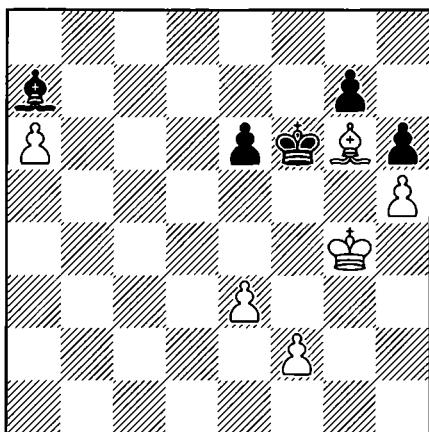


Zugzwang!

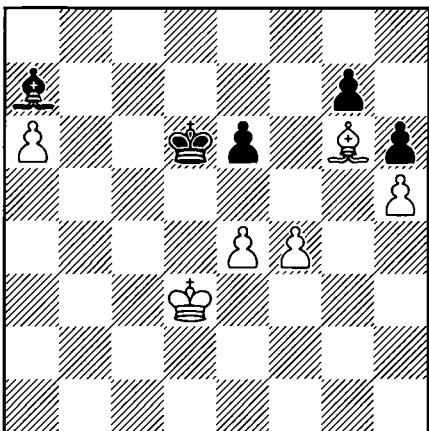
PART 3. Endgame Explorations

And Black must move the g-pawn. 10...g6 11.hxg6 and 10...g5 lead to the same position (after the *en passant* capture in the latter case) and will lead to mate very shortly. Note that if either the g-pawn or the h-pawn were not on the board, Black would hold a draw.

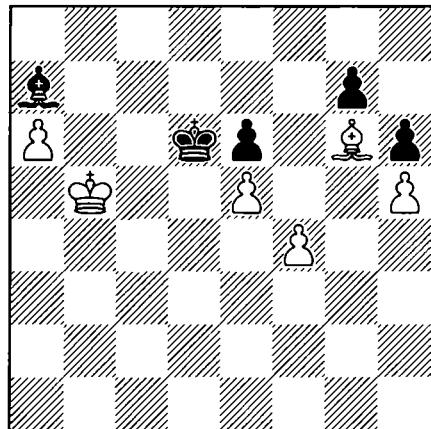
Returning to the situation before we discussed the question of how to react to e6-e5:



If Black doesn't play e6-e5, White will place his king on e4, pawn on f4, then retreat the king to d3 and push his pawn to e4. Achieving this setup:



Now the white king goes to b5, pawn to e5, followed by pawn to f5, creating the desired passed pawn on the e-file.



e5, check!

1... d7

2.f5 exf5

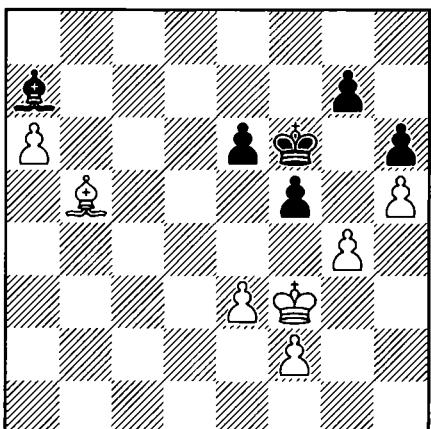
3. xf5+

And the white king can no longer be held back.

So the first potential structure isn't looking too rosy for Black. What of the second?

Second potential structure

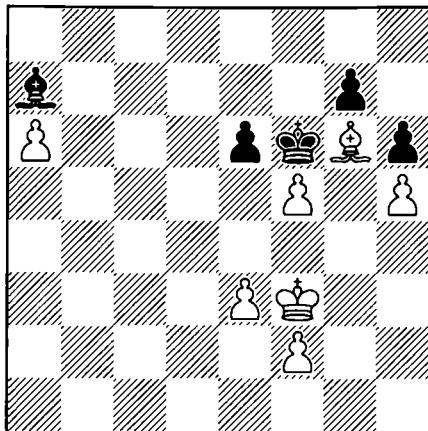
All the way back in the initial position...



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...we decided the exchange on g4 was outright losing. What about sitting tight and waiting for a capture on f5?

White will reposition his bishop first to g6 as before, then capture on f5.



1...exf5

Incidentally if Black did find a way to play $\mathbb{Q}xf5$ (perhaps by playing $\mathbb{Q}g5$ earlier) then the structure would be the same as the first potential structure.

However this structure (after $e6xf5$) also seems hopeless for Black. White will gradually play $\mathbb{Q}e2-d3$ and push his pawns to f3 and e4 creating the passed e-pawn. Then it will be the same story as before: the white king goes to b5 and the e-pawn advances.

2. $\mathbb{Q}e2-f4$

A tricky move attempting to prevent White's straightforward winning plan.

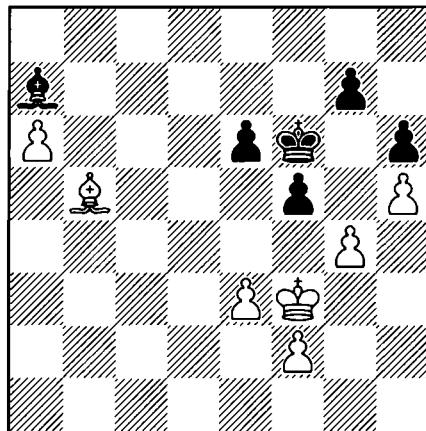
3.e4

3. $exf4$ vividly shows why the number of *passed* pawns is more relevant than

the number of pawns: 3... $\mathbb{Q}e6$ 4. $\mathbb{Q}d3$ $\mathbb{Q}d6$ 5. $\mathbb{Q}c4$ $\mathbb{Q}c7$ 6. $\mathbb{Q}b5$ $\mathbb{Q}d4$ (Black could also take on f2, but instead he heads for an anchor immediately) 7.f3 $\mathbb{Q}b8$ 8. $\mathbb{Q}c6$ $\mathbb{Q}f6$ with an anchor.

After 3.e4 White has his passed pawn and Black's situation seems hopeless. Note how White is repeatedly creating a passed pawn, despite the symmetrical structure. The reason for this is that the white h5-pawn prevents the black g-pawn from defending the f5-pawn.

That will conclude our detour, and we return once again to the initial position:



This again?!

Where Black chose the move 1... $g5$. I think we can assume that Bacrot, rated 2725 at the time, quickly saw the problems arising from the two structures we just examined. The move $g5$ was played instead to confuse the issue. The move is logical since Black is reducing the number of pawns, which is usually a good method for the defender.

It is also possible that with little time on his clock and having discounted the

PART 3. Endgame Explorations

tries we have already looked at, he simply played the only remaining possibility (process of elimination).

Whatever his reasons, it did not seem to deter Aronian, who rattled out the rest of the game with the confidence of a man who has seen to the end:

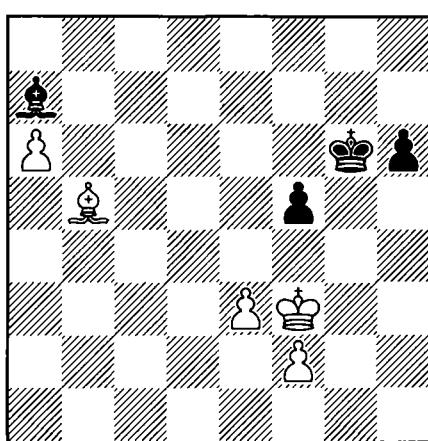
1...g5

2.hxg6 ♜xg6

3.gxf5+ exf5

3...♜xf5 is possible, there follows 4.♗f1 ♜b6 5.♗h3+ ♜f6 (5...♜e5 6.♗g4 ♜f6 7.♗h5 wins another pawn) 6.♗e4! ♜a7 7.f4 ♜b6 8.♗f3 ♜a7 9.e4 ♜b6 (9...e5 10.f5! and White wins by sending his king to the queenside) 10.e5+ ♜e7 11.♗e4 ♜d7 12.♗xe6+! ♜xe6 13.f5+ ♜e7 14.♗d5 h5 15.f6+ ♜e8 16.e6 h4 17.♗d6 h3 18.f7+ ♜f8 19.♗d7 ♜c5 20.a7 and White queens first

Now the structure has clarified somewhat, so we should examine the new structure in order to understand the moves that follow:



Black has reduced the number of pawns, true, but at a price. White will inevitably gain a second passed pawn after exchanging Black's f-pawn for his e-pawn.

We should also not forget the black h-pawn, although as we discussed earlier often this is fairly insignificant since it can only become a real threat with the support of the black king, which is going to be occupied with defensive tasks.

The only question is how White will make the passed pawn. There is a choice: by f3 followed by e3-e4 (resulting in a passed e-pawn), or alternatively by controlling e4 with his bishop followed by e3-e4 (resulting in a passed f-pawn).

4.♗f1

Bringing the bishop to g2 in preparation for e3-e4. Creating a passed f-pawn is more desirable than creating a passed e-pawn because the distance between White's two remaining pawns will be greater (reducing Black's chances for a successful blockade).

4...♜g5

5.♗g3 ♜f6

6.♗g2 ♜b6

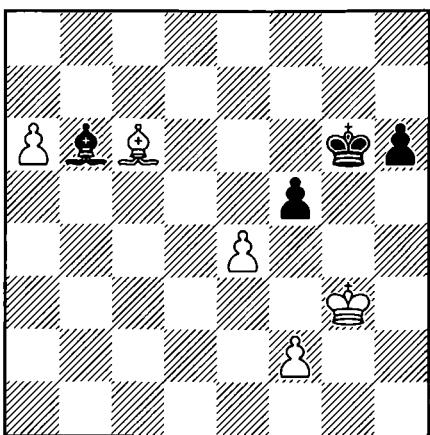
7.♗h4 ♜g6

8.♗c6 ♜d8+

9.♗g3 ♜b6

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10.e4



After some probing White finally plays his trump, creating the aforementioned passed f-pawn.

10...f6

11.f4 fxe4

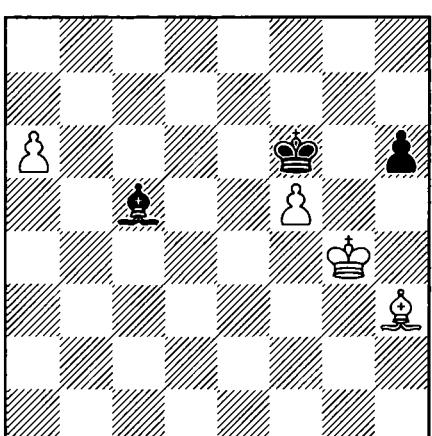
12.♗xe4 ♔e6

13.♔g4 ♔f6

14.♗g2 ♗a7

15.♗h3 ♗c5

16.f5



With the bishop rerouted to h3 the pawn on f5 is defended and the black h-pawn is under lock and key. White is ready to send his king to the queenside.

16...♔a7

And with this move, rather than wait for the white king's inevitable penetration, Black decided to resign.

Act 2 – The reaction

As soon as resignation came, a chorus of kibitzers, GMs, amateurs, amateurs with engines, and the ever present draw brigade who had been calling for a draw since around move five, all began to cry out that Black had resigned in a drawn position.

“Why did Bacrot resign?”

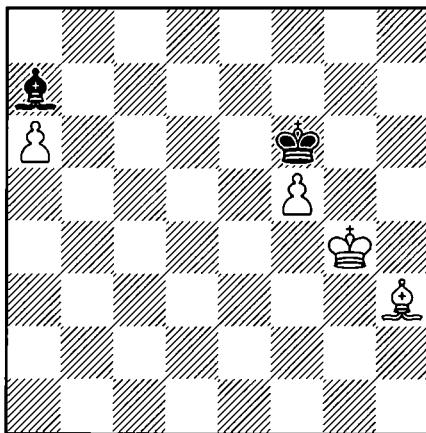
“That's been the \$64,000 question all day.”

Oh dear, was it really true?

I was of the opinion that the computers just couldn't see deep enough (not being able to perform ‘jumps’ and think conceptually, computers are notoriously bad at this type of endgame), and the position was winning.

After all, without the black h-pawn the position is easily winning; this can be checked using the tablebase.

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“Looks like mate in 21 to me”

1. $\mathbb{Q}f4 \mathbb{Q}g1$

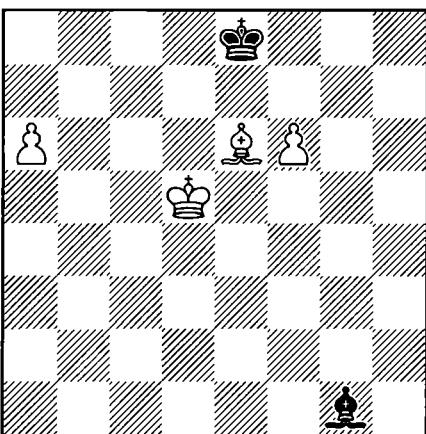
2. $\mathbb{Q}e4 \mathbb{Q}e7$

3. $\mathbb{Q}d5 \mathbb{Q}d7$

Black at least makes White move the f-pawn to make progress.

4. $f6+ \mathbb{Q}e8$

5. $\mathbb{Q}e6!$



To prevent $\mathbb{Q}e8-f7$.

5... $\mathbb{Q}f2$

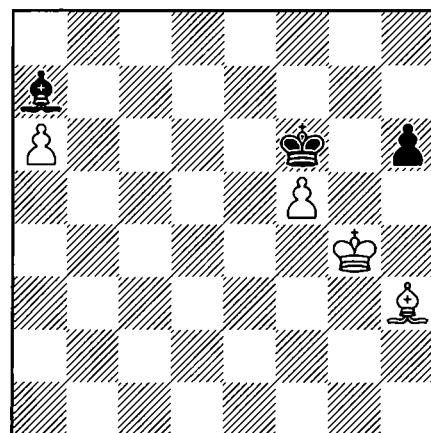
6. $\mathbb{Q}c6 \mathbb{Q}d4$

7. $\mathbb{Q}b7$

And White is winning easily.

This, combined with my belief that the h-pawn wouldn't provide any counterplay (after all it is no great task for the white bishop to control some square in front of the pawn), led me to believe that White must be winning.

However I was wrong, as irrefutable analysis showed. It was a rare case where the defender's passed pawn actually played a key role.



Following an analogous path to our line without the h6-pawn, the game could proceed:

1. $\mathbb{Q}f4 h5$

It is important for later that the pawn is pushed far enough to create some threats.

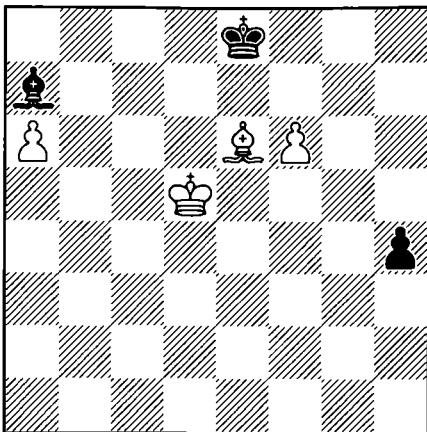
2. $\mathbb{Q}e4 \mathbb{Q}e7$

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3. ♔d5 ♔d7!

4. f6+ ♔e8

5. ♔e6 h4



Stop him!

Perhaps only now does it become clear what the role of the h-pawn actually is: not to provide counterplay as such, but to perform a deflection of the white bishop. Once the white king goes to the queenside, Black will push forward his h-pawn, when it is captured then ♔f7 will win the white f6-pawn.

6. ♔c6 h3

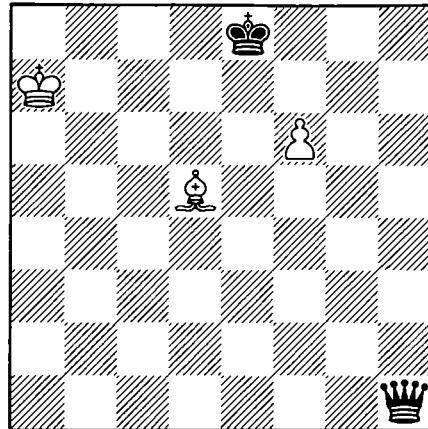
7. ♔b7 h2

White can ignore the h-pawn no longer

8. ♔d5 ♔d4

9. a7 ♔xa7

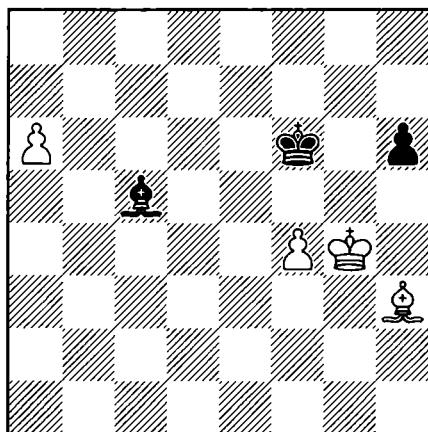
10. ♔xa7 h1=♔



“Queen, please”

The final deflection. White loses his final pawn and the game is drawn.

So was the game a draw all along? Was White winning at any stage? Initially all fingers were squarely pointed at the following position:



J'accuse!

This is where Aronian played 50.f5. Indeed the engines hate this move, which doesn't mean a whole lot (we have already alluded to how hopeless they can be in these endgames). That said, it does look like a pretty odd move since the pawn is perfectly safe from capture on f4 (the black bishop cannot leave the guard of the a7 square).

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If we leave the pawn on f4 and move the white king immediately to the queenside, does that win? Let's play a few moves starting from the above diagram and see...

1.♔f3

The most direct, although I believe the waiting move ♔f1!? (or maybe '!!') is the strongest, and has been very badly analyzed in various sources. Here, for the sake of the story of this game, we will analyze the direct move 1.♔f3. In the notes at the end of this chapter I will discuss my findings after ♔f1.

1...♕e7

Black cannot allow the white king a clear path to the queenside this time, since there is no way to exchange the black h-pawn for the white f-pawn. Therefore after a waiting move such as 1...♔g1 Black is losing immediately to 2.♔e4 ♔f2 3.♔d5 where trying to create counterplay by moving the black king to h4 would fail in typical fashion by allowing White to queen the f-pawn.

2.♔e4 ♔d6

Instead Black tries his only chance, the now familiar barrier. However with White having maintained his pawn on f4 surely he can now switch plans and send his king to f5, then to g6, and support his f-pawn instead (or win the h6-pawn, which we know results in a theoretically winning endgame). Apparently not! An amazing drawing resource was found (I

think originally by GM Sergey Shipov on his website):

3.♔f5

3.f5 planning to push the pawn first to f6, then to follow with ♔f5, is also possible. Black draws using the same idea as given in the main line.

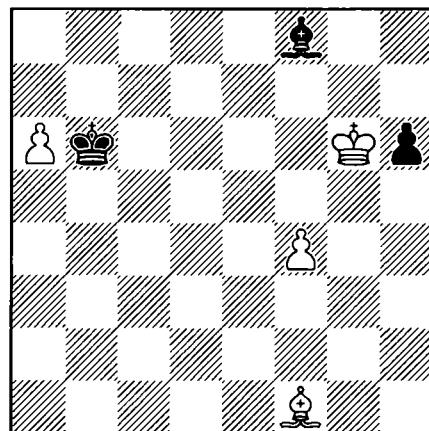
3...♔c7!

4.♔g6 ♔b6!

5.♔f1

White must take time out to protect his a6-pawn.

5...♗f8!



Incredible! Despite its fragile appearance, the bishop on f8 forms a kind of anchor. White's only attempt is to push his f-pawn.

6.f5 ♔a7

Black has an infinite amount of waiting moves with his king.

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7.f6 ♜b6

8.♔f7 ♜b4

9.♕g7 h5!

Again this pawn saves the day! Now that the white king has stepped outside of the square of the h-pawn, the pawn is simply pushed until the white bishop is forced to yield the a6-pawn.

10.f7 h4

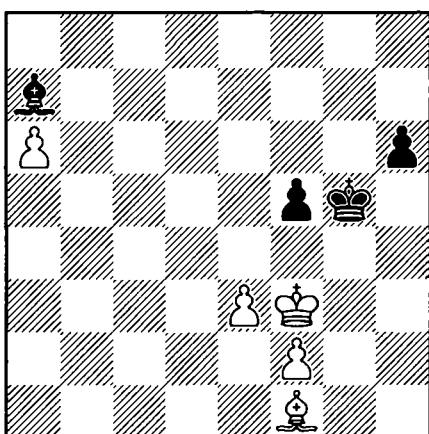
11.f8=♕ ♜xf8

12.♔xf8 h3

And again White must accept the draw.

Act 3 – The win

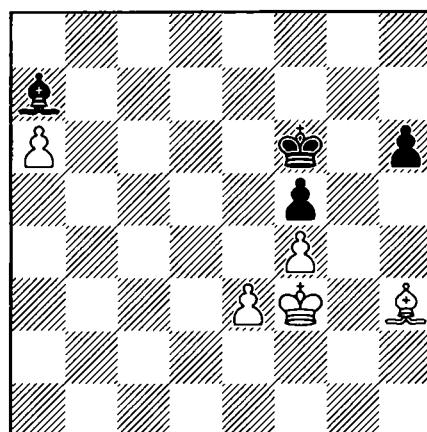
Was the game a draw all along, or was there a win somewhere? As so often in opposite-colored bishop endgames specific moves do not matter so much. More important are ideas and changes in the structure.



Where's the win?

We have to go back quite a long way to find a structure in which White is winning, somewhere around the above diagram. The plan used in the game to play f2-f4 followed by e3-e4 exchanging the white e-pawn for the black f-pawn seems to be insufficient for victory (although I am still not 100% sure). What is certain though is that White has a winning concept here that cannot be refuted.

He should head for a position with a white pawn on f4 and a bishop on h3:



Black has no defense if White gets this type of position. Even if it is Black's move he cannot play ♔f6-e6 due to e3-e4. He must simply sit and allow White to play e3-e4.

1.e4! fxe4

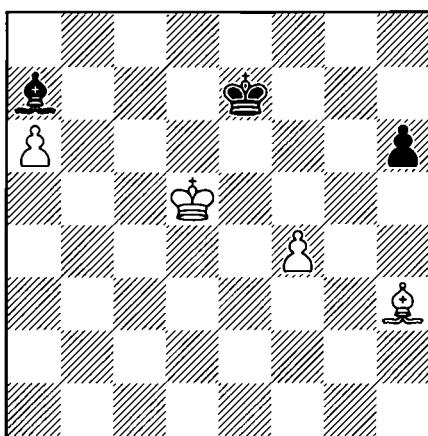
2.♔xe4 ♜e7

3.♔d5

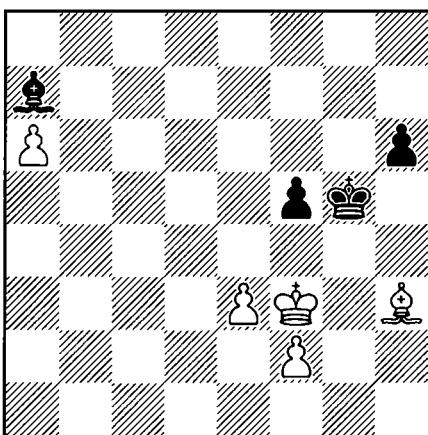
(See Diagram)

And White wins easily by moving his king to b7.

PART 3. Endgame Explorations



The only question is if Black can prevent this setup. The answer is that he can, but he cannot save the game anyway. For instance, starting from the following position:



1...h5

Hoping to eventually create threats with the h-pawn which will be useful in defense.

Black could also think to play 1...f4 2.exf4+ In contrast to the positions we examined earlier White now has an a-pawn and two f-pawns. This makes defense impossible as after the black bishop gives itself for the white a-pawn he will not be able to capture both white f-pawns with his king.

2.♔e2

Threatening f2-f4+ followed by returning the king to f3, reaching the setup mentioned above.

2...f4

The only try to disrupt White's plans.

3.e4 ♔f6

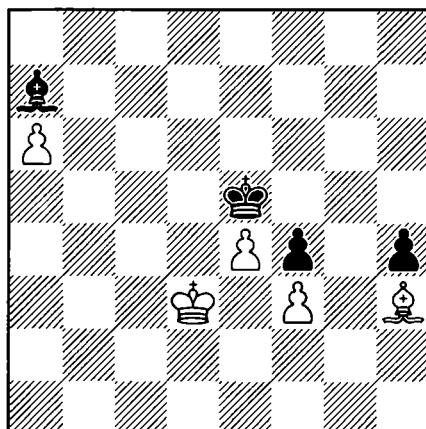
4.f3 ♔e5

5.♔d3 h4

I could not find any analysis of what happens if Black refrains from playing h5-h4. My conclusion is that he will eventually be forced to play this move anyway, and White will win as in the main line.

For instance 5...♗g1 6.♗d7 ♗a7 7.♗e8! h4 8.♗d7, reaching the same structure as in the main line.

After 5...h4 we reach another critical junction:



Which way?

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6. $\mathbb{K}e2!!$

The thematic 6. $\mathbb{K}c4$ only draws, 6... $\mathbb{Q}d6$ 7. $\mathbb{B}b5$ $\mathbb{Q}g1$ 7. e5+ (there is no other way to make progress) 7... $\mathbb{Q}xe5$ 8. $\mathbb{Q}c6$ $\mathbb{Q}a7$ 9. $\mathbb{B}b7$ $\mathbb{Q}c5$ 10. a7 $\mathbb{Q}xa7$ 11. $\mathbb{Q}xa7$ $\mathbb{Q}d4$ and the position is a draw as there is no way to both halt the h4-pawn and protect the f3-pawn.

With $\mathbb{K}e2$ White's plan is clear:

- Bring the king to the g4 square where it not only attacks both of the black pawns but also restricts the black pieces to specific squares (black bishop must stay on f2, black king must stay on e5).
- Create a *Zugzwang*.

6... $\mathbb{Q}b6$

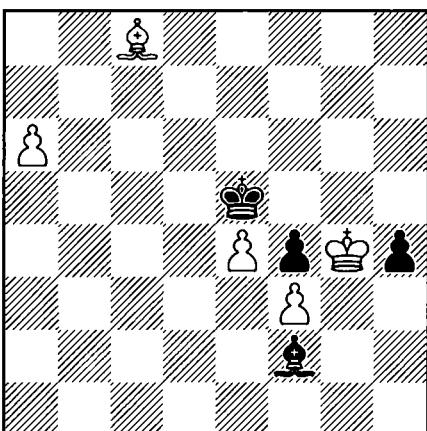
7. $\mathbb{K}f1$ $\mathbb{Q}c5$

8. $\mathbb{K}g2$ $\mathbb{Q}b6$

9. $\mathbb{Q}c8$ $\mathbb{Q}c5$

10. $\mathbb{K}h3$ $\mathbb{Q}f2$

11. $\mathbb{K}g4!$



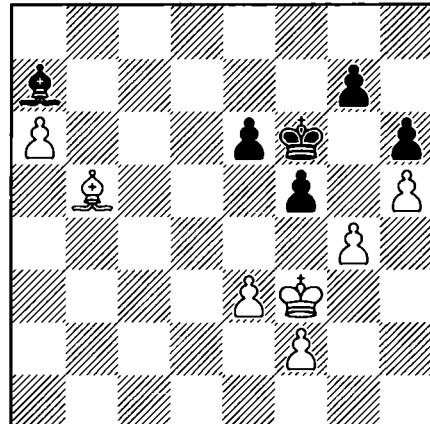
The predicted *Zugzwang* has occurred. Hardly surprising since the black king and bishop must remain specifically on e5 and f2 respectively to maintain this defense.

Now either bishop or king (or pawn) must move, in all cases Black will lose a pawn — and with it, the game.

Act 4 – Where was the draw?

In view of the convincing winning setup in Act 3, how far back do we have to go to find a position where Black can hold a draw?

It turns out we have to go back a very long way...right to the very beginning!



Beginning of the endgame

All the analysis seems to indicate that the reasoned move 35...g5 was in fact a losing move!

In the above position Black has a convincing drawing idea. There are various ways to implement this same idea but we will just examine the most direct and forcing one:

PART 3. Endgame Explorations

35... \hat{e} e5!

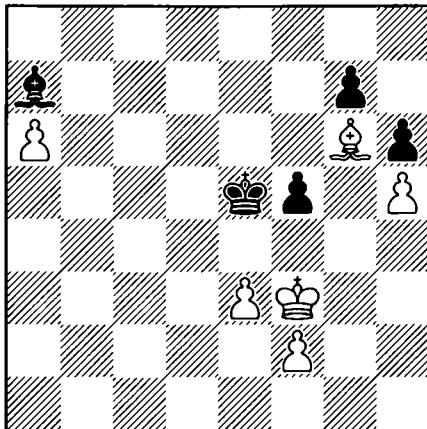
36. \hat{e} e8

Following the plan we discussed earlier of bring the bishop to the g6 square.

36... \hat{b} b6

37. \hat{b} g6 \hat{b} a7

38.gxf5 gxf5



Black's idea is to play the move f5-f4. In fact if it was Black's move here he could play f5-f4 as a pawn sacrifice, since after exf4+ White will never be able to create a second passed pawn and the game will be drawn.

39. \hat{e} e2 f4!

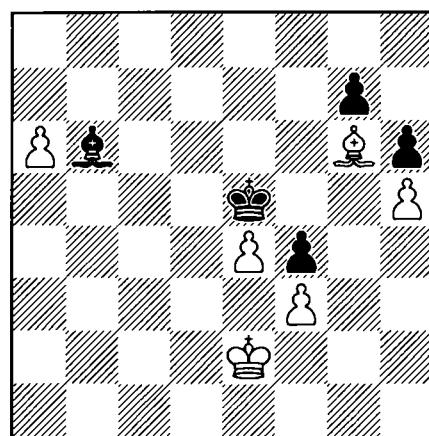
40.e4

If 40. \hat{d} d3 then 40... \hat{b} b6 – this is the point, Black is going to keep the f-pawns on the board! 40. \hat{f} f3 would also be met by 40... \hat{b} b6! Not fearing a capture on f4 for the same reasons as given in the previous note.

40... \hat{b} b6

41.f3

White is now ready to advance his king to the queenside, followed by the blockade-breaking e4-e5 push.



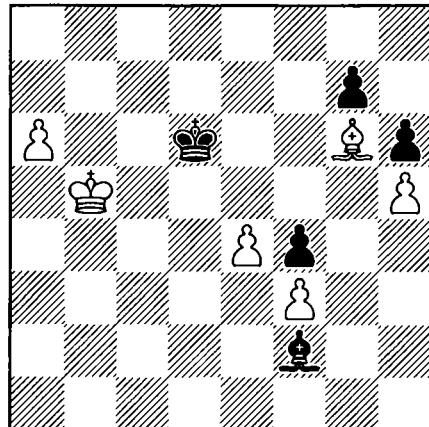
We had a similar position to this earlier only without the inclusion of the f-pawns. It is still amazing to me that this makes such a difference, but it does!

41... \hat{b} a7

42. \hat{d} d3 \hat{b} g1

43. \hat{c} c4 \hat{b} f2

44. \hat{b} b5 \hat{d} d6



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Play has proceeded logically and we are nearing the point at which White must play his e4-e5 trump if he wishes to make further progress.

45.♗f5!?

The best try. The straightforward 45.e5+ is also not enough to win the game, play would proceed:

45...♔xe5 46.♔c6 ♔f6! 47.♔b7
♔g5 48.a7 ♗xa7 49.♔xa7 ♔h4! 50.♔b6
♔g3 and White must accept a perpetual attack against his pawns on f3 and h5. A rare case where counterplay pays off!

With 45.♗f5!? White hopes by placing the bishop on g4 he can simultaneously protect the pawns on f3 and h5 and halt Black's counterplay.

45...♗g1

46.♗g4 ♗f2

Black can only wait and maintain the blockade until White sacrifices his e-pawn.

47.e5+ ♔xe5

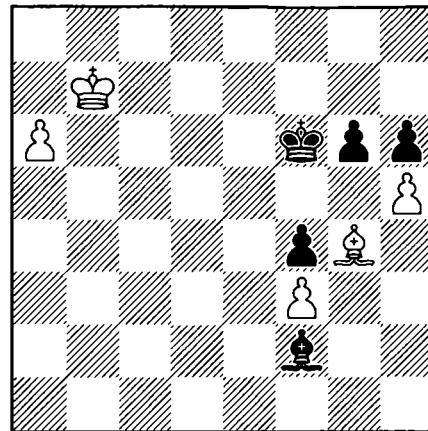
48.♔c6 ♔f6

49.♔b7 g6!

(See Diagram)

The kingside structure must be disrupted while the white king is still on the queenside.

50.a7



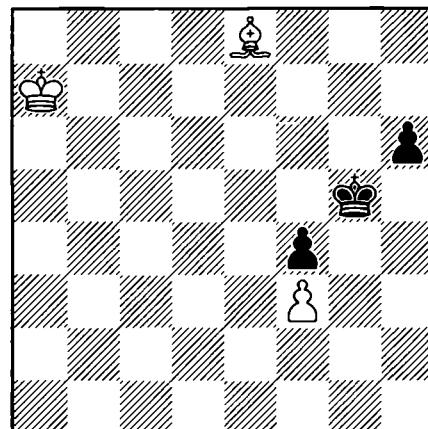
50.hxg6 ♔xg6 comes to the same thing

50...♗xa7

51.♔xa7 gxh5

52.♔xh5 ♔g5

53.♔e8



Be careful!

One more accurate move is required, or all of Black's hard work will be undone.

53...♔h4!

PART 3. Endgame Explorations

Correct! The natural-looking 53...
h5? loses to a nice pattern – 54. $\mathbb{B}b6$ h4
(or 54... $\mathbb{Q}h4$ 55. $\mathbb{Q}c5$ $\mathbb{Q}g3$ 56. $\mathbb{Q}xh5$)
55. $\mathbb{Q}d7!$ and suddenly Black is completely lost.

54. $\mathbb{Q}b6$ $\mathbb{Q}g3$

Still 54...h5 would throw away the game

55. $\mathbb{Q}h5$ $\mathbb{Q}h4$

56. $\mathbb{Q}g4$ h5

Now White should probably just force a draw immediately with 57. $\mathbb{Q}xh5$ as he could even lose after a continuation such as 57. $\mathbb{Q}f5$ $\mathbb{Q}g3$ 58. $\mathbb{Q}e4??$ (58. $\mathbb{Q}c5$ and 58. $\mathbb{Q}c6$ still draw) 58...h4.

SUMMARY OF IDEAS

- Opposite-colored bishop endgames are usually composed of strings of low value moves dotted with critical moments (usually here we are talking either about a (potential) change in the structure, or in deciding the best method for arranging a blockade).
- When an anchor defense is not possible the defender can only hope to draw by creating a blockade.
- The number of passed pawns is much more important than the absolute number of pawns. Two separated passed pawns are usually enough to win because of the difficulty in maintaining a blockade against them.
- The king is a strong piece in these endgames, probably almost as valuable as a bishop. The king functions best when interacting with pawns (this is true in general as well in this class of endgame). The king provides excellent support for its own pawns and can be very destructive when it attacks enemy pawns. Often the penetration of the king is the result of an unsuccessful blockade being overcome.
- Counterplay is rare, but can sometimes be a factor, usually as a last resort when a blockade is impossible or has been overcome. More common though, is that a passed pawn can be used as a distraction giving the defender time to achieve a better defensive setup.
- Because of the relatively weak material which remains on the board, the sacrifice of a bishop to create threats with passed pawns, potentially overloading remaining defending bishop is always a possibility.

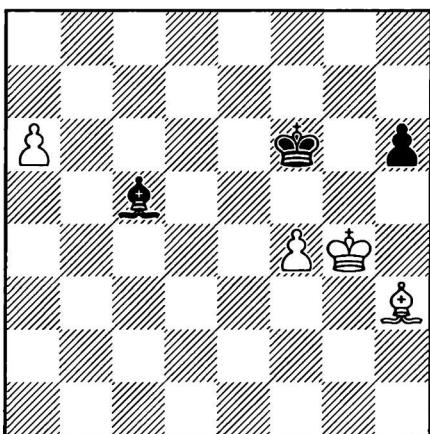
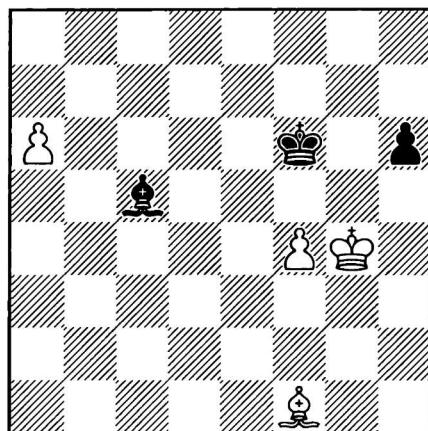
Endgame Exploration 2: A Long Discussion of a Short Endgame

- Absolute pawn count is primarily only relevant when investigating the idea of preventing victory by eliminating all of the strong side's pawns.
- Pay attention to the color of the queening square of a rook's pawn as this is likely to make a big difference to the evaluation, especially when the number of pawns becomes reduced.
- It is often best to calculate in an abstract way, 'dropping' the pieces on squares in our minds instead of move by move calculation (although at key moments this is also required). This is the primary reason why computers are so weak in this type of endgame.

THEORETICAL NOTES

I made some important discoveries in this endgame which I would like to share.

In the following position after Black's 49th move we examined the continuations 50.♔f3 and the move played in the game 50.f5. I promised to examine the possibility 50.♗f1!?, which has been badly analyzed by various sources.



50.♗f1!?

The idea is a regrouping of the bishop to c4 (or sometimes to d3) to restrict the black king, while keeping the white king on g4 for now (which prevents the black king making its journey to the queenside).

In the notes given by GM Shipov on the website chesspro.ru and also by GM Ftacnik who annotated the game for ChessBase (I suspect Shipov was first to analyze this game but I am not certain) the move given for Black is:

PART 3. Endgame Explorations

50...h5+??

51.♔g3!

“The h5-pawn is weak but Black is holding it in all lines” – Shipov

If Black could advance the pawn on h4 where it could be supported by ♔f2 he would be able to hold a draw, but the pawn will not be allowed to favorably advance. On h5 it becomes a liability, since all endgames where Black loses this pawn are lost. Note now that neither plan, supporting the pawn on h6 with ♔f8 or supporting the pawn on h4 with ♔f2, are possible.

51...♔a7

The move quoted by both analysts as leading to a draw.

52.♔e2

This is the move given in both sources, although 52.♔d3 leads to quicker win: 52...♔g7 is forced and then both 53.f5! and 53.♔h4 ♔h6 54.♔f5! transpose to variations after 52.♔e2; both lead to wins for White.

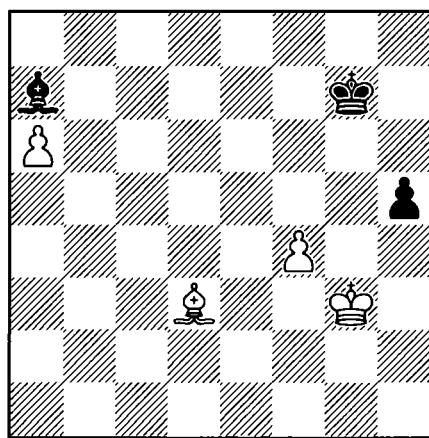
52...♔g6

Forced to hold the h5-pawn.

53.♔d3+ ♔g7

Given ‘?’ by both Shipov and Ftacnik (although it in fact loses in two different ways). Alternatives are 53...♔f6 54.♔h4 winning easily for White, and 53...♔h6

54.♔f5! which also wins quickly e.g. 54...♔g7 55.♔f3 ♔f6 56.♔e4 and Black can do nothing to stop ♔f5-h3 followed by the white king’s march to the queenside.



There are now two distinct winning methods and both rely to some degree on imprisoning the black king.

First method

54.♔h4! ♔h6

Or else the pawn falls.

55.♔f5!

The black king is temporarily paralyzed by the move, and as a result loses the race with the white king to the queenside.

55...♔f2+

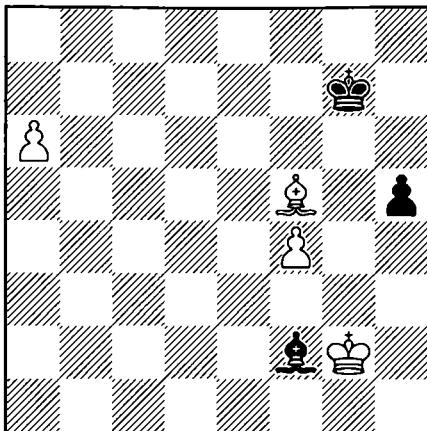
There is little else, any other bishop move will be met with ♔g3 and the white king has an even shorter path to the queenside 55...♔c5 56.♔g3 ♔g7

Endgame Exploration 2: A Long Discussion of a Short Endgame

57.♔f3 ♔f6 58.♔e4 and Black can resign.

56.♔h3 ♔g7

57.♔g2



A nice wrinkle. By forcing White to take a longer route with his king Black misplaces his bishop and White regains the tempo by attacking it.

57...♝a7

58.♔f3 ♔f6

59.♔e4 ♔e7

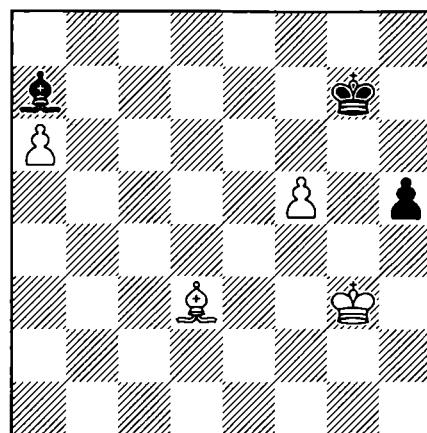
60.♔d5 ♘d8

61.♔c6

And the white king reaches b7, winning the game.

Second method

54.f5!



Again exploiting the fact the black king is the only piece which can defend the h5-pawn, so must remain on the kingside for now. Also if (when) the black king steps to the h6 square, White will play f5-f6 forming a prison for it.

54...♝d4!?

If Black makes a different bishop move he loses in the same way as the game but White does not need to make the *Zugzwang* move first (54...♝e3 55.♔h4 ♔h6 56.f6! and the f6-pawn cannot be captured with check as it could with the bishop on d4).

55.♔c2!

Using *Zugzwang* to remove the bishop from its optimal post on d4. 55.♔b1 and 55.♔e4 of course do the same job, the exclamation mark is for the concept!

55...♝e3

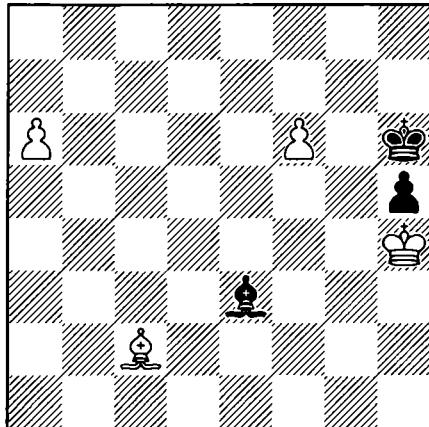
If 55...♔h6 56.f6! (56.♔f4! is also winning) and with the black king a mere spectator the black bishop is quickly overloaded.

PART 3. Endgame Explorations

56.♔h4 ♔h6

The black king is forced onto the h6 square.

57.f6!



This is White's main idea, effectively removing one of Black's defensive pieces (the king) from the board. Now we see why it was so important that the black bishop was not on d4! So long as f6 cannot be captured with check there is no danger of this pawn being lost due to the threat of a6-a7.

57...♗f2+

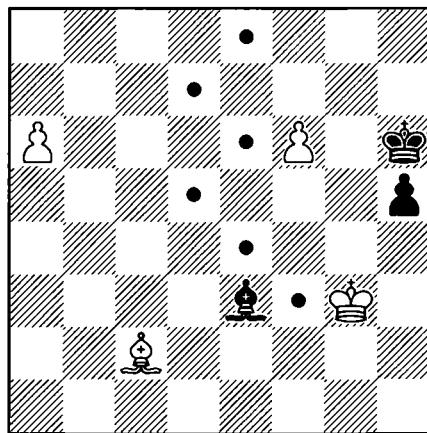
58.♔h3 ♔e3

Black could try 58...h4 59.♔g4 but the h-pawn is really no obstacle to White. ♔e4 easily halts the pawn (while still keeping the black king entombed) and the white king will move to support the f6-pawn in queening.

59.♔g3

Black is completely helpless and White can bring his king forward (say

to e8) with a simple win. As mentioned in the previous note the black h-pawn causes no problems.



Conclusion so far...

Even so, I am not convinced White is winning the endgame after 50.♔f1, although I think it is clearly the best winning try. All sources cite 50...h5+ as the only move, but I cannot find a way to win by force if Black keeps the pawn on h6. I will not give all my analysis, since it is lengthy and inconclusive but one illustrative line runs:

50.♔f1 ♔a7

51.♔c4!?

A tricky attempt which wins in almost all lines.

51...♔c5!

I think this is the only move to draw.

52.♔f3 ♔e7!

Endgame Exploration 2: A Long Discussion of a Short Endgame

The clearest route to a draw, although 52... $\mathbb{B}f5$ may also be sufficient.

53. $\mathbb{K}e2 \mathbb{Q}d6$

54. $\mathbb{K}e4 \mathbb{Q}c7$

Shipov's crossover defense saves the game again, sending the black king to the queenside and the black bishop to f8. I was amazed when analyzing this endgame at the power of this idea, which

refuted a huge number of my winning attempts.

One final word – next time you feel like complaining that nothing interesting ever happens in your games, remember this example. Even in a simplified endgame, one in which two world class GMs thought the position barely worth playing, the possibilities were vast. Even now, all these years later, I do not know the full truth of this game.

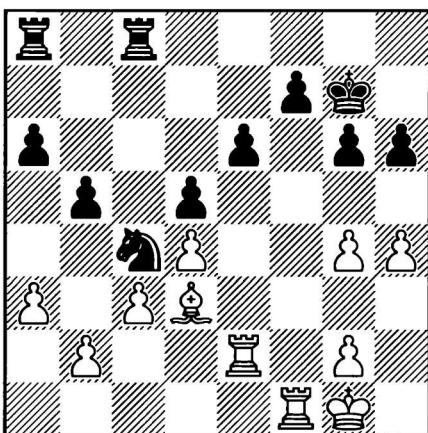
Endgame Exploration 3: **Skeleton of the Minority Attack** – Endgames in the Karlsbad Structure

This is essentially just an extension of our discussion of creating and attacking weaknesses in the endgame. Two of the endgames I wanted to show resulted from the same opening structure (the Karlsbad structure), and featured the same plan to create weaknesses, namely a minority attack.

It seemed logical to me to tie these games together and also to talk about this structure in general, to get a better understanding of how the positions arose, and how the minority attack transforms the pawn structure.

Let us begin with our first position.

Kodinets – Rustemov,
Russia Cup Qualifier (Blitz), 2004



Black to play

How should we assess this position?

➤ There is a slight weakness on f7 for Black but it is no problem at the moment since he can easily defend it. Being tied to f7 may prove a problem later if Black is trying to undertake something active.

➤ The white structure appears solid and without weakness, but he must reckon with the advance of the black pawns a6-a5 followed by b5-b4, the so called ‘minority attack’ whereupon an advancing minority can create a weakness in a stable majority.

➤ The knight on c4 also cannot be ignored. It is exerting some pressure

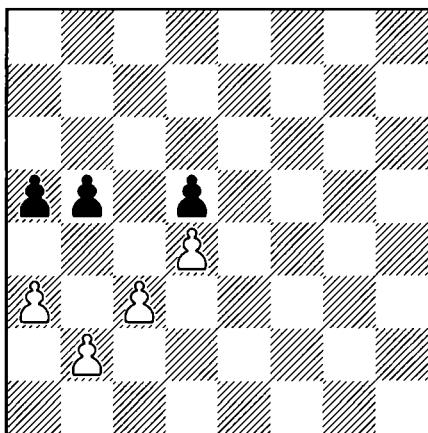
Endgame Exploration 3: Skeleton of the Minority Attack

on the white queenside and controlling some central squares. It could also consider retreating to d6 where it protects the f7 weakness. Moving the knight with b2-b3 is out of the question for White as his queenside structure would fall apart. Finally there is always the option to capture the knight and White will have to decide whether or not this would be in his favor.

It is clear that the white structure must be compromised and then attacked for Black to make progress. This can only happen on the queenside where Black is strongest and White is weakest.

Before we proceed with the game let us examine some of the points above in more detail.

If Black pushes a6-a5 intending b5-b4 we have the following queenside structure:



The option for White to prevent b5-b4 by playing b2-b4 himself exists, although as I will explain it makes little sense in the current game situation.

The minority attack itself is most associated with the Karlsbad structure, which arises directly from variations several openings, the Caro-Kann, the Grünfeld and most famously from the Exchange Variation of the Queen's Gambit.

To explain a little about the structure and their transformations I will refer to some opening and middlegame positions in this chapter. Even though this is an endgame book I don't see any sense in hiding this standard knowledge. The players in our games clearly will have used their general knowledge of this structure to some degree when making their decisions.

We will use the medium of the Queen's Gambit Declined Exchange Variation to explain these ideas, so a short word on how this opening arises is in order.

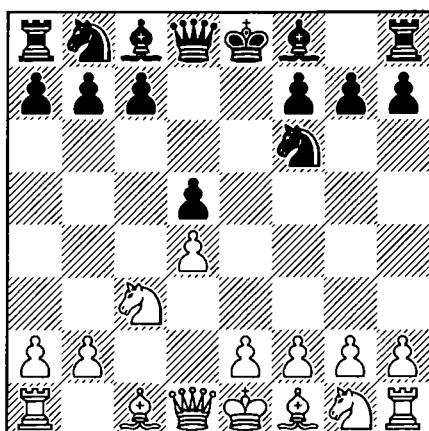
There are many sub-variations and move orders but we will limit ourselves to the most straightforward, which is:

- 1.d4 d5**
- 2.c4 e6**
- 3.♘c3 ♘f6**
- 4.cxd5 exd5**

(See Diagram)

Why did white make this exchange on d5? Black's problem piece traditionally in this opening is the ♜c8, which would have problems finding an active role after natural development.

PART 3. Endgame Explorations



To see the reasoning, we should look at the concrete changes to the position as a result of the exchange on d5:

- The diagonal for the black \hat{B} c8 is opened. However it may not be so simple to find a great post of the bishop. The ideal square *would* be f5, but White will take control of this square by means of \hat{R} d1-c2 and \hat{B} f1-d3.

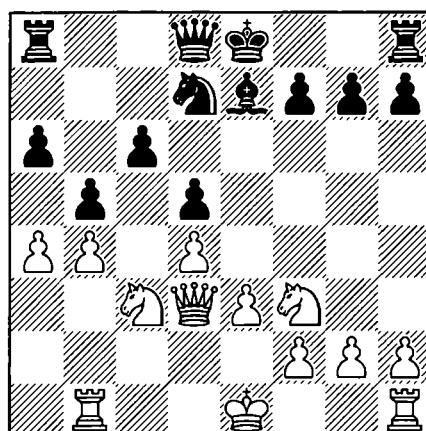
- The e-file becomes a semi-open file for Black and the c-file becomes a semi-open file for White. White hopes his file will be more useful as he can put pressure on c6 by \hat{R} d1-c2 and putting a rook on c1. If the black pawn moves from c7-c6 then a ‘minority attack’ plan of pushing the b2-pawn to b5 will retain pressure.

By fixing the black pawn on d5 and removing the black e-pawn, it is now much more double-edged plan for Black to ever play the breakout c7 (or c6) to c5 because he will create an isolated pawn on d5.

- We can also say that generally the position is simplified in the sense

that the tension is removed and subsequent play becomes more concrete.

Now let us return to the lesson and examine some more positions which can occur in this structure, when White launches his minority attack.



In this early middlegame position from the game Arkell – Croad (Four Nations Chess League, 2010), Black has just played the move 13...b7-b5. Here it is a valid idea: it doesn’t win or lose the game, it simply has some plus and minus points and defines the struggle ahead. The main points to consider in this example are:

- Obviously the move is to some degree ugly, as Black is creating a backward pawn which is unlikely to ever move again, and on an open file to boot. The pawn could be attacked by heavy pieces on the c-file or by a knight from e5.
- There is a potential outpost for White on c5.
- There is an element in Black’s play of accepting he is worse on the

Endgame Exploration 3: Skeleton of the Minority Attack

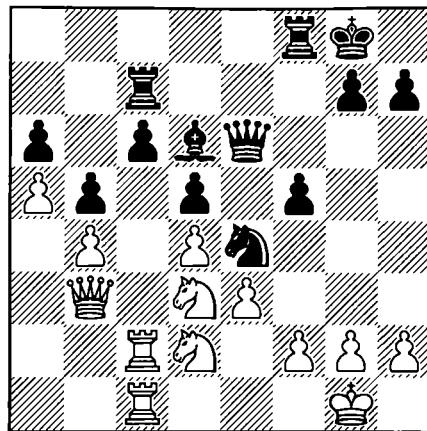
queenside and just trying to stall White's play on that side of the board. Note though, that Black still has a considerable amount of material: queen, two rooks, bishop and knight – more than enough to potentially mount a kingside attack to compensate for his queenside troubles.

➤ Another key point which makes the move playable in this situation is that Black has a knight. With a knight the outpost created on the c4 square has some chance of being occupied. If a black knight reaches this square then the c-file is blocked forever, and capturing the knight creates a protected passed pawn. Black's position would start to look less silly.

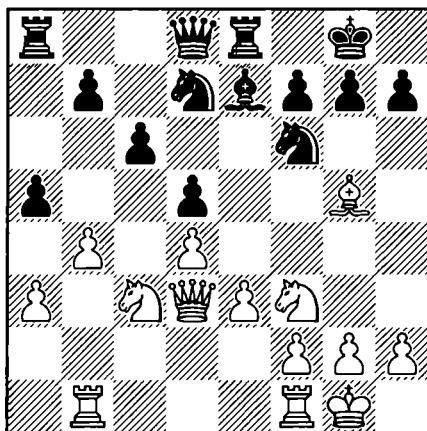
Considering the last point above, we can see why White played 14.a5 here. Blocking the black knight's most direct route to the c4 square is clearly a good idea. The only route now is from d6, which is considerably more difficult to achieve.

In the later play White will look to assault the black structure by attacking the c6-pawn and he can also sometimes create additional possibilities later by f2-f3 and e3-e4. Black will also have his share of the play on the kingside with such ideas as ... \mathbb{N} f6-e4, ...f7-f5, ... \mathbb{Q} e7-d6, ... \mathbb{B} f6-h6 etc.

Indeed if we fast forward to the position after Black's 23rd move we see this is basically what happened:



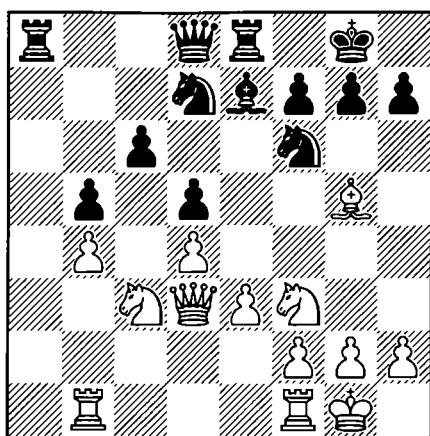
Incidentally while I am on the subject of the ugly pawn move b7-b5 by Black (or b2-b4 by White) as a means of combating the minority attack I should mention that it is perhaps a more logical weapon in the structure with the a-pawns removed.



This is the classic game Larsen – Geller (Linares, 1983) after White's 13th move (b2-b4). You can see that it is similar to the last example. The material is very slightly different, but this time Black has his pawn on a5 and White his pawn on a3 (instead of a4 and a6). Because of the \mathbb{Q} e7 and pawn on a5 White has needed the move a2-a3 and \mathbb{B} a1-b1 to force through b2-b4.

PART 3. Endgame Explorations

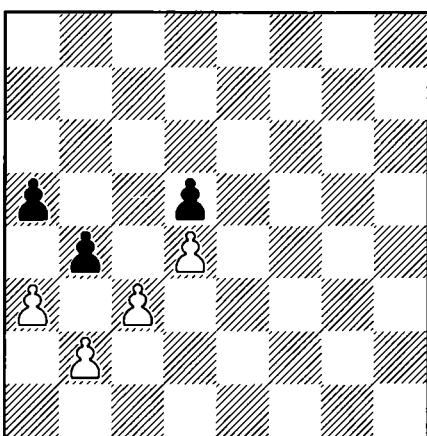
Black now opened the a-file with 13...axb4 14.axb4 and played 14...b5 (which again, is by no means forced).



This time the ♟d7 has a clear route b6-c4, and White does not have the option of putting a pawn on a5 to hinder it. Black has also used the fact that White needed to play ♛a1-b1 to seize the a-file. We can also understand White's next move 15.♕e5 from the point of view of preventing the transfer of a black knight to c4.

Returning to our structure diagram we discussed the ideas behind White playing b2-b4. What else could happen?

White could certainly just await events, allow Black to play b5-b4 then make a decision:



Capturing twice on b4 will create a weakness on b2 and on d4 and that doesn't seem very attractive. The options are:

- Exchange once with axb4 axb4 then allow Black to capture on c3
- Leave the structure alone completely and allow Black to capture on c3
- Advance a3-a4 and allow Black to capture on c3
- Somehow arrange to play c3-c4 (with or without exchanging the a-pawns).

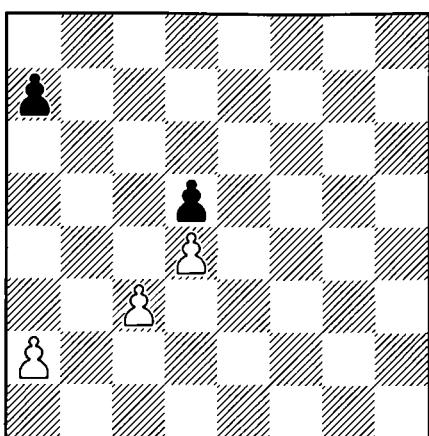
Let's look at each one.

If White captures axb4 and Black replies with axb4 then two things happen:

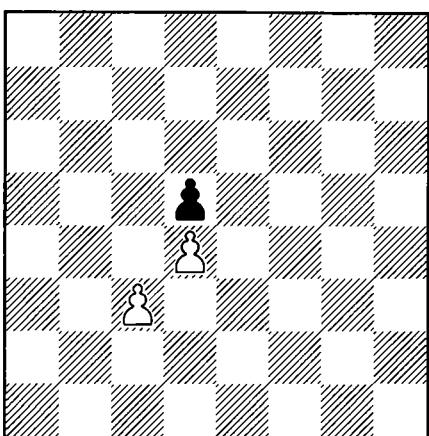
- The a-file becomes open
- White will never be left with a weak a-pawn

So as long as the (queenside) defender can contest the a-file, it seems like a good deal. Usually this course of action is what he has in mind when he moves his a-pawn. However there is one thing to consider. What is another difference between these two structures?

Endgame Exploration 3: Skeleton of the Minority Attack



Structure A



Structure B

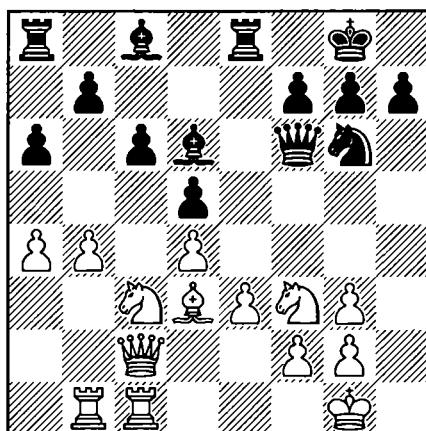
In structure A White did not move his a-pawn at all, and allowed b5-b4 and b4xc3, then recaptured b2xc3. The a-pawns remained on the board while the weakness on c3 was created, and White has an additional potential weakness in the isolated a2-pawn.

In structure B White exchanged the a-pawns by playing a2-a3 and obliging Black to play b7-b5 and a7-a5 and only then b5-b4 a3xb4 a5xb4 and later Black played b4xc3 (or White could have played a2-a4 forcing Black to play

a7-a6 and b7-b5, then exchanging on b5 reaching the same structure).

On the surface it appears White got a much better deal in structure B simply because he rid himself of a lousy weak a-pawn. He did however pay a certain price when he moved his pawn from a2 – he weakened his control of the queen-side light squares. In particular the c3-pawn is now attackable by a black rook from the b3 square, which would be impossible if White had a pawn on a2.

Perhaps it is difficult to put this in words, but an example will make the point clear.



This is the position before White's 17th move in the game Geller – Novotelnov (Moscow, 1951). White has amassed an impressive force on the queenside and is ready to attack Black's queenside structure with b4-b5. For his part Black clearly has some kingside ambitions.

Crucially we see Black has played this move a7-a6.

17.b5 axb5

PART 3. Endgame Explorations

Black rids himself of the potentially weak a-pawn, and why not? After all Black is happy to open the a-file here for his rook.

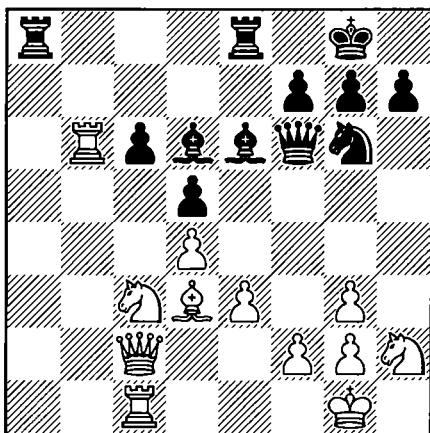
18.axb5 ♜g4

19.bxc6 bxc6

20.♘h2 ♜e6

After 20...♜d7 White could use the b6 square even for his knight with 21.♘a4!

21.♘b6

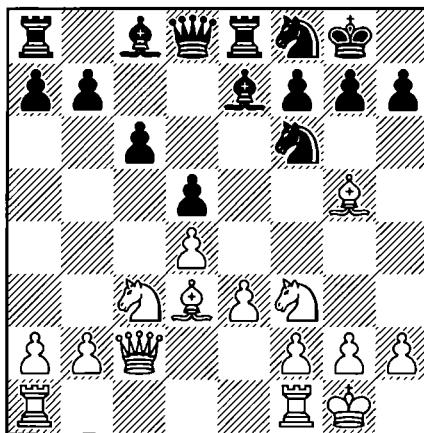


Using the b6 square to attack the c6-pawn, a possibility which would not be available if the black pawn was on a7.

Note I am not trying to convince the reader one idea is better than another. If Black did have an a7-pawn that has its downsides too as we have already discussed. It is, however, good to be aware of the differences and how the ideas change even with subtle changes in the structure.

Playing a2-a3 in our structure and then *not* capturing on b4 seems quite illogical. The squares on the queenside are weakened and we are not even getting rid of the loose a-pawn! The idea of playing a3-a4 (a6-a5 for Black), an idea introduced by Boris Spassky, is sometimes used though. We should examine the situations where it may be a good idea in order to understand its logic.

We should of course leave this to its originator:



The game is Timman – Spassky, Tilburg, 1979. We are in a very standard opening position, where White has tried many moves:

➤ 11.♖ab1 intending to play with a minority attack.

➤ 11.h3 which may or may not be associated with a later minority attack.

➤ Moves such as 11.♗ae1 and 11.♘e5 which are associated with a different plan.

I felt it was important to go right back to the opening in order to explain

Endgame Exploration 3: Skeleton of the Minority Attack

a7-a6-a5 plan because it is at precisely this moment in the game that two important things happen:

11.♗xf6

Perhaps strange at first sight to make this exchange without even being prompted by h7-h6, but it is also a very well-known idea in this and other Karlsbad positions.

11...♝xf6

Black now has an unopposed dark-squared bishop. This is the first important development.

12.b4

By capturing on f6 voluntarily the black bishop was removed, temporarily at least, from the diagonal a3-f8. This is useful to White in itself, as the bishop would much rather be on, say, d6 where it looks at both sides of the board. White has also managed to play b4 without the need for ♜ab1 or a3. We could also argue that there is no longer any problem of what to do after ♘f8-e6 attacking the ♗g5. Of course we also should not take the decision to exchange the bishop too lightly; we could pay later on the dark squares.

12...a6

Making the first part of his decision of how to deal with the minority attack. The second important development is that by this move a7-a6 Black is forcing White to put a pawn on a4.

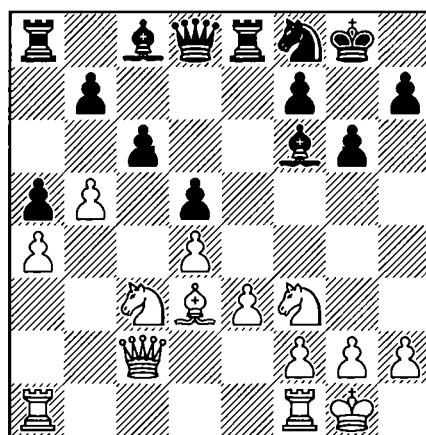
13.a4 g6

A generic useful move, perhaps with the idea of ♘e6-g7 followed by ♜c8-f5.

14.b5

Not forced but thematic.

14...a5!?



Strange to go a6 and then to go a5. What is the idea? First we should insert the moves...

15.bxc6 bxc6

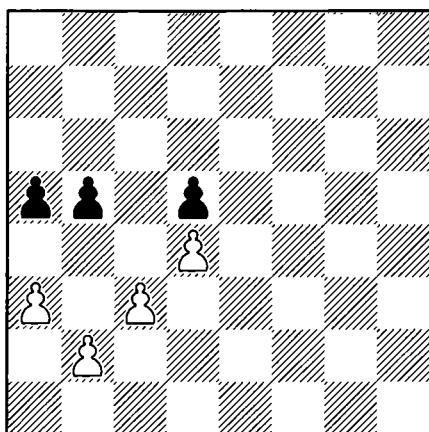
...and then examine the new situation:

➤ The a4-pawn hampers White. He must move the c3 knight in order to exert any pressure on the weak c6-pawn, but its most natural square on a4 is denied to it. This also means the knight's route to c5 is blocked.

➤ In some positions the bishop of f6 can be used on its current square. For instance in this game Spassky played ♘f8-e6, ♛d8-d6 followed by c6-c5.

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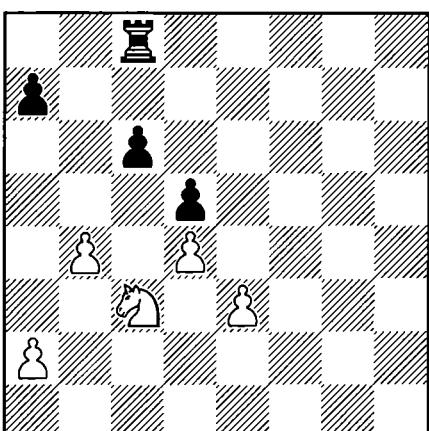
Because Black's bishop is unopposed on the dark squares it may be possible to use the b4 outpost with to clog up the queenside.



Black is preparing for ...b4

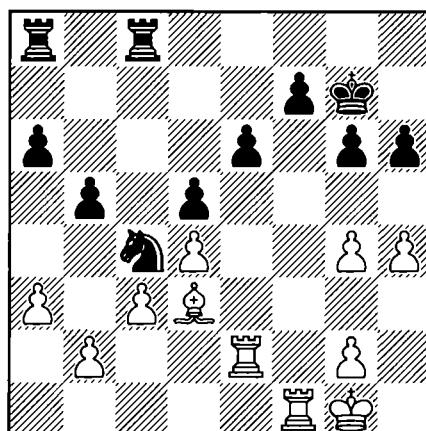
Talking about positions where White here meets b5-b4 with c3-c4 is really a middlegame topic. Clearly in an end-game created the isolani on d4 is unlikely to benefit White. Suffice to say that if this dynamic idea can be carried out in a middlegame, it is usually quite strong and leads to a superior form of a standard isolated d-pawn position.

This is because:



When White plays b4-b5, if Black can respond c6-c5 (without some tactical disaster happening) then following dxc5 $\blacksquare x c 5$ we reach an isolated d-pawn position. However it is one where the white pawn is rather mysteriously placed on b5, and this causes some problems for White on the c-file. Immediately you can see that a knight on c3 would be unstable.

If we glance back at the position from Kodinets – Rustemov I should also say a few words about the dynamic of having the knight on c4.



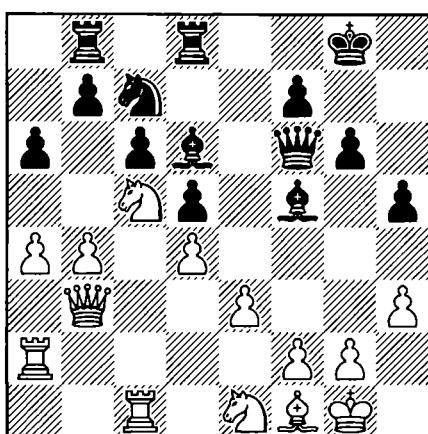
➤ The knight on c4 is a powerful asset for Black, we discussed its influence earlier. Notice how hard it is to dislodge this knight (partially because of the move a2-a3).

➤ In addition, when Black advances a6-a5 b5-b4, White's options in dealing with the queenside tension are more limited. a3-a4 doesn't make sense now, for instance, as the black knight has already arrived on c4, also any idea of c3-c4 is stopped completely.

Endgame Exploration 3: Skeleton of the Minority Attack

➤ In practice this marauding knight in Karlsbad structures often becomes intolerable and the defending side (on the queenside at least) exchanges it.

A short segment from the classic game Karpov – Beliavsky, World Cup, Belfort, 1988, vividly shows the problems the defender can face when he cannot exchange this knight favorably.



Following considerable preparation White now played his trump:

27.b5 b6

Sacrificing a pawn in order to repair the structure. On the exchange 27... $\mathbb{Q}xc5$ White could reply with 28. $\mathbb{B}xc5$ keeping up the pressure.

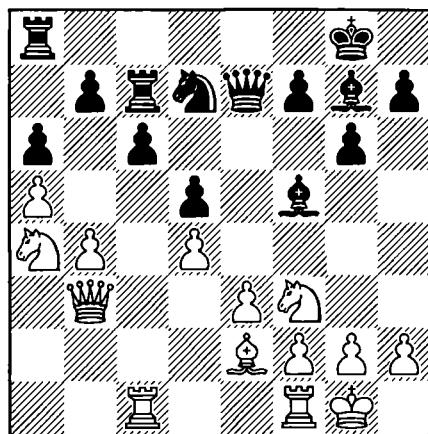
28. $\mathbb{Q}xa6 \mathbb{Q}xa6$

29.bxa6 c5

White won a pawn and eventually the game, although at this point the position is perhaps not so bad for Black. He has some compensation in the form of his two strong bishops and the fact he

can make a very solid structure with c5-c4. The white pieces are somewhat restrained in that case, a passed pawn on a6 should count for something though.

Next, consider this position:



From the game Dobrev – Sasikiran, French League, 2009.

Notice White has advanced his pawn to a5, making the minority attack proper impossible. He has committed himself fully to the idea $\mathbb{Q}a4-c5$.

19. $\mathbb{Q}c5 \mathbb{Q}xc5$

How should White recapture on c5?

20.bxc5

Clearly the most natural. 20. $\mathbb{B}xc5$ would make sense if a pawn was still on a4, with the pawn on a5 White is going nowhere on the queenside so the move is illogical.

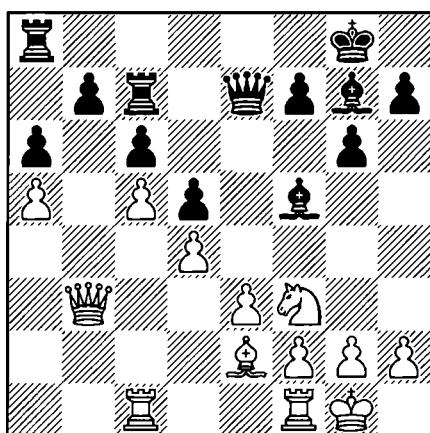
20. $dxc5$ is an idea which is sometimes used to secure the d4 square for the knight. Again White would rather have a

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pawn on a4 in that case to be able to support b4-b5. Even so the idea would not be entirely convincing, the black bishop would be afforded the e5 square, and by moving the knight to d4 White would have one less kingside defender.

After 20.bxc5 quite a deceptive structure results:

20... $\mathbb{B}e7$



At first it appears that Black has lost the queenside battle completely. White will probably play $\mathbb{Q}e2-d3$ (in order to use the b1 square for his rooks) and could then triple on the b-file. The pawn on b7 makes a sorry sight, backward and completely fixed on the only open file.

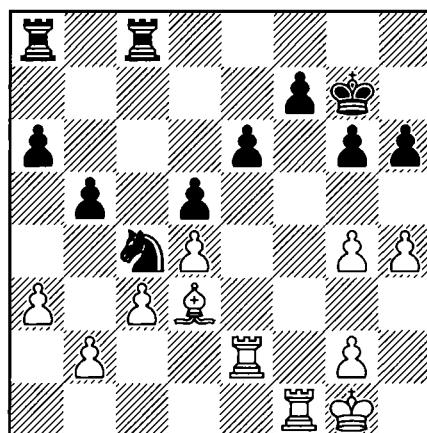
The story does not end there though, as Black did have some good things happen on the queenside. Specifically he kept the queenside closed, and he limited himself to only one weakness. Even in an endgame it is not clear whether White would be able to win just by pressuring b7.

In fact this type of situation is not particularly favorable for White at all.

Black can defend b7 easily, and his pieces do not lose much functionality by doing so. Imagine in an extreme case Black could put his rooks on e7 and f7, bishop on c8, and still he could mount a kingside attack.

You may have noticed that the white pawn on a5 isn't really helping White that much here. Perhaps if the pawn was further back a knight could be maneuvered to a5. This is true, but once the $\mathbb{N}a8$ leaves the corner Black is not inconvenienced too much by playing $\mathbb{N}c8$. Also a knight on a5 does not make a good impression as a kingside defender.

We should now return once more to Kodinets – Rustemov and this time we will make some moves:



The first thing we notice in light of the middlegame and opening examples we looked at, is that the material is greatly reduced. This can only favor Black whose specific queenside ambitions are still just as dangerous while White's general kingside counterattack is greatly diluted.

Endgame Exploration 3: Skeleton of the Minority Attack

33...a5

33... $\mathbb{Q}d6$ was a decent alternative, but evidently Black does not fear the exchange on c4.

34. $\mathbb{K}ef2 \mathbb{K}a7$

An echo of our previous discussion. Black hopes to defend f7 in an incidental way, without losing functionality for his rook on the queenside.

35. $\mathbb{K}e2$

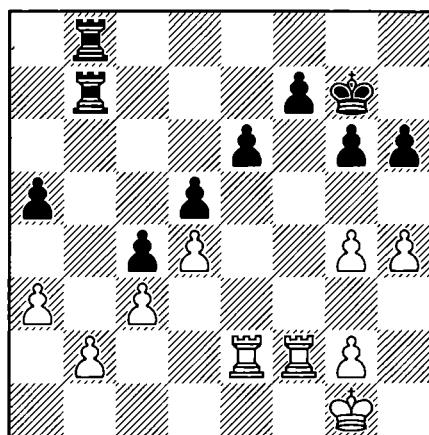
Awaiting events. The preventative idea with 35.b4 isn't appropriate here. Aside from the fact it just loses a pawn to 35... $\mathbb{Q}xa3$, there is also no white knight to maneuver to the c5 outpost. Even if Black wasn't winning a pawn directly then a continuation such as 35...axb4 36.axb4 $\mathbb{Q}d6$ 37. $\mathbb{K}c1 \mathbb{K}a3$ is in the air and White's position does not make a positive impression.

It is interesting to consider what decision Black would make if White played instead here 35. $\mathbb{K}xc4$:

35... $dxc4$ does not seem particularly logical here, since there is no knight to place on d5. Also Black might open up his own queenside pawns to attack along the fifth rank, for instance by $\mathbb{K}f2-e2-e5$.

35... $bxc4$ is reasonable. Black is obviously better here, but it is doubtful whether he can actually win the game. White has only one weakness and it is hard to see how Black can create another if White simply places both of his

rooks on the second rank and marks time. Black would have to try to change the structure somehow in the center and/or the kingside to make progress, which would probably do more damage to his own position than to White's.



35... $\mathbb{K}xc4$ is almost certainly what Black would have played, maintaining the pressure on White's queenside and now on the d4-pawn as well (after ...b5-b4). ...b5-b4 will follow with similar play to the game.

35...b4

Now is as good a time as any.

36.axb4

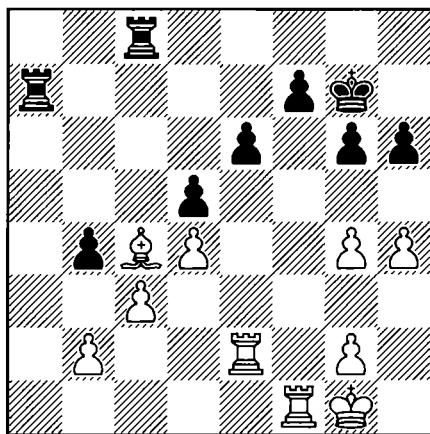
Getting rid of a potential weak a-pawn is usually the consistent way to handle cases where White has played a2-a3 (or, for Black, ...a7-a6) in this structure. Trying to emulate Spassky with 36.a4 could be considered if it did not lose a pawn directly to 36... $bxc3$ 37. $bxc3 \mathbb{Q}b6$. However, I do not think the idea would be so appropriate even without this tactic. After for instance 37... $\mathbb{K}b7$ (instead

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of 37... $\mathbb{Q}b6$) White is in no position to contest the b-file; soon $\mathbb{B}b7-b3$ will come and the weakness White created by playing a2-a4 will make itself felt.

36...axb4

37. $\mathbb{Q}xc4$



Probably it is a wise decision to make this exchange now.

If White delays there is a danger the black knight will move favorably from c4, leaving White's $\mathbb{Q}d3$ a weak piece in the queenside defense.

For example in the variation 37. $\mathbb{Q}fe1$ $bxc3$ 38. $bxc3$ $\mathbb{Q}d6$ (other knight jumps are interesting too, 38... $\mathbb{Q}b6$ coming to a4, or 38. $\mathbb{Q}a3$! to prevent a white rook coming to c2) 39. $\mathbb{Q}c1$ $\mathbb{Q}a3$ 40. $\mathbb{Q}ec2$ and now Black could consider ...f7-f5. White could prevent ...f7-f5 earlier by playing g4-g5 himself, but he would create a weak pawn on g5 which could be attacked by means of ... $\mathbb{Q}h8-h5$.

Nothing is absolute, but on balance it seems White made a good decision to

remove the black knight at this moment and it was probably his very last chance to do so.

37... $\mathbb{Q}xc4$

37... $dxc4$?! 38. $\mathbb{Q}e5$ only helps White.

38. $\mathbb{Q}f3$ $bxc3$!

The most precise move order. It is hard to believe that the timing of capturing on c3 is important, since if White decided to play $cxb4$ at any stage he will create two weaknesses (b2 and d4).

In the game Black delayed the capture with 38... $\mathbb{Q}a1+?$! 39. $\mathbb{Q}h2$ $\mathbb{Q}c1$ (39... $bxc3$ is already not as good because of the intermezzo 40. $\mathbb{Q}ef2$!) 40. $\mathbb{Q}ef2$! $\mathbb{Q}c7$ (40...f5 doesn't help as White can either attack the new weakness of e6 with 41. $\mathbb{Q}e2$, or play a tactical solution with 41. $gxf5$ $exf5$ 42.g4!) 41. $cxb4$ $\mathbb{Q}1c4$ 42. $\mathbb{Q}f4$ $\mathbb{Q}xb4$ 43.g5 and although Black remained nominally better there is no clear way to progress as he is tied to the f7-pawn.

39. $bxc3$ $\mathbb{Q}a1+$

40. $\mathbb{Q}h2$ $\mathbb{Q}c1$

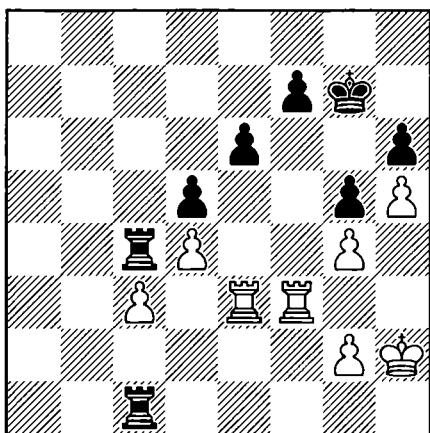
41. $\mathbb{Q}ee3$

Here 41. $\mathbb{Q}ef2$ is less effective than in previous similar cases. After 41... $\mathbb{Q}c7$ Black will simply be a pawn up after capturing on c3 with the $\mathbb{Q}c1$.

41...g5

Endgame Exploration 3: Skeleton of the Minority Attack

42.h5



I looked at this position for some time. My conclusion was that although maybe theoretically White can draw he faces unpleasant practical problems. At first it is not clear what progress Black can make but I think in reality he can make quite substantial attempts.

Taking a step by step approach, one possible progression would be:

➤ Place one black rook on c6, where it defends the e6-pawn. The other rook probably should go to c2, although it is useful on c1 too.

Notice that although White would very much like to exchange a pair of rooks he is unable to do so without losing the pawn on c3. If he loses the c3-pawn the position is almost certainly lost due to the large number of pawns (5 vs. 4) and the shattered white structure.

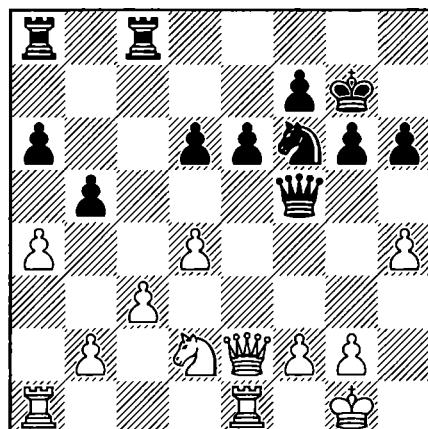
➤ Play ...f7-f6, and maybe also centralize the king with ... \mathbb{K} f7-e7 (it should at least come to f7 so to protect both e6 and f6).

Now the c6-rook is free to enter the game via \mathbb{R} a6-a3, or \mathbb{R} b6-b3. Black can combine attacks on the c3-pawn with threats to double on the seventh rank.

I am not claiming this is winning for Black, or even the best plan, but I think it shows that he can at least probe for a win in a practical game from the previous diagram.

Now for something (very slightly) different...

Taimanov – Gulko,
44th USSR Championship,
Moscow, 1976



Black to play

There are some subtle differences between this and the previous example.

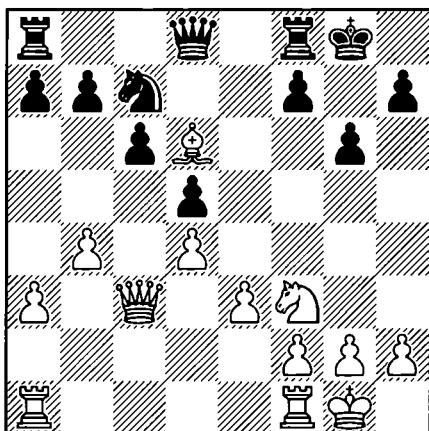
Firstly the queens are on the board, which is in general not good for the side launching the minority attack. Here though, Black is not losing too much sleep as his king looks very secure. The extent of White's kingside aggression seems to be the rather odd looking pawn on h4 which is simply a weakness. How-

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ever, Black is even forcing the queens from the board as we will see in a moment.

Secondly White still has a knight. This is sometimes significant if White can bring a knight to b3 or d3 and into c5, but here Black has a pawn on d6, which is a good difference for him. Any outposts White might dream of on c5 are removed completely.

A quick word about the knight as a defender in these structures:



White has just made the exchange 16.♕xd6 in the game Portisch – Kasparov, World Cup, Skellefteå, 1989.

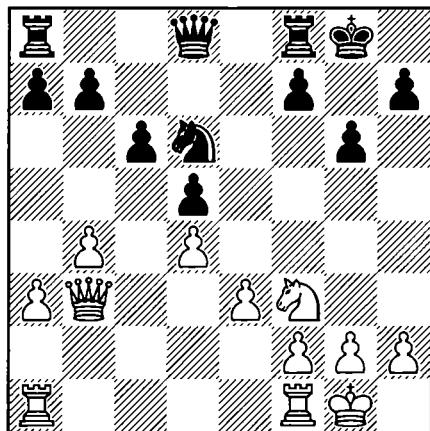
Rather than the routine recapture 16...♝xd6, instead Black played:

16...♞b5!

With the intention of using the knight to recapture.

17.♝b3 ♞xd6

Resulting in the following position:



Aside from it being generally centralized, why specifically did Black want a knight on d6 so much?

We should look at the functions and possibilities it has from this post:

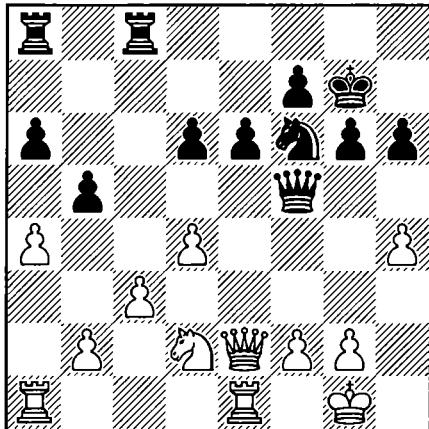
- Most obviously it has a potential outpost on c4, which could even be cemented further with b7-b5 in some cases.
- The knight also holds up the thematic b4-b5 by White by controlling the b5 square.
- b7, a potential target for White, is protected.
- If/when Black creates some attack on the kingside, the knight could join the fun quickly via e4 or f5.

No other single square on the board gives this knight this many opportunities simultaneously. We can safely say that when defending against a minority attack in a Karlsbad structure, the defender's knight is absolutely optimally placed on d6 (for Black, and d3 for White).

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Returning to Taimanov – Gulko...

White submits to the queen exchange.



23... $\mathbb{Q}c2!$

Why? Simple: Black has a minority attack position in a (approximate) Karlsbad structure, and wishes to exchange the queens. We have already seen the one-sided battle that can result in minority attack endgames.

24.axb5

After this we can see that we are getting the same structure as in the last game, even though there White chose to play a2-a3 and later capture on b5.

It is unthinkable to tolerate the queen on c2, it must be exchanged, which is of course what Black wants. The immediate 24. $\mathbb{Q}e4$ is possible and there follows 24... $\mathbb{Q}xe2$ (or 24... $\mathbb{Q}xe4$ transposing) 25. $\mathbb{Q}xe2$ $\mathbb{Q}xe4$ 26. $\mathbb{Q}xe4$ b4 etc.

24...axb5

25. $\mathbb{Q}xa8$ $\mathbb{Q}xa8$

26. $\mathbb{Q}e4$

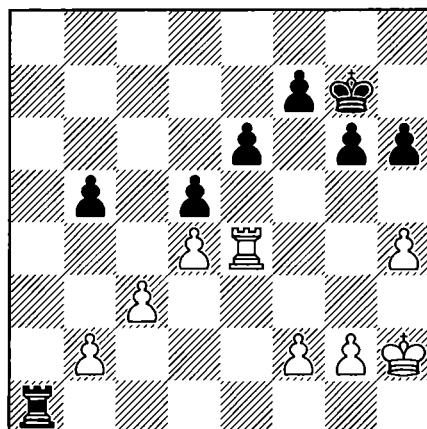
26... $\mathbb{Q}xe2$

27. $\mathbb{Q}xe2$ $\mathbb{Q}a1+$

Not essential, but it may be useful for later to push the white king further from the center and the queenside.

28. $\mathbb{Q}h2$ $\mathbb{Q}xe4$

29. $\mathbb{Q}xe4$ d5



With the white knight gone, never to return, Black is happy to clarify the structure. In doing so he cements his static advantage and there is simply no need to deal with the possibility of White playing d4-d5 every turn.

30. $\mathbb{Q}e3$ $\mathbb{Q}a2$

31. $\mathbb{Q}e2$ b4

It is curious, even after having reduced the material so much, White is still experiencing serious difficulties in this endgame. His main problem

at the moment is that he cannot limit himself to a single weakness. If, for instance, he could play here 32.♗e3 bxc3 33.bxc3 (or if he could play 31.b4 on the previous move) and just defend one weakness on c3 he would most likely make a draw. Unfortunately the f2-pawn is hanging at the end of that variation.

32.cxb4

Unfortunately for White, he has little choice but to play this.

32...♝a4

33.♝d2 ♝xb4

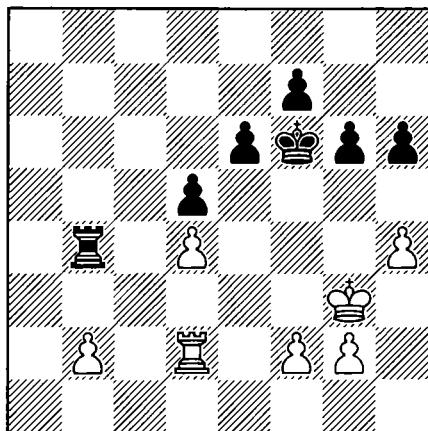
34.♔g3 ♔f6

As pointed out by Gulko, the strongest continuation here is 34...♝b3+! 35.f3 (35.♔f4 is similar to 36.♔f4 but with an extra tempo for Black) 35...♔f6 with the following variations:

- 36.♔f4 g5+ 37.hxg5 hxg5+ 38.♔g4 ♔g6 39.♔g3 ♔f5 40.♔f2 g4! and White will soon be left with three isolated weak pawns.

- 36.♔f2 ♔f5 37.g3 g5 38.hxg5 hxg5 and White is again in big trouble. The advance g5-g4 is coming, creating a third weakness in the white camp.

I give the game continuation 34...♔f6 too because it also shows some interesting points:



White's weaknesses on b2 and d4 are not going away. Breaking down White's predicament:

- Passive defense is unlikely to succeed here with two weaknesses.
- There are no black weaknesses whatsoever for White to attack.
- White's only chance lies in his b2-pawn, which is a weakness but is not fixed (unlike the d4-pawn). He must transfer his king to c3, and push the b-pawn, transforming it into a strength.

We can conclude that if White is unable carry out this counterplay, he will most likely lose the game.

35.♔f3 h5

36.♔e2

It is difficult to see how Black is going to stop the white king from reaching c3.

36...e5!?

Endgame Exploration 3: Skeleton of the Minority Attack

A very interesting decision. Before we discuss it we can examine the most obvious move 36... $\mathbb{Q}f5$, when play would logically proceed with 37. $\mathbb{Q}d3$ $\mathbb{Q}g4$ 38.g3 f6! (it is not clear what 38... $\mathbb{Q}f3$ actually accomplishes) 39. $\mathbb{Q}c3$ $\mathbb{B}c4+$ 40. $\mathbb{Q}d3$ g5 forcing a passed h-pawn.

Black is most likely just much better here, although White has some hope in the form of his b-pawn.

Despite its strange appearance (improving White's structure and damaging Black's), the theme Black is using here is quite typical in rook endgames. The defender is pinned down to weaknesses but the attacker feels he cannot win as things stand, so:

He transforms the position somehow and transforms his advantage, often specifically in this way, opening a rank for a rook which can now swing to both sides of the board. Black is banking on the fact that here his much more active king, and much more active rook, will thrive enough in the newly opened position to win the game. In addition the newly passed d-pawn is likely to become an asset rather than a weakness.

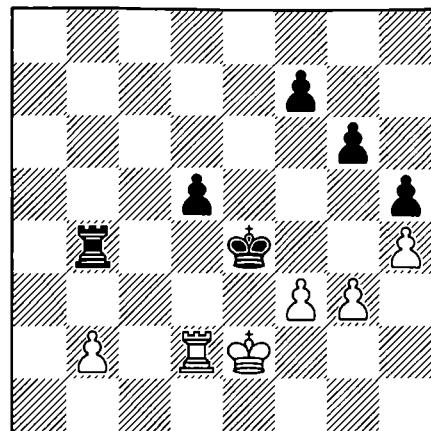
37.dxe5+ $\mathbb{Q}xe5$

38.g3 $\mathbb{Q}e4$

39.f3+

(See Diagram)

Clearly the move Black was trying to provoke from White, to create more weaknesses. White has better chances with 39. $\mathbb{B}c2!$ (the only chance now is



counterplay against the abandoned black kingside pawns) 39...d4 40.f3+ $\mathbb{Q}d5$ 41. $\mathbb{B}c7!$ with some chances to hold.

39... $\mathbb{Q}e5$

40. $\mathbb{Q}d1$ $\mathbb{B}b3$

41. $\mathbb{B}f2?$

A bizarre defensive idea.

41... $\mathbb{Q}d4$

42.g4

If 42. $\mathbb{B}d2+$ $\mathbb{Q}e3!$ 43. $\mathbb{B}xd5$ $\mathbb{B}xb2$ 44.g4!? Black wins by 44...hxg4 45.fxg4 $\mathbb{B}b4!$ 46. $\mathbb{B}d7$ (or 46.h5 $\mathbb{B}xg4$ 47.hxg6 fxg6) 46... $\mathbb{B}xg4$ 47. $\mathbb{B}xf7$ $\mathbb{B}xh4$, in both cases Black is getting a technically won endgame.

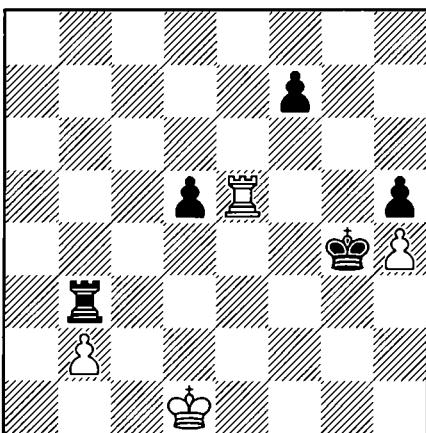
42... $\mathbb{Q}e3$

43. $\mathbb{B}e2+$ $\mathbb{Q}xf3$

44.gxh5 gxh5

45. $\mathbb{B}e5$ $\mathbb{Q}g4$

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46.♕xd5 ♕xb2

Clearly White is in some trouble and Black's play has been a success. Technically though, the position is almost certainly drawn as we will discuss in the notes following this chapter.

Before we move to the summary and theoretical notes we will examine a complete game. It's a positional masterpiece by my friend GM Keith Arkell. Black defends the minority attack structure, and is close to equality almost the entire game, yet never quite attains it.

Arkell - Kiriakov

Hastings Challengers, 1999

Bogo-Indian Defense

1.d4 e6

2.c4 ♜f6

3.♘f3 ♜b4+

The move which defines the Bogo-Indian Defense.

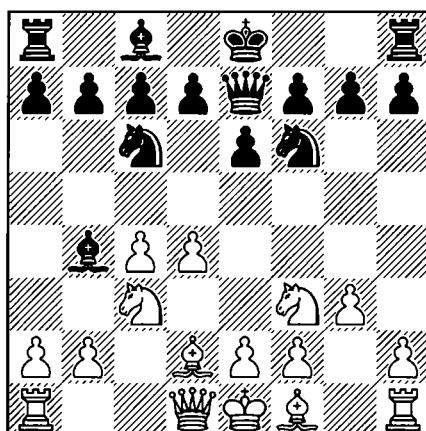
4.♗d2 ♛e7

The other moves are 4...a5, 4...c5, and 4...♝xd2+.

5.g3 ♜c6

6.♗c3

The point of Black's last move is revealed after 6.♗g2 ♜xd2+! White would like to recapture 7.♗xd2 in order to develop his ♜b1 to the c3 square. Unfortunately this runs into 7...♝e4! and the best White can do is 8.♗c2 ♜b4+ 9.♗c3 leading to a very comfortable endgame for Black. Instead the reply 7.♗bx d2 is forced leading to a theoretical *tabiya* where Black does not have any real problems.



6...d5

The usual plan for Black is to play on the dark squares with d7-d6 followed by e6-e5. This is one reason why in the last note we mentioned that the white knight is best placed on c3; it can leap to d5 after Black pushes e6-e5. Hence Black would usually eliminate the knight first with 6...♝xc3 7.♗xc3 ♜e4 (ensuring Black removes the bishop) 8.♗c1 ♜xc3 9.♗xc3 d6 leading to a big theoretical battleground.

Endgame Exploration 3: Skeleton of the Minority Attack

7.cxd5

Recently, in the few games which have reached this position, White has continued with 7.a3, keeping a Catalan flavor to the game. Play would continue 7... $\mathbb{Q}xc3$ 8. $\mathbb{Q}xc3$ and White is ready to meet a capture on c4 with $\mathbb{W}d1-a4$ regaining the pawn with advantage.

7...exd5

8. $\mathbb{Q}g2$ O-O

9.O-O

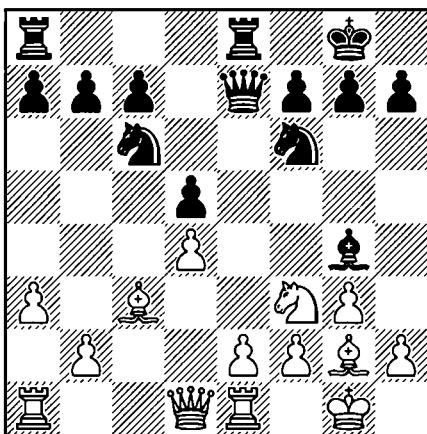
By taking on d5 White created an unusual type of Queen's Gambit position, where the $\mathbb{Q}c6$ is poorly placed but equally White's fianchetto and piece deployment in general is also slightly odd.

9... $\mathbb{Q}e8$

10. $\mathbb{Q}e1$ $\mathbb{Q}g4$

11.a3 $\mathbb{Q}xc3$

12. $\mathbb{Q}xc3$



12... $\mathbb{Q}xf3$

When White plays 10.e3 (instead of 10. $\mathbb{Q}e1$) the voluntary exchange on f3 is quite normal, but here 13.exf3 is a serious possibility. White takes e4 under control and retains two bishops vs. two knights. For instance, 13... $\mathbb{W}d7$ 14. $\mathbb{Q}e3!$? intending simply to double on the e-file.

Instead White opts to recapture on f3 with the bishop, keeping the structure intact and playing for a minority attack on the queenside.

13. $\mathbb{Q}xf3$ $\mathbb{W}d7$

14. $\mathbb{W}d3$ $\mathbb{Q}e4$

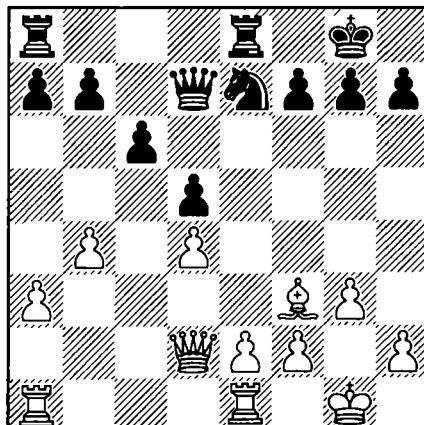
The two bishops vs. two knights situation was never going to last because of $\mathbb{Q}f6-e4$.

15. $\mathbb{Q}d2$ $\mathbb{Q}xd2$

Removing the bishop pair before $\mathbb{Q}d2-f4$ is played.

16. $\mathbb{W}xd2$ $\mathbb{Q}e7$

17.b4 c6



PART 3. Endgame Explorations

It is difficult to do without this move, as White will apply pressure to the c7-pawn and put his pawn on b5. Black is also not so afraid of the minority attack position because his knight can easily reach the optimal d6 square (for which Black needs the d5-pawn protected too).

18.a4

The rooks are best placed on a1 and b1. After the routine 18.♖ab1 a6 19.a4 ♜c8 20.b5 axb5 21.axb5 ♜d6 22.bxc6 bxc6 White will probably have to play 23.♖a1 (and later ♕eb1) in any case. Losing time is not such a big deal in this position, but there is no reason to.

18...a6

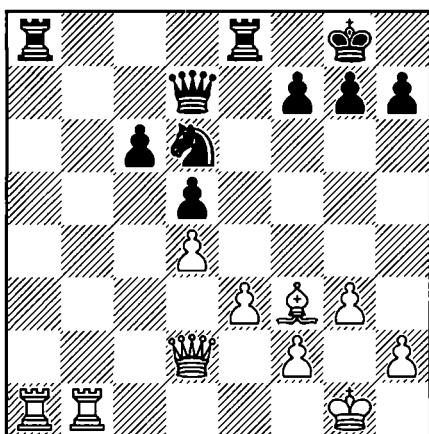
19.♕eb1 ♜c8

20.b5 axb5

21.axb5 ♜d6

22. bxc6 bxc6

23.e3



Connecting the structure, and making ♜f3-e2 (maybe even to d3 as well) possible, since it will be hard to put meaningful pressure on the c6 weakness with a knight rooted on c4.

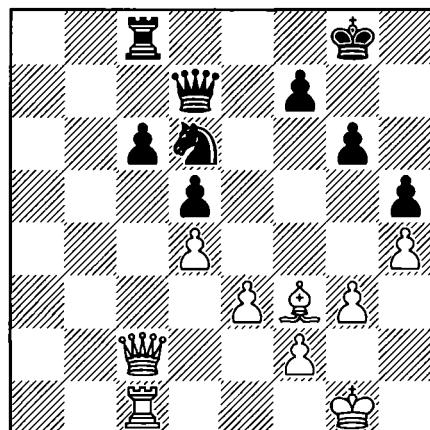
23...g6

24.♔c2 h5

25.♗xa8 ♗xa8

26.♗c1 ♗c8

27.h4



Fixing the black kingside structure (in theory the structure is not completely fixed, but attempting some ...f7-f6 and ...g6-g5 adventure is likely to be suicidal) and facilitating a later move of the bishop to h3 which may remove key squares from the black heavy pieces.

Now that we have reached a fairly static situation it is a good time to summarize the position:

➤ The black knight is the only real danger to White's control of the position.

Endgame Exploration 3: Skeleton of the Minority Attack

Since it cannot anchor itself securely on c4 then the white pressure on c6 will remain.

The question is, how serious is the pressure on c6?

➤ First we should say that if the c6-pawn falls then Black will almost certainly lose the game, since not only will he be a pawn down, but a new weakness on d5 will appear. However c6 is very defensible and this single weakness alone should not cost Black the game (if a-pawns were also present matters would be different in this regard).

➤ We can conclude that in order to win the game White must ultimately create or find a second weakness. This weakness must lie on the kingside, specifically the black king. White's course of action is clear: He must probe and attack the c6 weakness from different angles, using the open queenside files to tie Black down (specifically he would like to push the black knight to a passive square). Eventually he will look to infiltrate the back rank and attack the black king. It is also not completely out of the question that changing the structure with g3-g4 could happen one day.

Note this plan is only possible because of the heavy material which still remains on the board. Without queens here, for instance, the black king could simply move to the center in safety.

27... $\mathbb{Q}f5$

It is possible to play to put the knight on e4 with, for instance, 27... $\mathbb{Q}e6$ 28. $\mathbb{Q}e2$

$\mathbb{Q}e4$ 29. $\mathbb{Q}d3$. This is not so attractive for Black though, because White can consider playing around this knight (so long as he does not allow a well-timed ...c6-c5) and the threat of $\mathbb{Q}d3xe4$ is always in the air. After mass exchanges on e4 the rook endgame will always be better for White, but perhaps not winning.

Instead Black submits to put his knight passively on e7.

28. $\mathbb{Q}c5$

Improving the queen, threatening $\mathbb{Q}f3xd5$, and taking control over the a7 square in preparation for $\mathbb{Q}c1-a1-a7$.

28... $\mathbb{Q}e7$

29. $\mathbb{Q}a1 \mathbb{Q}g7$

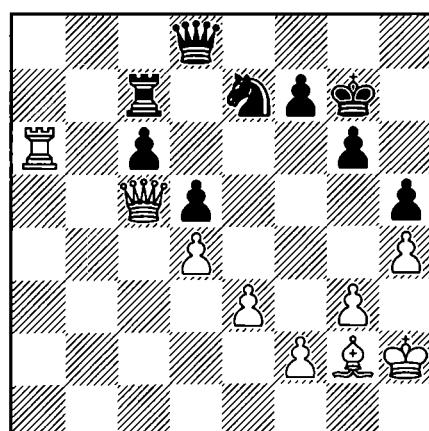
30. $\mathbb{Q}g2 \mathbb{Q}c7$

31. $\mathbb{Q}h2$

To support the maneuver we mentioned earlier: $\mathbb{Q}g2-h3$.

31... $\mathbb{Q}d8$

32. $\mathbb{Q}a6$



PART 3. Endgame Explorations

32... $\mathbb{Q}c8$

33. $\mathbb{Q}a3\mathbb{Q}f5$

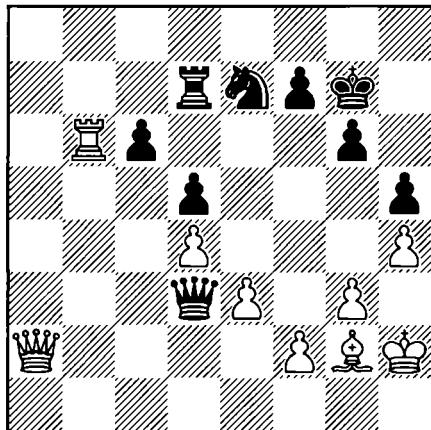
34. $\mathbb{Q}a5\mathbb{Q}d7?$

Too passive. It was necessary to calculate that it was safe to play the active 34... $\mathbb{Q}b7!$, allowing 35. $\mathbb{Q}d8$ (probably White would not play this, and instead play 35. $\mathbb{Q}a2$, hoping to drive back the black pieces and ‘start over’, although after 35... $\mathbb{Q}d3$ things have clearly gone wrong) and meeting it with 35... $\mathbb{Q}xf2$ 36. $\mathbb{Q}a8g5$ 37. $\mathbb{Q}h8+\mathbb{Q}g6$ and White has no more than a draw due to the threats to his own king. Objectively White should probably have kept the tension with 34. $\mathbb{Q}b2$.

35. $\mathbb{Q}a2\mathbb{Q}d3$

It was not too late for 34... $\mathbb{Q}b7$

36. $\mathbb{Q}b6!$



Seizing the b-file. Now both white heavy pieces are coming to the eighth rank and the bishop is ready to slide to h3 at any moment.

36... $\mathbb{Q}c7$

37. $\mathbb{Q}b8\mathbb{Q}f5?$

Black must play 37... $\mathbb{Q}c8$ to keep the white pieces out of the back rank. After 37. $\mathbb{Q}b7$ the position is unpleasant but Black is still fighting.

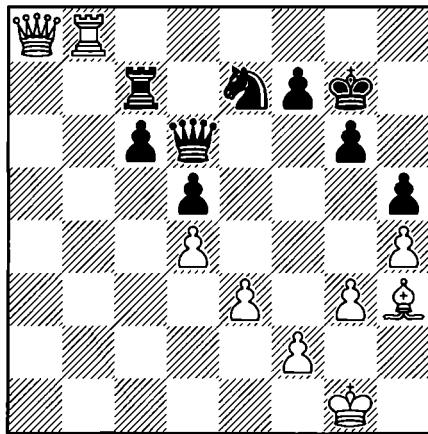
38. $\mathbb{Q}h3\mathbb{Q}f6$

39. $\mathbb{Q}g1$

Freeing the queen from the defense of f2.

39... $\mathbb{Q}d6$

40. $\mathbb{Q}a8$



40... $c5?$

Maybe Black is lost in any case, but the only way to fight was to find 40... $f5!$ The point is that after 41. $\mathbb{Q}h8$ Black has 41... $\mathbb{Q}f6$ preventing $\mathbb{Q}a8-f8$. The best plan for White after 40... $f5$ seems to be to transfer the bishop to a6, after which the black pieces find themselves very short of squares. For instance: 40... $f5$ 41. $\mathbb{Q}f1$

Endgame Exploration 3: Skeleton of the Minority Attack

$\mathbb{W}e6$ 42. $\mathbb{Q}a6$ $\mathbb{W}d6$ (instead Black should play with 42...c5 but White retains good chances to win thanks to the new weakness of d5 and the vulnerability of the black king) 43. $\mathbb{B}h8!$ $\mathbb{W}f6$ 44. $\mathbb{B}d8$ $\mathbb{W}e6$ 45. $\mathbb{W}b8$ and Black can scarcely move without losing material.

41. $\mathbb{B}h8$ cxd4

42. $\mathbb{W}f8+$ $\mathbb{Q}f6$

43. $\mathbb{B}g8$

Very accurate. After the more obvious 43. $\mathbb{B}h7$ Black can struggle on with 43... $\mathbb{Q}f5$ 44. $\mathbb{W}h8+$ $\mathbb{Q}e7$, although after 45. $\mathbb{Q}xf5$ gxf5 46. $\mathbb{W}xd4$ he will doubtless eventually lose the game with so many weak pawns.

With 43. $\mathbb{B}g8$ the tactical point is that the defense 43... $\mathbb{Q}f5$ is prevented due to 44. $\mathbb{B}xg6+!$ $\mathbb{Q}xg6$ 45. $\mathbb{Q}xf5+$ winning the black queen.

Incidentally 43. $\mathbb{B}h6$ (threat $\mathbb{W}f8-h8$) and meeting 43... $\mathbb{Q}f5$ with 44. $\mathbb{B}xg6+!$ is just as strong, but to play this it is necessary to see the line 43... $\mathbb{Q}c8$ 44. $\mathbb{B}xg6+!$ $\mathbb{Q}xg6$ 45. $\mathbb{W}g8+$ $\mathbb{Q}h6$ 46. $\mathbb{Q}f5$ and mates.

43... $\mathbb{Q}e5$

If 43... $\mathbb{Q}c8$ White has a choice between transposing to the last note with 44. $\mathbb{B}xg6+$ or the less spectacular

44. $\mathbb{W}g7+$ $\mathbb{Q}e7$ 45. $\mathbb{W}h8$ threatening both the $\mathbb{Q}c8$ and $\mathbb{W}g8-e8\#$.

44. $\mathbb{W}xf7$ $\mathbb{Q}e4$

45. $\mathbb{B}f8$

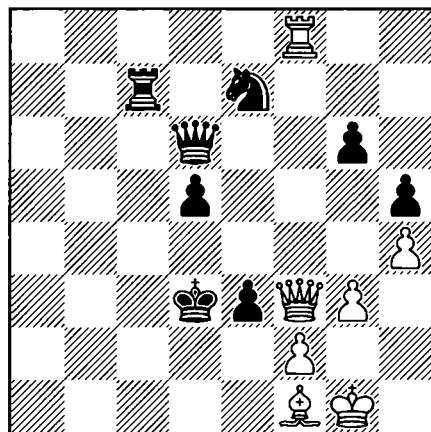
Played to threaten $\mathbb{W}f7-f3+$ followed by $\mathbb{W}f3-d1+$ and $\mathbb{W}d1xd4$.

45...dxe3

After this Black is mated very quickly but he is completely lost whatever he does.

46. $\mathbb{W}f3+$ $\mathbb{Q}d3$

47. $\mathbb{Q}f1+$



The white queen will check the black king onto the b-file, after which the rook will join the onslaught. Mate will follow shortly.

Black resigns.

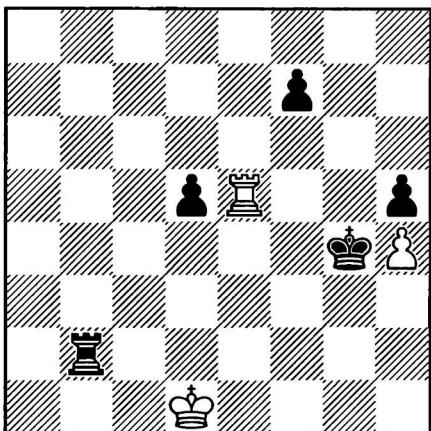
SUMMARY OF IDEAS

- The minority attack is a potent weapon in Karlsbad structures, and forces a compromise in the defender's queenside structure.
- It is worth studying the possible transformations in the pawn structure. Rather than looking at one structure or idea as better than another it is more useful to simply understand the differences and subtleties.
- The minority attack gains considerably in strength in the endgame when the defender is lacking both the general firepower to mount dynamic counterplay, and often the specific pieces he needs. In particular we could point to the knight which is useful in defense and in exploiting outposts that are naturally created in this structure.
- Being tied to one weakness is often tolerable (although it can depend on how well the pieces can function while defending). The attacker should seek to create two or more weaknesses to spread the defense forces more thinly.
- Be wary of an unfixed weakness being transformed into a strength.
- Remember the idea Gulko used (36...e5!?) to covert one advantage (static weaknesses / superior structure) into a dynamic advantage (more active pieces/ passed pawns).

(BRIEF) THEORETICAL NOTES

A few interesting moments, from a theoretical point of view at least, occurred near the end of our discussion of the game Taimanov – Gulko.

We left the game here:



After 46...♜xb2

The game continued:

47.♔e1 ♛xh4

And a notorious endgame is reached – that of a rook with f- and h-pawns vs. rook. The endgame is a draw in general although the defense is no easy task. I am yet to talk even with a GM who claims any expertise in it. I won't give a full dis-

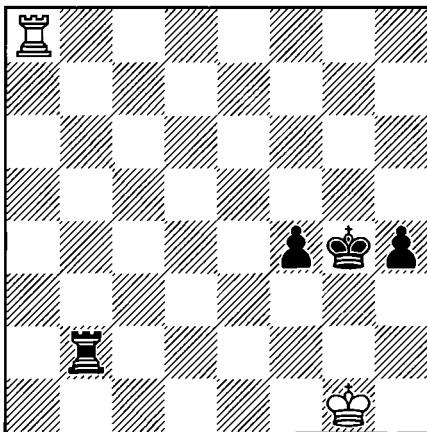
Endgame Exploration 3: Skeleton of the Minority Attack

cussion of it here (partly because I am no expert on its technicalities myself).

48.♕d7?

According to the tablebase this move is losing, and the only drawing move is 48.♕f5! ♕b7 49.♕c5! (or 49.♕a5!).

We will now fast-forward to the conclusion of the game:



Almost always this endgame is winning theoretically for the stronger side when the defending king is cut off on the back rank, as is the case here.

60...♔g3

Practically forcing White to give check on g8.

61.♕g8+ ♔f3

62.♕h8 ♕b1+

63.♔h2 ♔f2

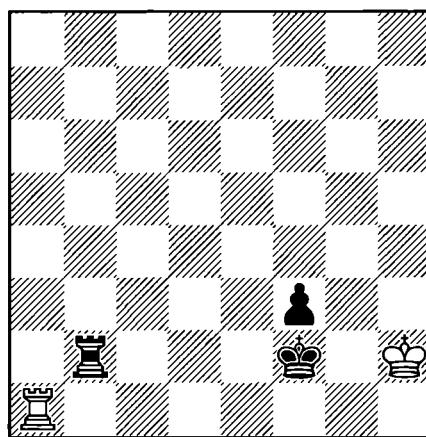
Of course Black is not concerned about the h-pawn if he can reach a win-

ning Lucena position with his f-pawn.

64.♕xh4 f3

65.♕a4 ♔f1

65...♗b2?? (to prevent a check on the second rank) is an instructive mistake. After White replies 65.♗a1, reaching the next diagram, the position is a theoretical draw.



Black basically has two attempts to make progress:

➤ To play ...♗b2-e2-e1 in order to allow his king (and afterwards pawn) to move forward.

➤ To play♔f2-e2 followed by ...f3-f2.

Neither is particularly effective. First:

65...♗e2

66.♗b1

Many other moves are fine, but the classic mistake to avoid is the natural

PART 3. Endgame Explorations

66. $\mathbb{R}a3??$ when after 66... $\mathbb{Q}f1+$ 67. $\mathbb{Q}g3$ f2 68. $\mathbb{Q}f3$ $\mathbb{Q}g1$ Black reaches a winning position.

66... $\mathbb{R}e1$

67. $\mathbb{R}a2+$ $\mathbb{Q}f1$

Black could try other moves, but White will continue to harass him with side-checks.

68. $\mathbb{Q}g3$

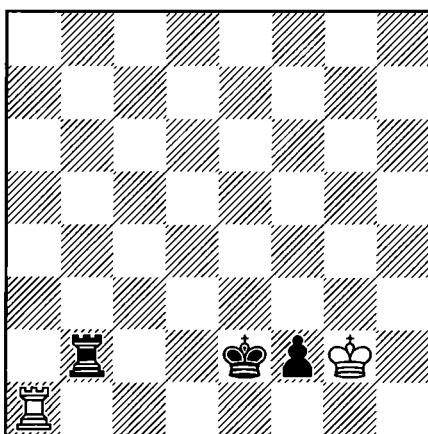
Winning the pawn on account of 68... $\mathbb{R}e3$ 70. $\mathbb{R}f2+$

Second we could try:

65... $\mathbb{Q}e2$

66. $\mathbb{Q}g3$ f2

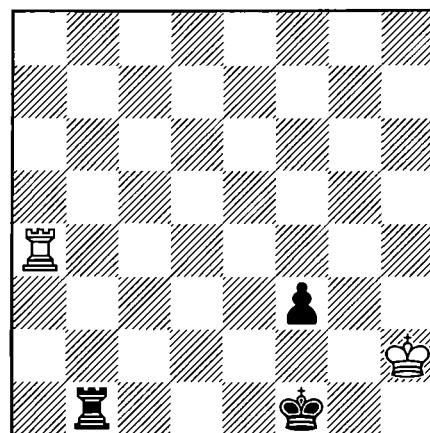
67. $\mathbb{Q}g2$



There are really no ideas at all for Black in this position. White's rook has

ample room to wait on the back rank, since it can use the a1, c1 and even f1 squares ($\mathbb{R}h1$ would be bad on account of Black retreating his rook and checking on the g-file).

Returning to the game where Black had reached a theoretically winning position after 65. $\mathbb{Q}f1$.



Black is reaching a Lucena type position by playing f3-f2 next move.

66. $\mathbb{Q}g3$ f2

67. $\mathbb{R}a2$ $\mathbb{R}b3+$

68. $\mathbb{Q}h2$ $\mathbb{R}f3!$

Behind the pawn is the quickest way here.

69. $\mathbb{R}a1+$ $\mathbb{Q}e2$

70. $\mathbb{R}a2+$ $\mathbb{Q}e3$

The pawn is queening. Black wins.

Endgame Exploration 4:

Extra Pawn on the Queenside

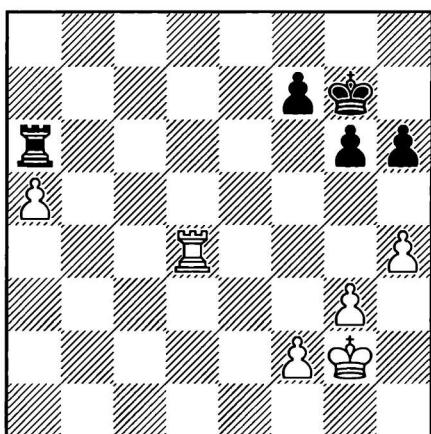
Part 1 – Positional Advantage

The rook endgame with equal pawns on one wing, and an extra pawn for one side on the other wing, will be the topic of our discussion in the next two chapters. The study this endgame is quite useful in itself, as it occurs reasonably often, and it is also useful because it illustrates many useful ideas for rook endgames and endgames in general.

The first thing to say is that, in general, one extra pawn in a rook and pawn endgame is not sufficient to win. If we can add another advantage to the extra pawn however, then the scales will usually be tipped.

Let us start with a classic example which is particularly important to study.

Alekhine – Capablanca
Game 34, World Championship,
Buenos Aires, 1927



Rook behind passed pawns

54. $\blacksquare a4!$

The white rook takes up position behind the pawn, and the battle lines are drawn.

The white king will journey to the queenside to assist in the pawn's promotion. Black has two possible counters to this:

- An offensive plan of attacking the white kingside pawns with his own king (perhaps first weakening them using his own pawns).
- A defensive plan of travelling to the queenside with his king to assist (and possibly release the rook for counterplay by using his king as a blockader on a6).

54... $\blacktriangle f6$

PART 3. Endgame Explorations

Both plans start with the activation of the black king.

55. $\mathbb{K}f3 \mathbb{R}e5$

56. $\mathbb{K}e3 h5$

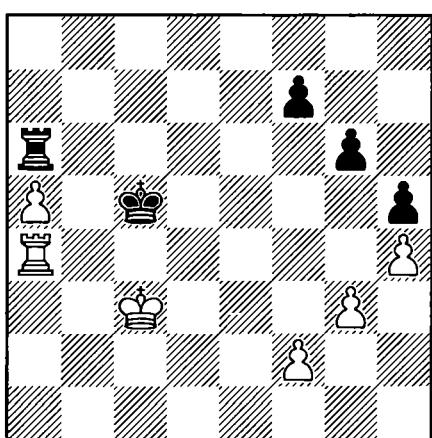
The positional advantage of having the white rook behind its own pawn is clear:

- The black rook is tied down, whereas the white rook keeps a lot of functionality.
- It is difficult mount an assault against White's kingside pawns when the rook can protect them from the side (or cut the black king completely).

Black therefore has no choice here but to try to prevent White's ideas on the queenside. His last hope will then be to use the king to blockade the queenside pawn and hope his rook can deal with the kingside.

57. $\mathbb{K}d3 \mathbb{R}d5$

58. $\mathbb{K}c3 \mathbb{R}c5$



Time for Zugzwang

Black must prevent the white king from advancing into his queenside. If the black rook is pushed from a6 then the pawn will advance further. Any attempt by Black to win the pawn will inevitably lead to a losing king and pawn endgame.

59. $\mathbb{R}a2!$

By making waiting moves with his rook White can eventually make Black move his king. Once the black king commits completely to the queenside (by moving to b5, leaving the d4 square free) White will switch plans and infiltrate the kingside with his king.

59... $\mathbb{K}b5$

59... $\mathbb{R}a8$ is hopeless after 60.a6, but 59... $\mathbb{R}f6$ sets a trap: 60. $\mathbb{K}d3$ (60.a6? $\mathbb{R}f3+$ 61. $\mathbb{K}b2 \mathbb{R}xf2+$ 62. $\mathbb{K}b3 \mathbb{R}xa2$ 63. $\mathbb{R}xa2 \mathbb{K}b6$ and White has to scramble to make a draw) 60... $\mathbb{R}a6$ 61. $\mathbb{K}e4$ and White wins in a similar way to the actual game.

60. $\mathbb{K}b3 \mathbb{R}c5$

61. $\mathbb{K}c3 \mathbb{K}b5$

62. $\mathbb{K}d4!$

Choosing the right path the second time around.

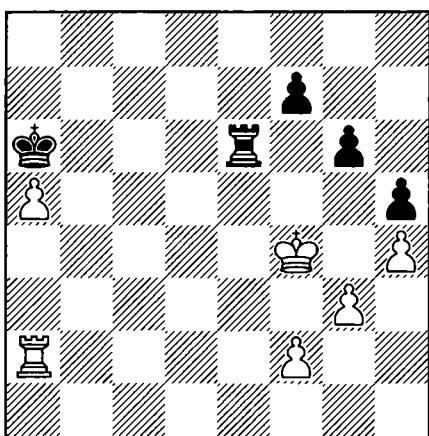
It is clear the king and pawn endgame is completely lost for Black, so his only defensive try, as mentioned earlier, is to use his king to blockade the a-pawn and try to hold his kingside together with his rook.

Endgame Exploration 4: Extra Pawn on the Queenside Part 1

62... $\mathbb{Q}d6+$

63. $\mathbb{Q}e4 \mathbb{Q}e6+$

64. $\mathbb{Q}f4 \mathbb{Q}a6$



Infiltration on the kingside

The final stage of the game begins and White has only to penetrate the black kingside. The structure f7-g6-h5, which looked so solid earlier, now presents an easy task for White to overcome.

65. $\mathbb{Q}g5 \mathbb{Q}e5+$

66. $\mathbb{Q}h6 \mathbb{Q}f5$

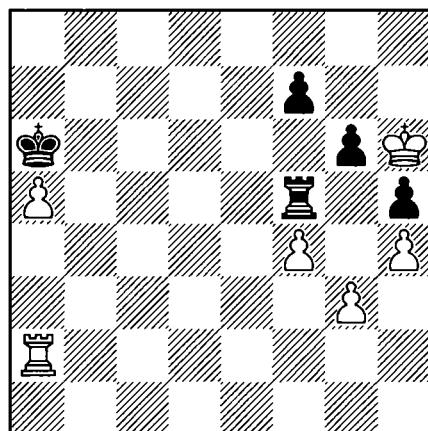
Strangely quite a lot of analysis has been published on this position, even though White is winning very easily.

67.f4

While it is true that this move creates some small technical problems for White (due to the fact the g3-pawn is now weak, and in some cases the end-game featuring rook with f- and h-pawns vs. rook can be a draw), the move seems

fine and doesn't deserve the criticism it has had in some books.

The quickest way to win was 67. $\mathbb{Q}g7 \mathbb{Q}f3$ 68. $\mathbb{Q}d2$ (Pointed out by J. Howell. Instead Alekhine suggested 68. $\mathbb{Q}g8$ which of course also wins, as does almost any reasonable move, for instance 67. $\mathbb{Q}e2 \mathbb{Q}xa5$ 68.f4 and Black can resign) 68... $\mathbb{Q}xa5$ 69. $\mathbb{Q}d5+$ and whichever way the black king steps the white rook will switch to the f-file (69... $\mathbb{Q}a4$ 70. $\mathbb{Q}d4+$ and 71. $\mathbb{Q}f4$, or 69... $\mathbb{Q}a6$ 70. $\mathbb{Q}d6+$ and 71. $\mathbb{Q}f6$).



67... $\mathbb{Q}c5$

68. $\mathbb{Q}a3$

There is no rush so White has ample time to defend the weakness on g3.

68... $\mathbb{Q}c7$

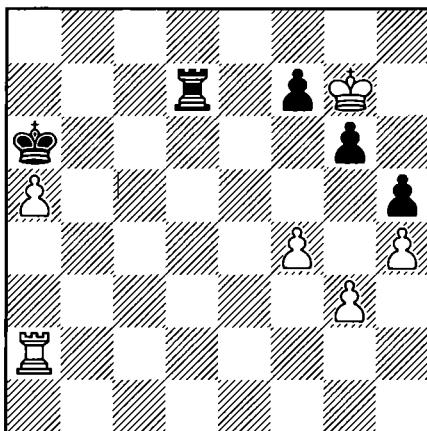
68... $\mathbb{Q}f5$ looks solid but after 69. $\mathbb{Q}g7$ Black will fall into *Zugzwang* (and $\mathbb{Q}a3-e3-e5$ would win even if he didn't!).

69. $\mathbb{Q}g7$

PART 3. Endgame Explorations

Tartakover gives the strange line 69.f5 $\blacksquare c6(!)$ 70. $\blacksquare g7$ $gxf5$ 71. $\blacksquare xf7$ f4(!) (relatively best is 71... $\blacksquare c4$ 72. $\blacksquare g6$ f4 73. $gxf4$ $\blacksquare xf4$ 74. $\blacksquare xh5$ but this endgame is lost for Black also) 72. $gxf4$ $\blacksquare c4$. The implication is that Black is drawing here. In reality White is winning after almost any move, the simplest being 73.f5 $\blacksquare xh4$ 74.f6 and Black can resign.

69... $\blacksquare d7$



Black's kingside must be weakened

70.f5

By breaking up the black structure a weakness will appear. Alekhine shows a cleaner way to carry out the same plan starting with 70. $\blacksquare f6$ (70. $\blacksquare f3$ is similarly effective) 70... $\blacksquare c7$ 71.f5 $gxf5$ 72. $\blacksquare xf5$ $\blacksquare c5+$ 73. $\blacksquare f6$ $\blacksquare c7$ 74. $\blacksquare f3$ and White will capture the h5-pawn with his rook.

70... $gxf5$

71. $\blacksquare h6$

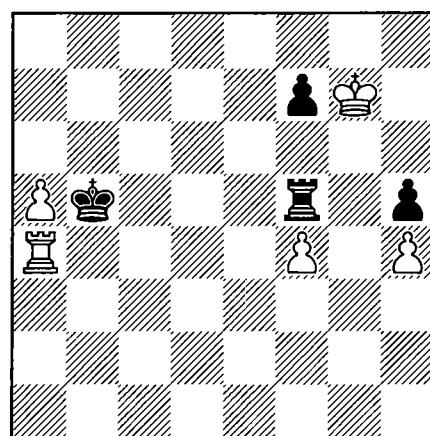
Immediately attacking the new black weakness on h5.

71...f4

72. $gxf4$ $\blacksquare d5$

73. $\blacksquare g7$ $\blacksquare f5$

74. $\blacksquare a4$ $\blacksquare b5$



End of the a-pawn

White must now abandon the a-pawn in order to collect the black kingside pawns.

75. $\blacksquare e4$ $\blacksquare a6$

The a5-pawn is taboo because of $\blacksquare e4-e5+$ exchanging the rooks.

76. $\blacksquare h6$ $\blacksquare xa5$

77. $\blacksquare e5$ $\blacksquare a1$

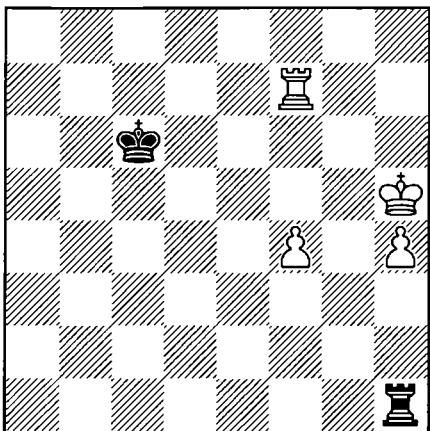
78. $\blacksquare xh5$ $\blacksquare g1$

79. $\blacksquare g5$ $\blacksquare h1$

80. $\blacksquare f5$ $\blacksquare b6$

81. $\blacksquare xf7$ $\blacksquare c6$

Endgame Exploration 4: Extra Pawn on the Queenside Part 1



Not a draw this time

This endgame is sometimes a draw; here though the black king is so far away it is a trivial win.

82. \mathbb{R} e7

The tablebase tells us the fastest win starts with 82. \mathbb{R} g7, from a human point of view of course 82. \mathbb{R} e7 is much more sensible, preventing the black king from joining the action. White has only to shepherd his pawns down the board with his king.

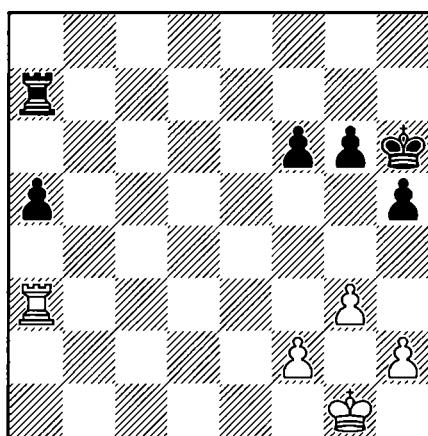
White wins.

What we saw here was that in addition to his material advantage, White's rook was much superior to Black's. From its post behind the passed pawn it could still perform defensive functions on the opposite wing, whereas the black rook was completely passive. This constituted a positional advantage, which, combined with the material advantage enabled White to win this game without too much trouble.

Occasionally there can be some hope for the defender, but he must have some factor in his favor to dampen the stronger side's two key advantages. Even so, more often than not we are speaking only of complication of the winning process presenting practical problems for attacker.

We can see the defensive ideas at work in another classic game.

Botvinnik – Borisenko
USSR Championship, Moscow, 1955



Blockade now!

45. \mathbb{R} a4!

It is vital to halt the pawn as quickly as possible. White has more time to organize play with the pawn further from the queening square.

Also in some analyzes I noticed that with the pawn blocked on a5, White has just enough time to play his rook across to the kingside, forward to grab a pawn, then retreat to the first rank, then across to a1 before the pawn queens (e.g. hy-

PART 3. Endgame Explorations

pothetically $\mathbb{B}g4$, a4, $\mathbb{B}xg6$, a3, $\mathbb{B}g1$, a2, $\mathbb{B}a1$.

45... $\mathbb{Q}g5?$

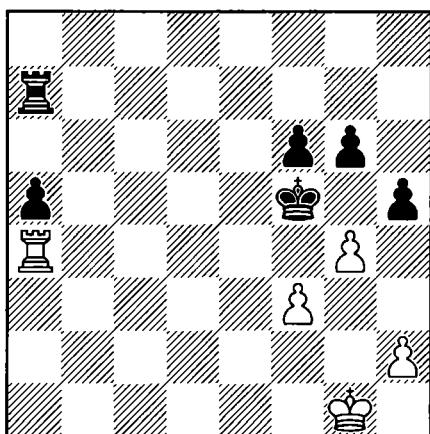
The alternative 45... $\mathbb{Q}g7$, which intends to follow Alekhine's plan from the previous example, is given as winning in all published works I have seen. I am fairly convinced this conclusion is correct, but it is not trivial and I analyzed some interesting lines. I will look in detail in the theoretical notes following this chapter.

46.f3!

White is trying to create some confusion on the kingside by pushing f2-f3 and g3-g4. His aim is to weaken the black structure and create some targets to attack. Of course he is also weakening his own structure and king, but he is going to lose anyway by waiting.

46... $\mathbb{Q}f5$

47.g4+



Confusion on the kingside

Posing a difficult problem. Should Black exchange on g4 (after the recapture f3xg4 White will be able to create a passed h-pawn), or should he leave the structure and allow the capture on h5 (shattering his kingside and creating targets for counterplay)?

47... $\mathbb{R}xh4?!$

In hindsight probably the wrong decision. The alternative 47... $\mathbb{Q}e6!$ still gave excellent winning chances. Some sample lines:

47... $\mathbb{Q}e6!$ 48.gxh5 White must create the weaknesses in the black kingside
48...gxh5 49. $\mathbb{Q}f2$ $\mathbb{Q}d6$ 50. $\mathbb{Q}e3$ $\mathbb{B}e7!$
Black must take the chance to transfer the rook to e5, otherwise the white king will penetrate the kingside

51. $\mathbb{Q}d3$ $\mathbb{B}e5$ 52. $\mathbb{Q}f4$ $\mathbb{B}d5+$ 53. $\mathbb{Q}e3$
f5 and now:

➤ 54. $\mathbb{B}h4$ $\mathbb{Q}c5$ 55. $\mathbb{Q}f2$ (55. $\mathbb{B}xh5??$ f4+ and Black wins. This is the idea of the check on d5 forcing the king to e3) 55... $\mathbb{Q}b5$ 56. $\mathbb{B}xh5$ a4 57. $\mathbb{B}h8$ a3 58. $\mathbb{B}e8$ f4 and Black should win.

➤ 54. $\mathbb{B}c4!?$ is an interesting try I have not seen mentioned before. White cannot maintain his blockade but it does impose a type of *Zugzwang* on Black. If 54... $\mathbb{B}b5$ then 55. $\mathbb{B}h4$ $\mathbb{Q}c5$ and now White can play 56. $\mathbb{B}xh5$ without first losing a tempo with his king. I think that after 54... $\mathbb{Q}e5$ Black should still be winning, e.g. 55. $\mathbb{B}h4$ f4+ 56. $\mathbb{Q}e2$ (56. $\mathbb{B}xf4?$ $\mathbb{B}d3+!$) 56... $\mathbb{Q}d4$ 57. $\mathbb{B}xf4+$ $\mathbb{Q}c3$ and the a-pawn decides.

Endgame Exploration 4: Extra Pawn on the Queenside Part 1

48.fxg4+ ♔e5

48...♔g5 is a better try. White can draw but it is not so simple and some of the published analyzes are slightly incorrect. I look at this continuation in the notes at the end of the chapter.

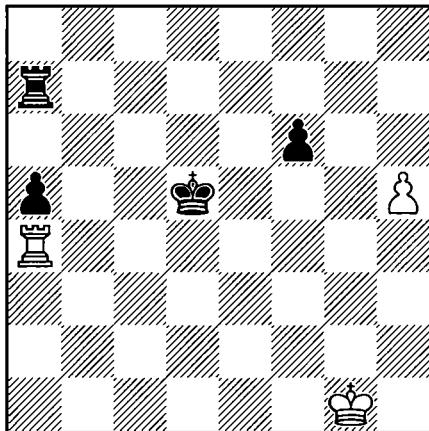
49.h4

White's only hope lies in creating a passed h-pawn.

49...♔d5

50.h5 gxh5

51.gxh5



East or West?

Black is at a crossroads. In which direction should his king go? To the

queenside to promote the a-pawn, or to the kingside to try to win the h5-pawn before it does any damage?

51...♔e6

The alternative is 51...♔c5 52.h6 ♔b5 53.♖h4 ♕h7 when the black rook is forced into a passive position. After 54.♖h5+ Alekhine points out the black king can hide only from the checks on the sixth rank (probably b6) where it cannot support the pawn's advance, or on the first rank where it is so far from the pawn that the pawn will be attacked and lost.

52.h6 ♔f7

53.♖g4!

Cutting the black king from the h-pawn.

53...♔f8

Now White could force the immediate win of the f6-pawn with 54.♖g6 f5 (54...♖f7 55.h7, 54...♔f7?? 55.♖g7+) and now either 55.♖f6+ winning the f5-pawn (55...♖f7?? 56.h7!) or 55.h7 ♕xh7 56.♖a6 wins one of the pawns with a draw.

Instead Botvinnik played 54.♖f4 and the game was shortly drawn anyway.

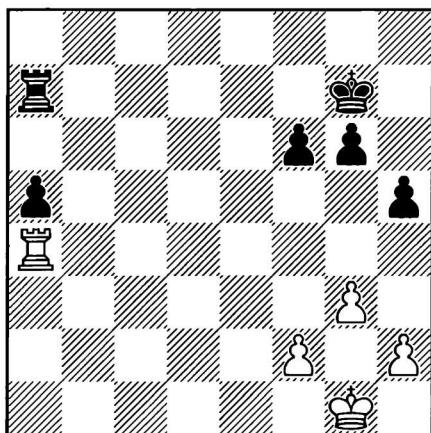
SUMMARY OF IDEAS

Some observations from these two games:

- The endgame with equal pawns on one wing and an extra pawn on the opposite wing, with the attacking rook placed behind the passed pawn is winning in general.
- The superiority of the attacking rook constitutes a positional advantage.
- The basic winning plan, shown by Alekhine, is to bring the attacking king to the queenside to support the queening of the pawn. If the defender attempts to prevent this by moving his own king to the queenside, then the attacker performs a *Zugzwang* followed by a switchback with his king to the kingside.
- The defender should blockade the passed pawn as soon as possible (in terms of distance from the queening square).
- The defender's only realistic hope for salvation is to create some weakness in the attacker's kingside. Then he can either use his king, or his rook after switching blockaders to attack these weaknesses and complicate the winning process.

THEORETICAL NOTES

So what of Botvinnik – Borisenco, if Black plays the widely acclaimed 45...
 $\text{g}7?$



Safer route to the queenside

Black intends to bring his king across the board to c5, threatening to play $\text{c}5-\text{b}4$. White will put his king on c3 to block this, then Black will play a *Zugzwang* move to force $\text{c}3-\text{b}3$. After that the black king will change direction with $\text{c}5-\text{d}4$ and sink its teeth into the white kingside pawns. Alekhine would be proud. Simple – or is it?

I found numerous books which analyze this endgame and most of them quote the analyses of Nikolai Kopaev, so I looked first at this.

One line given is:

Endgame Exploration 4: Extra Pawn on the Queenside Part 1

46.h4

Of course White can play other moves, but I think this is most testing.

46... $\hat{f}7$

47. $\hat{f}1 \hat{e}6$

48. $\hat{e}2$

At this point Dvoretsky quotes Kopaev's analysis as:

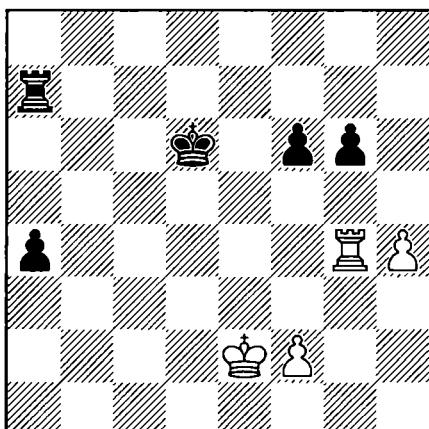
48... $\hat{d}6$

49.g4!?

Kopaev's main line is 49. $\hat{d}3 f5(!)$ (we will see this position shortly via a slightly different move order).

49...hxg4

50. $\hat{x}g4 a4$



Race to a1

White has just enough time to capture the g6 pawn without immediate loss.

51. $\hat{x}g6 a3$

52. $\hat{g}1 a2$

53. $\hat{a}1 \hat{e}5!!$

A strange move, as White now just walks over to the queenside and takes the a-pawn. The idea is that the black king can reach f3 and Black may be able to win both of the white pawns. I will examine the obvious 53... $\hat{c}5$ in a moment.

54. $\hat{d}3 \hat{f}4!$

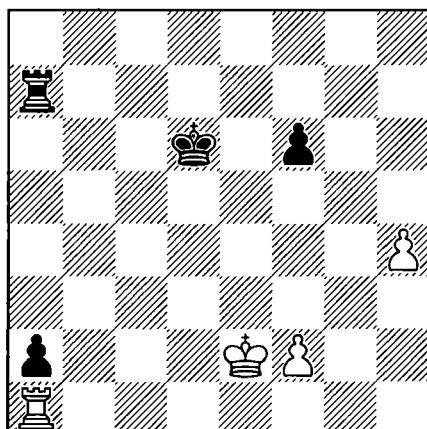
55. $\hat{c}3 f5$

56. $\hat{b}3 \hat{h}7$

57. $\hat{x}a2 \hat{f}3$

Black will eventually win both white pawns and the game.

Back in the position after 53. $\hat{a}1$:



It is interesting to see that the obvious move...

53... $\hat{c}5$

PART 3. Endgame Explorations

...only draws after:

54.h5!!

Originally I looked only at 54. $\hat{f}3?$ which works well if Black brings his king to b2, but loses against the clever switchback 54... $\hat{d}5!$ 55. $\hat{f}4$ (55. $\hat{e}3$ $\hat{e}5$ 56. $\hat{d}3$ $\hat{f}4$ eventually leads to a lost position too, e.g. 57. $\hat{c}3$ $\hat{f}3$ 58. $\hat{b}3$ f5 59. $\hat{x}a2$ $\hat{h}7$ 60. $\hat{c}4$ $\hat{x}h4+$ and Black is winning) 55... $\hat{e}6!$ 56. $\hat{e}4$ f5+ and White cannot save the game.

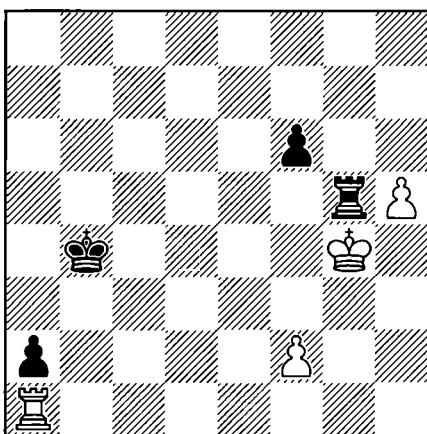
54... $\hat{b}4$

The strength of 54.h5!! lies in the fact that now no switchback is possible, after 54... $\hat{d}5$ for instance, White simply keeps pushing his h-pawn until Black is forced to capture it.

55. $\hat{f}3$ $\hat{a}5$

Probably the best try. After 55... $\hat{b}3$ 56. $\hat{g}4$ $\hat{h}7$ (56... $\hat{b}2$ 57. $\hat{x}a2+$ $\hat{x}a2$ [or 57... $\hat{x}a2$] 58. $\hat{f}5$ leads to a draw) 57. $\hat{e}1$ and Black cannot make any progress because of the checks on e1, e2 and e3.

56. $\hat{g}4$ $\hat{g}5+$



57. $\hat{h}4$ $\hat{b}3$

58.f4 $\hat{g}2$

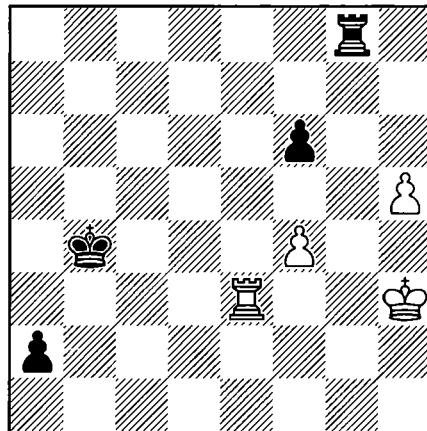
59. $\hat{e}1$ $\hat{b}2$

60. $\hat{h}3$ $\hat{g}8$

60... $\hat{c}2$ 61. $\hat{g}4$ $\hat{c}1$ 62. $\hat{e}2+$ and Black will not be able to stop White from giving his rook for the pawn.

61. $\hat{e}2+$ $\hat{b}3$

62. $\hat{e}3+$ $\hat{b}4$



Can White save the game?

63. $\hat{e}4+$

63. $\hat{e}1$ is much less clear and Black may be winning after 63...f5.

63... $\hat{b}5$

64. $\hat{e}1$

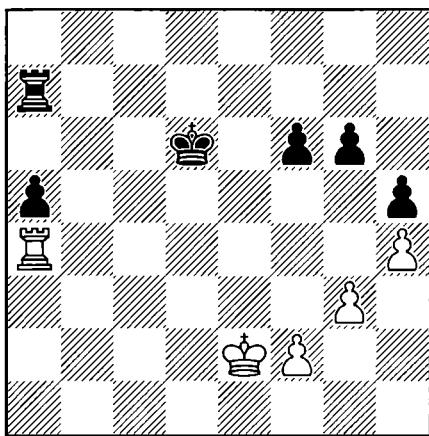
With an improved version of the last note, as $\hat{e}1-a1$ is threatened, forcing

Endgame Exploration 4: Extra Pawn on the Queenside Part 1

the black king to return to the fourth rank and be checked again.

Draw.

Thanks to Kopaev's brilliant move 53... $\mathbb{Q}e5!!$ it seems Black was indeed winning after 49.g4!? Now we should return and look at his main line.



In the above position (after 48... $\mathbb{Q}d6$) the main line is:

49. $\mathbb{Q}d3$

Then Kopaev gives two different lines, the first of which he thinks draws:

A)

49... $\mathbb{Q}c6?$

49... $\mathbb{Q}c5$ is the same thing.

50.g4! $\mathbb{Q}b5$

50... $\mathbb{Q}d7+$ 51. $\mathbb{Q}c3$ $\mathbb{Q}d5$ 52. $\mathbb{Q}f4$ f5
53.gxh5 gxh5 54. $\mathbb{Q}c4$ is a draw, and after 50...hxg4 51. $\mathbb{Q}xg4$ a4 we see the benefit of blocking the a-pawn on a5 after

52. $\mathbb{Q}xg6$ a3 53. $\mathbb{Q}g1$ a2 54. $\mathbb{Q}a1$ with a draw.

51. $\mathbb{Q}f4$ a4

52. $\mathbb{Q}c2$ $\mathbb{Q}c7+$

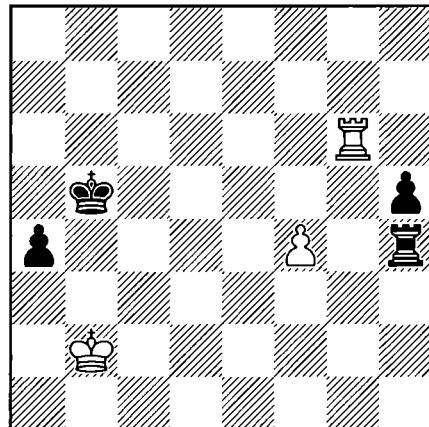
52...a3 53. $\mathbb{Q}b1$ $\mathbb{Q}a4$ 54. $\mathbb{Q}xf6$ $\mathbb{Q}xg4$
55. $\mathbb{Q}a2$ $\mathbb{Q}xh4$ 56. $\mathbb{Q}xg6$ $\mathbb{Q}h3$ 57.f4 and White should hold.

53. $\mathbb{Q}b2$ $\mathbb{Q}c4$

54. $\mathbb{Q}xf6$ $\mathbb{Q}xg4$

55.f4 $\mathbb{Q}xh4$

56. $\mathbb{Q}xg6$



Draw - even without the f4-pawn!

And the game should be drawn with correct play.

He believes his second line is winning for Black:

B)

49...f5

PART 3. Endgame Explorations

To prevent g3-g4

50.♔c3

An attempt to force through g3-g4 with 50.f3 falls short after 50...♚c5 51.g4 ♜b5 52.♖d4 (playing analogously to the last line with 52.♖f4 also fails because of 52...a4 53.♚c2 a3 54.♚b1 ♜a4! and the presence of the f3 and f5 pawns means the white rook is trapped) 52...a4 53.♚c2 a3 54.♚b1 ♜a4 55.♖d6 hxg4 56.♖xg6 gxg3 and Black wins.

50...♚c5

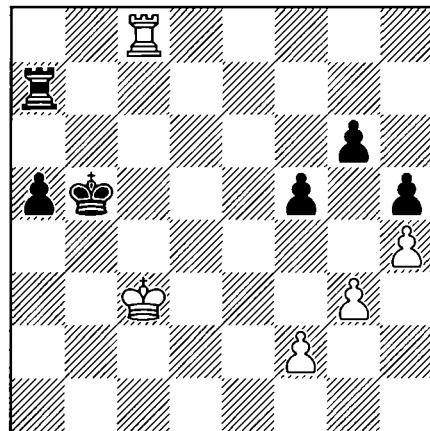
Black could try to avoid what comes next by waiting with for instance 50...♜a8 but then comes 51.♖d4+ and Black must either move onto the c-file (in which case ♜d4-c4+) or move onto the e-file (in which case simply ♜d4-a4).

51.♖c4+!?

An interesting idea, which initially I thought might draw, but now I think most likely loses. In any case I have not seen this idea mentioned before in any books and it provides a tougher challenge than simply waiting around for the standard Alekhine plan (which would come after a normal move such as 51.♚b3 ♜b5 etc.).

51...♜b5

52.♖c8



Interesting attempt

The idea is to blockade the a-pawn with the king as usual, but to prevent the black king from performing the standard switch to the kingside by cutting it along the c-file.

52...a4

53.♚b2 a3+

54.♚a2

This position is certainly not completely trivial to win. Black basically has two possible ideas:

➤ To break the cut by offering the exchange of rooks (which White cannot accept) on the c-file.

➤ To abandon the a3-pawn and go after White's kingside pawns with the rook (for instance by moving the rook to the e-file followed by ...♜e2).

I came to the conclusion that the first plan is the strongest. The only way to implement it is to play ...♚b5 and ...♜c6,

Endgame Exploration 4: Extra Pawn on the Queenside Part 1

since moving the rook to any other rank allows White to simply pick off the weak g6-pawn (followed by $\mathbb{R}g6-g5$ attacking the new weaknesses on h5 and f5).

54... $\mathbb{R}a6$

55. $\mathbb{R}c7$

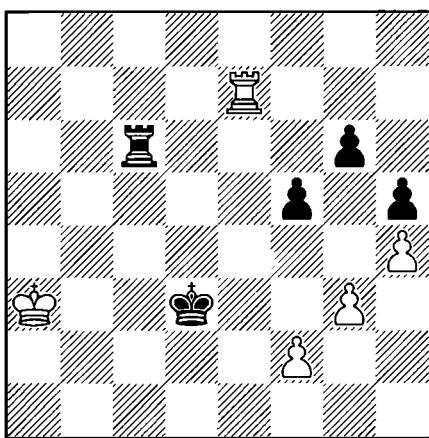
55. $\mathbb{R}c3$ is interesting. Black could continue with 55... $\mathbb{R}b4$ 56. $\mathbb{R}c8$ $\mathbb{R}e6$ and is most likely winning.

55... $\mathbb{R}c6$

56. $\mathbb{R}b7+$ $\mathbb{K}c4$

57. $\mathbb{K}xa3$ $\mathbb{K}d3$

58. $\mathbb{R}e7$



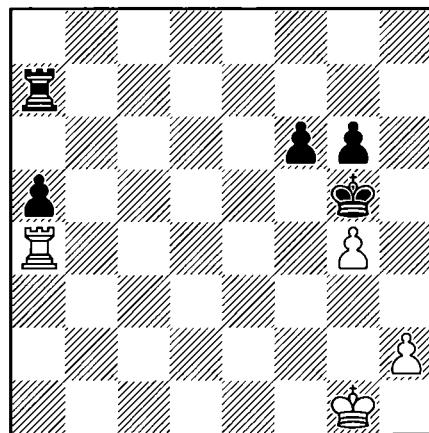
Best, but not sufficient

Trying to keep the black king cut from the kingside again. It is hard to be 100% sure, but I am almost certain Black is winning this position. He can transfer his rook to g4, followed by ...f5-f4, which appears to be winning in all lines.

It is clear from analyzing this short analysis that although Black is probably winning after 45... $\mathbb{K}g7$, it is very close to a draw in many lines. With an extra pawn and a dominant rook we would not expect this to be the case.

The reason is that Black's structure with f6/g6/h5 is quite weak and this is enough to bring the position closer to a draw (also it does not combine so well with the pawn on h5, which can be attacked by a white pawn moving to g4 further exposing the g6 weakness along the g-file). Had the pawn been on f7 there would have been less chances for a defense.

Finally we examine another interesting possibility in the Botvinnik – Borisenko endgame, that of 48... $\mathbb{K}g5$ leading to the following diagram:



Both Alekhine and Kopaev analyzed this position; both analyzes started with:

49. $\mathbb{K}g2$ $\mathbb{K}h4$

Now they diverge.

Kopaev line

Kopaev was of the opinion that White could hold a draw by playing very passively and defending an eventually 2 vs. 1 endgame solely on the kingside.

50.♔g1? ♔h3

Establishing a very strong king position and cutting the white pawns.

Kopaev's analysis continues:

51.♔h1

51.g5 is another try, I think Black will eventually win in the same way as in the main line after 51...f5, eg. 52.♔f2 ♕b7 53.♕xa5 ♕b2+ 54.♔f1 (54.♔g1 ♕g2+ and takes on g5) 54...♕g2 55.♕a6 ♕xg5.

51...♕e7!

Much stronger than 51...♕b7, the rook is needed to shield the king from side-checks.

52.♕a3+ ♔xg4

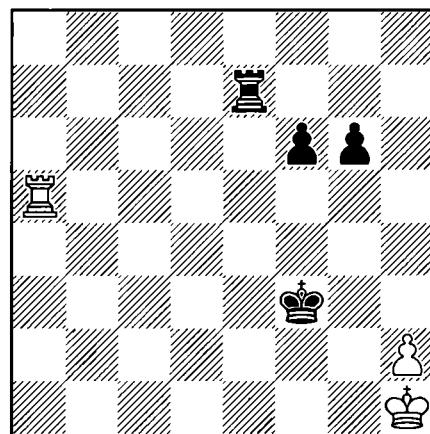
53.♕xa5

Dvoretsky states:

"Kopaev, as well as Levenfish and Smyslov, evaluate this position as drawn although after 54...♔f3! this is far from obvious."

I took the analysis a little further and found that Black is in fact just winning here:

53...♔f3!



Black king is too strong

54.h3

The first point is that this move is forced. After 54.♕a1 (or 54.♕a3+ ♕e3 55.♕a1) 54...♔f2! the rooks are exchanged leading to a simple win for Black.

54.h4 is also not good because the pawn will be lost, for instance with 54...♔g3 – threatening mate – and on the next move ...♔g3xh4.

54...♕e3!

55.♔h2

Again, this is completely forced. Any other move would allow ♔f3-g3 threatening both mate and the pawn. After the white rook is forced onto the back rank the pawn will be captured leading to a simple win with two extra pawns for Black.

Even after 55.♔h2 the position is quite hopeless for White.

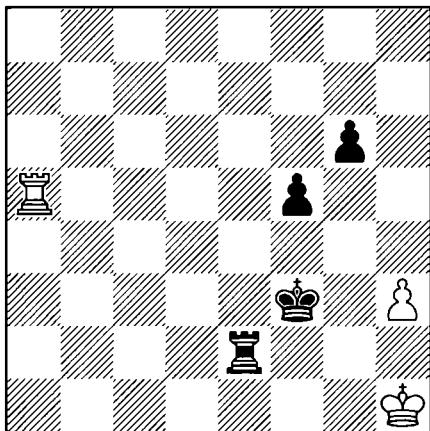
Endgame Exploration 4: Extra Pawn on the Queenside Part 1

55... $\mathbb{E}e2+$

56. $\mathbb{Q}h1$

56. $\mathbb{Q}g1$ does not make any difference to the play.

56...f5



Easily winning for Black

Black's plan is the following:

- Put the king to g3, then to h4, tying White's rook to the third rank to protect the h3-pawn.
- Then Black will push his pawns to f4 and g5, all the time keeping the white king cut on the first rank.
- Finally the black rook will come to e3, forcing either the exchange of rooks or the win of the h3-pawn. In either case the game will be won.

57. $\mathbb{R}a3+$

Black achieves his desired setup no matter what White plays. Another ex-

ample would be 57. $\mathbb{B}b5$ $\mathbb{Q}g3$ 58. $\mathbb{B}b3+$ $\mathbb{Q}h4$ 59. $\mathbb{F}f3$ (trying to slow down the black pawns) 59... $\mathbb{E}e5$ 60. $\mathbb{Q}g2$ g5 61. $\mathbb{Q}h2$ $\mathbb{E}e2+$ 62. $\mathbb{Q}g1$ f4 etc.

57... $\mathbb{E}e3$

58. $\mathbb{R}a6$

Of course the pawn endgame is completely hopeless for White.

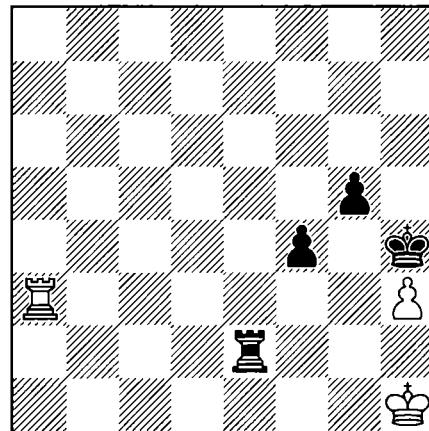
58...g5

59. $\mathbb{Q}h2$ $\mathbb{E}e2+$

60. $\mathbb{Q}h1$ $\mathbb{Q}g3$

61. $\mathbb{R}a3+$ $\mathbb{Q}h4$

62. $\mathbb{R}c3$ f4



Ready for $\mathbb{E}e3$

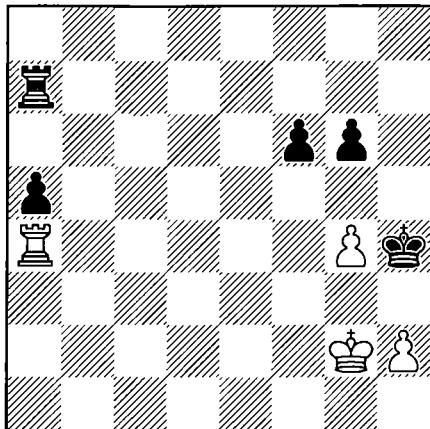
Now we have the desired setup of king and pawns. All that remains is to put the rook to e3.

63. $\mathbb{Q}g1$ $\mathbb{E}e3$

White can resign.

PART 3. Endgame Explorations

Now we should return to the position after 49... $\mathbb{Q}h4$ and look at Alekhine's suggestion.



Alekhine Line

50.h3!

Alekhine actually gives no further analysis, but he is correct! The black king should be stopped from progressing to the h3 square as in the Kopaev line. Now White has the space to wait with his king on the g2 and h2 squares. White can even consider playing $\mathbb{Q}g2-f3$ to wait as well, as $\mathbb{Q}h4xh3$ will expose Black to a mating net after $\mathbb{R}a4-a1$.

50...g5

The immediate 50... $\mathbb{B}b7$ allows the option of 51.g5+ (I am sure 51. $\mathbb{R}xa5$ is also fine) 51... $\mathbb{Q}xg5$ 52. $\mathbb{R}xa5+$ f5 and Black can play on for a while but the position is objectively drawn.

50...g5 is an attempt to prevent this g4-g5 possibility but unfortunately it has the side-effect of meaning when the f6-pawn falls Black will be left with only

with a g-pawn, which ultimately saves White in this variation.

51. $\mathbb{Q}h2$

Waiting with 51. $\mathbb{Q}f3$ (intending to return to g2 if Black also waits) is fine here too, since 51... $\mathbb{Q}xh3$ 52. $\mathbb{R}a1$ is an immediate draw due to perpetual checks and checkmate threats.

51... $\mathbb{B}b7$

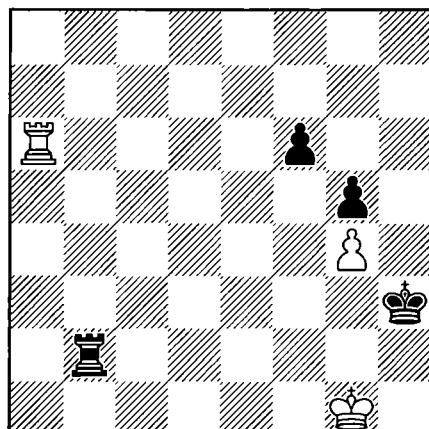
52. $\mathbb{R}xa5 \mathbb{B}b2+$

53. $\mathbb{Q}g1$

53. $\mathbb{Q}h1??$ would be a huge mistake as after 53... $\mathbb{Q}xh3$ the mate threat means Black will keep both pawns (while winning both of White's!).

53... $\mathbb{Q}xh3$

54. $\mathbb{R}a6!$



f6-pawn falls: drawn endgame

Winning the f6-pawn, and reaching a theoretically drawn endgame.

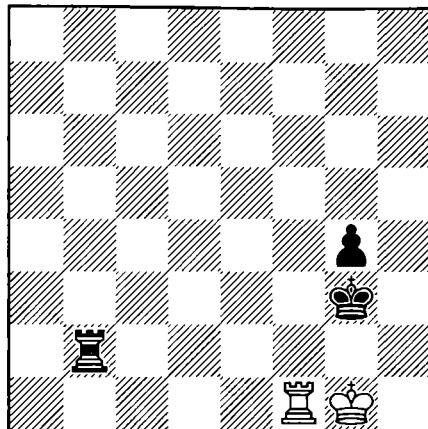
Endgame Exploration 4: Extra Pawn on the Queenside Part 1

54... \mathbb{Q} xg4

55. \mathbb{R} f6 \mathbb{Q} g3

Black actually has quite an advantageous setup but unfortunately he has a knight's pawn so White can draw with a passive defensive setup.

56. \mathbb{R} f1 g4



Black cannot switch sides with the rook

We looked at this type of position in an earlier chapter. Black can make no progress if White keeps his rook on the back rank and meets a rook check on g2 always with \mathbb{Q} g1-h1 (not \mathbb{Q} g1-f1 allowing ... \mathbb{Q} g3-h2).

Draw.

Endgame Exploration 5:

Extra Pawn on the Queenside

Part 2 – Walking the Borderline

This chapter is unique in that I studied most of the ideas contained in it only recently; in fact, over the last few months while I was writing this book. I quickly discovered, contrary to my belief, that my knowledge was woefully inadequate in these positions. I decided to learn everything again from scratch and try to present it in as simple a way as possible. After reading sections in several different books and playing hundreds of training games with my computer I made some discoveries which I will show later in the chapter.

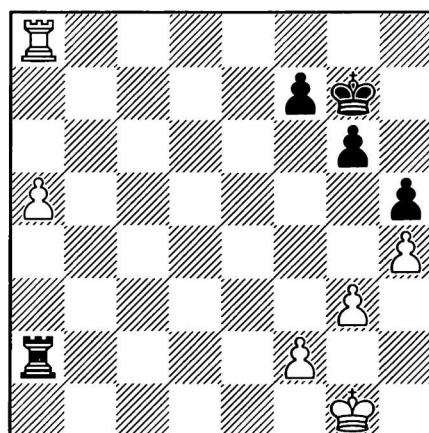
I present these endgames primarily for two reasons:

- They show many useful principles and ideas at work.
- They are (in my opinion at least) quite interesting to analyze, because often the position is walking a gray area between win and draw.

Also it is quite a useful practical endgame to know and I don't think it should

take more than a few hours to understand it reasonably well.

First let us examine a typical position, and discuss its features.



The first thing we notice is that the attacking rook is in front of the queen-side pawn this time. This has some positive and some negative features (in contrast to positions with the rook behind the pawn)

Pros

The rook can perform some functions across the ranks. From a7 it can

target the f7-pawn, or it could take position on a6 to try to prevent the black king from setting to the more active f6 square.

There is no blockade on the a-pawn in the normal sense. The pawn can walk as far forward as a7 without hindrance if it wishes.

Cons

The rook cannot perform any defensive function on the white kingside in its current position.

The black rook is allowed to be very active, and has considerable mobility. It performs a double function of watching the a-pawn combined with either targeting the white queenside pawns or hindering the white king in some way. When the white king finally leaves the kingside (as ultimately it must if White wishes to win the game) the black rook can capture pawns on the kingside very quickly (and then return to the a-file in one move if required).

Overall White has got a bad deal and does not have the positional advantage he had with his rook behind the pawn. Theoretically this endgame is therefore drawn, although in many cases it is borderline and the defender must play very accurately.

We should consider the plans for each side and discuss the pawn structure on the kingside.

White's grand plan is obvious, he wants to queen his a-pawn. The

question is how does he best go about this?

➤ He could push the a-pawn to a7 and then try to release his rook from its prison on a8 somehow. This crude plan is only effective in specific circumstances. We will discuss what they are shortly.

➤ He could push the pawn as far as a6, with his rook on a7 or a8. Then his king could come to the queenside to support the promotion. Of course it is likely White will lose some of his kingside pawns once his king leaves the kingside.

➤ There is a third idea to put the pawn only to a5, in order to place the rook on a6. This only really makes any sense if the black king was somewhere such as g7, where the ♜a6 would prevent it from becoming active.

White's plan wins if Black does nothing. Black's counter must be to prepare correctly for the white king's journey to the queenside. Once it begins he should be ready to start some very fast counterplay. Activating his king and winning kingside pawns, ultimately creating a passed pawn on the kingside.

A typical narrative would be that White pushes his a-pawn to a6 (leaving some shelter for his king in front of this pawn), then his king sets off to the queenside. Black infiltrates the kingside with his active king and captures some white pawns, while pushing his own. Finally White wins the black rook for his

PART 3. Endgame Explorations

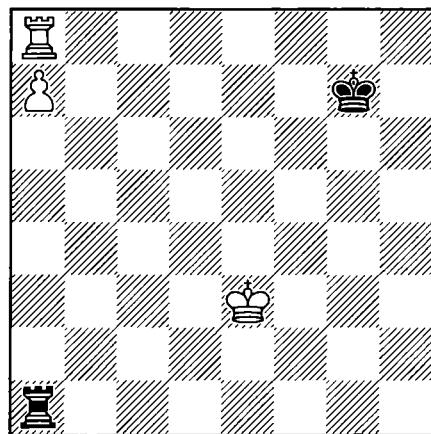
a-pawn, but Black is left with a strong passed pawn (or pawns) supported by his king on the kingside and the game ends in a draw.

Notice that the kingside pawn structures are optimal. The attacker leaves put his pawns in a formation which take the greatest number of moves to capture, and leaves the f-pawn as the base of his pawn chain, allowing his king to progress as far as the e-file before abandoning the pawns. The defender's pawns are also setup very efficiently. Only the f-pawn is left at home (we will see this can be important in the case of the white passed pawn moving to the seventh rank) and this pawn can be supported by the king from f6 and e6. The defender's h-pawn is also advanced as close to the queening square as possible because every tempo might prove vital when a race begins.

A strange feature is that although in the previous diagram it appears White has no risk at all, because he is obliged to try to win, it is not completely impossible he could go wrong and lose. This could feasibly happen if the black passed pawns at the end of the narrative somehow became too strong for the rook to handle.

Let us begin with the simplest case, when the attacker puts his pawn as far as it can go – to the seventh rank.

There is essentially only one thing to know here, and then we examine some typical consequences it has.



The position is simple: if White can move the rook from a8 without losing the a7-pawn, then he wins. There are only three possible ways he could do this:

➤ Protect the a7-pawn with the king, then move away the rook. The problem with this is that as soon as the white king reaches b6 or b7 Black will simply check the white king. The white king has no shelter at all.

➤ Play the rook from a8 with a check, then promote the pawn. This is not going to be possible unless Black plays a howler like ♜g7-g6 allowing ♕g8+.

➤ Move the rook away with a skewer trick. By this I mean if it was Black to move and he played the blunder 1...♚f7?? then White would reply 2.♕h8 winning the game, thanks to 2...♕xa7 3.♕h7+ winning the black rook.

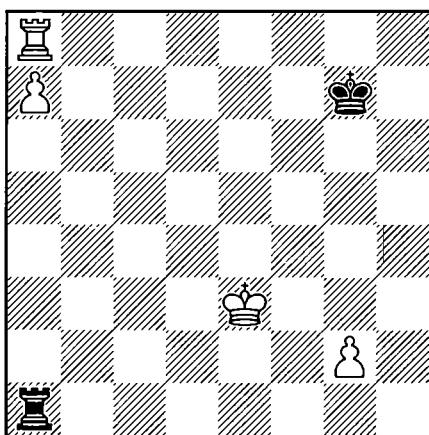
It is quite simple to see therefore, that Black cannot realistically lose the diagram position. All he must do is:

Keep his king on either g7 or h7 (the 'drawing zone').

Endgame Exploration 5: Extra Pawn on the Queenside Part 2

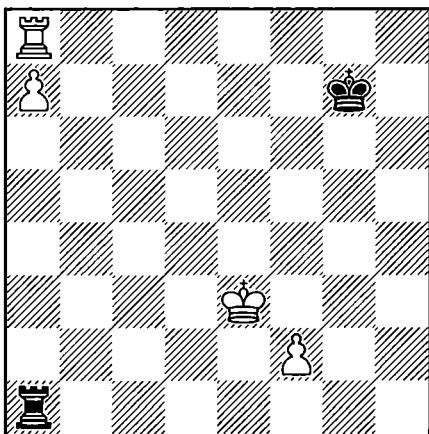
➤ Give check the white king whenever it protects the a7-pawn.

One important consequence of this is that this endgame...



...is also completely drawn (and it's the same if the kingside pawn was an h-pawn) because the black king simply does not move from its position in the drawing zone on g7.

However, this endgame...



...is winning easily, as it would be with any other pawn (except the g- or h-pawn, as we have already discussed).

All White need do is to push the f-pawn repeatedly. This would force either

the black rook to leave the a-file, or the king to leave the g7/h7 drawing zone.

1.f4 ♜a5

2.f5 ♜a6

If the rook captures the pawn then the white rook makes a step to the side then the pawn queens on a8.

3.f6+ ♔f7

3...♜xf6 4.♜b8 wins, 3...♔xf6 leaves the drawing zone and loses to 4.♜f8+ followed by a7-a8=♕.

4.♜h7!

The black king left the drawing zone by moving to f7, and the skewer trick finishes the game.

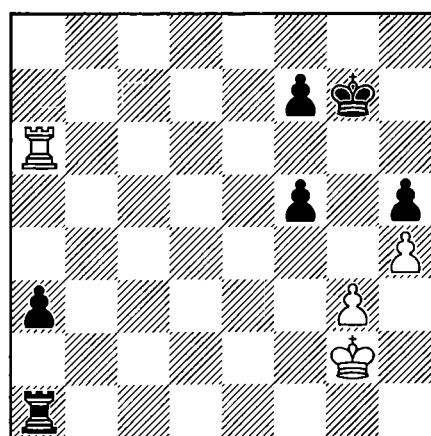
4...♜xa7

5.♜h7+

And White wins.

Short – Anand

Tilburg, 1991



Black to play

PART 3. Endgame Explorations

45...a2!

To play such a move you must be completely certain it wins. That said, Black will probably not have much success leaving the pawn on a3 in this situation with his kingside pawns such easy pickings.

46.♔h2 ♔f8

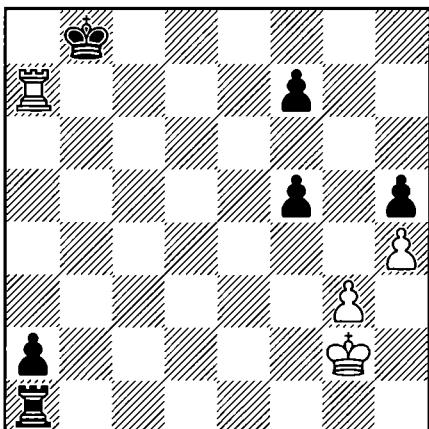
47.♕a7 ♔e8

48.♔g2 ♔d8

One benefit of the pawn being on a2 is that White's pieces are completely tied down. No counterplay is possible.

49.♔h2 ♔c8

50.♔g2 ♔b8



White cannot prevent the black king from advancing.

51.♕a4 ♔b7

52.♕a3 ♔b6

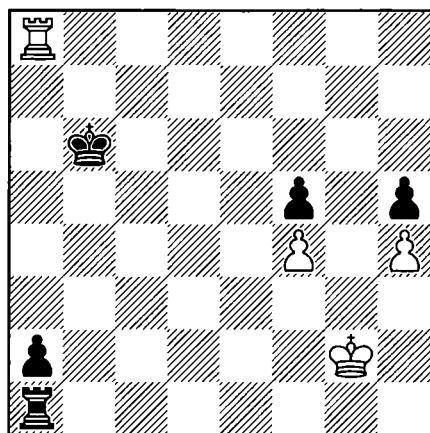
53.♖a8 f4!

This is the point! Black intends to bring a white pawn to f4, where it cannot be defended by the white king. He will then try to win this pawn with his active king. If he can do that then the game is over because he will be left with a passed f-pawn. Note Black could equally well have played this move f5-f4 at any point, but chose to improve his king first.

54.gxf4

There is absolutely no choice. If White does not make this capture then Black creates a passed f-pawn immediately with f4-f3.

54...f5



This is the position Black had to see when playing 45...a2. It is a known position (without the h-pawns, which are irrelevant here anyway) and the evaluation is that Black wins the f4-pawn with his king using *Zugzwang*.

55.♖a3 ♔c5

Endgame Exploration 5: Extra Pawn on the Queenside Part 2

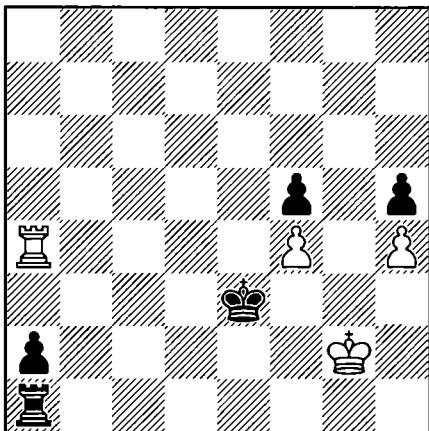
56. $\mathbb{R}a8 \mathbb{Q}c4$

57. $\mathbb{R}a3 \mathbb{Q}d4$

58. $\mathbb{R}a8 \mathbb{Q}e4$

58... $\mathbb{Q}e3$ is winning also of course, but Black has the wrong tempo here after 59. $\mathbb{R}a4$. He would need to shuffle around in order to return to this position with White to move, for instance: 59... $\mathbb{Q}d3$ 60. $\mathbb{R}a8$ (or 60. $\mathbb{R}h2 \mathbb{Q}e2$ 61. $\mathbb{Q}g2$ [else $\mathbb{Q}e2-f3$] 61... $\mathbb{Q}e3$) 61... $\mathbb{Q}d4$ 62. $\mathbb{R}a5 \mathbb{Q}e4$ 63. $\mathbb{R}a4+$ $\mathbb{Q}e3$ transposing to the game.

59. $\mathbb{R}a4+$ $\mathbb{Q}e3$



White resigned here. He cannot move the rook from a4, otherwise f4 falls, and as we know the position with a passed f-pawn is completely winning.

He could try to wait instead with:

60. $\mathbb{Q}h2$

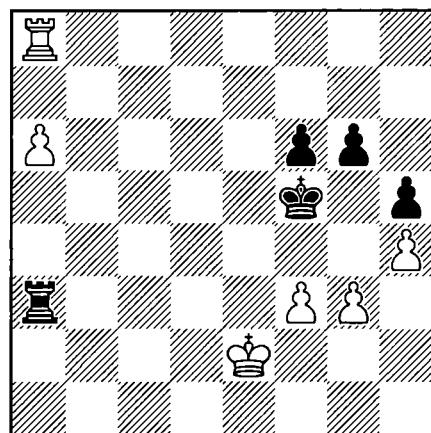
Keeping the rook on a4 and the king in the g2/h2 drawing zone. Yet Black still wins after:

60... $\mathbb{Q}f3$

And here the *Zugzwang* is absolute. White must move to rook and lose the f4-pawn, or play 61. $\mathbb{Q}h3$ and be mated with 61... $\mathbb{Q}h1\#$.

A classic must-know game featuring the outside passed pawn on the seventh rank is the following game.

Unzicker – Lundin
Olympiad (Germany-Sweden),
Amsterdam, 1954



White to play

49. $a7!!$

A king march to support the a-pawn would hardly succeed with the white pawn structure so weak and the black king so active, but why is 49. $a7!!$ so strong here?

The first point is that by the move ... $f7-f6$ Black has actually trapped his own king away from the drawing zone (if the pawn was on f7 Black would secure an easy draw by ... $\mathbb{Q}f5-f6-g7$). Note this is not immediately fatal be-

PART 3. Endgame Explorations

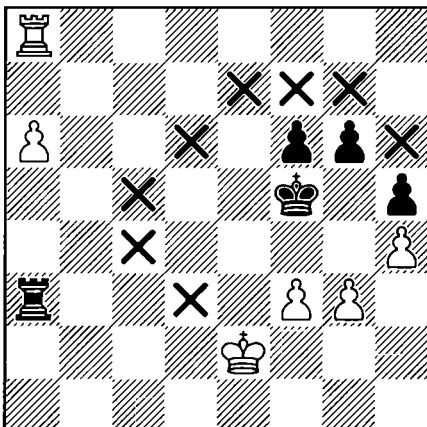
cause the king sheltered from checks for the moment.

He cannot play ... $\mathbb{Q}f5-e6$ because of $\mathbb{R}e8+$, he also cannot ever play ... $g6-g5$ because after $h4xg5$ he has no recapture which does not expose his king to a fatal check.

So the only question remaining is:

Does White have a winning plan if Black keeps his king on f5 and makes moves on the a-file with his rook?

It turns out that he does have a winning plan, and rather a strong one at that. He can move his king around the world to h6(!). Only then will he abandon the a7-pawn with $\mathbb{R}a8-b8-b5+$ and try to capture the pawns on g6 and h5, leaving a winning endgame.



49... $\mathbb{R}a2+$

50. $\mathbb{Q}d3 \mathbb{R}a1$

51. $\mathbb{Q}d4 \mathbb{R}a5$

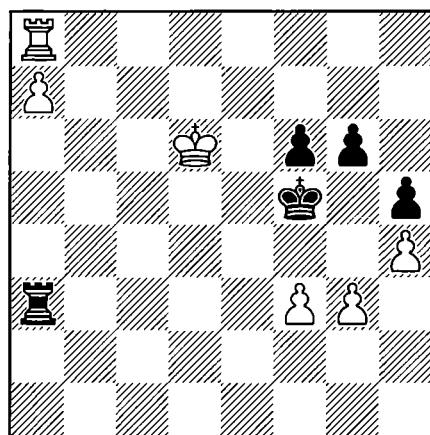
52. $\mathbb{Q}c4$

Black cannot hold a cut across any rank and eventually the white king will reach its destination.

52... $\mathbb{R}a3$

53. $\mathbb{Q}c5 \mathbb{R}a1$

54. $\mathbb{Q}d6 \mathbb{R}a3$



55. $\mathbb{Q}e7$

Logically continuing with the plan. White could actually take a shortcut here with 55. $\mathbb{R}c8$, the idea being to mate with $\mathbb{R}c8-c5$. For example the game might conclude 55... $\mathbb{R}a6+$ 56. $\mathbb{R}c6 \mathbb{R}xa7$ 57. $\mathbb{R}c5\#$

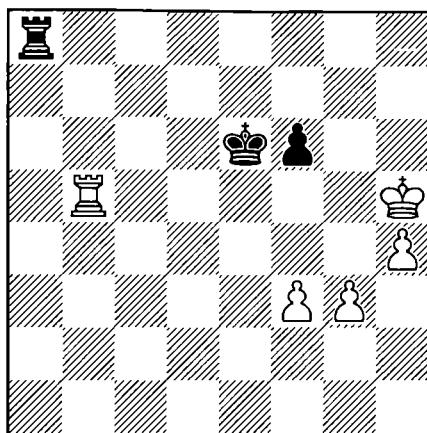
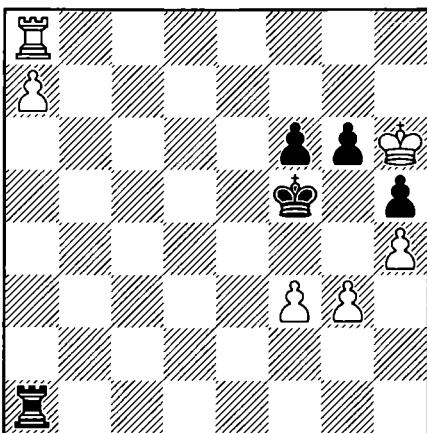
Black could have removed this shortcut possibility by playing 54... $\mathbb{R}a6+$, later transposing to the game.

55... $\mathbb{R}a6$

56. $\mathbb{Q}f7 \mathbb{R}a3$

57. $\mathbb{Q}g7 \mathbb{R}a1$

58. $\mathbb{Q}h6$



White inevitably reaches his target position. When playing 49.a7!! he had only really to consider whether this position after the king reaches h6 was winning or not.

58...♝a6

59.♜b8 ♜xa7

60.♜b5+

The black king is finally forced away from his pawns, leaving them as easy prey for the white king.

61...♚e6

62.♚xg6 ♜a8

63.♚xh5

(See Diagram)

Once White is winning two of the pawns there is no longer any hope for Black. The game finished:

63...♝g8

64.g4 ♜h8+

65.♚g6

Black resigned. 65...♝xh4 is not a problem because of 66.♜h5 exchanging the rooks (or 65.♜b6+ winning the f6-pawn).

So we can conclude that in general that although putting the pawn to the seventh rank paralyses the defending pieces, it usually also forfeits any winning chances. This is because the plan of sending the attacking king to the queenside to assist in the promotion is not now possible (there is no longer any shelter for the attacking king). The plan is only worth consideration in two circumstances:

1) If the defender has sufficient weaknesses on the kingside which could be exploited leading to the winning of pawns (or creation of passed pawns). Remember the importance of creating a passed pawn on the central four files (not on the knight's or rook's file) to remove the defending king from the drawing zone.

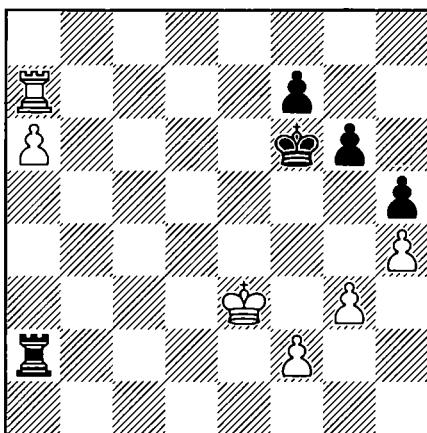
2) If the defending king does not have time to return to the drawing zone

then it also worth considering the consequences of putting the pawn on the seventh rank.

When the pawn stops short of the seventh rank, as will typically be the case, the endgame becomes much more complicated.

To start my investigation I studied three theoretical positions. I will show them here and it is important the reader remember the positions, their names, the results, and the general story of the play. So as not to clog up the chapter with too much analysis I will give only an overview for now, but I will put a fuller analysis in the chapter notes.

Steckner position



This position (with White to play) was universally considered to be drawn until the German player Steckner discovered a subtle way to win in 2003. Notice how White has brought his king as far to the queenside as possible without abandoning his pawns, and now is the moment to leave them to their fate.

1. $\mathbb{Q}d4 \mathbb{R}xf2$

2. $\mathbb{R}c7!$

Making way for the pawn to come to a7, supported from the side by the rook, and leaving a channel for the white king.

2... $\mathbb{R}a2$

3. $a7 \mathbb{Q}f5$

4. $\mathbb{Q}c4!!$

Steckner's discovery, overturning the previous assessment of the position which had only considered 4. $\mathbb{Q}c5?$ and 4. $\mathbb{R}xf7+?$

4... $\mathbb{Q}g4$

There are many other tries, dealt with in the notes following this chapter.

5. $\mathbb{Q}b3$

With the idea $\mathbb{R}c7-c4-a4$.

5... $\mathbb{R}a6$

So at least the rook will be able to give itself for the a7-pawn after the man oeuvre mentioned in the previous note.

6. $\mathbb{R}c4+ \mathbb{Q}xg3$

7. $\mathbb{R}a4 \mathbb{R}xa7$

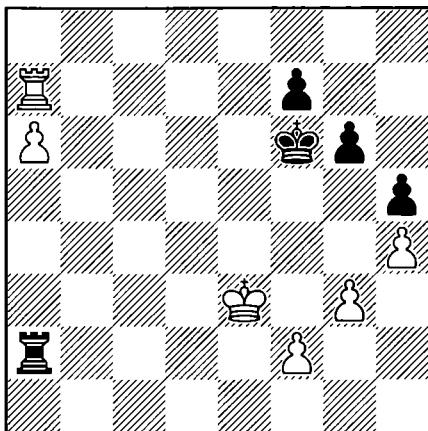
8. $\mathbb{R}xa7 \mathbb{Q}xh4$

9. $\mathbb{Q}c3$

Endgame Exploration 5: Extra Pawn on the Queenside Part 2

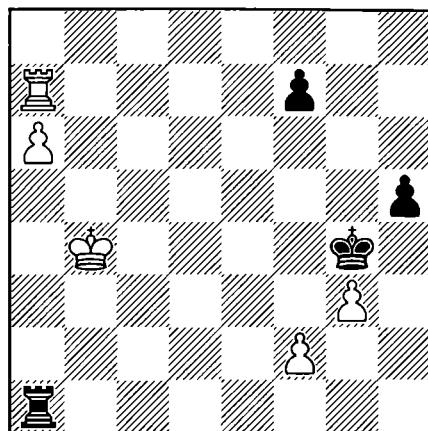
The position is still not trivial but White should win with correct play.

Dautov position



5. $\text{b3} \blacksquare a1$

6. b4



6... $\blacksquare a2$

The astute reader will have noticed the Dautov position looks a lot like the Steckner position; identical, in fact!

The difference is that this time it is Black to move, and he is just in time to defend himself, as the German Grandmaster Dautov demonstrated with the following analysis:

1... $\blacksquare a4!$

Forcing the white king to take a longer route.

2. $\text{d3} \text{g5!}$

Black is not perfectly situated to begin his counterplay, but he must act immediately to save the game.

3. $\text{hxg5+} \text{xg5}$

4. $\text{c3} \text{g4}$

I don't see a win for White after 6... h3 either.

7. $\text{b5} \blacksquare xf2$

8. $\blacksquare a8 \blacksquare b2+$

9. $\text{c4} \blacksquare a2$

10. $\blacksquare g8+ \text{f3}$

11. $\text{b5} \blacksquare b2+$

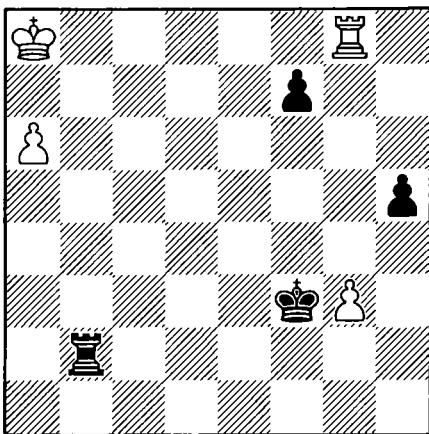
12. $\text{c6} \blacksquare a2$

13. $\text{b7} \blacksquare b2+$

14. a8

The white king finds shelter but Black is already in time with his counterplay on the kingside.

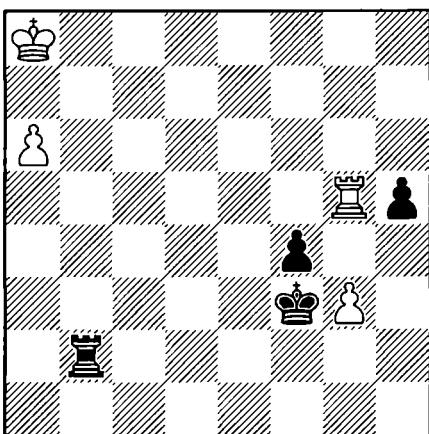
PART 3. Endgame Explorations



14...f5

15.♖g5 f4!

Forcing a passed pawn on the h-file.



16.gxf4 h4

17.f5 ♔f4

18.♖h5 ♔g4

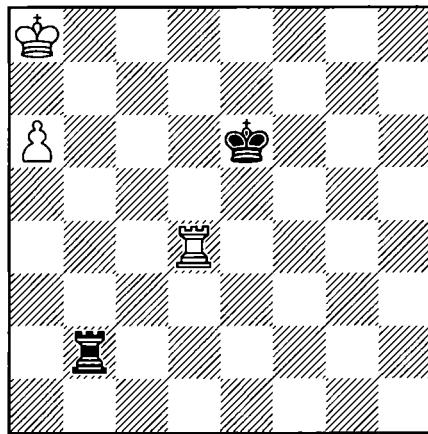
19.♖h8 ♔xf5

Simplest, reaching a theoretically drawn endgame.

20.♖xh4 ♔e6

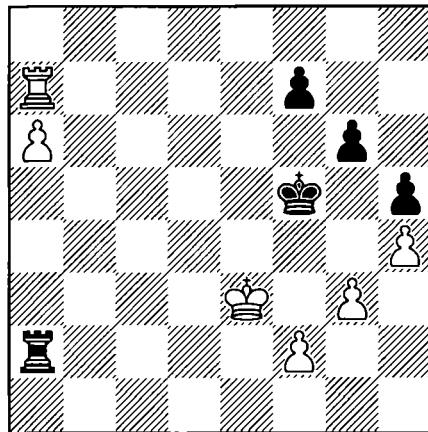
And following:

21.♔d4



The black king is just close enough and draws by one file.

Dvoretsky position



In this position, with Black to move, White has just played ♖a7 attacking the black f7-pawn. Black cannot play ...♔f5-f6 because he would transpose directly into the Steckner position; White would play ♔e3-d4 with a very complicated – but ultimately winning – position.

Black has no choice but to play:

Endgame Exploration 5: Extra Pawn on the Queenside Part 2

1...f6

This is a scary move to play now that we know the Unzicker position (the key position from Unzicker-Lundin earlier in this chapter). Dvoretsky demonstrated that Black however has nothing to fear here if he is accurate.

To reach that position White has only to play $\mathbb{B}a7-a8$, $a6-a7$ and $f2-f3$ (the exact location of the white king is not important in the Unzicker position, because the black pieces are paralyzed by the $a7$ -pawn).

I should also mention that the computer suggestion of 1... $\mathbb{Q}g4$ may also draw, although the position after 2. $\mathbb{B}xf7$ (which is by no means forced) 2... $\mathbb{B}xa6$ 3. $\mathbb{B}f4+$ $\mathbb{Q}h3$ is quite unusual. With the defending king trapped behind the white pawns the outcome is not clear.

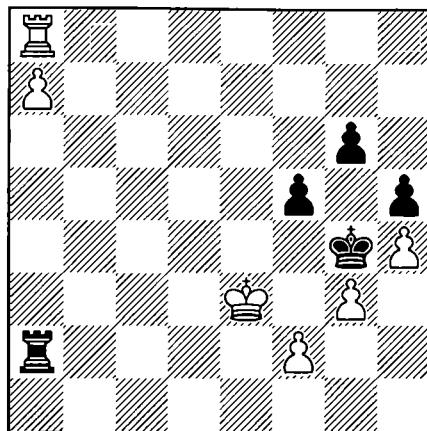
2. $\mathbb{B}a8$

Another try to reach the Unzicker position would be 2.f3 but I think Black is in time after 2... $\mathbb{B}a3+$ 3. $\mathbb{Q}d4$ (if the white king runs to h3 then Black can play $\mathbb{B}a3$ and White must retreat with $\mathbb{Q}h3-g2$ since after f3-f4 $\mathbb{B}a3-a2$ his king is trapped on h3 forever.) 3... $\mathbb{B}xf3$

4. $\mathbb{B}c7$ $\mathbb{B}a3$ 5.a7 $\mathbb{Q}g4$ 6. $\mathbb{Q}c4$ g5
7. $\mathbb{Q}b4$ $\mathbb{B}a1$ I don't see any problems for Black here. His passed pawn will soon be just as dangerous as White's.

2... $\mathbb{Q}g4$

3.a7 f5



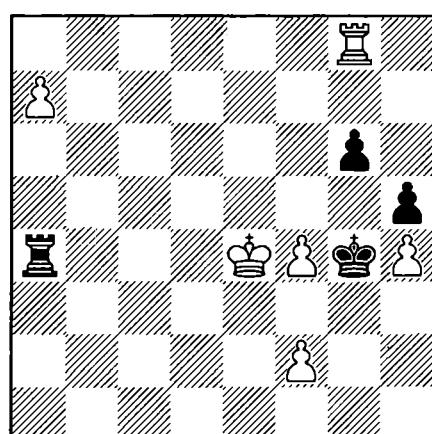
It is clear Black is much better placed here than in the Unzicker position.

4. $\mathbb{B}g8$ f4+

5.gxf4 $\mathbb{B}a3+$

6. $\mathbb{Q}e4$ $\mathbb{B}a4+$

And Black will continue to check until the white king leaves the defense of the f4-pawn, then capture on a7 and on f4 with an easy draw.



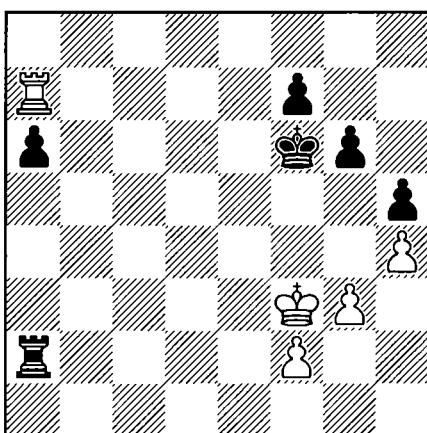
Armed with these four positions (Steckner, Dautov, Unzicker and Dvoretsky), I set out to examine the wealth of practical examples available to see if I could make sense of them.

PART 3. Endgame Explorations

The first position I examined confused me somewhat...

Kashtanov – Inarkiev

Chigorin Memorial,
St. Petersburg, 2004



White to play

I found this game annotated by Dvoretsky in a column he wrote for the website Chesscafe.com

42.♖a8

“42 ♜e3 would have been much better. In such situations, the rook should keep an eye on the f7-pawn, and be ready to capture it as soon as the black king moves toward the opposite wing. But mainly, the text move allows Black to drive back the white king.”

I have some doubts about the king on e3 in general, but here there is nothing better and the black pawn is not very far advanced, so I agree this is the best move. Although as we will see that driving back the white king does not seem particularly disastrous for White.

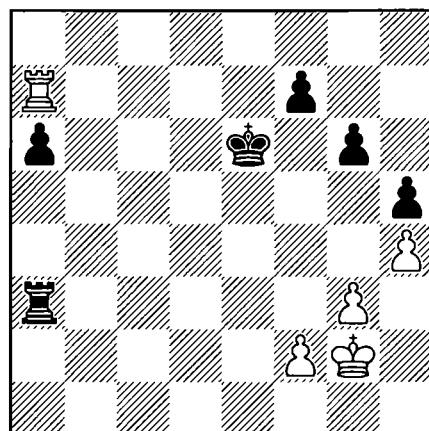
42...♚f5

43.♖a7 ♜a3+

44.♚g2

Intuitively it seems Black has gained substantially from pushing the white king back to g2.

44...♚e6



Black does not want to weaken his kingside with ...f7-f6 which would allow the white rook to win the pawns more quickly once a race develops.

45.♖a8

White should keep the rook on a7 and play f2-f3 followed by g3-g4.

A sample line is:

45.f3 a5 46.g4 ♜a2+ 47.♚g3 hxg4 (47...a4 48.gxh5 gxh5 49.♖a5) 48.fxg4 a4 49.h5 gxh5 50.gxh5 ♜f6 51.h6 ♜g6 52.h7 ♜xh7 53.♖xf7+ with a draw.

Instead White's policy seemed to be

Endgame Exploration 5: Extra Pawn on the Queenside Part 2

to wait until the $\mathbb{K}a3$ has to move, and only then activate his king. This passive strategy proves fatal.

45...a5

46. $\mathbb{B}a7$ a4

As I see it, this position is the maximum Black can possibly get using the plan of $\mathbb{B}a3$ to restrict the white king. He has his pawn as advanced as possible on a4, and he has his king as close to the queenside as possible on e6. Moreover White has not even started his counterplay with f2-f3 yet. So is the position winning for Black? I am not certain; I think it is most likely a draw but for sure White has serious practical problems.

47. $f3$ $\mathbb{B}a2+$

48. $\mathbb{K}h3$

48. $\mathbb{K}f1$ a3 49. g4 f5, with his king on the back rank, White is a long way from saving this position.

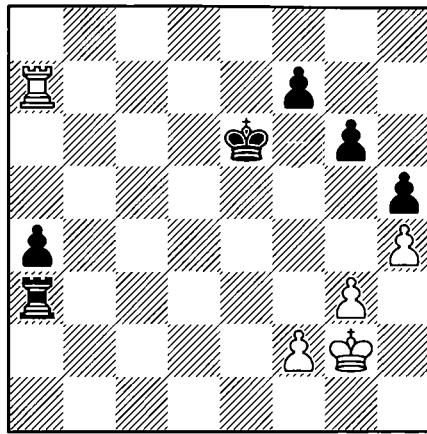
48...a3

49. g4 $\mathbb{B}a1$

50. g5 f5

If White does not capture and puts his king on f4, Black can play a3-a2 and bring his king around to h3 (a la Unzicker) and wins. So White must capture on f6 *en passant*, after which I think the position is drawn but I am not 100% certain.

Returning to the Kashtanov – Inarkiev game after 46...a4



White in fact continued his waiting policy with:

47. $\mathbb{B}a5?$

Quite a logical move to cut the black king, but here it was just too slow.

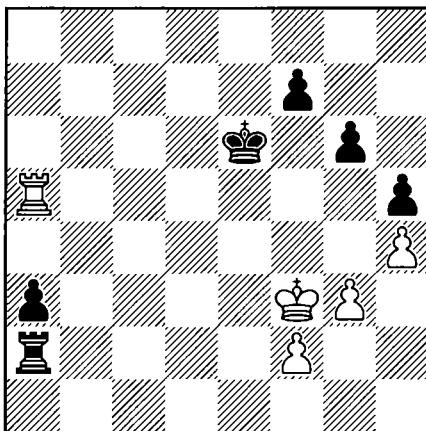
47... $\mathbb{B}a2?$

With the immediate 47... $\mathbb{K}d6$ it seems White would be lost as his kingside play is too slow. 48. $\mathbb{B}a7$ f5 49. $\mathbb{B}a6+$ $\mathbb{Q}c5$ 50. $\mathbb{B}xg6$ $\mathbb{B}c3$ White is a long way from creating a passed pawn and 51. $\mathbb{B}g5$ is ineffective due to 51...a3 52. $\mathbb{B}xf5+$ $\mathbb{Q}b4$ 53. $\mathbb{B}f8$ a2 54. $\mathbb{B}b8+$ $\mathbb{Q}a3$ 55. $\mathbb{B}a8+$ $\mathbb{Q}b2$ 56. $\mathbb{B}b8+$ $\mathbb{B}b3$ and the pawn queens.

With 47... $\mathbb{B}a2?$ Black allows the white king to emerge to f3 in order to test his knowledge of the Steckner position. A tough practical test but theoretically drawn.

48. $\mathbb{K}f3$ a3

PART 3. Endgame Explorations



The familiar device.

52. $\mathbb{R}c7+$ $\mathbb{K}b3$

53. $\mathbb{R}b7+$ $\mathbb{K}c3$

54. $\mathbb{R}a7$ $a2$

The rest is simple as White is nowhere near organizing his kingside counterplay. The game concluded:

49. $\mathbb{R}a7?$

Falling into Steckner's losing position. Correct was using the Dautov defense with 49.g4!

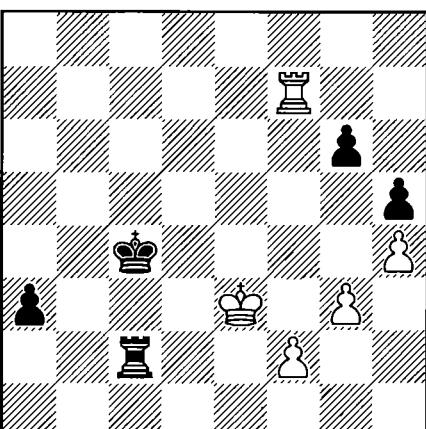
49... $\mathbb{K}d5!$

50. $\mathbb{K}e3$

We already know Steckner's revelation 50. $\mathbb{R}xf7$ $\mathbb{R}c2$ 51. $\mathbb{R}a7$ $a2$ 52. $\mathbb{R}f4$ $\mathbb{K}c5!!$ After the game continuation Black's task is easier.

50... $\mathbb{K}c4$

51. $\mathbb{R}xf7$ $\mathbb{R}c2$



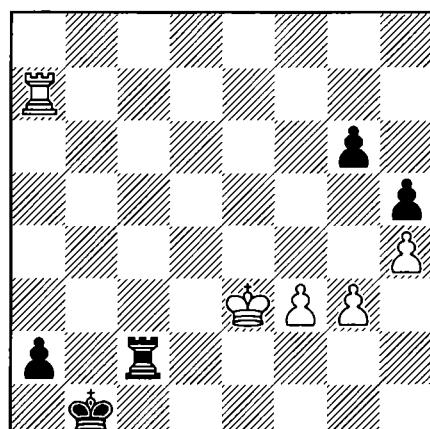
55. $f3$ $\mathbb{K}b3$

56. $\mathbb{R}b7+$ $\mathbb{K}a3$

57. $\mathbb{R}a7+$ $\mathbb{K}b2$

58. $\mathbb{R}b7+$ $\mathbb{K}c1$

59. $\mathbb{R}a7$ $\mathbb{K}b1$



White resigned.

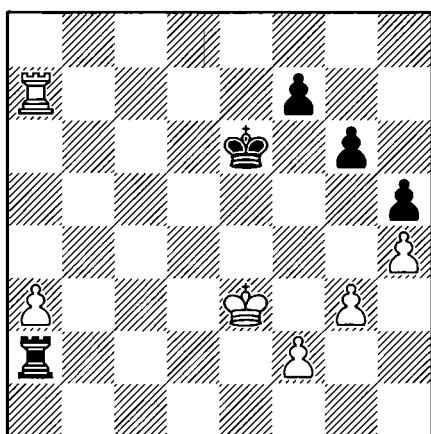
My question from this game was:

Why was this move 42. $\mathbb{K}e3$ so important? What is White gaining by activating his king like this? After all, with the king on g2 the plan of f2-f3 and g3-g4 secured a relatively easy draw (except

when the a-pawn advanced all the way to a4, which was not the case on move 42).

I searched my database for answers and found the following game (this time White has the extra pawn).

Bacrot – Robson
FIDE World Cup,
Khanty-Mansiysk, 2011



Black to play

I realized that if the king was on g7 in this position then Black could not play f7-f6 anyway (at least not until it was much too late), but one question still remained:

Can Black benefit from having his king active so early (before the white pawn has advanced far)? Or is he just obliged to wait and prepare for the pawn's advancement to a6 (then dodge the Steckner position by one tempo with either a Dautov or Dvoretsky defense)?

56... \mathbb{K} f6

57.a4 \mathbb{K} e6

58.a5 \mathbb{K} f6

59.a6

So far Black has shown no benefit at all to having the king active. He may just as well have had the king on g7 until the pawn reached a5 and only then play ... \mathbb{K} g7-f6.

As we know this position is a draw after 59... \mathbb{K} a4! 60. \mathbb{K} d3 g5! (Dautov defense).

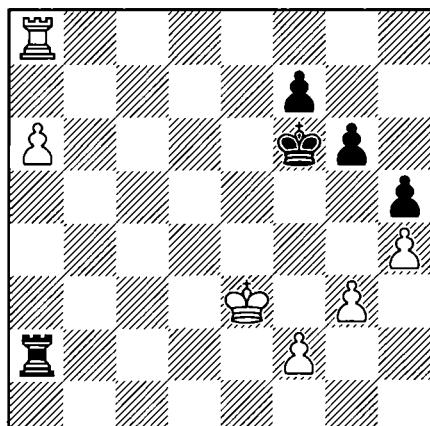
59... \mathbb{K} e6??

Apparently Black is not familiar with this endgame.

60. \mathbb{K} a8??

And neither is White! 5. \mathbb{K} d4 would have won. Compared with the Steckner position, I see no benefit to Black in having the king on e6 rather than f6.

60... \mathbb{K} f6?!



PART 3. Endgame Explorations

There is no sense in not playing ♔f5. Certainly Black would be in no danger after 60...♔f5, e.g. 61.♖a7 f6 with a Dvoretsky defense.

61.♔f3?!

Obviously this is not a good move, however although 6.♔d4 looks like it should win, I don't think that it does. There are several negative features for White here over the Steckner position. First after ♜a8-c8 (as opposed to ♜a7-c7) the pawn cannot advance to a7 where it is supported from the side. Secondly as the rook is on c8 and not c7 the white king cannot so easily step up the c-file without allowing a skewer.

Objectively I think White should play 61.♖a7 and I am certain Black would have repeated his losing mistake with 61...♔e6??.

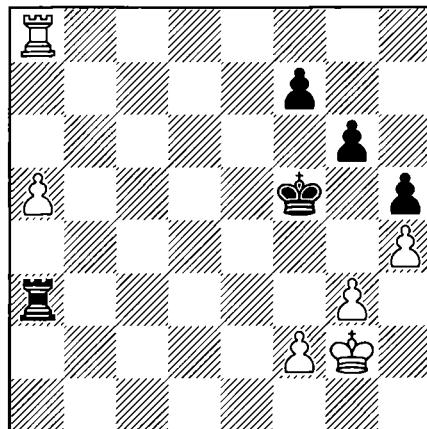
Perhaps not a great sign that White is essentially being given two moves in a row, and his best second move is to retract the first.

I will stop this game here, but suffice to say things got even worse. In any case I didn't learn anything from this regarding the activity of the king.

I played over the following game, which proved instructive:

Efimenko – Miroshnichenko

Serbian League, 2009



Black to play

Here Black has been quite bold with his king, and he is using his rook to restrict the white king. It is actually almost impossible for the white king to escape, as we will see.

35...♜a2

There is no problem with waiting in this way, as after 2.♔f3 there is 2...♜a3+. White would have to retreat because he is not prepared yet for sacrificing the f2-pawn (and allowing ...♔f5-g4). It is also possible to wait with a king move, since it is not possible for White to free himself anyway.

36.♔a6 ♜a3

37.♔f1 ♜a2

38.♔g1 ♜a1+

39.♔g2 ♜a3

We will diverge from the game at this point (which finished 6.♖f8 ♔f6 draw

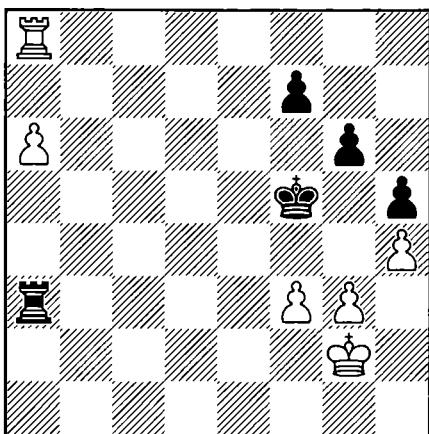
Endgame Exploration 5: Extra Pawn on the Queenside Part 2

agreed) in order to answer two questions that I had:

- What happens if White plays f2-f3 and brings his king to the queenside?
- How does Black respond if White plays $\mathbb{Q}a8-a7$ attacking the f7-pawn?

Firstly let us examine:

40.f3



40... $\mathbb{Q}a2+$

41. $\mathbb{Q}f1\ \mathbb{Q}a3$

42. $\mathbb{Q}e2\ \mathbb{Q}f6!$

Now is not the time for 42...f6?? because of 43.a7! with a winning Unzicker position.

Instead Black simply waits with the rook on a3. Notice although he may have released his king, the move f2-f3 severely weakens the white kingside structure. This was clearly the move Black was trying to force White to play all along.

43. $\mathbb{Q}d2$

The pawns must be abandoned at some stage. Perhaps he could try 43. $\mathbb{Q}a7$ first but Black is drawing so comfortably in the main line that this slight wrinkle is not going to change the result. I am sure Black is drawing easily after 43... $\mathbb{Q}e6$ or 43... $\mathbb{Q}e5$ (probably even 43... $\mathbb{Q}g7$).

43... $\mathbb{Q}xf3$

44. $\mathbb{Q}c2\ \mathbb{Q}xg3$

45. $\mathbb{Q}b2\ \mathbb{Q}g4$

Black has only to return to the a-file to secure an easy draw, which White cannot prevent.

White could try another way, namely:

40. $\mathbb{Q}a7$

I think this is what I would play, as it gives Black a chance to go immediately wrong with 40...f6??, which is of course bad for the usual reason.

40... $\mathbb{Q}f6$

Still White cannot release his king without playing the weakening f2-f3, Black can always wait with ... $\mathbb{Q}e6-f6$ if needed.

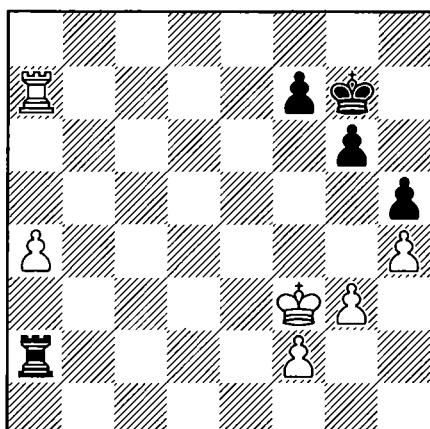
So if the defender can trap the attacking king on his fianchetto square (g2 or g7) then it is good to do so. The only try is then to move the f-pawn to release the king, but this weakens the attacker's kingside structure to the degree that the defense is fairly simple.

Zugzwang troubles

During the games I played in this end-game against my computer, I encountered several situations where despite knowing the main theoretical positions I mentioned and knowing some other general ideas, I had no idea what to play..

One specific position (actually two closely related positions), was giving me particular troubles. I searched my database for the exact position and found a top level example.

Svidler – Akopian
EU-Cup, Chalkidiki, 2002



White to play

We join this game slightly before the critical moment I mentioned, as some of the preceding play is also quite enlightening.

We see that White's rook is ideally placed on the seventh rank, his king would be better on e3 but for the moment this is not critical as Black cannot prevent $\mathbb{f}3-e3$ anyway. The important thing is that the white king did not become trapped on g2 (cut by a $\mathbb{R}a3$).

Black has placed his rook optimally on a2, targeting the f2-pawn. His king still needs to improve from g7 to f6.

48.a5

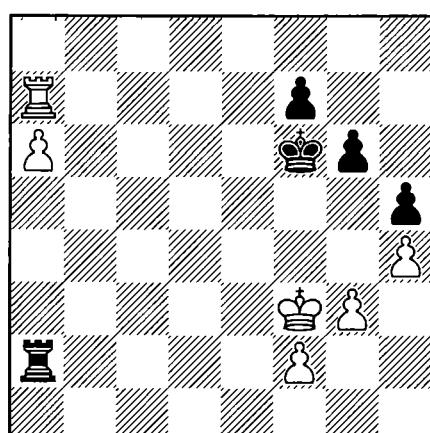
It is illuminating that Svidler, one of the world's strongest players (back in 2002 when this game was played he was perhaps not as strong as today, but still rated 2690), declines to play 48... $\mathbb{R}a6$. Presumably he realized, correctly in my opinion, that the position is harder to defend when the attacker keeps his rook on the seventh rank. Perhaps he also realized how unpleasant the position which occurs in a few moves will be for Black.

After 48... $\mathbb{R}a6$ we know that Black would be in big trouble if he allowed a4-a5, but he can draw by playing 48...f6 49.a5 g5.

48... $\mathbb{R}f6$

With the rook remaining on a7, there is no f7-f6 plan, so Black must activate the king.

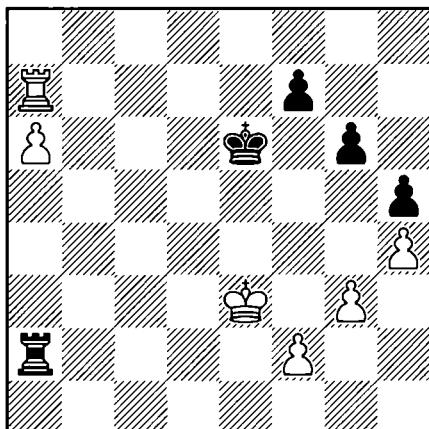
49.a6



What should Black play? If it was White's move, we already know the answer: $\mathbb{Q}e3 \mathbb{B}a4! \mathbb{Q}d3 g5$, with a Dautov defense.

Black is in an unpleasant *Zugzwang*. The move 49... $\mathbb{Q}e6$ is not good, after 50. $\mathbb{Q}e3$ what does Black do now? He cannot return with 50... $\mathbb{Q}f6$ because of 51. $\mathbb{Q}d4$ with a Steckner winning position. He could try 50... $\mathbb{B}a4$, but after 51. $\mathbb{Q}d3$ he is basically a tempo down on either a Dautov or Dvoretsky defense (the king is not on f6 to support g6-g5). One final try would be 50... $f6$ (which worked well with the king on g7) but then comes 51. $\mathbb{B}a8!$ $\mathbb{Q}f7$ (forced otherwise a6-a7 wins) 52. $\mathbb{Q}d4$ and I see no way for Black to counter White's king march to the queenside.

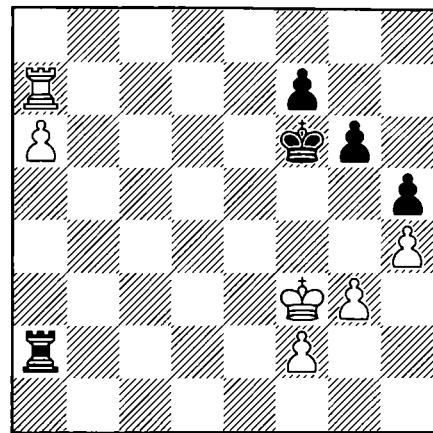
Zugzwang position



This position with Black to move, which I have dubbed the 'Zugzwang position', is to be avoided at all costs. Mostly likely Black is simply lost here.

Returning to the position from Svidler – Akopian:

Skewed Dautov position



It seems inconceivable that Black could be lost here. I studied the following possibility, which is very similar to the Dautov method:

1... $\mathbb{B}a4!$

2. $\mathbb{Q}e3 g5!$

3. $h \times g5+$

If White plays for instance 3. $\mathbb{Q}d3$ declining to capture on g5 then after 3... $g \times h4$ 4. $g \times h4$ $\mathbb{B} \times h4$ Black has very few problems having already created a passed pawn.

3... $\mathbb{Q}xg5$

At first it seems that Black is simply a tempo up on the Dautov position (which he is if White now plays 4. $\mathbb{Q}d3$, so we will assume Black draws easily after this).

However he does have the switch-back option of:

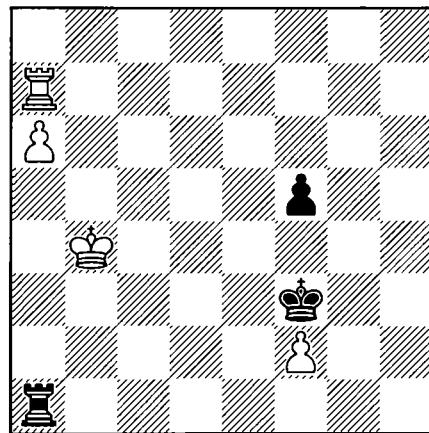
4. $\mathbb{Q}f3!?$ $h4$

PART 3. Endgame Explorations

This seems the most forcing.

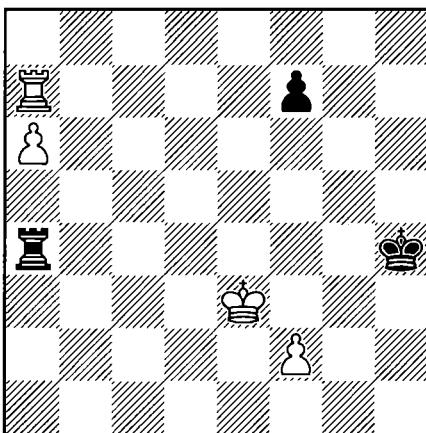
5.gxh4+

Alternatives are even less worrying: 5. $\hat{a}a8$ h3 and Black will check the white king away from the corner and push ...h3-h2 deflecting the white rook. 5. $\hat{g}g2$ hxg3 6. $\hat{x}xg3$ $\hat{a}a3+$ 7.f3 f6 and Black will put his king on f5 with a very active position.



5... $\hat{x}h4$

6. $\hat{e}e3$



6... $\hat{g}5$

7. $\hat{d}d3$ f5

It is hard to believe White can be winning this position with the black king so active.

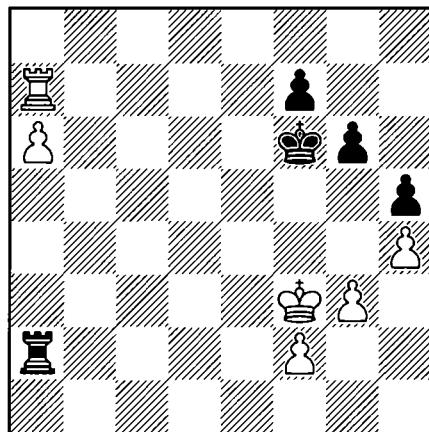
8. $\hat{c}c3$ $\hat{f}4$

9. $\hat{b}b3$ $\hat{a}a1$

10. $\hat{b}b4$ $\hat{f}3$

Black is easily in time and the game is a draw.

Finally we will see how Svidler – Akopian actually concluded.



Akopian attempted to solve the problem by playing:

49... $\hat{e}e5$

Which is quite an attractive looking move. If it worked it could be a good argument for the rapid activation of the defender's king. The idea is that by seizing control of the squares on the fourth rank, Black can check the white king until it either is

Endgame Exploration 5: Extra Pawn on the Queenside Part 2

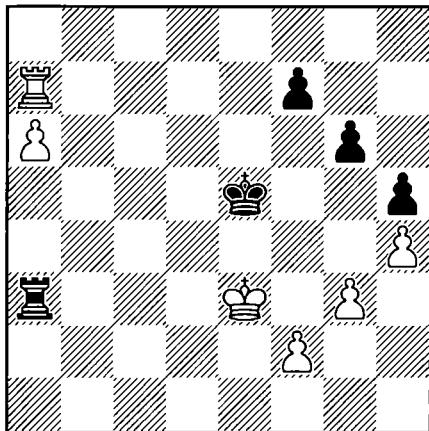
forced to hide on g2 (which we know massively eases the defender's task) or until he runs across the board and abandons his f2-pawn.

50. $\mathbb{Q}e7+$ $\mathbb{Q}f6$

51. $\mathbb{Q}a7$ $\mathbb{Q}e5$

White repeats once.

52. $\mathbb{Q}e3!$ $\mathbb{Q}a3+$



Note that even if the white king was on f3 here, Black would not gain anything because of $\mathbb{Q}f3-e2$, $\mathbb{Q}a3-a2+$, $\mathbb{Q}e2-e3$ and $\mathbb{Q}a2-a3+$ reaching exactly the same position.

In his annotation to this game, Finkel awards 52... $\mathbb{Q}a3+$ a '?', even though it is probably the best move. He then makes the outrageous suggestion of 52...f6 (!)

Only a brief analysis is needed:

52...f6 53. $\mathbb{Q}a8$ $\mathbb{Q}a3+$ (If 53... $\mathbb{Q}f5$ [or any other neutral move] 54.f3 and nothing on earth is stopping the pawn coming to a7 with an Unzicker posi-

tion. Also if 53... $\mathbb{Q}d6$ 54.a7 $\mathbb{Q}c7$ 55. $\mathbb{Q}f8$ White wins too many pawns.) 53. $\mathbb{Q}e2$ $\mathbb{Q}a2+$ 54. $\mathbb{Q}d3$ $\mathbb{Q}a3+$ 55. $\mathbb{Q}c4$ Black is lost, a7 and f3 follow.

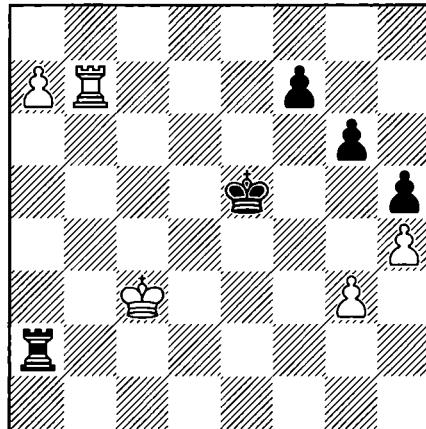
53. $\mathbb{Q}d2$ $\mathbb{Q}a2+$

54. $\mathbb{Q}c3$ $\mathbb{Q}xf2$

In fact Black has only succeeded in driving the white king all the way to the queenside, and he is lost here.

55. $\mathbb{Q}b7$ $\mathbb{Q}a2$

56. a7



Compared to some other positions Black is a long way from making a passed pawn on the kingside. Here it seems almost as he needs to win all of the white kingside pawns before he can start any counterplay.

56... $\mathbb{Q}f6$

Losing very quickly, but Black should be losing anyway: 56...f5 57. $\mathbb{Q}b4$ $\mathbb{Q}d6$ 58. $\mathbb{Q}g7$ $\mathbb{Q}c6$ 59. $\mathbb{Q}xg6+$ $\mathbb{Q}b7$ 60. $\mathbb{Q}g5$ $\mathbb{Q}g3$ 61. $\mathbb{Q}c4$ $\mathbb{Q}xa7$ 62. $\mathbb{Q}d4$ and the black king is just too far from the kingside.

PART 3. Endgame Explorations

The game concluded:

57. $\text{Qc}4 \text{Ba}1$

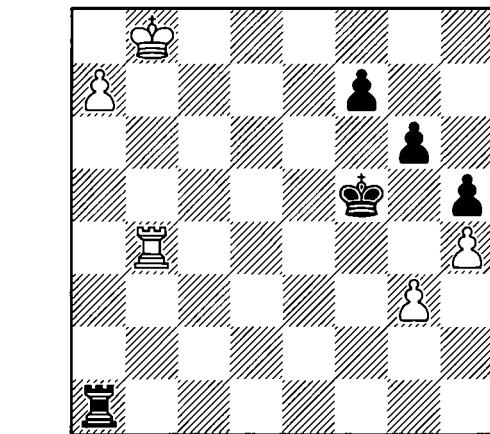
58. $\text{Qb}5 \text{Bb}1+$

59. $\text{Qc}6 \text{Bc}1+$

60. $\text{Qb}6 \text{Bb}1+$

61. $\text{Qc}7 \text{Ba}1$

62. $\text{Qb}8 \text{Qf}5$

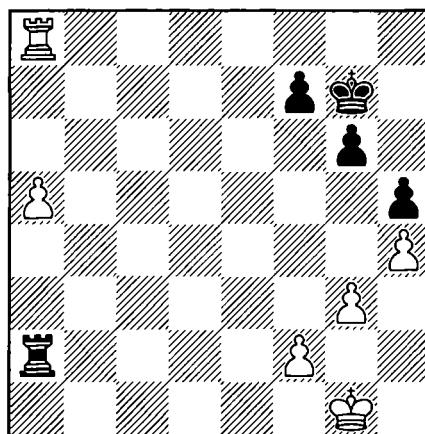


Killing any counterplay and next move White will queen his pawn.

63. $\text{Bb}4!$

White wins.

SUMMARY OF IDEAS



Advancing the passed pawn to the seventh rank is rarely a good idea, since it leaves the attacking king with no shelter on the queenside. It should only be considered when the defender has a weak kingside pawn structure or his king cannot reach the drawing zone.

I identified six positions which, when mastered, should be sufficient to deal with most situations:

Unzicker position

Steckner position

Dvoretsky position

Dautov position

Zugzwang position

Skewed Dautov position

The strongest plan for the attacker is to place his rook on a7 (a2 for Black), king on e3 (e6 for Black) and push his pawn to a6 (a3 for Black). This is followed by the transfer of the king to the queenside.

In this case the defender should wait and apply a Dautov, skewed Dautov, or Dvoretsky defense, depending on circumstance (while being careful not to fall into the *Zugzwang* position).

I can find no particular benefit in activating the defending king quickly (when the attacking pawn is not far advanced). I am therefore still not sure why 42.♖a8 was awarded a ‘?’ in Kashtanov – Inarkiev.

I think the annotation is more because the move indicates a lack of understanding by White than any objective problem with the move. Indeed the plan Black undertook to ‘exploit’ the move 42.♖a8 seemed to present White with an easier defense in the form of f3 and g4.

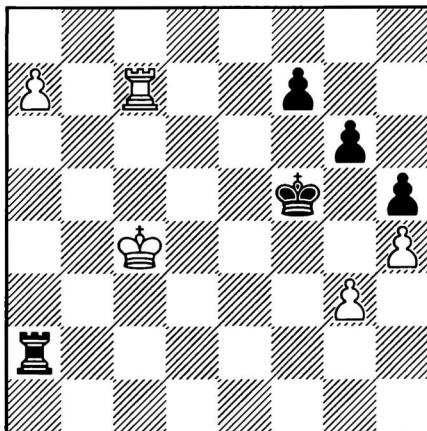
The plan of leaving the attacking rook on the sixth rank (a6 for White, a3 for Black) to restrain the defender’s king is only effective if the passed pawn can reach the fifth rank (otherwise ...f7-f6 followed by ...g6-g5 provides sufficient counterplay).

Although objectively both plans should end in a draw, I think in practical terms this plan is weaker than the previous one. This is because I think it is possible the defender could find the correct moves over the board, without previous knowledge.

If the defender can trap the attacker’s king on the fianchetto square (g2 for White, g7 for Black) as in the game Efimenko – Miroshnichenko, this can ease the defensive task considerably. The attacker has no choice but to advance his f-pawn, severely weakening his pawn chain.

THEORETICAL NOTES

First we will examine some alternatives after Steckner's $\text{Qc4}!!$



We already examined the main line with 1... Qg4 .

Alternatives are:

1... Ra1

2. Qb5 Rb1+

3. Qc6 Ra1

4. Qb7 Rb1+

There is no deviation; the line is practically forced.

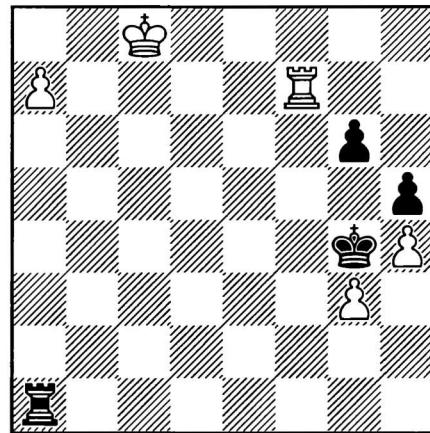
5. Qc8 Ra1

6. Rxf7+ Qg4

(See Diagram)

7. Rg7 Qxg3

8. Rxg6+ Qxh4



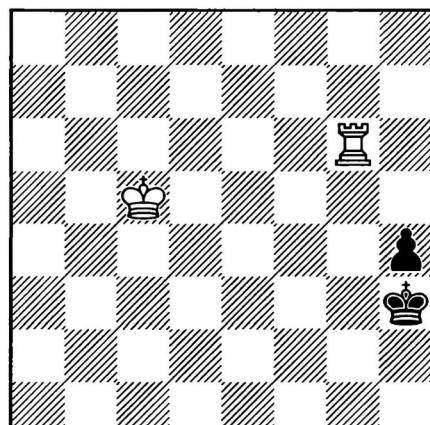
9. Qb7 Rxg3+

Or else the white rook will swing across the sixth rank and White will queen the pawn unhindered.

10. Qxa7 Qh3

11. Qb6 h4

12. Qc5



White reaches f3 with his king while the pawn is still on h3, so the position is winning.

Endgame Exploration 5: Extra Pawn on the Queenside Part 2

B)

1...f6

This line is more complicated.

2.♔b5 ♜b2+

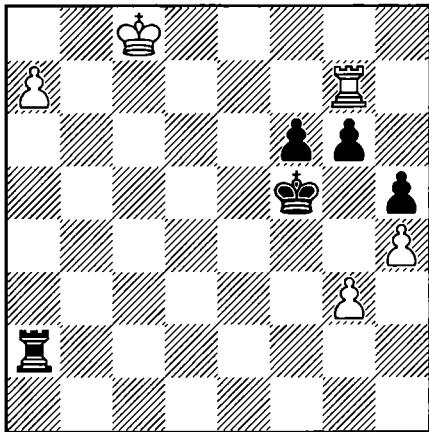
It is too soon for 2...♔g4?? 3.♕c4+ intending ♜c4-a4.

3.♔c6 ♜a1

4.♔b7 ♜b2+

5.♔c8 ♜a2

6.♗g7!



Taking time to hinder ...♔f5-g4. The immediate 6.♔b8? only draws after 6...♔g4 7.a8=♕ ♜xa8+ 8.♔xa8 ♜xg3 and Black is too fast on the kingside.

6...g5

After the best try: 6...♔g4 White is winning by one tempo in the very complicated variation:

7.♗xg6+ ♔h3 8.♗g7 ♜a3 9.♔b8 ♜b3+ 10.♔b7 ♜xg3 11.♔b4 ♜g8+ 12.♔b7 ♔g3 13.a8=♕ ♜xa8 14.♔xa8 f5 15.♔b7 f4 16.♔c6 f3 17.♔d5 f2 18.♔b1 ♔xh4 19.♔e4 ♔g3 20.♔e3 h4 21.♔e2 h3 22.♔b8 h2 23.♔h8+ ♔h3 24.♔xf2 h1=♕+ 25.♔f3. Truly on the borderline!

7.♔b8 ♜b2+

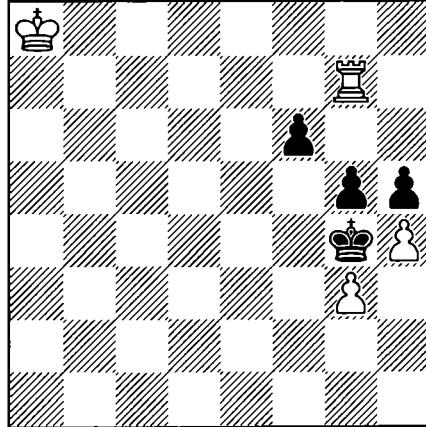
8.♔b7 ♜e2

9.a8=♕ ♜e8+

10.♔a7 ♜xa8+

11.♔xa8 ♔g4

12.♗g7!

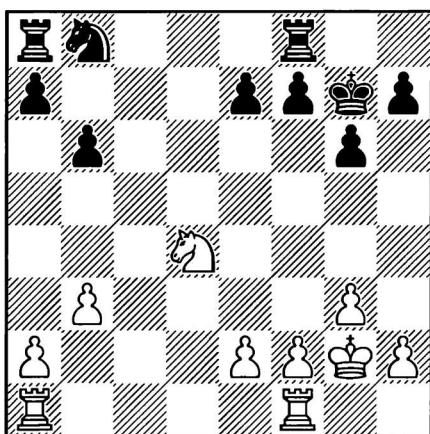


Halting Black on the kingside for long enough to bring the king across. White wins.

Endgame Exploration 6: **Ulf on the Warpath!** **Development in the Endgame**

A favorite *tabiya* of the legendary Swedish grandmaster Ulf Andersson can be reached after the following moves.

1. $\mathbb{Q}f3$ b6 2. g3 $\mathbb{Q}b7$ 3. $\mathbb{Q}g2$ c5 4. 0-0
 $\mathbb{Q}f6$ 5. c4 g6 6. b3 $\mathbb{Q}g7$ 7. $\mathbb{Q}b2$ 0-0 8. $\mathbb{Q}c3$
d5 9. $\mathbb{Q}xd5$ $\mathbb{Q}xd5$ 10. $\mathbb{Q}xg7$ $\mathbb{Q}xg7$
11. cxd5 $\mathbb{Q}xd5$ 12. d4 cxd4 13. $\mathbb{Q}xd4+$
 $\mathbb{Q}xd4$ 14. $\mathbb{Q}xd4$ $\mathbb{Q}xg2$ 15. $\mathbb{Q}xg2$



Draw?

The position seems quite dry. About 60% of the material has already been vacuumed from the board, and the pawn structure is symmetrical to the last pawn. True, the rooks remain — which represent considerable fire-

power — but it seems likely at least one pair will be exchanged on the open c- and d-files.

Nevertheless White has scored a healthy 58.5% from this position on my database, meaning he scores better in the long run from here than he does from the starting position (mainly due to the fact a Black victory is rare indeed).

Neither side has any structural weaknesses and it is also difficult to argue that you have a superior structure when you have the exact same structure as your opponent (although I have seen it attempted!).

(Literally) the only difference between the positions is the location of the knights. White's knight is well positioned, whereas Black's knight is yet to venture from its starting position. Indeed, if the knights were removed, the position could immediately be agreed drawn.

With the extra move and better positioned knight obviously any player would take White here over Black if forced, but

Endgame Exploration 6: Ulf on the Warpath!

it is hard to believe White has anything meaningful.

Another question naturally arises: what is our plan here? In general terms:

➤ Ultimately we want to create weaknesses and this is most likely to happen on the queen's flank.

Keep the initiative. As long the white knight is more active than its counterpart White will be rewarded with the tactical strengths inherent to the knight, and Black will be denied them.

Already we have reached quite an important moment and Black has several micro-problems to solve.

Andersson – Marovic

Banja Luka, 1976

15...♞d7

Andersson reached this *tabiya* on a number of occasions and faced various responses in this position. Later we will look at the move 15...♝c8 and the controversial move 15...a6.

16.♝fd1

A non-forcing move which creates some threats. 16.♝ac1 was also possible, and after 16...♝fc8 would transpose to a line 15...♝c8 16.♝ac1 ♞d7. This perhaps suggests that 15...♞d7 is not the most accurate move order for Black.

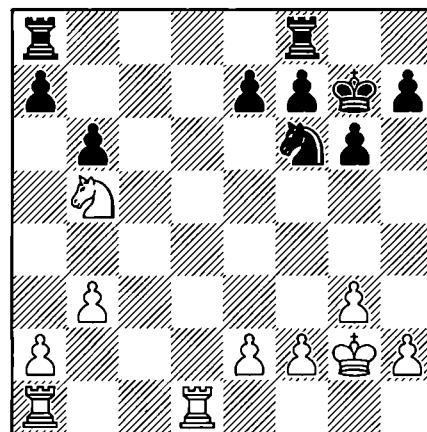
After 17.♝fd1 the threat is ♞d4-e6+ followed by ♜d7 (or White could ex-

change a pair of rooks on the c-file and then use this tactical motive).

16...♝f6

Black decides the c5 square is not worth occupying, presumably because of the vulnerability of the knight to the advance b3-b4.

17.♞b5!



Annoying knight on b5

There is no doubt White's advantage has increased over the last few moves. Black's solution to his micro-problems on move 15 has been logical, but certainly not optimal.

Although the White's advantage is still theoretically small it is tangible now, and the form it takes has clarified:

➤ It is difficult to exchange rooks without losing the a7-pawn. Although Black can consider this as a pawn sacrifice, it is hardly ideal.

➤ Black is uncomfortable as long as the knight remains on b5 targeting

PART 3. Endgame Explorations

the a7-pawn, but removing it is no easy task:

- The crude 17...a6? isn't going to offer any relief after 18.♘c7 ♜a7 (forced to hold the a6-pawn) 19.♗ac1 (preventing 19...♜c8 on account of ♔e6+ winning the exchange) 19...♔g8 and now at minimum White can play 20.♘d5 ♘xd5 21.♖xd5 with a sizeable advantage in the double rook endgame. Notice how the lack of coordination between the black rooks means that White (temporarily at least) controls both the open files. With the black queenside weakened and an infiltration square on c6 (and potentially on c7 and d7 if Black decides to connect his rooks on the back rank) Black has nothing but hardship ahead to save the position.

- I have no doubt that Black can hold the position after 17...a5 with correct play. It is an unpleasant notion, though, that the white knight will remain on b5 forever (or as long as it wishes) and the b6-pawn will be eternally weak. Later on White could attack b6 with ♘a3-c4 and start expanding in the center and the kingside.

➤ The black ♔f6 is cut from the action due to the squares controlled by the white rook on the d-file.

It is easy to look at this position at home and fail to fully appreciate Black's problems. In a game situation every detail becomes a worry.

Instead, the tempting 17.♘c6?! was not as strong on account of 17...♜fc8!

18.♗ac1 (if 18.♘xe7 then ♜c2 or ♜e8) 18...♜c7 19.♗c4 ♜ac8 20.♗dc1 b5 21.♗c2 ♔d7! and the white ♘c6 will be removed with ♘c6-b8 or ♘c6-e5, leaving complete equality.

17...♜fc8

18.♗ac1 ♜xc1

18...a6? is still a weak move, for similar reasons to the last note:

19.♘c7 ♜ab8 (19...♜a7 20.♘e6+ again) 20.♘xa6 ♜xc1 21.♗xc1 ♜a8 22.♗b4 and White is just a pawn up for nothing.

19.♗xc1 a6

Understandable, and usually passed without comment in commentaries of this game, but I think Black missed a good alternative here with the computer suggestion of 19...♝d8!?.

Some sample variations are:

➤ 20.♘xa7 ♜d2 21.a4 ♜xe2 22.♘c8 ♜b2 (notice how the ♔f6 suddenly finds play now, menacing leaps to e4 or g4) 23.♘xb6 ♜xb3 24.a5 ♜a3 25.♗c5 ♜a2 and Black has no problems at all.

➤ 20.♗c2 ♜d7 although Black may still be a tiny bit worse here, his position looks more coherent than what he reached in the game.

➤ 20.♗c7!? a6 (20...♝d2!?) 21.♘c3 e6 22.♗a7 ♜c8 23.♘d1 ♜c2 24.♗xa6 ♜xe2 25.♔f1 ♜c2 26.♗xb6

Endgame Exploration 6: Ulf on the Warpath!

Bxa2 27.b4 Nd5 and with the white knight tied to d1 and Black's pieces so active he should have no problems.

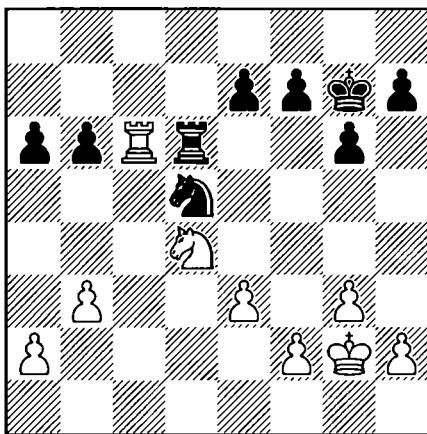
20. Nd4 Bd8

21.e3 Nd5

Centralizing the knight and taking c7 under control. Again this near-symmetry makes White's edge clear.

21...e5 is probably not so bad, but violates the principle that when you are worse creating advanced pawns is not a good idea.

22. Bc6 Bd6



How is the knight endgame?

23. $\text{Bxd6!?$

A very interesting decision. Many players would have tortured Black with non-committal moves for hours here, but instead he places complete faith in being able to cause serious problems based solely on the weakness of Black's d6-pawn.

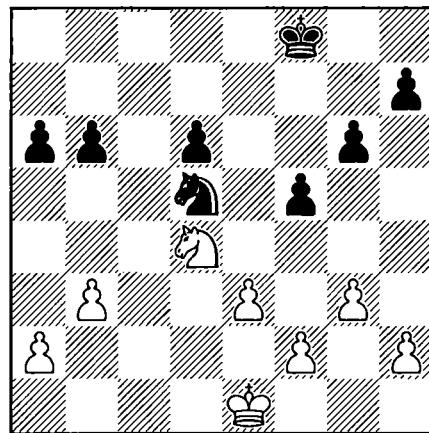
23... exd6

24. f1 f8

25. e1

We can see White's plan is to improve his position with e1-d2 , e3-e4 and f2-f4 . Any attempt by Black to exchange the d6-pawn for the e4-pawn with d6-d5 will be met with e4-e5 , creating a powerful kingside pawn majority (and the weak, blockaded black d-pawn remains on the board). I don't think the position is winning, but White can press and perhaps he can create another weakness on the kingside.

25... f5



This is another big decision. Black obviously judged that White's expansion would be dangerous, and stops it immediately. The pawn advance does create weaknesses however and perhaps more importantly, after White exchanges his e-pawn with e3-e4 , he will be left with a workable kingside majority.

26. d2 e8

27. Nc2

PART 3. Endgame Explorations

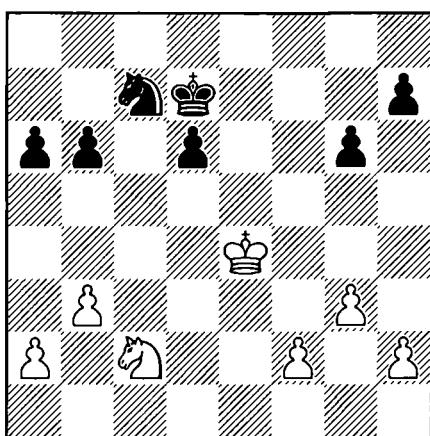
White is controlling b4 in preparation for ♜d2-d3 and e3-e4.

27...♚d7

28.♛d3 ♞c7

29.e4 fxe4+

30.♚xe4



Double trouble

White has achieved the kingside majority. Now both major endgame plans – attacking the enemy structure and pushing passed pawns – enter the equation.

30...♚e6

31.♞d4+ ♚f6

32.f4 d5+

If Black holds back with this move and instead just waits, then White's plan will be to set his majority in motion. He will mostly likely do this in the following way:

➤ Pushing g4-g5(+)

➤ Then pushing f4-f5. Black will be forced to capture on f5 to avoid the pawn advancing further to f6, creating a monstrous passed pawn.

➤ Capturing ♜xf5 and advancing h4-h5, and later turn the majority into a passed pawn with g5-g6.

➤ Potentially the game could end with the black king dealing with the white passed pawn on the kingside, while the white king penetrates the black position in the center and queenside.

One important thing to notice is that once the black king is driven back from f6 (by g4-g5) then it is already too late for Black to play d6-d5+ as the white king will simply step forward to e5. With this in mind, Black took the opportunity to play the move now, while he still can.

33.♚e3 ♚e7

It is difficult to see Black surviving the pawn ending after 33...♞e6?? 34.♞xe6 ♜xe6 35.♛d4 followed by the advance of the kingside pawn majority.

33...♞e8!? was worth a try. It is well motivated, planning to bring the knight to d6 and potentially to e4. This is effective if White simply advances his kingside pawns, but I think if he plays instead 34.♞f3! with the intention of bringing his king to d4, Black should have some problems.

This is a general rule for isolated d-pawn positions: the weak square in

Endgame Exploration 6: Ulf on the Warpath!

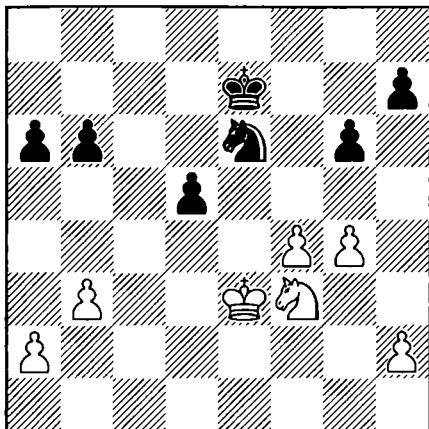
front of the isolated pawn should be occupied by a blockading piece (most often a knight) in the middlegame, but occupied by the king in the endgame.

34.♘f3

Asking Black to place the knight on e6 cover the d4 square, to prevent any future ♜e3-d4 by White...

34...♞e6

35.g4



...and now using the knight as a target to gain a tempo for the advance of the majority with g3-g4 and f4-f5.

35...♚d6

36.f5 gx_f5

37.gx_f5 ♘d8

38.♚f4 ♘f7

39.h4 h6

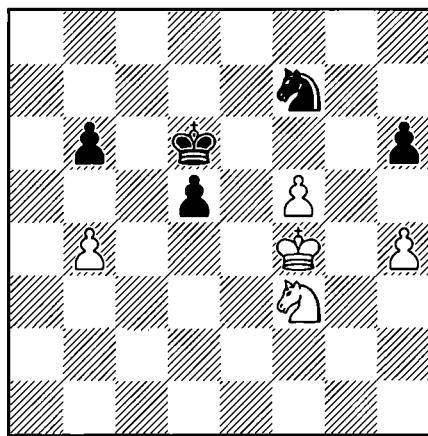
Black does not wish to see the move

♘f3-g5 and in the event of a capture on g5 the recapture h4xg5.

40.b4 a5

41.a3 axb4

42.axb4



Running short of moves

White is trying to create a type of *Zugzwang*:

Black cannot play 42...b5 because 43.♘d4 wins the pawn immediately.

➤ If Black moves the knight from f7 White can play ♘f3-d4 (among other ideas) covering the e6 square, followed by f5-f6 and ♜f4-f5 with a winning position.

➤ The move 42...h5 is also less than desirable for Black. The pawn is a clear target on h5. White can look to attack it, for instance by 43.♘d4 (43.b5 is also good, but there is no reason for this as White has to reckon with 43...♚c5) 43...♚e7 and now either ♘e6-g7 or ♘e2-g3 will simply win the h5-pawn.

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➤ If Black moves his king from d6 then White can look to play ♜f3-e5 forcing Black further back on account of the lost pawn endgame. Then ♜e5-g4 will attack the h6-pawn. This was the course of the game.

42...♚e7

43.♘e5 ♘d6

44.♘g4 ♘f7

44...h5 is still just weakening the pawn further, not to mention that the reply 45.♘e3 wins either the d5-pawn, or the b6-pawn after 45...d4 46.♘d5+

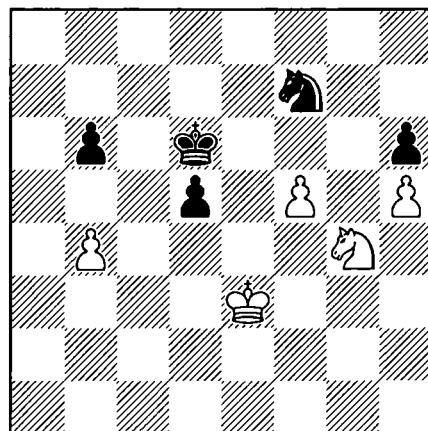
45.h5

Fixing the weakness on h6. With a weakness on h6, and perhaps one on d5 also, *and* the passed white f-pawn, Black is now in serious trouble. His only chance is to argue that the d5-pawn is a strength rather than a weakness.

45...♚d6

It is not clear whether or not this move is losing, but it seems the computer idea of 45...d4 is drawing much more easily. Although White keeps some advantage, the material is reduced to the point where Black should be able to hold: 46.♘f3 d3 47.♘e3 ♘d6! This is the idea, to use the d-pawn as a diversion and counterattack against the white kingside pawns, 48.♘xh6 (or 48.f6+ ♚e6 49.♘xd3 ♚f5!) 48...♚f6 49.♘d3 ♚g5 and Black should hold a draw.

46.♘e3!



46...♞g5!

White cannot be allowed to bring his king to d4. With a reserve-tempo of b4-b5 still in hand he would quickly create a fatal *Zugzwang*.

Strangely, in his annotations to the game, Gagarin gives the continuation: 45...♚e7?? (given '!') 46.♚d4 ♚d6 47.♘e3?? ♘e5 (given '!' correctly) and analyzes the game to a draw (although White almost loses).

Of course this is nonsense, and after 48.b5, creating the *Zugzwang* White has been playing for, Black can resign immediately.

47.b5

Not 47.♘xh6 ♚e5.

47...♞e4??

After this there is no hope, and the rest is very simple. The alternative 47...

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Qh3! Is holding a draw, but the lines are complex.

Some analysis of what could happen

47... Qh3!

Controlling the f4 square, not so much to hinder the white king's progress, but to use the square to attack the h5-pawn.

And now:

A) 48.f6 Qe6 49. Qd4 (another try is 49. Qxh6 Qxf6 50. Qd4 Qg5 51. Qg8 Qxh5 52. Qxd5 Qf4+ 53. Qc6 Qe6 with a draw) 49... Qf4 50. Qxh6 Qxf6 51. Qg4+ Qg5 52.h6 Qxg4 53.h7 Qg6 54. Qxd5 Qg5 55. Qc6 Qh6 56. Qxb6 Qxh7 and the game ends in a draw.

B) 48. Qxh6 Qe5 49. Qf7+ Qxf5 50. Qd6+ Qe5 (50... Qg5 also is enough to draw) 51. Qc8 (alternatively White could try: 51.h6 Qg5 52. Qc8 [52. Qe8 Qf5 53. Qd4 Qg6 54. Qxd5 Qxh6 draw] 52... d4+ 53. Qe2 Qd5 54. Qd3 Qc5 55. Qa7 Qh7 56. Qc6 Qxb5 57. Qxd4+ Qc5 draw) 51... d4+ 52. Qd2 Qd5

53. Qxb6+ Qc5

54.h6 Qg5

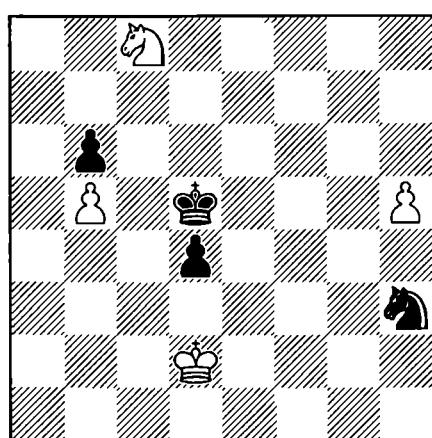
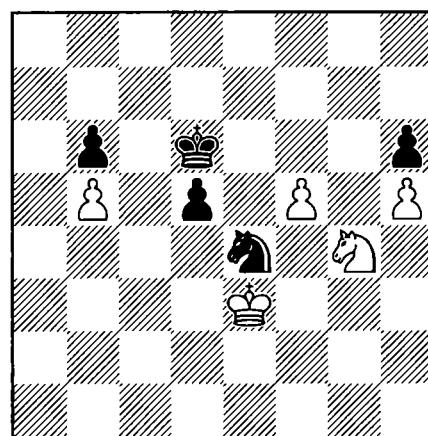
55. Qd3 Qxb6

56. Qxd4 Qxb5

And the position is again drawn.

Quite a few knight vs. pawn positions cropped up in that analysis. In case the reader is unfamiliar with the theory of these positions, I will discuss them in the theoretical notes following this chapter.

Returning to the game after Black's error 47... Qe4??



The rest was easy for White:

48. Qf4 Qe7

49. Qe5

Once the white king reaches this powerful square Black could already resign.

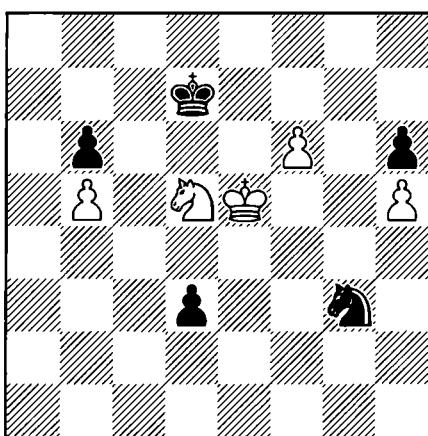
49... Qg3

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50.f6+ ♔d7

51.♘e3 d4

52.♘d5 d3

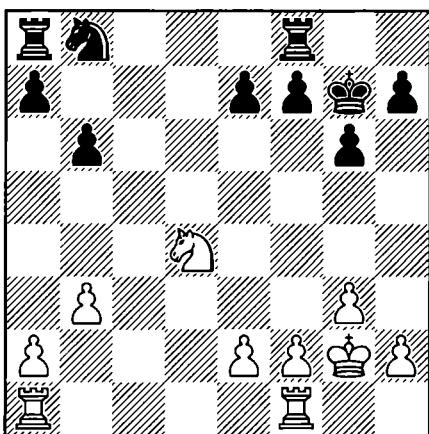


Black resigned here in view of 53.f7 d2 54.f8=♕ d1=♕ and he is mated in two more moves.

Two years later, Andersson reached the same position again, this time against a leading Grandmaster of the time.

Andersson – Hort

Niksic, 1978



In 1977 Hort was at the peak of his powers, narrowly losing a Candidates'

quarter-final match to Spassky and rising as high as sixth in the world. The same position was reached from the opening as in the previous game. How would Hort solve the problems?

15...a6?!

Clearly to prevent the problems with ♘d4-b5 seen in the earlier game, but at what cost? The b6-pawn is weakened, but perhaps more importantly Black is falling further behind in development.

16.♖fc1 ♖a7

There is really no option but to play this ugly move (or insert first 16...♖fd8 17.e3). The white rook cannot be permitted to take the seventh rank.

17.♖c2 ♖d8

18.e3 ♔f8

19.♖ac1

Personally I can't understand why Black would want to head for this position just to avoid ♘b5. Here he is already significantly worse.

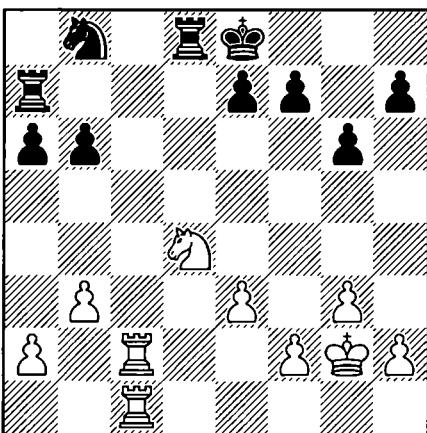
19...♔e8

(See Diagram)

20.g4!

Effectively securing the knight on d4 for the foreseeable future, which is important as while Black cannot challenge the c-file he can place both his rooks on the d-file.

Endgame Exploration 6: Ulf on the Warpath!



24.h5

Now we see White's strategy: h4-h5 attacks the black kingside structure. Black is practically forced to capture on h5 to avoid his structure being shattered completely.

24...gxh5

25.gxh5

Now any attempt to play ...e7-e5 and meet ♜d4-f3 with ...f7-f6 will lead to the pawn structure immediately being undermined with g4-g5. If Black plays ...e7-e5 and does not play ...f7-f6, then g4-g5 will come anyway, cutting the e5-pawn from the rest of Black's structure.

The move also generally grabs space on the king's flank.

20...h6

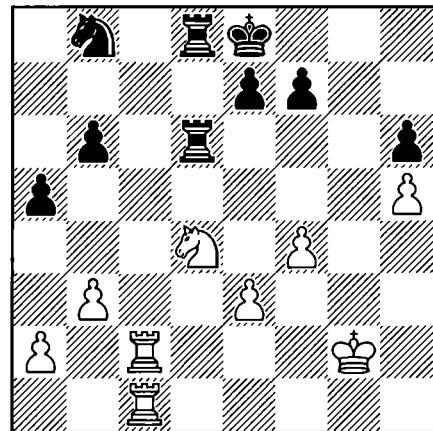
21.h4 ♜ad7

22.f4 a5

23.♔f3

White's advantage is growing every move. It seems now that despite his last move – ...a6-a5 – Black still cannot develop his knight with 23...♞a6 in view of 24.♘c6 ♜c8 25.♘e5 ♜xc2 26.♜xc2 ♜c7 27.♜xc7 ♜xc7 28.♘c4 attacking both black pawns and forcing the miserable 28...♞a8.

23...♜d6



A weakness appears on h6, and it is readily attackable by ♜d4-f5 now that the g6-pawn has been removed. White has a serious advantage.

25...♞a6

25...♜d5 claiming the white pawn on h5 is a weakness is logical, but meets with the powerful tactical reply 26.♜g2! exploiting the opening of the g-file, 26...♜xh5?! (26...e6 is better but after 27.♞c7 Black is still in trouble) 27.♘f5! ♜xf5 (there is no other way to prevent ♔f3-g4 winning the ♜h5) 28.♜g8+ ♔d7 29.♜d1+ and White wins the exchange.

26.♘c6

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Perhaps even stronger is the very direct 26... $\mathbb{Q}f5!$ after which Black is probably just lost. There are several variations here:

26... $\mathbb{Q}d5$ 27. $\mathbb{Q}g2!$ transposes to the previous note

26... $\mathbb{Q}f6$ 27. $\mathbb{Q}g2!$ (or 27. $\mathbb{Q}g1!$) and Black is losing at least the exchange: 27... $\mathbb{Q}d5$ 28. $\mathbb{Q}g8+$ $\mathbb{Q}d7$ 29. $\mathbb{Q}cc8!$ $\mathbb{Q}fxf5$ (29... $\mathbb{Q}dxsf5??$ 30. $\mathbb{Q}gd8+$ $\mathbb{Q}e6$ 31. $\mathbb{Q}c6\#$) 30.e4 forking the black rooks.

26... $\mathbb{Q}dd2$ 27. $\mathbb{Q}xd2$ $\mathbb{Q}xd2$ 28. $\mathbb{Q}c6$ attacking both weaknesses and Black is again in serious trouble e.g. 28... $\mathbb{Q}xa2$ 29. $\mathbb{Q}xb6$ $\mathbb{Q}c5$ 30. $\mathbb{Q}xh6$ $\mathbb{Q}h2$ 31. $\mathbb{Q}b8+$ $\mathbb{Q}d7$ 32. $\mathbb{Q}xf7$ $\mathbb{Q}xh5$ 33. $\mathbb{Q}b5$ and Black is lost.

26... $\mathbb{Q}c8$

There is an option of 26... $\mathbb{Q}b4$ 27. $\mathbb{Q}xb4$ $\mathbb{Q}xb4$ and then trying to hold this rook endgame. Of course with so many weaknesses (b4, b6 and h6) it will be a miserable and probably unsuccessful task.

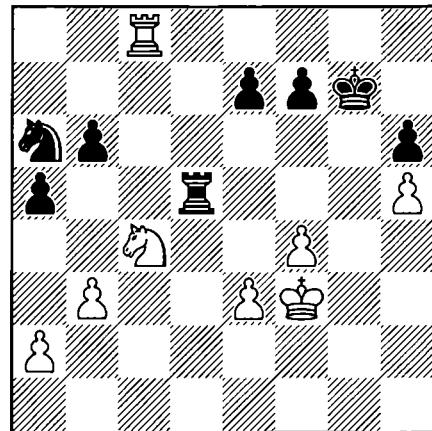
27. $\mathbb{Q}e5$ $\mathbb{Q}xc2$

28. $\mathbb{Q}xc2$ $\mathbb{Q}f8$

We see now that although 26... $\mathbb{Q}f5!$ was powerful, 26... $\mathbb{Q}c6$ was also very well motivated. From e5 the knight can attack either black weakness in a single move with $\mathbb{Q}g4$ or $\mathbb{Q}c4$.

29. $\mathbb{Q}c8+$ $\mathbb{Q}g7$

30. $\mathbb{Q}c4$ $\mathbb{Q}d5$



31. $\mathbb{Q}e8$

31... $\mathbb{Q}xb6$ is a serious option, 31... $\mathbb{Q}xh5$ 32. $\mathbb{Q}c4$ and with the threat of $\mathbb{Q}c8-a8$ Black will lose the a5-pawn.

31... $\mathbb{Q}f6$

Another option is 31... $e6$ 32. $\mathbb{Q}e5$ (White could play 32. $\mathbb{Q}xb6$, but it is not clear what he has gained over playing $\mathbb{Q}xb6$ on the previous move).

32. $\mathbb{Q}e5$

Now even f7 is a target and Black's position is crumbling. Still his knight on a6 has not found a path into the game.

32... $\mathbb{Q}e6$

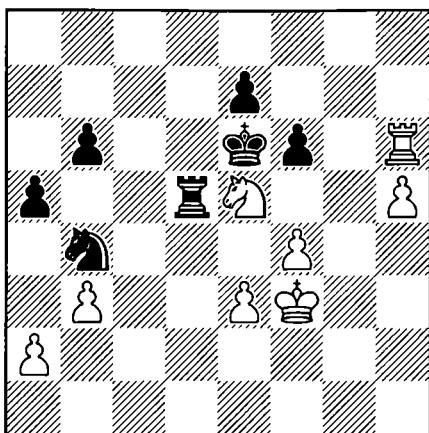
33. $\mathbb{Q}h8$ f6

34. $\mathbb{Q}xh6$

White is basically just a pawn up now.

34... $\mathbb{Q}b4$

Endgame Exploration 6: Ulf on the Warpath!



With 36.♔e4! White would keep a big advantage, threatening f4-f5+ followed by ♔e5-c4+. There is little to suggest for Black other than to capture White's queenside pawns, however after 36...♘xa3 37.♖h8! ♖b5 38.f5+ ♔d6 39.♘d4 the white h-pawn is much too strong. Notice now the move f4-f5 cuts the black rook from the kingside.

36...♜d3!

35.a3

35.a4 is an option, but it is not even clear that White needs to defend his a2-pawn. Perhaps he is simply winning after 35.♖g6!? with the following variations:

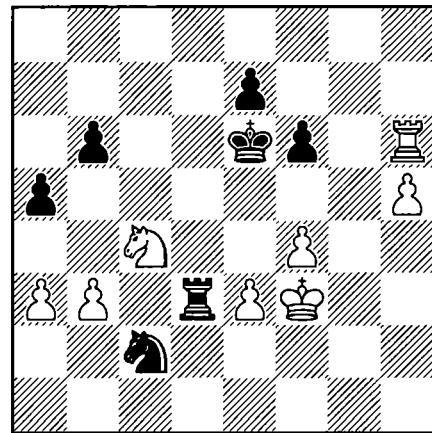
35...♘xa2 seems to lose 36.h6 ♖d1 (36...♜d8 37.h7 ♜h8 38.♖h6 followed by ♔e5-g6 is curtains) 37.♔g2! ♖d2+ 38.♔g3 ♖d1 39.♔h2! and finally Black must play 39...♜d8 40.h7 ♜h8 41.♖h6 ♜xh7 42.♖xh7 fxe5 43.♖h6+! and the endgame is lost for Black.

35...♜d1 36.♔e4 ♜h1 37.f5+ ♔d6 38.h6 ♘xa2 39.♘f7+ ♔d7 40.♗g7 ♔e8 41.h7 ♔f8 42.♗g8+ ♔xf7 43.h8=♕ and again the endgame is lost for Black.

35...♘d3! Is the best chance 36.♘xd3 ♜xd3 37.h6 and one line is 37...♜d1 38.♔g2 ♜d5 39.♗g7 ♜h5 40.h7 f5 41.♗g6+ ♔d5 42.♖xb6 ♜xh7 43.♖b5+ with some small chances to hold for Black.

35...♘c2

36.♘c4?



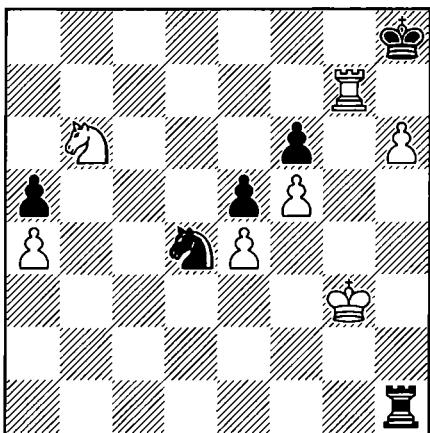
Seizing the chance. When the ♔e5 moved to c4, the d3 square became unprotected. From d3 the rook looks at all of White's pawns, which are suddenly looking quite vulnerable. White is still better but has lost the majority of his advantage.

Eventually the game was drawn, but if we fast-forward to after Black's 49th move:

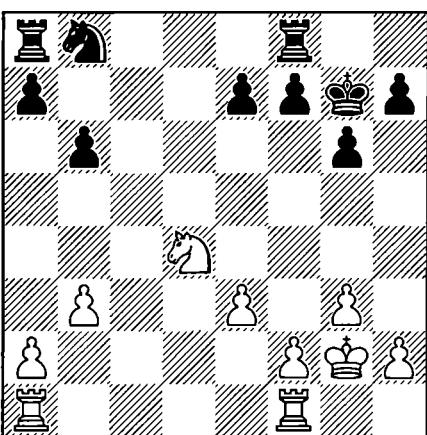
(See Diagram)

White missed a big chance here to play the simple 50.♖f7! and after 50...♜xh6 then 51.♘d7. It appears Black is just lost here.

PART 3. Endgame Explorations



After the move played: 50... $\mathbb{R}g6$?! Black found the very strong 50... $\mathbb{R}e1$ after which White's advantage almost vanishes. The key point is that after 50. $\mathbb{R}f7$! there is no 50... $\mathbb{R}e1$? on account of 51. $\mathbb{Q}d5$ and if 51... $\mathbb{R}xe4$?? 52. $\mathbb{Q}xf6$ Black is mated on h7.



Back at the now familiar opening position, one year later, the Austrian Grandmaster and botanist Karl Robatsch was the next to attempt to quash White's initiative.

Andersson – Robatsch,
Championship of West Germany (FRG)
Munich, 1979

15...a6?!

The same dubious decision taken by Hort in the previous game.

16. $\mathbb{R}ac1$

In the last game Andersson played 16. $\mathbb{R}fc1$. White is doubling rooks so it makes no difference.

16... $\mathbb{R}a7$

17. $\mathbb{R}c2 \mathbb{R}d8$

18.e3

So far all the same moves as in the game Andersson – Hort.

18...e5

Here is the deviation. I am loathe to say improvement as Robatsch is dispatched far more easily than Hort should have been.

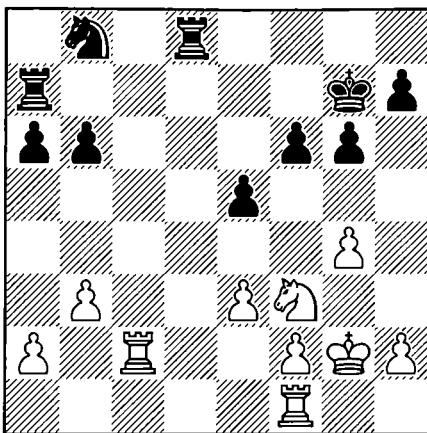
Thinking back to the Hort game, perhaps the idea is by playing e7-e5 sooner rather than later, White is not given time to play the strong prophylactic move g3-g4. Or perhaps he was simply unaware of the previous game and came up with this idea over the board. Whatever the thinking, it certainly did not have the desired effect.

19. $\mathbb{Q}f3 f6$

19...e4 would simply allow the knight to return to d4.

20.g4!

Endgame Exploration 6: Ulf on the Warpath!



White plays this idea anyway. Of course the alternative 20. $\mathbb{E}fc1$ cannot be criticized.

He can afford to take time out to play this positional advance, which questions Black's scheme of $a6+e5$ in general, as Black is nowhere near developed enough to exploit it. If Black had already played ... $\mathbb{E}a7-d7$, ... $a6-a5$ and ... $\mathbb{Q}b8-a6-c5$ then perhaps White would have to think twice, but here Black is a long way from reaching that level of mobilization.

As it is, $g4-g5$ is looming, breaking up the black pawn structure and creating weaknesses. In this way it is almost identical to a minority attack; the structure is a reflection of the queenside Karlsbad structure.

Blocking with $g6-g5$ is possible, but if a white knight ever got to $g3$ Black would be in serious trouble.

As usual $g3-g4$ is also useful as part of general kingside expansion and gives the white king room to advance.

20... $\mathbb{E}d6$

21. $\mathbb{E}fc1 \mathbb{Q}d7$

Black must develop somehow. An entry point on $c6$ becomes available to White after this move.

22. $\mathbb{E}c6 \mathbb{E}xc6$

23. $\mathbb{E}xc6$

The rook is extremely powerful on $c6$, attacking Black's weaknesses on $b6$ and $f6$. It also confines the black king to the back two ranks, meaning that if the black pawns are lured forward (either after White advances $g4-g5$ and Black responds $f6-f5$, or if Black plays $f6-f5$ to remove a white knight from $e4$) they will be without the support of the king.

It is difficult for Black to rid himself of his weakness without causing more problems for himself. If the $b6$ -pawn advances to $b5$, then not only does $a6$ become weak but the Black $\mathbb{Q}d7$ suddenly has no good squares. Also advancing $f6-f5$ is clearly too weakening.

23... $\mathbb{Q}f7$

24. $\mathbb{Q}d2!$

Very strong. White is also much better after 24. $g5$ of course, but there is no need to rush with this move and allow Black to play 24... $f5$.

24. $\mathbb{Q}d2$ is much stronger though. White has correctly identified the optimal place for his pieces; the white knight heads not for $c4$ (which would be strong

PART 3. Endgame Explorations

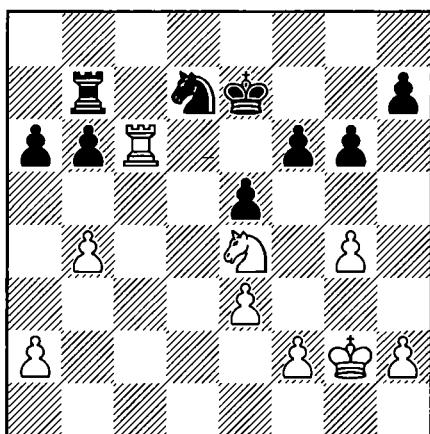
enough), but via e4 (which is a very powerful square in its own right) to the d5 square. Notice how from d5 it would touch both black weaknesses on b6 and f6 simultaneously.

24... $\mathbb{Q}e7$

25. $\mathbb{Q}e4 \mathbb{B}b7$

Black can do nothing. After 25...f5? 26.gxf5 gxf5 27. $\mathbb{Q}d6$ his position is almost comical and the devastating threat of $\mathbb{Q}d6-c8+$ is almost incidental to Black's kingside woes.

26.b4



Access denied

Rather sadistic. 26. $\mathbb{Q}c3$ was easily good enough (Black hardly has time for $\mathbb{Q}d7-c5$ anyway), but White doesn't even want the black pieces to have any squares at all, so removes c5 permanently from the agenda of the $\mathbb{Q}d7$.

26... $\mathbb{B}b8$

27. $\mathbb{Q}c3$

Coming to d5 with devastating effect.

27...f5

Finally Black lashes out, but it only hastens his demise. He was falling into *Zugzwang* in any case, and would have had to make this move eventually.

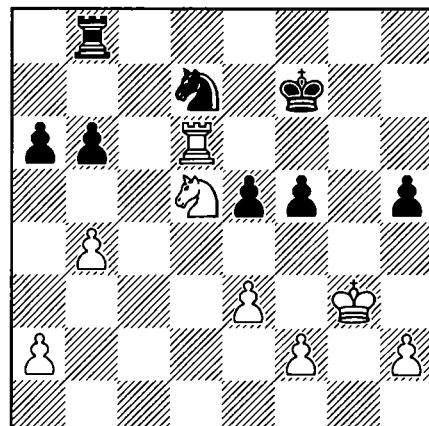
28. $\mathbb{Q}d5+\mathbb{Q}f7$

29. $\mathbb{Q}g3 h5?$

Losing a pawn immediately. After 29...fxg4 30. $\mathbb{Q}xg4$ Black can do nothing though, and White will win as he pleases. Probably simplest would be an advance of the king and h-pawn to create yet another weakness. If Black protected the kingside by ... $\mathbb{Q}f7-g7$ then $\mathbb{B}c6-e6-e7$ would be very powerful.

30.gxf5 gxf5

31. $\mathbb{B}d6!$



Very accurate. If the $\mathbb{Q}d7$ moves then b6 (and f6) are vulnerable, and if ... $\mathbb{B}b8-b7$ or ... $\mathbb{Q}f7-e8$ is played then the back rank is

Endgame Exploration 6: Ulf on the Warpath!

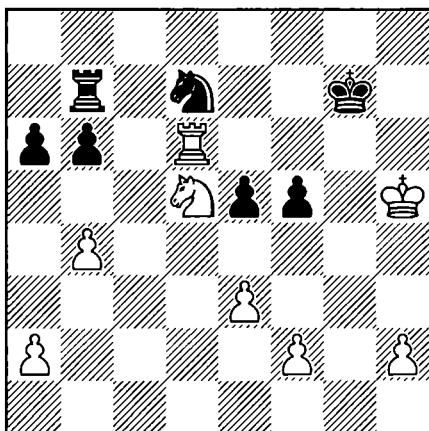
closed and White can capture the h5-pawn in comfort with his king (without worrying about a black rook coming to h8).

31... $\mathbb{B}b7$

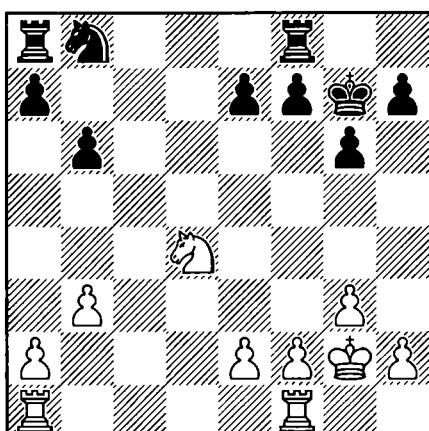
32. $\mathbb{K}h4 \mathbb{Q}g7$

33. $\mathbb{Q}xh5$

Black resigned. After $\mathbb{Q}h5-g5$ matters are only going to get worse.



Crushed



Although in more recent years this *tabiya* has been somewhat defused (indeed, in his most recent game Andersson failed to make much impression on

his lower-rated opponent), I did find some possibilities in an interesting game he played in 2004.

At first I thought Black had drawn the game easily, but later I discovered White missed a big chance.

**Andersson-Nyback,
EU-Ch,
Antalya, 2004**

15... $\mathbb{B}c8$

I think this is the best way to start Black's development.

16. $\mathbb{B}ac1 \mathbb{Q}d7$

16... $\mathbb{Q}a6$! seems to be a better development to me. A later game Andersson – Marinkovic, Budva, 2009, went (after 16... $\mathbb{Q}a6$): 17. $\mathbb{B}fd1 \mathbb{B}xc1$ 18. $\mathbb{B}xc1 \mathbb{B}d8$ 19. $\mathbb{B}c4 \mathbb{B}d7$ 20.f4 $\mathbb{Q}c5$ 21. $\mathbb{Q}f3$ f5 and Black was already equal. Perhaps 20.f4 is asking too much of White's position, but in any case his edge is, if anything, tiny.

Compare this position to the situations Hort and Robatsch found themselves in after a similar number of moves.

17. $\mathbb{B}fd1 \mathbb{Q}f6$

A different idea to the 17... $\mathbb{Q}f6$ we saw earlier.

18. $\mathbb{Q}b5! \mathbb{B}xc1$

19. $\mathbb{B}xc1 \mathbb{Q}c5$

Forced to cover c7.

PART 3. Endgame Explorations

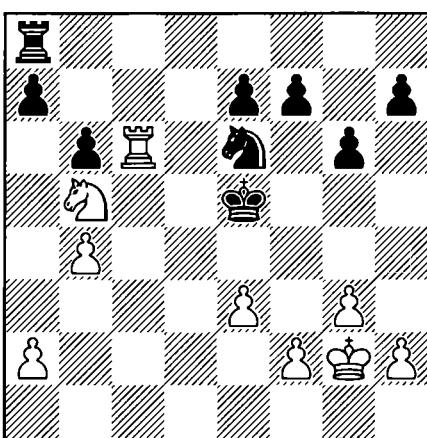
20.b4 ♔e6

This is the idea. c7 is still covered, and the knight has found a reasonable square.

21.♕c6!

Black's plan has not been a complete failure, but it is clear he is still worse and faces some problems. White can expand in the center and kingside, and the threat of ♘b5-c7 transitioning to a rook endgame is always in the air.

21...♔e5?



An extreme – and probably suicidal – solution to Black's difficulties.

22.f4+! ♔e4

23.♔f2

Bizarrely the game has developed into something of a king hunt. With an army of King, Rook, Knight and two pawns encircling Black's king he is in serious trouble.

23...a5

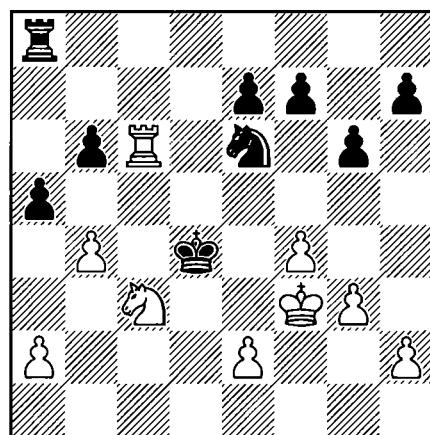
24.♘c3!

In the game White played 24.bxa5. Probably he played this quickly and without much thought. However, it is missing the boat. It was important to keep the pawn on b4 to cover the c5 square. After the game continuation of 24...bxa5 25.♘c3+ ♔d4 White was obviously still for choice, but constructing a mating net is no longer possible as the black knight can use the c5 square.

24...♔d4

24...♔f5 25.♕xb6 wins a pawn for White.

25.♔f3



Closing the net. White has two main ideas:

➤ To play the tactic ♘c3-b5+ ♔d4-d5 ♕c6xe6! with a fork on c7.

➤ Construction of a mating net with e2-e3+ and after ...♔d4-d3 then ♘c3-e4 and ♕c6-c3 mate!

Endgame Exploration 6: Ulf on the Warpath!

I examined the following possibilities:

➤ 25...axb4 26. $\mathbb{Q}b5+$ $\mathbb{Q}d5$ 27. $\mathbb{Q}xe6$ $\mathbb{Q}xe6$ 28. $\mathbb{Q}c7+$ $\mathbb{Q}d6$ 29. $\mathbb{Q}xa8$ $\mathbb{Q}d6$ 30. $\mathbb{Q}xa8$ $\mathbb{Q}c6$ 31. $\mathbb{Q}g4$ f6 (31...h6 transposes) 32.f5 $\mathbb{Q}b7$ 33.fxg6 hxg6 34.h4 $\mathbb{Q}xa8$ 35. $\mathbb{Q}f4$ $\mathbb{Q}b7$ 36.g4 and White wins.

➤ 25... $\mathbb{Q}b8$ (to remove the potential fork on c7) 26.bxa5 bxa5 27.e3+ $\mathbb{Q}d3$ 28. $\mathbb{Q}e4$ and White wins.

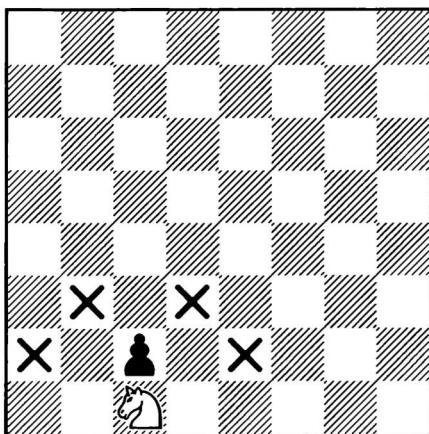
➤ 25... $\mathbb{Q}d8!$ 26. $\mathbb{Q}b5+$ $\mathbb{Q}d5$ and at the very least White can play 27. $\mathbb{Q}xb6$ $\mathbb{Q}c4!$ 28. $\mathbb{Q}a3+$ $\mathbb{Q}c3$ 29.bxa5 $\mathbb{Q}xa5$ 30. $\mathbb{Q}b3+$ with an extra pawn.

SUMMARY OF IDEAS

- The presence of a single pair of knights changed the dynamics of the game considerably, mainly because of their tactical strength.
- In endgames with rooks and knights, development and initiative are vital. A small advantage in these areas can be long lasting.
- Just because a position is drawn, it does not mean it is equal (at least not in practical terms). White was taking no risks in these games at all.
- As a general comment, maybe more relevant to the opening than the endgame: Weaker players in particular find deploying or redeploying their pieces under duress (as in these games because of threat and initiative) a difficult task.
- The players of the black pieces in these games were strong players, but still found a harmonious deployment difficult to achieve.
- I do not particularly classify these games as ‘grinds’. Although the victims were outplayed in near-equal endgames, I don’t feel there was any attempt to trick or wear them down. Andersson simply played strong positional games here. He played the positions as if they were winning; he did not dodge simplification or probe excessively for the sake of practical chances.

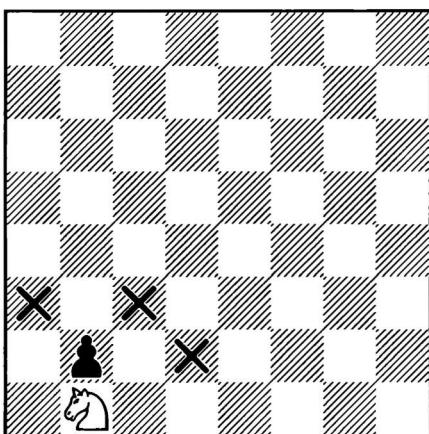
THEORETICAL NOTES

In the first instance we can consider the knight sitting on the queening square of a pawn.

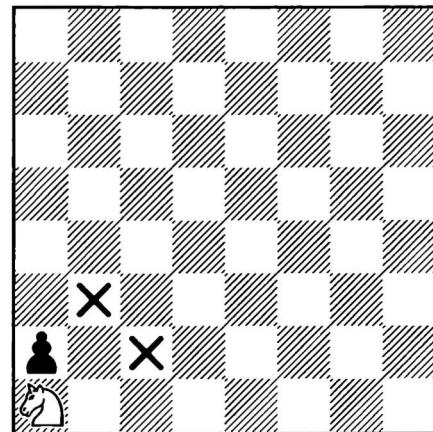


Notice the knight has its full range of horizontal movement against a bishop's pawn (obviously also against a central pawn).

When we move the black pawn closer to the side of the board the knight's mobility becomes more limited.



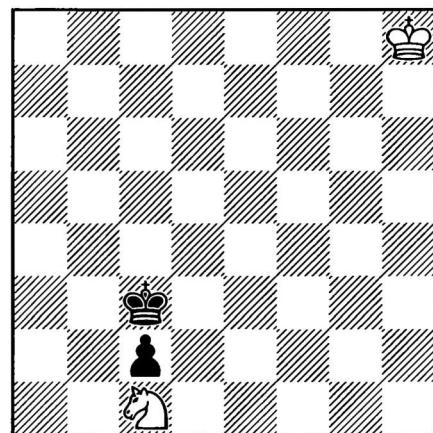
With a knight's pawn the knight cannot make its full jump to the left.



And against a rook's pawn there is no left side of the pawn at all.

So logically we can see the knight is going to have more problems the closer the offending pawn is to the edge of the board.

Let us first deal with the case of a central or bishop's pawn (they are the same in this context).



Can White draw this position 'without' his king? Let us assume that Black is to move.

Endgame Exploration 6: Ulf on the Warpath!

1... \hat{Q} d2

2. \hat{Q} a2

2. \hat{Q} b3 is also drawing easily, but 2. \hat{Q} a2 is more principled, controlling the c1 and c3 squares and placing the knight a long way from the black king.

2... \hat{Q} e3

Avoiding 2... \hat{Q} d3 3. \hat{Q} b4+ with an immediate draw.

3. \hat{Q} g7

White could equally well return with 3. \hat{Q} c1. This variation shows there is no danger in any case.

3... \hat{Q} d4

4. \hat{Q} f6 \hat{Q} c4

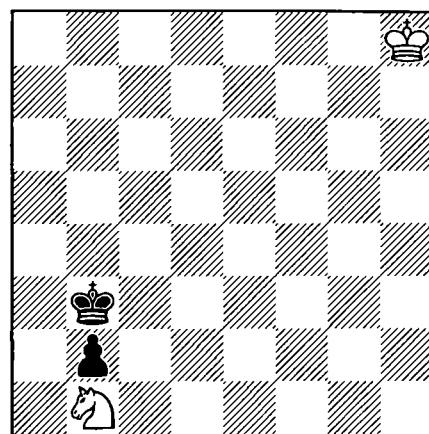
5. \hat{Q} e5 \hat{Q} b3

6. \hat{Q} c1 \hat{Q} b2

7. \hat{Q} e2

It is clear that when the pawn stands on the seventh rank of a central or bishop's pawn (i.e. the knight has ample room on both sides of the pawn) then placing the knight on the queening square is easily enough to draw. Black can never make any progress — he can only chase the knight from one side to the other. The white king approached in this example, but it could equally well have remained on the kingside (it is only really needed for tempo moves to avoid *Zugzwang*).

What about the same situation, but this time with a knight's pawn, limiting the movement of the defending knight?



1... \hat{Q} c2

Clearly the only chance is to force the knight onto the side where it is restricted. After 1... \hat{Q} a2 2. \hat{Q} d2 Black has no benefit over the previous example.

2. \hat{Q} a3+

Again White is drawing very easily. The knight can only be attacked from b3 or b4, in which case it will simply return to b1.

2... \hat{Q} b3

3. \hat{Q} b1

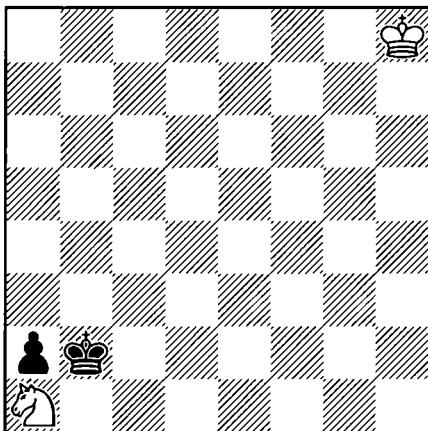
There is no progress to be had.

We can form our first conclusion:

➤ Against a pawn on the seventh rank, if the defending knight can (safely) occupy the queening square, the game is completely drawn.

PART 3. Endgame Explorations

With a rook's pawn the same defense isn't going to work.

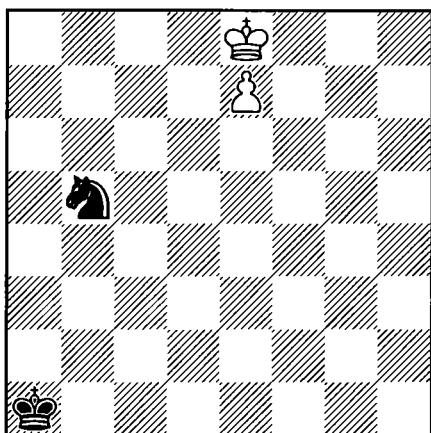


In this position, White could immediately resign. Clearly with a rook's pawn the defender's king has to participate in the defense.

➤ A knight cannot blockade a seventh rank rook's pawn without assistance from its king.

While this is completely true, there are some deceptive positions, which we will examine shortly.

Even if the knight cannot reach the queening square, sometimes there is still a chance to defend. Consider the following position:



Black cannot reach the queening square, but he can clearly resist because his knight can control the queening square. Note that if the white $\hat{e}8$ was instead on f7, then $\hat{b}5-c7$ is equivalent to reaching the queening square (White must relinquish the e8 square to the knight in order to try to make progress).

1... $\hat{c}7+!$

1... $\hat{d}6+??$ does not do the same thing. After 2. $\hat{d}7$ Black can try a few tricks starting with 2... $\hat{e}4$ 3. $\hat{e}6!$ (obviously not 3.e8= \hat{w} ?? $\hat{f}6+$, or 3. $\hat{d}8??$ $\hat{f}6!$ and again White must relinquish e8 to the knight in order to progress) 3... $\hat{c}5+$ 4. $\hat{d}6$ $\hat{e}4+$ 5. $\hat{e}5$ and the pawn queens.

2. $\hat{d}8$

2. $\hat{f}8$ and 2. $\hat{f}7$ are hopeless as we know, and 2. $\hat{d}7$ allows 2... $\hat{d}5!$ 3.e8= \hat{w} (otherwise $\hat{d}5xe7$) 3... $\hat{f}6+$

2... $\hat{e}6+$

And White must either repeat the position, or play something like 3. $\hat{d}7$ $\hat{g}7$ when we know Black is completely safe.

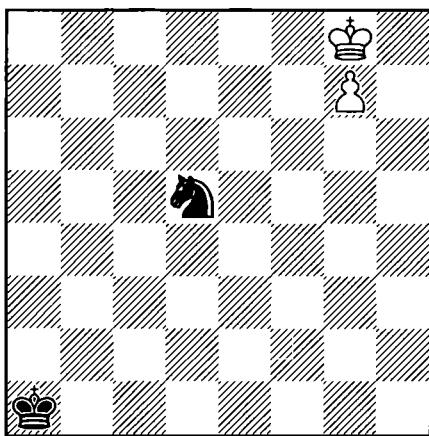
Hence we can safely state:

➤ Against a seventh rank central or bishop's pawn, if the knight cannot occupy the queening square (or equivalent), but can control the queening square **from the side**, then the position is also drawn.

Endgame Exploration 6: Ulf on the Warpath!

➤ If against a seventh rank central or bishop's pawn the knight cannot occupy the queening square (or equivalent), and cannot control the queening square from the side, then the pawn queens.

With a knight's pawn this backup defense does not hold:



Even though Black can control the queening square from the side via...

1... $\mathbb{Q}e7+$

...it is not enough to hold the game because of the bad geometry created for the knight by the proximity to the edge of the board.

2. $\mathbb{Q}f8$

Obviously 2. $\mathbb{Q}f7 \mathbb{Q}f5$ with a draw.

2... $\mathbb{Q}g6+$

There are not even any tricks.

3. $\mathbb{Q}e8$

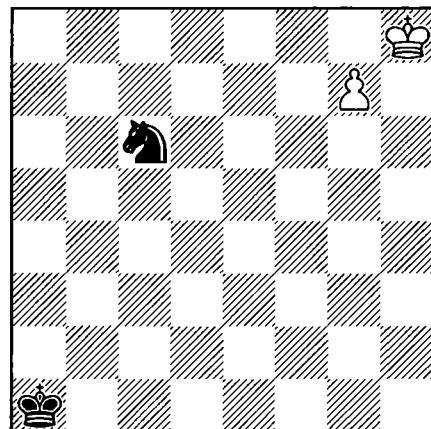
The pawn queens on the next move.

We can refine our rule about seventh rank knight's pawns:

➤ If the knight can occupy the queening square in front of a seventh rank knight's pawn (or equivalent) then the game is draw.

➤ If it cannot, the game is lost.

Remember, what I mean by 'equivalent' is a situation like this:



If only I could play $\mathbb{Q}f6$

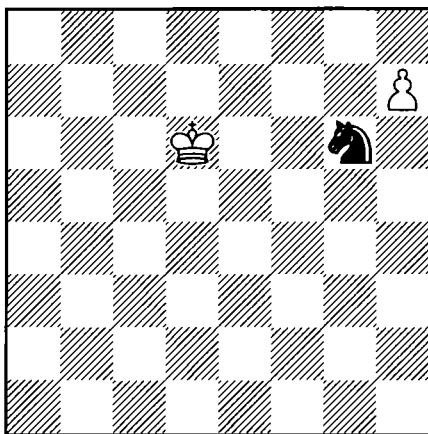
Where after :

1... $\mathbb{Q}e7$

White cannot force the knight away from this square without allowing Black to play ... $\mathbb{Q}e7-g8$.

Let us examine some interesting positions with rook's pawns on the seventh before we sum up.

PART 3. Endgame Explorations

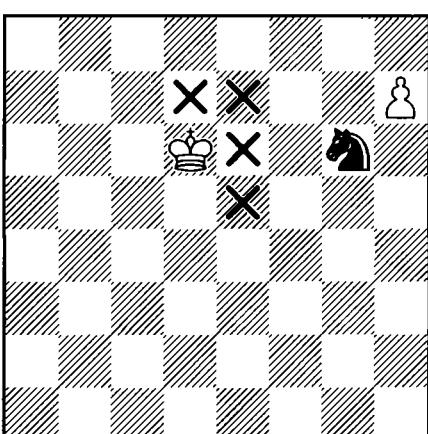


We already stated that a knight cannot stop a rook's pawn on the seventh without the assistance of his king, so why is this interesting?

Well...all White needs to do is to push the knight with his king and queen the pawn. However, it is not as trivial as it appears.

- 1. \hat{Q} d7 allows 1... \hat{Q} f8+
- 1. \hat{Q} e7 is illegal
- 1. \hat{Q} e6 allows 1... \hat{Q} f8+
- 1. \hat{Q} e5 is illegal

So there are actually a lot of mined squares.



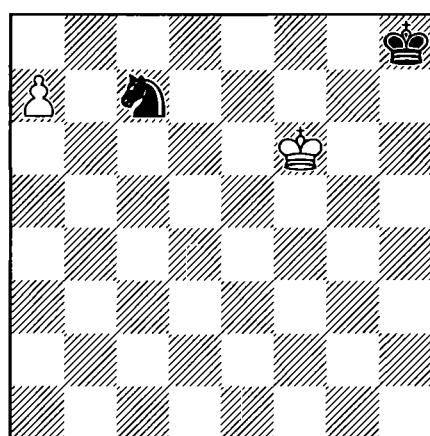
L-Barrier

To be able to win, White needs to play \hat{Q} d6-c7-d8-e8-f7, or \hat{Q} d6-d5-e4-f5, to get around the barrier the formed by the knight.

So while it is true that the knight cannot stop the pawn queening all on its own, it can (if well positioned) force the attacking king to use a long route. These delaying tactics could be crucial in allowing the defender's king to join the defense.

Wang – Barjarani

Dvorkovich Cup (U-16), Moscow, 2010



Black to play

1... \hat{Q} d5+??

Cleverly trying to position the knight on b6, where it will form a barrier, mining the squares d5, d6, d7 and e7. Unfortunately (for the sake of this example at least) here it is a horrible move, and should lose the game.

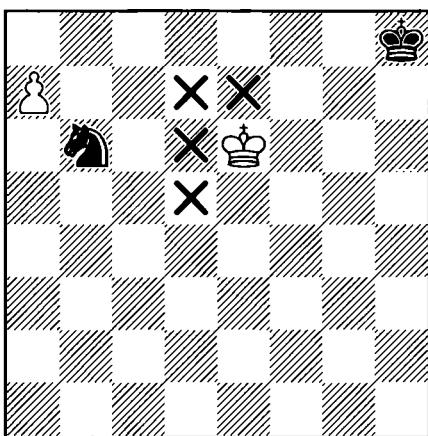
In fact Black can draw via the rather more crude method of: 1... \hat{Q} g8 2. \hat{Q} e7 \hat{Q} a8 3. \hat{Q} d7 \hat{Q} f8 4. \hat{Q} c8 \hat{Q} e8 5. \hat{Q} b8 \hat{Q} d8 6. \hat{Q} x a8 \hat{Q} c8 stalemate.

Endgame Exploration 6: Ulf on the Warpath!

2. K e6??

An equally horrible reply! Since the knight is clearly going to form a barrier from b6 White will save a tempo by playing 2. K f7! and he will win the game (he prepares the route along the eighth rank around the barrier, and also is blocking the black king from approaching).

2... N b6!



Even though it seems e6 is closer to the queenside than f7, it is an illusion, as the 'X's showing the barrier demonstrate.

3. K e5

Coming the shortest route around the barrier, but Black's king is now unhindered in its route to the queenside. Still, he can only hold a draw using the same idea as he should have used initially.

3... K g7

4. K d4 K f6

5. K c5 N a8

6. K b5 K e6

7. K c6 K e7

Draw agreed.

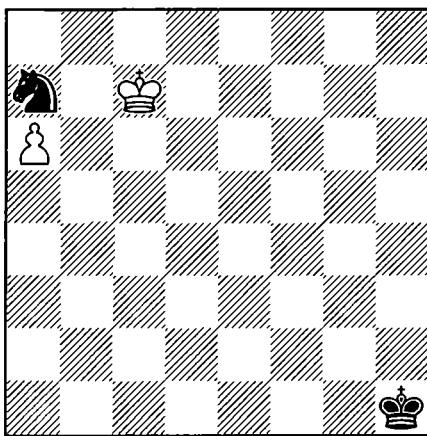
SUMMARY: PAWNS ON THE SEVENTH RANK

- With a central or bishop's pawn the defender can draw by occupation of the queening square with his knight. If this is not possible then controlling the queening square from the side is sufficient.
- With a knight's pawn the defender can only draw if his knight can occupy the queening square.
- A knight cannot stop a rook's pawn on the seventh alone. However it can sometime delay matters by forming a barrier, giving the defender's king time to join the defense.

The only really other interesting case is a less advanced rook's pawn.

PART 3. Endgame Explorations

If the knight can reach a square in front of the pawn (other than the queening square), then the position is drawn as long as the defender is accurate with his knight moves.



Strangely, Black is in no danger at all here.

1. $\text{N}b7 \text{N}b5$

2. $\text{N}c6 \text{N}a7+$

3. $\text{N}b6 \text{N}c8+$

4. $\text{N}c7 \text{N}a7$

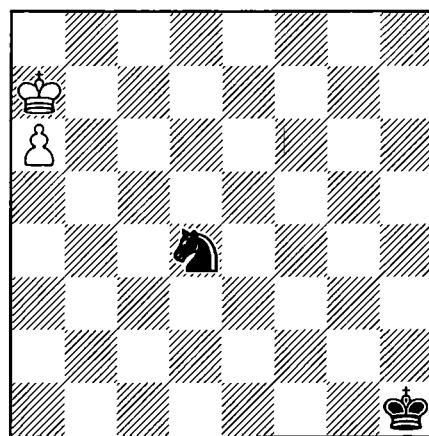
5. $\text{N}b7 \text{N}b5$

6. $\text{N}b6 \text{N}d6!$

There is just no way to overcome the knight.

If the knight cannot occupy a square in front of the pawn, it is still sometimes possible to draw if the knight can get on the correct circuit (the same one it used in the previous example).

For example:



Here it is important to play...

1... $\text{N}b5+$

...so that the knight can use both b5 and c8 to stop the pawn advancing, a7 to blockade the pawn, and d6 as a launchpad from which to perform forks.

1... $\text{N}c6??$ would be a terrible mistake, as after (for instance) 2. $\text{N}b6 \text{N}e7$ 3. $\text{N}b7!$ Black can resign.

2. $\text{N}b6 \text{N}d6!$

And we see the same defense as in the previous example.

➤ If a rook's pawn has not yet reached the seventh rank, then a knight can stop the pawn from advancing alone if it can occupy any square in the pawn's path.

➤ If the knight cannot occupy a square in the pawn's path, it is occasionally possible to draw if the knight can find the correct circuit in time.

Endgame Exploration 7:

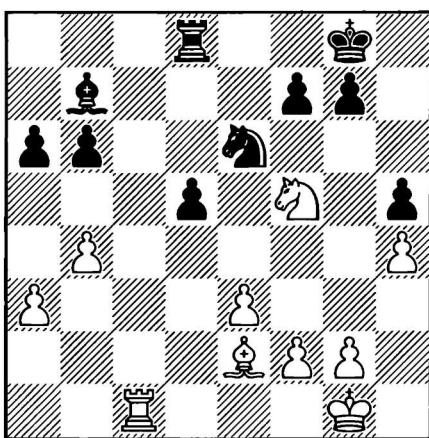
Positions for Analysis



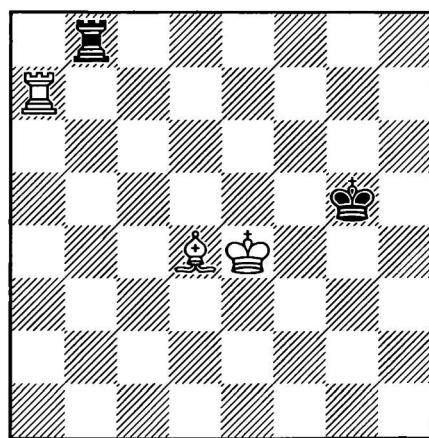
The following positions are for you to analyze. Please respond to the questions. The idea is not to provide a test, but to encourage you to do analysis of your own and think for yourself. Many of the problems will teach ideas not covered elsewhere in the book.

The solutions are not simple and often not unique. If you have a different solution to mine, it does not necessarily mean you are wrong. In this case I suggest reading the given answer carefully and then analyzing your idea using an engine to determine its validity. If you make mistakes on any of the positions then please don't worry! As I said, the idea is to make you think and to teach through the solutions.

Exercise 17



Exercise 18



White to play. In the game she played the move 26. $\mathbb{Q}d4$. What do you think of this decision? How might the game proceed? Do you think White has any winning chances in the resulting positions?

Analyze the remainder of this game:

87... $\mathbb{B}b4$ 88. $\mathbb{B}g7+$ $\mathbb{Q}h4$ 89. $\mathbb{B}g8$ $\mathbb{B}a4$
90. $\mathbb{Q}e5$ $\mathbb{Q}h3$ 91. $\mathbb{Q}e3$ $\mathbb{B}b4$ 92. $\mathbb{Q}f5$ $\mathbb{B}a4$
93. $\mathbb{Q}f4$ $\mathbb{B}a3$ 94. $\mathbb{Q}d6$ $\mathbb{B}a4$ 95. $\mathbb{B}g3+$ $\mathbb{Q}h4$

PART 3. Endgame Explorations

96. $\mathbb{B}g2$ $\mathbb{Q}h5$ 97. $\mathbb{B}g8$ $\mathbb{Q}h6$ 98. $\mathbb{Q}e5$ $\mathbb{B}a7$

99. $\mathbb{B}g1$ Black resigns

And answer the following questions:

What did you think of White's play?

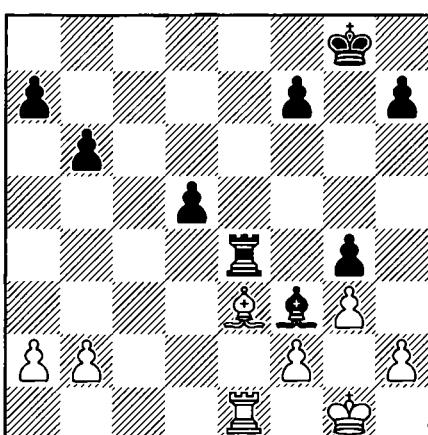
What did you think of Black's defense?

Was Black's position lost all along? If not, at what point did the game become lost for him?

What familiar positions/patterns did you notice occurring/potentially occurring?

What do you think of Black's resignation? Was it premature?

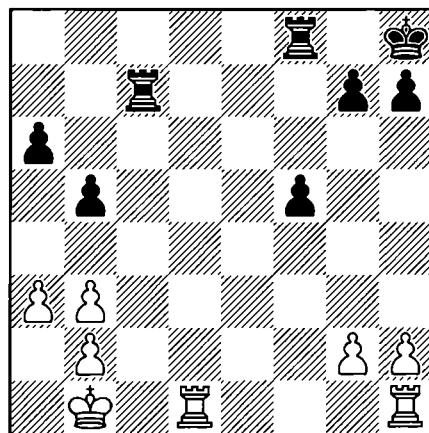
Exercise 19



Evaluate the opposite-colored bishop endgame which results after 31...d4.

What factors are important to consider? How do you see the endgame developing? What is the most likely result of the game?

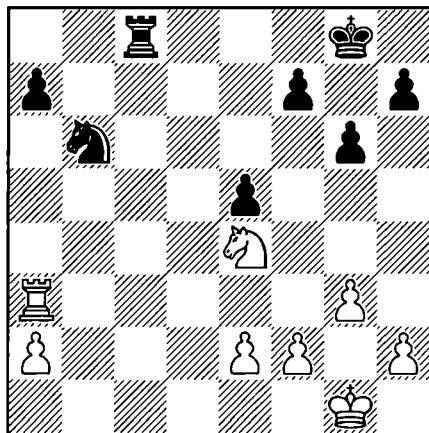
Exercise 20



Black to play. How do you assess the position? Does either side have realistic winning chances? What are the ideas for both sides?

In the game White continued with 26...g6 27. $\mathbb{B}d6$. How should Black react to this?

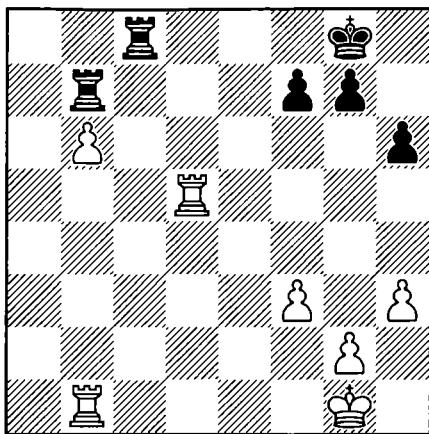
Exercise 21



Black to play. The pawn on a7 is attacked. How should he react to the threat? Who stands better here – and why?

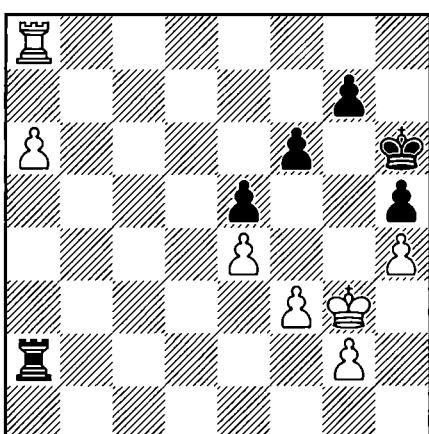
Endgame Exploration 6: Ulf on the Warpath!

Exercise 22



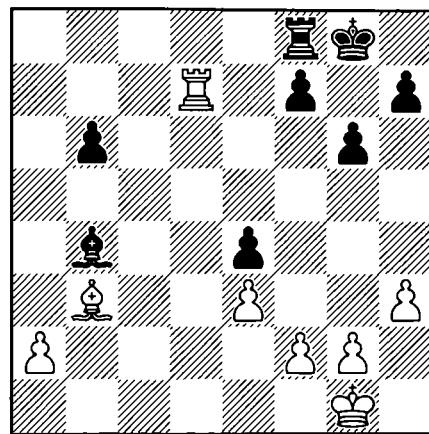
Black to play. Can he hold the position? How should he continue?

Exercise 23



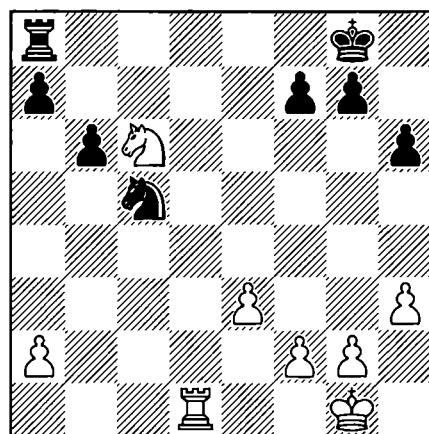
Evaluate and discuss the move 1.a7.

Exercise 24



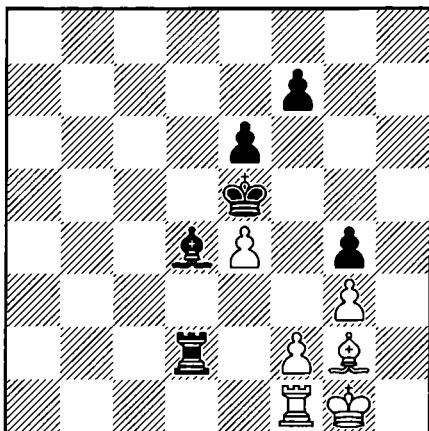
Assess the position. In the game White continued with 1.g4. Is this a good idea?

Exercise 25



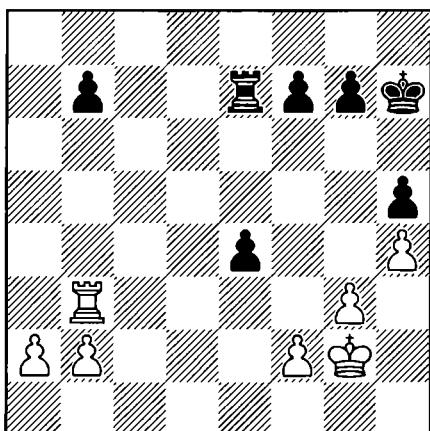
White to move. Make a quick assessment of this position. Which side do you prefer and why? In the game White chose to play 1.g4 here. Is this a good idea and what does this move hope to achieve?

Exercise 26



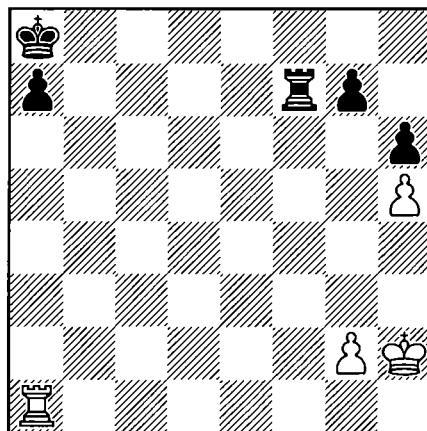
Black to play. Assess the position and suggest a plan for Black.

Exercise 27



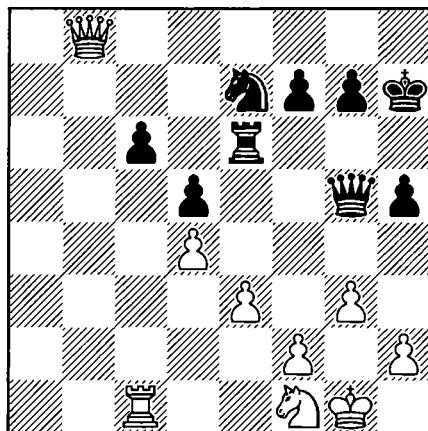
Black to play. Assess the position.

Exercise 28



Black to play. Assess his winning chances and find the strongest continuation.

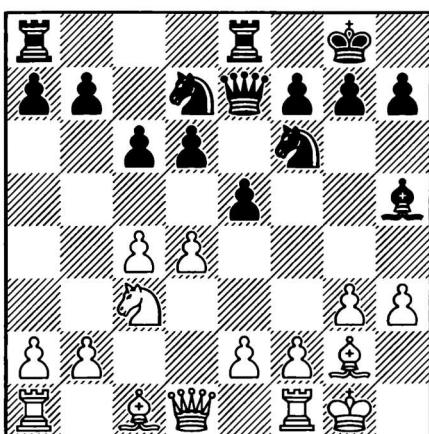
Exercise 29



White to play. From which opening did this position arise? How should White continue?

Solutions to Exercises

Solution 1



An effective plan is to set up a pawn wall against the black $\hat{a}h5$. Refer to Lesson 7 for a full discussion of this technique.

1.g4 $\hat{a}g6$

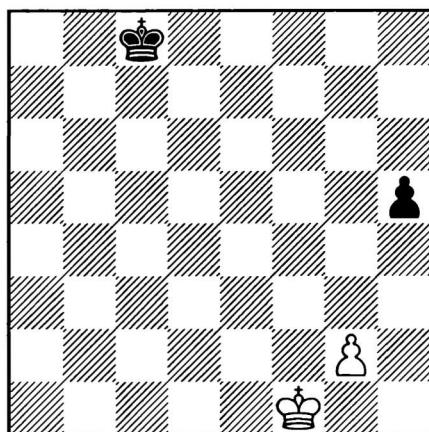
2.e4 h5

3.f3

Completely shutting the $\hat{a}g6$ out of the game. White's bishop on g2 is not a great piece either, but White maintains his space advantage. White can continue development and later gain further space with d4-d5. If Black pre-empts this with

$\dots e5xd4$ his d6-pawn may become a target.

Solution 2



To win, White must create a passed pawn (by winning the h5-pawn) and reach a key square of his g-pawn. This exercise is based on the material in Lesson 1.

1. $\hat{a}f2$ h4

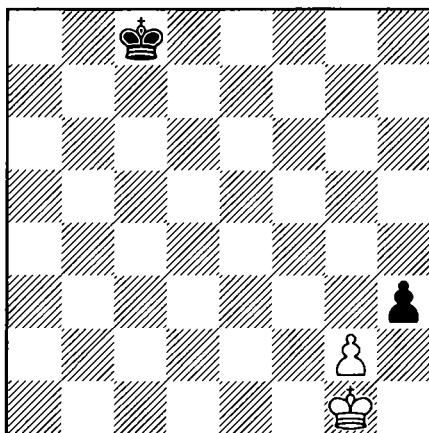
If Black plays a king move instead, such as 1... $\hat{a}d7$, there then follows 2. $\hat{a}g3$ $\hat{a}e6$ 3. $\hat{a}h4$ $\hat{a}f5$ 4. $\hat{a}xh5$ and White wins. He can at least step to the key square h4 on the next move.

2.♔g1!

The only winning move. After 2.♔f3? h3! White cannot capture on h3, so he must push 3.g4, then follows 3...♔d7 4.♔g3 ♔e6 5.♔xh3 ♔f6 6.♔h4 ♔g6 and White is prevented from reaching the key squares.

2...h3

On any other move White will go ♔g1-h2-h3xh4 and already stands on a key square of the g2-pawn.



3.g3!

Again the only winning move. White keeps the g-pawn as far back as possible. This means that after capturing h3 with his king, the key squares will be as close as possible (f5/g5/h5). 3.g4? only draws: 3...♔d7 4.♔h2 ♔e6 5.♔xh3 ♔f6 6.♔h4 ♔g6 =

3...♔d7

4.♔h2 ♔e6

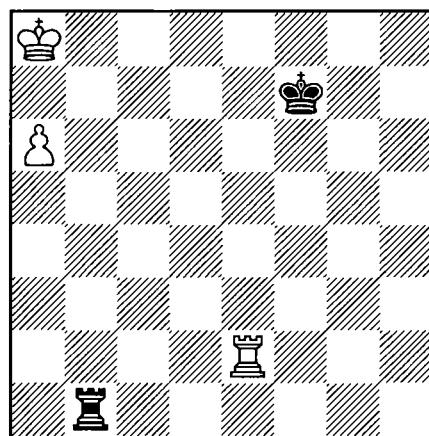
5.♔xh3 ♔f6

6.♔h4 ♔g6

7.♔g4

And on the next move we will outflank Black to a key square on f5 or h5. White wins.

Solution 3



The black king is cut to the f-file and the White cannot be stopped from moving to a7, so the position is a theoretical win. Refer to our discussion of rook endgames in Lesson 5 if you need a recap of the theory.

If White begins with 1.a7 then Black should respond with 1...♝b3! This does not save the game but causes White by far the most problems. We will play the game out to see why:

2.♝h2 ♔e7

3.♝h8 ♔d6!

3...♔d7 loses to 4.♝b8 ♜a3 5.♝b7 ♜b3+ 6.♔a6 ♜a3+ 7.♔b6 ♜b3+ 8.♔c5

Solutions to Exercises

5. $\mathbb{Q}b7 \mathbb{B}b3+$

6. $\mathbb{Q}c8! \mathbb{B}c3+$

7. $\mathbb{Q}d8 \mathbb{B}h3$

8. $\mathbb{B}b6+ \mathbb{Q}c5$

9. $\mathbb{B}c6+ \mathbb{Q}xc6$

10. $a8=\mathbb{W}+ \mathbb{Q}d6!$

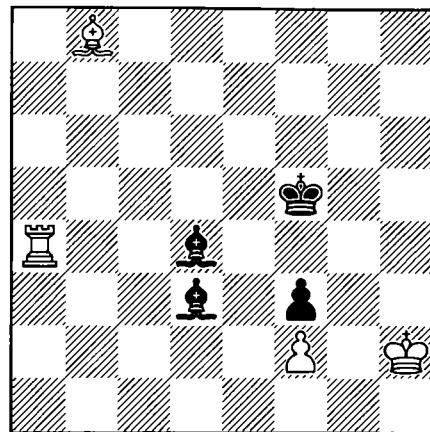
As we discussed in the notes to Lesson 5, White cannot simply win the rook by a series of checks here and must win the endgame slowly. This is clearly Black's only chance to hold the game.

Well done if you realized that White should in fact start with 1. $\mathbb{B}e3!!$ to prevent Black from taking the third rank with his own rook.

Play would then proceed as normal 1... $\mathbb{B}b2$ (the cut remains so Black can still only wait; he chooses a different rank for his rook as in the case where his rook is on h1, when White queens on a8, he will lose the rook immediately to a skewer) 2. $a7 \mathbb{Q}f8$ 3. $\mathbb{B}h3 \mathbb{Q}e7$ 4. $\mathbb{B}h8 \mathbb{Q}d6$ 5. $\mathbb{B}b8 \mathbb{B}a2$ 6. $\mathbb{Q}b7 \mathbb{B}b2+$ 7. $\mathbb{Q}c8 \mathbb{B}c2+$ 8. $\mathbb{Q}d8 \mathbb{B}h2$ 9. $\mathbb{B}b6+ \mathbb{Q}c5$ 10. $\mathbb{B}c6+ \mathbb{Q}xc6$ 11. $a8=\mathbb{W}+ \mathbb{Q}d6$ and White will shortly pick up the black rook, which could not make it to h3.

Finally if it was Black's move in the initial position the evaluation does not change, but Black's practical chances do because he could begin with 1... $\mathbb{B}b3!$ Taking the third rank for himself.

Solution 4



We are looking at the game Vitiugov – Morozevich, Reggio Emilia, 2012.

The correct assessment is that Black is just lost here. Exchanging bishops on e5 is practically forced, otherwise White will be able to play $\mathbb{B}a4-f4xf3$ (1... $\mathbb{Q}e4$ 2. $\mathbb{Q}a7$ is out of the question of course). We are using here the techniques we learned in Lesson 6.

1... $\mathbb{B}e5+$

2. $\mathbb{Q}xe5 \mathbb{Q}xe5$

3. $\mathbb{Q}g3 \mathbb{Q}e2$

We have a variant of the passive defense structure with bishop vs. rook and a single pair of blocked pawns (see Lesson 6: Bishop and Pawn Connections). As we discussed in that lesson, this configuration is always losing for the weaker side (with the exception of some rook pawn positions). The only variable is the winning technique, which can differ depending on how far advanced the blocked pawns are. The situation here is quite unusual, with the strong side's

pawn blocked on its starting square. This actually makes the win quite simple:

➤ Force the defender's king back as far as possible (rook on the seventh cutting the defending king onto the eighth rank).

Bring the king back into contact with the f3-pawn, while maintaining the cut on the seventh rank.

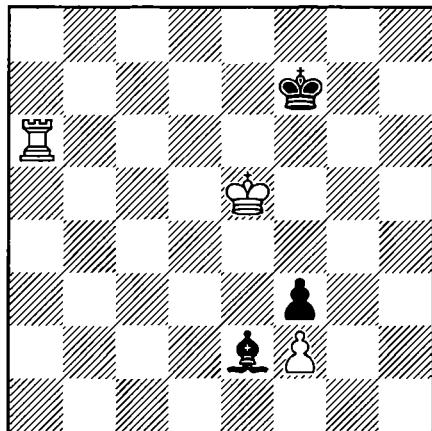
Release the cut and capture the f3-pawn with the rook, sacrificing the exchange. After that, reaching the key squares will not be a problem as we even have the reserve tempi f2-f3.

4. ♜g4 ♜f6

5. ♜f4 ♜d1

6. ♜a6+ ♜f7

7. ♜e5 ♜e2



8. ♜f6+

One of the techniques is to cover the checks from the defending bishop

with the rook. To this end the best continuation was 8. ♜c6 ♜d1 9. ♜f5 and the checking square c2 is covered.

8... ♜g7

8... ♜e7 was slightly more resilient.

9. ♜f5 ♜d3+

10. ♜g5 ♜e2

11. ♜f4 ♜g8

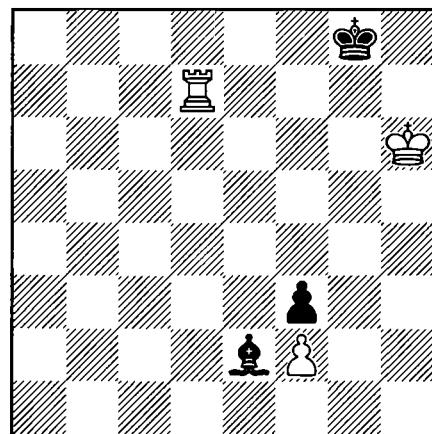
12. ♜h6 ♜d1

13. ♜d4

Gaining a key tempo on the bishop.

13... ♜e2

14. ♜d7



Mission accomplished. Now all White has to do is bring the king back and round up the f3-pawn.

14... ♜f8

Solutions to Exercises

15. $\mathbb{Q}g5 \mathbb{Q}e8$

White must prevent this and muddy the waters:

16. $\mathbb{B}a7$

Maintaining the cut.

16... $\mathbb{Q}f8$

1.g4!

Also possible is an attack on the bishop followed by g2-g4.

17. $\mathbb{Q}f4 \mathbb{Q}g8$

1... $\mathbb{Q}f2$

15. $\mathbb{B}a3 \mathbb{Q}f7$

If allowed, White would simply push the h-pawn up to h6 (whether Black chooses to exchange on h5 or not).

16. $\mathbb{B}xf3 \mathbb{Q}xf3$

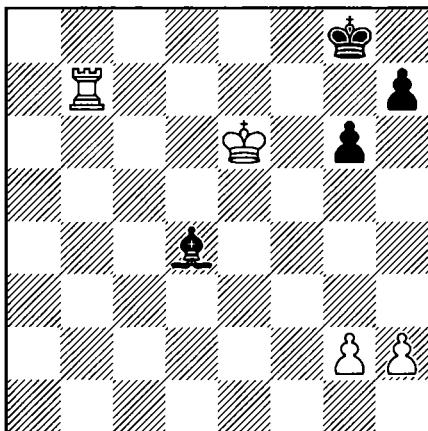
With 1... $\mathbb{Q}f2$ Black plans to put the bishop on h4.

17. $\mathbb{Q}xf3 \mathbb{Q}f6$

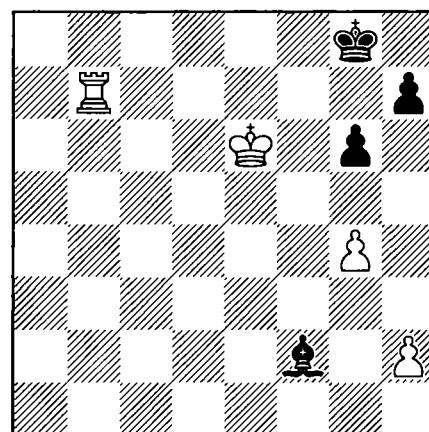
Quite an odd move to finish with, rather than the obvious 18. $\mathbb{Q}f4$.

Black resigned in view of 18... $\mathbb{Q}e6$ 19.f3 and White reaches a key square on the next move.

Solution 5



Black threatens to setup a fortress with ...h7-h5 as we looked at in Lesson 6: Bishop and Pawn Connections.



2.g5!

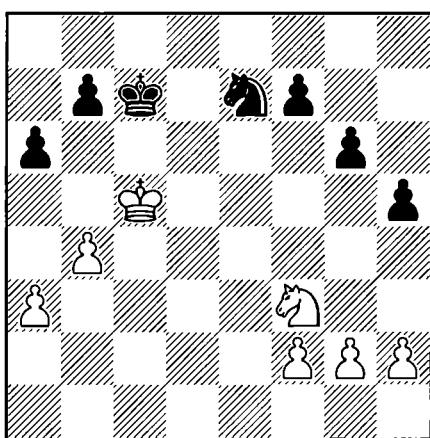
If White allows 2... $\mathbb{Q}h4$ and 3..h6 it seems the position is drawn. White's only way to make progress would be to move to h3 with his king to eject the bishop, followed $\mathbb{Q}h3-g3$ and h2-h4. Black would reply h7-h5 and the resulting position with blocked h-pawns is drawn.

2... $\mathbb{Q}d4$

3.h4

Black clearly still has a very resilient and coherent setup. Theoretically the position is winning here, but the point of the exercise was to realize that White must prevent the fortress with ...h7-h5 by pushing g2-g4.

Solution 6



This is the game Botvinnik – Khomov, Moscow, Team Championship, 1969. Perhaps we should apply Botvinnik's famous rule: '*knight endings are pawn endings*'. I don't think he meant this literally; it simply means many of the factors which are key in pawn endgames are also so in knight endgames (king activity, outside passed pawns, playing for *Zugzwangs*, etc.) This is one of the more difficult exercises as we did not study the material directly, so it is in effect a new lesson which could be considered as an extension of Lesson 9.

White clearly has the dominant king position, but is it enough for victory? What is White's plan?

1.♘g5!

White cannot create a passed pawn in this symmetrical structure so he must attack the black structure. Black's weakest point – f7 – is under attack and he is compelled to change the structure, creating further weaknesses. If White delays here then Black will have time to play ...b7-b6+ and ...♔c7-d6 improving his king position.

1...f6

2.♘e6+!?

In my view it is correct to play for a king infiltration here. The game continuation 2.♘h7 is usually passed without comment, and is also strong, forcing further concessions in the black structure. The game continued 2...f5 3.h4 and Black is probably losing.

2...♔d7

3.♘f4!

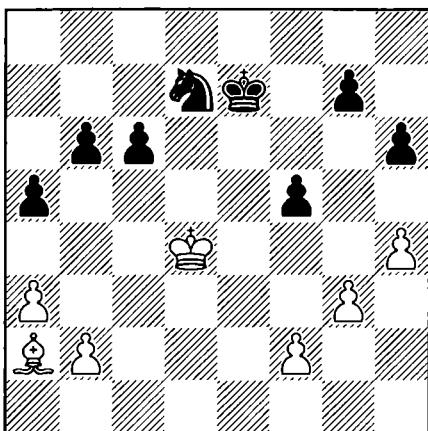
White just seems to be winning immediately. He threatens both ♔c5-b6 and ♘f4-d5. Some sample possibilities:

➤ 3...♔c7 4.♘d5+ ♘xd5 5.♔xd5 and the pawn ending is completely winning for White.

➤ 3...h4 4.♘d5 ♘xd5 5.♔xd5 is also winning easily.

➤ 3...f5 4.♔b6 ♔c8 5.h4 and it is just impossible that White isn't winning this position.

Solution 7



Black should be winning this position (Eggleston – Hawkins, Blackpool, 2012), as long as he doesn't rush to create a passed pawn and get involved in a race too quickly. Instead he should slowly improve the position, gaining as much space as possible without committing to anything. Perhaps one idea would be ... \mathbb{Q} e7-f6 in conjunction with ... \mathbb{B} d7-c5-e6 and followed by ... \mathbb{Q} f6-e5.

This exercise is, like the previous one, an extension of the minor-piece endgames examined in Lesson 9. To my mind it represents \mathbb{Q} vs. \mathbb{Q} with an extra pawn for the knight in a pure form. There are no tactics or exceptional circumstances and the position can be considered for all intents and purposes to be ‘normal’. It is useful to know that this situation should be winning for the knight, despite the apparent superiority of the bishop due to the game taking place on both wings.

In the game White played the dubious pawn move:

1.b4?!

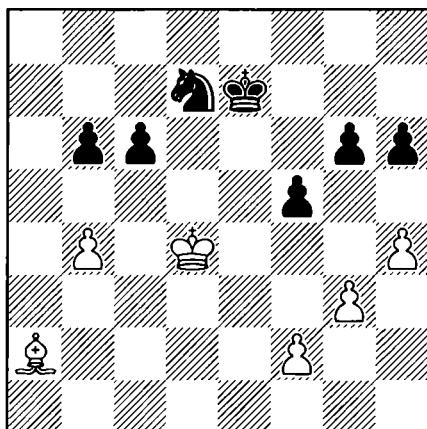
Which somewhat simplifies Black's task.

1...axb4

2.axb4

The pawn on b4 is a serious target. It can be blockaded in some circumstances by b6-b5, and a knight can attack it from d5. If White is forced to defend the pawn passively with the king on b3 he effectively takes a very powerful piece from the board. Black would have virtually a free hand on the kingside.

2...g6



Putting all the pawns on light squares isn't ideal here since g6 will always be a potentially attackable point. On the other hand it does facilitate some maneuvers which will cause White serious (indeed, insolvable) problems. Black plays ... \mathbb{B} d7-f6 when, thanks to the pawn on g6, \mathbb{Q} d4-e5 will not be possible on account of ... \mathbb{B} f6-g4+ winning the f2-pawn. He can then follow up with ... \mathbb{Q} e7-d6 and ... \mathbb{B} f6-d5 attacking the b4-pawn.

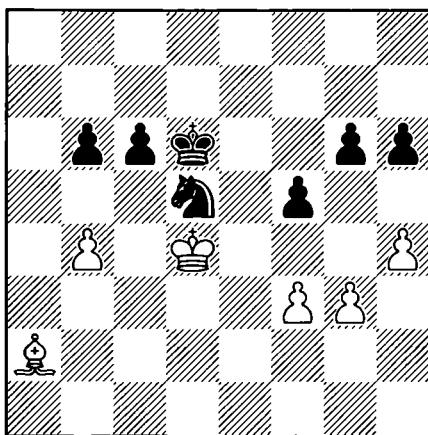
3. $\mathbb{Q}b1 \mathbb{Q}f6$

4. f3

Now White really does threaten to play $\mathbb{Q}d4-e5$.

4... $\mathbb{Q}d6$

5. $\mathbb{Q}a2 \mathbb{Q}d5$



5...b5 first is also worth considering, but I did not feel that White playing 6.b5 would be such a big problem.

6. $\mathbb{Q}b1$

Alternatives were:

➤ 6. b5 c5+ 7. $\mathbb{Q}c4$ g5 8. hxg5 hxg5 9. $\mathbb{Q}b1$ $\mathbb{Q}e5$ and Black is easily winning.

➤ 6. $\mathbb{Q}xd5$ cxd5 7. f4 b5! 8. $\mathbb{Q}d3$ $\mathbb{Q}d7!$ 9. $\mathbb{Q}d4$ $\mathbb{Q}e6$ 10. $\mathbb{Q}d3$ d4! 11. $\mathbb{Q}xd4$ $\mathbb{Q}d6$ 12. $\mathbb{Q}e3$ $\mathbb{Q}d5$ 13. $\mathbb{Q}d3$ h5! and Black wins.

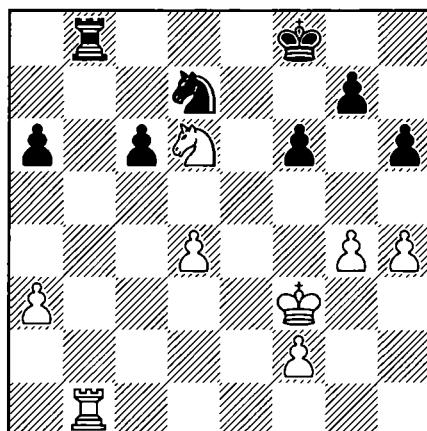
➤ 6. $\mathbb{Q}c4$ b5+ 7. $\mathbb{Q}b3$ (this is the nightmare scenario for White; his king is completely frozen from the action) 7... $\mathbb{Q}e5$ 8. $\mathbb{Q}b1$ h5 9. $\mathbb{Q}c2$ $\mathbb{Q}d4$, the black

king simply walks into the white king-side, which is completely lost.

6... $\mathbb{Q}xb4$

With the two connected passed pawns Black is winning without much trouble. I also considered 6...h5 to prevent White's idea of h4-h5 but I rejected it because of 7. $\mathbb{Q}a2$ with the idea 7... $\mathbb{Q}xb4$ 8. $\mathbb{Q}f7$.

Solution 8



The knight endgame following 1. $\mathbb{Q}xb8+$ gives White a big (probably decisive) advantage. Again we are not relying on any material from any of the lessons for this exercise. We can however compare the knight ending in Exercise 6 (and of course Solution 6).

1. $\mathbb{Q}xb8+$ $\mathbb{Q}xb8$

2. h5

Fixing a route into g6 for the white king to use later.

2... $\mathbb{Q}e7$

Solutions to Exercises

3. $\mathbb{N}b7$

From here the knight can jump probably to c5 to attack the a6 weakness, but also sometimes to a5 to attack the c6 weakness.

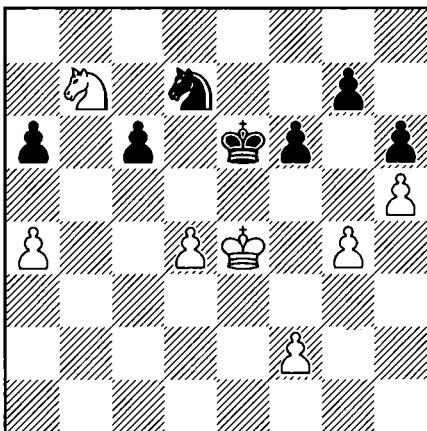
3... $\mathbb{N}d7$

4. $\mathbb{Q}e4$

With the superior king position, and the black structure riddled with weaknesses, White should be winning.

4... $\mathbb{Q}e6$

5. a4



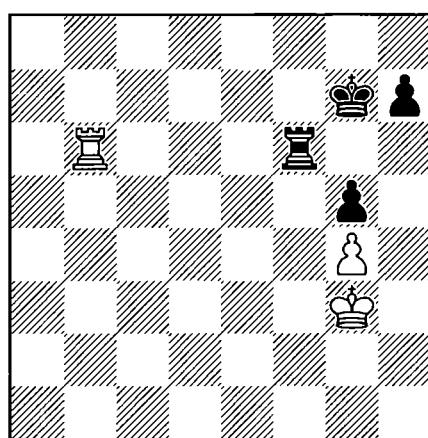
Gaining more space. The pawn end-game after 5. $\mathbb{Q}c5+$ $\mathbb{Q}xc5$ is not 100% clear. After 5. a4 Black is in *Zugzwang*, the best way to give up a pawn is with 5... f5+ but after 6. gxf5+ $\mathbb{Q}e7$ 7. a5 (fixing the weakness on a6 and getting one move closer to queening the a-pawn) 7... $\mathbb{Q}f6+$ 8. $\mathbb{Q}d3$ $\mathbb{Q}xh5$ 9. $\mathbb{Q}c5$ White is winning.

To answer the second part of the question, 1. $\mathbb{Q}e1$ is not a good move because Black can rid himself of his weak-

ness on c6 by playing 1... c5! White remains only slightly better after this.

Incidentally White is not compelled to go into the knight endgame and 1. $\mathbb{Q}c1$ is a perfectly good move, maintaining all of White's advantage.

Solution 9



No, the exchange is losing for White. The simplest way to see this is to have a good grasp of how to use critical squares as we discussed in Lesson 3.

1. $\mathbb{Q}xf6?$ $\mathbb{Q}xf6$

Now the black king has to reach the critical squares of the g4-pawn (d4, e4, f4), with the black king coming to e5 and the reserve tempi h7-h6, White is doomed.

2. $\mathbb{Q}f3$ $\mathbb{Q}e5$

3. $\mathbb{Q}e3$ h6

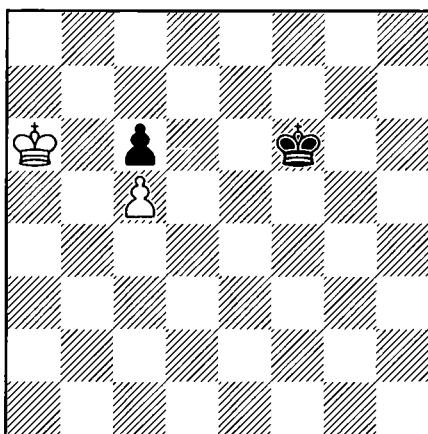
4. $\mathbb{Q}f3$ $\mathbb{Q}d4$

Black reaches a critical square so the g4-pawn will fall, when it does Black

will simply be two pawns up. We can stop calculating here; Black is winning.

Note that most players would not even bother to calculate 1. $\mathbb{R}xf6$ (even if it were drawn) since the rook endgame is drawing so trivially.

Solution 10



The endgame is lost for Black. White need only win the c6 pawn and he already stands on a key square (refer to Lesson 1).

1... $\mathbb{K}e6$

1... $\mathbb{K}e7$ 2. $\mathbb{B}b6$ $\mathbb{K}d7$ 3. $\mathbb{B}b7$ is also no help to Black.

2. $\mathbb{B}b7$

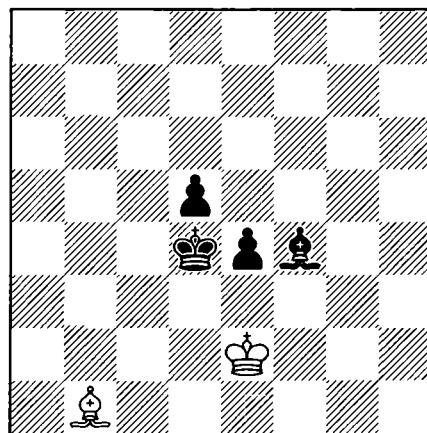
But not 2. $\mathbb{B}b6??$ $\mathbb{K}d5$ and Black wins!

2... $\mathbb{K}d5$

3. $\mathbb{B}b6$

White wins the c6-pawn, and the game.

Solution 11



The question is simply whether or not White can establish the defensive pattern we discussed in Lesson 7: Pawn Walls Against Bishops, with $\mathbb{K}e2$ $\mathbb{B}c2/\mathbb{B}b1$ and Black having played d5-d4.

Black is trying to complicate the issue by not pushing d5-d4 just yet, and he has set up something of a pawn wall against White's bishop.

1. $\mathbb{B}a2!$

1. $\mathbb{B}c2$ also holds, but 1. $\mathbb{B}a2$ is simpler. With the d5-pawn targeted Black cannot leave its protection with his king.

1... $\mathbb{K}g5$

2. $\mathbb{B}b3$

White is prepared to wait forever with $\mathbb{B}b3$ and $\mathbb{B}a2$.

2... $\mathbb{K}e5$

3. $\mathbb{B}a2 d4$

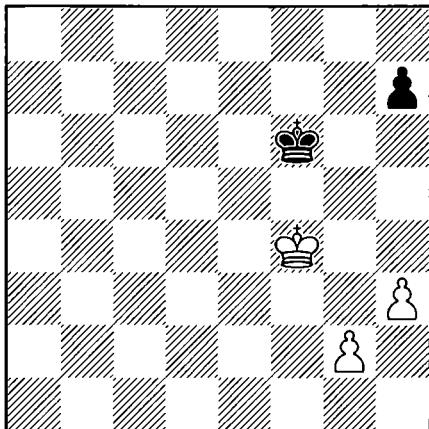
Solutions to Exercises

4. ♔b1!

Now this is the only move, otherwise Black would play d4-d3+ and ♔e5-d4 with a winning position.

After 4. ♔b1 the standard drawing pattern is established and Black cannot make progress.

Solution 12



Yes, White is winning. With the black pawn still on h7, his plan is to bring the king to h6 (see Lesson 3: Capablanca's Endgame).

1. ♔g4

1.h4 also wins. In the game in question, Stefansson – Lutz, Manila Olympiad, 1992, White blundered with the typical mistake 1.g4? After this he can no longer win as he blocks his king's own route to h6 and creates a target for Black to play h7-h5.

1... ♔g6

2. h4

It is OK, and indeed necessary, to expend one tempo to win the opposition here. As long as the g-pawn remains on g2 White will have the reserve tempi he needs.

2... ♔g7

After 2... ♔h6 White continues to press forward with 3.h5 ♔g7 4. ♔g5 and he will either gain access to h6 or force Black to play ...h7-h6. If Black plays ...h7-h6 White will easily enter the critical squares of this pawn (using his reserve tempi for *Zugzwangs*) and win the h6-pawn.

3. ♔h5 h6

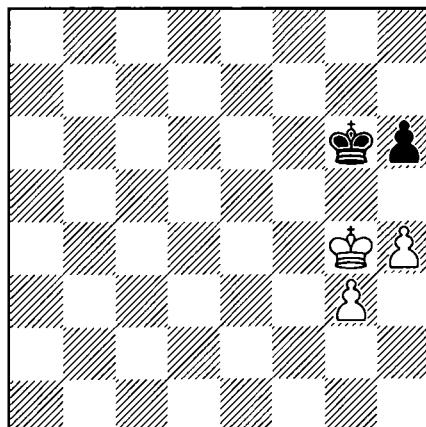
On 3... ♔f7 White wins in the usual way with 4. ♔h6 ♔g8 5.h5 ♔h8 and then calculates that 6.g4! is correct.

4. ♔g4

Returning to f4

4... ♔f6

5. g3 ♔g6



6. $\mathbb{Q}f3!$ $\mathbb{Q}f5$

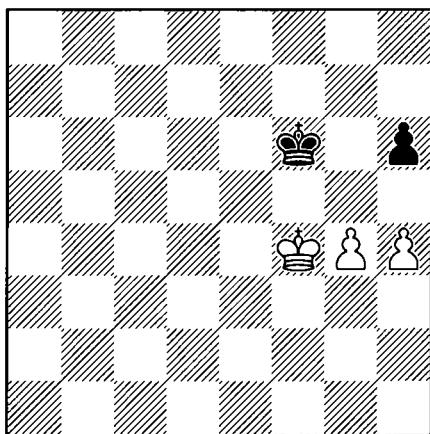
7. $g4+$ $\mathbb{Q}e5$

8. $\mathbb{Q}e3$ $\mathbb{Q}e6$

Black tries to delay the winning setup for as long as possible.

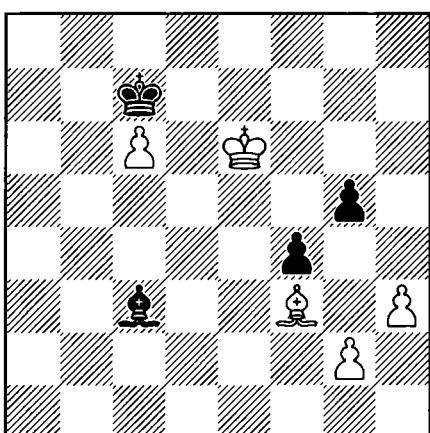
9. $\mathbb{Q}e4$ $\mathbb{Q}f6$

10. $\mathbb{Q}f4$



Finally White achieves the desired position with Black to move that we studied in Lesson 3: Capablanca's Endgame. White wins.

Solution 13



This position is a composition by John Nunn. It relies on ideas we discussed in Lesson 8.

We could also word the question another way: can Black anchor the kingside?

It appears as though he can. Putting the bishop on g3 is no good as White can win the g5-pawn, but putting the bishop h4 appears watertight.

1... $\mathbb{Q}e1$

This is completely forced, otherwise $\mathbb{Q}e6-f5$ wins the g5-pawn. With two far-split passed pawns (and a backup pawn on g2 to prevent any sacrifices resulting in a wrong rook's pawn draw) White would be easily winning.

2. $\mathbb{Q}f6!$ $\mathbb{Q}h4$

3. $\mathbb{Q}f5$

White deliberately reached this position with Black to move (he could have had it on his own move after 2. $\mathbb{Q}f5$ $\mathbb{Q}h4$). The reason for this will shortly become clear.

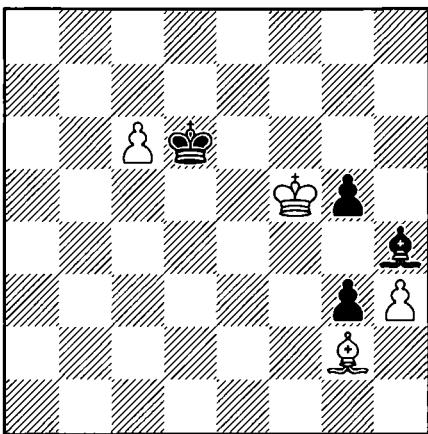
3... $\mathbb{Q}d6$

4. $g3!!$ $f\mathbf{x}g3$

Investigate the position arising from 4... $\mathbb{Q}xg3$ and we will discuss this in the follow-up section.

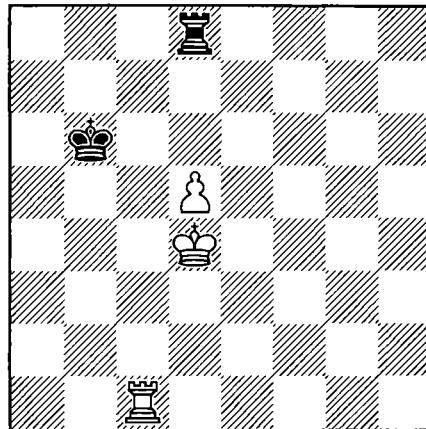
5. $\mathbb{Q}g2$

Solutions to Exercises



Black loses his g3-pawn, and White is winning the resulting position easily.

Solution 14



This is the idea. Black's bishop is now trapped. He cannot play ...g5-g4 because of h3xg4 winning easily. Also we see now why White deliberately lost a tempo earlier – Black is in *Zugzwang* and must move his king from d6.

5... \mathbb{Q} e7

The best try. After 5... \mathbb{Q} c7 6. \mathbb{Q} e6 g4 7.hxg4 White is winning easily.

6. \mathbb{Q} e5 g4

7.hxg4 \mathbb{Q} g5

Trying to transfer the bishop to the b8-h2 diagonal and then defend the g-pawn with the king.

8. \mathbb{Q} e4

The simplest idea. White is just going to win the g3-pawn.

8... \mathbb{Q} e6

9. \mathbb{Q} f3 \mathbb{Q} h4

10. \mathbb{Q} h1!

No, the position is drawn. The pawn being on the fifth rank means Black does not have the distance for frontal defense. However, with his king cut on the short side he has just enough room for side-checks. If you are unsure about any of this then please refer to Lesson 5 after reading this solution.

1. \mathbb{Q} e5 \mathbb{Q} h8!

Black has the half-board he needs for side-checks to be successful.

2.d6 \mathbb{Q} h5+

The white king has shelter from the checks, he can only try to approach the black rook.

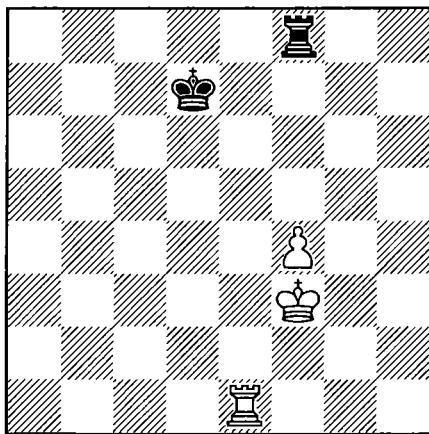
3. \mathbb{Q} e4 \mathbb{Q} h4+

4. \mathbb{Q} e5 \mathbb{Q} h5+

5. \mathbb{Q} f4 \mathbb{Q} d5

White loses the pawn.

Solution 15



The easiest part of the question to answer is “what is White aiming for?” He is simply aiming to advance his pawn one square. With the pawn on f5:

- Frontal defense is impossible.
- The black king is cut on the long side of the board, so side-checks (from the h-file) will not be successful as a defensive idea.

Then of course White will be aiming to convert this into a Lucena position.

Now we must answer the question of whether this is achievable. The answer is yes.

Again, all of this is discussed in Lesson 5.

1.♔g4!

Heading for the h6 square.

1...♜g8+

2.♔h5 ♜f8

Or 2...♜h8+ 3.♔g6

3.♔g5 ♜g8+

4.♔h6 ♜f8

5.♜e4! ♔d6

Black tries to improve his king position, but it already too late.

6.♔g7 ♜f5

We are already familiar with the tactic 6...♔d5 7.♜e5+!

7.♔g6

And the pawn advances.

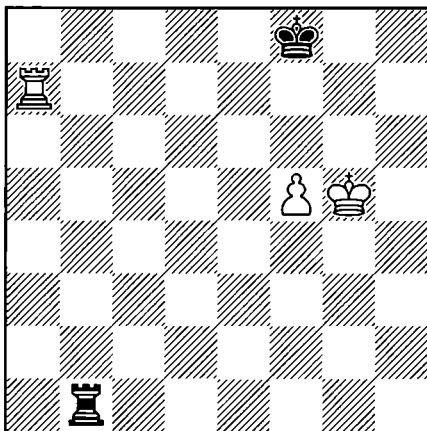
What if Black is on the move? Then the result changes to a draw, there are three different ways to achieve this.

➤ 1...♜e8 is the simplest. A rook exchange leads to a king and pawn end-game where the key square can be protected. If White avoids the exchange the black king will be brought in front of the pawn.

➤ 1...♔d6 also draws by being ready to harass the white rook with ♔d6-d5 after ♜e4 is played.

➤ 1...♜g8 draws too but to play this move Black must reckon with 2.f5. If White could stabilize this position he would be winning, but Black can break the cut by 2...♜e8 since the pawn end-game would still be drawn.

Solution 16



With the black king safely in front of the pawn, the position is drawn. Our task is to set the biggest practical problems. How can we do that?

Almost everyone here, if it was Black's move, would play ... \mathbb{R} b1-b6 employing Philidor's defensive method. (see Lesson 5: Essential Rook Endgames). We should stop that defense if possible.

One idea would be to play 1. \mathbb{R} a6, the problem is Black will likely play 1... \mathbb{K} f7 and we will have to leave the sixth rank to force his king back further again.

The most testing move is:

1. \mathbb{K} g6!

Which at least forces Black to play the defensive method with rook behind the pawn:

1... \mathbb{R} f1

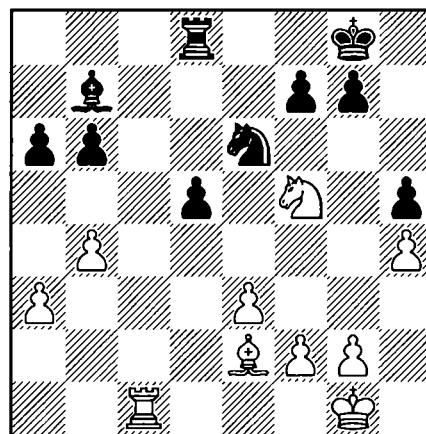
1... \mathbb{R} g1+ also draws but after 2. \mathbb{K} f6

Black must play 2... \mathbb{K} g8 and not 2... \mathbb{K} e8
3. \mathbb{R} a8+ \mathbb{K} d7 4. \mathbb{K} f7.

2. \mathbb{K} f6 \mathbb{K} g8!

This type of position is drawn and discussed in Lesson 5: Essential Rook Endgames.

Solution 17



First we note the tactical point than 26. \mathbb{R} xh5?! probably isn't a good idea after 26...g6, even though White can get three pawns for the piece after 27. \mathbb{Q} e7+ \mathbb{K} f8 28. \mathbb{Q} xg6+ fxg6 29. \mathbb{Q} xg6. It is worth considering, but Black can then play 29...d4 releasing all of his pieces. There seems no reason for White to risk losing the game playing like this.

The question is whether the d5 is really a weakness. In a sense it is, but White is unable to fix it, and the thematic advance d5-d4 is clearly in the air. Any problems Black may have would evaporate immediately after this move.

If White plays a neutral move such as 26. \mathbb{K} f1 then Black can play 26...g6 and

probably White will be forced to play 27. $\mathbb{Q}d4$ anyway, since 27. $\mathbb{Q}g3$ d4 looks even less attractive.

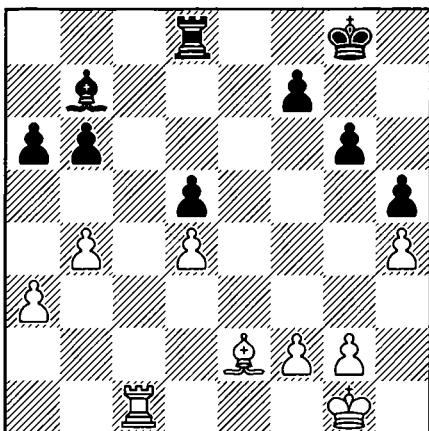
So what actually happens if we play 26. $\mathbb{Q}d4$...?

26. $\mathbb{Q}d4!$ $\mathbb{Q}xd4$

The h5-pawn is a tactical weakness in all lines. For instance an attempt to prevent the infiltration of the white rook by 26... $\mathbb{R}d7$ (or 26... $\mathbb{R}c8$ 27. $\mathbb{R}xc8+$ $\mathbb{Q}xc8$ 28. $\mathbb{Q}xe6$ fxe6 29. $\mathbb{Q}xh5$) simply lose a pawn.

27. exd4 g6

Black would prefer to cover the seventh rank with 27... $\mathbb{R}d7$ but he must first defend his h5-pawn.



The result of the exchange is that we are left with this position. It could be argued that Black has improved his structure, although it is clearly still favorable for White. More importantly though is White can jump to the seventh rank with his rook, making this piece very powerful.

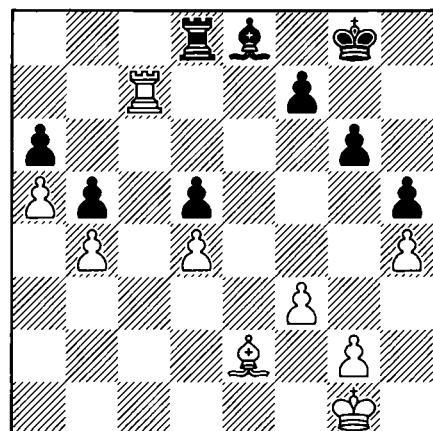
It is important when making exchanges not to be prejudiced by either rules or abstract concepts. Here when considering whether to play 26. $\mathbb{Q}d4$ we could be worried we are removing the black isolani. In other cases we can be afraid we are exchanging a good piece for a bad piece (although in this particular case we were exchanging Black's best piece).

The reality of exchanging is very simple: it is a comparison between one position and another, using an objective assessment of our chances in those positions.

Here the position after we play...

28. $\mathbb{R}c7!$

...is clearly much more favorable for White than the initial situation after some non-committal continuation. White's situation has improved dramatically, so clearly 26. $\mathbb{Q}d4!$ was a good move (this does not mean conclusively it is the absolute best move, although here I believe it is).

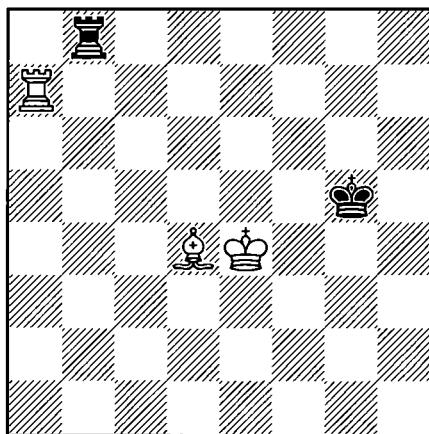


White has a clear advantage here, but how should she continue? The position

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is quite stable so I am looking for ideas more than specific variations. The solution can be found in the section ‘Follow-up Solutions’.

Solution 18



The position is from Carlsen – Svidler, World Blitz Championship, Moscow, 2010.

The position does not seem anything special for White. Black is nowhere near being forced into either of the two key lost positions (Philidor and Lolli’s first). We can safely say that almost certainly (or certainly, if we care to check with the tablebase) the position is theoretically draw.

87... $\mathbb{B}b4$

This seems logical, Black is preparing a potential Cochrane defense. $87...\mathbb{B}e8+$ $88.\mathbb{A}e5 \mathbb{B}g8$ or the immediate $87...\mathbb{B}g8$ preparing a second rank defense also make sense.

88. $\mathbb{B}g7+ \mathbb{C}h4!$

Using the Cochrane idea. Certainly Black wants to avoid $88...\mathbb{C}h5$ $89.\mathbb{A}f5!$

$\mathbb{C}h4$ ($89...\mathbb{C}h6$ $90.\mathbb{B}d7!$) $90.\mathbb{A}e5! \mathbb{C}h3$ $91.\mathbb{B}g3+ \mathbb{C}h4$ $92.\mathbb{B}d3 \mathbb{C}h5$ $93.\mathbb{B}h3+ \mathbb{C}h4$ $94.\mathbb{B}g3$ and Black has slipped into a rotation of the Philidor position.

89. $\mathbb{B}g8 \mathbb{B}a4!$

Correctly maintaining the Cochrane position. Flawless defense from Black so far. We know this position is drawn.

90. $\mathbb{C}e5 \mathbb{C}h3!$

91. $\mathbb{A}e3 \mathbb{B}b4?!$

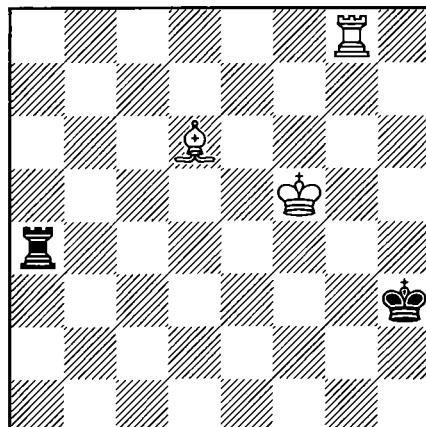
The standard move would be $91...\mathbb{B}g4$ releasing the king. $91...\mathbb{B}b4$ is not losing the game however.

92. $\mathbb{C}f5 \mathbb{B}a4$

Correctly preventing the white king from forming a mating net. After $92...\mathbb{B}b5+??$ $93.\mathbb{C}f4!$ the white pieces are coordinating well and Black is in fact lost.

93. $\mathbb{A}f4 \mathbb{B}a3$

94. $\mathbb{A}d6 \mathbb{B}a4??$



Keeping the rook on the third rank to avoid White's next would still be drawn.

95.♖g3+!

A familiar pattern: boxing in the defender's king.

95...♔h4

96.♗g2??

The simplest was to force a Philidor position with 96.♗d3 ♔h5 97.♗f4 ♗a5+ 98.♗e5 ♗a4 99.♗h3+ ♗h4 100.♗g3.

96...♔h5??

It is hard to criticize since this is a very tough situation to defend. 96...♗a5+! 97.♗e5 ♗a3 amazingly still holds a draw. This skewed (and drawn) version of Philidor's position is sometimes called Szén's position (after József Szén – a Hungarian 19th Century master).

After 96...♔h5 Black is clearly falling by force into a Philidor position.

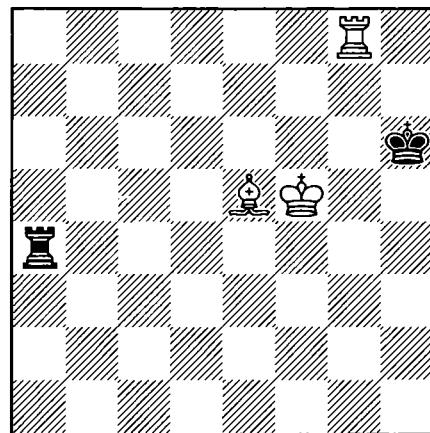
97.♗g8

We would choose 97.♗f4 ♗a5+ 98.♗e5 ♗a4 safely reaching Philidor.

97...♔h6

Black is lost anyway, but he should at least make White demonstrate Philidor's winning procedure with 97...♗a5+ 98.♗e5 ♗a6.

98.♗e5!



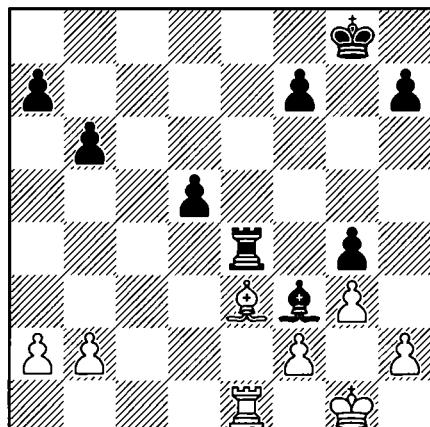
Closing the mating net.

98...♗a7

99.♗g1

Black is completely lost, but did he resign prematurely? The answer is...no, not really. White is winning the rook in a few moves. For example 99...♔h7 (99...♗f7+ 100.♗f6 wins instantly as 100...♔h7 101.♗h1+ ♔g8 102.♗h8 is even mate thanks to the rook on f7) 100.♗h1+ ♔g8 101.♗h8+ ♔f7 102.♗h7+.

Solution 19



This is the game Nakamura – Carlsen, Tal Memorial, Moscow, 2011.

Solutions to Exercises

The opposite-colored bishop endgame is reached after:

31...d4

32.♗d2 ♗xe1+

33.♔xe1

Taking stock we can see Black is one passed pawn to the good. The question is whether or not White can establish a blockade. If he can bring his king to d2 he would have excellent chances to do just that (although it is not 100% clear since the d4-pawn covers potential anchor squares for the white bishop on c3 and e3).

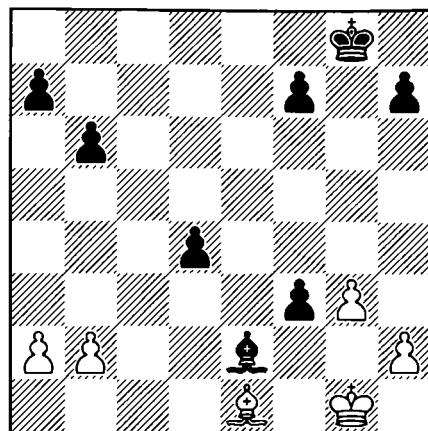
33...♔e2!

The key move, which tips the balance, of course it was vital to see this idea many moves previously before allowing the game to simplify this far. The white king is now completely boxed in and it has no normal route from the corner. An attempt to play ♔g1-g2 and h2-h3 should simply be met with ...h7-h5 or ...f7-f5 (more likely ...h7-h5 so as not to obstruct any potential routes for the black king) maintaining a pawn on g4.

34.f4

White has absolutely no choice but to play this move. If his king cannot escape he is effectively a piece down and Black will simply play ...♔g7-f6-e5-e4-d3-c2 and promote his passed pawn with ...d3-d2-d1.

34...gx f3



Now Black has two passed pawns, which is bad news for White. Only their close proximity to each other makes the position of any interest. The original questions boil down to the evaluation of this position, or one simple question:

Can White create a watertight blockade?

Clearly he can form a blockade of some sort, using the dark squares in the center (d2, e3 and f2). He must also be able to prevent any breakthrough by the black king on either wing but this might prove difficult.

35.♔f2

It is advisable to force the black pawn to d3 and blockade it there. If White is trying to set up a blockade with ♔f2 and ♗d2 the black king may just walk into the white position via e4 and d3.

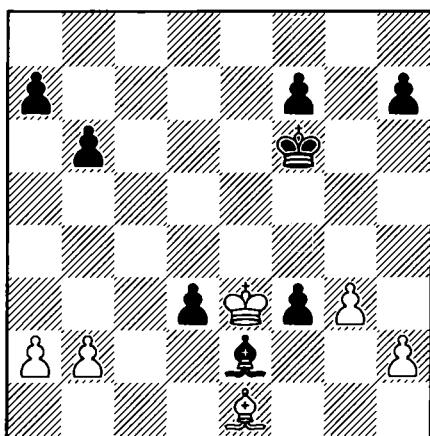
35...d3

36.♔e1 ♔g7

37.♔f2 ♔f6

The black king comes to center since it is not yet clear which wing it will try to penetrate.

38.♔e3



Black would like to penetrate with his king to g2 or to c2. In those cases White could already resign.

38...♗f5

39.h3

Discuss instead what Black should do if White instead plays 39.h4 (solution in ‘Follow-up Solutions’).

39...h5

Black would like to force the moves h4 and a3 from White. In that way he has a route into either side of the board on the light squares with his king.

40.♕d2 ♔f1

41.♕e1

If instead White plays 41.♕xf3 ♕xh3 then Black will regroup his bishop (most likely to e2) and then play ♗g4 and f5-f4 forcing a second passed pawn. For example 42.♔e3 ♔f1 43.♔f2 ♔e2 44.♔e3 ♗g4 45.♔f2 f5. The next move from Black will be ...f5-f4 and White’s choice will be between capturing with gxf4 and allowing a passed black h-pawn, or capturing with ♕xf4 when ...h5-h4 will create tactical disaster.

41...♕xh3

42.♔xd3

42.♕xf3 is similar to the variation in the last note. With 43.♔xd3 White is ensuring Black’s two passed pawns will be on the f- and h-files, keeping the split between them to a minimum.

42...♗f1+

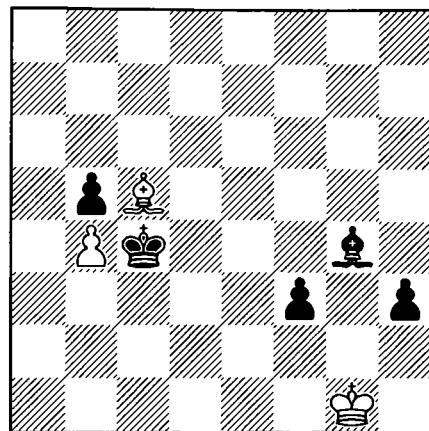
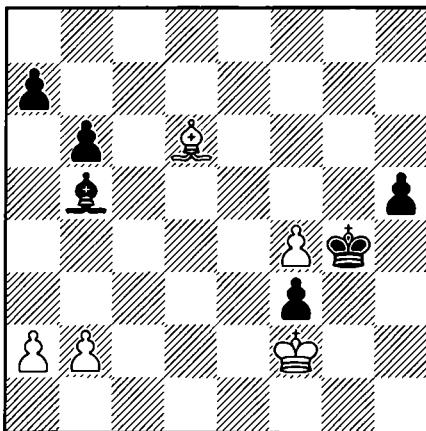
43.♔e3 ♗g4

44.♔f2 ♔b5

It is most likely not essential to go specifically to this square, but the move is very principled so we should discuss why he chose b5 and not some other square. I am sure this is how Black saw the game panning out:

Black will shortly have two passed pawns, one on the f-file and one on the h-file. White will likely have a pawn on the f-file (as a result of playing gxf4 in response to f5-f4).

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In a situation such as this, the white f-pawn is of little consequence. Most likely White will sacrifice it anyway so his bishop controls the h2 square (perhaps in some lines Black could even put his bishop to f5 to prevent this sacrifice, and queen one of his pawns?). For the sake of argument we will imagine that White sacrifices this pawn.

In that case we would be left with Black enjoying a two pawn advantage on the kingside, with the white king trying to blockade them and receiving some assistance from the white bishop.

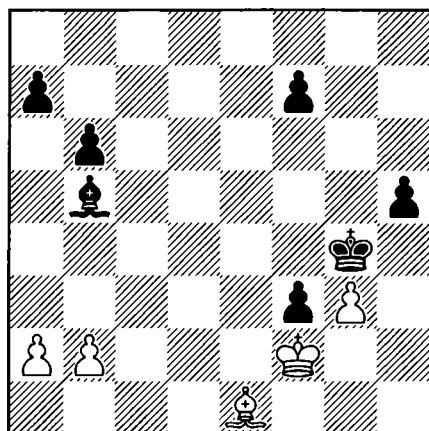
Black's task then would be to go with his king to the queenside and mop up the white pawns there. White's only possible salvation would be to somehow anchor the queenside with his bishop and hold the kingside with his king.

(See Diagram)

Please, don't write to me with an analysis of this position; I am aware White is completely lost. My argument is that Black would rather keep all of the queenside pawns so he could just win at least one of them for free.

Returning to the position after 44...

$\text{b}5:$



We can see the motivation behind 44... $\text{b}5$ – Black is denying White any opportunity to play a2-a4-a5, exchanging queenside pawns.

45. $\text{c}3 \text{ c}6$

46. $\text{e}5 \text{ b}5$

47. $\text{b}8 \text{ a}6$

48. $\text{c}7 \text{ f}5$

After arranging his queenside Black is ready to push ...f5-f4 and create his second passed pawn.

49.b3

After the alternative 49.a3 f4 50.gxf4 h4 51.f5 ♜xf5 52.♗e3 h3 53.♗f2 how will Black finish the game? The solution can be found in the ‘Follow-up Solutions’ section.

49...♝d5

Here it is unimportant, but notice the pattern (which Dvoretsky calls “pawns in crosshairs”) – the ♜d5 freezes the a2/b3 pawn duo and neither can move without the other being lost.

50.♝d6 f4

51.gxf4 h4

52.f5

Again there is no choice as White must use the bishop in the defense of the kingside.

52...♜xf5

53.♚e3 ♜g4

54.♚f2 h3

55.♚e3 ♜e4

Evaluate the flashy move 55...♝xb3 with the intended follow up ...a5-a4 creating three passed pawns. Does it win for Black? Solution in the follow-up section.

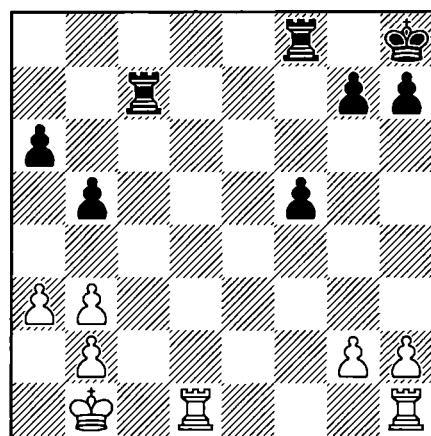
56.♚f2 ♜b1

57.a3 ♜a2

58.b4 ♜f7

White resigned. Since the winning method is almost identical to that to be found in the follow-up solution to this exercise, I will not give further analysis here.

Solution 20



Despite the innocent appearance of this position, White faces some serious problems. It is impossible to say whether these problems mean the position is losing; in many ways it is not relevant. The ideas for both sides are fairly clear:

Black’s primary idea is to advance his kingside majority and ultimately make a passed pawn.

➤ There are also weaknesses or potential weakness in the white camp. b3 and/or g2 could become weak (especially if White moves his h-pawn which creates a square on g3 for a black rook or king).

Black will also want to defend his weakness on a6. Putting a rook on the

Solutions to Exercises

sixth rank is by far the best way to go about this, as the rook does not lose any functionality there. Later when Black has made more progress on the kingside he may abandon his queenside pawns.

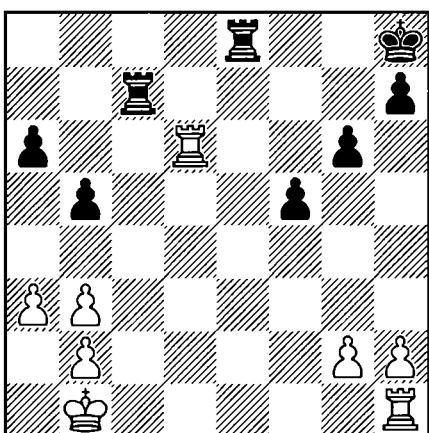
➤ White's defensive ideas are simply to blockade the black kingside majority and protect any weaknesses. He does also have some potential play against the black pawn on a6, and while it is difficult to set his queenside majority in motion, it is not impossible.

26...g6

27.♖d6

Logically attacking Black's only weakness on a6.

27...♜e8



An easy decision. There is no chance to win the game by passively defending the a6-pawn. Clearly the best chance is to start a fight in which I have the advantage. White now has a decision whether to accept the fight by continuing to pur-

sue the a6-pawn, or to retreat and attempt to hold the position passively.

28.♖d2

After 28.♖c1 (It is clear that White must exchange one pair of rooks if he wishes to capture the a6-pawn otherwise Black will put both his rook's on the seventh rank. He could also play 28.♖xa6 ♜e2 and only now 29.♖c1).

28...♜xc1+ 29.♔xc1 ♜e2 30.♖xa6 ♜xg2 is not easy for White. In the game I calculated a line something like 31.a4 f4 32.axb5 f3 33.♖f6 f2 34.♔d1 ♔g7! 35.♖f3 ♜xh2 and I felt White was in serious trouble. On 36.b6? I have 36...♜h3, and otherwise I will win one of the b-pawns and stop the others. After that my connected kingside pawns will be very dangerous.

28...♔g7

29.♖c1

White has little choice but to free his king. Waiting around in the double rook endgame with his king trapped is not an option. Black can easily advance his king and kingside pawns, while protecting from side-checks with his rooks.

29...♜xc1+

It is possible that 29...♜ce7 30.♖c6 ♜e6 31.♖xe6 ♜xe6 saves a tempo because the white king is still on b1. I didn't want to allow any additional possibilities in the double rook endgame though, and tempi aren't so

important at the moment since White cannot create any play on the queen-side anyway.

30.♔xc1 ♔f6

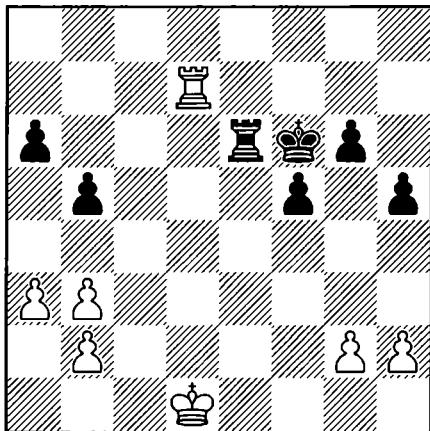
31.♔d1

The pawn endgame after 31.♕d6+ ♜e6 32.♕xe6+ is of course lost for White.

31...♜e6

The rook is clearly best placed on e6 for now until the kingside pawns make some progress. It protects the weakness on a6, and cuts the white king from the kingside.

32.♕d7 h5



33.♔d2

I couldn't see any way White could halt the advance of the kingside pawns.

He could try 33.♕h7 but then I can play ...f5-f4, ...♔f6-g5 and ...h5-h4. If White plays h2-h3 at any stage he creates a big hole on g3 so that Black can play ...♜e6-e3-g3 or ...♔g4-g3 (if the

black king is already on g4 when White plays h2-h3).

A more obvious try would be 32.h4 but this also seems to just create more weaknesses. After ...f5-f4 and ...♔f6-f5-g4 White's kingside is falling apart, not to mention the idea of ...♜e6-e3 hitting b3 and coming to g3 is still on the cards.

33...f4

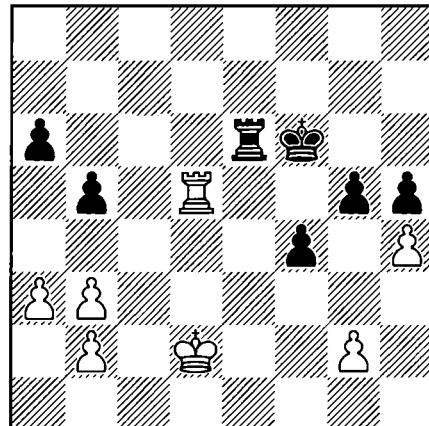
34.♕d5

Preventing the black king from advancing further.

34...g5

An interesting psychological moment. Probably White's best chance to make a draw is by playing 35.a4!, although clearly there is a lot of suffering still ahead for him.

35.h4?

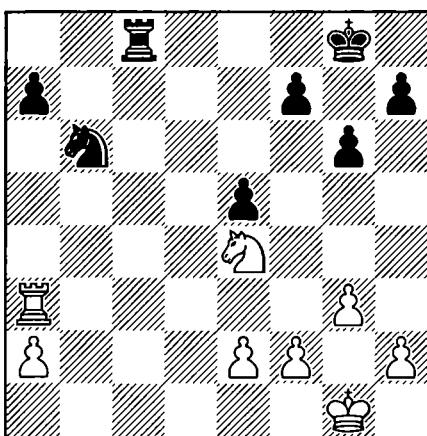


It is of course tempting to try to kill the position into a stone-cold draw like this, but there is a problem.

Solutions to Exercises

What is the problem with 35.h4? How should Black continue? Both the solution and the remainder of the game are in the follow-up section.

Solution 21



This is the game Romanishin – Benjamin, Groningen PCA, 1993. The position is roughly equal, but at the moment White has a slight initiative so it is Black who must play accurately over the next few moves.

1... $\mathbb{R}c4!$

This is the correct way, playing for the initiative and refusing to go passive.

In the game Black played the inferior 1... $\mathbb{R}c7$! when 2. $\mathbb{N}f6+$ continued White's initiative, 2... $\mathbb{K}h8$ (unfortunately forced, as 2... $\mathbb{K}g7$? drops a whole rook to 3. $\mathbb{N}e8+$ and 2... $\mathbb{K}f8$? loses a pawn to 3. $\mathbb{N}xh7+$) 3.g4! h6 4.h4 $\mathbb{R}b7$ 5. $\mathbb{R}a5$! and Black was firmly on the back foot.

The game concluded:

5... $\mathbb{R}e7$ 6.. $\mathbb{g}5$ Cementing the knight into f6

6... $\mathbb{h}xg5$ 7. $\mathbb{h}xg5$ $\mathbb{K}g7$ 8. $\mathbb{R}c5$ e4 9.a4 $\mathbb{R}b7$ 10. $\mathbb{R}b5$ a6 11. $\mathbb{R}b4$ a5 12. $\mathbb{R}b5$ $\mathbb{R}b8$ 13.e3 1-0 Probably Black could defend better, but nevertheless this is a vivid example of what can happen when you give up the initiative in the endgame rook and knight vs. rook and knight.

1... $f5$ appears unnecessarily weakening, but is also fine for Black after 2. $\mathbb{N}d6$ $\mathbb{R}c1+$ 3. $\mathbb{K}g2$ $\mathbb{R}c2$ 4. $\mathbb{R}xa7$ $\mathbb{R}xe2$ 5. $\mathbb{N}e8$ $\mathbb{N}d5$ and Black is completely OK thanks to his active pieces.

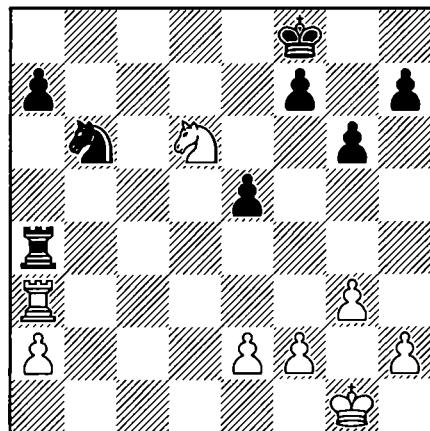
2. $\mathbb{N}f6+$

There is also very little for White after 2.f3 $\mathbb{R}a4$

2... $\mathbb{K}g7$

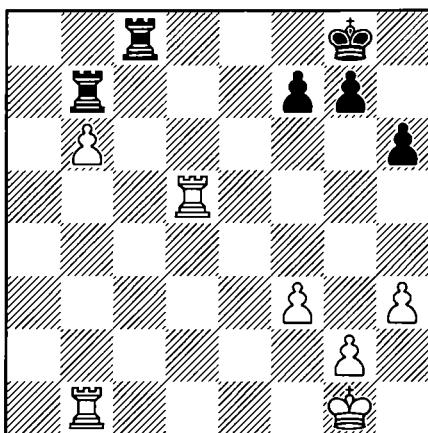
3. $\mathbb{N}e8+$ $\mathbb{K}f8$

4. $\mathbb{N}d6$ $\mathbb{R}a4$



There is no reason Black should be worse anymore.

Solution 22



Here in the game Deep Junior (computer) – Kasparov, New York, 2003, the play clearly revolves around whether White can use the b6-pawn to win material from Black.

Essentially White needs to bring its king to the queenside to stand any realistic chance of winning the game. With only one pair of rooks and the defending rook tied behind the pawn this type of endgame would generally be lost, but with double rooks the evaluation is different.

1... c6!

The best idea, tying the white rooks to the defense of the b6-pawn, but keeping one of the black rooks active. This rook on c6 will be used to prevent the white king from joining the fight on the queenside.

2. db5 h5

Taking some space on the kingside. It is always important when suffering one disadvantage (in this case a pawn less on

the queenside) not to permit a second one to appear.

3. ♕ f2

3. $\mathbb{Q}xh5$ $\mathbb{Q}cxb6$ and Black will force one pair of rooks from the board, leaving a theoretically drawn endgame of 3 vs. 2 on one wing.

3...e6

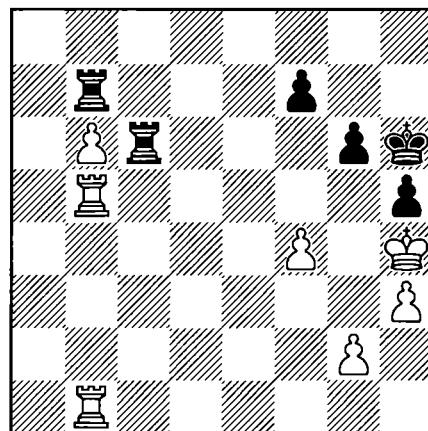
Not essential, but it is nice to cut the white king from the queenside completely.

4.f4 g6

Now Black has a completely solid kingside structure.

5. ♔ g3 ♔ g7

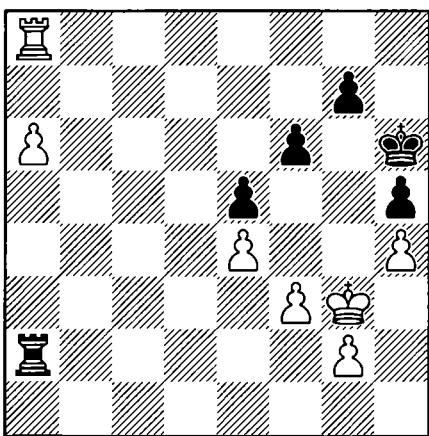
6. ♔ h4 ♔ h6



This is really no way to make progress. If 7.g4 Black could play 7...hxg4 8.hxg4 f5 and it is very likely White will reach a drawn rook and pawn vs. rook position.

The game was shortly drawn.

Solution 23



In the game Spassky – Torre, World Cup, Hamburg, 1982, White continued with:

1.a7!!

A wonderful move, showing full understanding of the position. It should also be mentioned that after the more conventional idea of $\mathbb{Q}a8-a7$ followed by bringing around the king (probably White will have to play f2-f3 and g2-g4 before leaving his kingside pawns completely) White would retain decent winning chances. This fact makes White's full committal with 1.a7!! even more impressive.

We discussed in the chapter ‘End-game Exploration 5: Extra Pawn on the Queenside, Part 2’, that (albeit in a 3 vs. 3 situation on the kingside, although the same holds true here) pushing the outside pawn to the seventh rank is worth consideration if:

➤ The defender's king cannot return to the drawing zone (g7, h7). That

is certainly not the case here as Black can easily return to the h7 square with his king.

➤ There are certain weaknesses in the defender's kingside which can be exploited. That also does not appear to be the case here; Black's kingside appears to be very solid.

In fact White has foreseen that by pushing g2-g3 followed by f3-f4 he will either:

➤ Create a passed e-pawn directly if Black exchanges pawns on f4.

➤ Isolate a black pawn on e5 if he is allowed to capture f4xe5.

○ Then this pawn can be won by the white king, leaving White with a passed e-pawn.

1... \mathbb{K} h7

2. \mathbb{K} h2 $\mathbb{Q}a1$

3.g3 $\mathbb{Q}a2+$

4. \mathbb{K} g1

White is not worried about any kind of harassment to his king by checks now that he has played a6-a7. The black pieces are paralyzed and Black will never have time to capture any of White's kingside pawns with his rook.

4... \mathbb{K} g6

Black should try 4...g5 here, to hinder White from playing f3-f4. Prob-

bly White is winning anyway after 5. $\mathbb{R}f8$ $\mathbb{R}xa7$ 6. $\mathbb{R}xf6$ $gxh4$ 7. $gxh4$ as he can plant his rook on f5 and bring around his king. Eventually Black will be forced to exchange his e5-pawn for White's h4-pawn, and the two connected passed pawns should win.

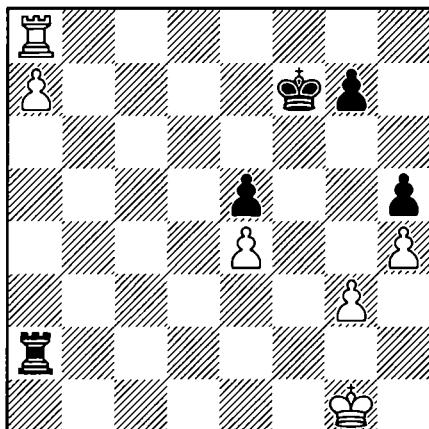
5.f4

Notice the weakness White is creating in the black queenside is a consequence of the pawn on f6. If the pawn was on f7 Black could simply capture on f4 here and play ...g7-g6. White could not create a passed pawn.

5... $\mathbb{Q}f7$

If 5...exf4 6.gxf4 White will just push e4-e5-e6 winning easily.

6.fxe5 fxe5



Now the potential weakness in Black's camp which White noticed when he played a6-a7 has become a reality.

7. $\mathbb{Q}f1$ $\mathbb{R}a1+$

8. $\mathbb{Q}f2$ $\mathbb{R}a3$

9. $\mathbb{Q}e2$ $\mathbb{Q}g6$

10. $\mathbb{Q}d2$ $\mathbb{R}a4$

11. $\mathbb{Q}c3$

Eventually White's king will make contact with the e5-pawn.

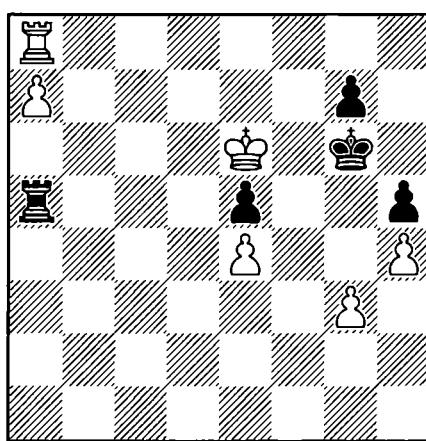
11... $\mathbb{R}a1$

12. $\mathbb{Q}c4$ $\mathbb{Q}f7$

13. $\mathbb{Q}d5$ $\mathbb{R}a5+$

14. $\mathbb{Q}d6$ $\mathbb{Q}g6$

15. $\mathbb{Q}e6$



Zugzwang.

15... $\mathbb{R}a1$

16. $\mathbb{Q}xe5$ $\mathbb{Q}f7$

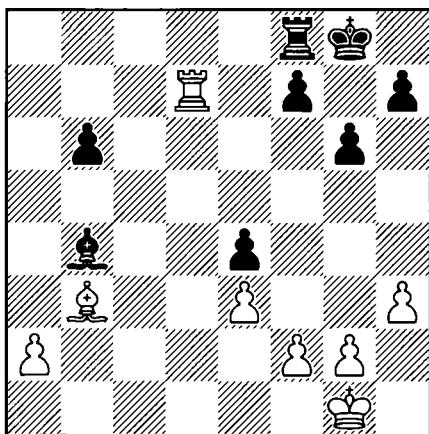
17. $\mathbb{Q}f5$ $\mathbb{R}a5+$

18. $e5$ $g6+$

19. ♜e4

White wins trivially by advancing the e-pawn. Black resigns.

Solution 24



The game we are discussing is Carlsen – Bu, Biel, 2007.

Without rooks on the board this position would be trivially drawn, but with rooks things are quite different. The position may still be drawn but Black is definitely suffering. His pawn on f7 is under heavy fire and his pawn on e4 is weak. The aggressor in the endgame with rooks and opposite-colored bishops has a significant advantage. Note this is not because the attacking pieces are any stronger than usual, but because the defense is weaker (the black ♜b4 here cannot participate in the defense).

1.g4

Other moves are possible but this is a good one. The idea is to advance the pawn to g5, where it fixes three (!) weak-

nesses. The f7- and h7-pawns are somewhat fixed, and the e4-pawn is cut from the rest of the black kingside.

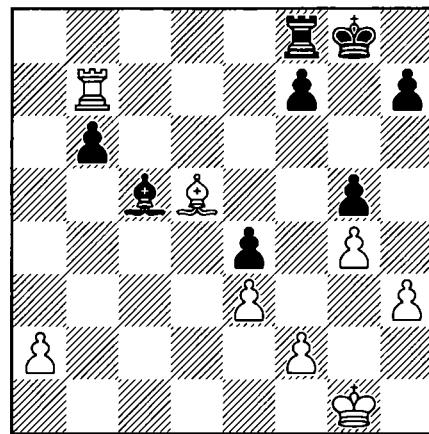
1...g5

Black decides he cannot allow the pawn to g5. Instead he prepares for the loss of the e4-pawn and setting up a blockade on the dark squares.

2. ♜b7 ♜c5

3. ♜d5

Calmly targeting more of the black weaknesses.



3...♝g7

4. ♜f1

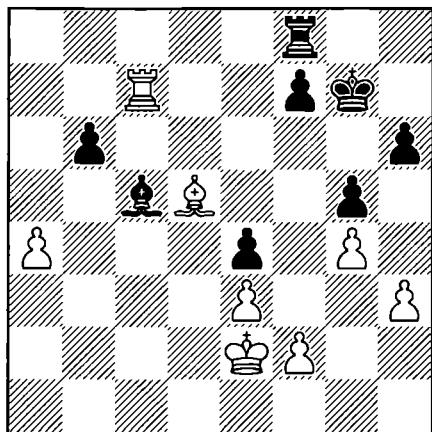
The pawn can be taken at any time. There is no need to allow Black an easier defense with 4. ♜xe4?! ♜e8 5. ♜d5 ♜e7. It is better to keep his rook tied to the f8 square for now and use the free moves while Black can do nothing.

4...h6

5. $\mathbb{Q}e2 \mathbb{Q}f6$

6. $a4 \mathbb{Q}g7$

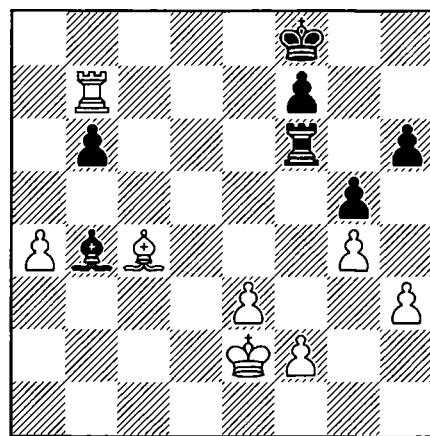
7. $\mathbb{Q}c7$



9. $\mathbb{Q}d3 \mathbb{Q}f8$

10. $\mathbb{Q}b7 \mathbb{Q}d6$

11. $\mathbb{Q}c4 \mathbb{Q}f6$



With these last two moves (6.a4 and 7. $\mathbb{Q}c7$) White is fighting against Black's plan of meeting $\mathbb{Q}d5xe4$ (White will eventually have to play this) with $\mathbb{Q}f8-e8-e7$.

He intends to meet this idea $\mathbb{Q}e8-e7$ with $\mathbb{Q}c7-c6$ hitting the weakness on b6, and Black cannot defend it with $\mathbb{Q}c5$ because of the undermining move a4-a5.

7... $\mathbb{Q}b4$

Black can only wait until White is ready to capture on e4.

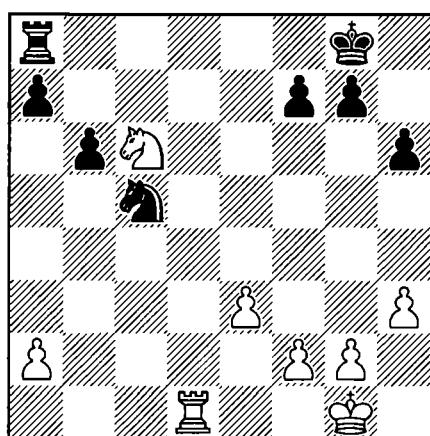
8. $\mathbb{Q}xe4 \mathbb{Q}d8$

Preventing the bishop from returning immediately to the a2-g8 diagonal. As mentioned previously White would meet 8... $\mathbb{Q}e8$ with 9. $\mathbb{Q}d5 \mathbb{Q}e7$ 10. $\mathbb{Q}c6$ forcing the black bishop to the passive a5 square.

What is White's plan now? How can he make progress?

Discussion continues in the follow-up section.

Solution 25



This is the endgame Kramnik – Lutz, Bundesliga (German league), 1994.

Both of the players have published their quite extensive analyzes of this

Solutions to Exercises

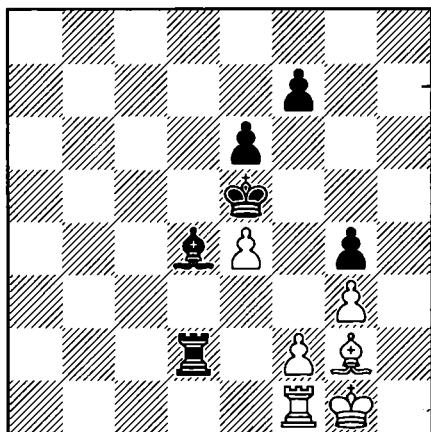
endgame, with slightly different opinions. Of course neither disputes that White is better here. His pieces are better deployed and he undeniably has an initiative. Objectively this should not be enough to win the game, but Black must be fairly accurate.

1.g4!

Setting the majority in motion while Black cannot undertake anything active ($1\dots\blacksquare c8??$ with the idea $2.\blacksquare x a7?? \blacksquare a8$, fails to $2.\blacksquare e7+$). The move has two main aims:

- Ideally Black would like to set-up the ideal structure for dealing with a 4 vs. 3 majority, with pawns on f7, g6 and h5 (and $\blacksquare g7$). Then White cannot advance his majority without mass exchanges. With the advance g2-g4 White prevents this structure.
- White prepares to activate his king via g2, adding one more thing to his list of advantages.

Solution 26



We are joining the game Carlstedt – Landa, Petrov Memorial Qualifier, Jurmala City, 2012.

White can wait with $\blacksquare g2-h1-g2-h1$ so there is no *Zugzwang*. Black must bring more pressure on bear on f2. That means bringing the king to e2.

1... $\blacksquare d6$

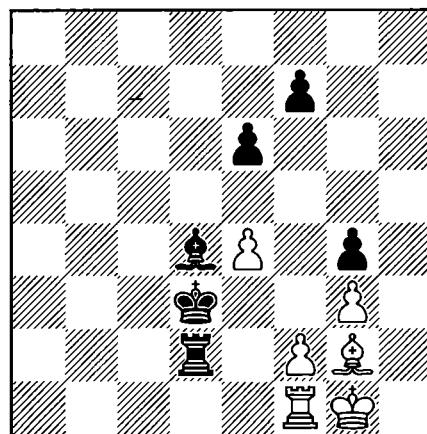
2. $\blacksquare h1 \blacksquare c5$

3. $\blacksquare g2 \blacksquare c4$

4. $\blacksquare c1+ \blacksquare b3$

5. $\blacksquare b1+ \blacksquare c2$

6. $\blacksquare f1 \blacksquare d3$



Black could also consider playing $6\dots e5$ to prevent White from breaking out with $e4-e5$ himself.

7. $\blacksquare h1?$

For better or worse, White must give up a pawn to release his bishop with $7.e5$, $7\dots \blacksquare e2$ is met by $8.\blacksquare c6$ and

checking from b5, so probably instead Black will regroup and win the e5-pawn. It is far from clear that White is losing though.

7... $\hat{e}2$

8. $\hat{g}2 \hat{x}c2$

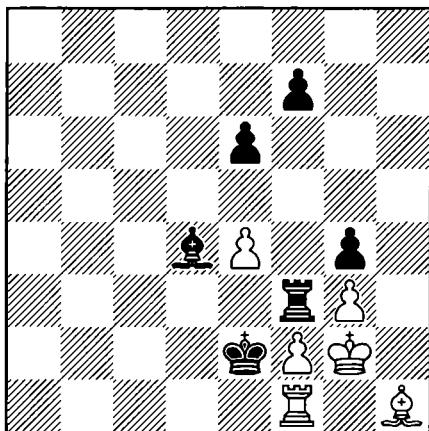
9. $\hat{h}1 \hat{x}c3$

Black is now threatening the g3-pawn as well.

10. $\hat{g}2$

Or 10. $\hat{g}2 f6 11.\hat{h}1 \hat{x}g3+$

10... $\hat{f}3$



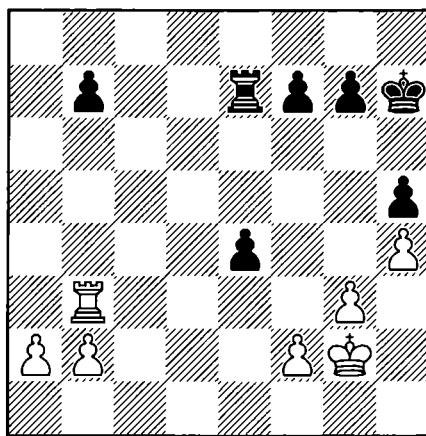
Black's plan has been a complete success — every piece is bearing down on f2!

11. $\hat{g}1 \hat{x}f2+$

12. $\hat{g}2 \hat{x}g3+$

White is losing his rook and getting mated, so he resigned.

Solution 27



Black is suffering here; the white rook is much stronger than its counterpart. It can leap to b5 or b6 exerting influence in both directions. Black cannot ever play e4-e3 to activate his own rook along the e-file because it would involve exchanging his e4-pawn for the black b7-pawn, after which White would have two connected passed pawns.

1... $\hat{g}6$

After 1...f5 White would improve his rook and cut the black king with 2. $\hat{b}6!$ then bring his own king to the center and advance his queenside pawns.

2. $\hat{b}5 f6$

3. $\hat{f}1 e3!?$

Otherwise Black will be forced to play ...f6-f5 to defend the e4-pawn, after which his king will be cut by $\hat{b}5-b6$ as in the previous note.

Here Marin says that after 4.fxe3 $\hat{x}e3$ 5. $\hat{x}b7 \hat{x}g3$ 6.a4 White's pawns are much faster. I'm not so sure that this

Solutions to Exercises

is correct. After 6... $\mathbb{Q}g4$ 7.a5 $\mathbb{Q}a4$ 8.b4 $\mathbb{Q}f5$ 9. $\mathbb{Q}b6$ $\mathbb{Q}e4$ it is not even clear who is trying to win.

In any case I think it is simpler to play 4.f3 (or 4.f4) and play to win the black e-pawn. For instance:

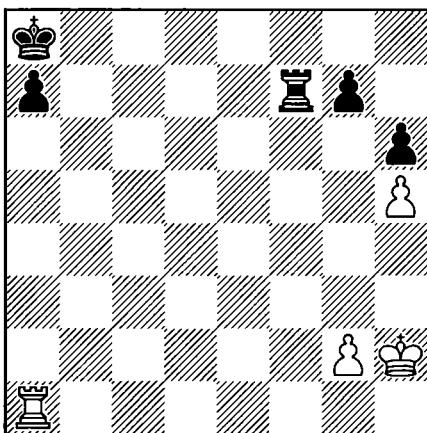
4.f3 e2+

5. $\mathbb{Q}e1$ $\mathbb{Q}h6$

6. $\mathbb{Q}b4$

Intending $\mathbb{Q}b4-e4$ winning the e2-pawn.

Solution 28



Black had no problems converting this position in the game Rabinovich – Ragozin, USSR championship, Tbilisi, 1937.

The reason is that after:

1... $\mathbb{Q}f5!$

Attacking the h5-pawn.

2.g4 $\mathbb{Q}g5$

3. $\mathbb{Q}g3$ a5

We see a very effective example of the power of protecting the extra pawn on the opposite wing from the side. The rook on g5 completely destroys any counterplay White would normally look to create in this type of position.

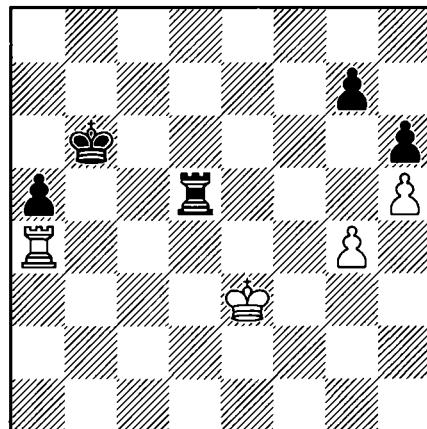
4. $\mathbb{Q}f3$ $\mathbb{Q}a7$

5. $\mathbb{Q}a4$ $\mathbb{Q}b6$

6. $\mathbb{Q}e3$

White's only idea is to bring his king close enough to the queenside – so that it can stop the a-pawn – and release his rook to attack the black kingside.

6... $\mathbb{Q}d5!$



Cutting off the white king.

7. $\mathbb{Q}f4$

7. $\mathbb{Q}e4$ $\mathbb{Q}b5$ 8. $\mathbb{Q}a1$ $\mathbb{Q}g5$ and White must return to the kingside with his king.

7... $\mathbb{Q}d7$

8. $\mathbb{Q}f5$

Trying to hinder the advance of the black king, but Black simply pushes his pawn.

8...a4

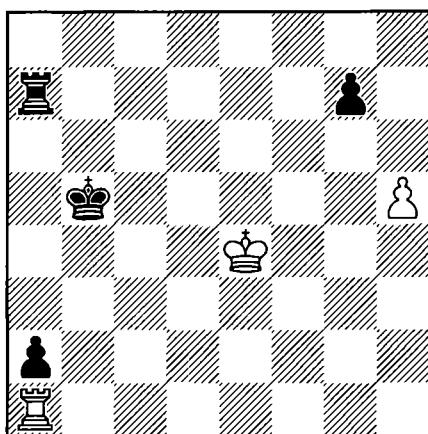
9.g5 hxg5

10.♕xg5 a3

11.♔e4 a2

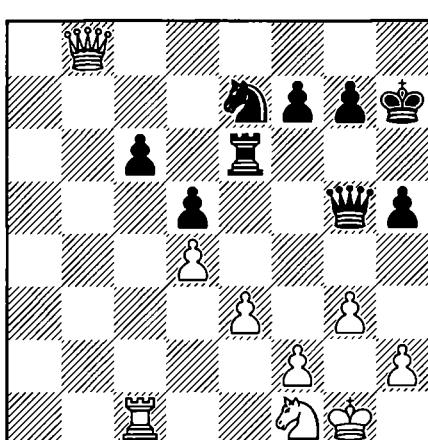
12.♕g1 ♔b5

13.♕a1 ♕a7



Black is winning.

Solution 29



The position is from the game Evans – Opsahl, Dubrovnik Olympiad (USA – Norway), 1950.

We have a fairly typical Karlsbad position (the opening was a Queen's Gambit Declined).

1.♔f4!

Of course we want to play a minority attack endgame. With queens on the board Black has dynamic chances to counterbalance his weakness on c6, so White seeks a trade.

1...♕xf4

Black could keep the queens with 1...♕g6 but then I think White can continue 2.h4 intending to follow up with ♔f4-g5.

2.gxf4 g6

3.♘d2 ♕d6

4.♔f1 ♔g7

5.♕a1 ♕d7

6.♘b3 ♕b7

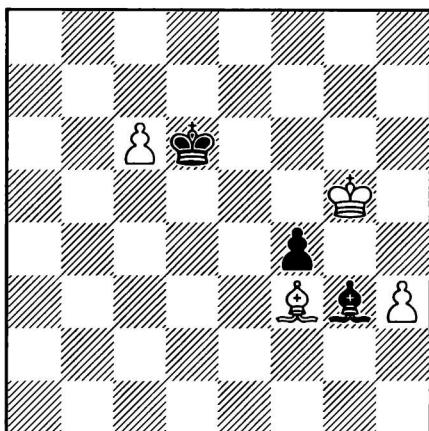
7.♘c5

White has the advantage, both in structure and in activity, although at this stage it should probably not be fatal for Black.

Follow-up Solutions

The exercises with additional questions contained in the solution are answered here.

Solution 13 continued



After the alternative continuation 4...♝xg3 5.♚xg5 we reach the above diagram. White should be winning but he faces some technical problems because he has the wrong colored rook's pawn (Black can control the queening square).

White wants to avoid allowing the defending pieces to switch roles at all costs. If the black bishop can guard the c7 square (jettisoning the f4-pawn, which is essentially irrelevant), and his king

can stop the h-pawn, then the position will just be a trivial draw. The best White could do would be to win the bishop for the c-pawn, leaving the familiar drawn position with a wrong rook's pawn.

5...♜e1

6.h4!

6.♚xf4 ♛e6! is exactly what White wants to avoid.

6...♛e7

7.h5 ♜a5

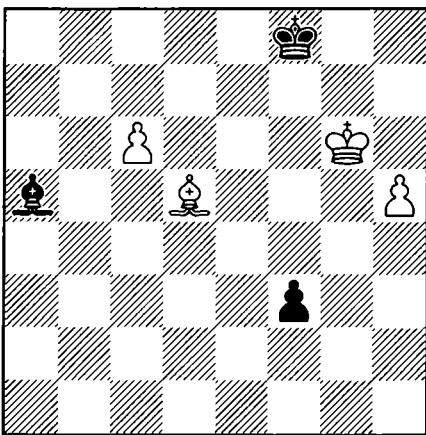
Continuing logically with the defensive plan, but it is not quite going to work.

8.♚g6 ♛f8

9.♝d5!

If Black reaches the corner with his king then the position is an immediate draw.

9...f3!?



We saw a similar idea in Aronian – Bacrot in ‘Endgame Exploration 2: A Long Discussion of a Short Endgame’. The black f-pawn is used not for counterplay, but as a diversion.

10.h6

Of course not 10.♖xf3 ♛g8 with a draw.

10...f2

11.h7 f1=♕

12.h8=♕+

In positions where both sides queen pawns, having the first check is usually an advantage. Here it’s especially important because there is enough material on the board to deliver mate quickly. White is winning after a long forced sequence.

12...♔e7

13.♕e5+ ♔d8

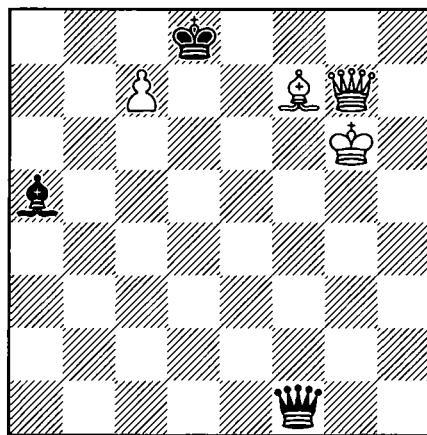
14.♕d6+ ♔e8

15.♕d7+ ♔f8

16.♕g7+ ♔e8

17.♕f7+ ♔d8

18.c7+!



18...♔xc7

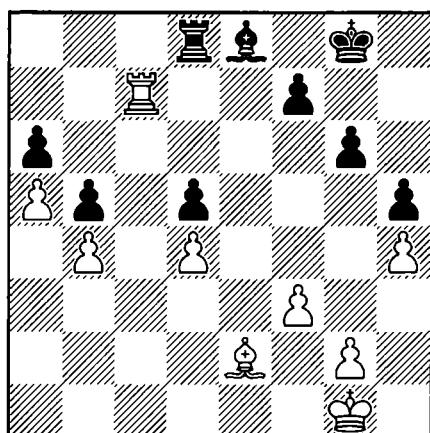
18...♔xc7 19.♕c4+ wins the black queen.

19.♕f8+ ♔d7

20.♕e8+

Black loses his queen.

Solution 17 continued



Follow-up Solutions

Black has two distinct weaknesses on d5 and a6, but attacking them is a surprisingly tricky task.

➤ 1. $\mathbb{Q}a7$ seems premature. Black can protect the a6-pawn with $\mathbb{Q}d6$ and also has ideas of stealing the c-file with $\mathbb{Q}d6-c6$.

➤ A plan with f3-f4 followed by $\mathbb{Q}e2-f3$ and $\mathbb{Q}c7-c5$ is quite logical, bringing both pieces to bear on the d5-pawn. It is not clear how to make progress after Black plays $\mathbb{Q}d8-d6$ and $\mathbb{Q}e8-c6$ though. White has also lost a lot of flexibility in his kingside structure by playing f3-f4.

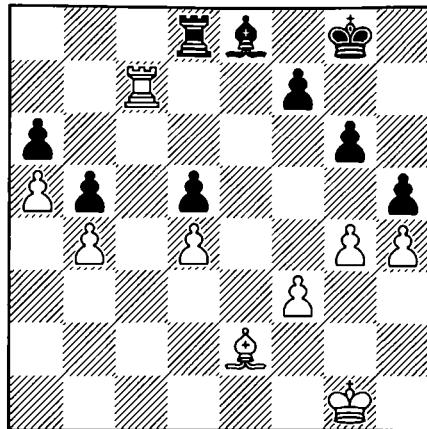
➤ Improving the king with $\mathbb{Q}f2-g3(e3)-f4$, taking the view there is no immediate play for White, seems perfectly acceptable. However I do not think that it should be done with the intention to play $\mathbb{Q}f4-e5$ since Black will easily be in time to improve his own king to f6 first.

The key point is that White should seek to create problems for Black on the kingside too. The more weaknesses Black has to deal with the harder it will be for him. In the game White played the immediate...

32.g4

(See Diagram)

...which forces a crisis right away for Black on the kingside. I also do not see any problem with delaying this move (for instance with 32. $\mathbb{Q}f2$) as long as White intends to play it eventually. It is



hard to believe an attempt play f7-f5 can ever help Black so I don't see any downside to delaying.

32... $\mathbb{Q}d6$

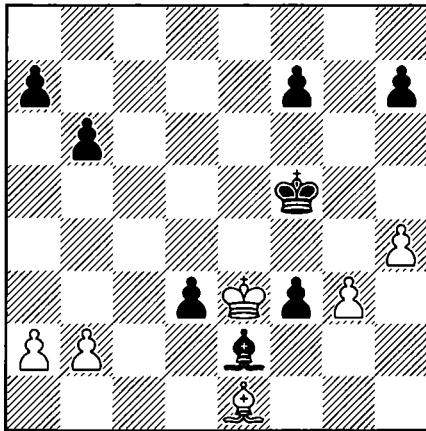
Improving the rook and permitting the exchange on h5, which creates additional weaknesses for Black on the kingside (in particular the h5-pawn). In any case there was no way to avoid weaknesses since 32... $h \times g4$ 33. $f \times g4$ is also very beneficial for White, who will be able to create a passed pawn on the h-file in the resulting structure. The presence of the white passed pawn can also be considered a weakness for Black.

33. $g \times h5$ $g \times h5$

Another weakness for Black is created on h5, which can be attacked (by means of f3-f4). White has clearly improved her situation over the last few moves with the strong idea g2-g4.

Solution 19 continued

After 39.h4 we reach this position:



Black should be winning, but he faces some technical problems due to his bad bishop on e2. Black's task is basically to force a2-a3 by White, then his king can penetrate the queenside. One simple method is to play ... \mathbb{Q} f5-g4 followed by ... \mathbb{Q} d1-c2-b1.

39... \mathbb{Q} g4

Menaces a potential \mathbb{Q} h3-g2, but mainly just protects the f3-pawn in preparation for the bishop to move.

40. \mathbb{Q} f2 \mathbb{Q} d1

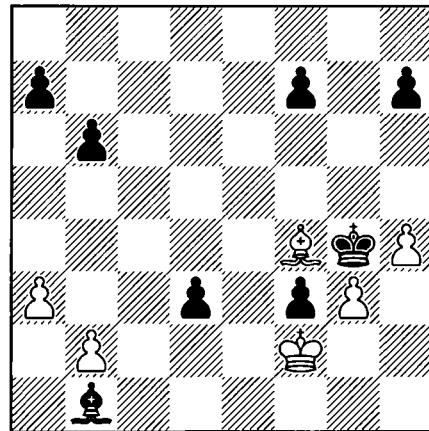
41. \mathbb{Q} d2 \mathbb{Q} c2

42. \mathbb{Q} f4 \mathbb{Q} b1

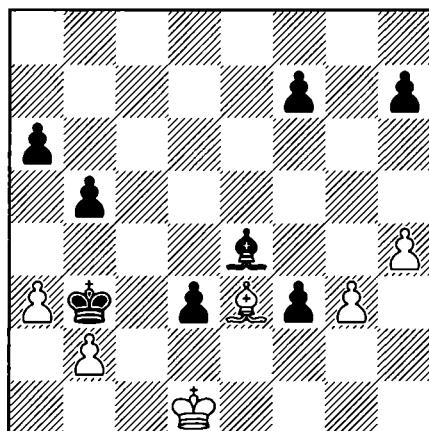
43.a3

(See Diagram)

Now the black king is free to penetrate the queenside via b3. Since White cannot undertake anything active – and to avoid long variations – we can make a jump here.



We can assume that Black will improve his queenside with ...a7-a6 and ...b6-b5, put his bishop to a square where it holds his passed pawns then transfers his king to the queenside. White can do little else other than put his bishop to the g1-a7 diagonal and move his king to d2, making a token effort to blockade the queenside.



1. \mathbb{Q} d4 f5

Since we are going to win by *Zugzwang* it makes sense to freeze White's pawns.

2. \mathbb{Q} d2 a5

3. \mathbb{Q} d1 b4

Follow-up Solutions

4.axb4 axb4

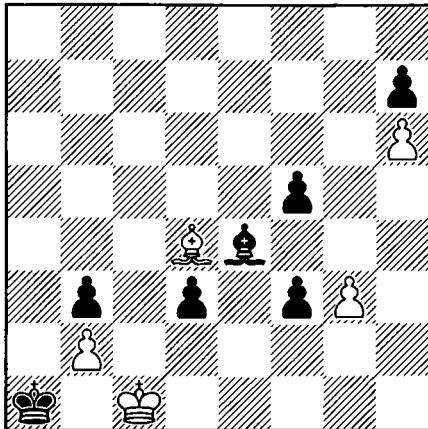
5.♔c1

5.♔d1 f2 ends the game

5...♕a2

6.h5 b3

7.h6 ♔a1



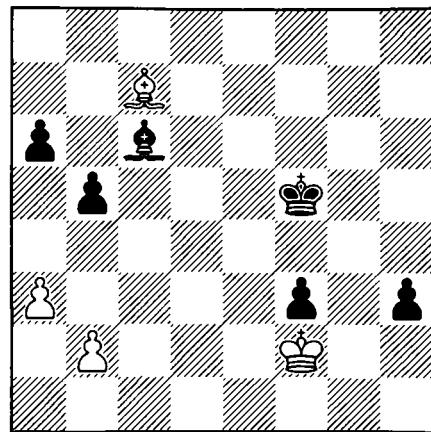
A pretty position.

8.♖e3 d2+

Black wins.

There are probably a number of other methods of winning after 39.h4. The key is always that Black is penetrating with his king on the queenside. For instance, moving the king to c4 and playing a5-a4 is probably also winning, although Black should be a little careful about White's kingside pawns.

I also asked about a position that would have occurred after the alternative 49.a3:



This is the position we were referring to in this part. Black wins by transferring his king to the queenside.

1...♔e4

2.♖b8 ♔d3

3.♖c7 ♔c2

4.b4

If 4.♖e5 then Black can win in many ways, but the simplest is probably 4...h2 (note this works even if the white king was on g1) 5.♖xh2 ♔xb2 6.♖d6 and Black will play ♔b3-♔a4 then a5-b4 creating a theoretically winning end-game (Black's two remaining pawns are sufficiently split).

4...♔b3

5.♔g1 ♔xa3

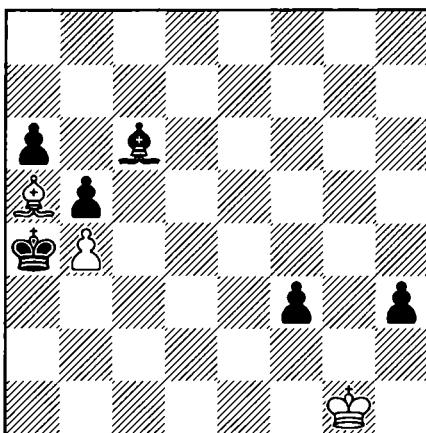
6.♖a5

After 6.♖d6 there are many ways to win such as 6...h2+ or 6...♔a4 followed by a6-a5.

6...♔a4

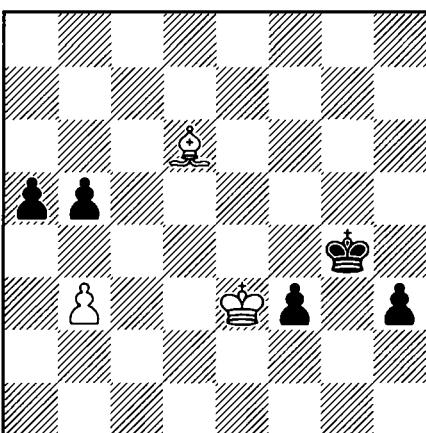
Or 6...h2+

Black wins.



Finally I asked about the potential bishop sacrifice 55...♗xb3.

If Black had played 55...♗xb3 56.axb3 a5 this position would have occurred:



Is Black winning? Let's see...

57.♔f2 a4

58.bxa4 bxa4

59.♔g1

There is no immediate win; Black must move his king to the queenside. This should win as Black's kingside pawns are allowed to remain on the board.

59...♔f5!

60.♕a3

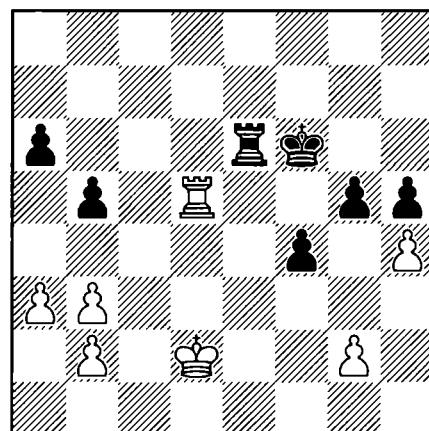
Crucially, any movement of the white king causes immediate disaster for White. 60.♔f2 a3 (or 60...h2) 61.♕xa3 h2 and Black wins, or 60.♔h2 f2 and the pawn queens immediately.

60...♔e4

Obviously if White can never move the king his position is completely hopeless. Black wins.

In the game position Black was winning so easily that there was no need for the sacrifice 55...♗xb3 and risking any calculation error.

Solution 20 continued



35...g4!!

Very powerful

Follow-up Solutions

36. $\mathbb{R}xh5 \mathbb{R}e3!$

This is the point, the rook is wonderfully placed on e3 where it can attack weaknesses on both sides of board by switching across the rank.

37. $\mathbb{R}h8$

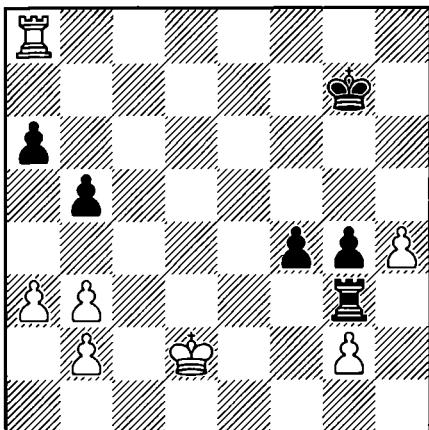
Probably not the best, but after 37. $\mathbb{R}h6+$ Black would be winning anyway, e.g. 37... $\mathbb{K}f5$ 38. $\mathbb{R}h8$ (aiming for an improved version of the game where the black king has no shelter) 38... $\mathbb{R}xb3$ 39. $\mathbb{R}f8+$ $\mathbb{K}e4$ 40. $\mathbb{R}e8+$ $\mathbb{K}d5$ 41. $\mathbb{R}d8+$ $\mathbb{K}e6$ 42. $\mathbb{R}e8+$ $\mathbb{K}f7$ 43. $\mathbb{R}e4$ $\mathbb{R}xb2+$ 44. $\mathbb{K}e1$ $\mathbb{R}xg2$ 45. $\mathbb{R}xf4+$ $\mathbb{K}g6$ 46. $a4$ $\mathbb{K}h5$ 47. $axb5$ $AXB5$ 48. $\mathbb{R}f5+$ $\mathbb{K}xh4$ 49. $\mathbb{R}xb5$ How should Black win this position? Discussion at the end of this solution.

37... $\mathbb{K}g7$

38. $\mathbb{R}a8$

A better try was 38. $\mathbb{R}h5$ but after 38... $\mathbb{R}g3$ 39. $\mathbb{R}f5$ $\mathbb{R}xg2+$ 40. $\mathbb{K}e1$ $\mathbb{K}h6!$ 41. $\mathbb{R}xf4$ $\mathbb{K}h5$ White is still lost.

38... $\mathbb{R}g3$



39. $\mathbb{R}a7+$ $\mathbb{K}g6$

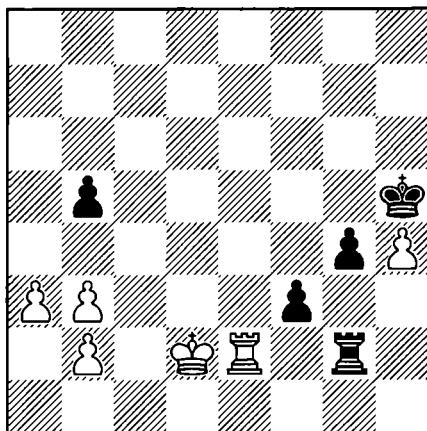
40. $\mathbb{R}xa6+$ $\mathbb{K}h5$

41. $\mathbb{R}e6$ $\mathbb{R}xg2+$

42. $\mathbb{R}e2$

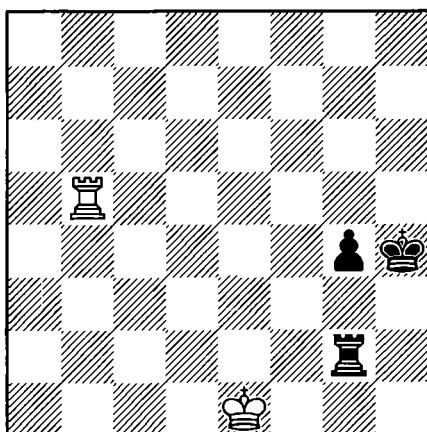
Losing immediately but of course White is completely lost anyway.

43... $f3$



Black wins.

Finally we can return to the endgame I mentioned earlier which could have arisen starting with 37. $\mathbb{R}h6+$.



Black has four moves which win: 51... $\mathbb{R}a2$, 51... $\mathbb{R}c2$, 51... $\mathbb{K}g3$ and 51... $\mathbb{K}h3$

51...♜a2

The simplest way to win. Trying to establish a cut along the f-file with 51...♝g3?? does not work after 52.♔f2.

52.♔f1

The only chance is to transfer the king into the defense, otherwise Black will play ♔h4-h3, g4-g3, ♔h3-g2 and creep into a Lucena position.

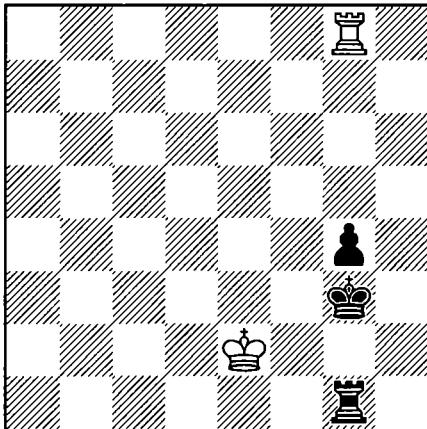
52...♔g3

53.♝g5

Again the best try. Attempting a Philidor defensive setup on the third rank will not work here because the white king is not positioned in front of the pawn (53.♝a3+ ♔h2!).

54...♜a1+

55.♔e2 ♜g1!



The familiar maneuver. Note this only wins because there is no room on

the right side of the pawn from which the rook can deliver side-checks.

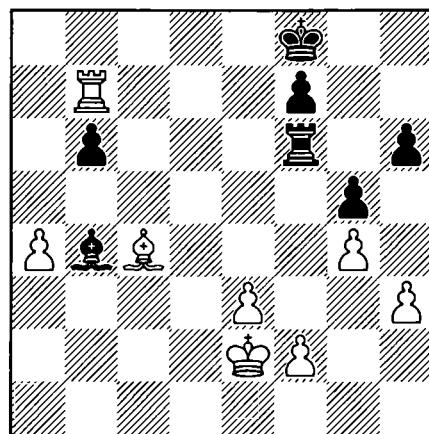
56.♜g8 ♔h2

57.♔f2 g3+

Black will reach a Lucena position soon.

Black wins.

Solution 24 continued



Black's rook is tied to f6, the problem is that it is quite active there. White's plan should be to push a pawn to f5, turning the f2-pawn from a liability into a strength. Then the black ♜f6 will be completely crushed.

12.♕d5

Preparing to play f2-f3 and move the king around to e4 followed by f3-f4-f5. I also analyzed the very interesting idea 12.♖xf7!? ♜xf7 13.♖xb6 with the idea to capture as many pawns as possible. I concluded it probably does not win even though White will have four extra pawns against Black's bishop.

Follow-up Solutions

12...♝e7

Black is playing to prevent White from advancing f3-f4-f5.

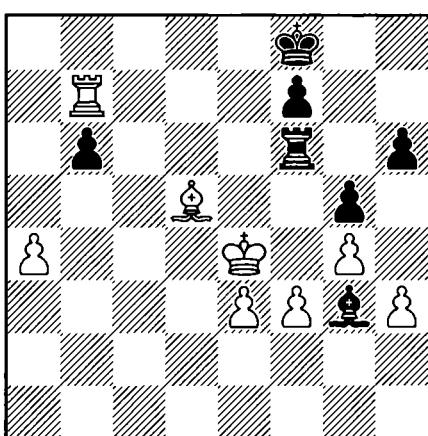
13.f3

Very logical, but in view of the comments to Black's 16th move perhaps too slow. White could try instead to accelerate his play with 13.♔d3 since 13...♝xf2 14.♝xb6 is not desirable for Black.

13...♝b4

14.♔d3 ♚e1

15.♔e4 ♚g3



16.♚c4 ♚e1?

A bizarre move, allowing White to play f3-f4. It is not clear what White was planning if Black simply waited here.

17.f4 gxf4

18.exf4 ♚g3

19.f5

White probably has a decisive advantage. In the ensuing play he will look to obstruct the ♜f6 by putting his own bishop on c6 or e6 and look for a well-timed sacrifice of the exchange on b6, after which the a-pawn will win the game.

Final Thoughts

Now that we have reached the end of our journey it feels appropriate to share a few final thoughts. I was surprised at the lack of precedent for this; I have a large library of chess books, yet on close inspection only a paltry few contain any afterthoughts.

Rather than attempt to summarize the entire book within a page (presumably the notion which discouraged my fellow authors), I thought I would limit myself to discussing how to progress and expand your chess study in general.

Now that we (hopefully) have a solid endgame foundation upon reaching the end of this book, what else should the aspiring player study?

Although a cliché, we must state that in general players spend far too much time on studying openings. It is usually caused by laziness, as it is much easier to memorize a few moves and convince yourself you have learned something, rather than spend the time thinking.

Please don't fall into the trap of convincing yourself that once you organize

your openings completely, then you will move onto other areas of study. That day will never come; at least it still hasn't for me. In terms of memorizing variations, especially for players rated 2000 or under, I would tone this down to approximately 10% of your study time or less.

While it is true that the strongest players spend considerably more of their study time on the openings (in some cases probably close to 100%) this is because these players are already very technically proficient and are looking for that final edge over specific opposition.

Tactical and analytical training is quite important (solving exercises and analyzing tactical positions) and I would recommend devoting 20% of study time to those aspects. The remaining 70% is the part players find difficult. You need to study a combination of (preferably annotated) master games and your own games together with some study of chess theory (reading literature).

Focusing on developing the endgame skills we began in this book, I would recommend the following:

Final Thoughts

Endgame theory is fairly static and there are plenty of good reference books out there which will give you the theoretical positions. Personally I enjoy the old works like Averbakh's series of *Comprehensive Chess Endings* and *Rook Endings* by Smyslov and Levenfish, but there are modern books which will give the same information. *Dvoretsky's Endgame Manual* and *Fundamental Chess Endings* by Mueller and Lamprecht spring to mind. I wouldn't recommend using these to try to memorize a lot of theoretical positions all at once though. Focus on one position at a time, and study it in sufficient depth to be able to use it in a practical game. Otherwise it's not useful and can even be harmful.

Most of your time should be spent increasing your 'feel' for positions. I found Shereshevsky and Slutsky's *Mastering the Endgame* series very useful. Christopher Lutz's *Endgame Secrets* is a wonderful book and ideal for stronger players who are willing to work hard.

Apologies if I forgot to mention some books which I would otherwise recommend. It's not all about books though, and studying the games of the endgame masters is the best way to increase your feel. For example Karpov, Timman, Korchnoi and Andersson are all great endgame specialists and a careful study of their games will be rewarded by a greater understanding of that phase of the game.

One final thought. Despite everything we have learned, never try to apply it too mechanically. Sometimes we can fall into this trap in the endgame. I believe it is because the first endgames we learn – the basic mates – are learned algorithmically. In more complex endgame situations it is important to think and still play chess, while keeping the principles and theory in mind.

That's it! I hope you enjoyed the book and learned from it. Perhaps we will meet again in a future publication!

Jonathan Hawkins

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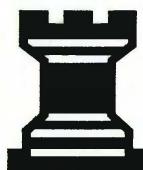
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