

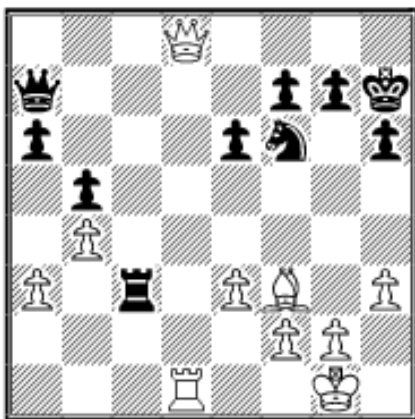
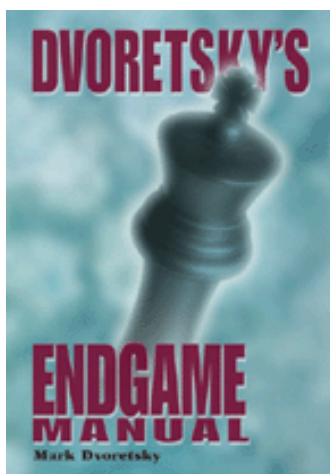


## Surprises in Calculating Variations

The diagrammed position below, taken from a game played in the English League, has already been published twice on [ChessCafe](#), in Anthony Miles' column, which can be found in the [Archives](#). The grandmaster got it from a friend of his, who played White, who is on move. (It's a shame that the names of the players remain anonymous.)

### COLUMNISTS

*The  
Instructor*  
Mark Dvoretsky



Even those who remember this position will discover a great deal that is new about it here. And for the rest of you, I recommend that before reading the analyses which follow, you make it a training exercise – and ideally, that you follow the approach I have used more than once in my own lessons, as follows:

Imagine that you are playing as White, and that you have to make your last move before the time-control, with only 3 minutes left on the clock. You will not be able to calculate everything: it's more important to sense correctly the ideas in the position, to see a few of the possibilities, and then to make an intuitive decision. Write down the move you would have played, and perhaps a few of the ideas underlying your choice (so as not to forget what they were).

And then, execute the same procedure – but this time, give yourself 10 minutes. That's hardly time-pressure: now you have time for a bit of calculation. Write down your new choice (it might be the same decision you made earlier, or something different).

And finally, a third time: add 20 more minutes to study the position. Perhaps you won't need this much time, if you selected a quiet continuation, one which does not require analysis, and if you have no intention of second-guessing your choice. (I remind you that we are imitating your behavior in a practical game, under the given conditions.) Otherwise, if you were unable to fully calculate the complex lines you entered into, now you can accurately support or refute the line that interested you.

Once the results of this training have been fixed either in your memory or on paper, you may begin to acquaint yourself with the analysis itself. Comparing the course of your own thinking (during each time allotment) with the variations and assessments offered herein, you can assess the quality of your intuitive guesses,



your ability to find all the resources contained in the position (or “candidate-moves”), the depth and accuracy of your calculation, and the rationality of your time-expenditure (whether or not you wasted precious minutes on variations that really didn’t need to be examined at all), etc.

The main outcome of all this will be either a small step or a giant leap forward in the process of self-understanding, without which any truly effective work on self-realization is unthinkable.

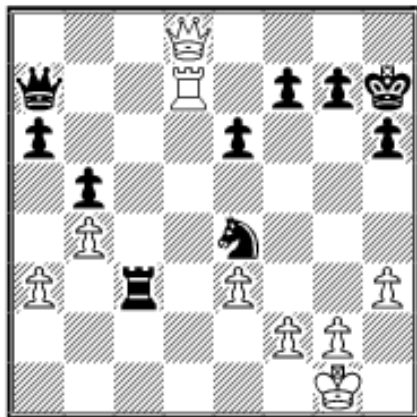
Let’s begin with your very first impressions of the position. Clearly, White has the advantage, consisting mainly of these two factors:

- Black’s queen is out of play; and
- The bishop is considerably better than the knight – indeed, this factor may have influence in the endgame as well, where the bishop will be able to attack the enemy queenside pawns.

Conversely, the a3-pawn is under attack. It must either be defended, or White must find enough play to render the threat of losing this pawn meaningless.

It would be very good if you immediately found the elegant combination to trap the queen: **1.Be4+!? Nxe4 2.Rd7**. It would be even better if you quickly spotted the opponent’s tactical resources, which are enough to put the combination under a cloud. Then, with the “3-minute time-control,” you would probably not be justified in entering a combination that you couldn’t calculate all the way through. For in our starting position, you recall, White stands better – which means, in turn, that a combination that ends in a draw will not be enough. And given more thinking time, before you start entering into the depths of this combination, it would make sense to prepare a “Plan B” – that is, a quiet continuation that still aims for some advantage, which you could select if you didn’t like the way your calculations turned out.

But let’s begin by examining the combination. If it wins, then we won’t really need to pay much attention to the analysis of the alternatives.

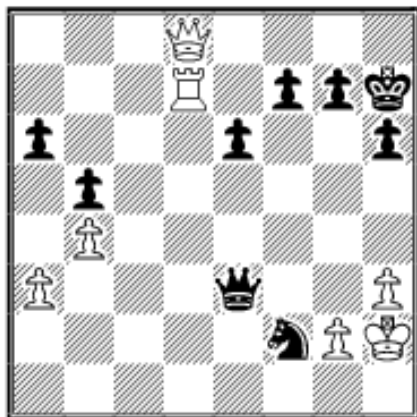


**4.Kxh1 Nxf2+ 5.Kh2 Qxe3**

2...Qxd7? 3.Qxd7 Kg6 4.f3 Nf6 5.Qd2, or 3...Rc1+ 4.Kh2 Nxf2 5.Qxf7 Rh1+ 6.Kg3 Ne4+ 7.Kh4 are hopeless for Black.

In the game, Black gave up his rook by 2...Rd3? 3.Rxd3, and of course lost. Nevertheless, the tactical shot he used (the d-file pin) should be noted – it will come in handy for us later.

In a previous [publication](#), Miles offered the following refutation: **2...Rc1+ 3.Kh2 Rh1+?!**



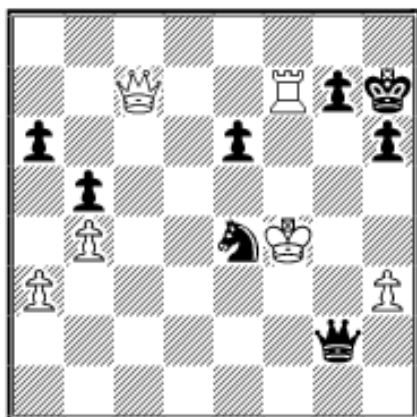
One of the psychological difficulties involved in analyzing complex variations can be generally summarized as “calculation horizon”: there exists a natural barrier, beyond which we normally cannot see. Here’s an excerpt from an article that was published as part of a collection of instructional materials, co-written with Artur Yusupov, entitled *The Development of Creative Thinking In The Chessplayer* (which the English-language publisher unfortunately entitled *Attack and Defence*):

*For practical players, the natural tendency is to cut off the calculation of variations as soon as possible. This saves both time and energy; but sometimes, as a result, the player fails to delve deeply enough into the position, fails to see the tactical or strategic resources hidden deep therein, and thereby misses the strongest continuations. What’s to be done? ‘Real life is, to most men, a long second-best, a perpetual compromise between the ideal and the possible.’ (Bertrand Russell)*

So it is here: Black already has two pawns for the exchange; his queen and knight are getting close to the enemy king, and 6.Rxf7? is strongly met by 6...Qe5+ 7.g3 Qe2. It would seem high time to reject the combination and turn our attention to studying other possibilities. Only a very resourceful and self-assured player could keep from giving in to first impressions and continue the search.

Kevin Bonham, one of the site’s visitors, used the “Fritz” computer program to establish that by taking the b8-h2 diagonal under control with 6.Qc7!, White could set his opponent difficult problems, since the pawns on the 7<sup>th</sup> rank would be indefensible.

Here’s the main line: 6...Qe1 7.Rxf7 Qh1+ 8.Kg3 Ne4+ 9.Kf4 Qxg2



And, once again, we want to stop at an unpleasant-looking conclusion for White. Everything looks to be in order for Black here, since both the knight and the g7-square are defended. But after one more quiet move – 10.Qb7! Kg8 11.Rd7(c7), White wins the pinned knight.

9...Nf6 is no help (instead of 9...Qxg2): after 10.Rxg7+ Kh8, White continues 11.Ke5! Qb1!? (11...Qa1+ 12.Kxe6 Qa2+ 13.Kxf6 Qb2+ 14.Qe5+-) 12.Kxe6!? Ne8 13.Rg8+!

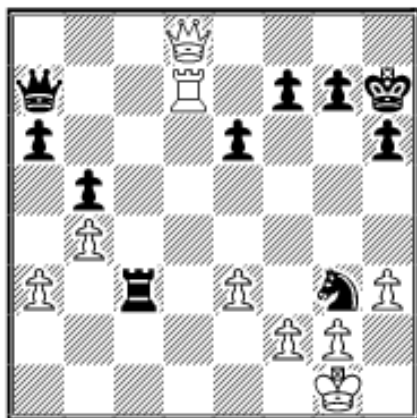
Kxg8 14.Qf7+ Kh8 15.Qxe8+ Kg7 16.Qf7+ Kh8 17.Qf8+ Kh7 18.Qf5+, obtaining a pawn endgame with an extra pawn. This extra variation is presented purely for analytical purposes – there’s no need to calculate it over the board. In contrast, White probably does need to find 10.Qb7! (in reply to 9...Qxg2) before

deciding on the combination; since without it, the whole idea collapses.

But having accurately calculated this whole line, we can go right ahead with our combination, since all Black's replies are natural enough, and it's wholly likely that he'll play this way.

Nevertheless, 2...Rc1+ 3.Kh2 Rh1+ does not exhaust all the ideas for the defense. Let's find some more possibilities for Black.

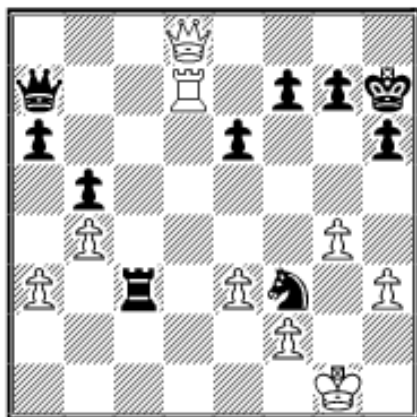
For example, there is the clever move **2...Ng3?!**



3.fg?? Qxe3+ even loses; while 3.Rxa7? Rc1+ 4.Kh2 Nf1+ leads to perpetual check. However, there is a convincing retort: **3.h4!!+-**. Black's queen is still trapped, and there's no perpetual, since the king now has the h3-square.

Black might also play for a perpetual by putting his knight on d2 instead of g3 – either at once, or after the preliminary 2...Rc1+. Which is more exact? Let's examine both move orders.

The strongest reply to **2...Nd2?!** would be **3.g4!** After **3...Nf3+**, White must choose the proper square to retreat his king.

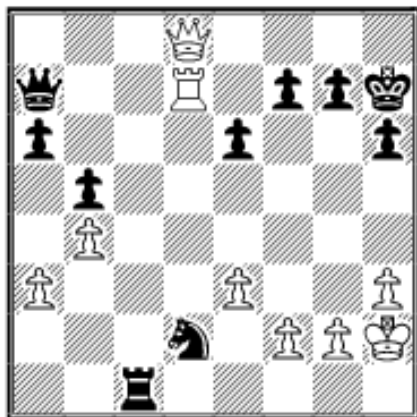


4.Kf1 suggests itself, after which Black's sole resource is our familiar d-file pin: 4...Rd3! 5.Rxd3 Qb7. Here a well-known principle applies: queen plus knight in the vicinity of the opposing king makes a powerful force. (In some books, this idea is often expressed poorly, as "queen plus knight is stronger than queen plus bishop," which is wrong – there are no statistics that support this assumption). Black threatens 6...Nh2+ (for example: 6.Qd7 Nh2+ 7.Kg1 Nf3+ 8.Kh1? Qe4+-). 6.Qd6!?

is met by 6...Ng5 6.Qg3 Qc6!?, when the extra exchange is not a factor yet, and Black has full counterplay, with the outcome still uncertain.

Much stronger is **4.Kg2! Rd3!** (4...Nh4+ 5.Kh2! Rd3 6.Rxd3 – the knight is *en prise* – 6...Nf3+ 7.Kg3+-) **5.Rxa7 Ne1+** (5...Rxd8 6.Kxf3 changes nothing: the knight check at h4 is no longer available) **6.Kf1 Rxd8 7.Kxe1** (two black pawns are attacked, and one must fall (7...Kg6 8.Rxa6+-; 7...Rd6 8.Rxf7 Rd3 9.Re7+-).

And yet, Black still has a hidden path to safety: he has to play **2...Rc1+! 3.Kh2 Nd2!!**



4.Rxa7 Nf1+ leads to a perpetual, while 4.g4!? has now lost much of its effect, in view of 4...Nf1+ 5.Kg2 Nxe3+! 6.Kf3! (of course not 6.fe?? Qxe3→) 6...Rd1! 7.Rxa7 Rxd8. After 8.Kxe3 (or 8.fe), compared with the variation we examined previously, White has a pawn less – thus, he is no longer winning here, but will only recover his pawn, with a likely draw.

And Black has a brilliant reply to **4.h4** (also discovered by Kevin Bonham): **4...Rd1!!** The same idea of a d-file pin, but this time – from behind his own knight! White can't respond with 5.Kh3? – after 5...Ne4! he remains a pawn down. So he must take the draw by **5.Rxa7 Nf1+ 6.Kg1** (6.Kh3?? Rxd8) **6...Nd2+!**

White should probably just play 4.Rxd2!?, hoping for 4...Qc7? 6.Qxc7 Rxc7 6.Rd6, with a sizable advantage in the rook endgame. (Black will either have to give up a pawn, or else take up a passive position with his rook at a7.) But there's another way to meet the threat of 5.Rd7: after 4...Rc7!+/=, White has next to nothing.

And so the combination, though it sets complicated tasks before Black, nevertheless does not lead to a win. From a practical standpoint, it's probably justified: the likelihood that Black will find the only way to defend, without falling into one of the many false leads, is small enough. But I repeat: before deciding to play a combination, we must first refute at least some of the defensive tries (and first among them would be 2...Rc1+ 3.Kh1 Rh1+).

In his columns, Miles only looked at the combination; in fact, White's proper approach to this position would have been quite different. At first, it seemed to me that White could quickly demonstrate an advantage by simple moves. But analysis dissipated this initial, over-optimistic impression. Let's examine the main lines.

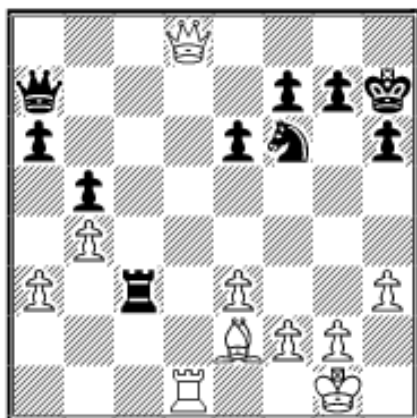
The direct attempt to attack on the 8<sup>th</sup> rank by **1.Qf8?!** (intending 2.Rd8) is most simply met by 1...Qc7, followed by 2...Rc1.

**1.Qa5?!** is dubious. White defends the pawn, intending 2.Rd6 or 2.a4; however, this temporarily puts the queen out of play. An experienced player will not waste time analyzing a queen move to the board's edge, knowing intuitively that it cannot be good, and that his opponent will probably find a way to exploit its shortcomings. And in fact, after 1...e5 2.Rd6 (2.a4 Ra3) 2...Rc1+ 3.Kh2?! e4, it's already White who's in trouble.

**1.Rd6?!** leads nowhere – the simplest reply is 1...a5!?= . 1...Rxa3 is also good, but here Black would have a few variations to calculate: 2.Rb6 Nd5 3.Be4+ f5 4.Bxd5 (4.Rxe6 Nxe3!) 4...ed 5.Rb8 Rxe3! =.

Even if you take the white pieces here, with no wish to combine whatsoever, it's

still very helpful at least to take note of the combination examined above – I wouldn't rule out the possibility that you might find it useful in calculating other variations. For example, take a look at **1.Be2**.



The simplest defense against the threat of **2.Bd3+** might appear to be **1...e5**. But this is a mistake: White continues **2.Bd3+ e4 3.Bxe4+! Nxe4 4.Rd7**, with the idea we have already seen of trapping the queen – but here, Black's e6-pawn is gone. In this version, of course, the combination wins.

The only way to parry White's threat is by **1...Nd5! 2.Bd3+ g6**, and on **3.Be4**, Black has either **3...Qc7 4.Qxc7 Nxc7 5.Rd7 Kg7**, or **3...Nxe3!? 4.Bxg6+ Kxg6 (or 4...Kg7!? 5.fe**

**Qxe3+ 6.Kh1 Kxg6 7.Qg8+ Kf6 8.Rf1+ Ke5 unclear) 5.Qg8+ Kf6 (5...Kf5) 6.Qh8+ Kg6 7.Qxc3 Nxd1=.**

### **1.Rd3!?**

A humble continuation, but a decent one. The immediate rook exchange **1...Rxd3?** leads, after **2.Qxd3+ g6 3.Qd8 Kg7 4.Bc6**, to a difficult position for Black, whose queen is still out of play. After **1...Rc1+ 2.Kh2 Rc2**, the rook exchange by **3.Rd2 Rxd2 4.Qxd2 Qc7+** is no longer dangerous; White can, however, retain some pressure by continuing **3.Kg3**.

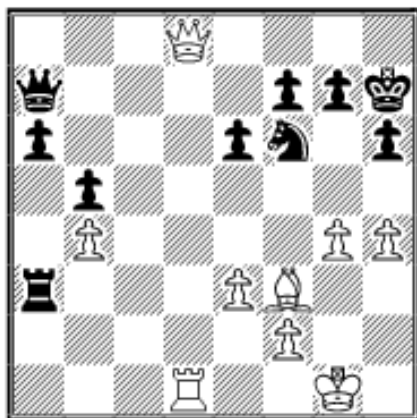
The first time I saw this position, I was immediately attracted by the move **1.g4!**, which embodies several ideas. By opening up the g2-square for the king, White intensifies the threat of the **Be4+** combination. The 8<sup>th</sup>-rank attack by **Qf8** and **Rd8** gains power, the closer White's pawns get to the enemy king. And finally, it might be possible to unseat the enemy knight by continuing **h3-h4** and **g4-g5**.

Analysis showed that it was this last plan that would be most dangerous for Black. And White could also begin this pawn storm with **1.h4!** This adds another possibility: **h4-h5**, followed by **Qf8** and **Rd8**. And the attempt to halt this pawn with **1...h5?** is refuted by our well-known idea of trapping the queen: **2.Bxh5! Nxe3 3.Rd7+-.**

In testing **1.g4!**, the first thing I looked at was the attempt at warding off this threatening attack by exchanging queens: **1...Qc7?! 2.Qxc7 Rxc7**. And, as I had foreseen upon first examining this position, the endgame proves to be very tough for Black: **3.Rd6 Ra7 4.Rb6!? Nd7 5.Rb7 Rxb7 6.Bxb7 Nb8 7.f4**, etc. Here the long-range bishop's superiority over the knight is especially telling.

I spent almost no time looking at the pawn capture **1...Rxa3**. True, closer examination revealed that all was not so simple here, either. **2.Qf8?** does not work, in view of **2...Qc7 3.Rd8 Ra1+ 4.Kg2 Qc4**, when Black is the one who mates. And our familiar combination also fails: **2.Be4+?! Nxe4 3.Rd7 Ra1+ 4.Kg2 Qxd7 5.Qxd7 Ra2**, and Black has sufficient counterplay. After **2.h4!**,

however, I see no defense.



One possible line is: 2...a5 3.g5 hg 4.hg Rxe3!? (the only counterchance) 5.fe Qxe3+ 6.Kg2 Qxg5+ 7.Kf1, and the cluster of black pawns isn't enough to compensate for being a rook down – eventually, White has to win.

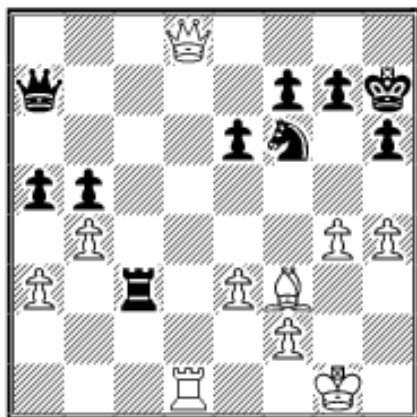
The best defense is: **1...a5!**

Again, if 2.Qf8, Black has time to counterattack: 2...ab! (wrong would be 2...Qc7? 3.ba!, or 2...Rxa3? 3.Rd8 Ra1+ 4.Kg2 Ra2 5.Qh8+ Kg6 6.Rd4!, intending 7.h4+–) 3.Rd8 (3.ab Qc7 4.Kg2!? Rc2 5.Rd8? Qc3 6.h4 Qxe3 7.Qh8+ Kg6 8.h5+ Nxh5 9.gh+ Kf6–+) 3...ba 5.h4 Qc5! 5.Qh8+ Kg6 6.h5+ Nxh5 7.gh+ Kf6 – and here, the chances for both sides appear to be equal.

To complete the picture, I should add that the 8<sup>th</sup>-rank attack offers no prospects after 1.h4, either. Black reacts the same way: 1...a5! 2.h5 (2.Qf8 ab 3.ab Qc7; 2.g4!) 2...ab 3.ab (3.Qf8? loses to 3...ba! 4.Rd8 Rc1+ 5.Kh2 Qc7+ 6.g3 Qxd8 7.Qxd8 a2) 3...Qc7 4.Qxc7 Rxc7 5.Be2 Nd5, and White has next to nothing.

2.ba Rxa3 3.Be2 Nd5 4.Bd3+ g6 5.Rc1 is not dangerous for Black. His simplest response is 5...Qe7!?, but he could also try the sharper 5...Nxe3!? 6.Qb6! Qd7! 7.Bxb5 Qd5! (not 7...Qd2? at once, because of 8.Qc7!) 8.Bc6 Qd2, with enough counterplay.

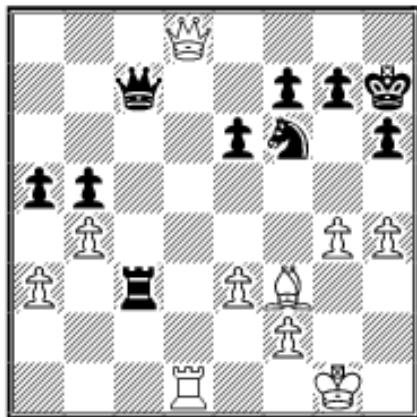
Stronger is **2.h4!**



After 2...ab 3.g5 hg 4.hg, White obtains a great advantage: 4...Rxe3 5.fe Qxe3+ 6.Kg2 Qxg5+ 7.Kf1 ba 8.Qd3+, or 4...Qc7 5.ab! (but not 5.gf? Qxd8 6.Rxd8 ba) 4...Qxd8 (4...Ng8 5.Qe8!? Qe7 6.Be4+ g6 7.Bxg6+! or 6...Kh8 7.Qxe7 Nxe7 8.Rd8+ Ng8 9.g6 f5 10.Bd3+– is just as hopeless) 5.Rxd8 Ng8 6.Rb8 (or 6.g6+ fg 7.Rb8).

Having found most of the variations examined above (many of the sidelines were added later on), I decided that my analysis was complete, and White's overwhelming advantage after 1.g4! (or 1.h4!) had now been demonstrated. The overall conclusion also seemed clear: with an overwhelming position, there's no reason to play combinations – just advance your pawns (no calculations required – just follow positional considerations) on the king's wing, and soon, your opponent's defense crumbles.

Unfortunately, some time later, another defensive possibility suddenly occurred to me, which I was completely unable to refute. This was **2...Qc7!**



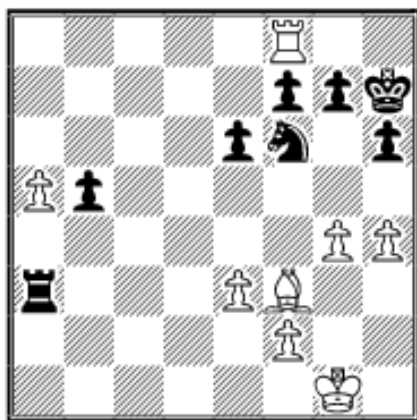
White now gets nothing from 3.g5 hg 4.hg Qxd8 5.Rxd8 Nd5! (this move only becomes possible because Black had not exchanged pawns earlier on b4) 6.Be4+ g6, and taking on d5 leads to the drawn rook ending of “three pawns to two on the same side.”

Roughly the same endgame occurs after 3.Qxc7 Rxc7 4.ba Ra7 5.g5 hg 6.hg Nd5! 7.Bxd5 ed 8.Rxd5 Rxa5 9.Rd3 Ra4!, with 10...Rg4+ threatened, White has no time to prevent the exchange of pawns by 10.b4.

And if, instead of 4.ba, White plays 4.g5 hg 5.hg, hoping for 5...Nd7?! 6.ba±, or 5...Nd5?! 6.Be4+! g6 7.Bxd5 ed 8.Rxd5 a4! (the only chance) 9.Rd3±, Black can save himself by inserting the trade 5...ab! After 6.gf ba, it's easy to see that the queenside passed pawns are no weaker than the bishop; and after 6.ab Nd7 7.Be2 Ne5, the chances are practically even.

I was stumped – I couldn't see how to demonstrate what should have been an obvious advantage for White from the starting position. Something was not right: either my assessment had been wrong, and White's advantage wasn't so great after all, or there was a mistake hidden in my analysis. Or perhaps, the chosen plan was just too complex, and I should be paying more attention to the more primitive strategy, 1.Rd3!?

Relief arrived when Alexander Morozovich took an interest in the position. He came to the same conclusion I had: the kingside pawn advance was the most logical plan. In the last diagrammed position (after 1.g4! a5! 2.h4! Qc7), the grandmaster suggested playing **3.ba! Qxd8 4.Rxd8 Rxa3** (I stopped here, assuming that Black was in great shape) **5.Rf8!**

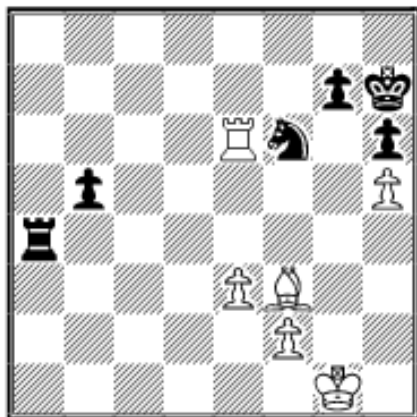


Now 5...Nd7? 6.Rxf7 Ne5 7.Be4+ Kg8 loses, in view of 8.Ra7 Ra4 9.f3 Nxc4 10.Bg6 Ra1+ 11.Kg2 Nxe3+ 12.Kf2 Nd1+ 13.Kg3.

In reply to **5...Rxa5**, 6.g5?! hg 7.hg Nd5 8.Be4+ g6 9.Rxf7+ Kg8 10.Bxc6 looks tempting; but Black has 10...b4 11.Rb7 Ne7!. Therefore, White plays **6.Rxf7 Ra4** (6...e5? is just bad: 7.Re7 b4 8.g5 hg 9.hg e4 10.gf ef 11.f7 Rf5 12.e4+-), and now, not 7.g5?! hg 8.hg Kg6 (or 8...Ne4), with equality, but **7.Re7 Nxc4 8.Rxe6 Nf6 9.h5±** (9.e4 Kg8

10.e5 Ng4 is inferior)





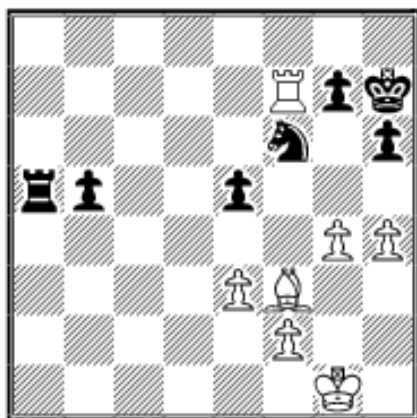
And here is where Morozevich's variation concludes. One cannot say that Black is doomed in the final position, but, in any case, he will have a long and difficult defensive task.

Yes, this path to the goal certainly cannot be called an easy one! This analysis confirms once again what the great Emanuel Lasker once said: that there are no lost positions – even in the most difficult situations, one can always find defensive resources that will

make your opponent's task much more difficult. Another strong impression, which would not leave me while I labored over this example, was of wonder – at the amazing richness of ideas in chess, the swirl of hidden possibilities that can sometimes lie hidden under cover of the most simple-looking and natural positions, such as the one we have just examined.

### Postscript

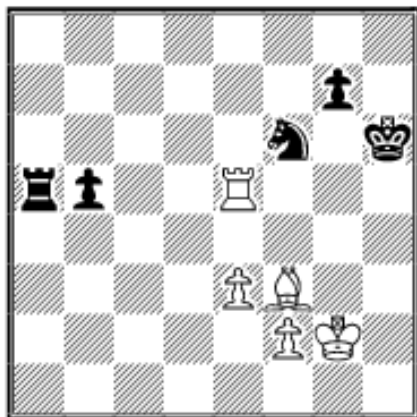
In early May, I paid a visit to Norway, and showed the initial position to Norwegian players. In the last variation, after **1.g4! a5! 2.h4! Qc7! 3.ba! Qxd8 4.Rxd8 Rxa3 5.Rf8! Rxa5 6.Rxf7**, grandmaster Simen Agdestein found another defensive possibility. It turns out that the move **6...e5!?** doesn't deserve a question mark at all.



The point is that 7.Re7 is answered, not by 7...b4?, but by 7...e4!, and on 8.Bxe4+ Nxe4 9.Rxe4, Black equalizes by 9...Ra4! 8.Be2?! Nd5! is even worse. And after 8.g5 hg 9.hg ef 10.gf Ra6! we get a drawn rook endgame: 11.f7 Rf6 followed by 12...Kg6, or 11.Rxg7+ Kh6 12.Rb7 Rxf6 13.Rxb5 Rg6+ 14.Kf1 Ra6=.

7.Rb7 e4 8.Be2 Ra1+ 9.Kg2 Ra2 10.Bxb5 Nxg4= is also useless.

The only try for a win is **7.g5! hg 8.hg Kg6** (8...e4? 9.gf ef 10.Rxg7+ Kh6 11.e4 is just bad for Black) **9.Re7 Kxg5 10.Rxe5+ Kh6** (10...Kh4 runs into the same reply) **11.Kg2**



Black's position remains difficult; most likely he will soon be forced to give up the b5-pawn. If 11...g5, then simply 12.Kg3. 11...g6!? is a foxier try, hoping for 12.Bc6? Ra2= or 12.Kg3?! Nd7! White continues 12.Re6! Kg5 (12...Nd7 13.Be4; 12...Kg7 13.Rb6) 13.Rc6 Kf5 (13...b4 14.Rb6) 14.Rc5+, intending either Bc6 or Be2. In chess terminology, this position is "±" – White has the advantage, but no guaranteed win. And this, apparently, is the objective assessment of the starting position.

Both sides will need to display exceptional accuracy and resourcefulness: even the tiniest inaccuracy means a certain loss for Black or the loss of the advantage for White.

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