

EVALUATE LIKE A GRANDMASTER



BY GM EUGENE PERELSHTEYN & FM NATE SOLON

Evaluate Like a Grandmaster

By GM Eugene Perelshteyn
and FM Nate Solon

EP:

To my students, who inspire me to never stop learning
and discovering the beauty of chess!

NS:

For Ali and Leo

Contents

1	Introduction	1
2	Elements of Evaluation	9
3	My Coaches	17
4	Evaluation	23
5	Visualization	51
6	Comparison	79
7	Quartets	109
8	What's Next?	123

Chapter 1

Introduction

What Is Evaluation?

Calculation and evaluation are two sides of the same coin, but many players work only on calculation, ignoring evaluation. It's like learning to drive very fast without having any idea where you're going.

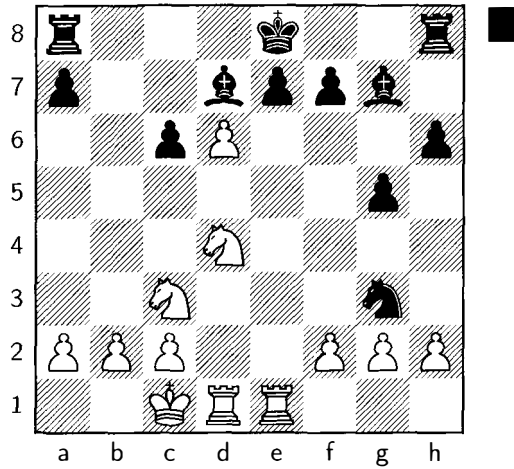
Calculation is the process of crunching through moves: I go here, they go there, I go here... But in most positions it's not possible to calculate every line to checkmate. At some point you have to stop, look around, and make a decision. Who's better, by how much, and why?

This "looking around" is evaluation. It's assessing a position, not according to specific moves, but by general features of the position. Whose pieces are more active, whose king is better protected, and so on. Of course, it's not possible to separate moves and features entirely: The value of a positional feature depends on possible moves, and it's impossible to decide on candidate moves without some sense of what's important in the position. Nonetheless, calculation is primarily about concrete moves, whereas evaluation is primarily about a more abstract sense of what is going on in a position.

Most chess puzzles deal with positions where the best sequence of moves leads to such a decisive advantage that evaluation isn't really necessary: you're either up loads of material or checkmating the opponent. But most positions in real chess games aren't like that. They feature many possibilities where the evaluation is nuanced and murky. Navigating these positions skillfully is crucial for beating tough opponents. That's what this book is about.

To better understand the difference between calculation and evaluation, consider this position.

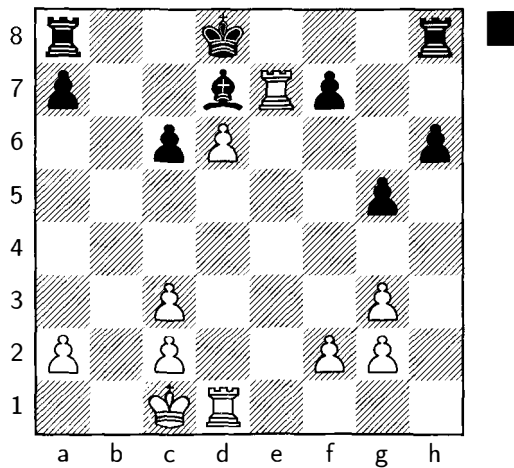
Yoo - Carlsen 2021



It would be pointless to try to evaluate at this point: multiple pieces are hanging, both sides have threats, and the position will change drastically every move. First we need to calculate until we reach a more stable position.

Since this position occurred in a Banter Blitz session, we get a window into the world champion's thought process. Carlsen quickly calculated the following forced sequence, then paused to evaluate the resulting position.

16...Bxd4 17.Rxe7+ Kd8 18.hxg3 Bxc3 19.bxc3



Now we've reached a more stable position where evaluation is appropriate. There are not any big threats or captures possible, so it makes sense to think about the position in more general terms. Is White's superior activity and advanced passed pawn worth a bishop?

In this case the answer is no, White doesn't have enough for the piece. There are too few pieces on the board and White can't generate serious threats quickly enough, so Black should be able to consolidate and eventually use the extra piece to win. You could support this with more variations if you wanted to, but an experienced player would likely stop their calculations here as Carlsen did, confident in their judgment. Building up the ability to make these kinds of judgments accurately is what this book is all about.

Why Evaluation?

The importance of evaluation is obvious. How can you decide between different moves – how can you make any decision in a chess game at all – without a sense of which positions are good and which positions are bad? And there are some additional reasons that working on your evaluation skills is a good investment:

- Evaluation can be improved. You'll never calculate as quickly and precisely as an engine, but if you want to, say, place a higher value on king safety, you can absolutely make that adjustment. The ultimate goal of the book is to train your intuition to evaluate positions more accurately.
- Evaluation exercises are valuable for a wide range of playing strength. If a calculation exercise is too hard for you there's not much you can do with it. In contrast, with evaluation, even if you're not a very strong player you can look at a position, take your best guess, and compare it with the result. At the same time, even very strong players typically have gaps in their evaluation ability, especially when compared to state-of-the-art neural network engines. In short, many players can benefit from calculation training.
- Evaluation is relatively fast. Calculation takes time and energy, but evaluation has more to do with judgment and understanding. When you upgrade your evaluation skills, you can apply them quickly to any position. Likewise, training evaluation is not as taxing on your energy as training calculation.

Metrics

There are many ways to express an evaluation. Each has pros and cons.

Informant Style

=	Equal
\pm	White is slightly better
\pm	White is clearly better
$+-$	White is winning
\mp	Black is slightly better
\mp	Black is clearly better
$-+$	Black is winning
∞	Unclear
∞	With compensation

This is an old school style of expressing evaluations. It has fallen out of favor somewhat in favor of numerical centipawn evaluations, but has the advantage of being simple and easy to understand.

Centipawn

The most common form of computer evaluation these days, this is expressed as a number, where one point equals one pawn. Thus +1 means White has an advantage equivalent to being up a pawn, while -1 would be the same for Black.

Leela

Leela Chess Zero uses a different evaluation metric that goes from -1 to 1, -1 being a sure win for Black, 1 a sure win for White, and 0 a draw or even chances. (Sometimes this is converted to a 0-100 percent, representing the winning chances of the side to move.) From a logical perspective this makes a lot of sense, but it's not widely used in the chess community, so we felt it would be too confusing for readers.

While we don't have a favorite evaluation metric, we do have a least favorite: centipawns. The problem with this metric is that while being numerical gives it the appearance of being scientific, it's actually quite arbitrary. You can say that one point equals one pawn, but it doesn't really make sense to say that a +4 advantage is "like being up four pawns." What would that even mean? Furthermore, the centipawn evaluations have a tendency of changing drastically between different engines and even different version of the same engine. Even if you could establish what they mean, you'd have to completely revise your definition for every version of the engine.

Why then even use a special metric at all? We find that exercises work best if you have to commit to a specific answer, so you can compare your answer clearly and honestly with the solution. For that purpose we went with the Informant-style evaluations. Like any metric, they're obviously imperfect, but this allows you to gather all your thoughts into a single output, commit to it, and compare your answer with ours.

At the end of the day the best evaluation metric is good old-fashioned sentences and paragraphs. For this reason, the heart of the book is really in the answers, where we've tried our best to explain the essence of the position clearly in the answer key. Don't skip them!

Types of Exercise

The book includes four types of exercise. As you go through the book, you'll move from simpler exercises to more complex ones that more closely resemble real in-game decisions.

Evaluation

This is the most straightforward type of puzzle: simply evaluate the position that is on the board. We also ask you to suggest a move for the side to play, since evaluating the position correctly naturally flows into selecting a move, and at the end of the day chess is all about making good moves.

Visualization

Many of the problems ask you to visualize one or more moves ahead and evaluate the resulting position. Visualization is another universal chess skill, so practicing it will rarely be a bad idea. But more specifically, when it comes to practical play, the most important position to evaluate is not the one on the board right now, but a possible future position.

Once a position is on the board the evaluation loses some of its value. It might tell you how optimistic or ambitious to be, but basically, the position is what it is and you have to make the best of it. In contrast, when you visualize future moves and evaluate possible positions, you are still in a position to influence whether or not those positions appear on the board. You can aim for favorable positions and try to avoid unfavorable positions.

In general, the puzzle starts at the position where the evaluation would be most relevant in a practical game. Typically this means the moment where you have a meaningful alternative – you could go for the position in question, or something else.

In summary, visualization is a good thing to practice in general, but it's especially important when combined with evaluation, because evaluations are useful primarily when you still have a meaningful ability to influence whether a position will appear on the board or not.

Comparison

The next section is comparison: positions where you have to visualize and evaluate multiple positions, then choose which one you would go for. This is the most game-like exercise because it simulates the decisions you'll face in a real game.

In addition, comparison is a key learning tool that is underused in chess books. When you compare you are forced to recognize subtle differences and develop a nuanced understanding of positions.

Quartets

This is a new kind of exercise where we present a “quartet” of four related but different positions and evaluate all of them. This is helpful for honing in on what really matters in a position and what makes the difference between good or bad versions of similar looking positions.

Selection of Positions

Many chess books feature games between famous grandmasters. We have some of those, but we also pull positions from a wide range of other sources: training games, blitz games, our own games, and tournament games between club players. We explored these other sources for a few reasons:

- The positions will be new for most readers, as opposed to famous grandmaster games that appear in many books.
- They’re often clearer and more instructive than positions from grandmaster games. Grandmasters usually avoid big mistakes and the positions tend to be very nuanced. In faster games or games from weaker players, you get more chances to see typical mistakes and how they’re punished.
- Most of our readers probably aren’t grandmasters!

Tips for doing the exercises

- **Don’t** take too long. Spend at most a few minutes per puzzle. Evaluation is largely a “you get it or you don’t” type of thing. You are unlikely to work out the answer from scratch with a complicated string of logic. The point is to develop your intuition.
- **Do** write down your answers. Writing things down helps you remember and prevents you from “cheating” by fudging or misremembering. It’s easier to do an honest comparison between your answer and the answer key if you’ve written it down.
- **Do** play out positions from the book, either with the computer or a training partner, to gain a deeper understanding of how evaluations play out in practice.

Seeing the Board

Explanations are helpful for learning a new concept, but true chess mastery is largely intuitive. It happens when you understand concepts so deeply that you no longer have to think about them consciously. The ultimate goal of doing the exercises in this book is to build new ways of seeing the board, so that you can guide your decisions based on which positions look good, or bad. We hope that working through the examples in this book will help you develop the intuition to navigate your own games more successfully.

Chapter 2

Elements of Evaluation

There are many ways to break down the components of evaluation. Different authors have their own systems. We tried to keep it as simple as possible while still covering the major elements. Advanced players can skip this section and dive straight into the exercises, but many players will want a quick introduction or tour of the major things to think about when evaluating a position.

Some books try to present a unified theory of chess or algorithm that can be applied to every position to find a good move. An attractive idea, but unfortunately it doesn't work. Chess is too rich and complex for such an approach. At the same time, learning by pure trial and error would be terribly inefficient. Rules and guidelines can help even if they're not perfect.

With that in mind, what follows is a whirlwind tour of the major elements of evaluation. After reading this you won't be able to flawlessly evaluate any position, but if you are wondering something along the lines of, "What should I even be thinking about when I look at a position?" this will be a helpful starting point. Make sure to carefully read the answers to the exercises as well, where we discuss how these elements play out in much greater detail.

Material

It all starts with material. Many of us were taught the piece values as kids:

Pawn = 1

Knight = 3

Bishop = 3

Rook = 5

Queen = 9

This seems superficial, but at the end of the day the focus on material is justified. It's not possible to play chess without a concept of the value of the pieces. From a practical perspective, the easiest way to win a chess game is to take your

opponent's pieces. The easiest way to lose is to let your opponent take your pieces.

The neural network chess engine AlphaZero is known for sacrificing material, but recent evidence shows that material is central even to its understanding of the game. It starts out as a blank slate, knowing only the rules of the game. At first it struggles to understand much of anything, but after around 32,000 games there appears to be a major change when it figures out the values of the pieces. After that, other concepts like piece activity follow rapidly. AlphaZero also learns piece values that are quite similar to the traditional values reprinted at the start of this section.

This suggests that material isn't just reflective of a human inability to grasp the deeper nuances of the game. The value of the pieces is central to chess and in general it's better to have more pieces. This last statement seems obvious, and yet you do encounter players who seem more interested in giving away their own pieces by sacrifices than in taking their opponent's pieces. Of course, there are situations where it's correct to sacrifice material, but in general, it's better to "sacrifice your opponent's pieces" as the saying goes.

When selecting examples for a book like this it's tempting to focus on bizarre or unusual positions because they're interesting, but when it comes to winning chess games it's more important to understand the usual situations. So while we show some examples with unusual material imbalances or where the side down in material is winning because of other factors, we also made sure to include plenty where the usual rules apply. Usually, it's better to have more pieces.

So we've come full circle. Material isn't the whole story, but the value of the pieces is central to chess evaluation. Madonna was right all along: "We are living in a material world, and I am a material girl."

King Safety

You could make a good case for putting king safety as the first factor in evaluation. After all, if someone is in checkmate, nothing else about the position matters. We put material first because in terms of sheer numbers, more games are decided by taking pieces than by a direct attack on the king. But king safety is essential to keep an eye on. When it matters, it really matters. Therefore, it's essential to look for opportunities to attack the opponent's king - or when they could attack your king!

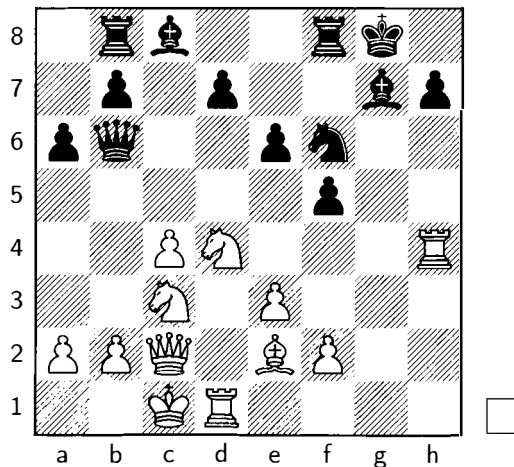
What makes a king safe or unsafe? There are three primary factors:

- Pawn cover. You want a nice pawn shield in front of your king. The more "open" the king is – the more it lacks pawn cover – the more vulnerable it becomes.
- Pieces near the king. If the attacker has an advantage in force – more attacking pieces against fewer defenders – the attack is more likely to succeed. Naturally, the bigger the advantage, the bigger the effect. One more attacker than defender isn't a big deal, but three more and the attack is likely to become a rout.

- Space. When the opposing side has a long-term space advantage near the king it's very dangerous, because they can maneuver and build up forces more effectively. This often leads to a slow but deadly attack.

Computers show us that opportunities to attack the king can be sudden and unexpected. You rarely see quick knockouts in computer vs. computer games, but only because both sides are taking great care to defend against them. It's much like boxing: one of the most important things to learn is to always keep your hands in a good position to protect your head. Knockout blows between good boxers are rare precisely because they appreciate the importance of defense and not allowing the opponent an opportunity. Likewise in a chess game, quick mating attacks are rare because the players respect the danger and take steps to protect themselves.

Predke - Vachier Lagrave 2022



For example, in this position Black is a pawn up, but White is much better because Black's king is vulnerable on the g- and h-files. After **19. e4 Nxe4 20. Nxe4 Bxd4 21. Rg1+** Black's king soon went down (21...Bg7 would run into 22. Qc3!).

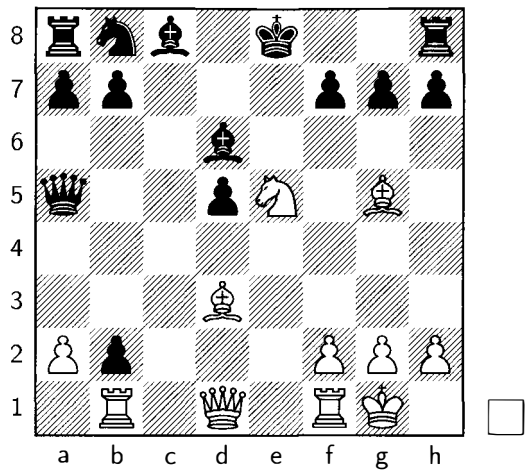
It's important to always keep an eye on king safety, looking for opportunities to knock out the opponent's king, and denying such opportunities against your king.

Piece Activity

Clearly the activity of the pieces is important, but what does that actually mean? Activity encompasses having many available moves, but more importantly, having useful moves, especially those that can create threats or trouble the opponent's position.

Activity could further be divided into dynamic or static versions. A lead in development is a dynamic advantage in piece activity: one side's pieces aren't out yet, but there is nothing stopping them from reaching good positions if given enough time. In such situations it's essential to strike quickly before the opponent has time to bring out their pieces.

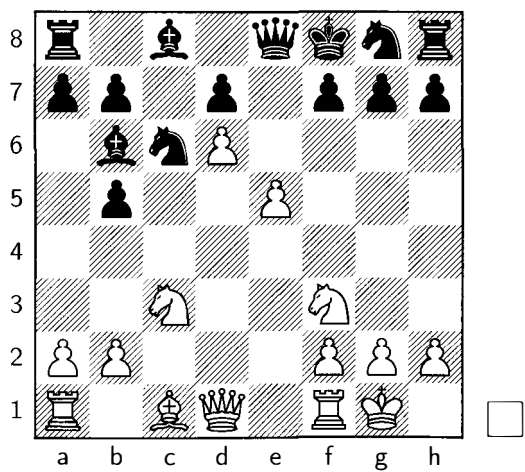
Keres - Winter 1935



In this position, given a few more moves Black would castle and bring out the queenside pieces, but for the moment White is better deployed. Keres took advantage of this with the sacrifice **13. Nxf7!**, blasting open the king before Black could get the pieces out. After **13... Kxf7 14. Qh5+ g6 15. Bxg6+ hxg6 16. Qxh8** White had recouped his material investment, while the Black king was no closer to reaching safety.

In contrast, a static advantage in activity is when it is difficult or impossible for a piece to get to a useful post, even given lots of time. Usually this is because the pawns block the piece's prospects.

Lc0-dev - Stockfish 2020



In this position Leela has sacrificed a piece to set up a pawn wedge on d6. Even given many free moves, it would be very hard for Black to develop the queenside pieces.

A final aspect of piece activity is coordination: how well the pieces work together as a team. According to Matthew Sadler in *The Silicon Road to Chess Improvement*, using the pieces effectively together is the biggest hallmark of the strength of modern engines. It is difficult to offer general rules for coordination, but you will see many examples of pieces working well together (or not!) throughout the book.

Pawn Structure

The pawns in effect provide the terrain where everything else takes place. Several categories of pawns get special attention:

- Doubled – Two pawns on the same file. Doubled pawns are often said to be weak, and they can be, but the bigger problem is that they lack mobility because the front pawn blocks the back pawn.
- Isolated – A pawn with no friendly pawns on adjacent files. Isolated pawns can be weak because they can't be guarded by another pawn, but the open lines associated with them can also create active piece play.
- Backward – A pawn that's behind the friendly pawn(s) on adjacent files and can't advance. This can be weak because it's a fixed target.
- Passed – A pawn that isn't blocked by enemy pawns. A passed pawn can be a huge asset because if it gets to the back rank it becomes a queen. For this reason, the farther advanced it is, the more dangerous it becomes. Passed pawns often play a critical role in the endgame.

You could write a whole book on pawn play, and many people have. For those looking to work on their pawn play, Sam Shankland's *Small Steps to Giant Improvement* is a great resource.

Tying it all together

You could make a plausible case that any of the above factors is the most important:

- Material – It's all about the value of the pieces
- King safety – If someone is in checkmate nothing else matters
- Piece activity – What good are pieces if they aren't doing anything?
- Pawn structure – The terrain that all the other factors play out on

Of course, real games are rarely about a single factor in isolation. Usually many factors influence the position, interacting with each other in complex ways. Evaluation is all about weighing these factors against each other. Unfortunately, there is no foolproof algorithm for knowing which factor is most important in a given position. That's why we've focused on a workbook style approach with many examples, with detailed explanations of each position.

The best way to improve your evaluation abilities is to practice evaluating many positions and compare your judgment to the answers. There are no shortcuts, but over time you will build up a stronger intuition and an ability to get to the heart of the position.

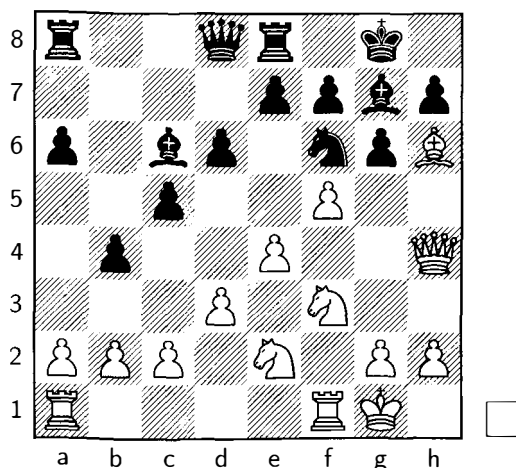
Chapter 3

My Coaches

To get you in the mood to start working on the puzzles, these are the stories of the four grandmasters who taught me the most about evaluation. –Eugene

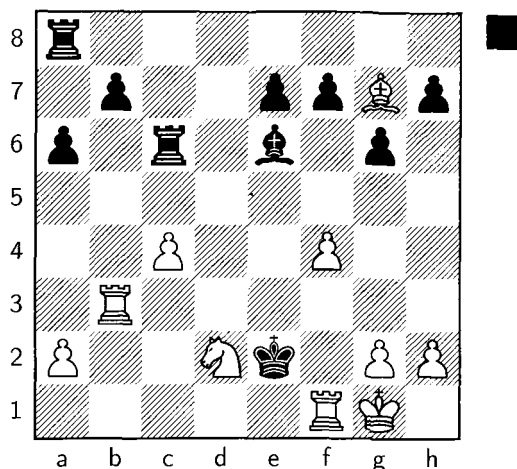
Dzindzi

I moved to the United States in 1994, and a year later won the Expert section of the World Open. When I met my new coach, Roman Dzindzichashvili, I was already a strong Master with a USCF rating of 2370. Dzindzi was a big burly man with an imposing presence (imagine Jason Momoa in Aquaman), and I was terrified during our first lesson. He asked me what I play as White against the Sicilian, and scoffed at my reply of the meek Alapin (2.c3). He quickly showed me a new setup, the Grand Prix Attack with 5. Bb5, and turned the board around. “Play,” he said. I made some moves and got mated with the famous ♣e1-h4, f5, Bh6, Ng5 setup.



He said, “Try again.” Again I lost quickly...then again...and again. I was embarrassed but he was quite warm and said, “See, you can play like this with White and win!” And my opening repertoire was set.

Later, I crushed Greg Shahade at the 1998 U.S. Juniors using our analysis. Greg’s king walked all the way from e8 to e2 and got mated.



Dzindi’s openings helped me become 2000 US Junior Champion. In 2005, we published our best-selling repertoire books, *Chess Openings for White/Black Explained*. A year later, I got my GM title.

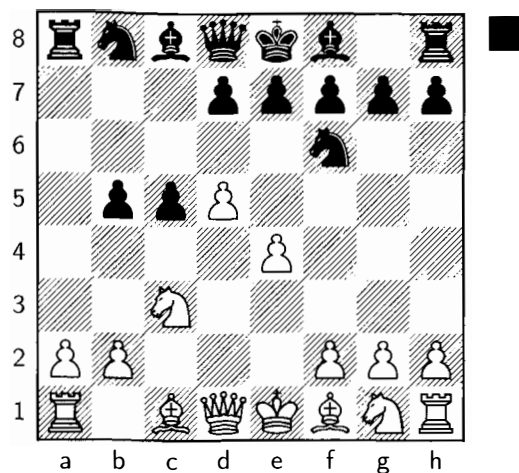
Igor Zaitsev

I first met GM Igor Zaitsev at the Karpov chess school in Russia. Back then, he was a legend. He was Karpov’s second for many years and an outstanding theoretician – think of Zaitsev’s system in the Ruy Lopez. He also worked with many top players, such as the World Champion Tigran Petrosian.

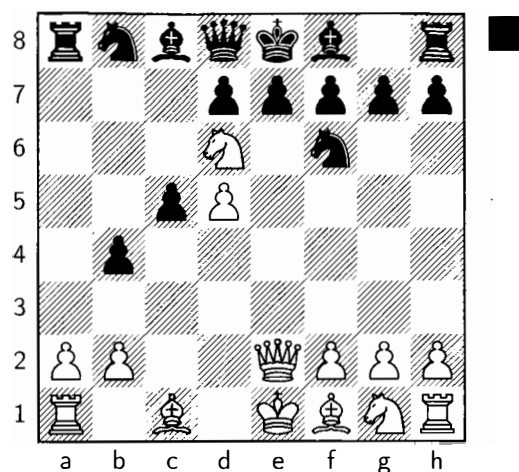
I was surprised to see his down to earth, humble approach. He would play six-board blindfold simultaneous matches against the top kids. Six simultaneous games may sound like nothing when you compare it to Timur Gareev’s records, but keep in mind that we were strong Candidate Masters (2100-2200 FIDE) and gave him a hard time. Usually, he would lose such matches by a narrow margin.

I remember drawing him as Black in the Caro-Kann where I was surprised as early as move four! (1.e4 c6 2.d4 d5 3.e5 Bf5 4.c4!?) At that time, I didn’t even know that this system existed, and just thought of it as a dubious move since White gives up the d5 outpost. Recently, Magnus Carlsen used this setup to crush GM Fedoseev (World Cup, 2021) and GM Firouzja (World Rapids, 2021).

Zaitsev was an extremely original thinker with dozens of chess opening ideas and setups. One of his less well known inventions is the following counter to the Benko Gambit: 1. d4 Nf6 2. c4 c5 3. d5 b5 4. cxb5 a6 5. Nc3 axb5 6. e4!



Zaitsev's idea was 6...b4 7. Nb5! and now after the natural 7... Nxe4 8. Qe2 Nf6 9. Nd6#



Here's a funny anecdote about Zaitsev from when I was a kid: My dad asked him to take a look at my games to determine my potential as a chess player. Being very nervous, I didn't say much and showed him a few of my games. After the lesson, he told my dad that I lacked the ambition and stubbornness to prove him wrong during the analysis session. I may become a GM, albeit a weak one. Well,

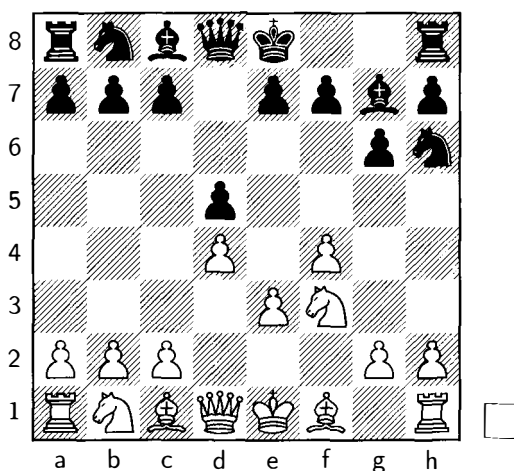
he was right! I became a GM in 2006 and my peak FIDE rating reached 2550 – nothing to write home about when you compare to the guys he was used to working with!

Alex “Wojo” Wojtkiewicz

I first met Alex while a student at UMBC. He was attracted to the chess program as he lived in the area and even decided to become a student to play for the team. It was a funny sight: a fully grown man in his forties hanging out with twenty-year-olds at the chess club, and trying not to fail his classes (indeed he later failed Russian choir by not attending the class, and got kicked out of the program).

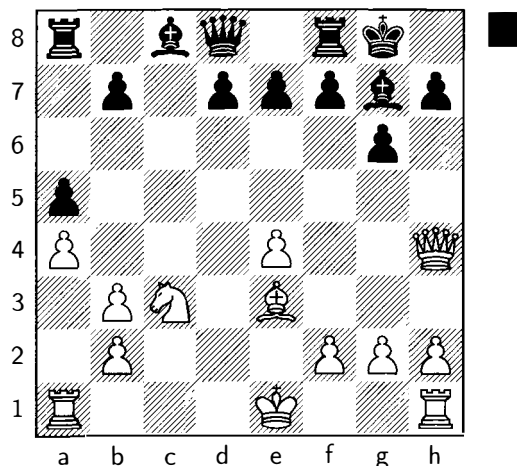
Wojo was a character. He was a weekend chess warrior, living a worry-free lifestyle with heavy drinking and smoking, perhaps a bohemian chess player from the bygone era. Yet his chess understanding was fantastic. Keep in mind that he became the youngest chess master in the USSR at the age of fifteen, not an easy feat! As a result, he was spotted by none other than the magician from Riga, Mikhail Tal. Tal took him under his wing for sparring blitz matches and analysis sessions.

I still remember how at one of the UMBC team matches, Wojo showed us a quick setup against the somewhat annoying Bird’s opening (1.f4). He said: you just play 1...d5 2.Nf3 g6 3.e3 Bg7 and if White goes for the Stonewall setup with 4.d4 you play 4...Nh6!



A few of us were surprised by this odd choice of developing the knight to the edge. But he quickly explained that the point is to meet 5.Bd3 with Bf5!, as the strategic idea of this line is to trade the light square bishops. Everything became clear, and to this day I still use this simple plan against various Stonewall setups. Along with Dzindzi, Wojo inspired me to play the Hyper-Accelerated Dragon.

Here's one of his amazing ideas in action that helped me defeat the young Ray Robson.



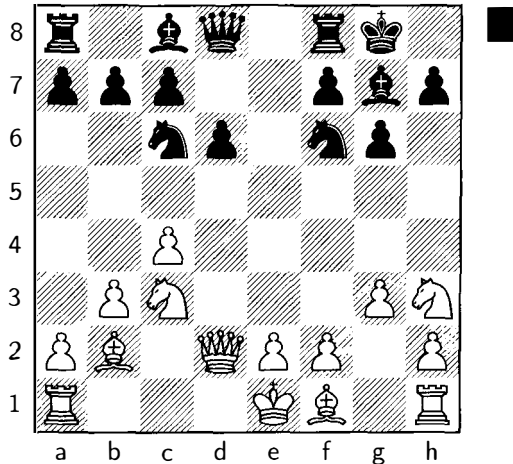
12... Ra6!! An absolutely fantastic idea to transfer the rook to e6 (Leela approved!)
13. O-O Re6 Black is at least equal. I finished development with b6, Bb7 and smoothly won the game.

Josif Dorfman

I first met Dorfman during my Samford Fellowship when I played and studied chess full-time from 2000 to 2002. At that time he lived in Cannes, France, and was free due to a falling-out with his top student, Etienne Bacrot, whom he basically took from a beginner to 2700 Super GM. I had an interesting inside connection as he was from the same town as my dad – Zhytomyr, Ukraine. My dad, a Soviet Master, was Dorfman's second during the USSR Championship in 1976. It is worth mentioning that the next year Dorfman tied for first with Gulko in the same championship. That's no easy task, given how strong those tournaments were back in the day!

I worked with Dorfman intensely for a week in Cannes and then remotely from the US. His approach to chess was quite eye-opening. I was already a strong IM and, having studied with Dzindzi and Wojo, thought I knew something about chess. Well, guess what: chess is hard work! Unlike the intuitive Dzindzi and Wojo, who would immediately know the best move in any position, Dorfman was a scientist. His analysis sessions are best described as a "bulldozer method." He would examine every candidate move possible: the bad, the good, and the ugly. Why? I think he was trying to get to the bottom of everything, the ultimate truth. Perhaps Dorfman developed this analytical ability working for many years in camp Kasparov during the famous Karpov matches.

Ultimately, he wrote a well-known book *The Method in Chess*. It's a bit controversial, but he believed that there's an algorithm or "method" to properly figure out what to do in any position. For example: if you're better statically (extra material, two bishops, the center, safer king, etc.) you should be able to win the game in the normal course. And if you are lacking in these areas you should play dynamically to unbalance the position. Of course, if only chess was that easy...



Here's an example from his book. According to Dorfman, White is statically better because he will dominate the d5 outpost with natural moves: Nf4, Bg2, 0-0. Therefore, Black needs to play dynamically with **9... a5! 10. Nf4 a4 11. Nxa4 Rxa4!** Leela's choice is even more dynamic than Dorfman's! (11... Ne4? allowed White to consolidate with 12. Qc1 Nd4 13. Bg2 Re8 14. O-O \pm) **12. bxa4 Ne5!** with full compensation for the exchange. Black is first to create threats while White is still not fully developed.

The experience of working with elite coaches formed the basis of my understanding of chess. Their wit and simple explanations, such as "you just trade the bishops and win on the dark squares," or "trade queens to enter a winning endgame" cannot be replaced by dry Informant symbols or engine numbers. Often I would ask myself what would one of them play in a given position? How would they approach this trade? Is it time to attack, or do I need to play a few prophylactic moves first?

I feel lucky to have met so many original thinkers and feel privileged to share with you some instructive puzzles, inspired by my coaches. Both Nate and I hope that this book will help you on your journey to evaluate like a Grandmaster!

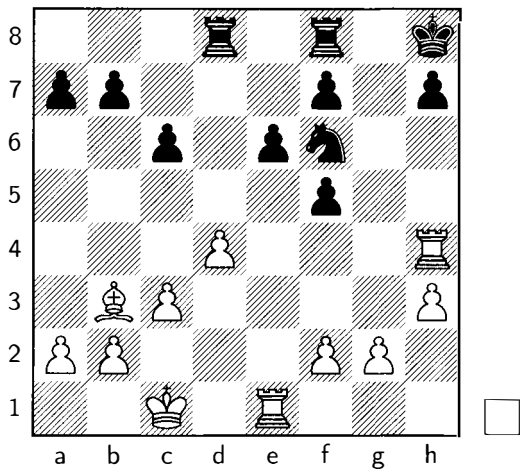
Chapter 4

Evaluation

As we go through the book we'll increase both the difficulty level and the resemblance to a real game scenario. We start out with the simplest kind of evaluation, just evaluating the position on the board. But as you'll see correctly evaluating a position is far from easy!

How would you evaluate this position? As an added challenge, suggest a move for the side to play. This makes sense for two reasons: First, it starts the process of connecting evaluation to decisions and ultimately moves. Second, evaluation and moves are closely interconnected. Having a strong sense of what's going on in the position naturally feeds into what you should do next.

Perelshteyn - Elbilia 1997



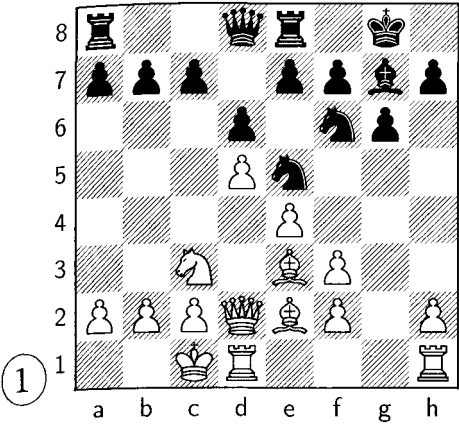
In this position White is much better. All of the White pieces are better than their Black counterparts. Both of White's rooks are actively placed, one on the half-open e-file and the other pressuring Black's isolated h-pawn. Black has one rook on f8 not doing anything and the other looking at the rock solid pawn on d4. White's bishop is also a little better than the black knight, which lacks a stable outpost. Finally, White has the superior pawn structure because of Black's doubled and isolated pawns.

Having said all that, it's not easy to make inroads against Black's current structure. While the pawns on light squares could become targets for the bishop, at the moment they're defending each other. All in all, White needs to break open the position in order to use all of those advantages to create real threats. This points to the best move, **23. g4!**

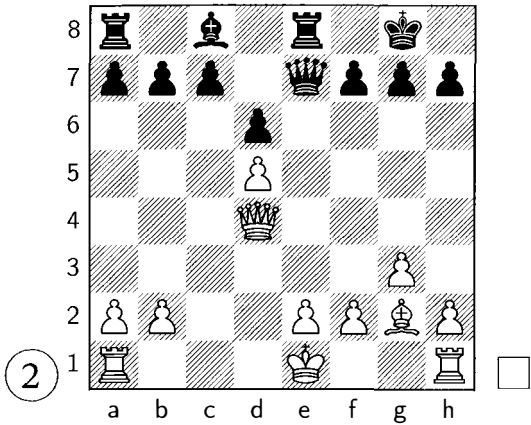
At first this seems counterintuitive because it allows Black to exchange off a doubled pawn, but weaknesses only matter if they can be attacked. By trading off a pair of pawns, White is able to greatly intensify the pressure on h7. After **23... fxg4** (forced, if Black allowed the pawns to be traded on f5, White would quickly win the undefended pawn on f5) **24. hxg4**, all of White's latent advantages are transformed into a direct initiative. White is ready to swing the other rook to the h-file and drive away the knight with g5, turning up the heat on h7. Black's best shot is **24... Rg8** to threaten g4 and prevent the g5 advance, but after defending the pawn with either f3 or Rg1, White will follow up with the aforementioned ideas at the right moment.

We suggest you commit to an evaluation ($=$, \pm , etc.) and write it down so you can evaluate your performance accurately, but as always, the real meat is in the explanations. Understanding the *why* is ultimately more important than raw evaluation when it comes to developing your ability to evaluate unseen positions correctly.

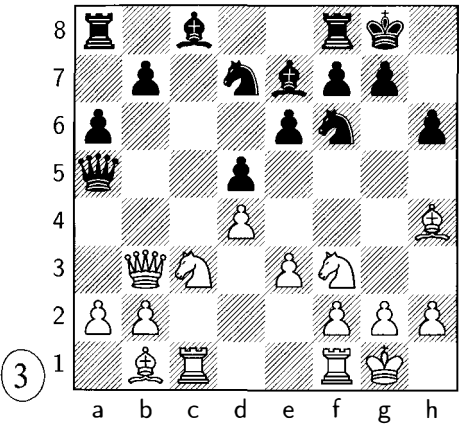
Perelshteyn - Krush 1999



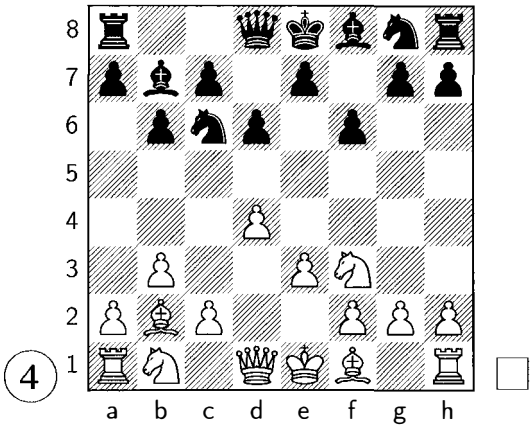
Opening Analysis 2022



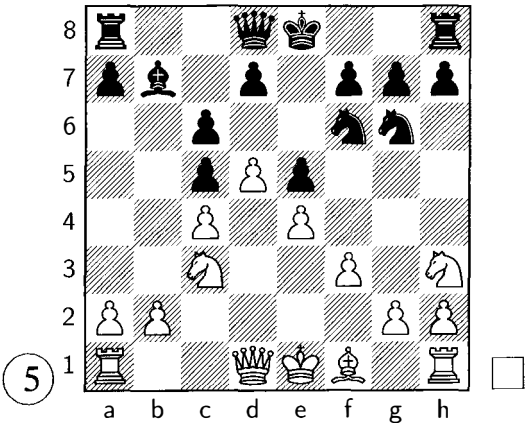
Fanning - Nelson 2022



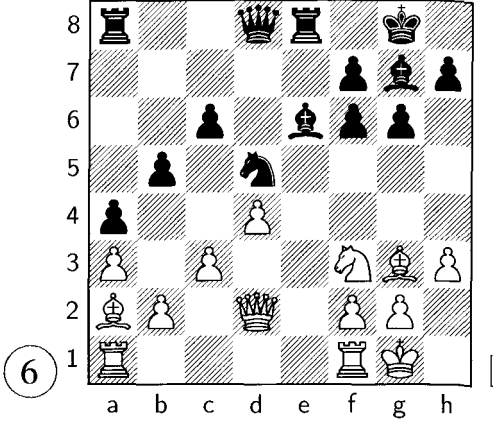
Perelshteyn - NN 2019



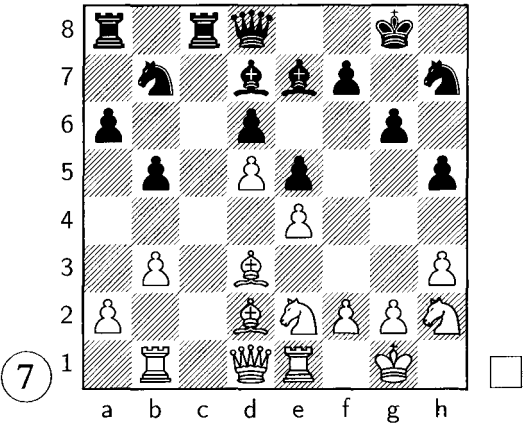
Kasparov - Short 2015



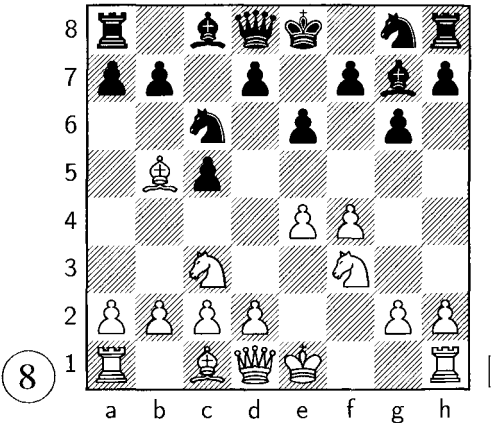
Solon - Banzeus 2022



Christiansen, L. - Perelshteyn 2006

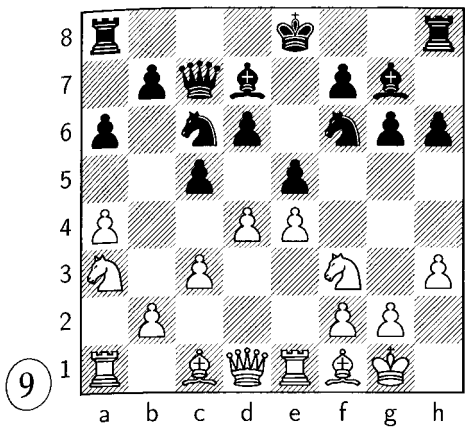


Opening Analysis 2022

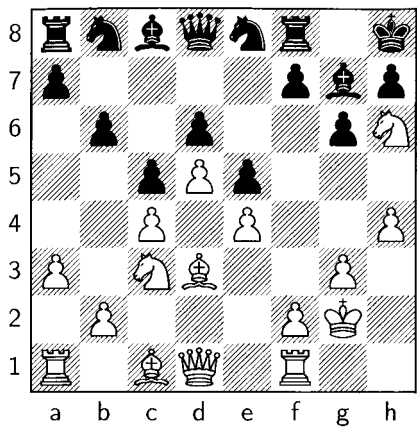


Andersson - Portisch 1972

Niemann - Maze 2020

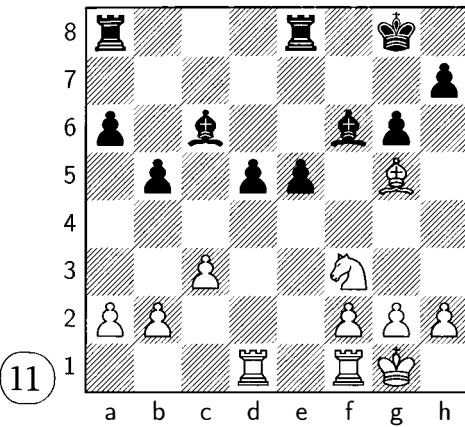


10

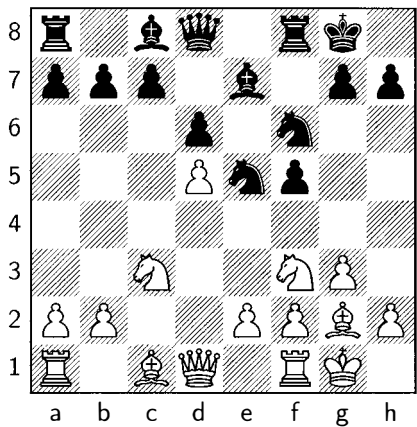


Hoy - Perelshteyn 2016

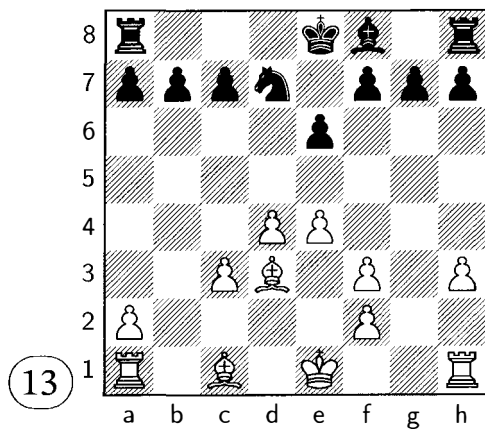
Steinitz - Chigorin 1892



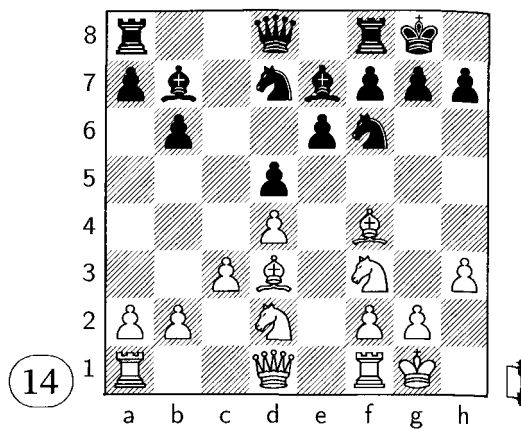
12



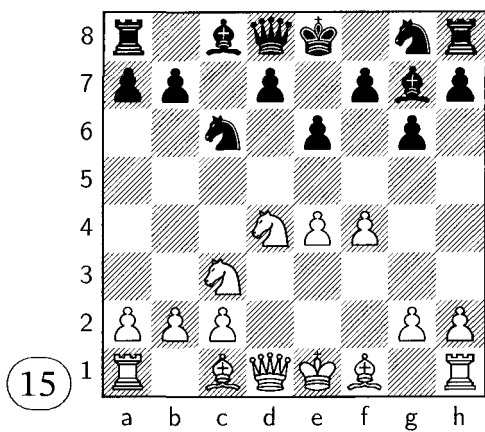
Perelshteyn - NN 2019



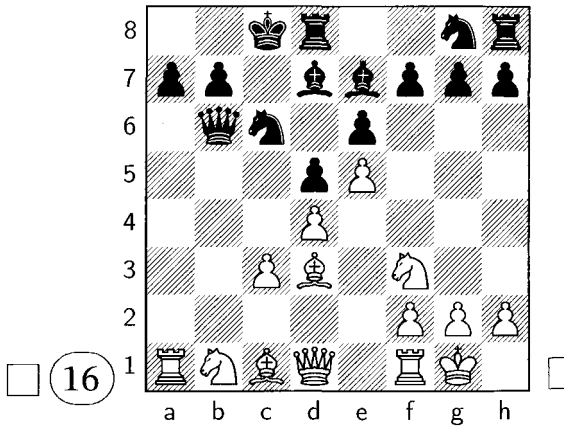
Perelshteyn - NN 2019



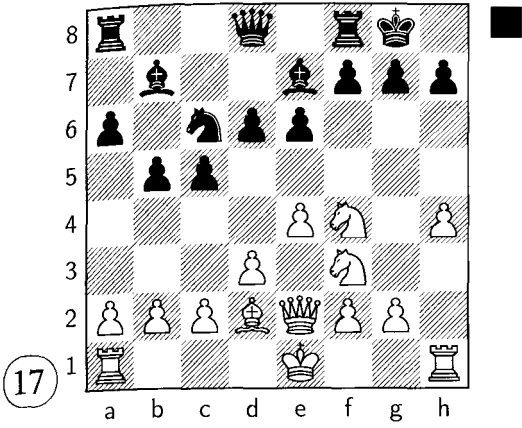
Perelshteyn - NN 2019



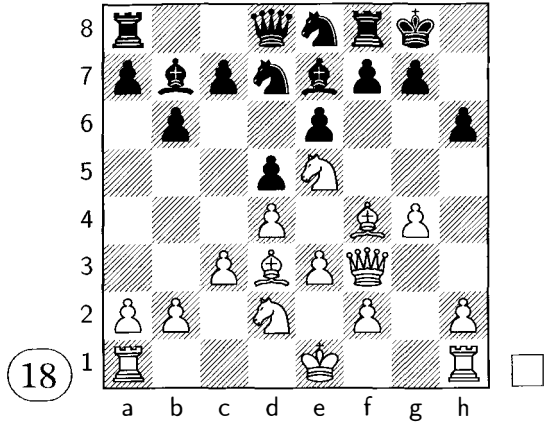
Skoloud - Menshikov 2019



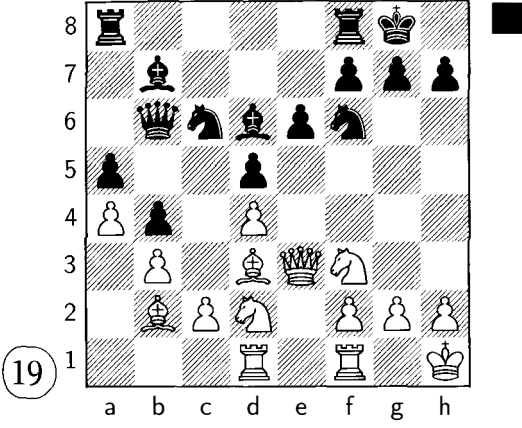
Keskec - Kiray 2019



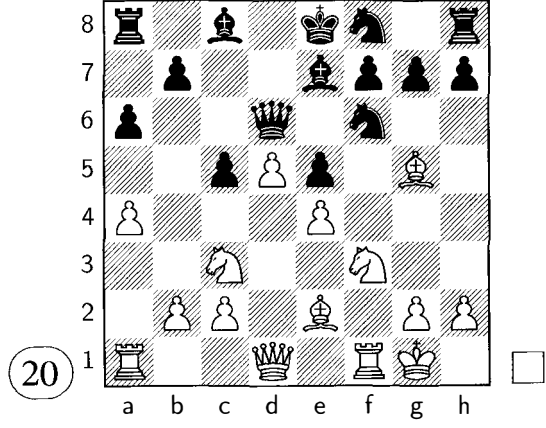
Aguerre - Kulik 2019



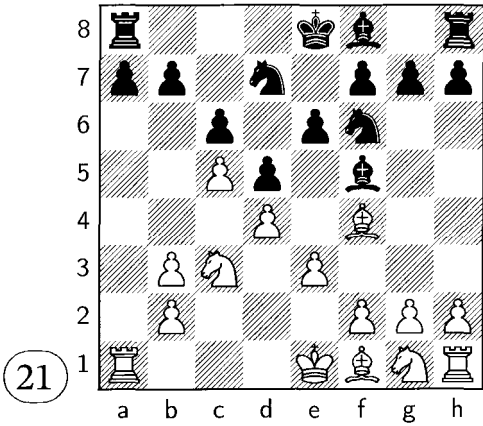
Safanowski - Potocki 2019



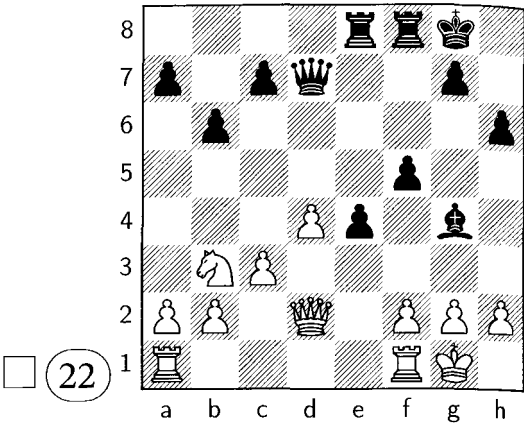
Donmez - Christensen 2019



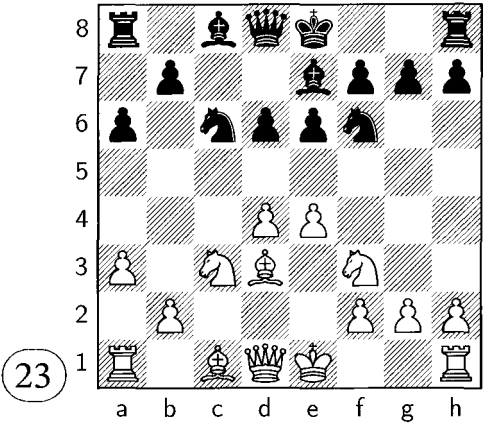
Krishna - Dal 2019



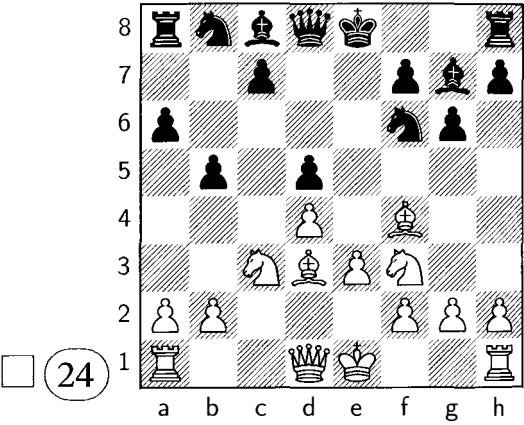
Ramirez - Barreto 2019



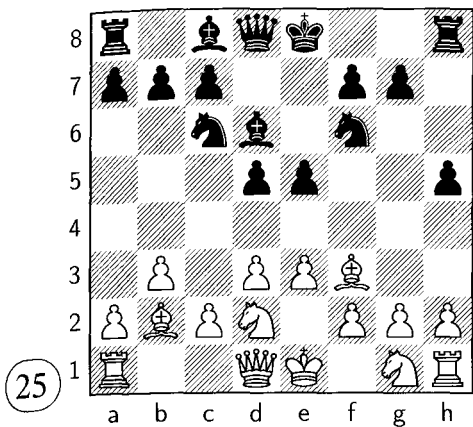
Jabr - Eid 2019



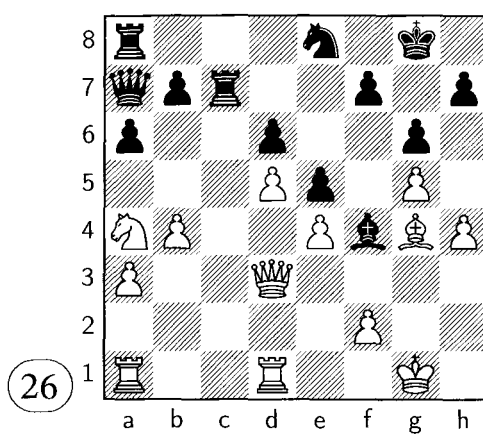
Johansen - Nilsson 2019



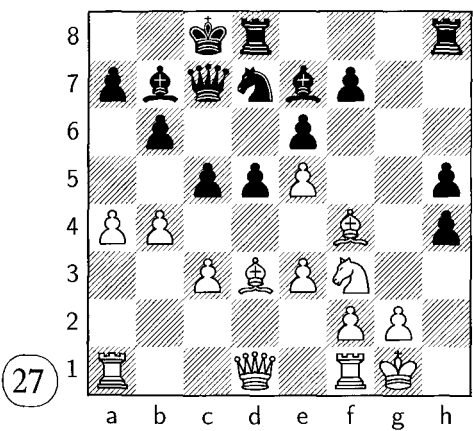
Lazebnikov - Sheinkman 2019



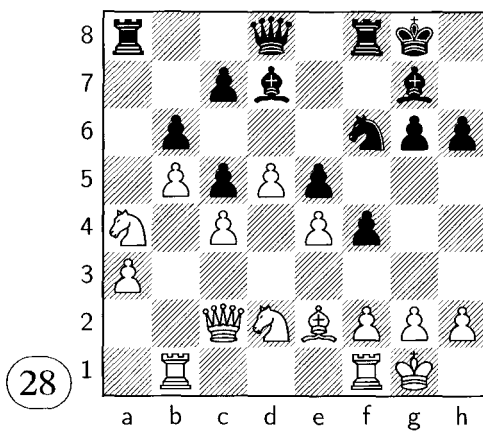
Uesugi - Perelshteyn 2009



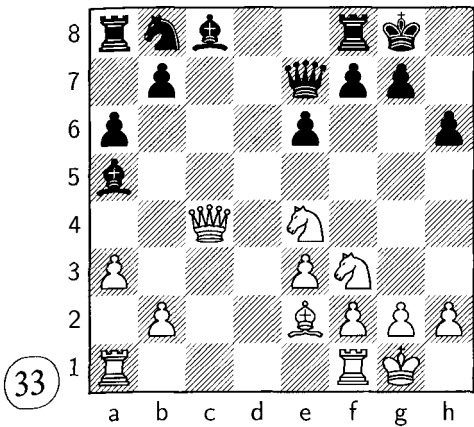
Spassky - Petrosian 1966



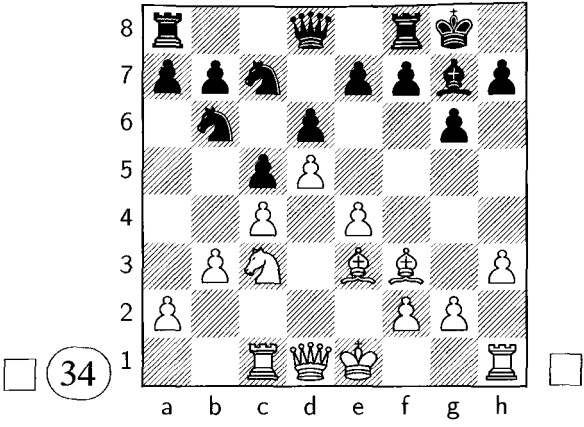
Buehl - Perelshteyn 2007



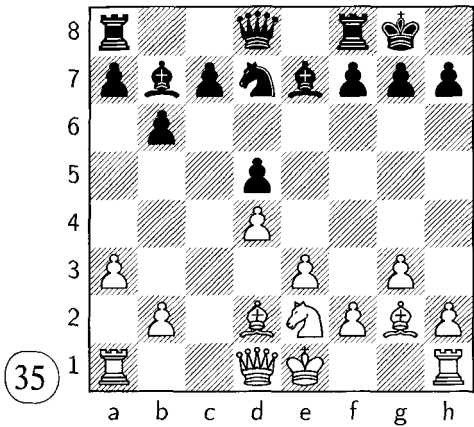
Perelshteyn - Rensch 2007



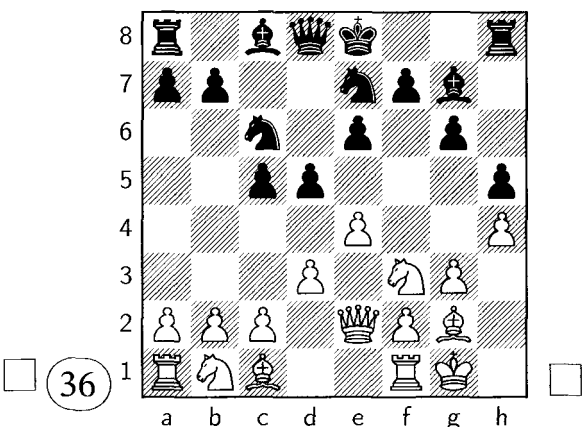
Andersson - Szabo 1973



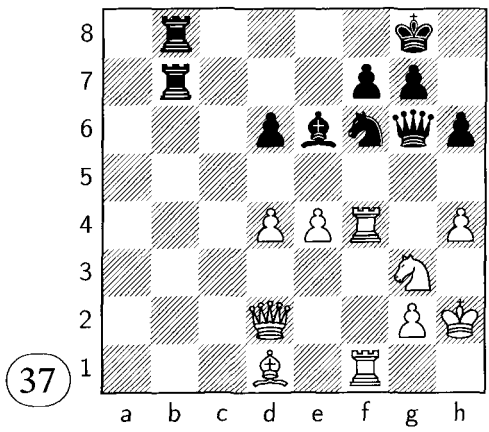
Carlsen - Anand 2013



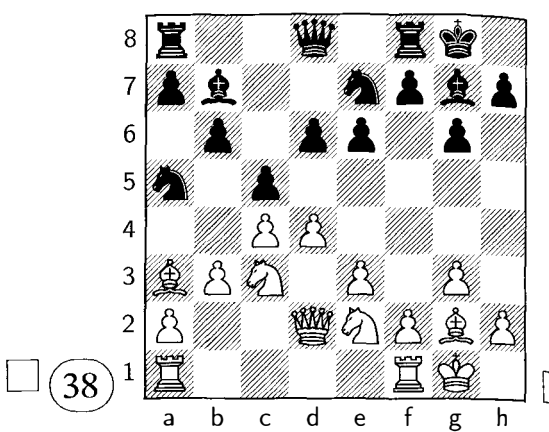
Carlsen - Spoelman 2018



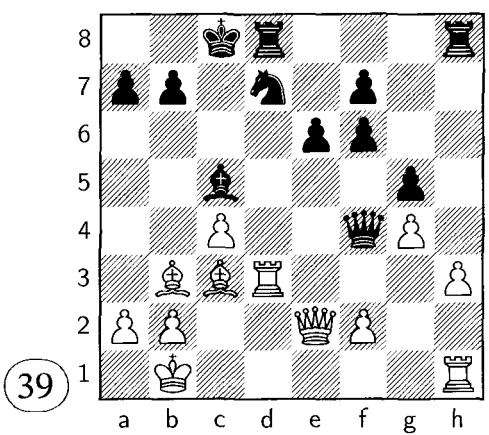
Carlsen - Nakamura 2011



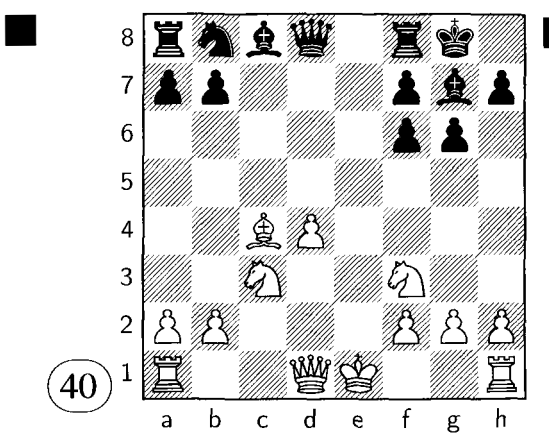
Kramnik - Nepomniachtchi 2020



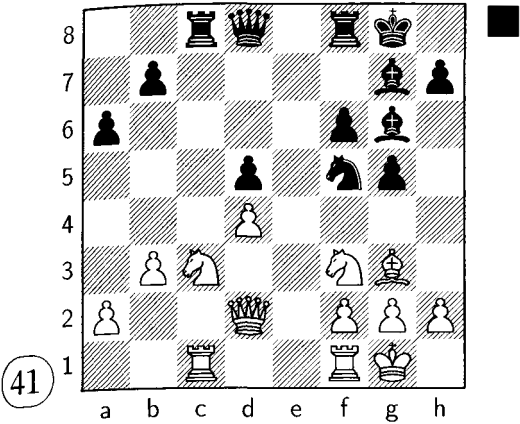
Brodsky - Perelshteyn 2015



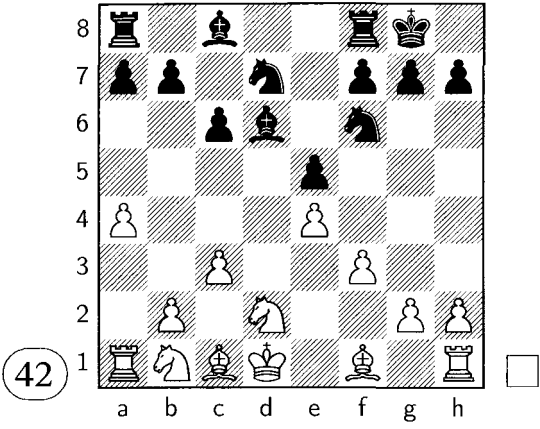
NN - Perelshteyn 2019



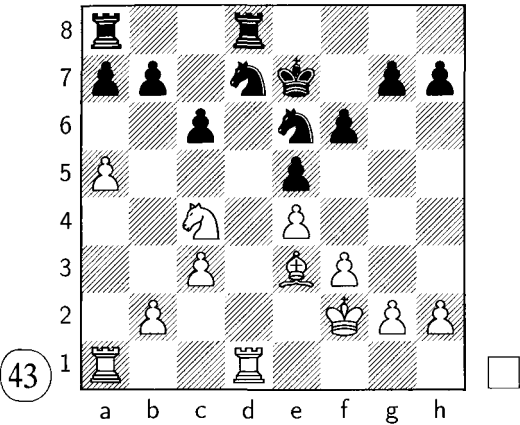
NN - Perelshteyn 2019



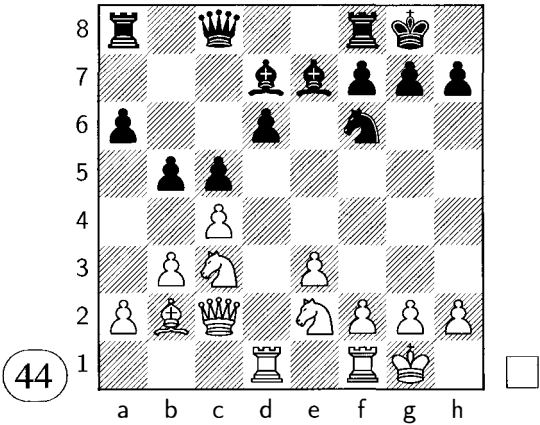
Theodorou - Shimanov 2019



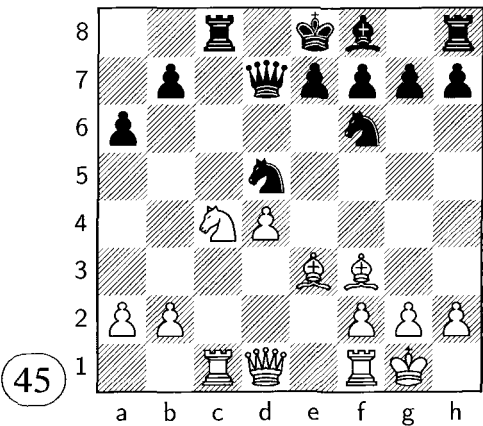
Nepomniachtchi - Popov 2019



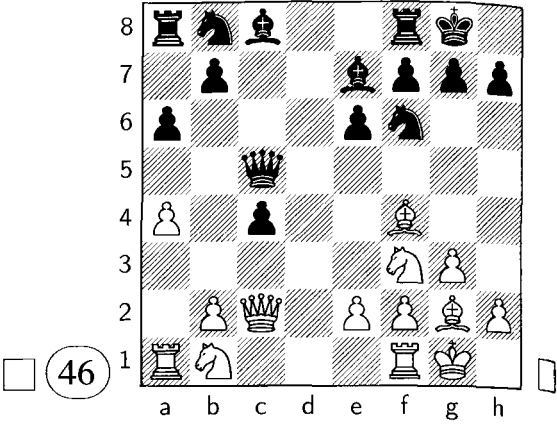
Omar - Mlynarski 2019



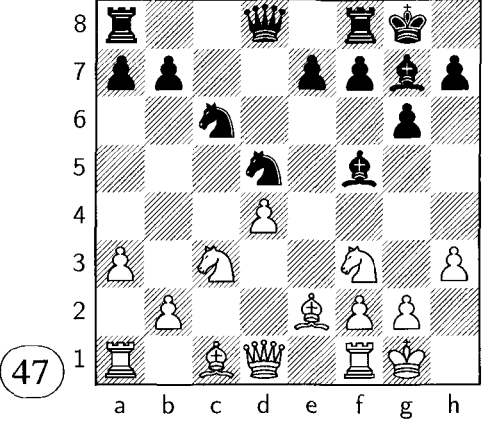
Finnbogadottir - Thorisson 2019



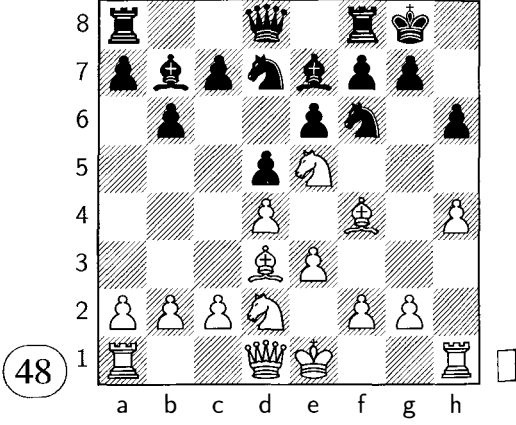
Forster - Ross 2019



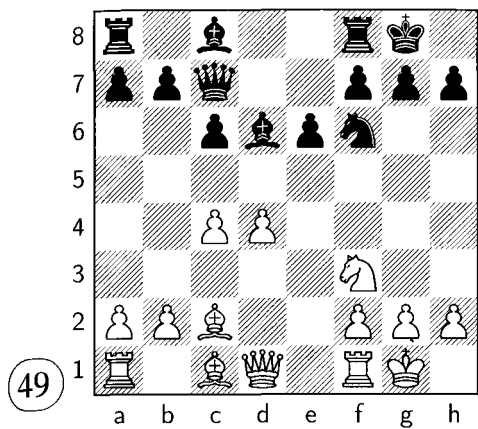
Devos - Creixans Comerma 2019



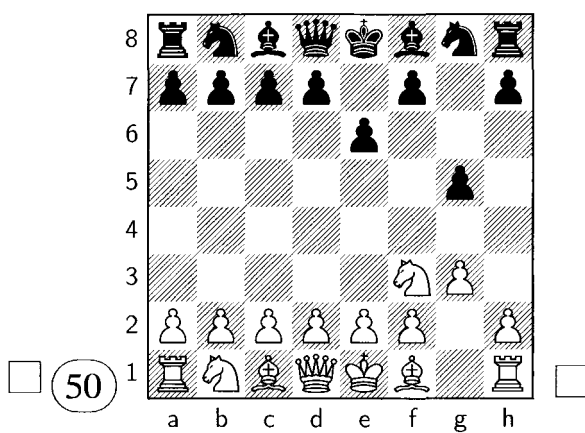
Mrachek - Strand 2019



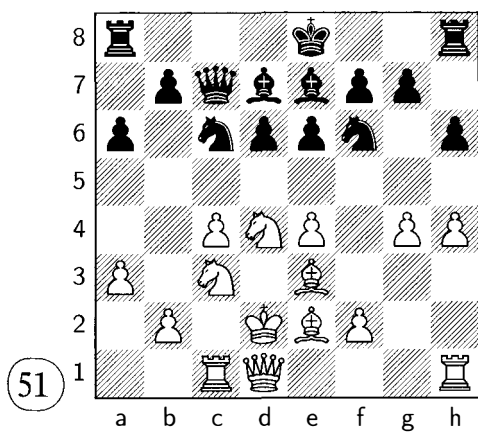
Ermakov - Lambert 2020



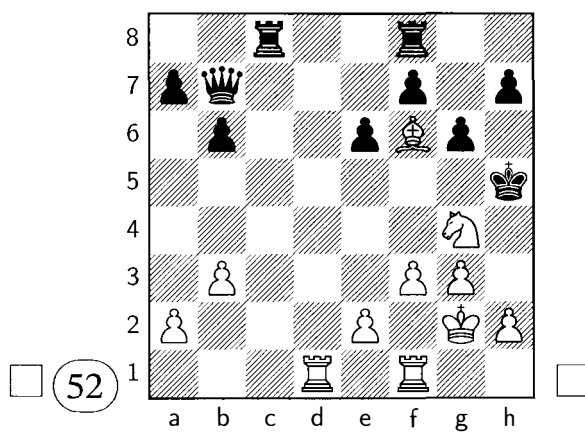
Perelshteyn - Kraai 2021



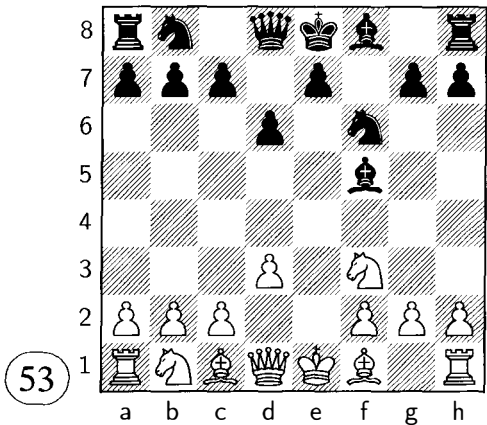
Fischer, D. - Hakimifard 2021



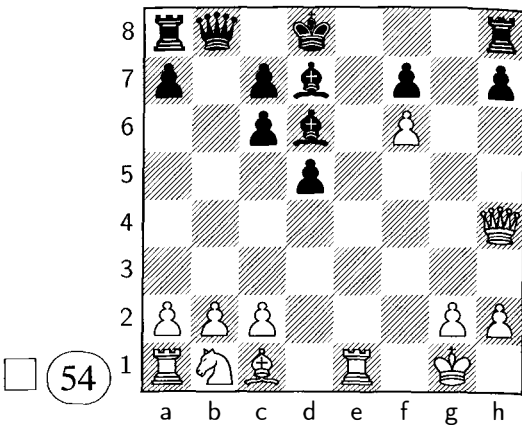
Perelshteyn - Kudrin 2003



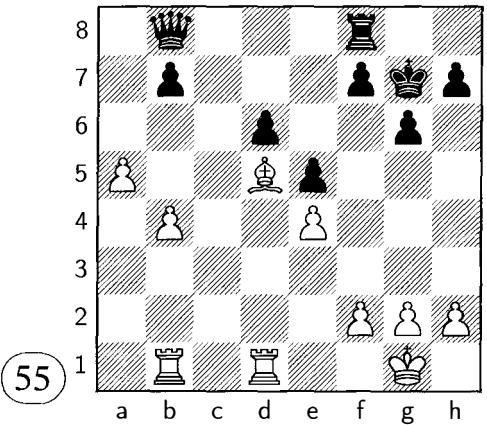
Carlsen - Rodriguez Vila 2014



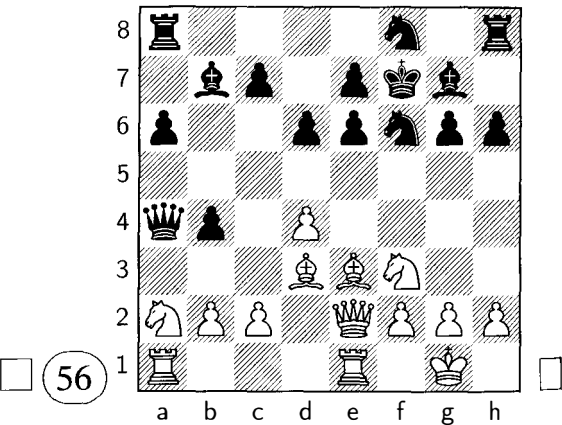
Perelshteyn - NN 2019



Ludwig, D. - Perelshteyn 2006

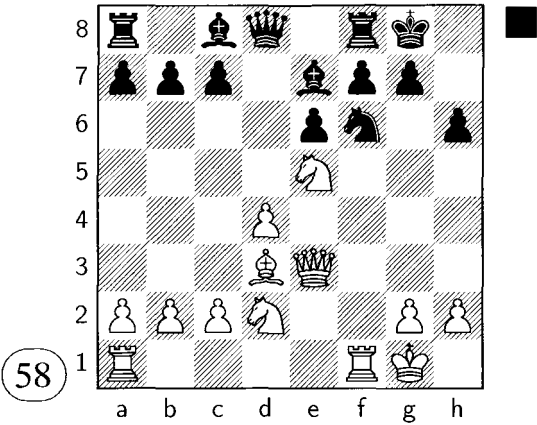
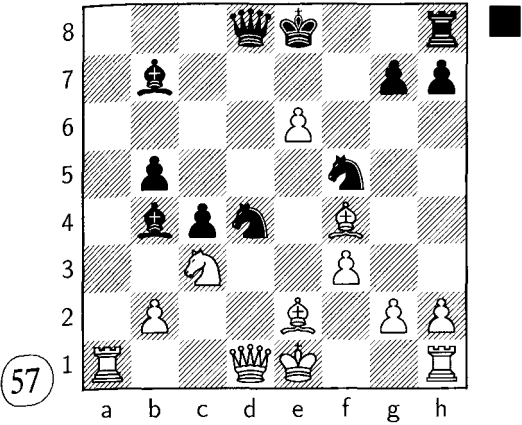


Perelshteyn - Carlsen 2017



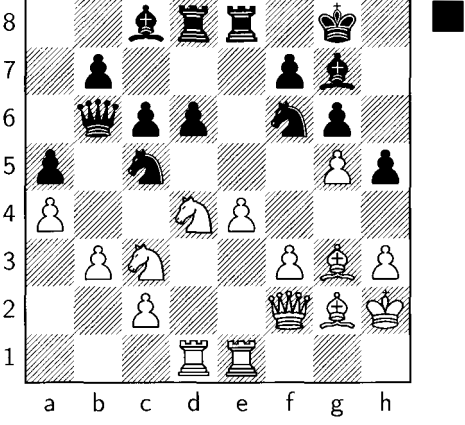
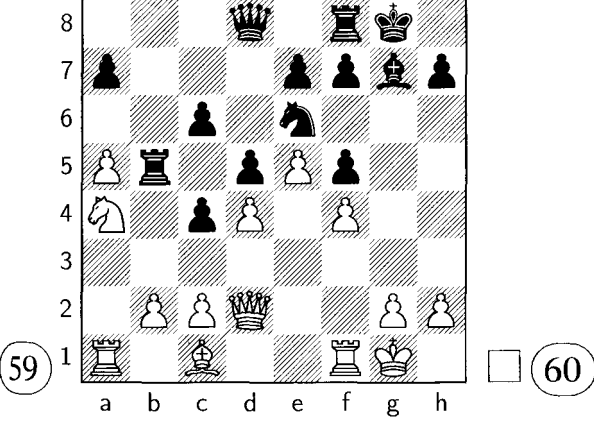
Sarkar - Perelshteyn 2017

Mareau - Dimey 2020



Teh - Aminuddin 2022

Carlsen - Dubov 2020



Answers

1. The doubled f-pawns together with the bishop pair and more central space allow White to start a deadly attack. Black's counterplay lags far behind. White is clearly better and has a pleasant choice of moves: **11. h4±**, **11. f4±**, or **11. Bh6±**.
2. At first it seems like White is lagging in development and has a problem with the e2-pawn. However, after the simple **14. e3!±** Black is the one in trouble. The problem for Black is that White can double or even triple on the c-file and target c7 pawn. Black has no counterplay and is doomed to passive defense.
3. Despite the symmetrical pawn structure, White is clearly better due to the fact that Black's bishop is stuck on c8. The thematic idea here is **14.Ne5! ±** followed by f4 with a big attack.
4. It's clear that Black is not aware of the concept of "Swiss cheese" in chess! Just one look at the weak light squares, will convince you that White is clearly better. The simplest move here is **6. d5! Ne5** and now pretty much any move gives White a big edge. **7. c4** was played in the game and is quite strong. (7.Nd4!± is the engine's choice since the tactics work in White's favor, for example 7...Bxd5 8.f4 Ng6 9.Bb5+ Kf7 10.Nc3 Bxg2? leads to a pretty mate 11.Qg4 Bxh1 12.Qe6#)
5. White is clearly better due to his space advantage and **11. d6!** is an instructive way to secure a wedge pawn deep in Black's enemy territory. After **11. d6 O-O 12. Qd2 Qa5 13. b3 Qa3 14. Na4** Kasparov got a big edge and eventually converted in an endgame.
6. Black is slightly better because he has a clamp on the queenside light squares, allowing three pawns to contain four on that side of the board. Meanwhile the doubled f-pawn is doing a good job of restricting White's knight. Black can continue with Nb6, trading the light-squared bishops, and infiltrating on the light squares, while White lacks an active plan.
7. It's important to use prophylactic thinking in this position. If Black can play ...Nc5 he will stand fine in a typical Ruy Lopez structure. That's why **23. b4!** gives White a clear edge, as Black's b7-knight has no future. White is clearly better.
8. Black's last move, 5...e6?, was a big mistake, as it allowed an instructive positional transformation: **6. Bxc6! bxc6** (6... dxc6 7. e5±) **7. e5±**. Notice how White has taken control over the d6-outpost, leaving Black with doubled pawns, bad bishops, and no counterplay!
9. White is better because he has control over the c4 and d5 outposts. **12. dxc5** (12. d5!± gaining more space would have been very strong as well) **12... dxc5 13. Nc4 Rb8 14. b4!?** (14. Qd6±) **14... cxb4? 15. cxb4 Be6 16. Nd6+**

Ke7 17. Ba3! and Ulf won with a direct attack. **17... Ne8 18. Nxb7 Qxb7 19. b5+ Kf6 20. bxc6 Qc7 21. Nxe5**

10. White has a huge space advantage and stands much better. Notice how most of Black's pieces are hanging out on the back rank. One of the most important definitions of a space advantage is not only having more space but the fact that your opponent's pieces are cramped and don't have very many squares. To learn more about this, we refer you to the famous book by Boris Gelfand, *Positional Decision-Making in Chess*. **17. h5!** Hans, a young American prodigy who is now in the top 100 in the world, plays like Petrosian to suffocate Black even more. **17... g5** Creating more weaknesses, but trying to avoid the direct attack on the h-file. (**17... Nd7 18. Rh1±** with a strong attack.) **18. Ng4 Qd7 19. f3 h6 20. Rh1 a6 21. Ne3 Nc7? 22. Na4** How embarrassing: Black is so tied up that he can't even defend b6, so he resigned.
11. **24... Bg7!±** Black is much better thanks to the bishop pair and a flexible pawn center. Some players hate to retreat, but giving up the bishop pair by trading dark-squared bishops would be a big mistake. After Black sidesteps the bishop trade White's bishop is somewhat stranded on g5. Black can look to advance the center pawns at the right moment, or weaken White's queenside pawns with b4.
12. This is an early example, showing the superior positional understanding of the first World Champion. Black has a backward pawn on c7 and a weak e6-square. White is better after the nice move **10. Nd4!±** (10. Nxe5? would lose the entire advantage after 10... dxe5 11. Qb3 Kh8, with counterplay) **10... Ng6 11. Qc2!** Steinitz simply improves his position and targets the c7-pawn. **11... Ne8 12. f4** Fixing the f5-pawn and restricting the g6-knight still further. White is clearly better, while Black lacks space and has no counterplay.
13. White has a nice center and the bishop pair. Don't be distracted by the doubled f-pawns, as the one on f3 actually strengthens White's center even more. White is clearly better, regardless of what Black plays. For example: **12... O-O-O 13. Ke2 Be7 14. Be3 c6 15. a4!±** followed by pushing the h-pawn to h5, with play on both wings.
14. This is a typical type of position that commonly occurs in the Exchange Caro-Kann or the London System. White has a nice pawn chain, controls the e5 outpost and has no bad pieces. The problem piece here for Black is his b7-bishop, which is blocked by its own pawn. Black also lacks a clear plan, as his typical idea in these positions – the minority attack with ...b5-b4 – is hard to imagine succeeding here. Therefore White is clearly better. According to our engine White has at least ten moves (!) to keep a nice edge. The simplest is: **11. Re1±**, stopping any future ...Ne4. White later follows up with Ne5, with clear domination.

15. Black played an early ...e6? which severely weakened the d6-square and got duly punished by 7. **Ndb5!** when White already has a big edge. The game continued: 7... **Bf8** 8. **Nd6+ Bxd6** 9. **Qxd6 f6** 10. **Be3 Qe7** 11. **Nb5 Qxd6** 12. **Nxd6++-.** It's funny that the engine considers the game move of 12...Kd8 (which loses simply to 13.Nf7+) to be no worse than keeping the material level by 12...Kf8. In the case of the latter, White's position after the simple 13.0-0-0 is so dominating that the digital mind considers it equal to an advantage of six pawns! We will stick with a more human evaluation of "±". White will soon start collecting material with the threat of Nxc8 and Rxd7.
16. White is down a pawn but has an almost winning position! The reason is simple: the a- and b-files! White has a direct attack against Black's king. 11. **Na3** (Other moves are also good) 11... **a6** 12. **Qc2 h5** (White can just ignore this desperate pawn push.) 13.**Be3 Nh6** 14.**Rfb1 Qc7** 15.**Qe2 Nb8** 16.**c4 Bc6** 17.**Nb5!+-**
17. Black is better thanks to the bishop pair and a flexible pawn structure. For the moment White's kingside attack with h4 is no more than a bluff, but some inaccurate moves from Black in the game made it a reality. 12... **d5?!** A step in the wrong direction, locking the pawns and allowing White more space on the kingside. A normal move like 12... **Qd7** would maintain Black's edge. 13. **e5 Re8?** This is just plain wrong as it allows a big attack. According to the engine Black should hold after 13... **Qd7** 14. **Ng5 Nd4** 15. **Qh5 h6!**, but it does look scary. 14. **Ng5** and Black was soon overrun on the kingside.
18. We have a classic case of the London System gone bad for Black. White is dominating the center and has a strong kingside attack. Black, on the other hand, has no obvious way to stop the direct pawn storm, nor any counter-play. 11. **Nxd7** Pretty much any other moves are good too. (11. **O-O-O±**, 11. **h4±**, 11. **Rg1±**) 11... **Qxd7** 12. **h4! f6** 13. **Qh3 Bd6** 14. **g5!** Opening up the enemy king. 14... **Bxf4** 15. **exf4 fxg5** 16. **hxg5 hxg5** This allows a simple mate in two: 17.**Bg6!** 18.**Rxf4** 18.**Qh8#**
19. Black is clearly better owing to White's backward c-pawn. 15... **Ba6!** Trading the bishop on b7 for the one on d3 looks very logical, although the computer prefers Black after other moves as well. 16. **Ne5?** White panics and enters a losing endgame 16...**Bxe5** 17.**dxe5 Qxe3** 18.**fxe3 Ng4**—+ White is losing at least a pawn.
20. This is a classic example of the queen being a bad blockader. White has a protected passer on d5, more space, and a simple knight maneuver to drive the queen away. 13. **Nd2!**± The knight will land on c4 with a big edge.
21. It's a big surprise how many players entered this horrible position as Black in the London System with ...Bf5. In the Mega Database we found at least 280 games! Black is clearly worse as his queenside collapses after 9. **b4!**

- Be7** (9... a6 10. b5!± ; or 9... Nh5 10. Bc7 Rc8 11. Be5!±) **10. b5! cxb5 11. Nxb5±** and Black is in trouble (11. Bxb5 was played in the game which also gave White a nice edge.)
22. Black is clearly better due to the stranded knight on b3 and the huge attack on the kingside. The second player has many good moves that lead to a big edge. In the game he chose **18... Rf6!±** (18... f4!) **19. Rae1 Rg6** White is basically a piece down as the knight can't help defend his king.
 23. White has total control in the center while Black is very cramped. This space advantage gives White a big edge. **9. h4!** The computer loves this idea, using the center as a base for a kingside attack, but old school development with 9. 0-0 is also good. **9... O-O 10. e5 Nd5?** Allowing a standard Greek gift sacrifice (10... dxe5! 11. dxe5 Ng4! is the only way to survive for Black.) **11. Bxh7+! Kxh7 12. Ng5+ Kg8 13. Qh5 Bxg5 14. hxc5 f5 15. g6** with mate next move. **1-0** The lesson is clear: in chess, you can't just give up space and the center!
 24. Black's setup with g6, Bg7, and a6, b5 does not add up to a coherent plan. His bishop on g7 is biting on granite due to White's stronghold on d4, and his queenside is weakened, with a backwards c7-pawn. **9. a4!** even stronger than the game's 9.Ne5. **9... b4 10. Ne2 O-O 11. Rc1±** White is in total control with a lead in development and pressure on Black's backward c-pawn.
 25. Black is clearly better due to White's lack of space. Control of the center isn't always the end of the story, but it helps when you get it for free! Natural play by **7...Be6 8. Rc1 Qd7±** prepares to castle long, with a big initiative; while **7... g5!?** is the engine's more audacious way of trying to punish White!
 26. Black is much better due to the fact that White's kingside pawns are overextended and Black controls the key f4 outpost. The correct move here is **23... h6!** (23... f6? weakens e6 and allows the amazing idea 24. Nc5! with counterplay) **24. gxh6 Nf6!** Now the knight has great potential and aims to go to f4 **25. Bh3 Bxh6 26. Nc3 Nh5 27. Ne2** White has stopped Nf4 for now, but a simple regrouping will target the weak h4 pawn **27... Kg7! 28. Ra2 Rh8** with a big attack to come.
 27. It doesn't take long to see that Black is better due to the half-open g-file leading to the white king. However, in an opposite-side castling scenario, it's important to remember that if you can stop your opponent's attack you will basically have a free hand on the side where you are attacking. That's why Petrosian played an unusual sequence: **17... c4! 18. Be2 a6!** Locking up the queenside for good. Notice that Petrosian also locked up his own bishop on b7 and gave White a great d4-outpost for the knight. However, all of this is irrelevant as Black has a winning attack on the kingside in the long-term. The game continued: **19. Kh1 Rdg8 20. Rg1 Rg4! 21. Qd2 Rhg8 22. a5 b5!** The point! **23. Rad1 Bf8!** With the idea of playing ...Bg7 and

- winning the e5-pawn. **24. Nh2 Nxe5!** Another classic exchange sacrifice by Petrosian. **25. Nxb4 hxb4 26. e4 Bd6** and Black won a brilliant game.
28. Black is a pawn down, but White's queenside is totally locked and the a3-pawn is weak. Given that Black is ready to start the typical King's Indian Defense pawn storm, the right move is simply **22... g5!** and White is worse, with no counterplay against the oncoming attack. The game continued: **23. f3 g4?** (23... h5! is more precise) **24. Ra1?** (24. fxb4! allows White to stop the attack after 24... Bxb4 25. Bf3!) **24... h5 25. Nc3 Nh7 26. Qd1 Qh4!** White is almost lost now. Here's the rest of the game, ending in checkmate! **27. fxb4 hxb4 28. Qe1 Qg5 29. Kh1 Rf6 30. Ra2 Rh6 31. g3 Rh3 32. Rg1 f3 33. Bxf3 Rf8 34. Bd1 Rxh2+ 35. Kxh2 Qh6+ 36. Kg2 Qh3 0-1**
29. This is a typical position that can arise from the Queen's Gambit Declined Carlsbad structure. In this game it came about from the Nimzo-Indian with 4. e3 and 5. Nge2. The key to the proper evaluation is whether or not White can execute the e3-e4 break. That's why Black is able to maintain rough equality with the thematic 16...c5! push. **16...c5!** Notice that Black is not afraid of having an isolated queen's pawn after White has played f2-f3, weakening the e3-pawn. The game continued: **17. bxc5 bxc5 18. Na4 Ba6** (18... cxd4! may be even more precise. After 19. exd4 Ba6 Black has a tiny edge.) **19. Bxa6 Rxa6 20. Nxc5 Nxc5 21. dxc5 Bxc5** and Black was at least equal. The game was later drawn.
30. At first it may seem like the position is balanced, but in this Maroczy Bind structure White has more space and controls the key d5-outpost. Black doesn't really have any counterplay and his queen is misplaced. White is better and can improve his position with **18.Be1 b6 19.Nd5 h5 20.f4 Bf5 21.Bc3±**
31. This crazy position arose from the Grand Prix Attack. Don't be fooled by Black's extra pawn and White's "bad" bishop on d3. The key to properly evaluating this position is Black's poor bishop on c8 and his exposed king. White is clearly better. He will play on the g-file and put the bishop on c4 with a strong attack. **23. Kh2±** and **23. Kf2±** are both good.
32. It's a big surprise to us that a strong 2600 GM misevaluated a nice piece sac here and played 26...Nd3, which led to crazy complications. Instead, **26...Bxg5!** would have been very strong. After **27. hxb5 Qxb5 28. Qxd6** Black has at least five moves that win! **28...Qh4** is the simplest. **29.Bd7 Rd3—+**
33. Black has the bishop pair and a seemingly solid position, but difficulty getting out the remaining queenside pieces, which turns out to be more important. **14. Rac1!** Black still has difficulties developing his knight and bishop. **14... Nc6 15. Qc5!** White seeks the endgame to establish the c5-outpost for his knight. **15... Rd8 16. h3!** The "Do not hurry" principle! White makes a useful *luft* for the king and asks Black, "What's next?" **16... Qxc5 17. Nxc5**

- Rd6 18. Rc2** White has the simple idea of doubling the rooks. **18... Bb6 19. b4 a5?** Black is seeking counterplay but this will backfire badly (19... Bxc5 20. Rxc5 Bd7 should hold with best play.) **20. b5 Bxc5 21. Rxc5 Ne7 22. Rfc1 Bd7 23. Ne5 Be8 24. Rc7** and White converted the endgame.
34. White has more space and a nice bishop pair. Black has no counterplay and his knight on b6 is severely misplaced **13. Qd2±** (13. h4! is the engine's preference, to get the pawn to h5 and then with h5-h6 to paralyze Black completely.) **13... e5 14. g4!** stopping any ...f5 ideas **14... Nc8 15. h4!** Notice how White's king is totally happy on e1. **15... a6 16. Be2 Qd7 17. h5±** and Ulf eventually won a nice positional game.
35. At first one might think the game is roughly even, as the position looks standard and neither side appears to have any weaknesses. However, Magnus spots the key move that gives him a nice edge: **12. Bb4!** Black is forced to either create hanging pawns with ...c5 or allow the trade of bishops. However, after the trade White will have the better bishop, giving a slight advantage. **12... Nf6** (12... c5 13. dxc5 bxc5 14. Bc3±) **13. O-O Re8 14. Rc1 c6 15. Bxe7 Rxe7** White has a nice long-term edge, and Magnus converted in style. Here's his instructive technique to increase the advantage: **16. Re1 Qd6 17. Nf4 Bc8 18. Qa4 Rc7 19. f3 Be6 20. e4 dxe4 21. fxe4 Qd7 22. d5±**
36. The position might look about even on the surface, but White has a strong idea to seize the dark squares and get a long-lasting edge: **9. e5!** Now Black's g7-bishop is stuck, and the same could be said about his colleague on c8. **9... Nf5 10. c3 b6 11. Bg5 Qc7 12. Re1 Ba6 13. a4 Nh6 14. Na3±**
37. The key positional idea you have to spot is the classic exchange sacrifice: **31. Rxf6! gxf6 32. Qf4!±** White is clearly better due to his total central control and Black's horrible pawn structure. The game continued: **32... Rb2 33. Bh5 Qg7 34. Bf3 Ra8 35. d5! Bc8 36. Nh5 Qf8 37. Nxf6+ Kh8 38. Rc1+ Kg7 39. e5 dxe5 40. Nh5+ Kh7 41. Be4+ 1-0**
38. Space is the final frontier! And, whether or not you're a Star Trek fan, this is the key to this position. Kramnik played **12. d5!** and after **12... exd5 13. cxd5** Black is in big trouble as his queenside counterplay is lagging. The game continued: **13... Ba6 14. Bb2! Bxe2 15. Nxe2 Nf5 16. e4! Bxb2 17. Qxb2 Ng7 18. Rad1±** with a long and stable edge for White.
39. This position came from the Scandinavian Defense. Black has a nice compact pawn phalanx and control over the e5 outpost. Notice how White's bishop on b3 is totally blocked off and his h3- and f2-pawns are weak. Black is clearly better. **23... Ne5!±** This is the key move, forcing White into an inferior opposite-colored bishop structure. **24. Bxe5 Qxe5!** Trading queens eliminates any counterplay and enables Black's king to be an active participant in the endgame. **25. Qxe5 fxe5** Black eventually converted on move 59.

40. Black is clearly better here, since White is lagging in development and has a chronic isolated queen pawn weakness. The unopposed dark-squared bishop, though temporarily blocked by a pawn, will soon become a monster. After **10... Re8+** (other moves are good as well, such as **10... Bg4** or **10... Nc6**) **11. Be2 Nc6 12. O-O f5!**± the bishop on g7 comes alive.
41. At first you might think that the symmetrical pawn structure makes the position roughly equal, but this is far from the truth! The reality is that White's bishop on g3 is almost trapped and Black has some tempting tactical ideas on the h6-c1 diagonal. This is a classic case of bad versus good pieces. Black is much better! **22... h5** (**22... Bh6!** is even better according to the engine, as ...g4 is a serious threat) **23. h3** (**23. h4!** is a better try.) **23... Bh6 24. Qd1 Qd7**± (**24... g4** is good as well) Black has a promising initiative.
42. Many people would evaluate such a position as about equal, due to the symmetrical pawn structure, but Stockfish has a clear preference for White. Let's try to understand why: 1) White has a nice outpost for the knight on c4; 2) The king will be comfortable on c2; 3) The bishop will be developed to e3; 4) Most importantly Black has no counterplay and is stuck in a somewhat passive bind. **10. Kc2 Bc7 11. a5!** (Stopping any ...b6 ideas. **11. Nb3**, as was played in the game was not best, but still sufficed for an edge.) **11... Rd8** (**11... Nc5 12. b4**±) **12. b4 Nf8 13. Nb3 Ng6 14. Be3**± followed by **N1d2-c4**, **g2-g3**, and slow suffocation for Black. He can never play ...Be6 due to **Nc5**. The lesson is clear: not all symmetrical pawn structures are equal!
43. Each side has only two minor pieces, but White is still clearly better! Black is cramped and has no active counterplay. Nepo shows a nice plan here: **21. b4!** (Taking control of c5 and grabbing more space.) **21... Nd8 22. Rxd8 Kxd8 23. g3!** (With the idea of playing **f3-f4** and creating a second target.) **23... Nd7 24. f4 Ke7 25. Rd1 Nc7 26. Nd6**± and Black starts losing material.
44. White is better due to the control of the d5-outpost. Black does have the bishop pair, but both of them are quite passive. **15. Nf4!**± **16. bxc4 Bc6 17. Ncd5 Qb7?** allowed a quick finish. **18. Bxf6! gxf6 19. Qf5! Rad8 20. Nh5 Kh8 21. Nhx f6 Bxf6 22. Qxf6+ Kg8 23. Ne7+ 1-0**
45. Don't be distracted by the fact that White has an isolated queen pawn and Black has a monster knight on d5. King safety trumps all and Black's severe lack of development sealed his doom. **14. Ne5!**± **15. Qe6** (**14... Rxc1 15. Bxc1 Qc8 16. Bg5**±) The game continued **15. Rxc8+ Qxc8 16. Qb3! e6 17. Rc1! Qa8 18. Bg5** and White won a few moves later.
46. This standard type of position happens from many Catalan lines, where White has a monster bishop on g2 against Black's passive bishop on c8. While will regain the c4-pawn, and even though the pawn structure is symmetrical he has a long-term edge due to his better pieces. **11. Nbd2**± (Or **11. Na3 11... Bd6?** Losing another key tempo – now Black's position goes

downhill quickly (11... Nc6! 12. Nxc4 Nd5! keeps the game alive, but White is a bit better after 13. Bd2.) **12. Be3! Qc7 13. Nxc4** White's initiative is picking up steam, while Black has problems with the dark squares on the queenside.

47. This is a classic case where White's isolated queen pawn is a serious problem, since there is no attack to compensate for it. Black's bishop is ideally placed on g7, aiming at the isolated pawn. Compare this to positions where Black has the e6/f7/g7/h7 pawn structure and a bishop on c8. **11... Rc8!** ♭ This simple move takes over the open file. Black is slightly better. (11... Qa5?! was played in the game and allowed counterplay with 12. Qb3!)
48. This is another dream London System for White. White controls e5 and has nice attacking prospects against Black's king. **10. g4!±** The direct attack is best! 10. Rh3!? planning a rook lift with Rg3 was also possible. **10... Nxe5 11. dxe5!** White actually played 11. Bxe5, which could have allowed Black to get back in the game after 11... Ne4 12. Bxe4 dxe4 13. g5 and now Black missed 13...f6!®, after which he would have stood fine. **11... Ne4 12. g5!** with a big attack, for example: **12... Nxd2 13. Kxd2!** White connects the major pieces for the final offensive, while his king is surprisingly safe on d2.
49. White is clearly better due to his space advantage. Black has a bad bishop on c8 and no clear counterplay. Simple moves like 12.Bg5, 12.Re1 or 12.Qd3 maintain the edge. But 12.c5!? is an interesting thematic idea, stopping Black's freeing break ...c6-c5. In the game White preferred simple development with **12. Bg5!** and after **12... Ng4 13. h3 Nf6** (13... Nh2 14. Re1±) **14. Qd3** Black was just lost.
50. Eugene: GM Jesse Kraai decided to experiment in the opening in this fun streaming game. However, I was taught that you can't play chess like that. Black is not fighting for the center, not developing and creating a long-term weakness on the kingside. Surely, this is wrong? Indeed, according to Leela, 2...g5 is the 25th best move in the position. Here's how the game unfolded: **3. d4 g4 4. Ne5 h5 5. h4!** In order not to have to worry about any ...h5-h4 ideas. **5... d6 6. Nd3 Bg7 7. c3 Nc6 8. Bg2 Bd7 9. e4 e5 10. dxe5!** (10. d5 Nce7 would have allowed Black to play for ...f5) **10... Nxe5 11. Nxe5 Bxe5 12. Na3 Nf6 13. O-O Bc6 14. Re1 Qd7 15. Nc4 O-O-O 16. Na5 Ba4 17. b3 Bb5 18. a4 Ba6 19. b4 b6 20. b5 Bb7 21. Nxb7 Kxb7 22. a5 Qxb5 23. Bg5 Kb8 24. axb6 cxb6 25. Qc2 Rc8 26. Bxf6 Bxf6 27. e5 Bxe5 28. Qe4 1-0**
51. It's not often that you see the king on d2 with a board full of pieces! Yet White is much better after pretty much any normal move! Why? The key is the space advantage! Black is cramped and can't do much. A king is only weak if it can be attacked. **14. Kc2!±** was played in the game, but several other moves - g5, f3, Rc2, or Rg1 - would have been good as well. The king can drop back to b1 if necessary.

52. It's only natural to look for a forced mate upon first coming to this position. But when it turns out not to exist, then the question of the positional evaluation arises, and it is much more tricky. Surely the queen is more valuable than the bishop and knight? However, this is not the case here, due to the monstrous strength of the minor pieces. Black's king is totally exposed. White has at least seven moves (!) that give him a winning advantage. The most natural is **21. Ne5** with total domination and an unstoppable attack. For example: **21...Qa6 22.g4+ Kh6 23.Kg3! Qxe2 24.g5+ Kh5 25.Rd4+—**
53. Black's missing f-pawn leaves the light squares weak, but for the moment the bishop on f5 defends them, and Black is planning to gain a foothold in the center with ...e5. So... **5. d4!** The tempo loss here is irrelevant. Magnus stops ...e5 and prepares Bd3. **5... Qd7 6. Nc3 g6 7. Bd3±** (7. Bc4!?)
54. **17... Qb4±** Despite the odd appearance of the king on d8, White doesn't have the development to seriously threaten the king. Black's clump of pieces and pawns in the center controls a lot of key squares and is difficult to assail directly. Finally, without active support from White's army, the f6 pawn can become a weakness. ... Qb4 isn't the only good move, but Black doesn't mind a queen trade – all the advantages persist into the endgame. Next the king will walk to b7, where it will be quite safe, and the rooks will come into the game. White will have a hard time getting out the queenside pieces quickly enough.
55. In general a queen is better than a rook plus bishop, but in this position White can create an advanced passed pawn and the queen will be stuck babysitting it. Not a great job for a queen, but Black doesn't have many other pieces left, and he can't just let the pawn queen! For example: **28.b5 Qa7 29.a6! bxa6 30.b6!±**
56. I (Eugene) was happy with the outcome of the opening against the World Champion. White is two pawns down but Black's army is in disarray, with clear weaknesses. The key is to be patient. I was proud of my next, quiet, move: **16.Bd2!** White is about to win the b4-pawn and simultaneously opens up the battery against e6. The game continued: **16...b3 17.Nc3 Qd7 18.cxb3 Rb8 19.Ra3!** The a6-pawn is not going anywhere, and meanwhile White can activate the rook on the 3rd rank with a future b3-b4 in mind. **19...Nd5 20.Ne4!** Avoiding trades and transferring more firepower to the kingside. **20...Kg8 21.h4!** With the idea of meeting 21...Kh7 with 22.h5! **21...Qe8** (21...Kh7? 22.h5 gxf5?? 23.Nf6# would have been a nice self-mate!) **22.Bxa6 Bxa6 23.Qxa6±** I continued to play well later in the middlegame but spoiled all the hard work by transposing to an equal endgame and got duly outplayed by Magnus.
57. The key to evaluating this position is to focus on the pieces that are still on the board! Even though Black is down an exchange, he's almost winning due the fact that White is lacking development. **16... Qb6!** With this move Black stops White from castling, and now the h1-rook will never enter the

game. Black just needs to finish his development and open up White's king. **17. Qd2 O-O 18. Bd1 Nxe6 19. Bg3 Rd8 20. Bf2 Bc5 21. Qc2 Ned4 22. Bxd4 Nxd4 23. Qb1 Qh6 0-1**

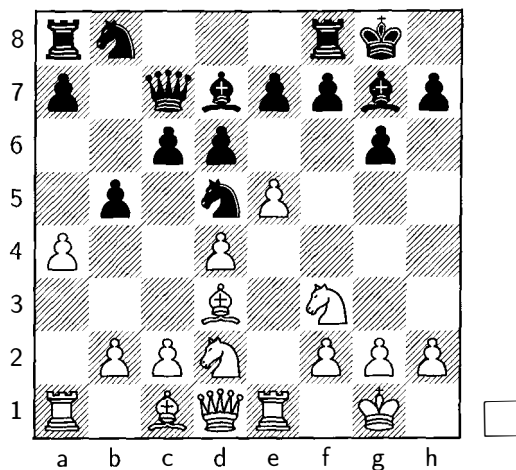
58. Don't be fooled by White's pseudo-attack here. Black is a solid pawn up with the bishop pair and nothing to fear! **13... c5!** The simplest, since the white center collapses (13... b6? was played in the game. After this mistake, White could have gotten a nice edge using the well-known tactical pattern **14. Nc6! Qd7 15. Nxe7+ Qxe7 16. Rxf6! Qxf6 17. Qe4** with the point that due to the threat of checkmate, the a8-rook falls.) After the correct **13...c5** a sample continuation is **14. dxc5 Qc7 15. Nb3 Nd7! 16. Nxd7 Bxd7** White has regained the pawn, but Black has the bishop pair, better pawn structure, and safer king.
59. At first it looks like Black is better, as White is about to lose the a5-pawn, and the d4-pawn is quite weak. However, did something about Black's kingside trigger your "spider sense"? **18. g4!** is the only way to keep the attack alive. White doesn't care about pawns and aims to break up the kingside. (18. Nc3?! was played in the game.) **18... fxg4 19. f5!±** with a big attack.
60. The computer says the position is close to equal, but in practice Black's chances are better after the next move. **21... h4!** A key move, distracting the bishop and opening up the h5 square for Black's knight. **22. Bxh4 Nh5** White's advanced pawns are more of a liability than an asset, as they've left a lot of weak points in White's position, and they are not restricting Black's pieces effectively. In the game, Carlsen collapsed quickly, showing just how difficult White's position is from a practical perspective. **23. Nce2 d5!** Another great move, further opening up the position and exposing the weaknesses in White's camp. **24. exd5 Rxd5 25. f4 Rdd8 26. Nf3 Rxd1 27. Rxd1 Qc7 28. Nfg1 Ne4** Black's initiative is picking up steam. Dubov went on to win convincingly.

Chapter 5

Visualization

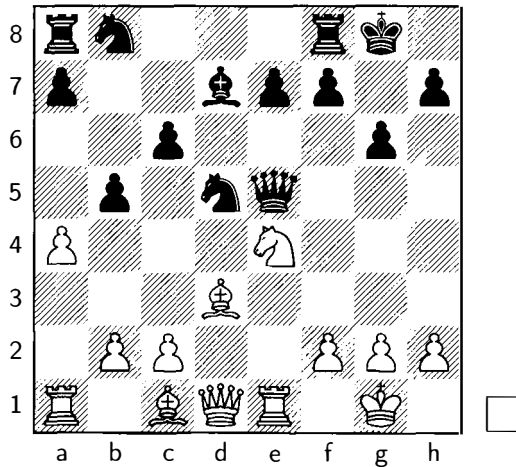
In this chapter we increase the difficulty level, as well as the similarity to a real game, by asking you to evaluate a position that may be a few moves away. In a sense, the position on the board is the least important one to evaluate, because you can't do anything to avoid it. But when it comes to potential future positions, it may still be in your power to guide the game in a different direction. Additionally, the ability to visualize positions is one of the core building blocks of chess skill, so it's never a bad idea to practice it.

Solon - Malinin 2021



In this position, White would like to play 11. **Ne4**, centralizing the knight and opening a line to bring out the bishop on c1. But this does give Black the option to win the pawn on e5. Therefore, we'd like you to evaluate the position after **11. Ne4 dxe5 12. Nxe5 Bxe5 13. dxe5 Qxe5**. As always, it's a good idea to take a shot at the problem on your own before reading our answer.

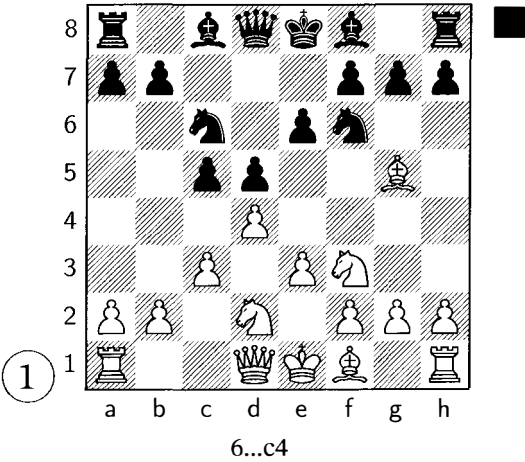
For reference, here's the position we're evaluating. Of course, the whole point of the exercise is that it's a bit harder to evaluate when you have to hold the position in your mind, but for this introductory example let's just review the position.



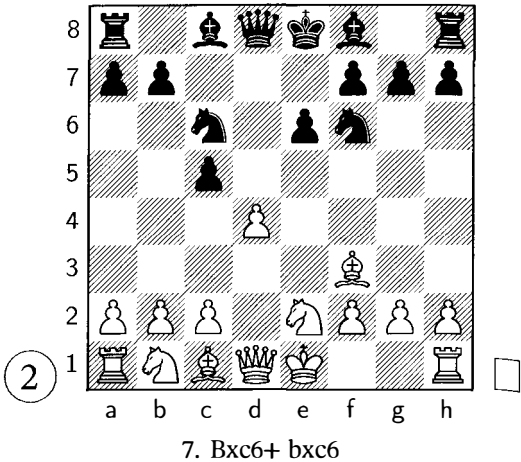
Black has won a pawn, but at what cost?! With the dark-squared bishop gone, Black's king is feeling quite drafty. Black's queen is lined up with the rook on e1. This will cost Black a tempo at some point. The knight on b8 is stuck, which in turn traps the rook on a8. White has the bishop pair.

All in all, White is much better. There is no direct tactical win as of yet; White's myriad advantages simply add up to a lot more than a pawn. This is not too hard to see when the position is on the board, but if your visualization is fuzzy, you might be afraid to give up the pawn!

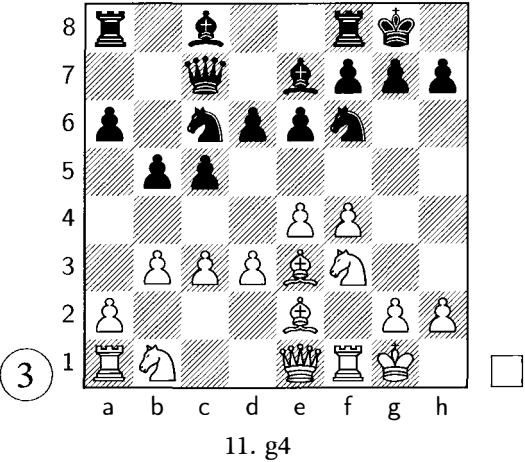
Analysis Position 2014



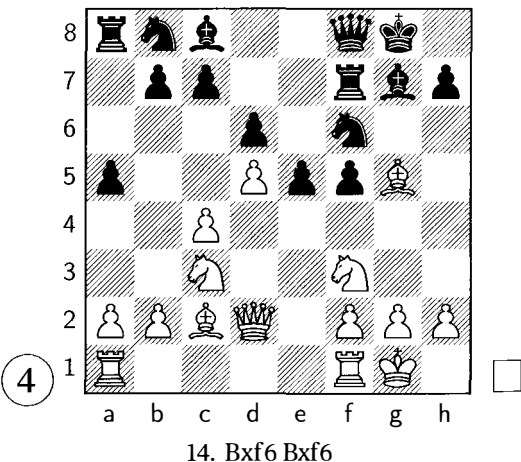
Bergin - Farrelly 2019



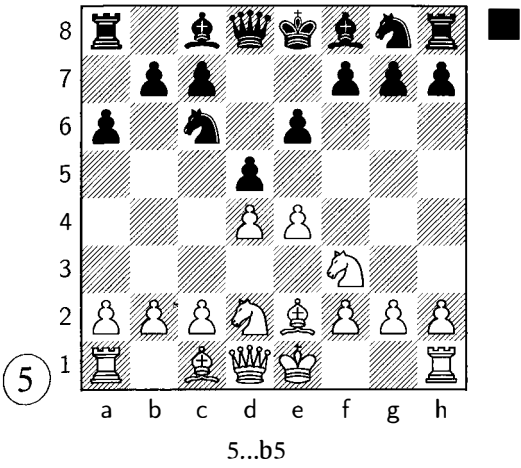
Maba - De Oliveira 2019



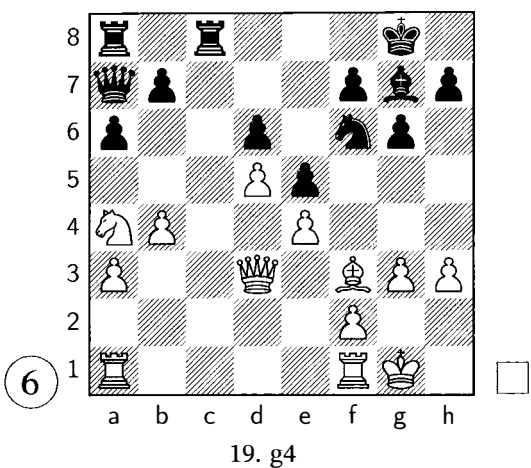
Bajec - Gratton 2019



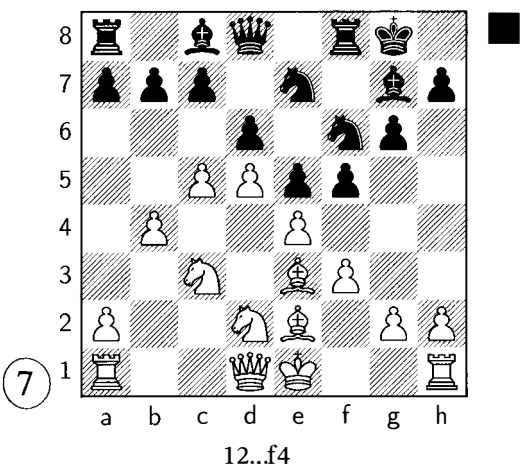
Bomfim - Custodio 2019



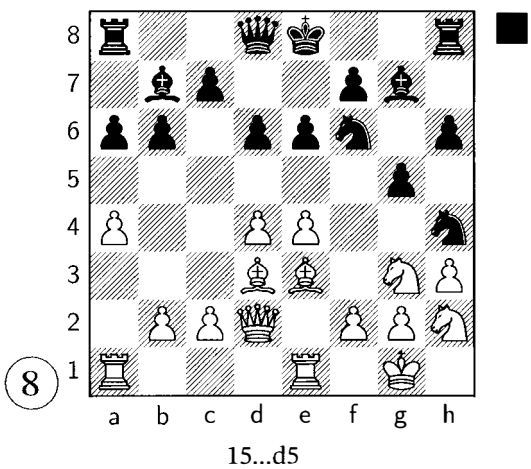
Uesugi - Perelshteyn 2009



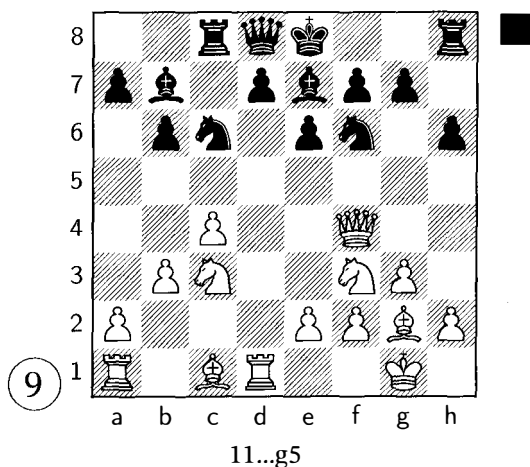
Perelshteyn - Chavez 2007



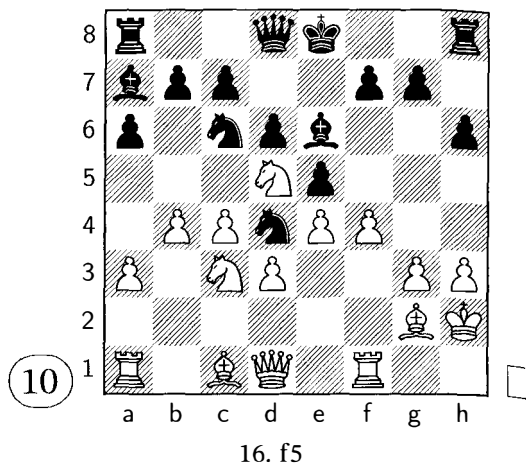
Perelshteyn - Liu 2008



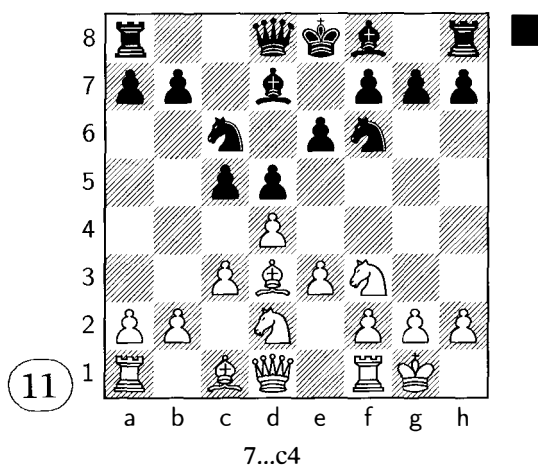
Andersson - Ljubojevic 1973



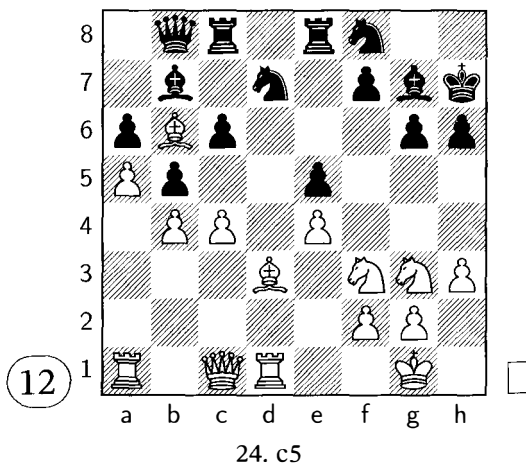
Kramnik - Carlsen 2011



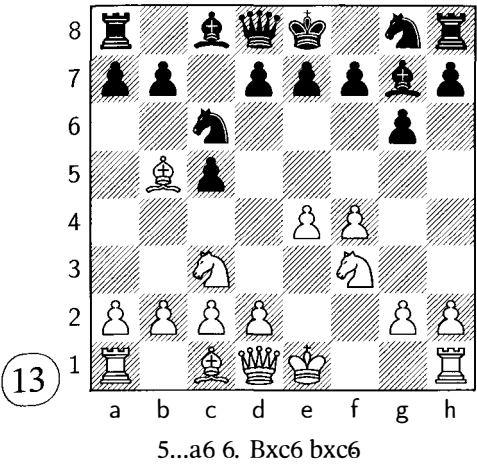
Krueger - Tesar 2019



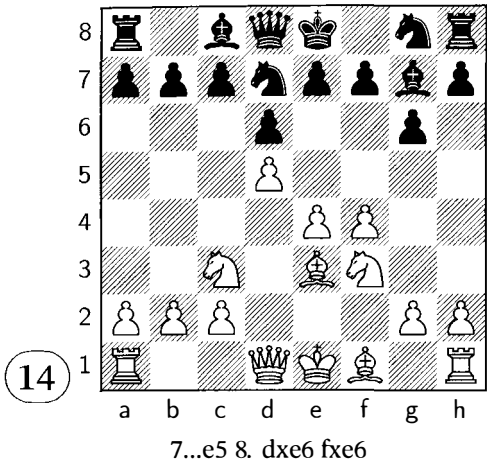
Carlsen - Amonatov 2018



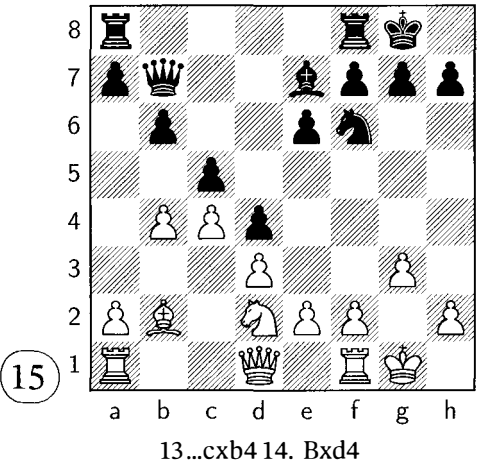
Perelshteyn - Ibrahimov, R. 1996



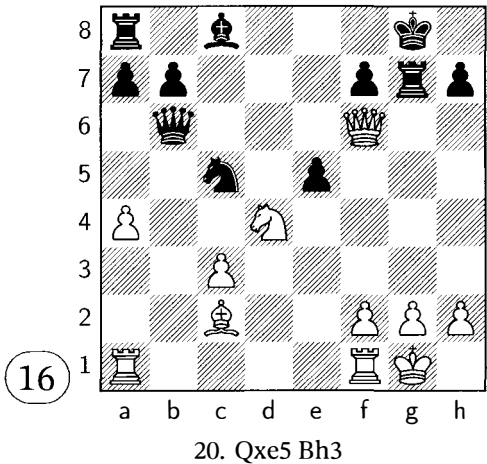
Kiladze - Kupatadze 2020



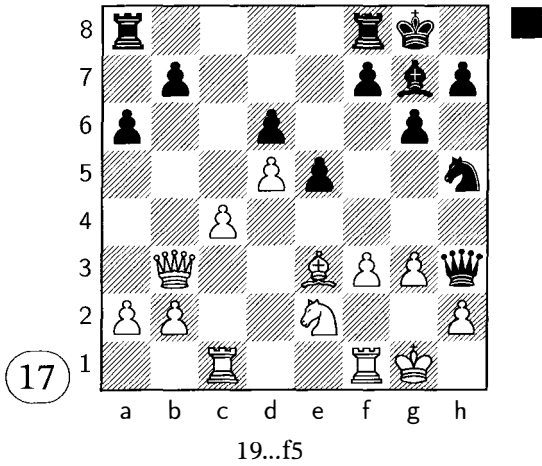
Analysis Position 2022



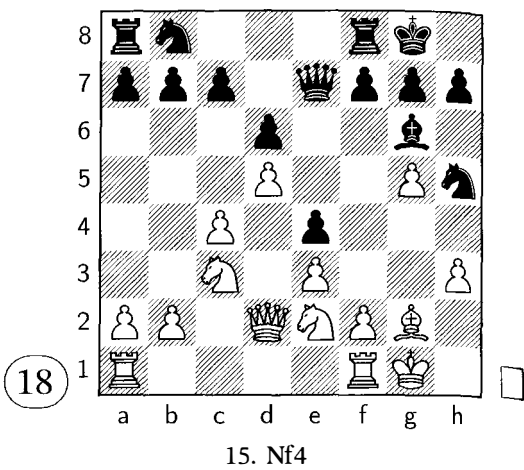
Vinella - Manteiga 2019



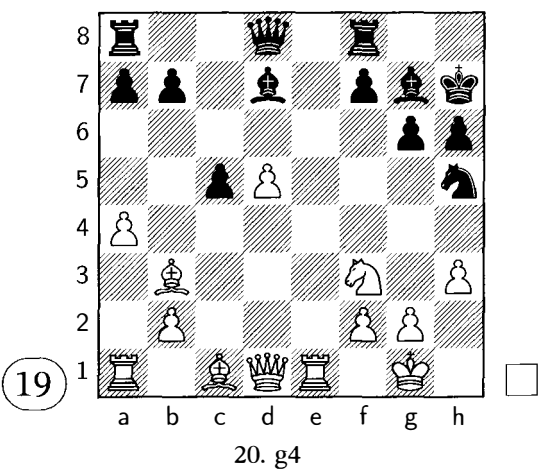
Serafim Junior - Martins 2019



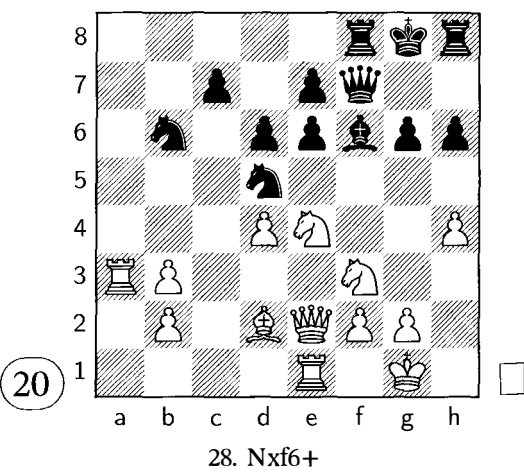
Yanayt - Perelshteyn 2014



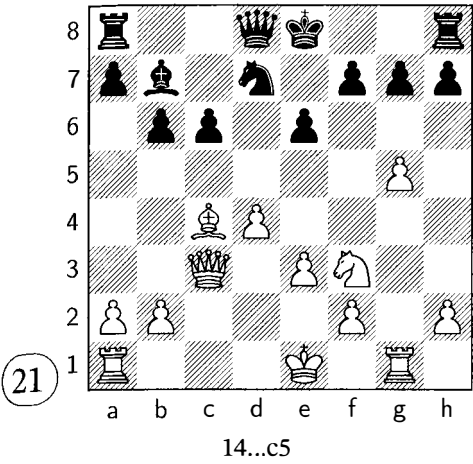
Perelshteyn - Kiewra 2014



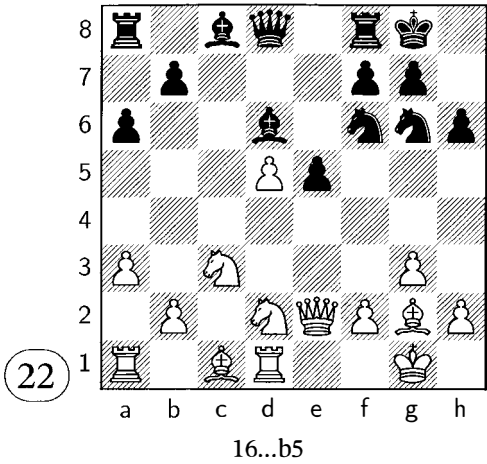
Perelshteyn - Carlsen 2017



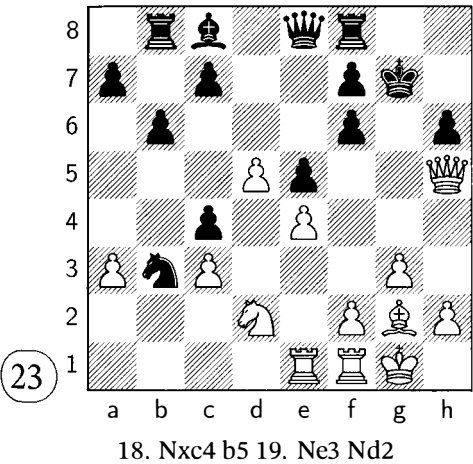
Perelshteyn - Vigorito 2007



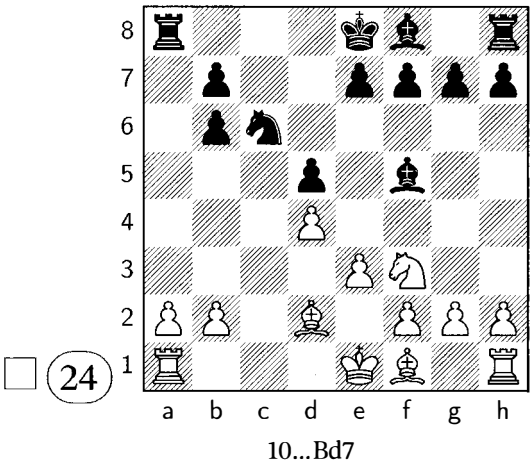
Perelshteyn - Shmelov 2008



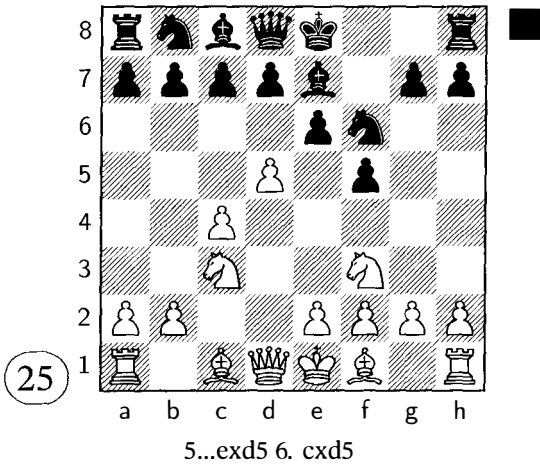
Perelshteyn - Chua 2017



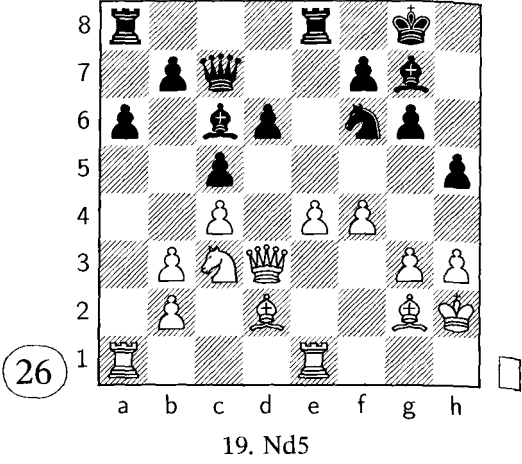
Epishin - Khalifman 1996



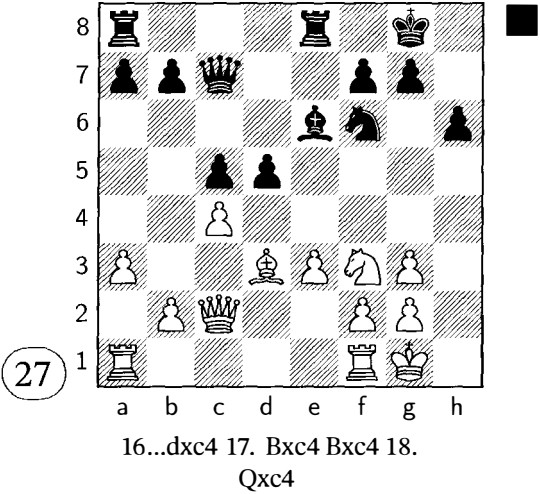
Steinitz - Chigorin 1892



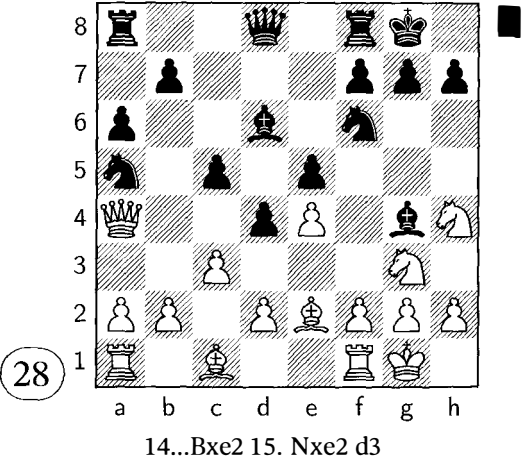
Schitco - Theodorou 2022



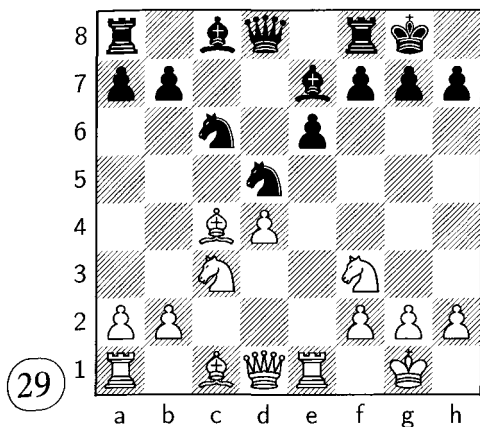
Onischenko - Solon 2022



NN - Solon 2022

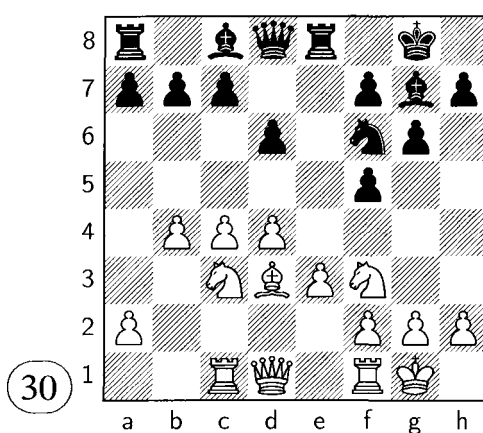


Botvinnik - Alekhine 1938



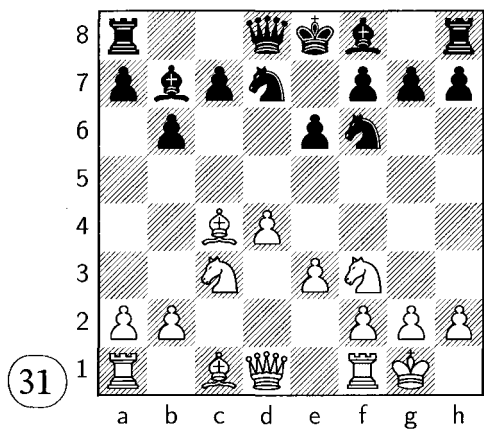
10...b6 11. Nxd5 exd5 12.
Bb5

Werren - Rodriguez Naranjo 2019



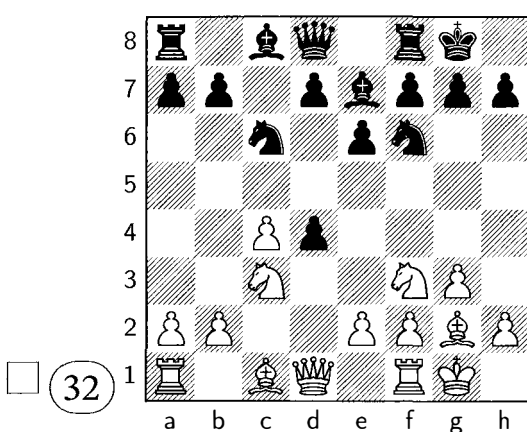
11...c5 12. bxc5 dxc5 13. d5

Tharushi - Zavivaeva 2020



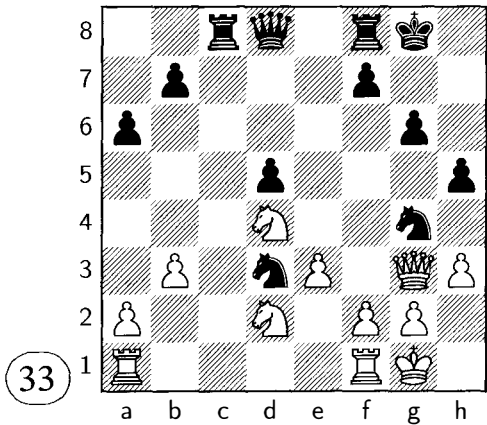
8. e4 Nxe4 9. Nxe4 Bxe4

Iglesias Rodriguez - Salinas Tomas 2019



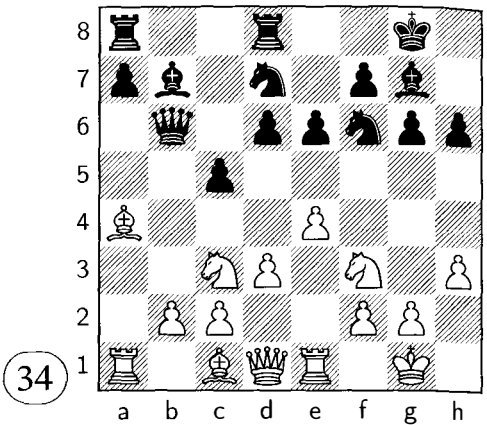
8. Nxd4 e5

Online Game 2022



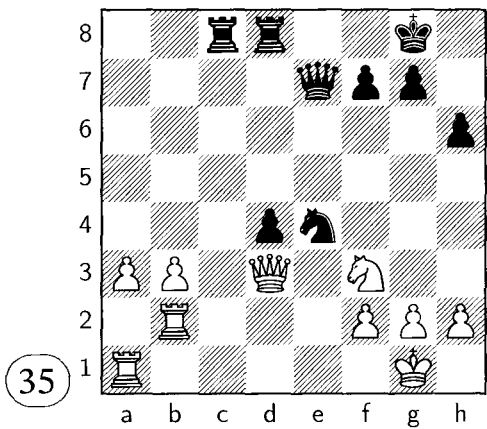
20...Ngxf2 21. Rxf2 Nxf2 22.
Qxf2

Carlsen - Dreev 2017



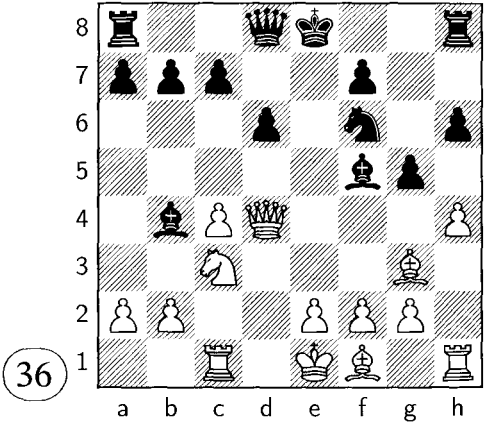
13...d5

Training game 2022



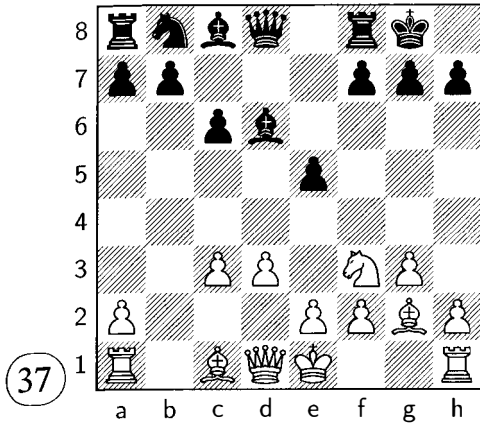
23. Re2 f5

Keres - Richter 1942



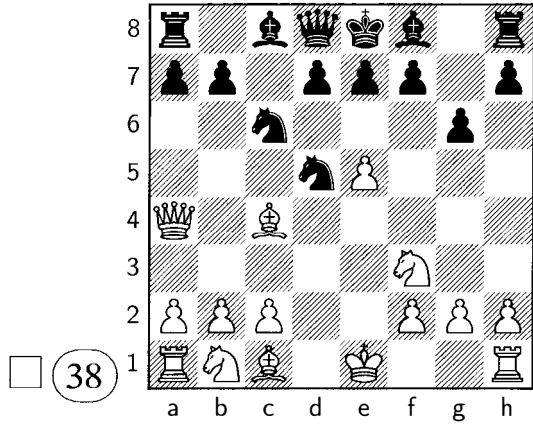
11...Kd7

Finnsson - Gunnarsson 2019



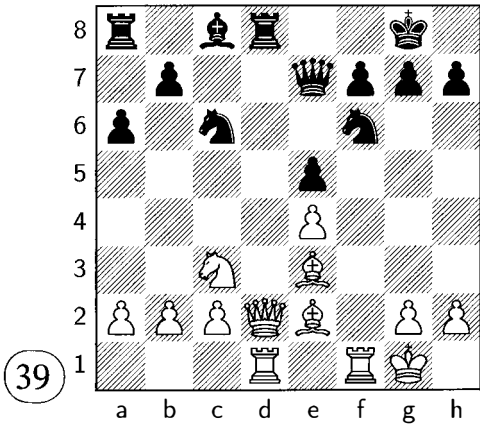
9. O-O b5

Abdul Hamid - Teh 2022

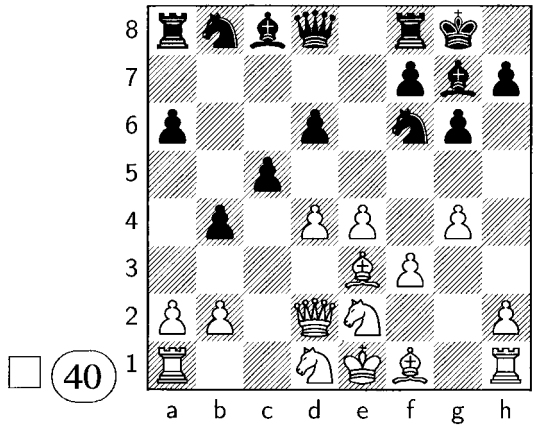


7...Nb6 8. Bxf7+ Kxf7

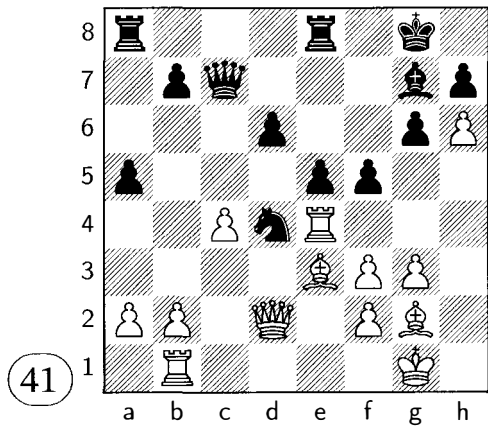
Pitkeathly - Doyle 2019

15. Nd5 Nxd5 16. exd5 Be6
17. c4

Yang, D. - Perelshteyn 2010

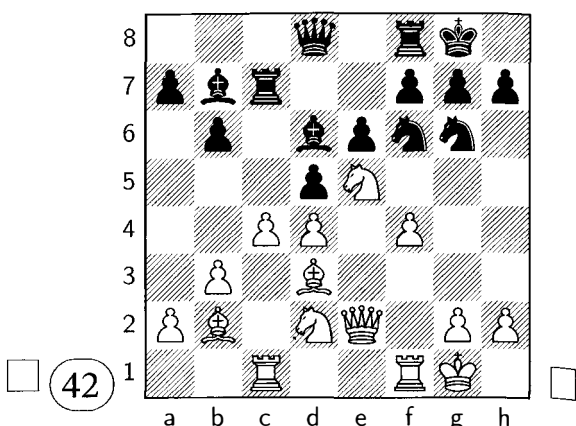
13. dxc5 dxc5 14. Qxd8
Rxd8 15. Bxc5

Carlsen - Yuffa 2015



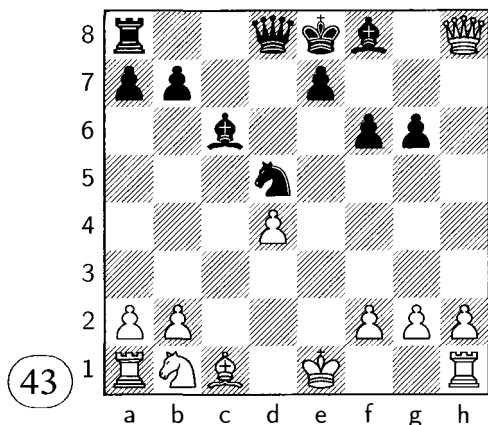
21. Rxd4 exd4 22. Bxd4
Bxd4 23. Qxd4

Student game 2022



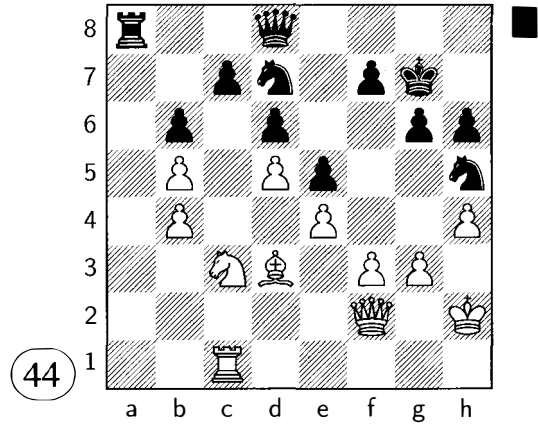
15. f5 exf5 16. Rxf5

Srivastava - Bock (Analysis) 2022



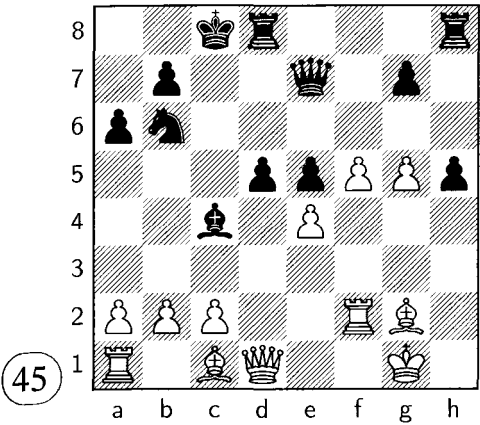
1...Qa5+ 2. Bd2 Qb5

Fier - Carlsen 2022



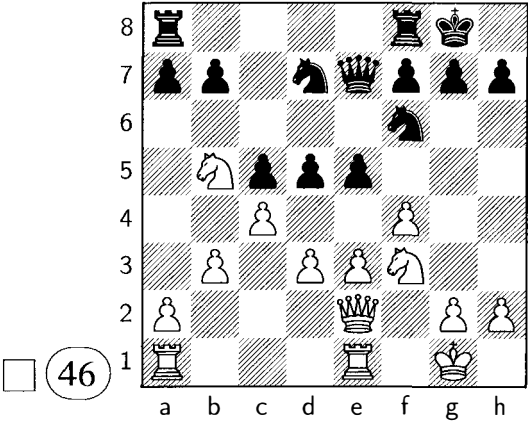
29...g5 30. hxg5 Qxg5

Perelshteyn - Vajda 1999



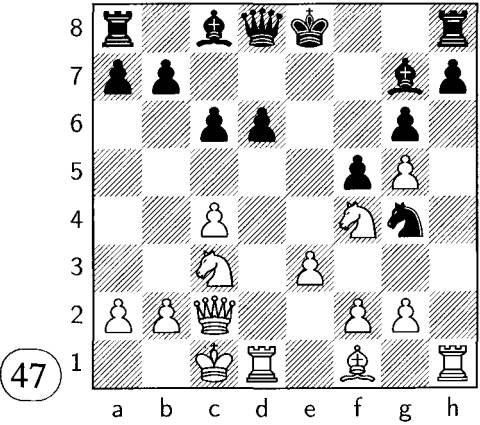
22. b3 dxe4 23. Qe1 Bb5

Andersson - Hort 1971



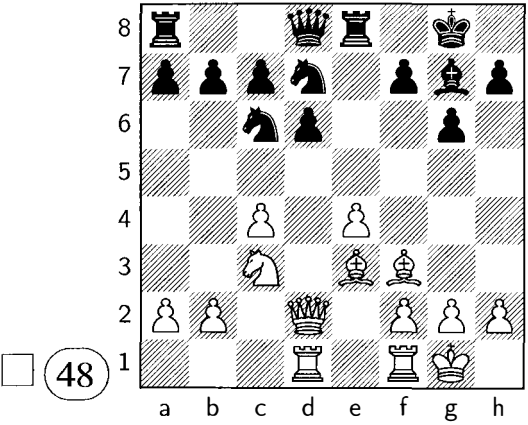
16...e4 17. dxe4 dxe4 18. Nd2

Perelshteyn - Onischuk 2010



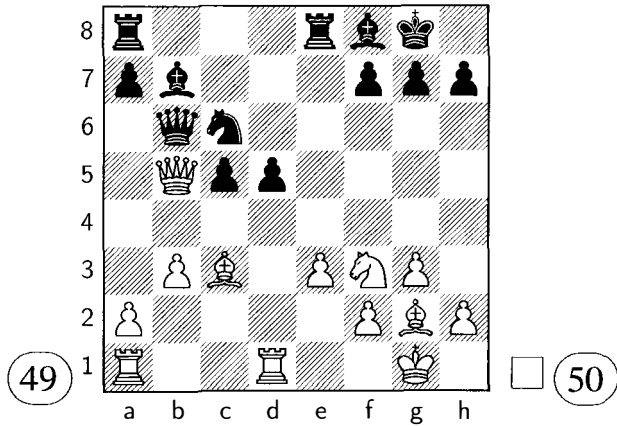
13. c5 d5 14. Ncxd5 cxd5

Wojtaszek - Caruana 2021



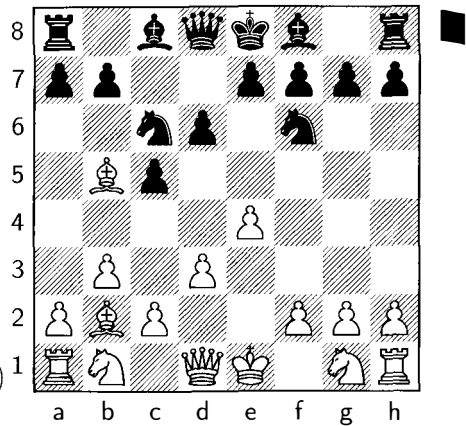
13...Bxc3 14. Qxc3

Kramnik - Jones, G. 2012



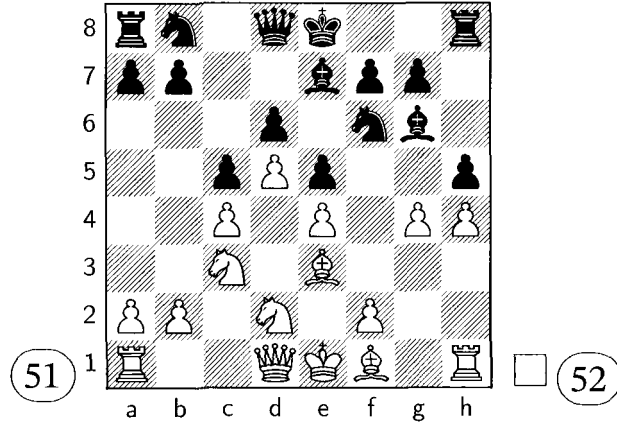
17. Qxb6 axb6 18. Rxd5

Rodriguez Silva - Sydoryak 2020



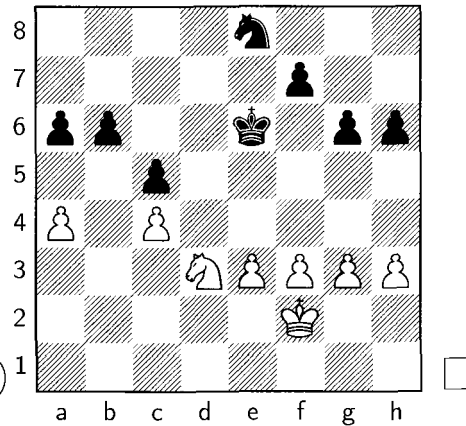
5... g6 6. Bxc6+ bxc6 7. e5
dxe5 8. Bxe5

Solon - NN 2022



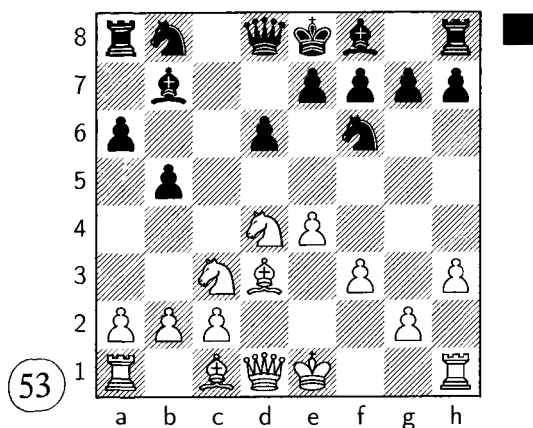
12. g5 Ng4 13. Bh3 Nxe3 14.
fxe3

Carlsen - Mamedyarov 2022



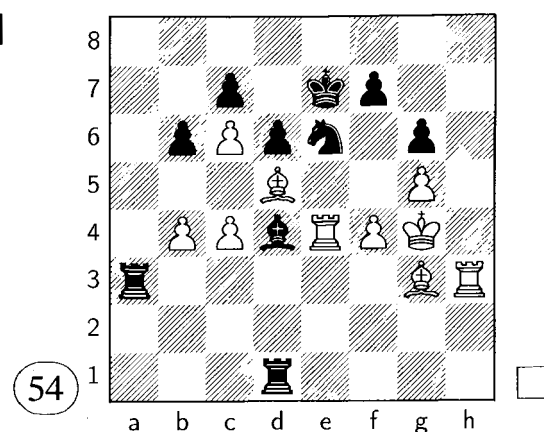
36. a5 bxa5 37. Nxc5+ Kd6
38. Na4

Vivancos Munoz - Pera Muntasell 2019



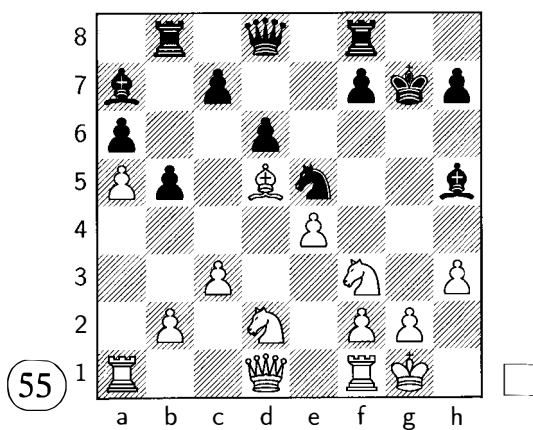
8...Nbd7 9. g4

Perelshteyn - Howell 2017



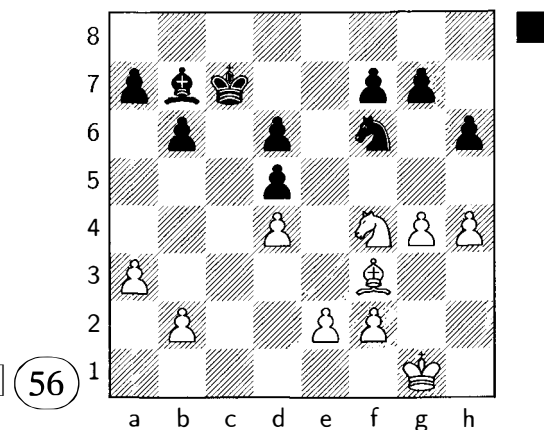
46. Bxe6 fxe6 47. Rh7+ Kf8
48. Rxe6 Rg1

Maciej - Perelshteyn 2014



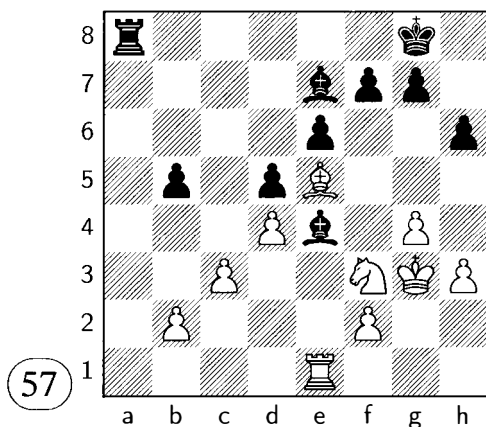
18. Nxe5 Bxd1 19. Nc6 Qf6
20. Raxd1

Kasparov - Ivanov, A. 1981



30...g5 31. hxg5 hxg5 32.
Nh3 Nh7

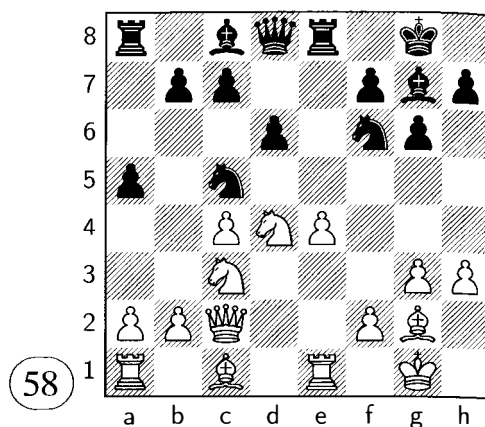
Training Game 2022



57

22...f6 23. Bc7 Rc8 24. Bf4
g5 25. Be3 Bd6+ 26. Kg2

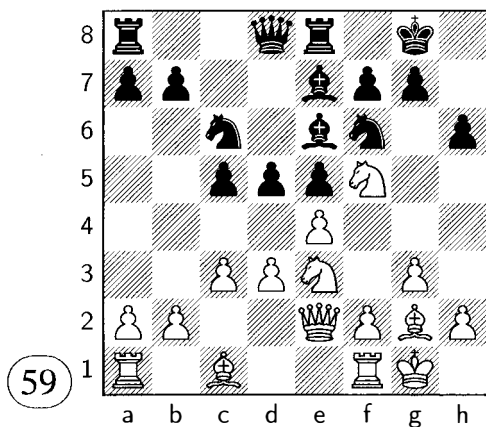
Opening Analysis 2022



58

12...Nfxe4 13. Nxe4 Bxd4 14. Bg5
Qd7 15. Nf6+ Bxf6 16. Bxf6

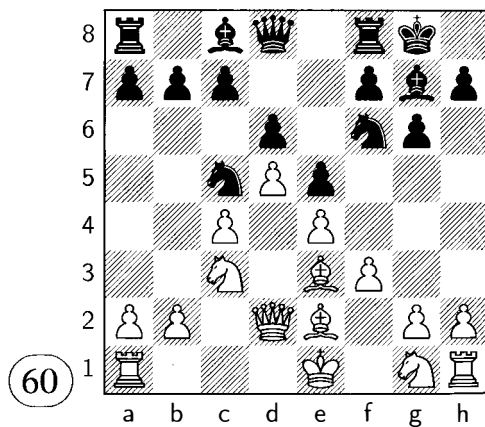
Abhimanyu - Praggnanandhaa 2022



59

13...d4 14. Nd5 Nxd5 15.
exd5 Bxf5 16. dxc6 bxc6 17.
Bxc6 Bd7 18. Bxa8 Qxa8

Jonsson - Perelshteyn 2017



60

9...Nh5 10. g4 Nf4 11. Bxf4
exf4 12. Qxf4

Answers

1. At first **6...c4** looks like a good idea. Black extends his long pawn chain and takes away the d3 square from the bishop. However, this is a mistake as it loosens the grip in the center. After **7. e4!±** White takes advantage of the pin and builds his own center, with a big threat of e4-e5. Notice how Black's c8-bishop is totally locked in, while White will be able to eventually activate its counterpart via e2-d1-c2.
2. **7. Bxc6+? bxc6∓** White has traded his best piece for the knight, thinking that he has weakened Black's pawns. In reality, Black will trade his c5-pawn for d4 and open up the game for his bishops. Better was **7. Be3! Qb6 8. Nbc3!**, going for development and the initiative.
3. **11. g4?** After this unsound sacrifice, Black was afraid of a ghost attack on the g-file. In reality, White has no threats! After **11... Nxc4!∓** Black would be much better. White has to waste a tempo moving the bishop. Black will follow up with ...f7-f5 and start his own attack. But in the game **11... d5 12. e5 Nd7?** was played. Black missed a second chance to capture the pawn with **12... Nxc4!∓**.
4. **14. Bxf6?** White trades his bishop for no apparent reason and gives Black a nice bishop pair advantage. **14. Rae1±** would have maintained a nice edge, as Black's typical KID structure with pawns on e5 and f5 is rather weak. Similar to the hanging pawns concept, moving either of these pawns will give White an outpost on e4 or f4. **14... Bxf6∓ 15. c5?** and this follow-up is rather bad as Black's knight now enters the game. **15... Na6! 16. cxd6 cxd6 17. Nb5 Bd8! 18. Ng5 Bxg5 19. Qxg5+ Rg7 20. Qh6?? Rxc2+ 0-1**
5. **5... b5?±** This move brings Black nothing but trouble. Not only does it waste a vital tempo in the opening, but it also makes it much harder to achieve the ...c7-c5 break after White's e4-e5 move. **5... Nf6 6. e5 Nd7** followed by ...f7-f6 is the standard way to seek counterplay in this kind of French Defense. **6. O-O Nf6 7. e5 Nd7 8. c3±**. White has a dream French pawn chain.
6. **19. g4?∓** This overoptimistic pawn thrust certainly will not allow White to attack on the kingside. He has no pieces over there, nor does Black have any weaknesses. White will feel the weakening of the f4-square after ...Bh6 though, which also locks down control of the c-file for Black.
7. **12... f4?** is a classic mistake! Starting the attack before White has committed his king is wrong, since there's no monarch to target. **13. Bf2±** White enjoys a big strategic advantage. The king is safe on e1, and he can start the standard play on the queenside with Nc4, a2-a4, etc.
8. **15... d5?** Bishops do best with a flexible pawn center, so locking the pawns in this way is a mistake. **15... Ng6** was perhaps a better try, but White is

still clearly better. **16. e5!±** White has created a deadly pawn chain in the center, gaining space and killing off both of black's bishops.

9. **11... g5?±** Quite a shocker of a move, coming from a top GM at the time. Black's kingside has now been severely damaged for no apparent reason. White stands clearly better after natural moves: **12. Qd2 Bc5 13. Bb2 Ne7 14. Ne5** Ulf likes to keep things simple and trades off some pieces. **14... Bxg2 15. Kxg2 Nf5 16. Qd3 Qc7 17. Nb5 Qb7+ 18. Qf3 d5** Suicidal, but the endgame after **18... Qxf3+ 19. Nxf3 Be7 20. Nxa7±** is not fun either. **19. cxd5 Nxd5 20. Ng4 Be7 21. Bxh8 h5 22. Rxd5** 1-0
10. **16. f5!±** Usually, grabbing space is a good idea in chess, and this puzzle is no exception. What is remarkable is that, while Kramnik played this game at a very high-level, he still could not crack Magnus! **16... Bd7** Stockfish is very happy here as White and gives almost +2 for most moves. The game continued: **17. Rb1 Nb8 18. c5! dxc5 19. bxc5 Bc8±** A remarkable position! Most of Black's army is on the back rank, and his knight on d4 is more of an ornament than a threat. White is much better. However, Magnus turned into Houdini, and even Kramnik was unable to bring home the victory. Black could have played **19... Bxc5! 20. Rxb7 Bd6**, which is unpleasant, but he's still holding on.
11. **7... c4?** This is a very common mistake. Black thinks he's winning a tempo and expanding his pawn chain, but in reality he is giving White an easy plan with e3-e4. Better were either **7... Qc7=** or **7...Bd6=**. **8. Bc2±** The game continued: **8... Bd6 9. Re1 O-O 10. e4! Bf4 11. e5!±** White has built a deadly attacking pawn chain and has a big edge.
12. **24. c5!±** Magnus shows deep understanding of the position. White has locked in his b6 bishop, but the extra space and control over d8 and d6 gives him a big edge. The game continued: **24... Ne6 25. Bb1!** Opening up the d-file for his rooks. **25... Nd4 26. Ra3 Nf8 27. Nxd4 exd4 28. f4! Re7 29. e5!** Preparing Ne4-g6, after which Black is toast.
13. **5... a6 6. Bxc6 bxc6±** White is clearly better as Black's doubled pawns are a long-term weakness. Notice that Black's bishop pair is not as important here, since he can't open up the position. The game continued: **7. d3 Nf6 8. O-O O-O 9. Qe1!** A standard idea in the Grand Prix is to transfer the queen to h4, play f4-f5, followed by Bh6 with a big attack. **9... Rb8 10. f5** (10. b3!± is also quite strong, preparing Bd2.) **10... d6 11. Qh4 e6 12. fxg6 fxg6 13. e5! dxe5** and now **14. Bg5!** would have been even stronger than game's 14.Rb1.
14. **7... e5? 8. dxe6! fxe6±** At first it may seem that Black has improved his position by removing White's d5-pawn from the center, but as is often the case, everything is about time. Black has lost a key tempo, and now White is able to generate a big attack, which is deadly, given that White already has more space. **9. Bc4!** The simplest. **9. Qd2±** followed by O-O-O is also good.

- 9... Nb6 10. Bb3 Nf6 11. O-O O-O 12. Ng5 Re8 13. f5!**± and White went on to win the game.
15. **13... cxb4 14. Bxd4**± An odd situation where Black's doubled queenside pawns are more mobile than White's nice-looking central pawns. Black will follow up with ...a7-a5, ...b6-b5, and continued expansion on the queenside, while White lacks an active plan.
16. **20. Qxe5 Bh3** Here White panicked and played the losing move, whereas pretty much any move with the f1-rook would have won the game! **21. Rfe1!** (21. Bxh7+? Kxh7 22. Qh5+ Qh6—+ was played in the game.) **21... Rxe2+ 22. Kh1**+— and now it's White's turn to attack, with Rg1 coming. Of course, 21... Bxg2 would have run into 22. Re8#!
17. **19... f5!**± Black gets a nice advantage on the kingside with this standard pawn push, as the threat of ...f5-f4 is too strong. Black isn't worried about the pawn on b7, there are bigger fish to fry. **20. c5** (20. Qxb7 would be met with the same reply.) **20... f4!** with a huge attack, for example: 21. gxf4 exf4 22. Bd4 Rf5—+
18. **15. Nf4?** (15. h4=) **15... Qxg5 16. Nxe4**± White has won a center pawn for a wing pawn – isn't that theoretically a good trade? Not here! White's kingside is now ruined and Black has a direct attack. **17... f5! 18. Nc3 f4!**± and the game didn't last long: **19. Kh2 Nd7 20. Rg1 Ne5 21. b3 Qh6 22. Ne4 Ng4+ 23. hxe4 Ng3+ 24. Bh3 Nxe4** 0-1
19. **20. g4!**± Normally, moving a pawn two squares in front of one's king is too weakening. However, in this position White controls all the key squares, while Black's pieces are paralyzed. The game continued **20... Nf6 21. Ne5!** Centralization! **21... h5** Black tries to free himself, but walks into a deadly pin. **22. Bg5! b5 23. Qf3 c4 24. Bc2 Bc8 25. d6** Black now resigned, as after 25... Rb8 26. Rad1, he's in zugzwang.
20. **28. Nxf6+?** Eugene: If there's a way to turn back time, this is the one move I would like to take back! I had the World Champion on the ropes for most of the game after sacrificing two pawns in the opening, but now gave away all my advantage with this simplifying move in order to win one pawn. 28. b4! was a great move that I missed. Black is basically paralyzed while White has all the time in the world to prepare his final assault. Interestingly enough, I could not find a forced win even though modern engines give White +1.3. Magnus is just too tough to crack! **28... exf6 29. Qxe6 Qxe6 30. Rxe6 Kf7 31. Re1 Rb8**± The dust has settled. White has an extra pawn but it's doubled and weak on b3. Black has a monster knight on d5. Black is slightly better and Magnus won in an impeccable endgame grind.
21. **14... c5?** runs into an instructive motif **15. d5!**± **O-O** (15... exd5? 16. Qxg7 Rf8 17. O-O-O dxc4 18. Ne5+—) **16. O-O-O!** (16. dxe6!? Bxf3 17. exd7 Qxd7 18. g6! is another interesting way to play.) **16... exd5 17. Bxd5 Bxd5 18.**

Rxd5± Black has succeeded in trading the light square bishops, but has lost the control over the d-file.

22. **16... b5?±** is a mistake, as it weakens Black's queenside too much. **16... Bg4!** is a better try, with a roughly even position. The game continued **17. Nde4! Nxe4 18. Nxe4 f5 19. Nxd6! Qxd6 20. Bd2±** and thanks to the threat of Bb4 White's d-pawn becomes mobile, cutting Black's position in half.
23. **18. Nxc4! b5** (18... Ba6 19. Ne3!±) **19. Ne3 Nd2 20. Bh3!±** White happily sacrifices the exchange in order to obtain the f5-square for his knight. Possession of this strong outpost, and Black's weakened king, give White a nice edge. **20... Bxh3 21. Qxh3 Rh8 22. Nf5+ Kf8 23. Kg2 Nxf1 24. Rxf1** and White eventually converted his advantage.
24. **10... Bd7?!±** The astute reader may remember this position from the game Janowski-Capablanca, New York 1916. Capablanca won in brilliant style, and many annotators gave this move an exclamation mark while praising Capa's endgame skills. But what positional factor is in Black's favor? The half-open a-file perhaps, but can that really outweigh the doubled isolated b-pawns and White's superior development? In reality, better was **10... f6!±** followed by kingside expansion with ...g5 and .h5, keeping the game equal. **11. Ne5!** After this improvement, White is slightly better due to Black's doubled and isolated b-pawns. In the original Janowski-Capablanca game, **11. Be2=** was played, with rough equality. **11... Nxe5 12. dxe5 e6 13. Bc3** (13. a3! is more accurate, planning to meet ...b6-b5 with Rc1.) **13... Be7 14. Bd3 O-O 15. a3 Rfc8 16. Kd2±** White is clearly better, and his plan is to create a second weakness by advancing the kingside pawns. Black has no counterplay and just has to sit and wait.
25. **5... exd5?** Chigorin was a great attacker, but here he makes a poor judgment call on the resulting pawn structure. **5... O-O** or **5... Ne4** would have been preferable, keeping the tension in the center. **6. cxd5±** White now has a long-term edge: he controls more space, Black has a target on c7, and ...d6 will weaken the e6 square, which can be exploited by Nd4. The game continued: **6... O-O 7. g3 d6 8. Bg2 Nbd7 9. O-O Ne5 10. Nd4!±** White avoids the exchange of knights and instead aims at the outpost on e6. White is much better.
26. **19. Nd5!** At first this seems like a concession, as White, while having more space, trades a piece and also blocks the d5-square. **19... Nxd5 20. cxd5 Bb5 21. Qc2±** However, it turns out that **22.Bc3** is a serious threat. Black will be left with no counterplay and White will slowly prepare the e4-e5 push.
27. **16... dxc4 17. Bxc4 Bxc4 18. Qxc4≡** This simplification looks harmless, but the resulting position favors Black because of the respective pawn majorities. Black's queenside majority is mobile and can spawn a passed pawn. White will find it much harder to push his majority on the kingside because of the doubled g-pawns and because doing so would expose his king.

28. **14... Bxe2 15. Nxe2 d3**—+ The d3-pawn is a "bone in the throat", paralyzing White's whole position. White would love to surround and win the advanced pawn, but it's not going to happen because Black can reinforce it with ...b7-b5 and ...c5-c4 at any time.
29. **10... b6?** This is a classic example, and perhaps even a turning point in chess history, showing Botvinnik's superior evaluation skills. Alekhine, who had just taken back the World Championship title from Max Euwe in their 1937 rematch, failed to properly evaluate the resulting position. **11. Nxd5! exd5 12. Bb5±** Despite the symmetrical pawn structure, White is clearly better because of his more active pieces. Black has a hard time stabilizing the knight on c6. **12... Bd7 13. Qa4! Nb8 14. Bf4 Bxb5 15. Qxb5 a6 16. Qa4 Bd6 17. Bxd6 Qxd6 18. Rac1±.** White controls the two open files while Black is lacking in development and coordination. Botvinnik went on to win a brilliant game.
30. **11... c5! 12. bxc5** (12. Qb3! was the better try. Nevertheless we still prefer Black after 12... f4!±, seeking dynamic play.) **12... dxc5 13. d5?** ± White has created a protected passed pawn, but he stands worse. Why? Above all, Black has a monster bishop on g7. Meanwhile, the d5-pawn is easy to blockade and White is left with no counterplay. Instead, 13. dxc5! looks like an ugly move, but White will have chances for equality after 13... Nd7! 14. Qc2 Nxc5 15. Rfd1 Qa5 16. Nd5. **13... Ne4! 14. Ne2 Nd6**± Black's knight has reached its ideal blockading outpost on d6, and together with his partner, the g7-bishop, Benoni-type counterplay with ...a7-a6, and ...b7-b5 is coming.
31. **8. e4!** White played 8.b3 in the game, missing this strong idea. **8... Nxe4 9. Nxe4 Bxe4** and here White can just play **10. Re1!±** (10. d5!± was also strong.) **10... Bxf3 11. Qxf3** with a nice lead in development and a big attack. For example: **11... Bb4** (11... Be7 12. d5!±) **12. Bg5! Qxg5 13. Qxa8+ Qd8 14. Qxd8+ Kxd8 15. Re2±** with an exchange up in the endgame.
32. **8.Nxd4 e5?** This is a serious positional mistake, weakening the d5- and f5-squares. Normal would be either 8... d5 9. cxd5 Nxd5 10. Nxd5 exd5 11. Be3± when White still better due to pressure on the isolated queen pawn; or 8... a6 9. Bf4!±, also with a small plus for White. **9. Nf5!±** Even better than the game's continuation of 9.Nc2, with a small edge. Eliminating the dark-squared bishop accentuates the weaknesses Black created by pushing ...e5. **9... d6 10. Nxe7+ Qxe7 11. b3±.** White is much better. His bishops dominate, he controls the d5 outpost and has a clear target on d6.
33. **20... Ngxf2?** is a big mistake as White's knights will dominate the rook in the resulting middlegame. Instead, 20... Nge5= would maintain equality. **21. Rxf2 Nxf2 22. Qxf2±** White will eventually consolidate with Qf4 and Re1, followed by a kingside attack. Black does have some counterplay on the c-file but no entry points.

34. **13... d5?** Allows White a standard central pawn push. **14. e5! Nh7 15. Bxd7!** Notice how quickly Magnus adapts to the new position. He abandons the bishop pair to lock up the center. **15... Rxd7 16. d4! cxd4 17. Ne2±**, with a nice grip on the center.
35. **23. Re2? f5±** Pinning the knight looks natural, but it just prompts Black to anchor it with a pawn, which is a good idea anyway. Black's advanced d-pawn and control of the center are worth more than White's two passed queenside pawns, which are a long way from queening. **24. Nd2 Rc3!** Showing the value of having f5 included. This intermezzo would not have been possible if White had played Nd2 a move earlier. As it stands, the queen has to move and the d-pawn will rumble forward.
36. **11... Kd7?±** It's interesting that at the time, probably influenced by the fact that Black ended up winning, this move was hailed as brilliant by Alekhine and other top players. But can you really walk your king through an open center like this? **12. Rd1 Ne4 13. c5!** Not an easy move to find, but it should have been possible for the likes of Keres and Alekhine, who are famous for their dynamic play. (Keres actually played 13. Qe5?, which was the real mistake. After 13... Bxc3+ 14. bxc3 Nxc3 15. fxg3? Bg6± Black was better.) **13... Bxc3+ 14. bxc3 Nxc3 15. fxg3±** White is clearly better, even though his pawn structure is damaged. Black's king is just too weak. For example, **15... Qe7 16. g4! Bg6 17. cxd6 cxd6 18. hxc5** and Black can't take on g5.
37. **9.0-0 b5?** This move has no real upside, but many downsides: 1) It weakens the long diagonal; 2) It wastes an entire tempo; 3) It weakens the queenside pawn structure. 9... Re8, 9... h6, or 9... Na6!? are all playable, but we prefer White anyway due to his strong center. **10. a4!** The simplest, but pretty much any developing move would give White a big edge. **10... Bb7 11. Qb3±** White is much better, with clear targets and a better pawn structure. 11. d4! is also quite strong, since 11... e4 is met by 12.Ng5, winning material, and if 11... exd4 12. Nxd4± when Black will not be able to hold the queenside together.
38. This is a completely unsound sacrifice! White gets a few checks but nothing more. **7...Nb6 8.Bxf7+?** (better is 8. Qb3 Nxc4 9. Qxc4 d5! with a small edge for Black due to his bishop pair.) **8... Kxf7 9. Qf4+ Kg8±** White soon ran out of ideas and Black was better. The game continued: **10. Nc3 Bg7 11. e6** Desperation, but White was already lost. **11... dxe6 12. O-O Nd5!** Always try to simplify when you're ahead! **13. Qc4 Nxc3 14. bxc3 Qd5! 15. Qe2 h6!** Preparing ...Kh7 **16. Rd1 Qh5 17. Ba3 Kh7—**+ Black is about to play ...e6-e5 and free his last minor piece, with an overwhelming material advantage
39. **15. Nd5 Nxd5 16. exd5 Be6 17. c4!±** Black must have underestimated this move, after which White's protected passed pawn and bishop pair confer a big edge.

40. **13. dxc5 dxc5 14. Qxd8 Rxd8 15. Bxc5** White has won a pawn, but at the cost of a noticeable lack of development and weakness of the dark squares. White's king also lacks a safe haven; not as big of a factor in the endgame as in the middlegame, but still relevant. **15... Nc6!** Black just plays natural moves and stands slightly better. Next most likely will come... Nd7.
41. **21. Rxd4 exd4 22. Bxd4 Bxd4 23. Qxd4±** White is much better, as he dominates the long diagonal. Black's queen is tied down to stopping the mate threat on g7. White will increase the pressure with f3-f4 and Bd5+.
42. **15. f5? exf5 16. Rxf5** During the game, Black was afraid of entering this position. Indeed, it looks like White will have all the fun, with a nice knight on e5 and pressure along the f-file. However, after **16... Re8!**, the pin on the e-file along with the central tension gives Black a big advantage. For example, **17. Rcf1 Bc8 18. R5f2** (18. R5f3 Bg4+) **18... Ng4!** and Black wins at least a pawn after a series of captures on e5.
43. **1... Qa5+ 2. Bd2 Qb5—+** White may be up an exchange, but his pieces are scattered to the corners of the board and he has no way to hold the position together. For example, **3. b3 Nb4 4. Bxb4 Qxb4+ 5. Nd2 Qxd4 6. Rd1 Bxg2** with massive material losses incoming.
44. **29... g5 30. hxg5 Qxg5** The pawn exchange may have exposed Black's king, but Carlsen correctly judged that he is the one calling the shots on the kingside, with the active queen and knight. **31. Rg1 Ndf6 32. Nd1 Ra3 33. Qe2 Kh8 34. Ne3?** This allowed a winning sacrifice, but White's position was very difficult anyway. **34... Nf4! 35. gxf4 Qh4+ 36. Kg2 Nh5** Here comes the other knight! The attack is unstoppable.
45. **22. b3 dxe4 23. Qe1 Bb5 24. Be3±** In this messy position White is better thanks to the all-star bishop on e3, controlling both sides of the board. The advanced f- and g-pawns look odd, but for the moment they form an effective wall. Meanwhile Black can't stop White's queenside pawns from rolling and opening up lines to the king.
46. **16... e4?! This natural move allows White to get a better structure. Instead 16... a6 would have kept the game balanced. 17. dxe4 dxe4 18. Nd2!±.** The e4-pawn is a liability as White is getting ready to play Nc3, followed by g2-g4-g5!
47. **13. c5d5 14. Ncxd5 cxd5—** Eugene: I saw this piece sac and immediately felt that it was the right way to exploit White's huge lead in development. My evaluation was correct! **15. Bb5+! Kf8** (15... Bd7? **16. Rxd5+—**) **16. Rxd5 Qxg5** This is the key position that I had to evaluate. White has all the pieces in the game while Black's c8-bishop and rooks are not yet developed. **17. Qd2!** The simplest, White is threatening Rd8+. **17... Bf6 18. Bd7!** Taking over e6. **18... Bxd7 19. Rxd7 Re8 20. Qd6+ Be7** Now the game simplifies into a winning endgame after **21. Ne6+ Kg8 22. Nxg5 Bxd6 23. cxd6 h6 24. Rc7** Here, Onischuk resigned, since the d-pawn will soon queen.

48. **13... Bxc3!=** The chess world was stunned by this move, as Black willingly gives up the pride and joy of his position – the KID bishop! Nevertheless, this home-cooking from Caruana was inspired by Leela! She believes that the dark-square blockade and White's misplaced bishop on f3 give Black great counterplay. **14. Qxc3 Qf6 15. Qc1** (15. Qxf6 Nxf6 and e4 falls.) **15... Nc5 16. Qb1 a5!** (Even better than the game's 16...Qe6.) **17. b3 Re6=** and with pressure against e4, Black has an easy game.
49. **17. Qxb6 axb6 18. Rxd5** It looks scary to line up the rook on the bishop's diagonal, but this brave pawn grab is the best move. The key position to evaluate comes after: **18... Nd4 19. Nxd4 Bxd5 20. Bxd5 cxd4 21. Bxd4±** White is down the exchange, but in return has two pawns, the bishop pair, and an impeccable pawn structure. Meanwhile Black's b6 pawn is weak and White may be able to create a passed pawn on the queenside. White is definitely the one pressing for a win in this endgame.
50. **5... g6?** allows a thematic idea to break up Black's structure by **6. Bxc6+!** (6. f4 was played in the game, allowing 6... Bg7=.) **6... bxc6 7. e5!** (A key move that secures the advantage 7. Bxf6? exf6 would be better for Black due to the comingf6-f5 and ...Bg7. White is too weak on the long diagonal.) **7... dxe5 8. Bxe5±** with a pleasant edge for White due to the doubled, isolated pawns.
51. **12. g5 Ng4 13. Bh3 Nxe3 14. fxe3±** The doubled pawns look ugly, but White's massive space advantage is by far the bigger factor. In fact, the half-open f-file is even an asset, and Black is nowhere close to being able to attack the doubled pawns. White will soon play Bf5, provoking Bxf5 exf5, ironing out the pawns and increasing the space advantage even more.
52. **36. a5? bxa5 37. Nxc5+ Kd6 38. Na4∓** The doubled a-pawns are more of a strength than a weakness, because knights are terrible at stopping outside passed pawns. The "backup" a-pawn can come in useful if Black uses the front one as a decoy. This is a rare case of Carlsen misevaluating a position, as he didn't have to go for this at all; he could have instead maintained the position.
53. **8...Nbd7 9.g4?** This typical attacking move in the Sicilian is badly timed here. White is behind in development and doesn't have full control in the center. 9. O-O or 9.Be3 would be more natural, with rough equality. **9...b4!** Given White's loose structure, Black has every reason to fight fire with fire. The overly timid 9... h6?! was played in the game. **10. Na4 d5!∓** This central counterblow is the standard reaction. Black takes over the initiative and stands clearly better.
54. **46. Bxe6 fxe6 47. Rh7+ Kf8 48. Rxe6 Rg1** At first it looks like it's time for White to resign, as he's about to lose the g3-bishop. But both David and I (Eugene) missed an incredible resource: **49. Rxc6!+—** Stockfish gives +9 here, but in order to understand this, one has to see that Black's king is

totally defenseless on the back rank. After **49... Rg3** **50. Kf5** the c7 pawn falls and the bishop on d4 is just a spectator as White's army is crashing in on the lonely king on f8.

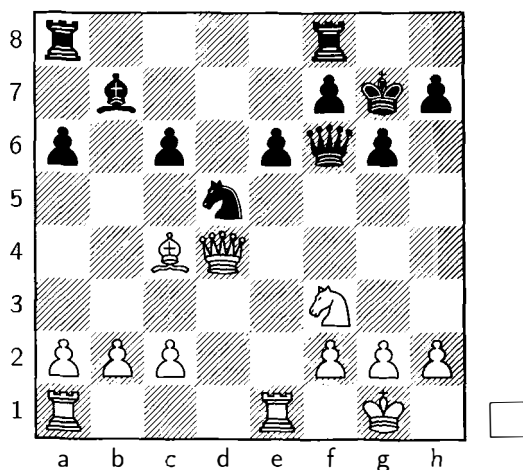
55. **18. Nxe5 Bxd1 19. Nc6 Qf6 20. Raxd1**± White has only two minor pieces and a pawn for the queen, yet he stands better! All of White's remaining pieces are supremely active and the queen has no targets to attack. The game continued: **20... Ra8 21. Nf3 Kh8 22. Rd3! Rg8 23. Ne1!** followed by Rf3. GM Macieja showed deep understanding of the position and eventually won the game.
56. **30... g5?** This logical move turns out to be a losing mistake. It's not clear yet, but White is able to use the Principle of Two Weaknesses to win a pawn. **30... Kc6!** was the paradoxical way to keep equality, meeting **31. g5** with **31...hxg5 32. hxg5 Ne4=**. **31. hxg5 hxg5 32. Nh3 Nh7+—** Now, Kasparov demonstrates some endgame magic: **33. e3 f6 34. Be2 Bc8 35. f4! Kd8 36. Kf2 Ke7 37. Kg3 Be6 38. Bd3! gxf4+ 39. exf4 Bg8 40. Bxh7 Bxh7 41. f5** Black resigned as he can't stop White's winning plan: Nf4, Kh4, g5 etc.
57. **22... f6 23. Bc7 Rc8 24. Bf4 g5 25. Be3 Bd6+ 26. Kg2—+** The main challenge here is visualizing a somewhat long line. Once the position is on the board it's clear that White is busted. He can never in a million years get out of the pin, and Black will win at his convenience.
58. **12... Nfxe4 13. Nxe4 Bxd4 14. Bg5 Qd7 15. Nf6+ Bxf6 16. Bxf6**± This is a well-known dubious line for Black in the King's Indian. In his excellent book, *Questions of Modern Chess Theory*, Isaac Lipnitsky uses this as an example of how to properly evaluate the position. Clearly, Black's king is very weak, and White controls the dark squares. Black's extra pawn is meaningless. Nevertheless, over 30 people – some of them masters – have played this way, according to the database!
59. **13... d4 14. Nd5 Nxd5 15. exd5 Bxf5 16. dxc6 bxc6 17. Bxc6 Bd7 18. Bxa8 Qxa8** Black's central control and bishop pair fully compensate for the exchange. If anything, Black's position is easier to play for a human.
60. **9... Nh5 10. g4?! Nf4 11. Bxf4?** (11. O-O-O=) **11... exf4 12. Qxf4**± White has won a pawn, but at what cost? Black gets a monster King's Indian bishop and total control of the dark squares. Furthermore, White's king will not find safety on either side. Black will follow up with ...f7-f5 and blow open the position.

Chapter 6

Comparison

This chapter is the most realistic when it comes to the actual decisions you'll make in a chess game, because it forces you to compare two options. This is really what chess comes down to: evaluating different options and choosing between them.

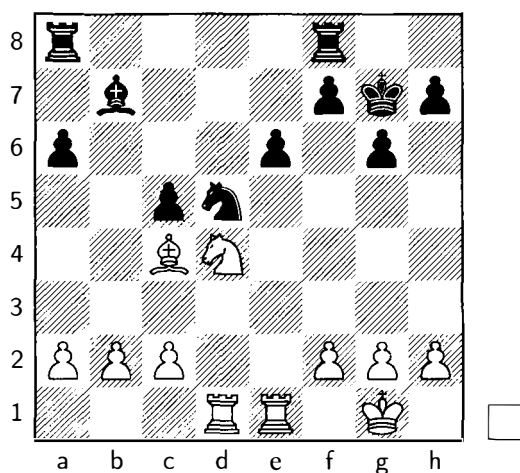
Training Game



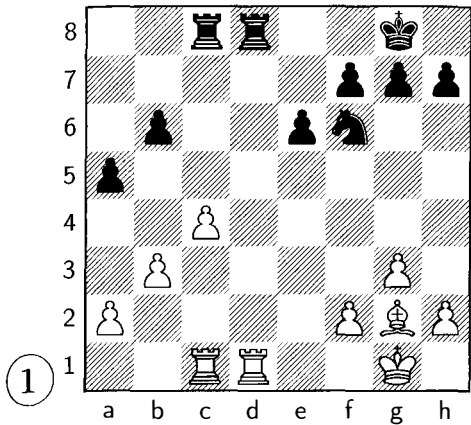
In this position, compare 17. Ne5 and 17. Rad1. As always, you'll learn more if you give it a shot yourself before reading our answer.

As is often the case, the correct evaluation gives a big hint to the correct course of action. The biggest factor in the position is Black's bishop on b7, which is entombed behind the c6-pawn. If White can keep it that way, they'll have a big advantage, but if Black can play c5 the bishop will become an excellent piece on the long diagonal.

Currently Black has a positional threat of trading queens and playing c5. So while Rad1 looks like a standard move, bringing the last piece into the game and supporting the queen, it doesn't address the key factor in the position. After 17. Rad1 Qxd4 18. Nxd4 c5 (diagram) White has no advantage and could even get into trouble with imprecise moves. In contrast **17. Ne5!** \pm maintains control of the c5 square by blocking the queen trade. White can then follow up with moves like Qc5 and Rad1 with a bind on the dark squares.

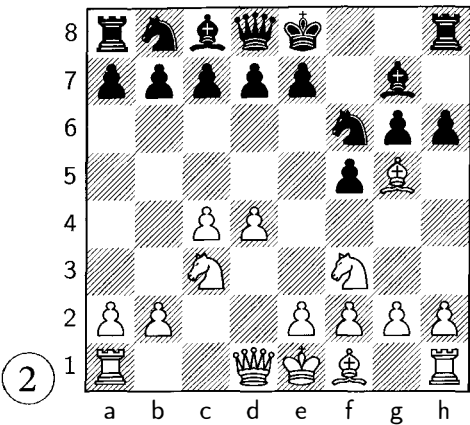


Training Game 2022



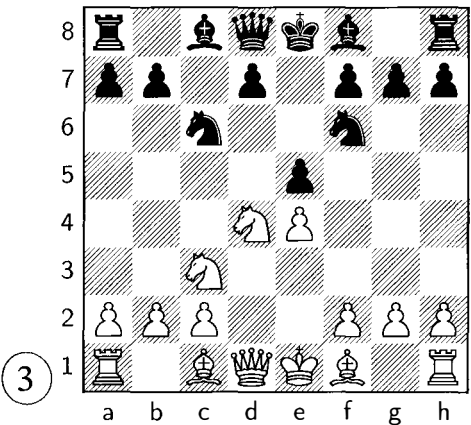
- A) 1. a4
- B) 1. a3

Dimitrov - Saynajakangas 2019



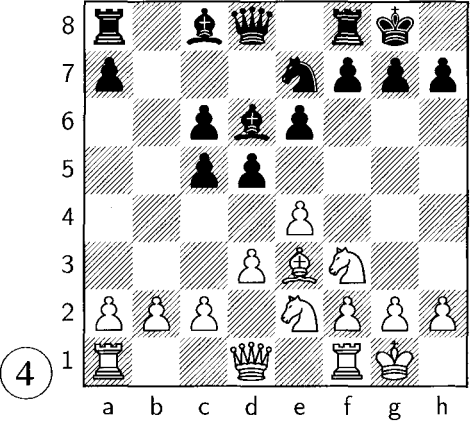
- A) 6. Bxf6
- B) 6. Bf4

Ramirez - Rodriguez Farias 2019



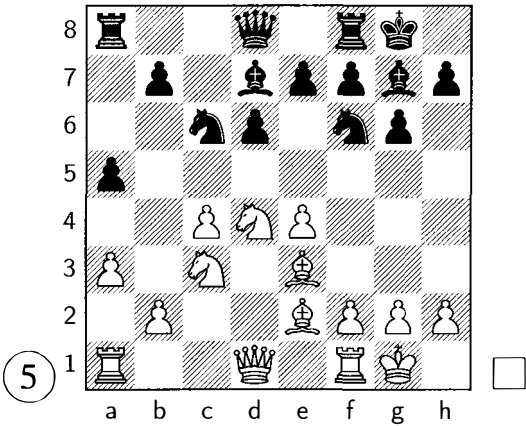
- A) 6. Nf3
- B) 6. Ndb5

Kozlenko - Mislaurov 2019



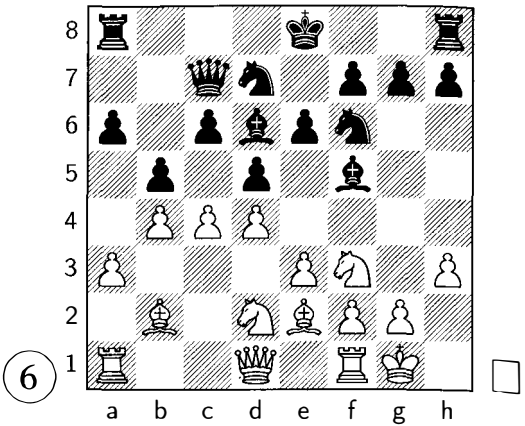
- A) 9... e5
- B) 9... d4

Romero Gamez - Povill Claros 2019



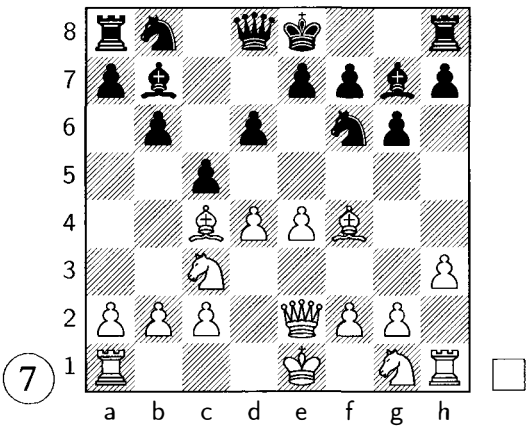
- A) 11. Ndb5
- B) 11. Nxc6

Da Silva Junior - Conrado 2019



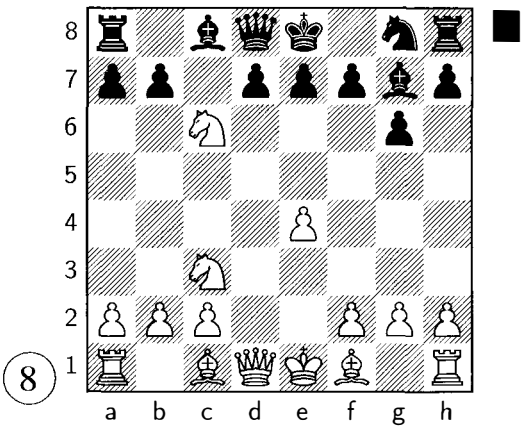
- A) 12. c5
- B) 12. cxb5

Mi - Liu 2019



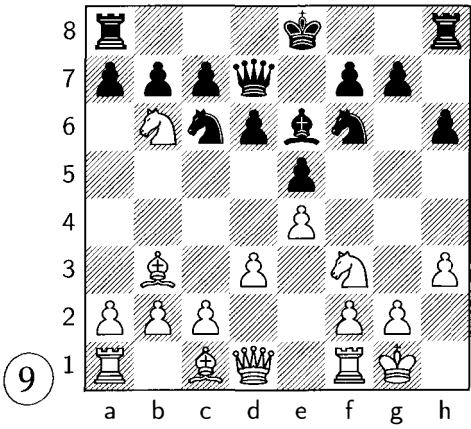
- A) 8. d5
- B) 8. dxc5

Szukalski - Tomsia 2019



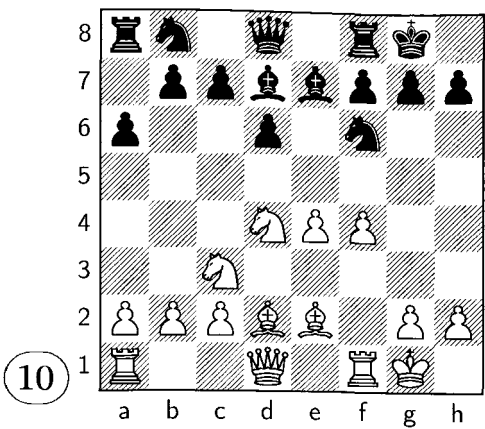
- A) 6... Bxc3+ 7. bxc3
- B) 6... bxc6

Rodio - De Oliveira 2019



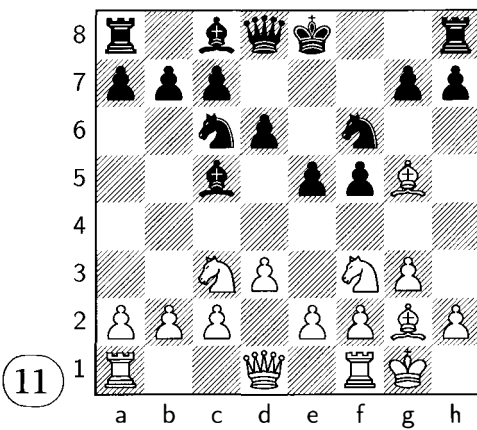
- A) 10... cxb6
B) 10... axb6

Rodio - Koinski 2019



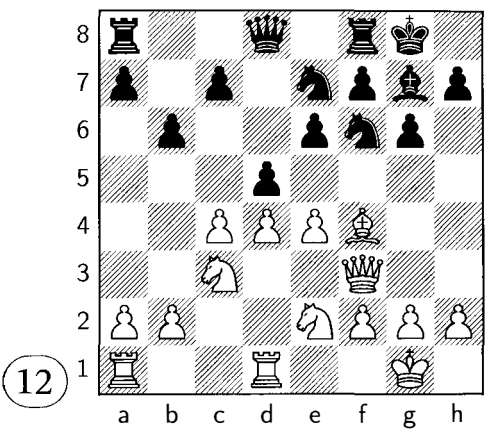
- A) 9... c6
B) 9... c5

Alipovs - Rizihs 2020



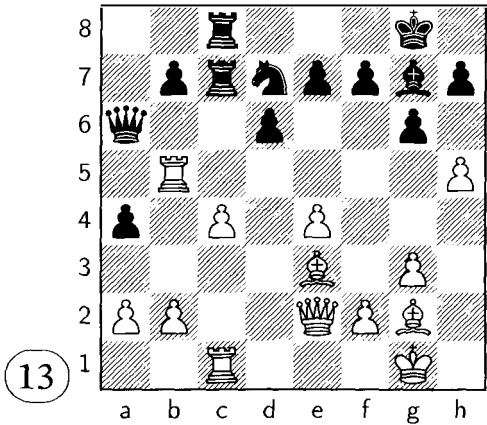
- A) 7... h6 8. Bxf6 Qxf6
B) 7... O-O

Stroganov - Alikhanyan 2019



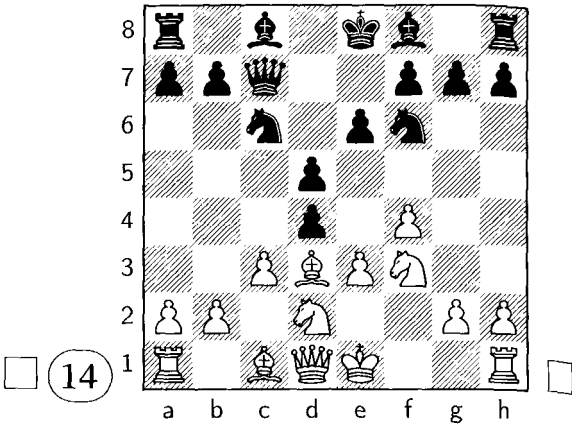
- A) 13. c5
B) 13. exd5

Carlsen - Iturrizaga 2014



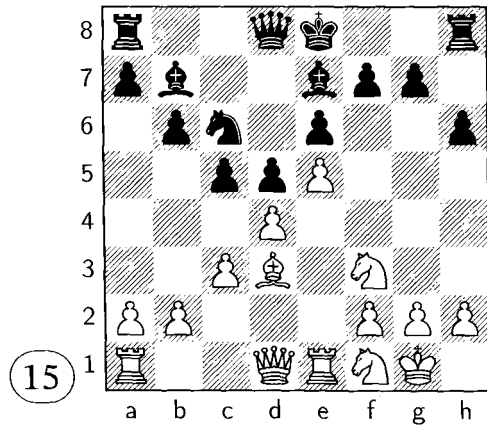
- A) 20. h6
B) 20. hxg6

Van Vliet - Znosko Borovsky 1907



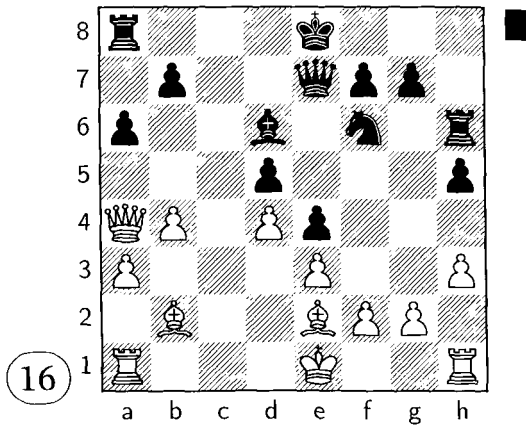
- A) 8. exd4
B) 8. cxd4

Training Game 2022



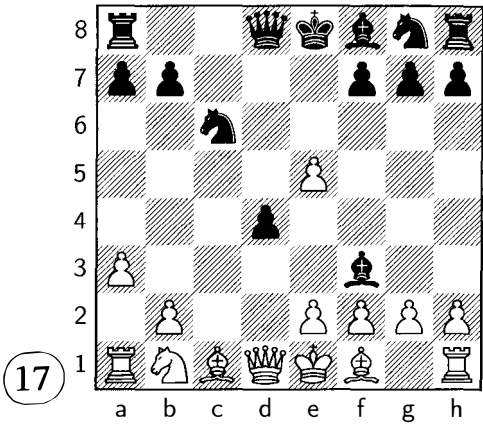
- A) 12... c4
B) 12... g5

Training Game 2022



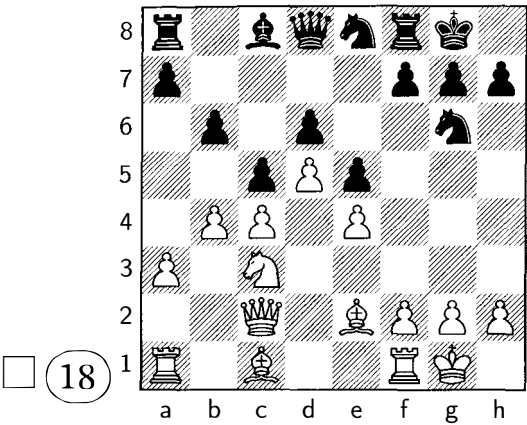
- A) 17... Kf8
B) 17... Qd7

Training Game 2022



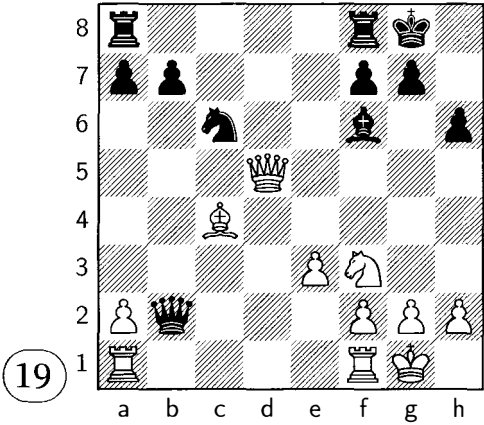
- A) 9. exf3
B) 9. gxf3

Training Game 2022



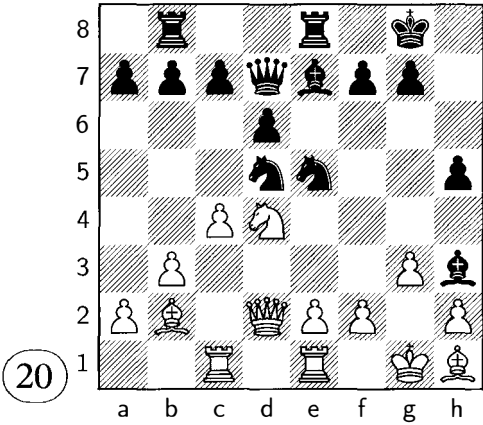
- A) 14. Bd3
B) 14. f4

Carlsen - Giri 2022



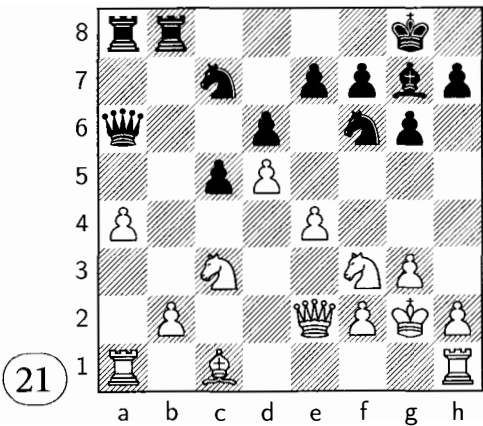
- A) 16... Qa3
B) 16... Qxa1 17. Rxa1 Bxa1

Li - Khamrakulov 2022



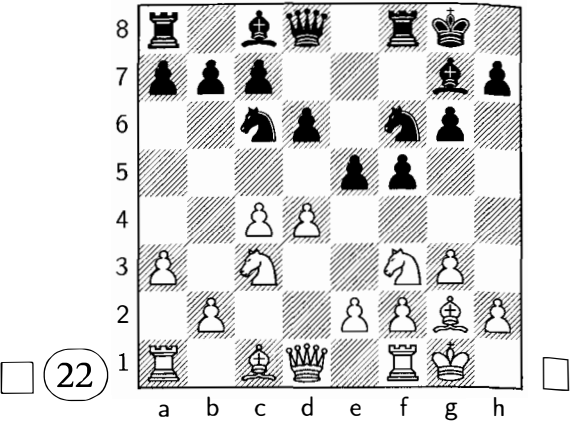
- A) 16. cxd5
B) 16. Bxd5

Opening Analysis 2022



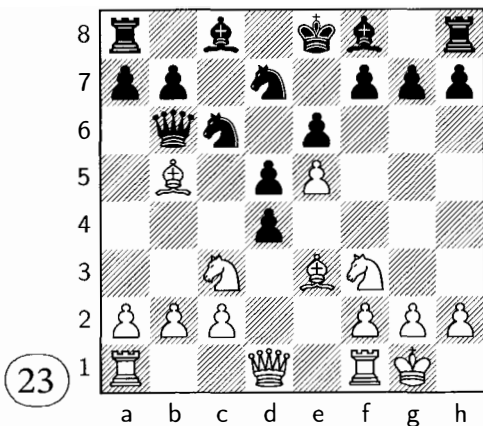
- A) 1. Qxa6
B) 1. Qc2

Da Silva - Panazzolo 2019



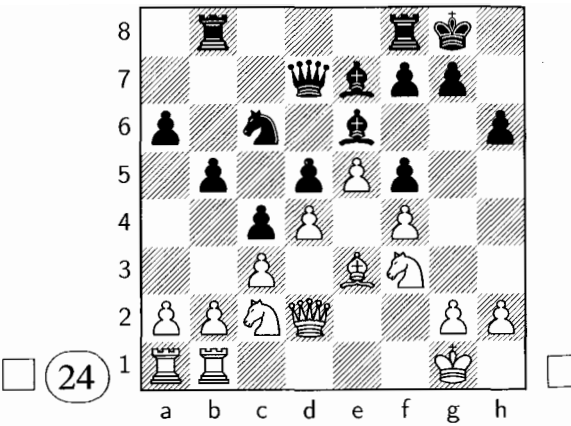
- A) 9. dxe5
B) 9. d5

Magnusson - Stefansson 2019



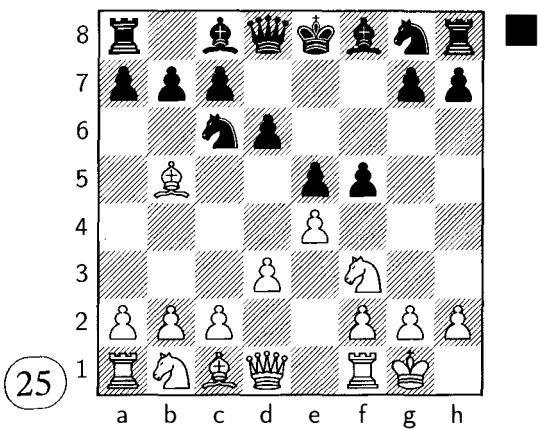
- A) 9. Nxd4
B) 9. Bxd4

Teh - Anthony 2022



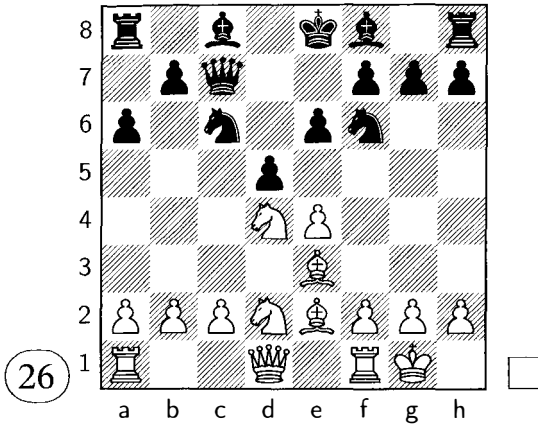
- A) 17. b4
B) 17. b3

Harrington - Fitzpatrick 2019



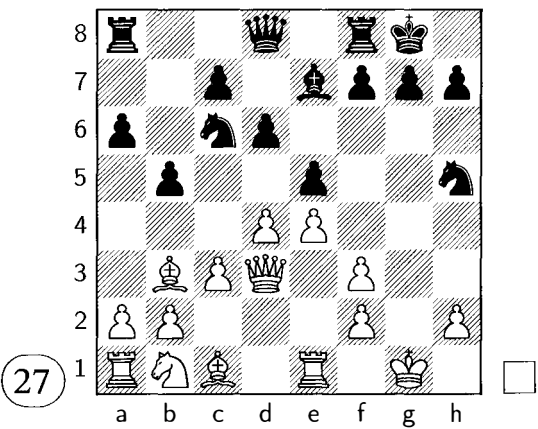
- A) 5... f4
B) 5... Nf6

Bhawesh - Awadh 2019



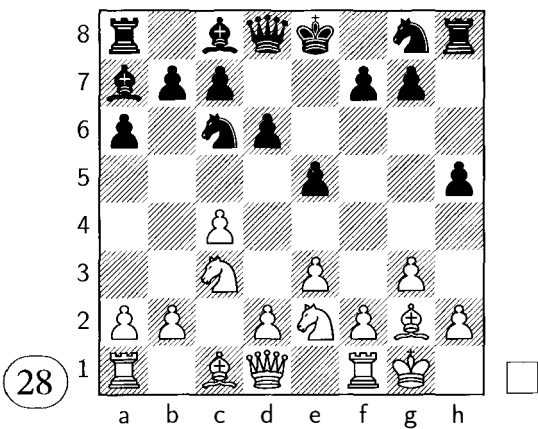
- A) 9. f3
B) 9. Nxc6

Pitkeathly - O'Flaherty 2019



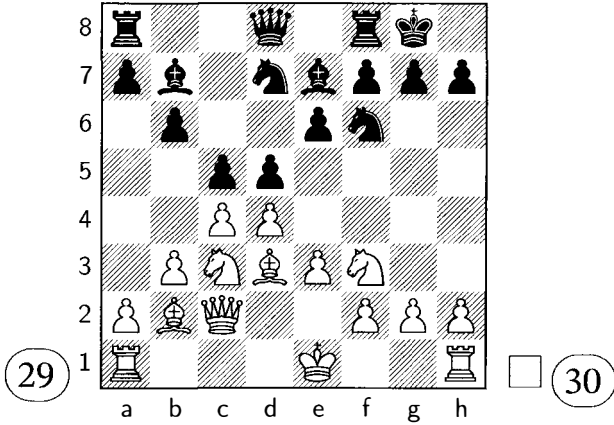
- A) 12. Kh1
B) 12. f4

Larre - Eiding 2019



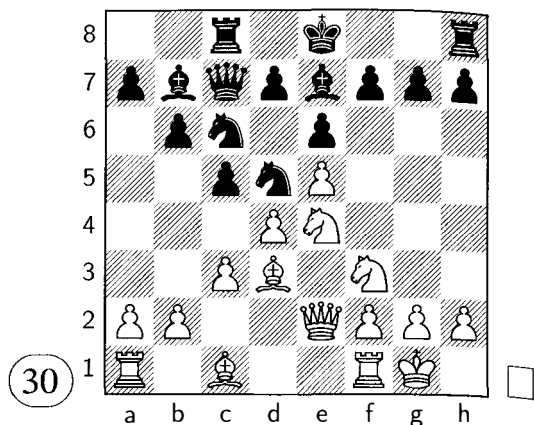
- A) 8. d4
B) 8. h3

Christensen - Morariu 2019



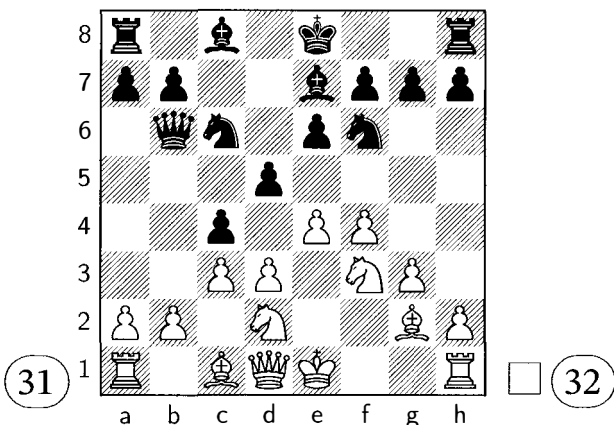
- A) 10. cxd5
B) 10. Ne2

Kreken - Hald Falkesgaard 2019



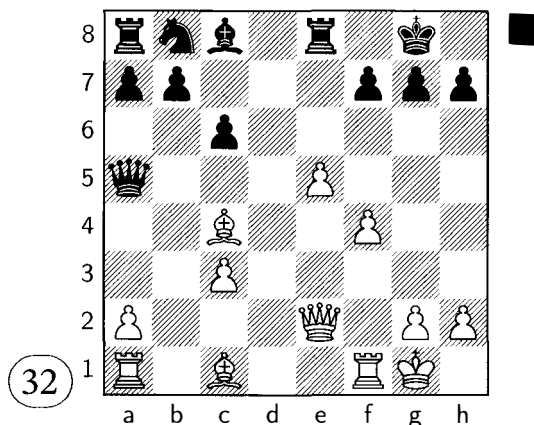
- A) 11. a3
B) 11. c4

Simpson - Chilton 2019



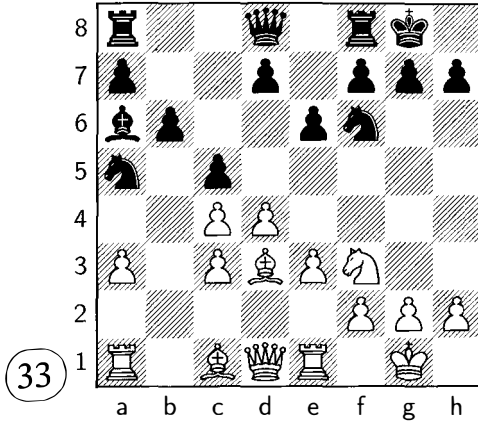
- A) 9. d4
B) 9. e5

Burzak - Szydelko 2019



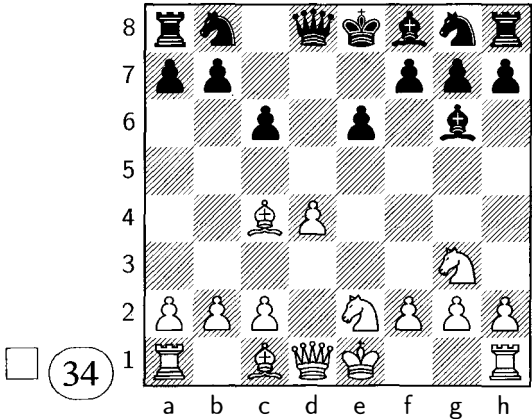
- A) 13... Qxc3+
B) 13... Be6

Szukalski - Dominiczak 2019



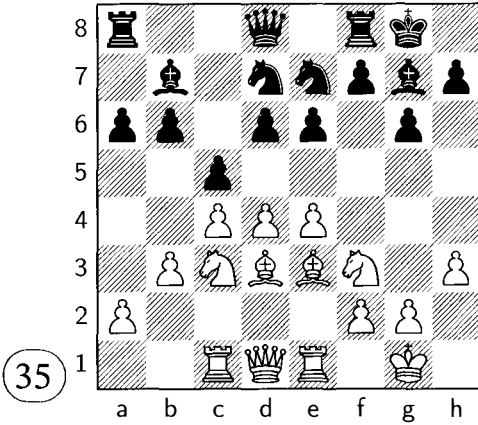
- A) 11. e4 Bxc4 12. Bg5
B) 11. Qe2 d5

Patra - Began 2019



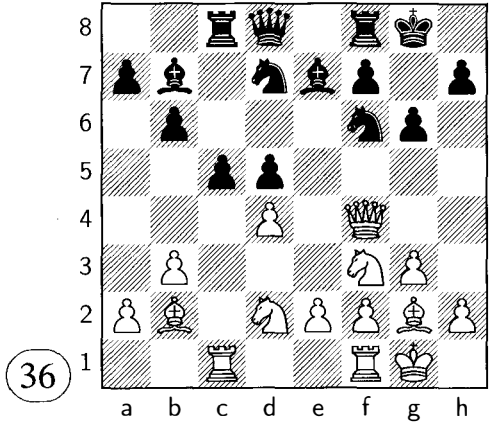
- A) 7... h6
B) 7... Bd6

Jasiunas - Zebelis 2019



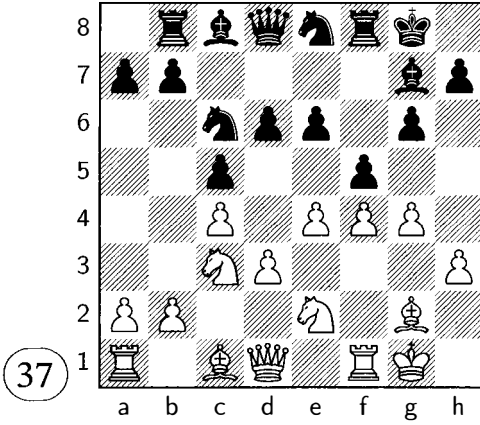
- A) 12... e5
B) 12... Nc6

De Freitas - Woichinevski 2019



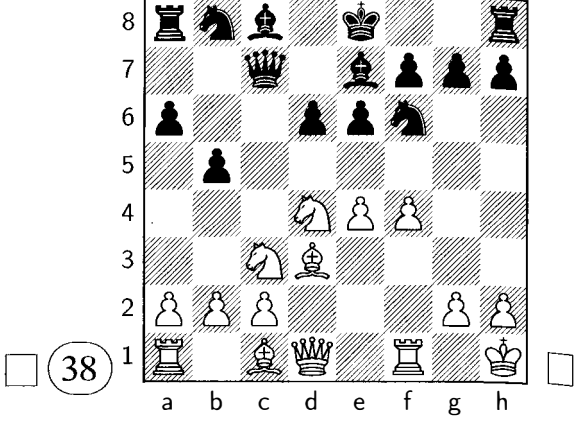
- A) 14... Ne4
B) 14... Re8

Karmanova - Reger 2019



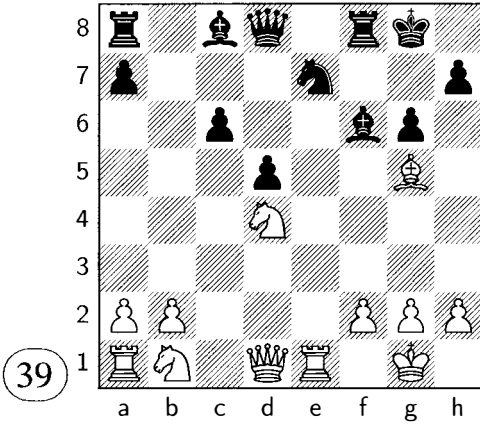
- A) 12. Ng3
B) 12. exf5 exf5 13. g5

Ghnatios - Arkadan 2019



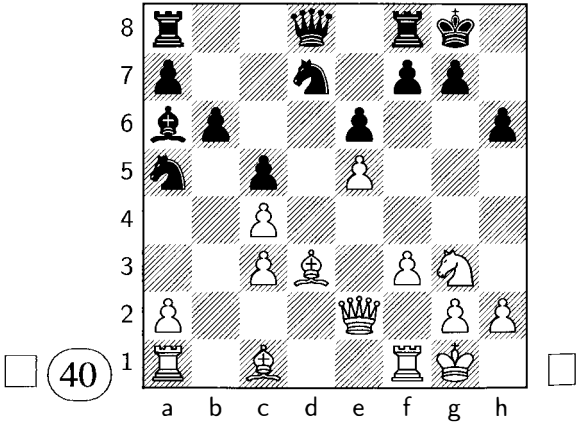
- A) 10. g4
B) 10. e5

Morais Carreras - Torralba Brosa 2019



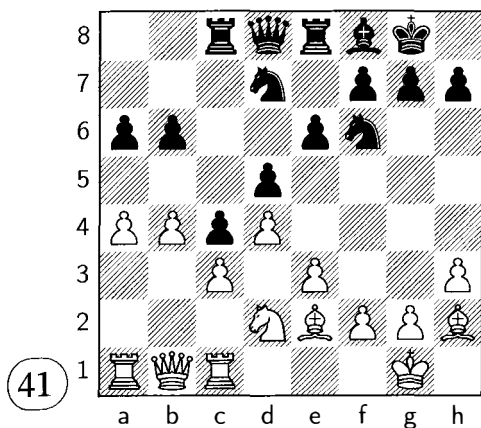
- A) 14. Bxf6 Rxf6
B) 14. Bh6 Rf7

Cheah - Teh 2022



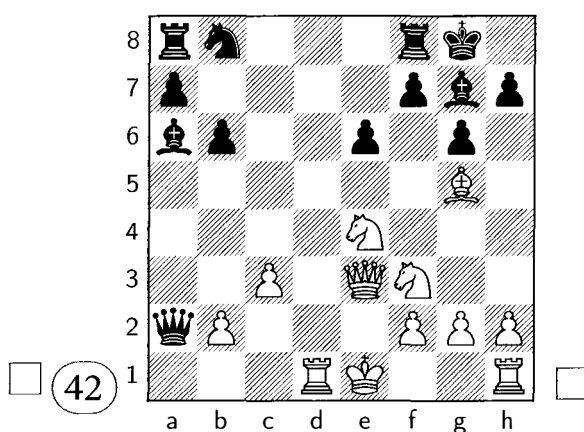
- A) 15. Bf4
B) 15. Qe4

Khandar - Teh 2022



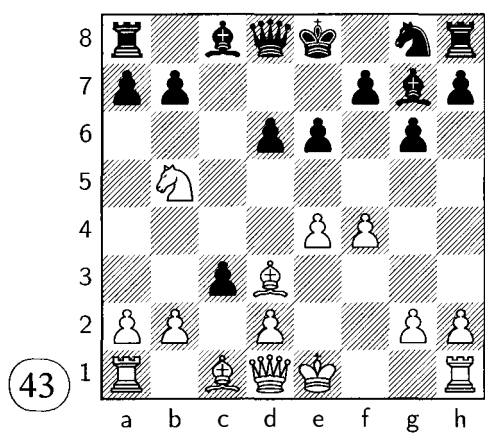
- A) 17. f4
B) 17. e4

Prasanna - Perelshteyn 2017



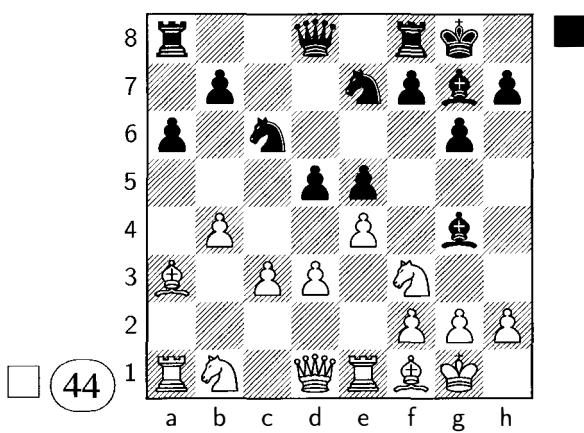
- A) 15. Nf6+
B) 15. Be7

Perelshteyn - Bursteinas 1998



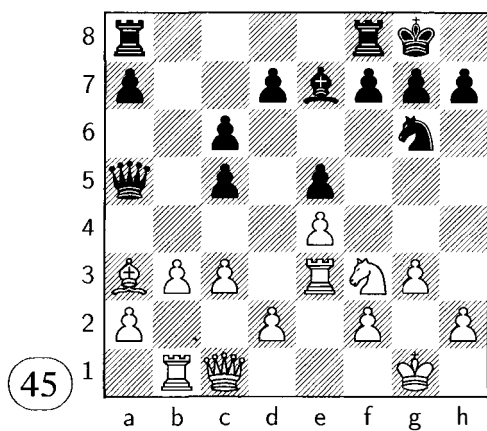
- A) 10. bxc3
B) 10. dxc3

Perelshteyn - Padilla 2002



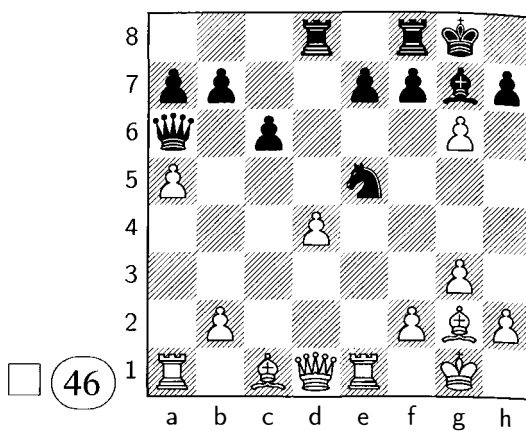
- A) 12... d4
B) 12... dxe4 13. dxe4 Qxd1
14. Rxd1

Perelshteyn - Finegold 2009



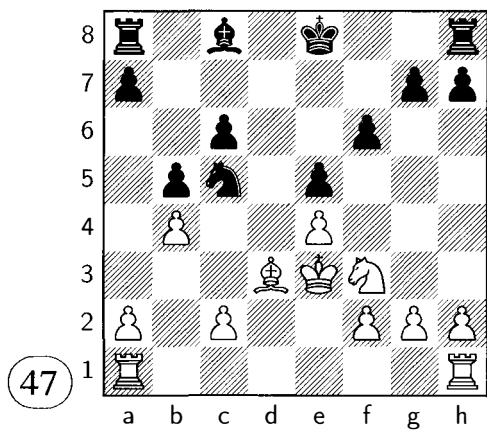
- A) 14. b4
B) 14. h4

Theodorou - Perelshteyn 2018



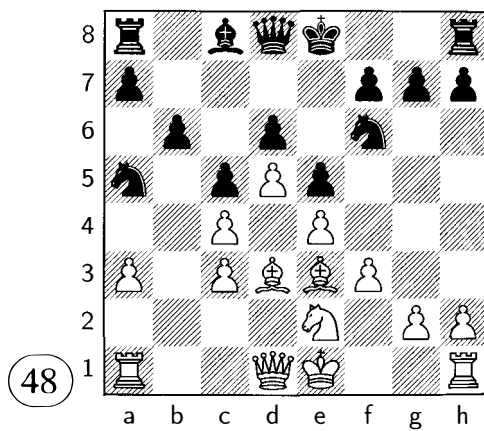
- A) 18... Nxg6
B) 18... hxg6

Lu Shanglei - Tabatabaei 2017



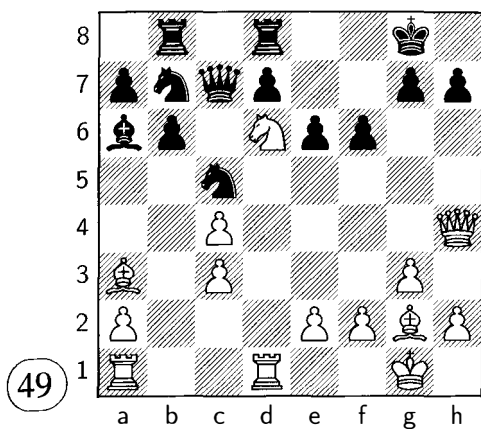
- A) 14... Nxd3 15. cxd3
B) 14... Na4

Vitiugov - Oparin 2021



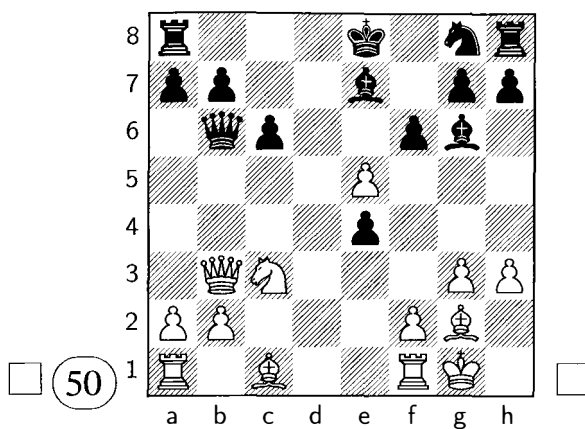
- A) 11... Kd7
B) 11... O-O

Perelshteyn - Arjun, V. 2007



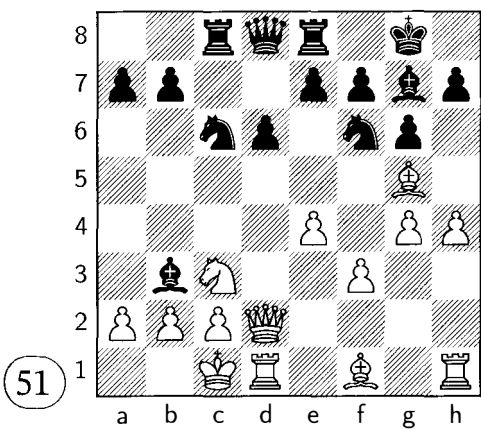
- A) 19. Bxb7
B) 19. Nxb7

Perelshteyn - Vallejo Pons 2017



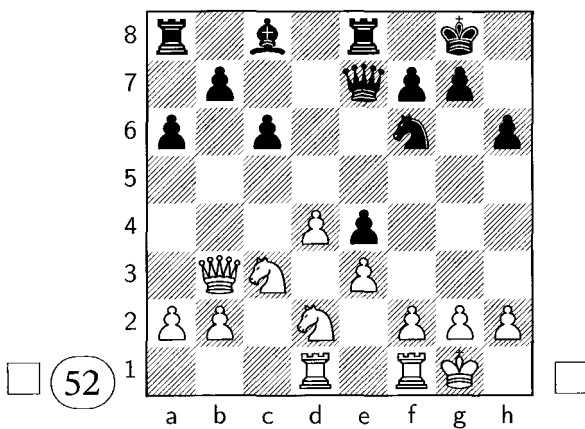
- A) 14. Qe6
B) 14. Qxb6

Opening Analysis 1956



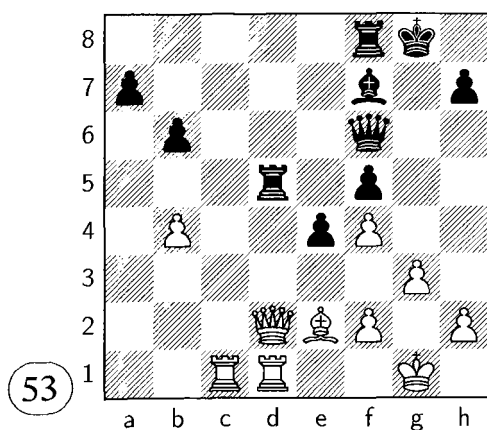
- A) 13. axb3
B) 13. cxb3

Shlyakhtenko - Liang 2022



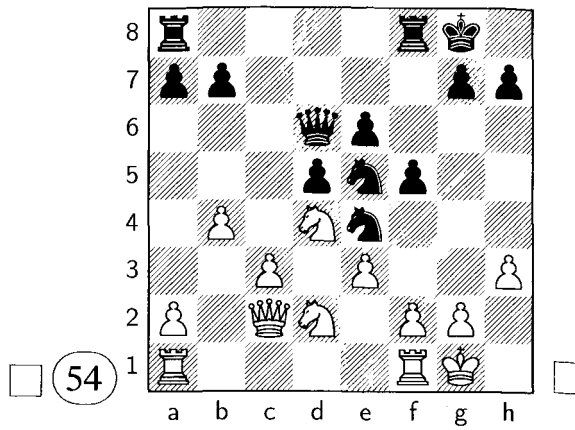
- A) 16. Na4
B) 16. Qa3

Training Game 2022



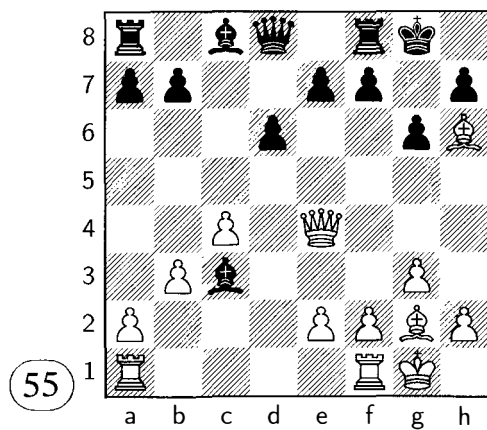
- A) 27. Qc2
B) 27. Qxd5 Bxd5 28. Rxd5

Pittner-Fleck - Faulhaber 2019



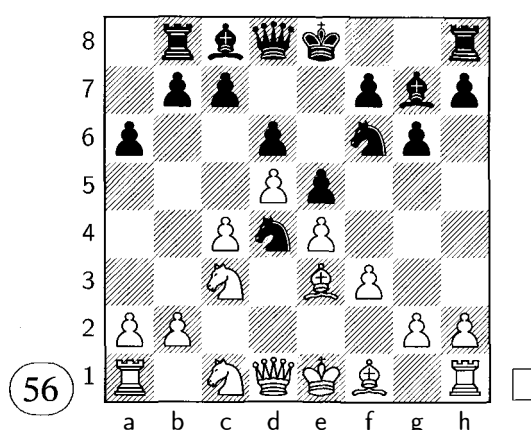
- A) 16. c4
B) 16. Nxe4

Aminuddin - Teh 2022

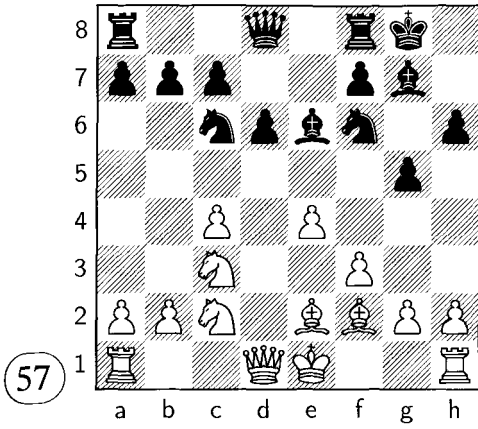


- A) 12... Bg7 13. Bxg7 Kxg7
B) 12... Bxa1 13. Rxa1 Re8

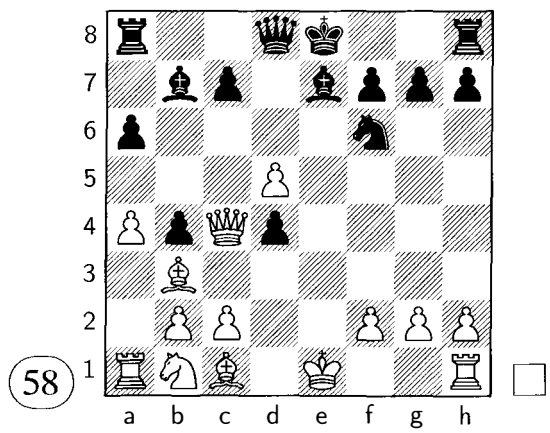
Kortschnoj - Kasparov 1975



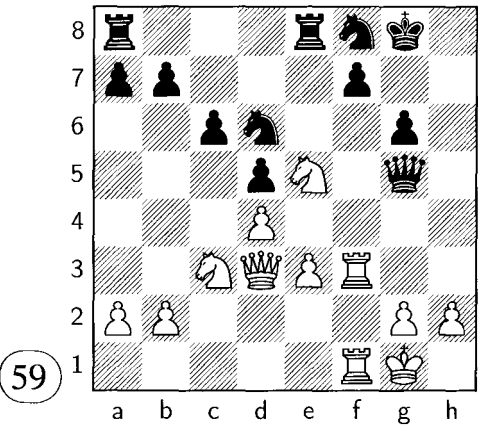
- A) 10. Bxd4 exd4 11. Qxd4
B) 10. Nb3 Nxb3 11. axb3

Benko - Fischer 1958

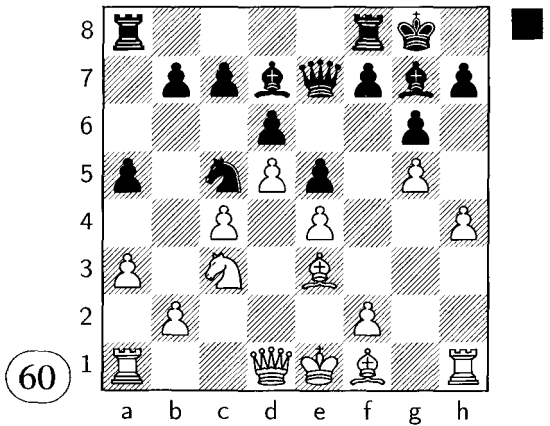
- A) 12... Ne5
B) 12... Nh5

Klevansky - Molepo 2019

- A) 12. d6 Qxd6 13. Qxf7+ Kd7
B) 12. Qxd4

Barmagambetova - Bail 2020

- A) 19... Rxe5 20. dxe5 Qxe5
B) 19... Nf5

Kotsinis - Papidakis 2019

- A) 16... f5
B) 16... f6

Answers

1. **1. a3!**= Chances are about equal. White can try to create a passed pawn on the queenside, but Black is very solid and can try to advance their kingside pawn majority as well.
 1.a4?⌘ would be a big mistake because it immobilizes White's queenside pawn majority. Now Black's two pawns are restricting White's three. Black's knight will go to c5 via d7, where it will pressure the backward pawn on b3. Black is better.
2. **6. Bxf6!** White is willing to part with the bishop pair. **6... Bxf6 7. e4!**± The point: White gives up the bishop pair but wins the fight for the center.
 6. Bf4?! was played in the game. It loses a key tempo and allows Black easy play. 6... d6 7. Nh4? This is just an outright mistaken evaluation! Remember, two minor pieces are almost always better than the rook in the opening and early middlegame. 7... g5 8. Ng6 gxf4 9. Nxh8 Bxh8⌘
3. **6. Ndb5!** This is a well-known line from the Sveshnikov Sicilian, and surprisingly it is the only move to fight for the advantage. White is aiming to play Nd6+; therefore Black typically spends a tempo on **6... d6**, and after **7. Bg5** White secures the d5-outpost, although often at the cost of the bishop pair, leading to complex play.
 6. Nf3? is too passive, allowing 6... Bb4!, gaining a key tempo After 7. Bd3 d5!⌘ Black takes over the center, with a slightly better game.
4. **9... e5!**⌘ gives Black a beautiful center with no weak squares, two bishops and a nice space advantage. 9... d4?!, on the other hand, allows White to trade the bishop pair and also weakens the c4-square. 10. Bf4 Bxf4 11. Nxf4= The engine considers it equal, but in a human game White's chances are preferable. It's not clear how Black can gain any tangible benefit from his space advantage, but the doubled c-pawns could easily come under fire.
5. **11. Ndb5!**± is the classic way to exploit the hole on b5 left by Black's early ...a7-a5 in the Maroczy Bind. For this reason, Black usually only plays ...a7-a5 after the preliminary trade on d4.
 11. Nxc6? was played in the game, but it was the wrong decision. 11... bxc6= Black's pawn structure has improved and the c6 pawn guards the weak d5 outpost.
6. **12. c5!** This natural space grabbing move is best. After **12... Be7 13. a4! O-O**, White has an instructive way to fight for the a-file: **14. Ra3!**± followed by Qa1. If Black protects his b7 rook with ...Qb7, White can play Qa2 and Ra1, tripling on the a-file. White is clearly better.
 12. cxb5?! was played in the game, and loses all White's advantage. 12... cxb5! (12... axb5? 13. Rc1± and the c6-pawn is now a target.) 13. Rc1 Qb8 14. Nb3 White gets the c5-outpost, but Black in turn gets c4. 14... O-O=

The position is roughly even but we prefer Black due to his better placed dark square bishop.

7. Grabbing space by **8.d5!** is the right approach. **8... a6 9. a4!** (preventing ...b7-b5) **9...O-O 10. Nf3 Nbd7 11. O-O±** and White has a nice space advantage in this typical Benoni structure.
 8. dxc5? White chose the wrong move in the game and lost all of his advantage. After **8... bxc5! 9. Nf3 Nc6 10. O-O O-O=** Black is at least equal.
8. With **6...bxc6** Black brings the foot soldier closer to the center and controls the key d5-square. We believe the pawn majority in the center will give him a nice plus. In fact, it's a common mistake for White to trade on c6 in Accelerated Dragon positions.
 6... Bxc3+? was played in the game. Black made a classic evaluation mistake, thinking that by ruining White's queenside pawn structure he would get the better position. In reality, it's exactly the opposite! Black's king is now very weak and White's bishop pair on the open board will give him a lasting edge. After **7. bxc3 bxc6 8. Qd4±** Black didn't even make it to move 20.
9. **10... axb6!=** Always capture towards the center in these structures, unless there's a concrete reason not to! White's bishop pair is irrelevant since the b3-bishop will be traded with an even game.
 10... cxb6? was played in the game. There are a few cases where this non-standard capture works, but this is not one of them. After **11. Re1 O-O-O, 12. d4!±** would have given White a big edge.
10. Best is **9...c5!**, even though it weakens the d5-square. Active play is required here! **10. Nb3 Nc6** (10...Bc6 is okay too) **11. Be3 Re8 12.Bf3 Bf8=** followed by b5 with counterplay.
 9... c6? was played in the game, and Black quickly got into trouble due to the lack of space and poor knight on b8. **10. Bf3 Qc8 11. h3±** was a simple way of stopping any trades on g4. Black was totally paralyzed and lost quickly.
11. With **7...0-0?** Black chose a natural developing move, but quickly ended up in trouble after **8. Nd5! Kh8 9. Bxf6! gxf6±**. The doubled pawns are too weak and White had a big edge.
 Instead, **7... h6!** had to be played. After **8. Bxf6 Qxf6 9. e3 a6 10. Nd5 Qf7 11. d4! Ba7=** the game is balanced.
12. **13.c5?** White had a nice advantage and threw it all away in one move! **13... dxe4!** (13... c6 was played in the game.) **14. Nxe4 Nxe4 15. Qxe4 Qd5 16. Qxd5 Nxd5** with a clear edge in the endgame for Black due the monster knight on d5.
 Instead, the tactical solution **13. exd5!** was available. (13. e5!± is also strong.) After **13... exd5 14. Bg5!±** is a strong intermezzo, and Black will lose material.

13. **1. h6!±** Carlsen executed a strategy, now popularized by the neural network engines, of boxing in the enemy king on g8. Where is the checkmate, you may ask? Take a look at what happened next: **1... Bh8 2. b4 axb3 3. axb3 Nc5 4. Qd1 Nd7 5. Bh3 Ra8 6. Bxd7! Rxd7 7. Bd4!** Carlsen slowly but surely took over the dark squares around Black's king. **26...Bxd4 27.Qxd4 f6 28.e5!+—** White pried open the kingside and won shortly.

1. hxg6? hxg6± would have given away a good part of the advantage. There's no checkmate on the h-file. However, White still holds a small edge due to his extra space.

14. **8.exd4!** It's important for White to maintain the pawn chain, even at the cost of a pawn. 8. cxd4? was played in the game, but it allows Black to solve the problem of his bad c8 bishop by 8... Nb4!. It's funny that this game – the first to reach this position – was played in 1907, and since then White has fallen for the same trap in a total of six games, the latest being in 2017 – 110 years later! 9. Bb1 Bd7 10. a3 (10. O-O Bb5!) 10... Rc8! 11. O-O Bb5 12. Re1 Nc2 13. Bxc2 Qxc2 14. Qxc2 Rxc2± and Black is clearly better in this endgame. **8... Qxf4** (8... Bd6 9. Ne5 is a nice edge for White as the c8-bishop is locked in.) **9. Ne4! Qc7 10. Nxf6+ gxf6 11. O-O** White has full compensation for the pawn, with chances for both sides.

15. The key element here is whether White can maintain his center – in particular the pawn on d4. Black needs to pressure it in order to counter White's space advantage. The difference between the two moves is that one releases the pressure on d4 and the other increases it. **1... g5!±** By threatening to undermine d4 by driving the knight away with ...g4, Black obtains enough counterplay to keep the position balanced. On the other hand, after 1... c4? 2. Bc2±, with the center secured, White has a free hand on the kingside.

16. **1... Kf8!±** The king is quite safe here. Indeed, Black had already given up the option to castle kingside when he moved the h8-rook, so walking the king over is not unwelcome at all. Meanwhile, he enjoys a nice space advantage with prospects of a kingside attack. 1... Qd7?± would be worse. With more space and attacking chances, Black definitely doesn't want a queen trade. Given that moving the king is not an issue anyway, there's no reason to go for this.

17. **9. exf3!** Normally, you would take towards the center but here White is behind in development. This recapture opens up the bishop on f1. White has a nice edge due to his bishop pair and Black's weak d4-pawn. For example: **9... Qa5+!** (The best try; if instead 9... Nxe5? 10. Bb5+ Nc6 11. O-O Be7 12. Qa4±) **10. Nd2! Qxe5+ 11. Qe2 Qxe2+ 12. Bxe2±** with a pleasant edge in the endgame for White.

The alternative 9. gxf3?! is too slow and allows counterplay by 9...Qa5+! 10. Nd2! (or 10. Bd2 Qxe5±) 10... Qxe5= and black's position is easier to play as it's unclear how White will finish his development.

18. **14. Bd3!**± Prophylaxis against f5. Sitting on a big space advantage, White doesn't need to rush. 14. f4?± would be a big mistake, giving Black's pieces access to the e5-square. After the further 14... exf4 15. Bxf4 Nxf4 16. Rxf4 Qe7 Black will follow up with ...Nf6 and ...Qe5, setting up shop on the dark squares and pressuring e4. **14... Nf4 15. Bxf4 exf4 16. Rfe1** Planning e4-e5, with a big advantage.
19. After **16... Qa3 17. Rad1** White has an unpleasant initiative, but Black has decent chances of holding with precise play. The computer likes 17... Na5! chasing the bishop away from the dangerous a2-g8 diagonal.

Giri must not have fancied passive defense, because he decided to trade his queen for two rooks with 16... Qxa1 17. Rxa1 Bxa1 but the cure turned out to be worse than the poison. Two rooks are technically worth one more point than a queen, but here the presence of opposite-colored bishops combined with the queen give White a dangerous attack. As usual, Carlsen cut to the heart of the position. 18. g4! Enlisting the kingside pawns as additional attackers, planning h4, g5, etc. After some inaccuracies by both sides, White's kingside attack crashed through in the end.

20. **16.cxd5!** White willingly blocks his h1 bishop but opens the c-file for his rook. The c7-pawn becomes a big target. These structures are always better for White since Black can never free himself with ...c7-c6 or ...c7-c5 break without creating more weaknesses.

16. Bxd5?! was played in the game, but loses the entire advantage after 16... c6 17. Bh1 h4! =

21. **1.Qc2!**± White should avoid the queen trade as he's actually weaker on the queenside and therefore needs to generate counterplay in the center or kingside.

It would be tempting to trade queens, as White is a pawn up, but after 1. Qxa6?! Black is totally fine in this Benko endgame. 1... Rxa6 2. Ra2 Nd7 gives full compensation. Having clear targets and an easy game, we prefer Black.

22. **9.d5!**= Some players, having been traumatized by being on the receiving end of King's Indian Defense attacks, would be afraid to play this space-grabbing move. However, with the bishop on g2 White's king has nothing to fear. **9... Ne7 10. e4!** with a standard complex game, where the engines give equal chances.

9. dxe5?± is a major concession, leaving Black with control of the center. 9...dxe5 10. Qxd8 Rxd8 11. Be3 e4! Black is clearly better, and White lost rather quickly: 12. Ne1 Be6 13. b3 Ng4! 14. Rc1 Nxe3 15. fxe3 Na5 16. b4 Nxc4 17. Kf2 Nxe3 and 0-1, since if 18.Kxe3 then 18...Bh6+ wins.

23. **9.Nxd4!** is the only way for White to keep his edge: **9... Nxd4 10. Bxd4 Bc5 11. Bxc5 Qxc5 12. Re1!** Although White has lost the d4-outpost, he will

get it back after **12... a6 13. Bxd7+ Bxd7 14. Ne2!**± followed by Nd4 with a nice plus.

9. Bxd4? was played in the game and is clearly inferior. After 9... Nxd4 10. Qxd4? (10. Nxd4 was the only to fight for equality.) 10... Qxd4! Black heads for the endgame, as his bishop pair and two central pawns give him a long-term (static) edge. There followed 11.Nxd4 a6 12.Bxd7+ Bxd7±.

24. **17.b4!** White is clearly worse on the queenside and needs to set up a blockade there. 17. b3? was played in the game, and should have been punished with 17... b4!±, prying open the queenside, when Black's two bishops give him a nice edge. **17... a5** (17... cxb3 18. axb3 a5 19. b4! is another interesting position to evaluate. After 19... a4 20. Nce1! followed by Nd3-c5, White obtains counterplay, while it's unclear what Black should do.) **18. a3=** White achieves full equality as Black can't break through on the a-file.

25. While 5... f4? is a logical move to create an attacking pawn chain, it is ill-timed as it allows White to break open the center. 6. d4! A classic case of punishing a wing pawn move with a central break! 6... a6 7. Bxc6+ bxc6 8. dxe5± and Black doesn't have any compensation for the missing central pawn.

5... Nf6! is a better try. **6. d4! fxe4 7.dxe5!**± leads to enterprising play where White should be better.

26. **9.Nxc6!** had to be played. **9... bxc6 10. exd5 cxd5** (10... Nxd5 11. Bd4 e5 12. c4! gives good counterplay.) **11. c4!**± White has the better development, and is ready to open up the queenside to create new targets.

9. f3? was played in the game. Sometimes it only takes one careless move to get a losing position! White clearly underestimated Black's pressure on the center. 9... Bd6 (9... Nxd4 10. Bxd4 Bd6± was also strong.) 10. f4? White panics, but the position was already difficult. (10. g3? allows a nice sacrifice: 10... Bxg3! 11. hxg3 Qxg3+ 12. Kh1 Ng4! 13. fxg4 Qh3+ 14. Kg1 Qxe3+ 15. Kg2 Nxd4+.) 10... dxe4± Black is just up a pawn for free.

27. **12.f4!** is the only move for White to stay in the game. Black has to be careful too, as either capture on f4 leaves him with a bad position. **12...Na5!=** is the only way to keep the game balanced. Both 12... Nxf4? 13. Bxf4 exf4 14. Bd5±, and 12... exf4? 13. Bd5!± are bad for Black as in both cases White meets the natural 13...Qd7 with 14.e5! with a threat of Qf3! winning material.

12. Kh1? was played in the game, and allowed Black to seize the dark squares after 12... Na5 13. Bc2 Bg5! 14. Bxg5 Qxg5±, with a big attack.

28. This is a very tricky position from a known line of the English. White has to be very careful and play accurately to stop Black's attack.

8. d4? This is the top choice of most players, and this move outscores h3 two to one in the database, but nevertheless it's a mistake! 8... h4! Black starts the thematic attack! 9. b3 hxg3! 10.fxg3 Bg4± and Black is clearly better.

8.h3! This is a key move, preparing to meet ...h4 with g4. **8...h4 9. g4! f5 10. f3! Nf6 11. d4=** with a big fight ahead.

29. **10.cxd5! exd5 11. O-O±** leads a normal position where White can hope for a slight edge due to his better pawn structure, as Black's b7 bishop is somewhat passive.

10. Ne2? was played in the game. Retreating may feel like a safe course of action, but playing too timidly can lead to disaster, as is the case here. 10... Rc8! 11. Nf4? and here Black could have obtained a big advantage with 11... dxc4! 12. bxc4 cxd4 13. exd4 b5!, and White's hanging pawns begin to collapse. Then after 14. c5, 14... Bd6± is strong.

30. **11.a3!** This quiet prophylactic move ensures White's total control of the b4-square and of the center. Instead, 11. c4?! would allow 11... Ndb4 and now White has to find several "only moves" to not be worse: 12. Bg5! Nxd3 13. Bxe7 Kxe7! 14. Qxd3 Nxd4 15. Rad1!= **11... Na5? 12. c4!** This is much stronger now that the knight can't jump to b4. **Nb3 13. cxd5! exd5** (13... Nxa1 14. d6+-) and now **14. Nd6+!**+- wins material.

31. **9.d4!** It's vital to build a strong center, even at the cost of a temporary pawn sacrifice. Instead White lost the game in one move by 9. e5?? Ng4!, when he could not meet the many threats to the f2- and e3-squares; for example 10. Qe2 cxd3-+. After the better 9.d4, the game could continue **9... Nxe4 10. Nxe4 dxe4 11. Ne5! Nxe5 12. fxe5±** and White is a bit better, as e4 will fall.

32. **13... Be6!** allows Black to stay in the game by trading off White's only active piece, even if after **14. Bxe6 fxe6 15. Rb1±** White is still better due to the clear target on b7 and a potential d6 outpost.

13... Qxc3? was played in the game. It loses two vital tempi after which Black's position is hopeless. 14. Bb2 Qa5 15. f5! Now the attack was unstoppable. 15... Qc7 16. e6! f6 17. Rad1 b5 18. Rd7! Going for a beautiful finish: 18... Qb6+ 19. Bd4 c5 20. Bxf6 g6 21. Rg7+ +- (with mate to follow).

33. **11. e4!** is the only move to fight for the edge. After **11... Bxc4 12. Bg5±**, with the threat of 13.e5, White has full compensation and stands slightly better.

11. Qe2? would allow Black to take over the initiative with 11... d5!± (In the game Black played 11... Rc8?, not sensing the danger in giving up the center. Then followed 12. e4! g6? 13. e5±.) 12. cxd5 Bxd3 13. Qxd3 c4 14. Qc2 exd5± with full control of the light squares.

34. This is a known theoretical line of the Caro-Kann Defense. 7... h6? (It's remarkable how one wrong move in the opening can get you in trouble.) 8. Nf4! Bh7 9. O-O± and White has a huge lead in development. Here's how the game continued: 9... Nf6 10. Re1 Nd5 and now White could have

played 11. Nxe6! fxe6 12. Rxe6+ Kf7 (12... Kd7 13. Bxd5 cxd5 14. Qg4+-) 13. Re5!, with a winning attack.

Instead, 7... **Bd6!** was the right move. Black is ready to trade his bishop for the knight when it arrives on f4, to eliminate White's attacking potential. **8. h4 h6 9. Nf4 Bxf4 10. Bxf4 Nf6=** White has the bishop pair but Black is quite solid and has enough play for a balanced game.

35. **12...Nc6!** gives Black equality after **13. d5** (If White tries to maintain the tension with 13. Bf1 then 13...e5! 14. d5 Nd4!=) **13... Nd4!=** Notice how White's space advantage is offset by Black's monster knight on d4. The game is about even.

12... e5? was played in the game, but it's an inferior option. With 13. d5!± White is clearly better, due to his space advantage, cramping all of Black's pieces on the last three ranks. The key difference is that in this line Black's knight will never get to d4. Additionally, it's hard to execute standard counterplay with 13...f5? due to 14.Ng5!.

36. With **14... Re8!** Black maintains a good position, as it's not easy for White to create targets. For example: **15. dxc5 bxc5 16. e3 Qa5=** with a classic case where the hanging pawns generate counterplay.

14...Ne4? was played in the game, but leads to a bad pawn structure for Black. 15. dxc5! and now 15...bxc5? walked into a mating net (15... Rxc5!± would have been the best try, where White is only slightly better due to pressure on the isolated queen pawn.) 16. Nxe4! dxe4 17. Qh6! Nf6 18. Ng5+-and Black is lost.

37. White should have realized that her king was the weaker one and therefore sought safety with **12.exf5! exf5 13. g5!=**, keeping the game closed and roughly equal.

12. Ng3? was played in the game. Clearly, White was still thinking that she's the one attacking. But the tables turned quickly: 12... fxe4 (12... Qh4! right away was even better.) 13. hxe4? (Better is 13. Qxe4 a6±.) 13... Qh4!+-and just like that White is lost. The game continued: 14. Nh1 Bd4+ 15. Nf2 Nf6 16. Bh3 Qxh3 0-1.

38. **10. e5!** is a standard Sicilian sacrifice to open up the diagonals. **10... dxe5 11. fxe5 Qxe5 12. Bf4 Qc5** (If 12... Qxd4? then 13. Bxb5+-) **13. Qf3±** with a big attack for White.

10.g4? This loosening pawn move on the wing is a little too extravagant, especially since it opens up the king on the long diagonal. 10... b4! (An important tempo move to weaken White's grip over e4. Instead, 10... Bb7? was played in the game, but White was in decent shape after 11. g5 Nfd7 12. f5!) 11. Na4 Bb7 12. Qe2 h6!± preparing for ...g7-g5, and Black is clearly better.

39. **14.Bxf6!** By trading the bishops White eliminates Black's best piece and any dynamic counterplay. **14... Rxf6 15. Nc3±** White has the better pawn structure and a clear edge. For example: **15... c5? 16. Rxe7!** Simplest. **16. Nb3!±** is also good. **16... Qxe7 17. Nxd5 Qf7 18. Nxf6+ Qxf6 19. Nb3±** and White is just up a pawn.

14. Bh6? was played in the game, and White could have gotten into trouble after **14... Rf7! 15. Nc3 g5!±** White would be kicking himself for avoiding the bishop trade: the bishop on h6 is trapped and its counterpart on f6 is a monster.

40. **15.Bf4!** is the best way to an advantage as Black is utterly paralyzed. The bishop move is stronger than **15. f4**, which can be met by **15...f5!** Now, however, **15... f5?** doesn't work due to **16. exf6 Nxf6 17. Rad1!** (The simplest. **17. Qxe6+** is good too.) **17... Qc8** (Or **17... Qe7 18. Bd6+—**) **18. Be5±** with complete domination and an unstoppable attack.

In the game White preferred the logical move **15. Qe4?** Which, however, allowed Black to carry out the strong defensive idea **15... f5! 16. exf6 Nxf6 17. Qxe6+ Kh8** with compensation. Even though Black is a pawn down, he is back in the game!

41. **17.f4!±** is the way to a clear advantage, stopping any ...e6-e5 counterplay and establishing a nice Stonewall setup. Black's lack of counterplay gives White a simple plan of executing a long-term attack on the kingside.

17. e4? This logical move allowed an unusual but very strong counter-blow in **17... e5!** (**17... h6?** was played in the game, after which White prepared a classic pawn storm on the kingside by **18. e5!±**) **18. dxe5!** (White needs to find accurate moves in order not to be worse. **18. exd5? exd4 19. Bxc4 dxc3±** would be bad.) **18... Nxe5 19. Rd1!=** (Not **19. f4? dxe4! 20. fxe5 Qxd2 21. exf6 Qxe2±**)

42. **15.Nf6!+** is the correct move. White goes for the attack while most of Black's army is stuck on the queenside. **15... Kh8 16. Ne5!** with total domination; White is close to winning. For example: **16... Qxb2 17.Rd8!+—**(with the big threat of **Nxf7#**).

15. Be7? was played in the game, and White misevaluated the strong exchange sacrifice by Black **15... Nc6! 16. Bxf8 Rxf8 17. Nfd2 Ne5±** with a big edge. All of Black's pieces are active, while White's king is stuck on e1 and the rook on h1 is not entering the game anytime soon.

43. **10. bxc3!** This unusual recapture is best since White is planning to target d6 with **Ba3. 10... Ne7** (**10... a6 11. Qa4! Kf8 12. Nxd6+—**) **11. Ba3!±** The point! Black's d6-pawn falls. Eugene: Dzindzi showed me this cool idea back in 1996.

10. dxc3 is not bad, but allows Black to finish development with **10... Nh6!** (It's vital to leave the e7-square open for the king! Not **10... Ne7? 11. Nxd6+ Qxd6 12. Bb5+ +—**) **11. Bc2!** (Or **11. Be3 a6=**) **11... d5 12. e5! O-O 13. Be3±**

44. **12...d4!** Black takes advantage of the pinned knight on f3 to gain space. **13. c4** (13. cxd4 Nxd4±) **13... b5!** (An instructive way to block White's counterplay.) **14. Nbd2 Qd6±** with a nice edge for Black due to his space advantage.

12... dxe4? was played in the game, but after 13. dxe4 Qxd1 14. Rxd1 White is slightly better. He's not afraid of 14... Bxf3 15. gxf3± as his bishop pair will dominate the board.

45. **14. b4!** This counterintuitive move, undoubling Black's pawns, is best. White is seeking a way to untangle his bishop, queen and rook. **14... cxb4 15. cxb4** (15. Bxb4 drops the a2-pawn after 15... Bxb4 followed by 16... Qxa2) **15...Qb5 16. d4=** with about even chances, but White's play is easier.

14. h4? This logical move was played in the game, but both players missed the important counterattacking idea 14... f5! Black takes advantage of White's paralyzed pieces on the queenside to open up the game on the kingside. After 15. h5 (If 15. d3? f4! or 15. exf5 Rxf5±) 15... fxe4! 16. Nh2 Black has two options: the regrouping 16... Nh8 or the active 16... Nf4!?, with counterplay.

46. 18...Nxc6? Eugene: this was a critical moment of the game. I felt that taking with the knight was risky, but invested a lot of time into this move, thinking that I would win a pawn or two. However, as the game unfolded it became clear that this evaluation was incorrect. 19. Be3 c5 20. d5! The key move to secure a big advantage. White doesn't care about the b2-pawn and instead focuses his energy on Black's weakened king. 20... Bxb2 21. Rb1 Bc3 22. Re2 Qxa5 23. h4! ± and White eventually won the game with a direct attack.

Instead, **18...hxc6!** leads to an equal position, as White's bishop pair is offset by his weak d4-pawn. It is also a more practical decision as Black's king is much safer. For example: **19. Be3** (Or 19. Bf1 b5! 20. Qb3 Rxd4 21. Bf4 Nc4 22. Rxe7 Bf6=) **19... c5!** with counterplay.

47. **14...Na4!=** Black should not open the c-file and should instead keep the pawn structure symmetrical. He will play ...a7-a5 next, with an approximately equal game.

14... Nxd3? Instead gave White a clear target after 15. cxd3!±. Black was saddled with a backward pawn on c6 and weak dark squares. White can increase the pressure with a2-a4 and a timely knight transfer via d2 to b3.

48. **11... Kd7!** This paradoxical move shows deep understanding of the position. Black's king is actually safest on c7, and he can generate counterplay on the kingside. The game continued: **12. O-O Kc7 13. f4 Ng4! 14. Bd2 exf4! 15. Bxf4 f6±** and Black was clearly better due to the control of the e5-outpost and the safer king. White got bogged down protecting his weak pawns with no active plan of his own. Black eventually won the game.

11... O-O? walks into the attack. 12. Ng3 Ba6 13. Qe2 Qd7 14. a4! Stopping ...Qa4 and ...b7-b5 ideas. Black is totally paralyzed, and White will slowly

build up his attack. For example, 14... Kh8 15. h4 h6 16. Nf5!± followed by the g4-g5 push.

49. Normally you'd want to preserve the fianchettoed bishop, but here it's all about keeping the monster knight on d6. **1. Bxb7!** is far better than 1. Nxb7? Bxb7± when White doesn't really have any compensation for the doubled and isolated c-pawns. **1... Nxb7 2. Rd4±** The knight on d6 is still untouchable because of the skewer after Bxd6. White has ideas of doubling on the d-file or swinging the rook over to g4 and going after Black's king.
50. **1. Qe6±** Black's king is caught in the center and the queen isn't easy to dislodge. Eugene: I dismissed the inferior 1. Qxb6? axb6±, when in the endgame Black's extra pawn counts for more and the king in the center isn't such a big problem. It doesn't help to try to chase the queen away with **1... Bf7?** since after **2. Qg4!** Black has no good way to defend g7.
51. **13.cxb3!** This move feels counterintuitive. White captures away from the center while opening his own king! Yet this paradoxical move from the rare gem *Questions of Modern Chess Theory* (1956) by Lipnitsky is a well-known idea in the Dragon. The point is that it will be hard for Black to generate counterplay on the queenside. For example: **13... Qa5 14. Kb1±** and Black's attack comes to a dead end.
 13. axb3? doesn't work here for concrete reasons: 13... Nb4! 14. Kb1 Qa5 15. Bc4 b5! 16. Bxb5 Nxe4!!—+ with a crushing attack.
52. **16.Qa3!** In this Carlsbad structure, White has a weak king. Thus, he welcomes a queen trade even at the cost of doubling his pawns! The half-open b-file could be useful as well. **16... Qxa3** (16... Qc7!= is a better try, maintaining rough equality.) **17. bxa3 Bf5 18. Nc4±** White will use his knights to invade on the dark squares with a slight but long-term edge.
 16. Na4 was played in the game. After 16... Be6! (better than game's 16...Bg4) 17. Qc2 (17. Qa3? now drops a pawn after 17... Qxa3 18. bxa3 Bxa2.) 17... Bf5! 18. Nc5 Nd5!± Black is better, as the strong knight on d5 and e4-pawn set him up for a big attack. For example: 19. a3 b6 20. Na4 Qg5 21. Kh1 Rc6, with strong threats.
53. **1. Qc2±** After this calm sidestep, White is much better due to Black's overextended pawns and exposed king. On the other hand, it would be tempting to answer the threat to the queen with the exchange 1. Qxd5? Bxd5 2. Rxd5±, especially since White's remaining pieces look active, and you can envision starting an attack against Black's king. But this ignores one simple truth: queens are really good. After 2... Qb2 White struggles to defend against the marauding queen.
54. With **16.c4!** White gets rid of his biggest weakness, the backward c3-pawn. This is the only way to keep the game balanced. **16... Nxd2 17. c5!** A key intermezzo **17... Qe7 18. Qxd2=** with rough equality.

16. Nxe4? was played in the game, and is the wrong choice! It's interesting how one innocent-looking trade could destroy White's position. But this is exactly what happened, as now his light squares are forever weak. 16... fxe4! (16... dxe4? would allow 17. c4.) 17. Qb3 Rac8 18. Rac1 Rf6! (Black decides to win with a direct attack.) 19. Rc2 Rcf8 20. Ne2 Rg6 21. Ng3 h5 22. Nxf3+ and mate next move.

55. **12... Bxa1!** Black should not be afraid to part with his dark-squared bishop, as his king is totally safe. **13.Rxa8 Re8** White has some small compensation for the exchange, but he can't create any threats as **14.Qd4** is met with **14... e5!**

12... Bg7? was played in the game. At first, it looks like a safer option, but after 13. Bxg7 Kxg7 14. Rfd1 Qc7 15. Rac1 Kg8 (15... Rb8? 16. Qd4+ Kg8 17. Qxa7±) White has the powerful attacking idea 16. h4! It turns out that Black is pretty much helpless against the standard attacking clasp of h4-h5-h6. The game continued 16...Rb8 17.h5 Be6 18.h6±

56. Accepting the pawn sacrifice by 10. Bxd4?! 10... exd4 11. Qxd4 O-O gives Black full compensation based on the awesome power of the bishop on g7. The immediate threat is ...Nxe4. The computer says the position is close to equal, but it's easier for Black to play. Surprisingly, Viktor Korchnoi went for this position in a simul against a 12-year-old Garry Kasparov.

Better is 10. Nb3! Nxb3?! 11. axb3!? White is better because of the space advantage and easy play on the queenside. The "extra" b-pawn can be used as a battering ram. A better try for Black would have been 10...c5!?

57. **12... Nh5!** Black is planning a timely ...Bxc3! to double White's pawns and follow up with a blockade on the dark squares. For example: **13. O-O Nf4 14. Ne3 Bxc3! 15. bxc3 Ne5=** with a nice dark-square blockade.

In the game, Bobby played in the typical King's Indian Defense style with 12... Ne5? but quickly found himself in trouble after 13. Ne3 c6 14. O-O (Modern engines love the move 14. h4!?) 14... Qa5 15. Qd2! (correctly not taking d6-pawn as it would allow counterplay) 15... Rfd8 16. Rfd1 a6 17. a4! (White has a strong bind on the position.) 17... Qc7 18. a5 c5?! (Weakening d5.) 19. h4±, when White had more space, controlled the key outposts and had a nice hook to attack on g5. Benko went on to win in fine style. A rare Fischer loss, where he got totally outplayed!

58. 12.d6? is quite tempting, but surprisingly loses for White! 12... Qxd6! 13. Qxf7+ Kd7! According to Steinitz, the king is a strong piece and can defend himself! White was already totally lost due to his lack of development. The game continued: 14.Nd2 Qe5+ 15.Kf1 Raf8 16.f4 Bxg2+ 17.Kxg2 Qe2+ 18.Kg3 Rxf7—+

12. Qxd4! is best. After **12...Nxd5! 13. O-O** (13. Qxg7? Bf6!±) **13... O-O 14. Nd2** Black has a small edge but not more.

59. **19... Rxe5!** A classic positional exchange sacrifice. Black removes the monster knight and gets a pawn in the process. **20. dxe5 Qxe5** and Black has full compensation for the exchange with a solid pawn structure and better control of the center.

19... Nf5? allows several White nice wins, such as 20. Nxf7! (20. Rxf5! is also winning. After 20... gxf5 21. Rxf5+- White has a deadly attack.) 20... Kxf7 21. Rxf5+ gxf5 22. Rxf5++-

60. White's advanced pawns give him more space, but the weaknesses they leave behind could be a liability if Black can open the position. In the game Black made the wrong choice with 16... f5? and White in turn missed the strong reply 17. Bxc5! (17. gxf6? Qxf6 18. Bd3 Bh6± quickly turned bad for White.) 17... dxc5 18. Bd3± White keeps things under control.

16... f6! was much stronger because now White cannot keep the position closed. **17. Bxc5 dxc5 18. Qd2 fxg5 19. hxg5 Rf4!**± results in a nice edge for Black.

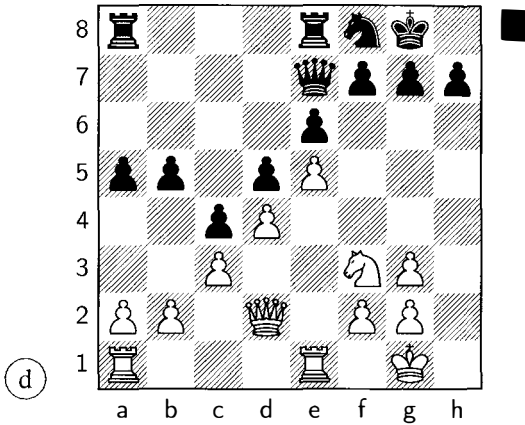
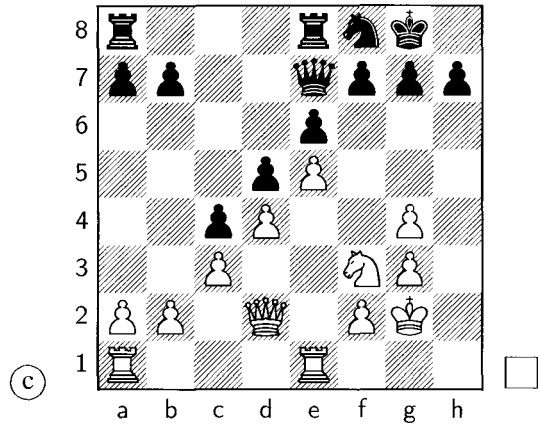
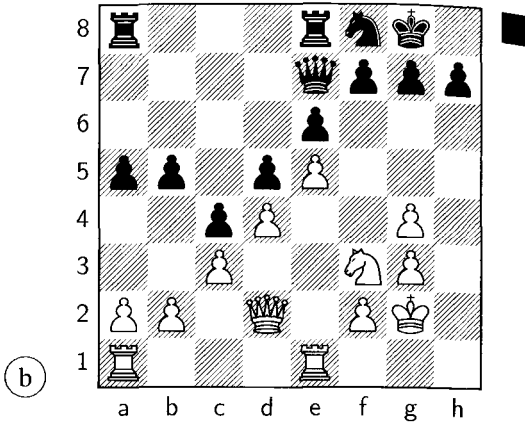
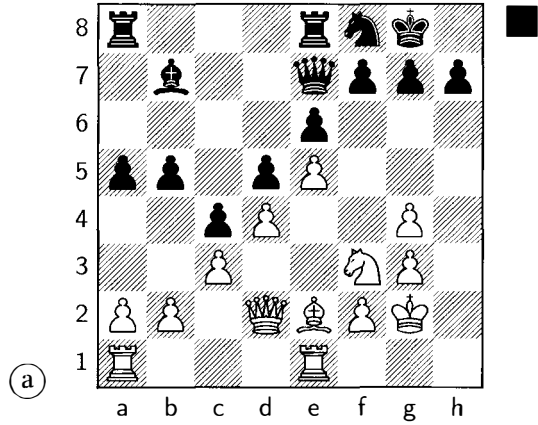
Chapter 7

Quartets

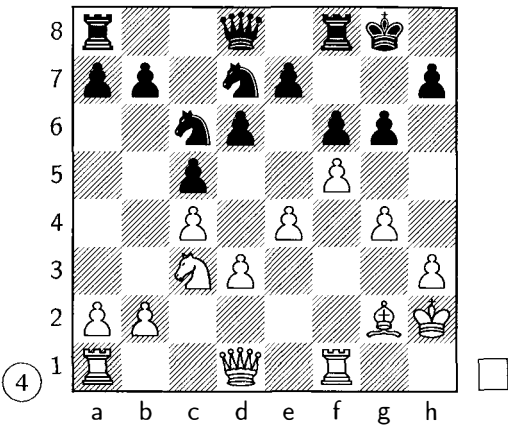
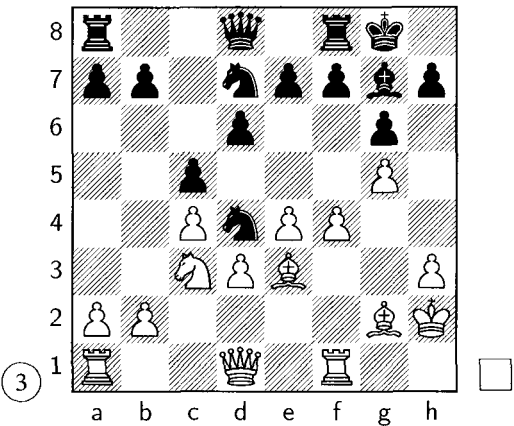
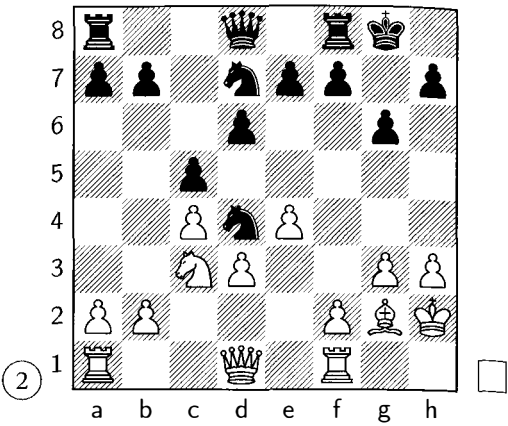
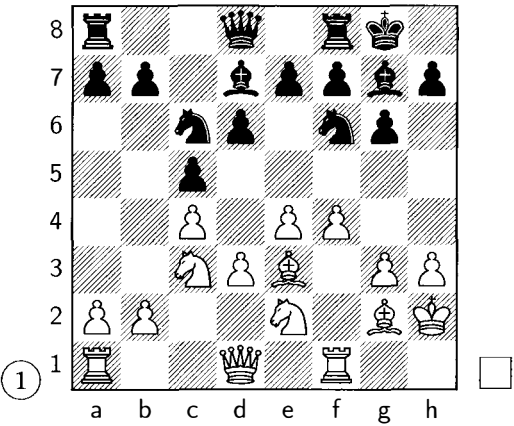
Whereas the previous chapter uses examples from real games, asking you to choose between two lines of play, this chapter presents a combination of training game fragments and instructive made-up positions, created by moving pieces around without regard for the usual rules of chess. Nonetheless, comparing these related positions allows you to fine-tune your evaluation skills by asking specific questions.

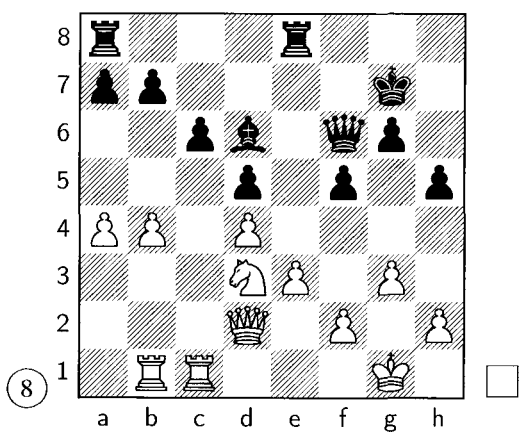
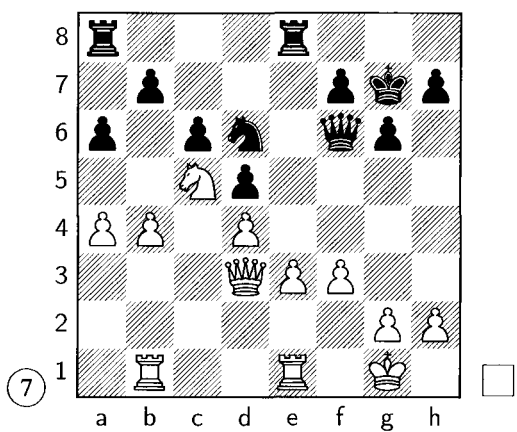
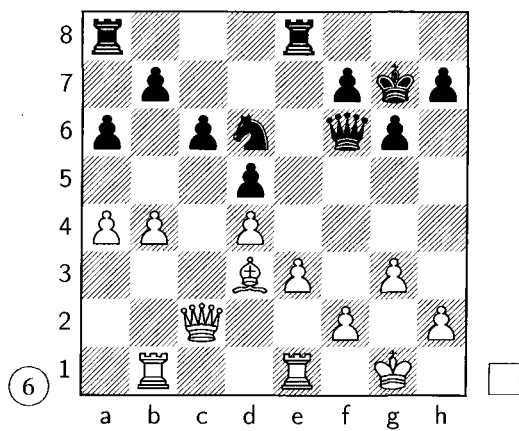
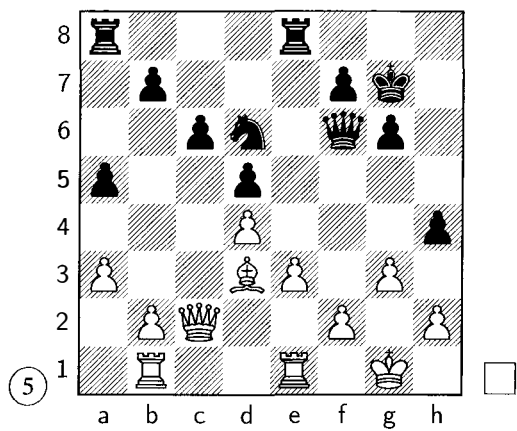
Where's the tipping point between an equal position and a much better position? Which factors really matter? Computers let us play around with these slight differences by giving us access to quick and accurate evaluations of any position.

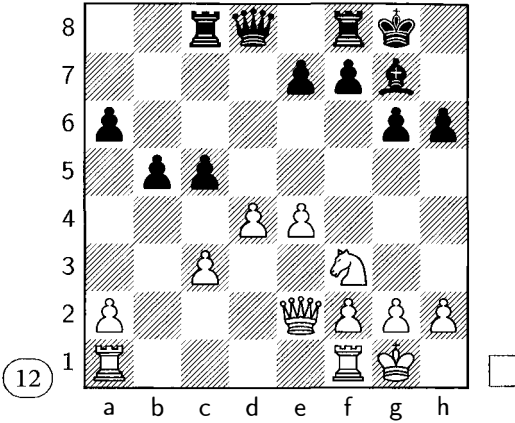
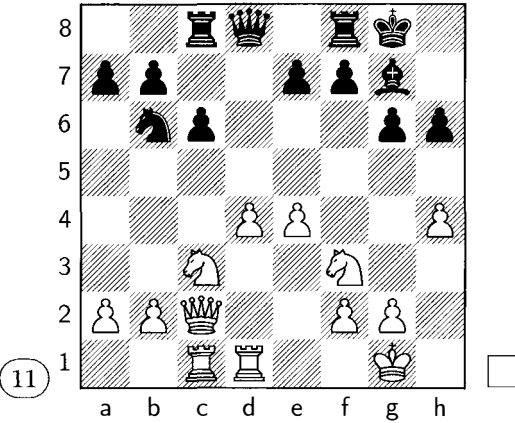
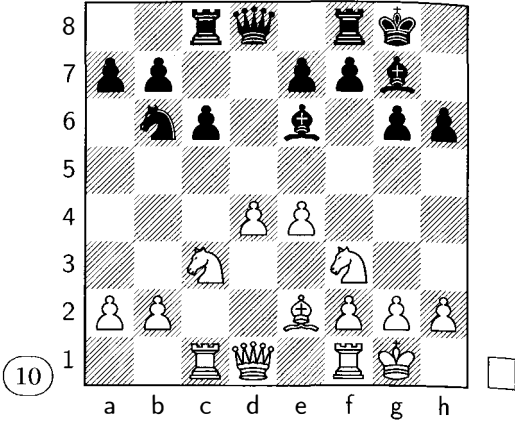
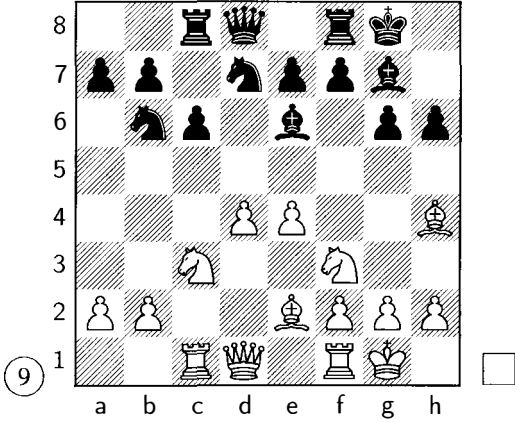
On the following page, evaluate each of the four positions. Think about which factors are key in determining the evaluation.

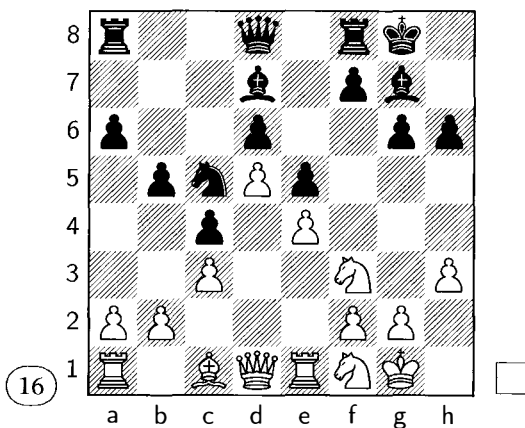
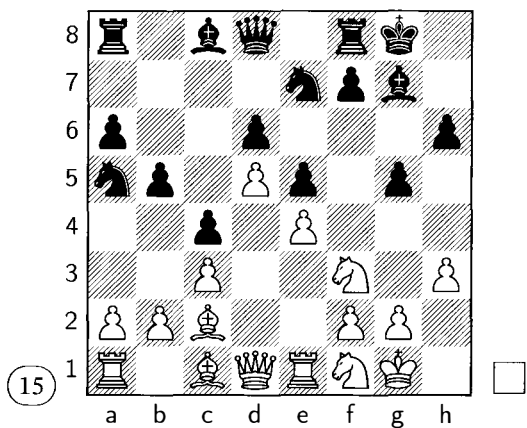
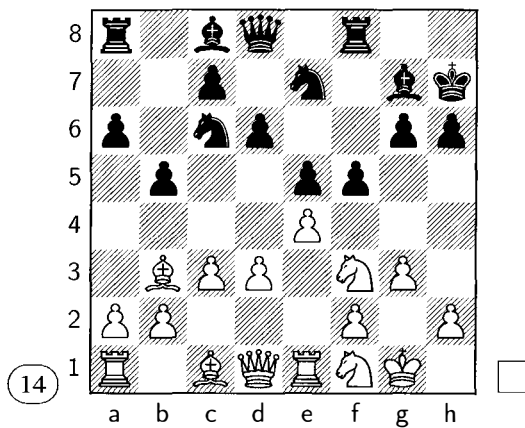
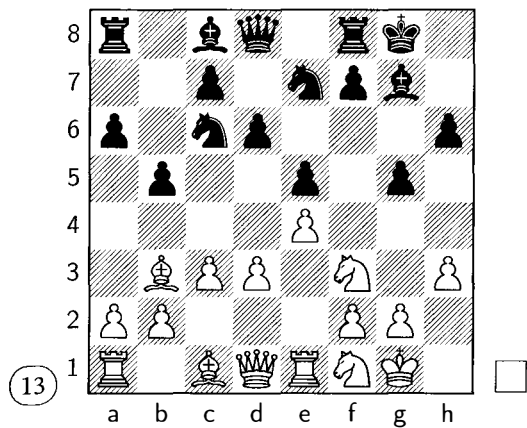


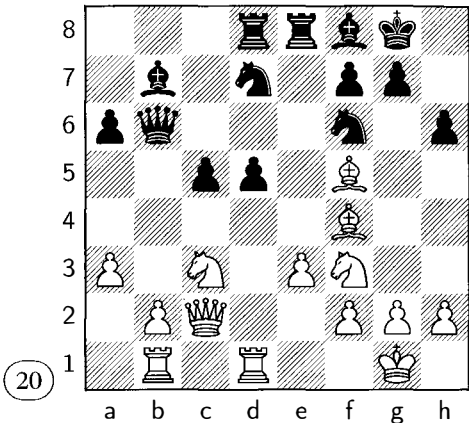
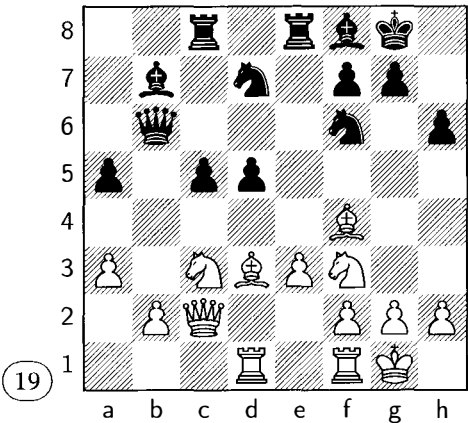
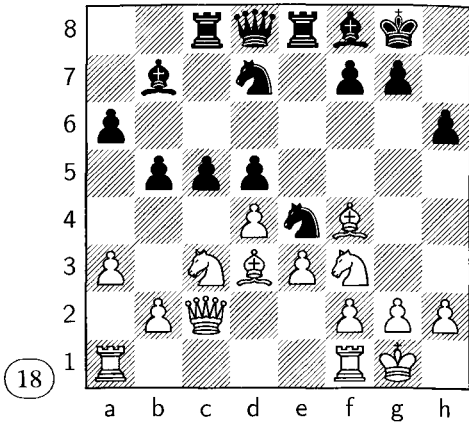
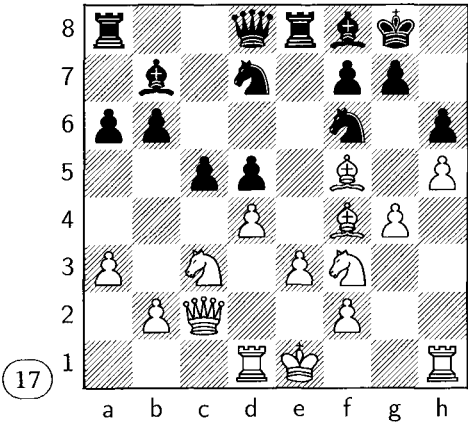
- a. White is much better. The open h-file combined with more space in the center will lead to an overwhelming attack on the kingside. A key maneuver is Be2-d1-c2, taking aim at h7.
- b. The position is balanced with chances for both sides. Without the light-squared bishop White will find it harder to create threats on the kingside. Black's bishop on b7 was trapped behind the light-squared pawns and even slowing down Black's queenside counterplay by blocking the b-file. In this position Black will create active play on the queenside with b4.
- c. White is winning. Since each side has a dominant space advantage on one side of the board, the game is a race – White attacking on the kingside, Black on the queenside. Passive defense is unlikely to work in such cramped quarters. Therefore it's a big deal that Black's queenside pawns are on the starting blocks. White can play g5 clamping down on the kingside, followed by doubling rooks on the h-file, or even Nf3-h2-g4-f6 with a thunderous knight sacrifice.
- d. Black is somewhat better. As before, it's a race, but this time Black's pawns are farther advanced while White's are in a traffic jam. In this case Black will get there first with b4, Reb8, bxc3, etc.

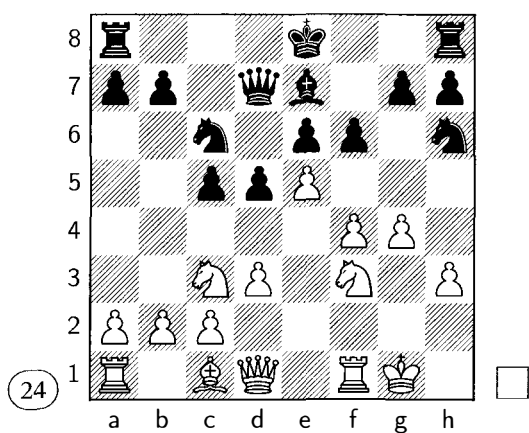
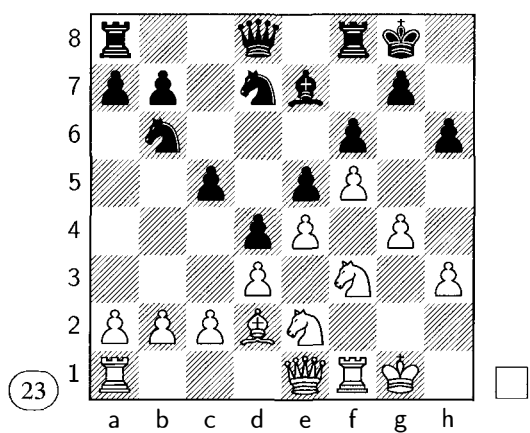
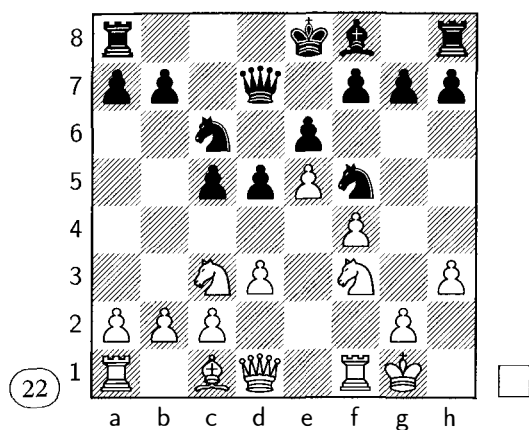
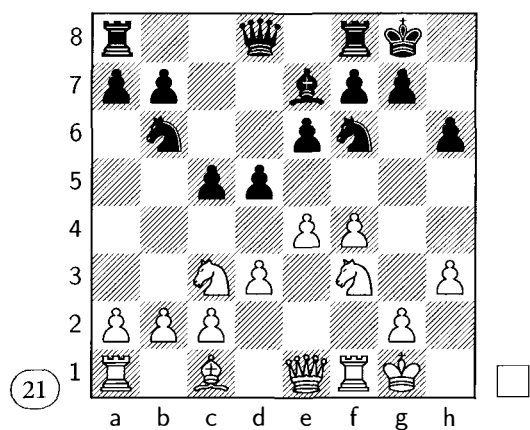












Answers

1. White is better in this typical Botvinnik English setup. The main factor is the space advantage as Black's pieces are cramped on the three back ranks. White has two main plans here: 1) Play the flexible move Qd2, followed by a kingside pawn storm 2) Play d3-d4 to reach a Maroczy Bind structure.
2. Black is slightly better. Here we have a totally different story. Black has achieved ideal trades and stands slightly better due to the full control over the d4-outpost. White has no counterplay as f4-f5 will only weaken his dark squares even more. We also have a classic case of a good knight against a bad bishop.
3. White is slightly better. Black has managed to trade his light-squared bishop and take over d4, which is a big improvement compared to position #1. However, White has made some progress with his kingside pawn storm and will likely follow up with h4-h5. Still, Black is rock solid and not in danger of getting mated anytime soon. There is plenty of fight ahead!
4. Black is clearly better. He controls the key d4- and e5-outposts while the weaknesses on d5 and e6 are rather superficial because White can't occupy them. If Black manages to trade a pair of knights White is at risk of being strategically lost due to the bad bishop on g2.
5. Black is much better. We have a classic Carlsbad pawn structure that can arise from the Queen's Gambit Declined, as well as many other openings. One of White's typical plans is the minority attack with b4-b5, but here they haven't managed to get that started. The knight on d6 is ideally placed, while the bishop on d3 doesn't have much to do. But the factor that really puts it over the top (the computer thinks Black is close to winning) is that White is very close to getting mated on the kingside.
6. The position is balanced. Compared to the previous example, White has made more progress on the queenside, and Black isn't as far along on the kingside. White can simplify the game with **1. b5** after which Black has a choice 1) **1... cxb5 2. axb5 axb5 3. Bxb5 Rec8 4. Qb3 Qe6!**= One might think that White is better here due to the weakness of the d7- and b5-pawns, but in reality the knight on d6 and queen on e6 do a good job of defending these pawns. White can't make much progress. 2) or **1...cxb5 2.axb5 a5!?** when the passed pawn provides counterplay.
7. White is much better, but only if he plays **1.e4!** This is another well-known plan, in addition to the minority attack. White seizes the center and with a threat of 2.e5 he will build up a powerful initiative, while Black is doomed to passivity.
8. White is much better after the classic minority attack move **1.b5!** Black will be left with clear pawn weaknesses on the queenside and no counterplay.

The computer can see that Black will be unable to avoid material losses and even considers it winning for White.

9. White is clearly better. He controls the center and Black's pieces are cramped on the back three ranks. Often when you have more space in the center, all that's necessary is to maintain the position and limit counterplay. Thus, **12. h3!** is the correct move here, preventing Bg4. Black can still trade the bishop with **12...Bc4**, but it's not sufficient for equality as it will be hard to execute the typical breaks ...c6-c5 or ...e7-e5.
10. The position is roughly equal. It's amazing how much one trade can relieve a cramped position! Compared to position #9, Black has achieved a favorable trade of the d7-knight for the h4-bishop. White still has a nice center, but **12.h3** is now met by **12...c5!** with counterplay.
11. White is better. One trade of minor pieces favored Black, but now a second trade favors... White?! It just shows how complex chess can be. The main reason is the lack of counterplay, and the poor knight on b6. White is ready to expand with a2-a4 or h4-h5, gaining more space on the wings. Black no longer has the bishop pair, so White has the center "for free."
12. Black is better. This is a dream Grunfeld, with clear targets on a2 and c3. The black bishop is a monster on the long diagonal, while White's knight is more of a defensive piece with no visible outposts. White's goal is to trade as many pawns as possible with **12.a4!**, attempting to simplify the position.
13. White is much better. The key to this position is Black's weakened kingside. White can undermine the g5-pawn with **1.h4!** or he can just build up with **1.Ng3** followed by d3-d4. In both cases Black has no counterplay and is doomed to passive defense.
14. Black is better. Compared to position #13, Black has executed his main idea of ...f7-f5 and White's king is now weak, with a big eyesore on the light squares caused by the earlier g2-g3 move. The side-by-side pawns on e5 and f5 are much more powerful than the "swiss cheese" formation with e5 and g5 we saw in the previous example.
15. White is much better. Similar to position #13, Black is weakened on the kingside. Additionally, White now has the **1.b4!** push, taking over the queenside. The knight on a5 is misplaced.
16. Black is clearly better. He has achieved the dream Ruy Lopez setup, has no bad pieces and control over the d3-outpost. Notice how big a difference one piece can make: in the previous example Black's knight was trapped on b7, here it's on the ideal square c5. Black's next move will likely be **...f7-f5!** with a big attack coming.

17. White is close to winning! In this unusual Queen's Indian structure, White has chosen to expand on the kingside, forgoing castling. This is 100% approved by Leela; in fact it is her main idea! White should play **1.g5!** and likely win with a direct attack.
18. Black is slightly better. He has a monster knight on e4 and full pressure on the c-file. White's rooks are late to the party and his queen is misplaced on c2, opposite the rook on c8. White could create an isolated queen pawn with **12. dxc5** but after **12... Rxc5** he will have to bail out with **13. Bxe4 dxe4 14. Nd4**. Black's bishop pair and extra space still give him an edge after the simple **14... Qf6**.
19. Black is slightly better. A lot of people are afraid of the hanging pawns (c5 and d5) because they can become weak. However, in this position the hanging pawns control most of the central squares and restrict White's pieces. White has no counterplay, while Black can take over the initiative with a timely **...d5-d4!** push.
20. White is slightly better, but only if he plays **1.b4!** (otherwise Black would play **1...a5**). It's important to undermine c5 and force the c-pawn to advance or be exchanged. Either way, White obtains the beautiful d4-outpost and a clear long-term target in the pawn on d5.
21. White is better. This position came about from a Grand Prix Attack where the light-squared bishops were traded. At first, this might seem like a big improvement for Black. However, White is about to grab more space and push Black's pieces backwards. Here is one possible line: **10. e5** (The positional approach with **10. a4** is also possible) **10... Nfd7 11. Ne2** (A flexible move, keeping all the options open. Attacking immediately with **11. g4!**? **11... Rc8 12. f5±** is an alternative.) **11... Rc8** (**11... f6 12. a4±**) **12. f5! exf5 13. Ng3 g6? 14. Bxh6** and now **14...Re8** allows the pretty finish **15.Nxf5 gxf5 16.Qg3++-**
22. Black is better. The key difference compared to position #21 is that Black's king is not yet castled, and the knight on c6 is better placed than on b6. It may seem like White can quickly generate counterplay with **g2-g4**, but after **11. g4 Nfd4 12. Nxd4 cxd4 13. Ne2 h5!** Black is the one to attack!
23. White is much better. He has the dream King's Indian-style attack and the better bishop. Black is lacking any of the typical counterplay on the queenside and has a bad knight on b6. The game continued: **15. b3!** (preventing ...c4) and Black couldn't do anything against White's kingside attack. After **15... Bd6 16. Kg2 Re8 17. h4 Be7 18. Qg3 Nf8 19. g5!+** White converted in a few moves.
24. Black is slightly better. Similar to position #22, Black has not committed his king while White is overextended on the kingside. Black will castle long and start the attack first, while White is lacking counterplay. His best line

is: **12. exf6! gxf6 13. f5!** (13. Qe2 Nf7 14. Re1 e5) **13... Nf7 14. fxe6 Qxe6 15. Qe2 Qd7!** followed by ...0-0-0, keeping his edge.

Chapter 8

What's Next?

For those readers still hungry to learn more about evaluation, we provide a short list of some of our favorite resources.

- **Elements of Positional Evaluation** by Dan Heisman

This is one of the few previous books to focus on evaluation explicitly. Whereas we embraced a workbook approach with lots of examples and minimal text, Heisman's approach features more explanation. Heisman is one of the most thoughtful coaches for club players and his explanations are accessible to players of all levels. For those craving more explanations, this would be an excellent pairing with our book, providing the theory where we offer the practice, so to speak.

- **Questions of Modern Chess Theory** by Isaac Lipnitsky

Not an evaluation book per se, but an excellent book on positional thinking from which we took inspiration and some examples.

- **Positional Decision Making in Chess** by Boris Gelfand and Jacob Aagaard

This is a unique window into the thought process of a player in the world elite. The style and layout of Aagaard's books were also a big influence for us. Warning: very advanced, best suited for stronger players!

- **Think Like a Super-GM** by Michael Adams and Philip Hurtado

A very interesting new book that combines elements of evaluation with other parts of the decision making process. The authors recorded detailed accounts of the thought processes of players ranging from club players to grandmasters, providing a fascinating contrast.

Printed in Great Britain
by Amazon



16632880R00072

Chess can be broken down into calculation and evaluation. Calculation involves crunching through moves, but at some point you have to stop and evaluate. Whose position is better and why?

Most chess books focus on calculation and select positions where the evaluation is obvious, but real games are filled with complex positions that are hard to evaluate. This book teaches the ins and outs of evaluations with examples from real games.



GM Eugene Perelshteyn is a former US Junior Champion and winner of many prestigious tournaments including Foxwoods Open and SPICE Cup Invitational. Eugene is co-author of USCF best-selling repertoire books *Chess Openings for White/Black Explained*. These days he coaches students ranging from club level to 2700 GMs. He is an established lecturer and author at Chess.com, Chesslecture.com, and Chessable. Eugene happily shares his opening knowledge with all students of the game on his website ChessOpeningsExplained.com.



FM Nate Solon is a FIDE Master, data scientist, and former poker pro. He's written about chess for Chess Life and Chessable. He writes *Zwischenzug*, a weekly newsletter about chess improvement.



ISBN 9798831797893



9 798831 797893



9 0000

