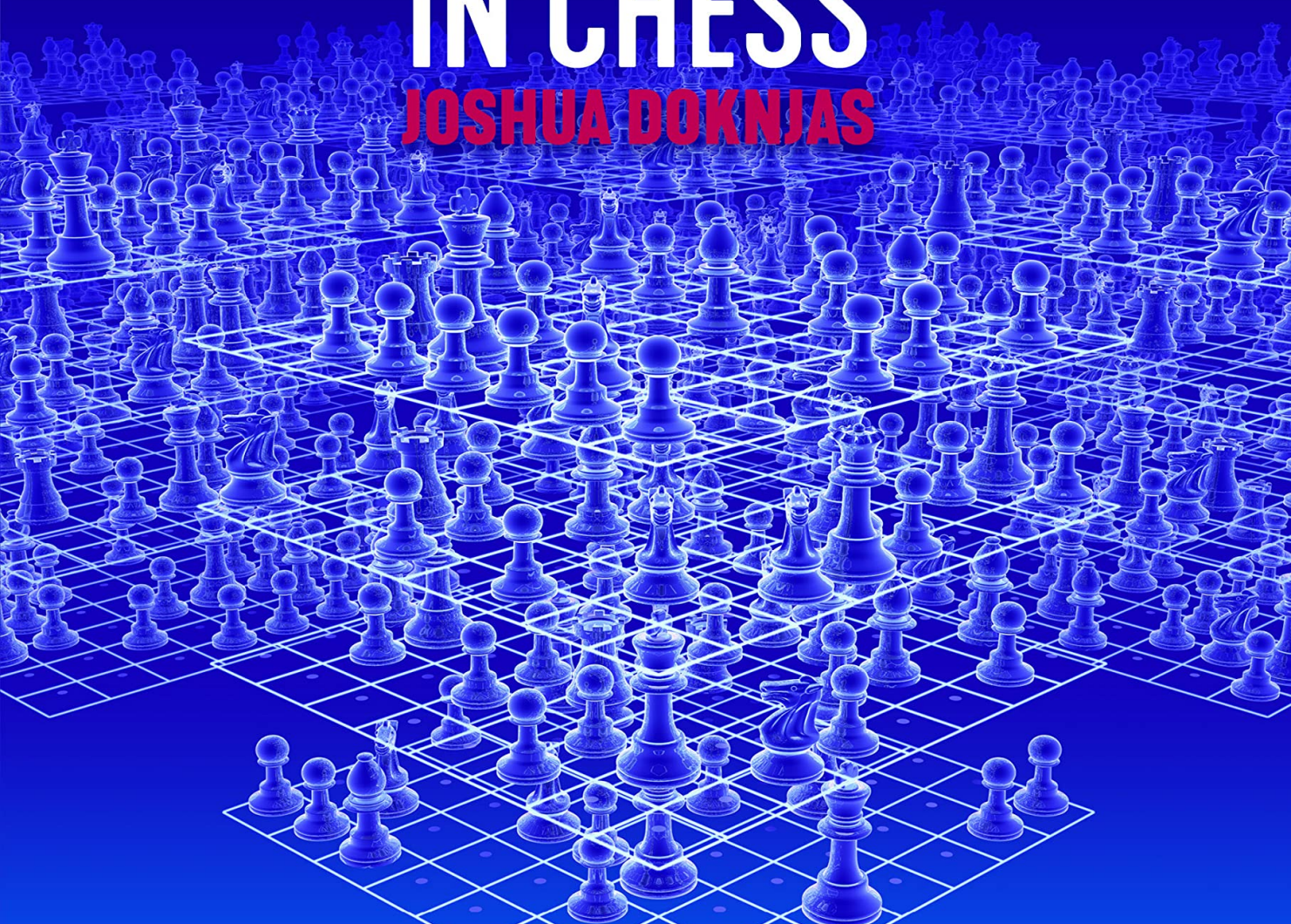


THE  
**AI**  
**REVOLUTION**  
**IN CHESS**

**JOSHUA DOKNJAS**



**EVERYMAN CHESS**

# The AI Revolution in Chess

Joshua Doknjas

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# About the Author

**Joshua Doknjas** is a FIDE Master from Canada and the author of two opening books on the Sicilian Najdorf and Ruy Lopez. He enjoys playing, teaching, and writing about chess. Joshua is pursuing studies in cognitive science and has a keen interest in understanding how AI advancements have influenced modern chess. This is his third book for Everyman Chess.

## **Also by the Author:**

*Opening Repertoire: The Sicilian Najdorf (with John Doknjas)*

*Opening Repertoire: The Ruy Lopez*

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## **Chess Engines**

Leela Chess Zero

Stockfish

# Introduction

Modern chess engines have been revolutionized since the arrival of AlphaZero, the AI engine that took the chess world by storm after mastering the game from scratch and defeating Stockfish in match play. AlphaZero popularized the idea of chess engines using self-play reinforcement learning to train a neural network, which detects patterns from the enormous amount of data generated in self-play. This pattern recognition ability, along with its searching algorithm, enables AlphaZero to steer the game towards positions where it has higher probabilities of winning. Once the approach taken by AlphaZero proved to be effective, a wave of neural network engines emerged and influenced top-level chess by unleashing countless new ideas in the opening and middlegame. Of these engines, the most notable is Leela Chess Zero (Lc0), which was launched in 2018 as an open-source project to follow in the footsteps of AlphaZero. Nowadays, any chess player can access AI engines that utilize neural networks on most online chess platforms, or by downloading the latest version of Stockfish – a hybrid engine that implements classical searching algorithms as well as a neural network into its architecture.

This book is about the impact AlphaZero, and subsequent neural network and hybrid engines, have had on modern chess. The world's best chess players spend most of their study time on opening preparation, working with the newest and strongest engines to prepare a robust opening repertoire and find new ideas which can be used to create problems for their opponents. Neural network engines have provided a fresh perspective on these tasks with their creativity and remarkable strategic understanding. My goal with this book is to provide readers with an understanding of how the recent AI revolution in chess has influenced preparation, opening theory, and middlegame understanding at the highest levels. Therefore, my work is based primarily on the analysis of top-level human games from 2018 to 2021. These games explore areas of chess that have developed significantly in recent years because of advancements in chess engines. Some correspondence games (where both players analyze with engines) and computer versus computer games are also examined to help illustrate a concept.

Throughout the book, I refer to “newer engines” or “neural network engines” as an engine that utilizes a neural network in some way. For example, AlphaZero, Lc0, and recent versions of Stockfish (Stockfish 12 and following versions) are all examples of newer engines. Despite the differences between these engines, their level of understanding is comparable for practical purposes because they reach a similar consensus on the vast majority of positions analyzed. In contrast to these newer engines, an “older engine” refers to classical chess engines – ones that do not utilize a neural network, instead attaining their level of play solely through hardwired rules and brute force calculation of variations. For example, older versions of Stockfish (Stockfish 11 and previous versions) and other top chess engines before AlphaZero’s time. This distinction between older and newer engines is extremely important because there are major differences in understanding between the two. They disagree on the evaluation of many types of positions, as we see in the introductory game between Grischuk and Nakamura and over the next seven chapters.

I divided this book into three parts:

**Part One** discusses some of the latest developments in opening theory that neural network engines have had a major influence on. I selected three openings: the Grünfeld, the Catalan, and the Najdorf. The innovative ideas in these openings often carry over to other areas of the game in view of their deep strategic nature. In Chapter 4, we will explore some new opening systems, which are classified as AI-inspired openings because the AI engines have played an instrumental role in popularizing them.

**Part Two** focusses on dynamics and new ideas in the middlegame that neural network engines have drawn attention to. The three topics are pawn sacrifices, closed positions, and material imbalances. While the focus of these chapters is on the middlegame, I also analyze some details about the opening, especially if there was a new idea played under the influence of a neural network engine.

**Part Three** wraps up the book with a discussion on the dangers of using engines by examining cautionary tales from top level chess.

## **A Clash of Styles**

The following strategic masterpiece by Alexander Grischuk is relevant to several areas of this book, including Chapter 2: The Catalan and Chapter 5: Pawn Sacrifices. The game also foreshadows a central theme, namely, the clash of styles between the older and newer engines. Grischuk displays a deep understanding of White's long-term compensation and shows that the older engines' confidence in Black's setup is entirely unjustified. His opening preparation and middlegame ideas are clearly influenced by the neural network engines; in fact, we will see a couple engine matches between Lc0 and an older version of Stockfish cited in the annotations.

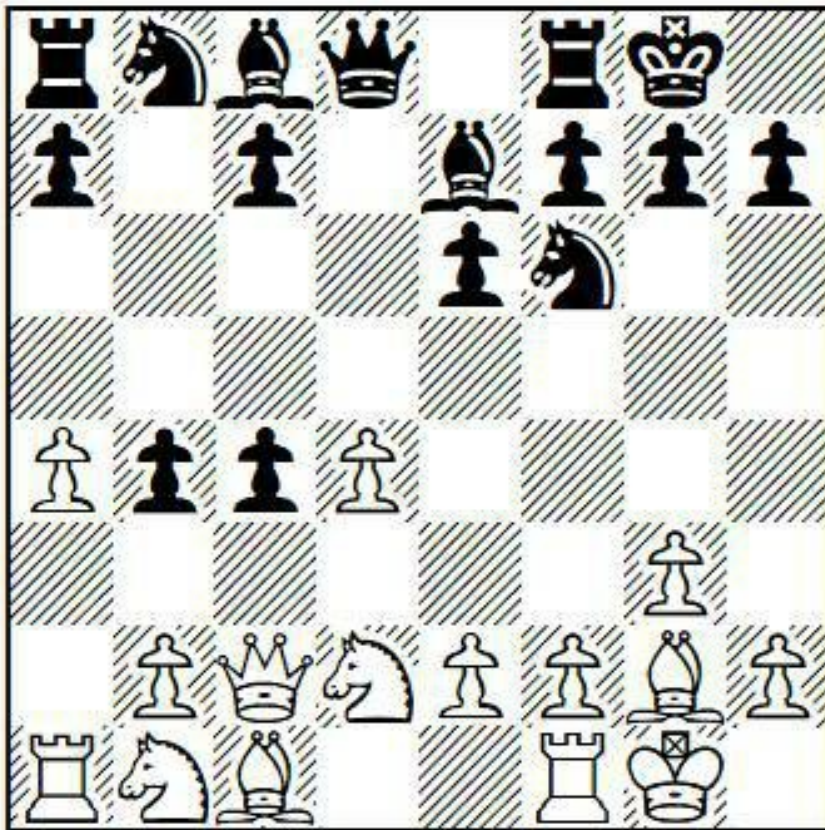
### **A.Grischuk-H.Nakamura**

Moscow FIDE Grand Prix 2019

**1 d4 Nf6 2 c4 e6 3 Nf3 d5 4 g3 Be7 5 Bg2 0-0 6 0-0 dxc4 7 Qc2 b5!?**

A very ambitious and risky response to the Catalan. Nakamura had already played this line in several previous games with good opening outcomes, so it did not surprise Grischuk.

**8 a4 b4 9 Nfd2**



**9 ... c6**

This line is a favourite of the older engines from the Black side, as they appreciate the extra pawn but neglect White's long-term initiative.

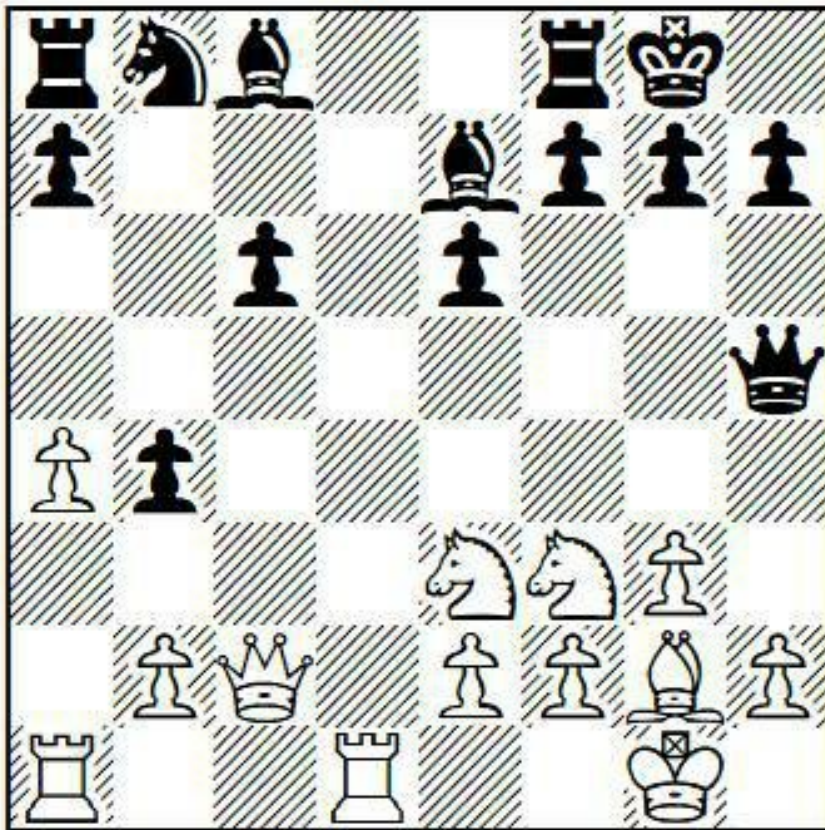
One of Carlsen's unused ideas from the 2018 World Championship Match, 9 ... Nd5! will be examined at the start of Chapter 2.

**10 Nxc4 Qxd4 11 Rd1 Qc5 12 Be3 Qh5 13 Nbd2 Ng4**

The alternative 13 ... Nd5?! does not create threats on the kingside, so White can immediately control some squares on the queenside. For example, 14 Nb3 Nxe3 15 Nxe3 a6 (15 ... a5 16 Nc4 and the a5-pawn will fall soon) 16 Nc4 Ra7 17 Rac1 with tremendous positional compensation for the pawn. One game between the older and newer engines continued 17 ... c5 18 Nba5 Qg5 19 h4! (taking squares away from the Black queen) 19 ... Qf6 20 Qe4 Rc7 21 Rd3 g5 22 h5 Qg7 23 h6 and Black's position was completely crushed in Lc0-Stockfish, TCEC 2019.

**14 Nf3 Nxe3 15 Nxe3**

Grischuk notes in his annotations for *New in Chess Magazine* that the computer (older engines) gives “conflicting evidence” in these complicated middlegames, unable to reach a definitive conclusion. However, for him, it was clear that White can use his initiative to pose major objective and practical problems for Black. Despite the older engines’ confidence in Black’s setup, the level of understanding provided by human players and the neural network engines argue that the 9 ... c6 variation is highly dubious.



### 15 ... a5

Another game between Lc0 and Stockfish saw 15 ... a6?! 16 Nc4 a5 17 Nfe5 Ra7 18 Rac1 c5 19 Qe4 Ra6 20 Nd2! Rd8 21 Nb3 with a crushing positional advantage in Lc0-Stockfish, TCEC 2019.

### 16 Nd4 Ba6 17 Rac1 Rc8 18 Bf3 Qg6

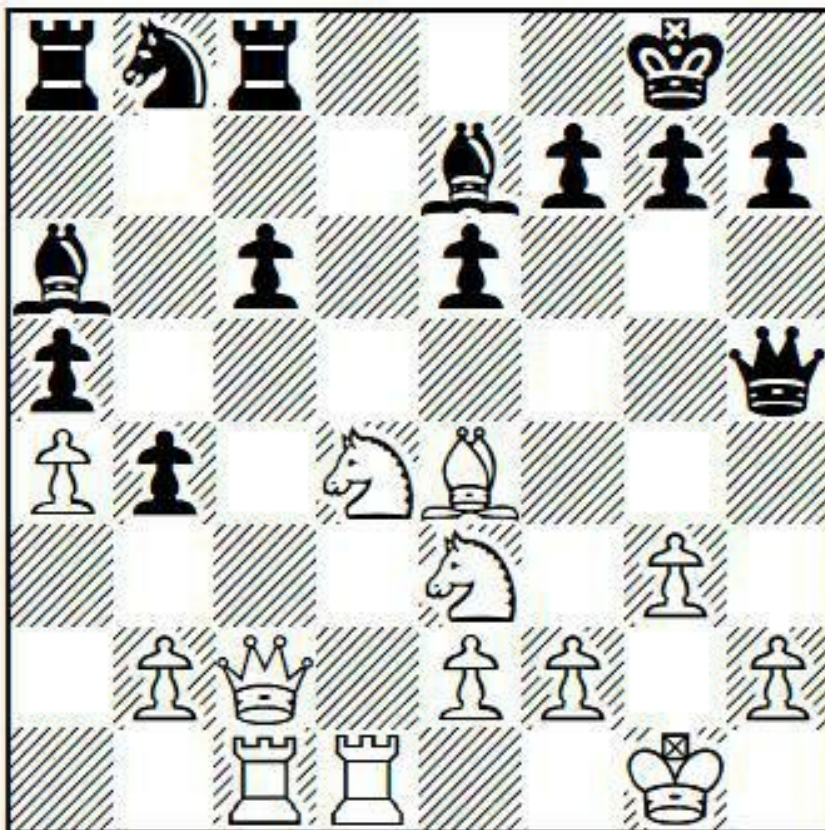
Grischuk pointed out the following line from his analysis: 18 ... Qe5 19 Ng4! Qc7 20 Qb3 Ra7 21 Be4! creating the threat of Nxe6, crashing through on the kingside. Black is forced to play a passive defensive move, such as 21

... Bf8 and now 22 Nxc6 Nxc6 23 Rxc6 Qb8 24 Qe3 Rxc6 25 Bxc6 Rc7 26 Ne5 sees White obtain a clear advantage.

**19 Be4 Qh5 20 Bf3**

Repeating the position once.

**20 ... Qg6 21 Be4 Qh5**



We have reached a type of middlegame position that the older engines really struggle with. White has clear long-term compensation, but there is no immediate way of breaking through. In such situations, they often overestimate the value of Black's extra material. On the other hand, the newer engines clearly see the strategic dangers in Black's position and find logical ways for White to make progress.

**22 Kg2!**

An excellent idea which was most likely prepared by Grischuk with one of the neural network engines. Over the next few moves, Grischuk slowly improves his position by gaining space on the kingside and taking away some

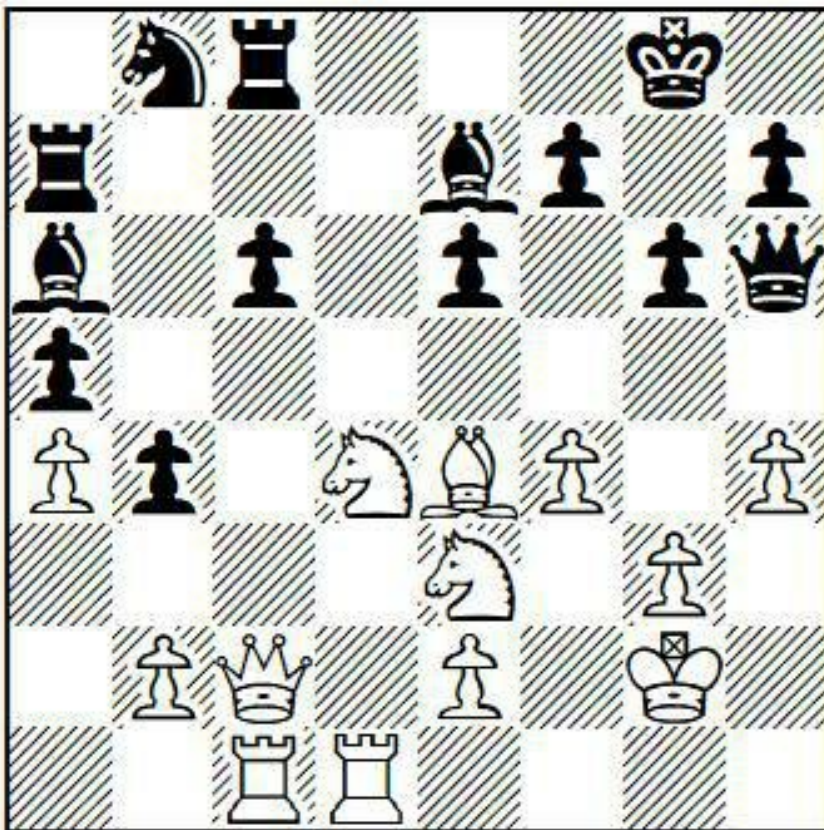
squares from Black's queen.

Direct attempts give White significantly less:

a) 22 Qd2?! releases some of the pressure on the kingside. Following 22 ... Bf6 23 Nxc6 Nxc6 24 Bxc6 Rab8 25 Bf3 Qe5 threatens b2, with a satisfactory position for Black.

b) 22 Rd2 makes more sense, but I don't think doubling rooks on the d-file is the best way to build up the pressure. One correspondence game continued 22 ... Ra7 23 Rcd1 g6 24 Nb3 (or 24 Bd3 Bg5 25 Qc5 Rac7 is playable for Black) 24 ... Qe5 25 Bd3 Bb7 26 Nc4 Qc7 and it was difficult for White to increase the pressure in F.Burmeister-S.Zielinski, correspondence 2019.

**22 ... Ra7 23 h4 g6 24 f4 Qh6**



Another correspondence game continued 24 ... c5 25 Bf3 Bb7 26 b3 Bxf3+ 27 Nxf3 Qh6 28 Nc4 Qf8 29 h5 and White proceeded to open the h-file and launch a decisive attack in L.Parsons-U.Burgarth, correspondence 2019.

**25 Nb3?!**

In view of the improvement on Black's 25th move, stronger was 25 Ng4! Qg7 26 Ne5 Rac7 27 Bf3 and now:

a) 27 ... h5 28 Qe4 Bf6 29 Rc5 gave a clear edge for White in A.Cubides-S.Zielinski, correspondence 2019. A very unpleasant defence for Black lies ahead.

b) During the game, Grischuk spent a lot of time calculating 27 ... Bf6 28 Qc5 Bxe5 29 fxe5 Nd7 30 Qxa5 Bb7 but could not find a strong continuation here.

### **25 ... Kh8?**

It was essential to fight for activity and not give White the chance to build up his queenside pressure.

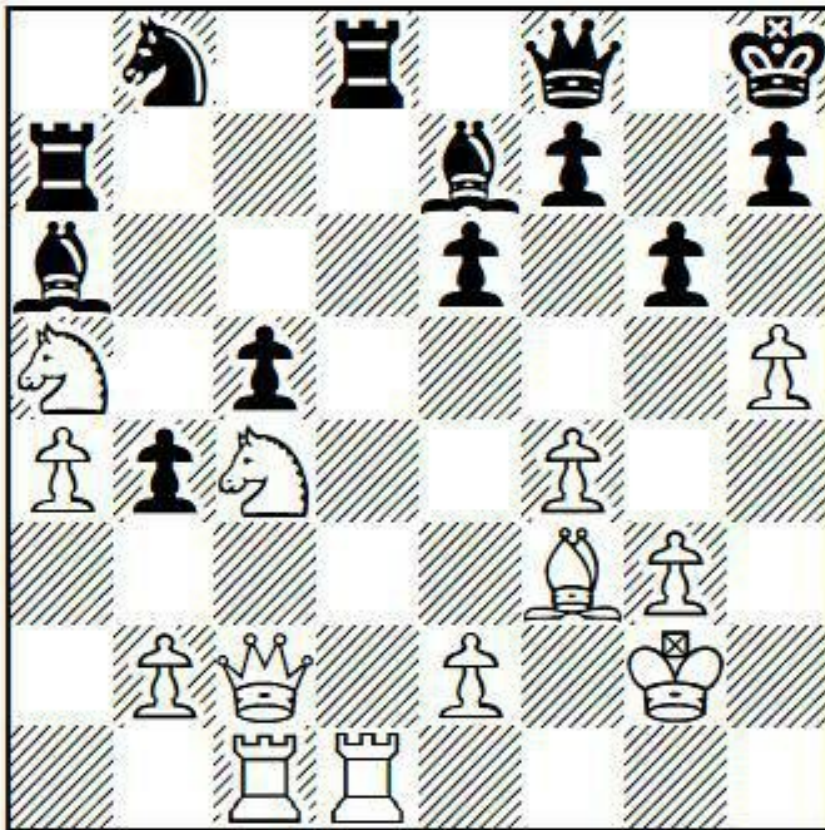
25 ... c5! allows Black to reach a satisfactory middlegame. For example, 26 Nxa5 (26 Nc4 Qf8 27 Nbx5 Bd8 is also not too concerning for Black) 26... Bxe2 27 Qxe2 Rxa5 should only be slightly better for White.

### **26 Bd3!**

Securing the c4-square for the knight.

26 Nxa5 runs into 26 ... f5 27 Bf3 e5! exploiting the poor minor pieces on f3 and e3.

**26 ... Bb7 27 Nc4 c5+ 28 Be4 Ba6 29 Nbx5 Qf8 30 Bf3 Rd8 31 h5**



The h-pawn advance creates problems for Black on both sides of the board, and the challenges quickly become overwhelming.

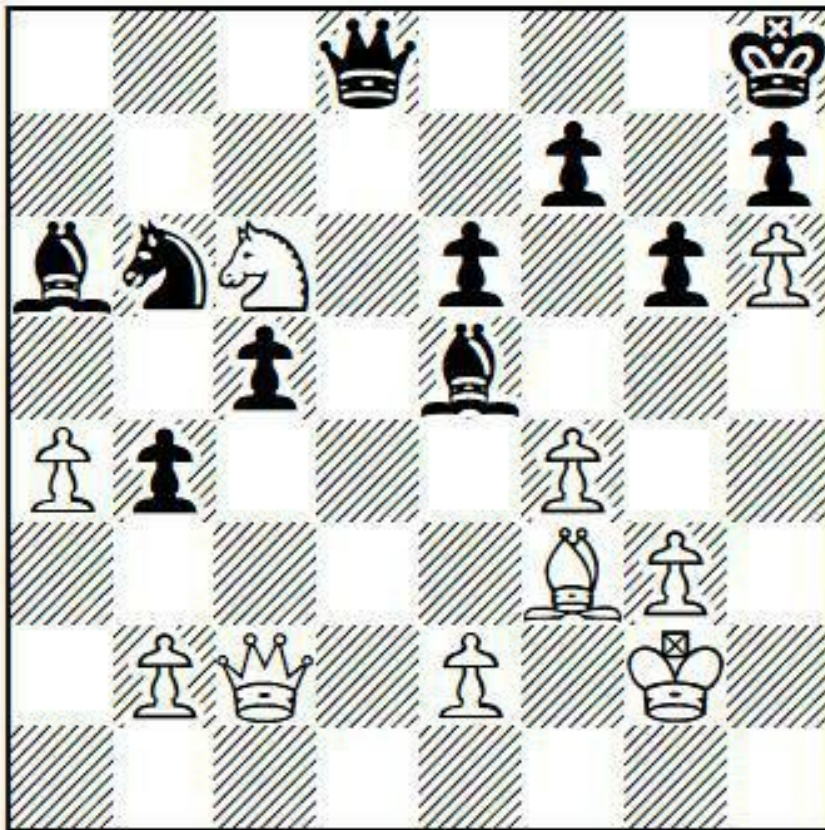
**31 ... Bf6**

31 ... g5 may have been a better defensive try, but after 32 f5 the situation remains dire.

**32 Rxd8 Qxd8 33 Rd1 Rd7 34 Rxd7 Nxd7 35 h6!**

Suffocating Black's kingside.

**35 ... Nb6 36 Ne5 Bxe5 37 Nc6**



Grischuk wins the arising endgame without any difficulties.

- **37 ... Nc4 38 Nxd8 Ne3+ 39 Kf2 Nxc2 40 Nxf7+ Kg8 41 Nxe5 c4 42 Bg4 Nd4 43 Ke1 Kf8 44 Kd1 Ke7 45 e3 Nb3 46 Nc6+ Kf6 47 Nxb4 Bb7 48 Be2 Na5 49 Kd2 Nb3+ 50 Kc3 Nc5 51 a5 Ne4+ 52 Kxc4 Nxf3 53 Bd3 g5 54 fxf3+ 1-0**

My work provides one perspective on chess engines, that is, the impact of neural network engines on modern chess. Among the many great resources available on chess engines, I personally found the perspectives given by the following two books to be very insightful:

1. *Game Changer* by Matthew Sadler and Natasha Regan. This work provides a thorough analysis of AlphaZero, including how the engine works, its thought process, and key themes from the matches between AlphaZero

and Stockfish.

2. *Deep Thinking* by Garry Kasparov and Mig Greengard. This work provides a personal account of Kasparov's experiences with chess engines. The past, present, and future of AI are discussed throughout the book, including how AI in chess fits into the bigger picture of technological progress.

## **How to Get the Most out of This Book**

Try reading actively. There are questions and exercises dispersed throughout each chapter, which aim to highlight an interesting concept or idea. Another suggestion is to spend a minute or two thinking about the diagrams that attract your attention. Diagrams often display an important moment that is worth spending some time on. Afterwards, you can compare your thoughts with the game continuation and my analysis.

- Avoid getting caught up in variations. Many games contain a thorough opening analysis in order to give a complete picture of the latest developments. However, it is not necessary to explore all these variations. Instead, some readers may prefer to focus on the main game and only examine variations that they are curious about.

Take note of the key points at the end of each chapter. These points help to summarize some of the main topics which were discussed, so that some general conclusions can be drawn from the analysis. A few additional games are also provided in case readers wish to investigate a topic of interest more deeply on their own.

## **Acknowledgements**

I would like to thank my parents, brothers, and friends for supporting me throughout the writing process, as well as Byron Jacobs and the team at Everyman Chess for setting the project into motion.

Joshua Doknjas,

Canada,

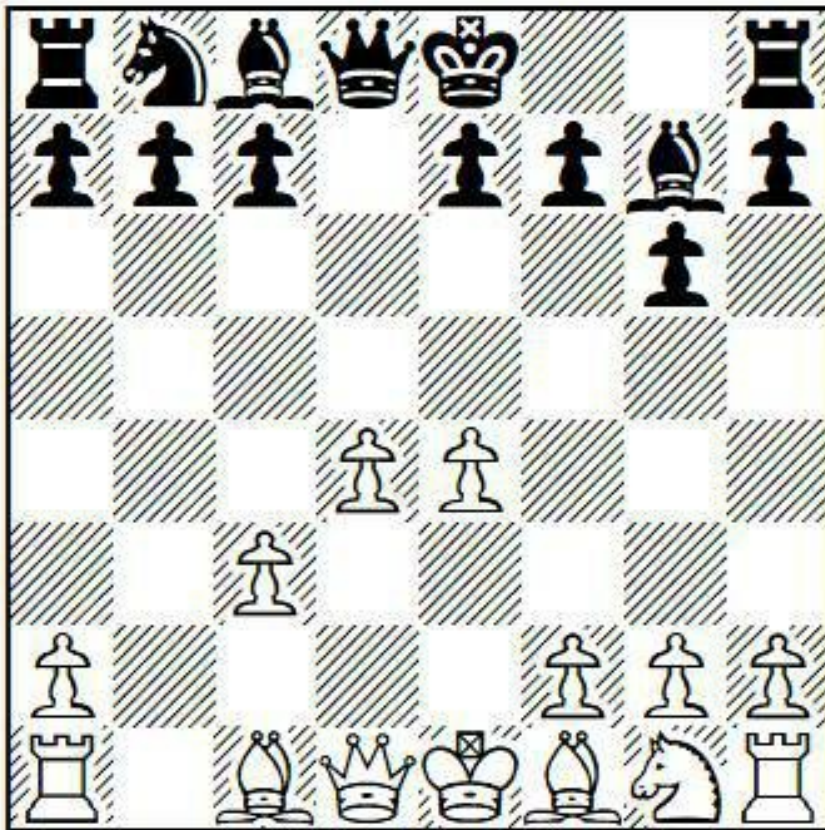
January 2022

# Chapter One

## The Grünfeld

The Grünfeld is one of the most dynamic and robust openings for Black against 1 d4. With these benefits comes a heavy price, as Grünfeld players need to be prepared for numerous sharp and theoretically intensive variations. Nearly every Grünfeld game at the top level features some fresh idea to challenge Black's memory and understanding of the arising middlegames. Still, the Grünfeld remains a popular opening because of its vigorous and counterattacking nature. In addition to being a popular choice at all levels, the Grünfeld is arguably the opening that has been impacted the most by modern engines.

One of the main reasons the Grünfeld has seen many new AI-influenced ideas is the effectiveness of the h-pawn advance. AlphaZero's favorite h-pawn attack is strongest when White has good control over the centre and the h5 and h6-squares are poorly defended by Black. These two factors make the exchange Grünfeld an ideal battleground for ideas connected with h4-h5 because of White's clear presence in the centre and the absence of Black's f6-knight.



Two big main lines of the exchange Grünfeld, 7 Nf3 c5 8 Be3 and 7 Bc4, are examined in this chapter. Each game analyzes the impact of modern engines on opening theory, as well as their influence on middlegame plans. Besides the typical h4-h5 idea, many pawn sacrifices from both White and Black will be seen frequently. Most ideas will be displayed from White's perspective, but each game also includes some recommendations for Black to counter the AI-influenced concepts. After games 1-7 on the Exchange Grünfeld, we'll have a look at a couple new pawn sacrifices that Black can use to fight for the initiative.

### **AlphaZero's Grünfeld Endgame**

To begin our discussion on the Grünfeld, we'll analyze an endgame that was featured in some of the AlphaZero-Stockfish games. AlphaZero brought some new ideas to this endgame and highlighted the potential dangers in

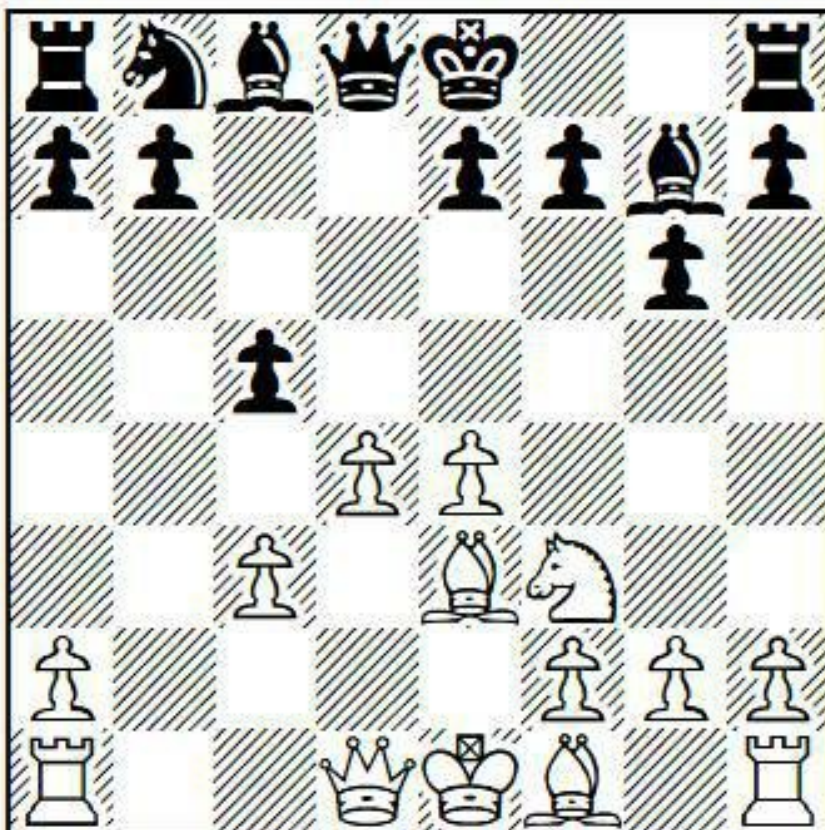
Black's position. Stockfish, like most older engines, underestimated the consequences of allowing h4-h5 and quickly ran into long-term strategic problems. Armed with the knowledge of these games, a much stronger defensive setup has been established as Black's most reliable plan. However, there are still ways for White to pose some questions as we will soon see in the following game.

### *Game 1*

**S.Vidit-M.Ragger**

Prague Masters 2020

**1 d4 Nf6 2 c4 g6 3 Nc3 d5 4 cxd5 Nxd5 5 e4 Nxc3 6 bxc3 Bg7 7 Nf3 c5 8 Be3**



AlphaZero's preference against the Grünfeld and one of Carlsen's main weapons in 2019, when he used it to win games against two Grünfeld experts – Grischuk and MVL.

### **8 ... Qa5 9 Qd2 Nc6**

The main line of the 8 Be3 system, leading to an endgame where White has more central control, but Black will have his share of ideas as well. These ideas include creating play on the queenside and provoking weaknesses in White's centre by targeting the d4-pawn.

9 ... 0-0 10 Rc1 leads to a tabiya which we will analyze in the next game.

### **10 Rb1**

The main line these days instead of 10 Rc1. White's idea is to provoke 10...a6 (because 11 Rb5 is threatened) and only then play 11 Rc1.

### **10 ... a6**

10 ... cxd4 was MVL's preference against Carlsen. Following 11 cxd4 0-0 12 Qxa5 Nxa5 13 Bd3 Bg4 14 0-0, it is important for Black to play 14...b6 here and ...Bxf3 only if White provokes it with h3. Instead, M.Carlsen-M.Vachier Lagrave, Zagreb 2019 saw 14...Bxf3?! 15 gxf3 e6 16 Rfd1 Rfd8 17 Bf1 b6 18 Ba6 and Carlsen eventually created a passed d-pawn and won without difficulties.

### **11 Rc1 cxd4 12 cxd4 Qxd2+ 13 Kxd2 e6**

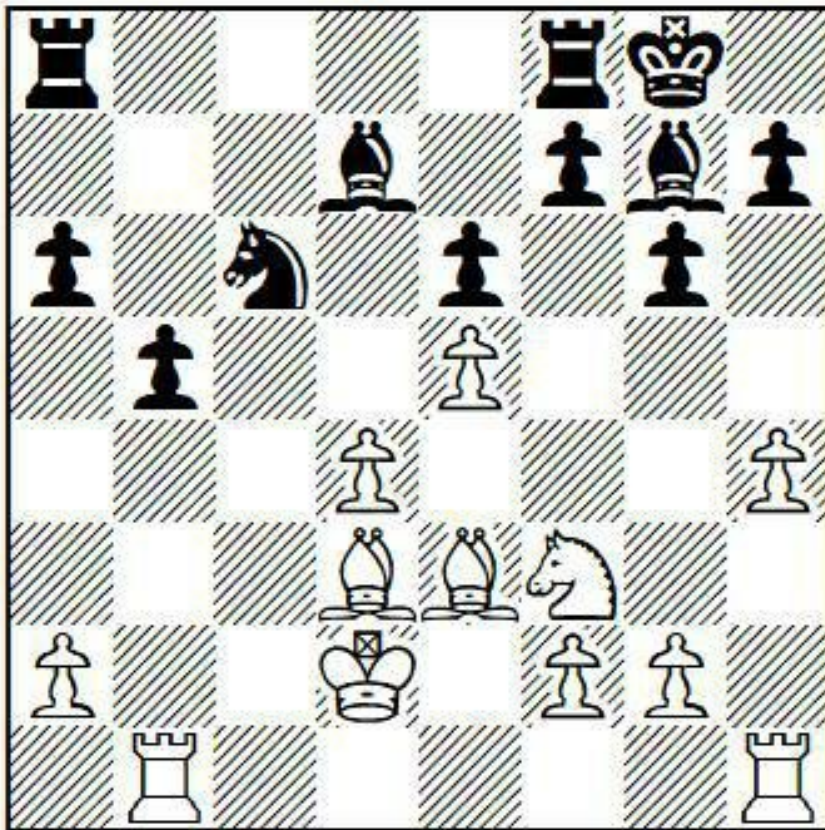
One of the reasons provoking ... a6 (with 10 Rb1) is useful for White can be demonstrated in the following variation: 13 ... 0-0 14 d5 Rd8 15 Ke1 and Bb6 is coming next, exploiting the weakened b6-square. If the a6-pawn was back on a7, then 15 ... Na5 would provide adequate counterplay.

### **14 Bd3**

As shown in several of the AlphaZero-Stockfish games, older engines struggle to understand the key ideas of this endgame, especially in how Black should respond to the typical h4-h5 idea.

### **14 ... 0-0**

One AlphaZero-Stockfish game continued 14 ... Bd7 15 e5 0-0 16 Rb1 b5 17 h4



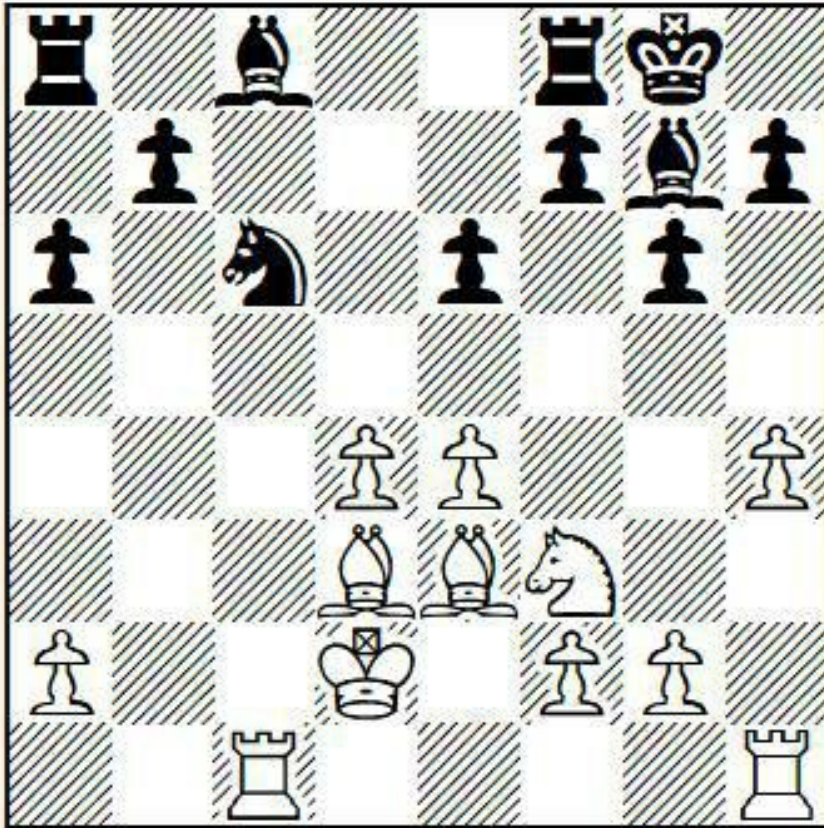
Reaching a critical position, as Black must decide how he intends to respond to White's plan. The h-pawn advance can be ignored, or countered by responding actively on the kingside:

a) Stockfish tried 17 ... Ne7?! with the idea of activating the bishop on d7. However, this plan severely underestimates the consequences of allowing h5-h6: 18 h5 Bc6 19 h6! (a typical idea of the newer engines, and a recurring theme throughout this chapter) 19 ... Bh8 threatening ... f6, which makes it necessary for White to continue energetically. AlphaZero found the strong 20 Ng5! sacrificing the g2-pawn so that Nxe6 can be played in case of ... f6. The strength of this prophylactic idea was seen after 20 ... Bxg2 21 Rhc1 Bd5 22 Rc7 Nf5 23 Ne4 Rfc8 24 Rbc1 Rxc7 25 Rxc7 Bxa2 26 Nc5 Bd5 27 Nd7 and AlphaZero had completely paralyzed Stockfish's kingside in AlphaZero-Stockfish 8, London 2018.

b) 17 ... f5! was much stronger. Even though the position remains somewhat unpleasant after 18 exf6 Bxf6 19 h5 g5 20 Bxg5 Nxd4 21 Bh6, at

least here Black isn't suffocating on the kingside.

**15 h4!**



**Question:** Should Black respond to h4 by playing 15 ... h6, 15 ... h5, or ignore

White's idea?

**Answer: 15 ... h6!**

The most effective way of meeting White's h-pawn advance because it creates fewer weaknesses than 15...h5.

Black's position can become very uncomfortable if he plays 15 ... h5?! or ignores White's h4-h5 plan, as demonstrated in the examples below. Modern engines and practice have shown that 15 ... h6 is a safer choice, but this is not at all trivial to the older engines. Many of them prefer the alternatives:

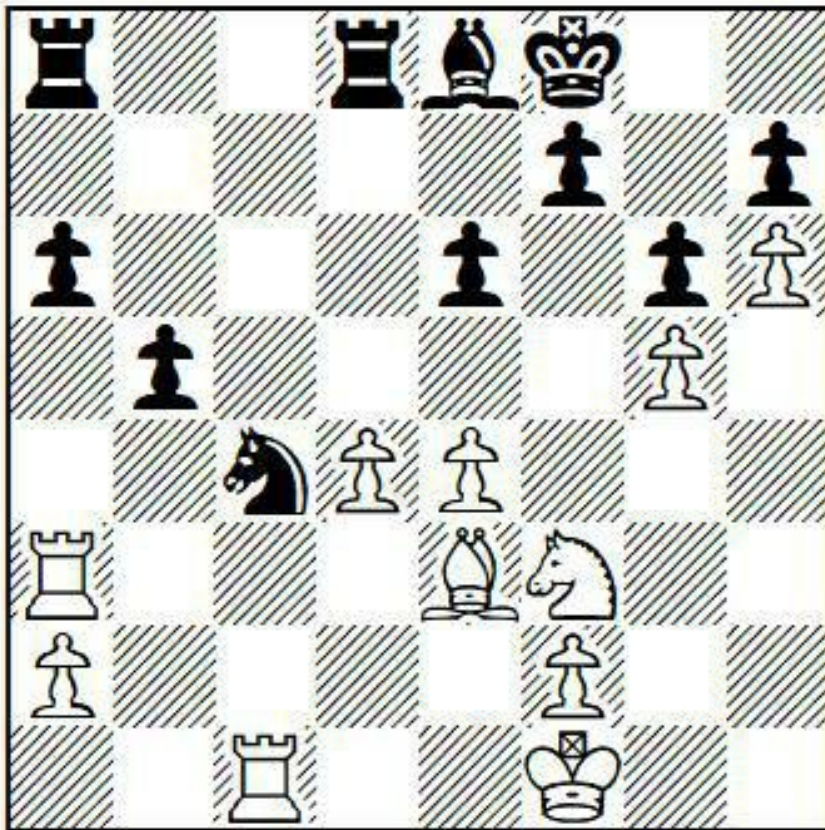
a) 15 ... h5?! is a mistake, the inclusion of h4 and ... h5 turns out to be clearly favorable for White. The g5-square is under White's control and

opening the kingside with g4 is an idea in the immediate future. After 16 e5 Rd8 17 Rhg1 Bd7 18 Rb1, Black was under serious pressure in Lc0-Fire, TCEC 2018, due to the weak b7-pawn and Lc0's threat of opening the kingside with g4.

b) 15 ... Rd8 16 Rc4 Bd7 (16 ... h6 is better, but Black remains under some pressure after 17 Rb1 Bd7 18 Rb6! due to the weak b7-pawn) 17 h5 and now we'll examine two instructive, high-level games:

b1) 17 ... Be8 18 e5 Rd5 19 hxg6 (19 h6 was also very strong, preparing to exploit Black's dark squares on the kingside with Nh2-g4) is a more direct approach than the typical h6 idea, and it works very well in this position. This was shown after 19 ... hxg6 20 Be4 Rb5 21 Bg5 Rb2+ 22 Ke3 Na7 23 Rc7 and White was winning in AlphaZero-Stockfish 8, London 2018.

b2) 17...b5 18 Rcc1 Rac8 19 h6! Bf6 20 g4! gave White a clear advantage in H.Elyoseph-T.Slawinski, correspondence 2020. The game featured a very instructive moment which we will skip ahead to. 20 ... Be7 21 g5 Ba3 22 Rc2 Be8 23 Rd1 Kf8 24 Ke2 Ra8 25 Kf1 Nb4 26 Rc3 Nxd3 27 Rxa3 Nb2 28 Rc1 Nc4



29 Rxc4! is a crushing exchange sacrifice that allows White to exploit the weak dark squares on Black's kingside. At the same time, White has excellent piece coordination so it is difficult to see how Black could try to create counterplay. The game continued 29 ... bxc4 30 Ne5 Rdc8 31 Rc3 Rab8 32 Bc1 Bc6 33 Ba3+ Kg8 34 Ng4 and the poor king on g8 along with the weak f6 and g7-squares were the decisive factors in White's victory. One of the ideas here is Nf6+ followed by Bd6-Be5.

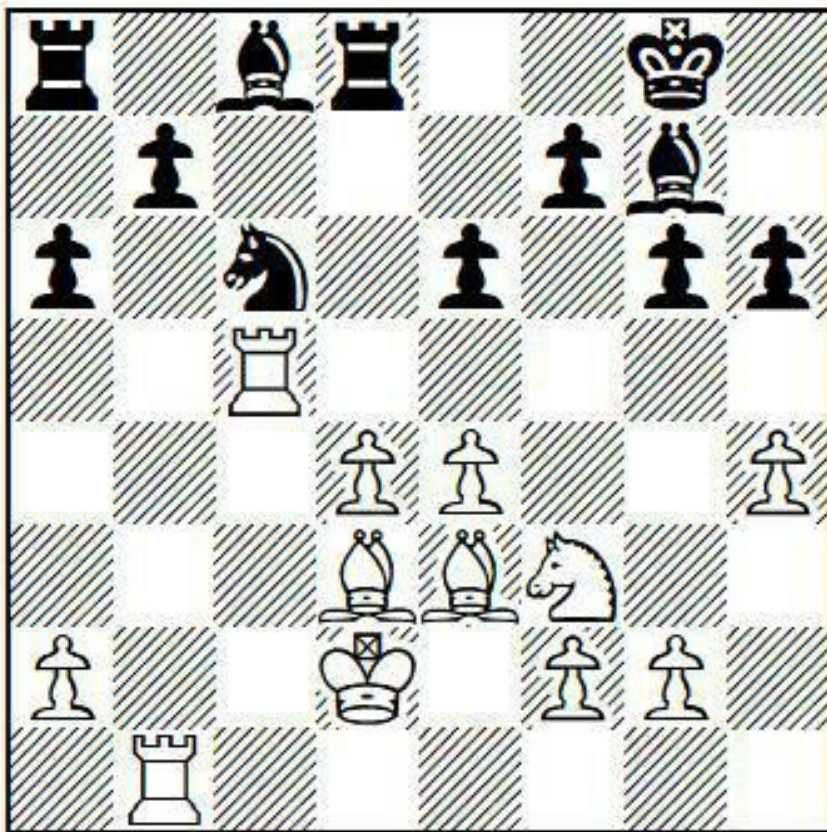
### 16 Rc5

In S.Vidit-A.Giri, chess24 (rapid) 2020, the quieter 16 Rb1 Rd8 17 e5 b5 18 Rhc1 was played, but the advantage quickly passed to Black after 18 ... Bd7 19 Be4 Rac8 20 Ke1 Na5 21 Nd2 Bc6 22 f3 Bf8 when Giri's pieces were very well-positioned for the tense endgame battle ahead. Indeed, Grünfeld endgames are certainly not risk-free for White because Black can create chances by utilizing his queenside majority or by provoking weaknesses in the centre.

### 16...Rd8

A solid defensive setup can be reached for Black after 16 ... Bd7 17 Rb1 b5 18 Rbc1 Rfc8 but the game remains complicated. White can consider various ideas involving e5, Be4, and Nh2-g4.

### 17 Rb1



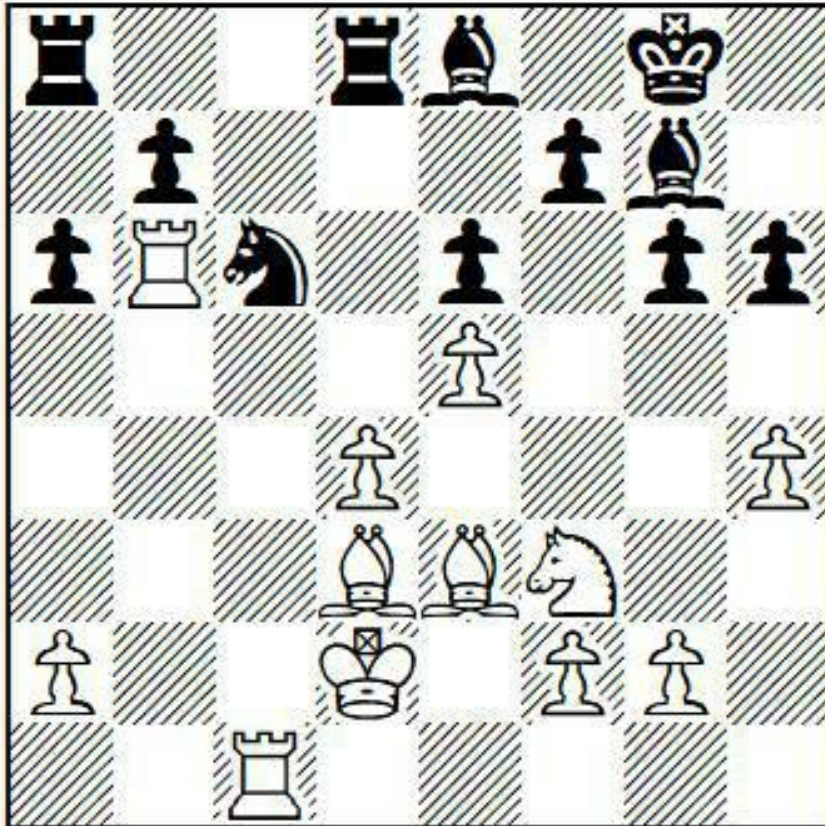
### 17...Bf8

The forcing 17 ... Nxd4 18 Bxd4 Bxd4 19 Nxd4 Rxd4 20 Ke3 leads to an unpleasant-looking endgame for Black. Despite being up a pawn, Black's piece activity is very poor compared to White's. However, the position is completely holdable if Black can show good preparation and accurate calculation. The critical line is the following forcing variation: 20 ... Ra4! (but not the passive 20 ... Rd8? 21 Rb6 Bd7 22 Rxb7 Bb5 23 Bc2 in view of White's active king and rooks) 21 Rc7 e5 22 Bc4 Be6 23 Bxe6 fxe6 24 Rxb7 Ra3+ 25 Ke2 Rxa2+ 26 Kf3 Rf8+ with sufficient rook activity to hold the game.

### 18 Rc4 Bd7 19 Rb6

An important move to prevent ... b5, which also highlights one of the benefits of having provoked ... a6 back on move 10 with 10 Rb1.

### 19 ... Be8 20 Rc1 Bg7 21 e5



### 21...Bf8

The stronger 21 ... Rab8! doesn't save the queenside pawns, but it does create more chances for counterplay. For example, 22 Rcb1 Na5 23 Bxa6 Bc6 24 Bd3 Bd5 and the active bishop on d5 provides decent compensation for the pawn.

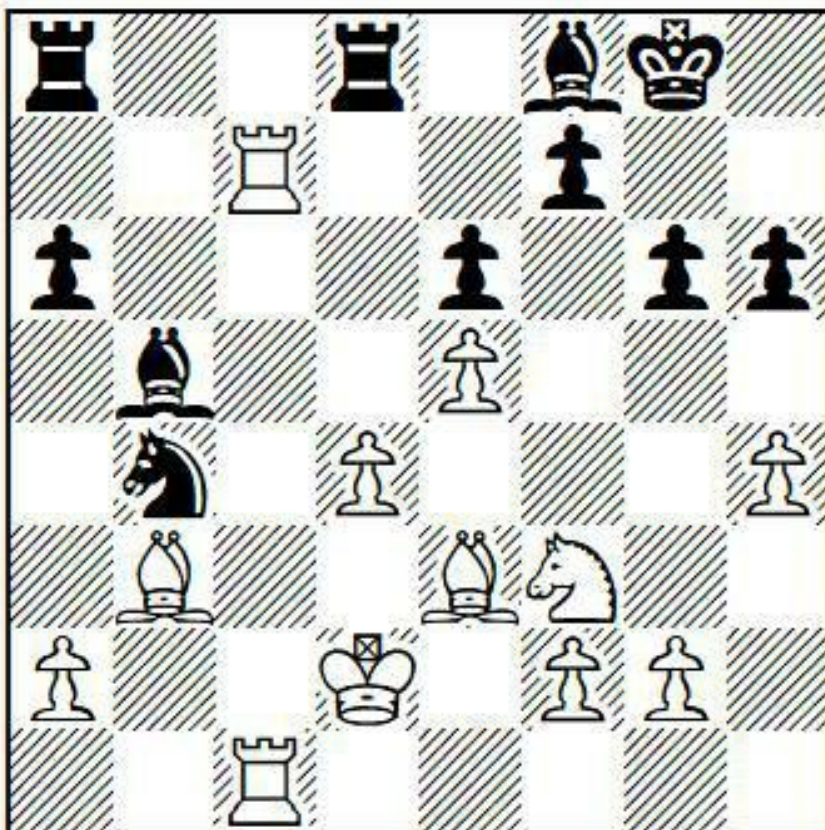
### 22 Rxb7 Nb4 23 Bc4 Bc6 24 Rc7 Bb5 25 Bb3?!

This retreat provides Ragger with an opportunity for counterplay. There were two good alternatives for White:

a) 25 a3! Bxc4 26 R7xc4 Nd5 27 a4 with an extra pawn and clear edge for White.

b) 25 Nh2 intending Ng4 was also quite strong. 25 ... h5 can be tried to

prevent Ng4, but then, White simply brings his knight right back with 26 Nf3 and Ng5 is coming soon.



*Exercise:* Can you spot the opportunity for Black to create counterplay?

**25 ... Nd5?**

*Answer:* 25 ... Nd3! creates counterplay based on a nice sequence to attack the c7-rook: 26 Rb1 Bb4+! 27 Kd1 Ba5 28 Rc2 Nb4 and Black is okay.

**26 Bxd5 Rxd5 27 Rc8**

The endgame with an extra pawn for Vidit is incredibly difficult to defend.

**27 ... Rd8 28 Rxa8 Rxa8 29 Bf4 Kg7 30 Rc7 Bb4+ 31 Ke3 Rd8 32 g4 Rd7 33 Rc8 a5 34 Bg3 Ba6 35 Rc2 Bb7 36 Ng1 g5?! 37 f4 gxf4+ 38 Bxf4 Be7 39 h5 Ba6 40 Nf3 Bb4 41 g5! hxg5 42 Nxc5 Bb7 43 Ne4 Be7 44 Nd6 Bd5 45 h6+ Kg6 46 Rc1 1-0**

## Carlsen's Flank Attacks

The h-pawn advance can be a very powerful idea in Grünfeld endgames, which was demonstrated flawlessly in the AlphaZero-Stockfish games that we just examined. This h5-h6 idea can also be a dangerous weapon in the middlegame, with the idea of gaining kingside space and weakening the dark squares around Black's king. When the queens are on the board, it may appear that the purpose of pushing the pawn to h5 is to play hxg6 and open the h-file. But this isn't always the most effective method of a flank attack. The following two games see Carlsen create crushing kingside attacks by opening the kingside directly (Game 2) and by advancing his pawn to h6 (Game 3), suffocating the Black king and dark-squared bishop.

### *Game 2*

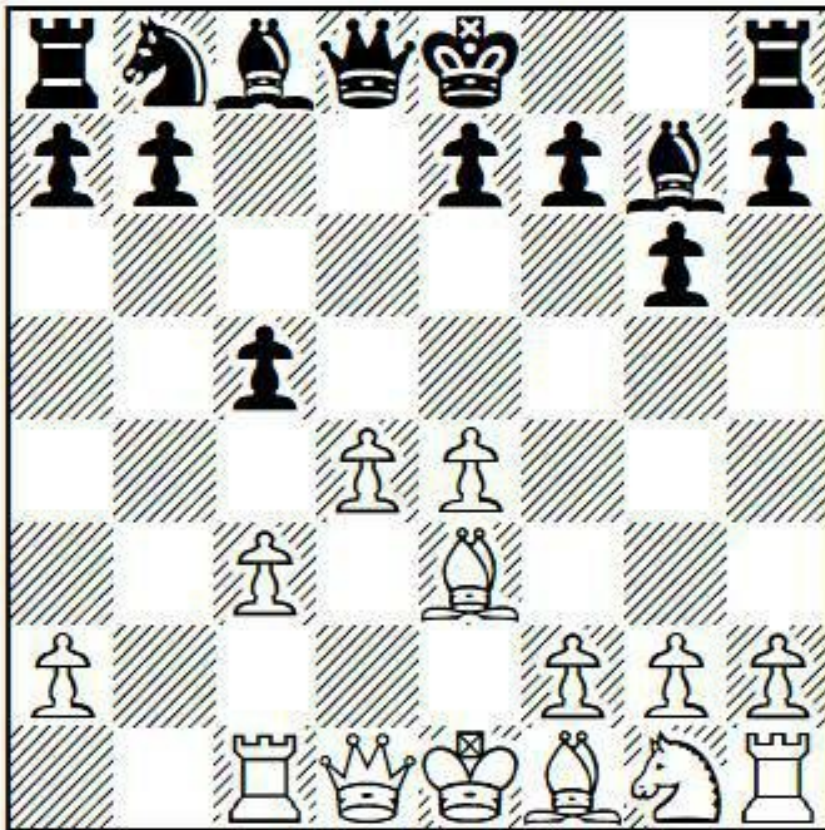
#### **M.Carlsen-A.Grischuk**

Norway Chess 2019

**1 d4 Nf6 2 c4 g6 3 Nc3 d5 4 cxd5 Nxd5 5 e4 Nxc3 6 bxc3 Bg7 7 Be3**

An alternative move order is 7 Nf3 c5 8 Be3 Qa5 9 Qd2 0-0 10 Rc1 reaching the position after Carlsen's 10th move.

**7...c5 8 Rc1**



Carlsen often uses this move order to play the Be3 Exchange Grünfeld. I won't delve into the move order subtleties, but two of the main differences between Carlsen's move order and the more common 7 Nf3 c5 8 Be3 are:

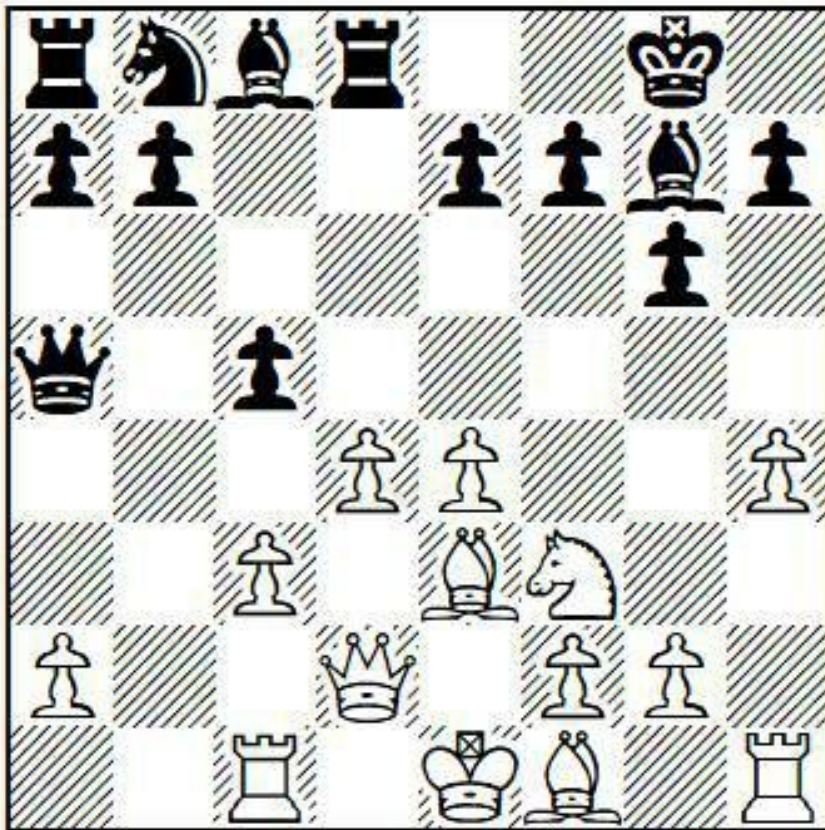
1. Black cannot play ... Bg4 immediately here.
2. The direct 8 ... Qa5 9 Qd2 cxd4 leads to a different endgame than the one we saw in the previous game.

**8 ... Qa5 9 Qd2 0-0 10 Nf3**

A major tabiya of the Be3 Exchange Grünfeld. Black has a choice between the following four options: 10 ... Rd8, 10 ... Bg4, 10 ... Nd7, and 10 ... cxd4, but we will only examine 10 ... Rd8 (the most popular move) and 10 ... Bg4. The latter has become an extremely fashionable choice because of the idea Grischuk employed in this game.

**10 ... Bg4**

10 ... Rd8 11 h4!?



11 d5 and 11 Be2 are the other main moves, but lately 11 h4 has become a popular choice because of the newer engines' approval of it. Black has a choice between putting pressure on the centre, preventing White from pushing his h-pawn, or exchanging queens:

a) 11 ... h5?! is quite poor. The inclusion of h4 and ...h5 favours White because the g5-square is weakened. Also, attacking ideas with g4 may appear very soon, for example, 12 d5 e6 13 Bg5 Re8 14 d6 Nd7 15 Be2 b5 and now the kingside breakthrough 16 g4! hxg4 17 Nh2 is extremely dangerous for Black to face.

b) 11 ... Nc6? makes sense, ignoring White's flank attack and hoping to gain quick counterplay in the centre. However, Black's kingside is under fire after 12 d5 e6 13 h5 exd5 14 hxg6 hxg6 15 Bh6. In fact, White's attack should lead to a decisive advantage, for example, 15 ... Re8 16 Bxg7 Rxe4+ 17 Be2 Kxg7 18 Ng5! Re8 19 Rh7+ Kg8 and in A.Predke-V.Artemiev, Izhevsk 2019, the quiet 20 Kf1! would have avoided Black's play along the

e-file and given White a winning position with Qf4 and Rxf7 coming soon.

c) 11 ... cxd4 is best, trying to simplify the position. But as we saw in the previous game, the queenless middlegame is not without difficulties for Black, especially because the h-pawn can become a major annoyance. After 12 cxd4 Qxd2+ 13 Bxd2 Black has another choice:

c1) 13 ... Nd7!/? was tried in S.Vidit-J.Duda, internet 2020. Perhaps the most critical try is 14 Bc4, for example, 14 ... Nb6 (or 14 ... Nf6 15 Ng5! e6 16 e5 Nd5 17 h5 is very strong) 15 Bb3 a5 16 a3 Bxd4 17 Rc7 with some dangers for Black.

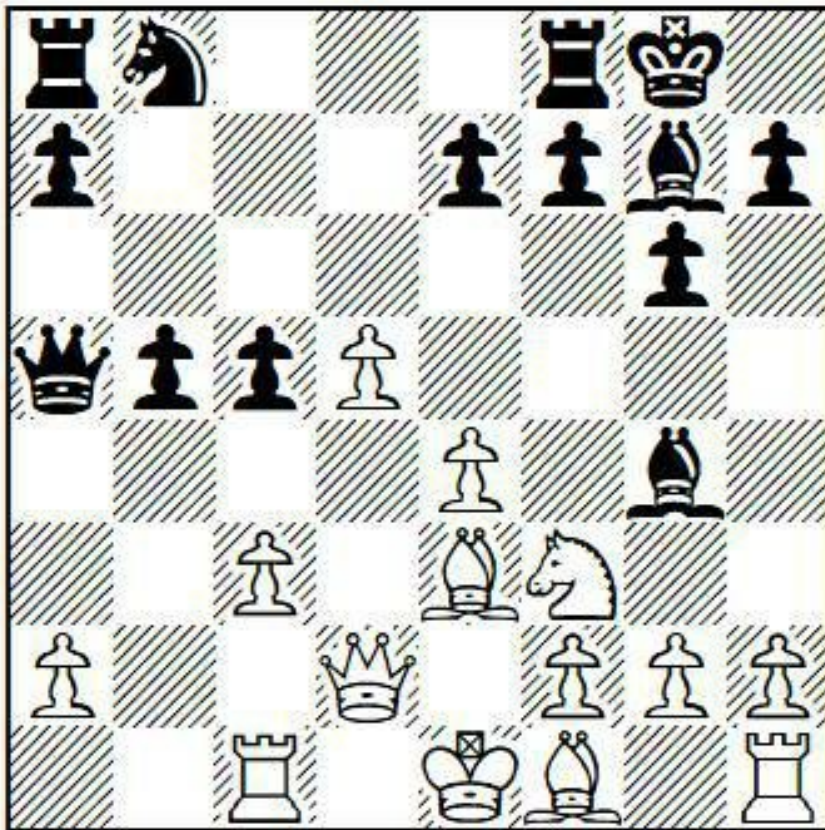
c2) 13 ... Bg4 14 d5 Na6 was seen in H.Melkumyan-P.Svidler, Douglas 2019, when White could have obtained a comfortable advantage after 15 Bxa6! bxa6 16 Bf4 Rac8 17 Kd2 and Black faces an unpleasant defensive task.

### **11 d5 b5!**

A strong pawn sacrifice by Grischuk, which hadn't been seen at the top level before this game. The alternatives are less inspiring:

a) 11 ... Bxf3?! 12 gxf3 Nd7 13 c4 provides White with excellent central control and a clear advantage.

b) Grischuk tried the following line five years before our main game was played: 11 ... Nd7 12 c4 Qa3 13 Be2 Bxf3 is Black's best try is to reduce White control over the d4-square and fight for the dark squares. Following 14 Bxf3 (14 gxf3 Bd4! 15 0-0 e5 provided Black with reasonable counterplay in J.Fremmegaard-V.Gagliardi, correspondence 2019) 14 ... Bd4 15 Bxd4 cxd4 16 0-0 Ne5 17 Be2! (17 Qxd4?! Nxf3+ 18 gxf3 Qxf3 19 Rc3 Qe2 20 f4 Qxa2 led to a very unclear position in V.Kramnik-A.Grischuk, Stavanger 2014) 17 ... d3 18 Rc3 dxe2 19 Rxa3 exf1Q+ 20 Kxf1 Nxc4 21 Qc3 Nxa3 22 Qxa3 reaches a favourable material imbalance for White because Black has difficulties coordinating his rooks. Meanwhile, White can easily gain space on the kingside, for example, 22 ... Rfe8 23 g4! Rad8 24 h4 Followed by h5 and h6.



## 12 Be2

Carlsen opts for the quieter approach against Grischuk's new idea, but the position quickly explodes anyway.

The critical line runs 12 Bxc5 Rc8 13 Bb4 (or 13 Bd4 Bxf3 14 Bxg7 is best met by the intermediate move 14 ... Bxg2! 15 Bxg2 Kxg7 with a complicated, double-edged middlegame ahead) 13 ... Qc7 14 Nd4 a5 15 Ba3 b4! 16 Bb2 (16 cxb4 Qe5! targets the d4-knight and e4-pawn) 16 ... Qb6 and practice has seen two main options for White:

a) 17 Bb5 e5 18 dxe6 Bxe6 19 Nxe6 fxe6 20 c4 was tried in a few rapid games by Vidit in 2020 against two leading Grünfeld experts: MVL and Nepomniachtchi. Black should be perfectly fine but needs to precisely navigate the complications. S.Vidit-M.Vachier Lagrave, internet 2020, continued 20 ... Rd8 21 c5 Rxd2 22 cxb6 Rxb2 23 Rc8+ Kf7 24 Rc7+ Kf8 25 Ra7 reaching a sharp and concrete endgame.

b) 17 c4 Na6 intends to play ...Nc5 and advance on the queenside, so

White should act immediately: 18 Nc6 Bxb2 19 Qxb2 Rxc6 20 dxc6 Qxc6 (the immediate 20 ... Nc5!? also deserves attention, preventing Bd3) 21 Bd3 Nc5 with reasonable compensation for the exchange in A.Giri-I.Nepomniachtchi, internet (rapid) 2020.

### **12 ... Nd7 13 0-0**

A rapid game from three months before our main game demonstrated some ideas for both sides. J.Zhou-I.Chirila, internet 2019, saw 13 c4 b4 14 0-0 Qb6 preparing a queenside expansion. Meanwhile, White focusses his attention on gaining kingside space. The game continued 15 h3 Bxf3 16 Bxf3 a5 17 Be2 a4 18 f4 b3 19 e5 with a very double-edged position, though White quickly developed a crushing attack after 19 ... b2 20 Rb1 a3 21 h4! Rfd8 22 h5. Perhaps Black should have fought for counterplay in the centre with 22 ... e6 here or on the previous move.

### **13 ... Bxf3!?**

Grischuk's idea is to play ... c4 and fight for control of the d3-square. But as Carlsen mentioned after the game, trading off the g4-bishop is a very risky strategic choice. Other ideas for Black:

a) The immediate 13 ... c4?! is quite poor in view of 14 Nd4! Bxe2 15 Qxe2 followed by gaining space in the centre and on the kingside with f4 and h4.

b) It was best to delay the exchange of minor pieces with 13 ... Rac8! and now:

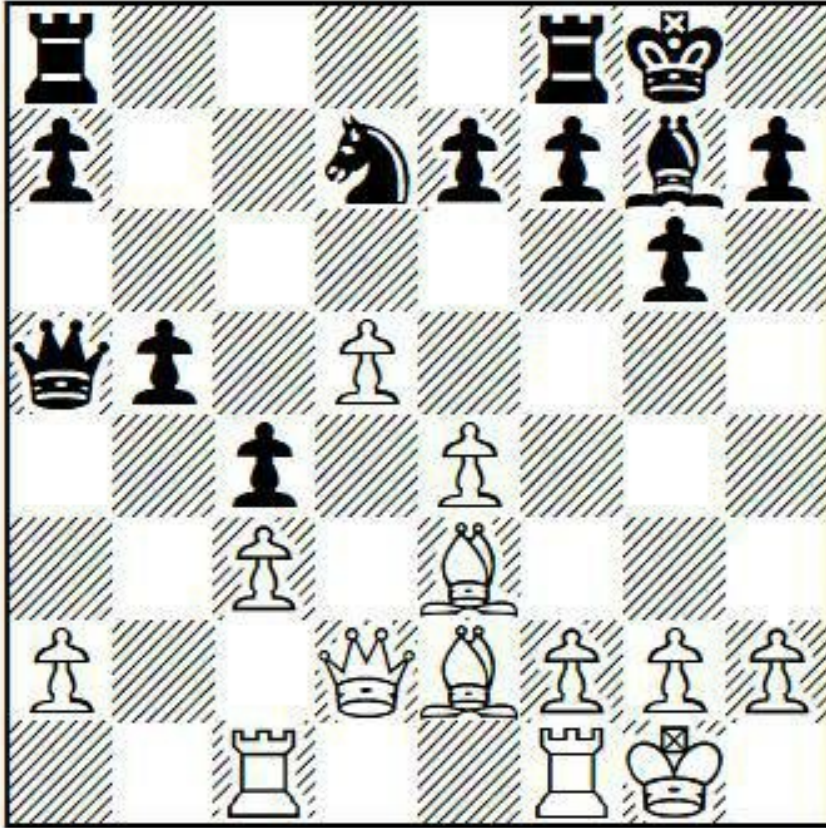
b1) 14 h3 Bxf3 15 Bxf3 (or 15 gxf3 b4! fights for the c3-square and provides adequate counterplay) 15 ... c4 and Black would like to play ... Nc5-d3 next.

b2) 14 Rfd1 Nb6 15 Bh6 (15 Bf4!? preparing e5 or Ne5 deserves attention; Black can play 15 ... b4! forcing open the c-file and fighting for the c3-square, which is an important entry point into White's position; play may continue 16 cxb4 cxb4 17 Ne5 Bxe2 18 Qxe2 Bxe5 19 Bxe5 Na4 and ... Nc3 comes next with a satisfactory position) 15 ... Bxf3 16 gxf3 b4?! (A typical idea, but in this case, White can pick up the b4-pawn; 16 ... c4! was a better way of gaining space on the queenside, one sample line is 17 Bxg7 Kxg7 18 h4 Qa3! preparing to put the queen on either c5 or d6 when there will be ideas of creating play with ... f5) 17 Bxg7 Kxg7 18 cxb4 cxb4 was seen in M.Carlsen-I.Nepomniachtchi, internet 2020. Best was 19 Rb1! giving up control of the c-file to win Black's important b4-pawn after 19 ... Rc3 20 Qd4+ f6 21 Rxb4.

### 14 Bxf3

14 gxf3!? looks a bit strange at first, but it makes a lot of sense to save time by keeping the bishop on e2. In the game, Carlsen had to retreat his bishop back to e2 before playing f4. A dynamic middlegame arises after 14 ... c4 15 f4 Qa3 16 e5.

### 14 ... c4 15 Be2



**Question:** Should the f8-rook or a8-rook be placed on d8?

**Answer:** As Peter Svidler explained in his video analysis for Chess24, the a8-rook may become a target after White plays Bf3 and e5. Therefore, Black should refrain from playing the natural ... Rfd8 and instead place the a8-rook on d8.

### 15 ... Rfd8?!

15 ... Qa3 (or 15 ... Rad8 first) 16 f4 Rad8! 17 Rfd1?! (17 e5 f6! is very important to immediately fight back in the centre; White can try to continue

expanding with 18 d6 but then 18 ... e6 is perfectly fine for Black) 17 ... Nc5 18 e5 Nd3! with a clear advantage in A.Korobov-I.Cheparinov, Linares 2020. Following 19 Bxd3 Rxd5 20 Qc2 Rxd3 21 Rxd3 cxd3 22 Qxd3 a6 White is left with clear structural weaknesses on the queenside.

### 16 f4 Nb6?!

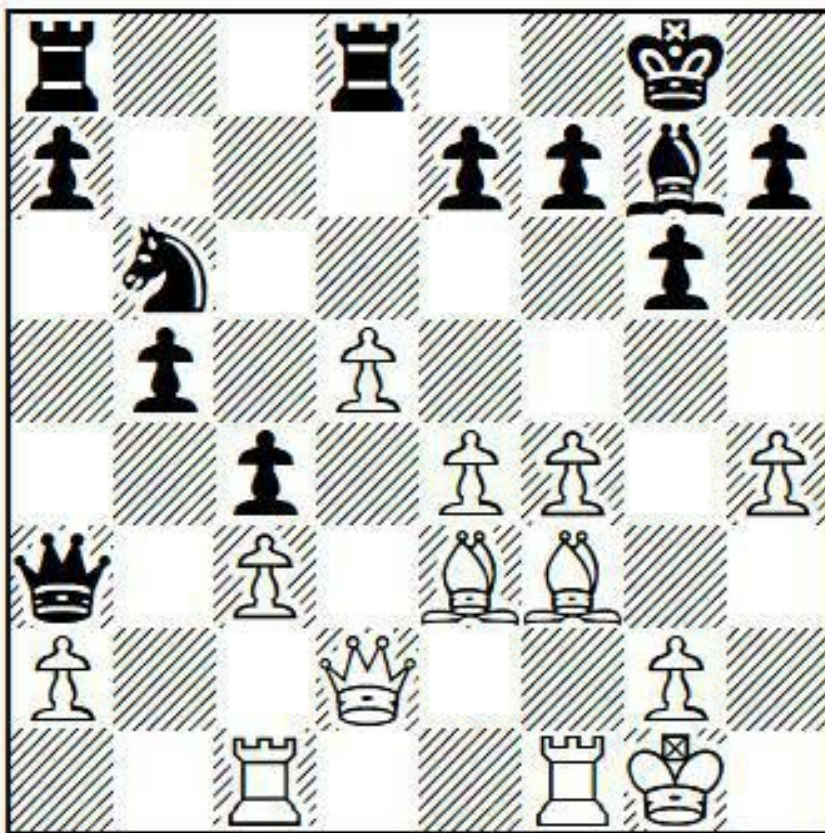
Preventing e5 and preparing to play ... Na4, targeting the c3-pawn.

Stronger was 16 ... Qa3 with the same plan discussed in the previous note. However, having the rook on a8 is not ideal and White can create good play along the f3-a8 diagonal with 17 Bf3 intending e5 and d6 (attacking Black's a8-rook).

### 17 Bf3 Qa3

17 ... e6 can be met by 18 d6, or White can ignore it. For example, 18 Qf2! exd5 19 e5 followed by creating kingside play with h4-h5 or Bd4 and f5.

### 18 h4!



Apparently, Grischuk believed his position was already lost after this

move.

**18 ... e6**

Other defensive tries:

18 ... h5 doesn't help because 19 g4 hxg4 20 Bxg4 and h5 or f5 next is crushing.

18 ... b4! makes the game more difficult for White, but Black's position remains under tremendous pressure after the pawn sacrifice 19 h5! Bxc3 20 Qf2 Bg7 21 Bc5! attacking the e7-pawn, which is very awkward for Black to defend. This is seen after 21 ... Re8 (21 ... Rd7 runs into 22 hxg6 hxg6 23 Bg4 and f5 next) 22 e5 and White takes full control over the centre.

**19 h5 Na4!**

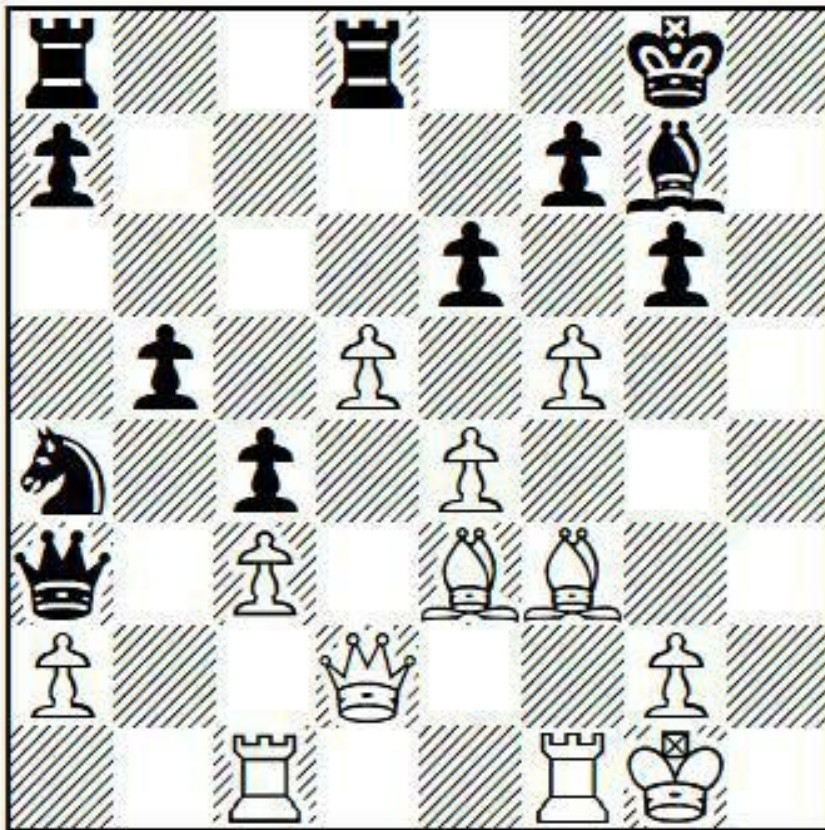
A good try for counterplay, which led to Carlsen taking his longest think of the game (19 minutes) before launching a decisive attack.

19 ... b4 runs into 20 hxg6 hxg6 21 Qf2 exd5 22 f5 and Black doesn't have enough defenders on his kingside.

**20 hxg6**

20 e5 is the most natural move, but here we can see a nice resource Grischuk had prepared with 20 ... Rxd5! 21 Bxd5 Rd8 22 Bxa7 Rxd5 23 Bd4 Nb2 followed by ... Nd3 and White must work much harder to convert his advantage.

**20 ... hxg6 21 f5!**



Carlsen ignores the hanging c3-pawn and focusses on his own plans: breaking up Black's defences and creating a passed d-pawn.

**21 ... exf5**

21 ... Bxc3 22 Rxc3! Qxc3 23 Qf2 and Black's kingside will quickly fall apart in view of Bd4 or Qg3 next.

**22 exf5 Qd6**

22 ... Nxc3 leads to forcing play: 23 fxg6 fxg6 24 d6 Rxd6 25 Rxc3! Bxc3 (25 ... Qxc3 26 Qxc3 Bxc3 27 Bxa8 reaches a winning endgame) 26 Bd5+ Kh7 27 Rf7+ Bg7 28 Rxg7+ Kxg7 29 Qd4+ Rf6 30 Bxa8 and the two bishops dominate Black's rook.

**23 Bf4 Qb6+ 24 Kh1 gxf5 25 d6**

Activating the f3-bishop and preparing the decisive kingside attack.

**25 ... Rab8 26 Bd5 Nc5 27 Bg3 Ne6**

27 ... Ne4 forces the exchange of White's d5-bishop but opens the f-file for the rook. One nice variation is 28 Bxe4 fxe4 29 Rxf7! when the rook cannot

be taken because of 29 ... Kxf7 30 Qd5+ Kg6 31 Qxe4+ Kf7 32 Rf1+ Kg8 33 Qe6+ Kh7 34 Rf5 and Rh5 leads to mate.

**28 Rxf5 Rxd6 29 Bxd6 Qxd6 30 Qe3 Qb6 31 Qf3 Rf8 32 Rf1 Nd8 33 Rh5 Qc7 34 Qe4 1-0**

The next game is a nearly flawless advertisement of the h4-h5-h6 idea.

### *Game 3*

**M.Carlsen-S.Mamedyarov**

Norway Chess 2019

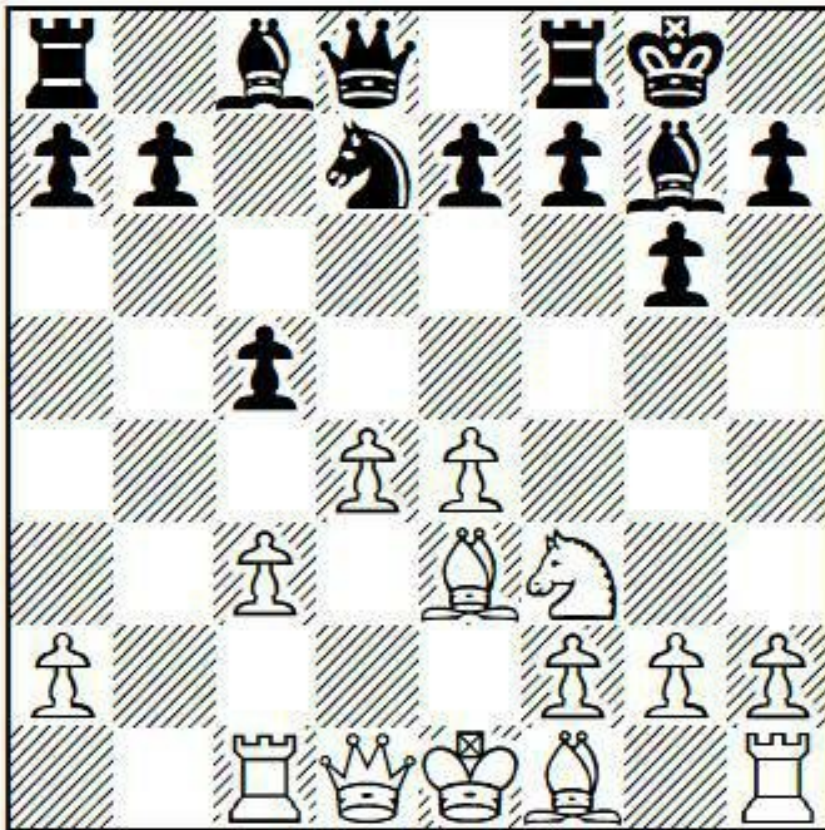
**1 d4 Nf6 2 c4 g6 3 Nc3 d5 4 cxd5 Nxd5 5 e4 Nxc3 6 bxc3 Bg7 7 Be3 c5 8 Rc1 0-0**

8 ... Qa5 9 Qd2 0-0 10 Nf3 was Carlsen-Grischuk (see Game 2).

**9 Nf3**

Carlsen had just played this system with 7 Be3 c5 8 Rc1 in the previous round against Grischuk, so Mamedyarov's next move was likely prepared as a surprise weapon.

**9 ... Nd7!?**



An unusual idea by Mamedyarov, which may have been more effective with White's queen on d2. For example, if Carlsen chose 9 Qd2 instead of 9 Nf3, then 9 ... Nd7! is very interesting because a subsequent ...Nf6 could not be parried with Nd2.

More standard is 9 ... Qa5 10 Qd2 with another transposition to the tabiya analyzed in the previous game.

### 10 Be2

10 Qd2 Nf6 11 Bd3 b6 was likely Mamedyarov's intention, creating some pressure on White's e4-pawn.

### 10 ... Qa5

In this case, 10 ... Nf6 is met by 11 Nd2 b6 12 0-0 Bb7 13 d5 and the centre is very well-supported.

### 11 0-0

Delaying castling with 11 Nd2! also deserves attention, considering that one of White's main ideas is to push the h-pawn. One sample line is 11 ...

Qxa2 12 h4 cxd4 13 cxd4 Nb6 14 h5 Be6 15 h6 employing the same h5-h6 idea that we will see in our main game, but it isn't quite as effective here. After 15 ... Bh8 16 0-0 Rfc8 Black is ready to exchange some major pieces along the c-file.

### **11 ... Qxa2 12 Nd2**

Supporting the e4-pawn and creating some threats around Black's queen.

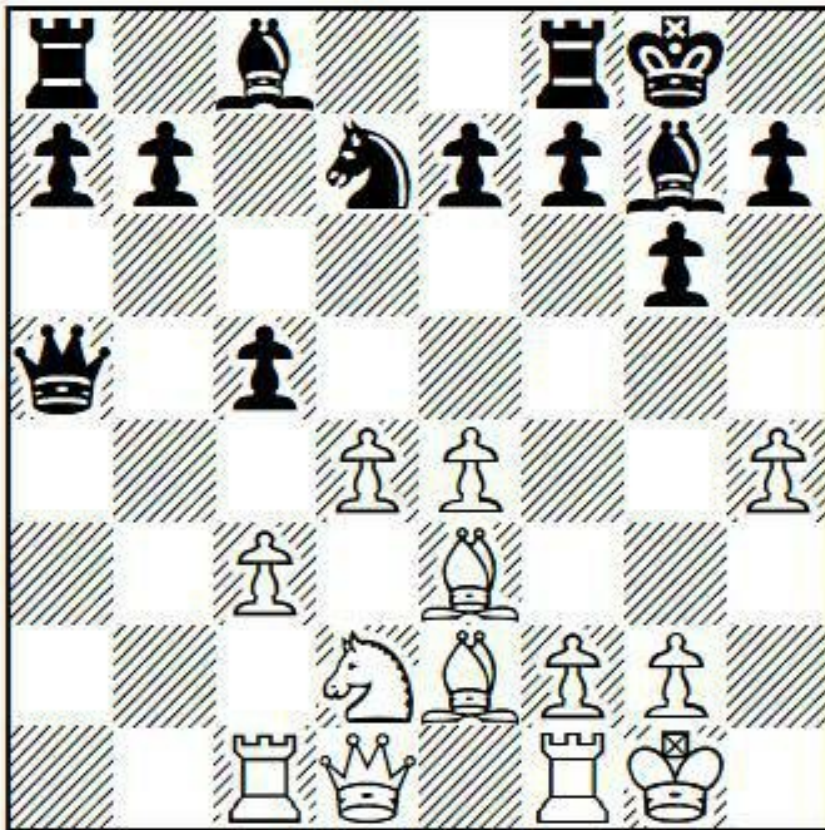
The space-gaining 12 d5 was a good alternative to Carlsen's choice. Some sample lines:

a) 12 ... Nf6 13 Nd2 Qa5 14 f4 is clearly better for White, c4 and e5 are coming next and Black will have lost a couple tempi with the knight on f6.

b) 12 ... Qa5 13 h4 Qc7 14 Qd2 intending h5-h6 looks dangerous for Black, 14 ... Nf6 (14 ... h5 weakens the g5-square but this is probably Black's best option) runs into 15 e5 Ng4 16 d6 creating a passed d-pawn.

### **12 ... Qa5 13 h4**

13 d5?! should have been played on the previous move because here Black has enough time to create a lot of play on the queenside. Following 13 ... b5 14 c4 b4 15 f4 Qc7 16 e5 a5 Black was doing well in D.Lima-P.Svidler, Khanty-Mansiysk 2011.



### 13 ... b5?!

There were several other ways to meet Carlsen's flank attack:

a) 13 ... h5 is not a bad choice, but the inclusion of h4 and ... h5 is favourable for White due to the weakened g5-square. One sample line is 14 e5 cxd4 15 cxd4 Nb6 16 Bf3 putting some pressure on Black's queenside.

b) The h4-h5 idea is much less effective if Black has a knight on f6, suggesting that 13 ... Nf6! deserved serious attention. Perhaps the game would have continued 14 h5 (14 Nb3 leads to the exchange of White's important e4-pawn after 14 ... Qc7 15 Nxc5 b6 16 Nd3 Nxe4 and Black is fine) 14 ... gxh5 15 Nb3 Qc7 and ... Ng4 can be played next, leading to a complicated fight.

c) Finally, another possibility was first exchanging pawns with 13 ... cxd4 14 cxd4 and then playing 14 ... Nf6!

### 14 h5

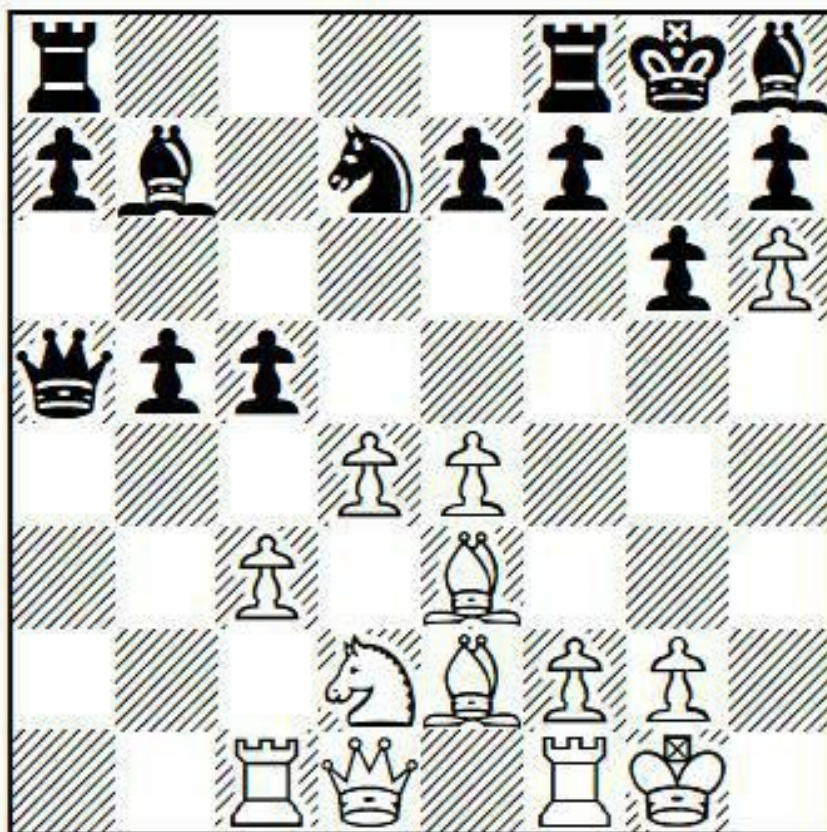
14 Nb3?! picks up the c5-pawn but poses far fewer problems. After 14 ...

Qb6 15 Nxc5 Nxc5 16 dxc5 Qc6 Black has much less to be worried about compared to the game.

**14 ... Bb7 15 h6!**

One of the most popularized ideas of AlphaZero which has now been seen numerous times at the top level of modern chess. Peter Heine Nielsen mentions in his annotations for New in Chess Magazine that White is playing for long-term ideas rather than an immediate breakthrough. Black's entire kingside and especially the king on g8 is left without adequate breathing space, and the pawn on h6 may be useful for White's attack as the middlegame progresses. Additionally, by preventing Black from playing ... h6, White's control over the g5-square has increased significantly. This last point is particularly useful in the endgame because White's knight may find an outpost on g5 (for example, see Game 1 on the note to Black's 14th move).

**15 ... Bh8**



**Exercise:** How should White follow up with his plan of cramping Black's kingside?

**Answer: 16 e5!**

Now Carlsen's idea with 13 h4 is completely justified because he has managed to play h5-h6 and shut in Black's bishop with e5. It is important to note that the idea of playing h5-h6 and e5 to shut in Black's dark-squared bishop has existed in the Grünfeld for many decades. However, the fact that newer engines have a much greater appreciation for it than the older ones has significantly impacted Grünfeld opening theory, as we will see in many examples throughout this chapter. The newer engines argue that White has a clear advantage at this point; while the older ones agree that 15 h6 is a strong move but think that White's advantage is relatively small. After a few strong moves are played, the older engines realize their misjudgement and agree that Black is faced with major problems.

**16 ... Qc7?!**

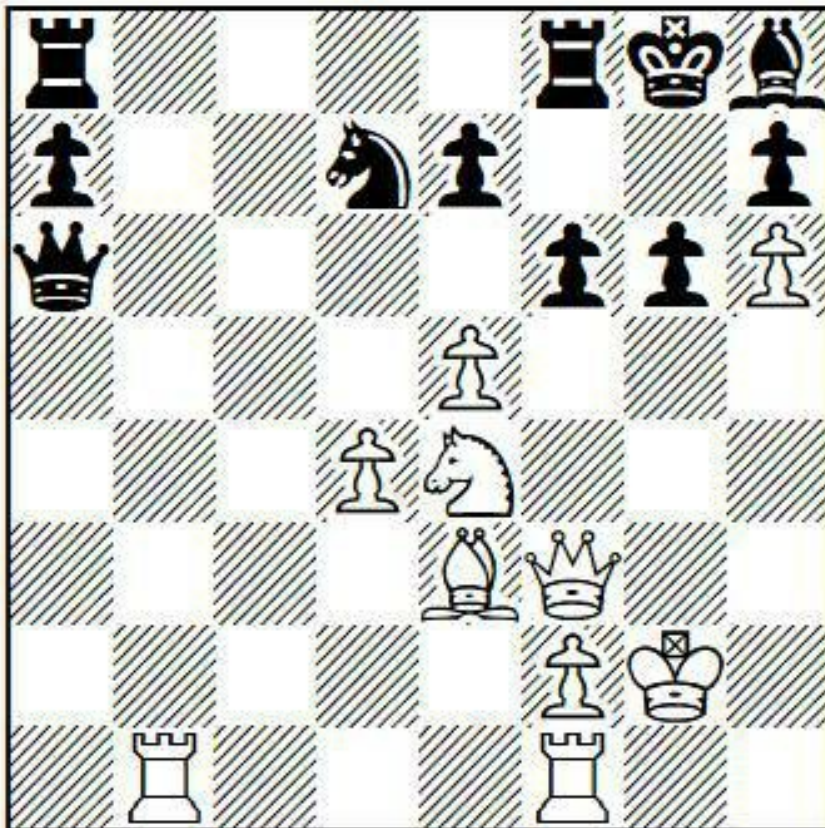
Leading to a forcing sequence, likely Mamedyarov was worried about the long-term problems of his kingside.

16 ... c4 17 Bg5 Rae8 18 Rb1 followed by Bf3 with an advantage for White. Eventually Black can free the bishop on h8 by playing ... f6, but then the kingside pawn structure will be compromised.

**17 Bxb5 Bxg2 18 Kxg2 Qb7+ 19 Qf3 Qxb5 20 Rb1 Qa6 21 Ne4**

White could have considered including another attacker first with 21 Rb7!? Rad8 22 Ne4 and the b7-rook is safe because of Nf6+.

**21 ... cxd4 22 cxd4 f6**



Finally, it appears that the bishop on h8 will break free, but Carlsen had prepared an excellent idea to meet this.

**Exercise:** Can you spot Carlsen's idea?

**Answer: 23 Ng5!**

Threatening Qd5+, exploiting the undefended knight on d7 and Black's cramped kingside.

**23 ... e6**

Carlsen had played an excellent game up to this point and showed how powerful the h4-h5-h6 concept can be, but here he seems to have miscalculated.

23 ... fxg5? 24 Qd5+ e6 25 Qxd7 Rfd8 26 Qb5 and White wins the endgame because the bishop on h8 is useless.

**24 Ra1?**

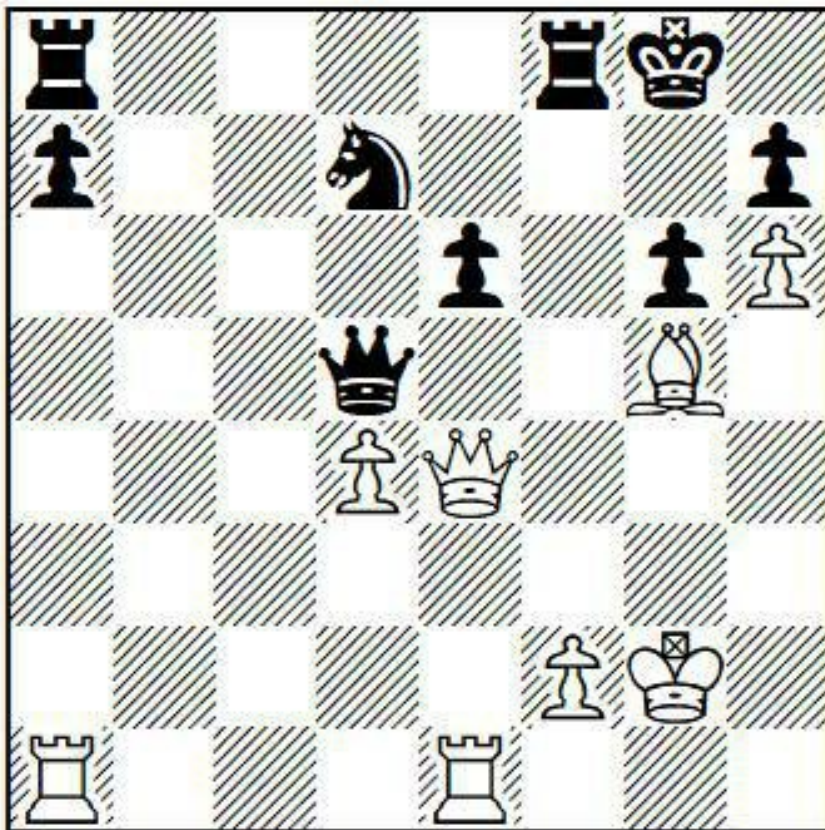
The winning line is 24 Qb7! Qe2 (or 24 ... Qxb7+ 25 Rxb7 Nxe5 26 Nxe6

Rf7 27 Rfb1 and the endgame is winning because of Black's terribly passive pieces.) 25 Qxd7 Qg4+ 26 Kh2 fxg5 27 f3 Qf5 28 Rb7 Rf7 29 Qxf7+ Qxf7 30 Rxf7 Kxf7 31 Rc1 and Black's poor bishop on h8 costs him the game.

**24 ... Qb6**

Carlsen admitted after the game that he had simply missed this move.

**25 exf6 Bxf6 26 Qe4 Bxg5 27 Bxg5 Qd6 28 Rfe1 Qd5**



Now Mamedyarov's position is pretty safe and Carlsen doesn't manage to create any more chances.

**29 Qxd5 exd5 30 Ra5 Rf5 31 f4 Nf6 32 Re7 Ne4 33 Rg7+ Kh8 34 Rxa7 Rxa7 35 Rxa7 Kg8 36 Rg7+ Kf8 37 Be7+ Ke8 38 Rxh7 Rf7 39 Rxf7 Kxf7 40 Kf3 Kg8 41 Kg4 Kh7 42 Bf8 Nf6+ 43 Kh4 Ne4 44 Bg7 Nd6 45 Kg5 Ne4+ 46 Kg4 Nd6 ½-½**

**The Classical Exchange**

The Classical Exchange variation (7 Bc4) has been revitalized with fresh ideas since the emergence of Leela Chess Zero. Similarly to the previous games, the effectiveness of h4-h5 plans have provided a new approach to many positions that were thought to be perfectly fine for Black. Game 4 surveys some early h4 ideas in the 7 Bc4 Exchange Grünfeld and Game 5 takes an in-depth look at one of these ideas from the 2020 Candidates tournament.

### *Game 4*

#### **I.Cheparinov-M.Chigaev**

Gibraltar Masters 2020

**1 d4 Nf6 2 c4 g6 3 Nc3 d5 4 cxd5 Nxd5 5 e4 Nxc3 6 bxc3 Bg7 7 Bc4**

The Classical Exchange variation has received an abundance of fresh ideas over the past few years. We'll have a look at a few of these new ideas throughout the game.

**7 ... c5 8 Ne2 0-0 9 0-0**

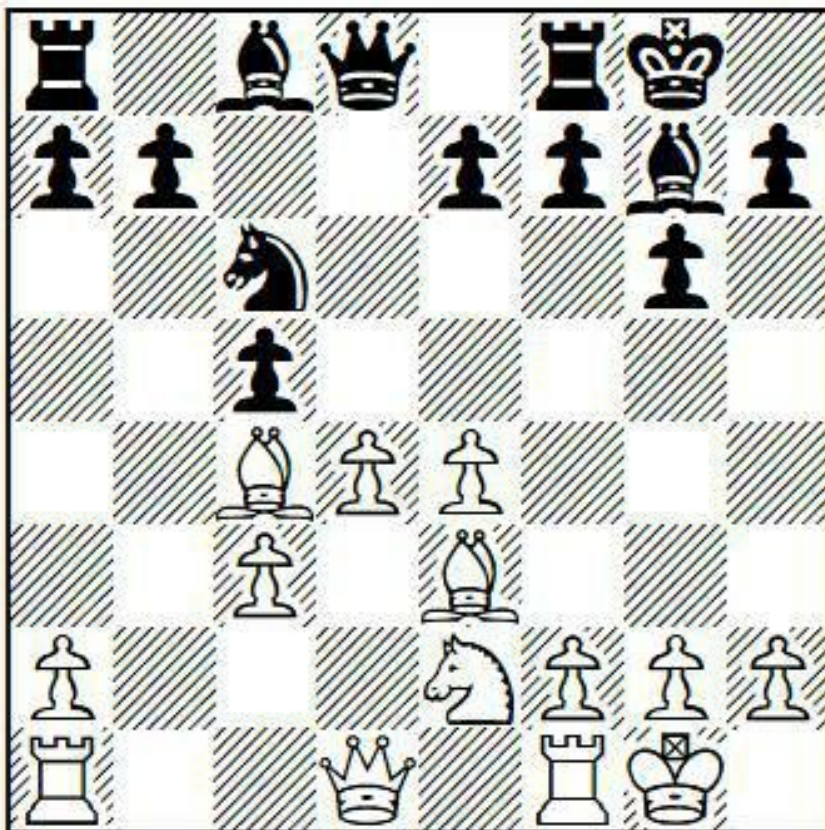
White can also delay castling in favour of an earlier h-pawn attack: 9 Be3 Nc6 10 h4!? is a specialty of Magnus Carlsen in blitz and rapid games. Following 10 ... cxd4 (the following blitz game by Carlsen shows exactly what White is aiming for in this line, 10 ... Qa5 11 0-0 Bd7?! 12 Rb1 Qc7 13 h5 cxd4 14 cxd4 Rad8 15 h6! Bh8 16 Qc1 Rc8 17 Qd2 and Black was already faced with severe problems due to his lack of play in M.Carlsen-V.Artemiev, Moscow (blitz) 2019) 11 cxd4 and now:

a) 11 ... Qa5+ 12 Kf1 Bd7?! (better is 12 ... h5 13 f3 followed by Kf2 with a tense middlegame ahead) 13 h5 Rac8 and in M.Carlsen-M.Vachier Lagrave, London (rapid) 2019, Carlsen chose 14 hxg6, but even stronger is the typical idea 14 h6! Bh8 15 e5 and White should have a clear advantage, as there are some clear similarities to positions that we have seen earlier in the chapter.

b) 11 ... Na5 12 Bd3 Nc6! was played by Wesley So in a rapid game against Carlsen. Although it is not natural to offer a repetition of moves so early, this idea does seem to comfortably solve Black's problems. The game continued 13 Bc4 Na5 14 Bb3 (avoiding the repetition, though Black is perfectly fine in the resulting positions) 14 ... h5 15 0-0 Nxb3 16 axb3 was

played in M.Carlsen-W.So, chess24 com INT 2020, and here 16 ... Bg4 leads to a balanced game.

**9 ... Nc6 10 Be3**



**10 ... b6!**

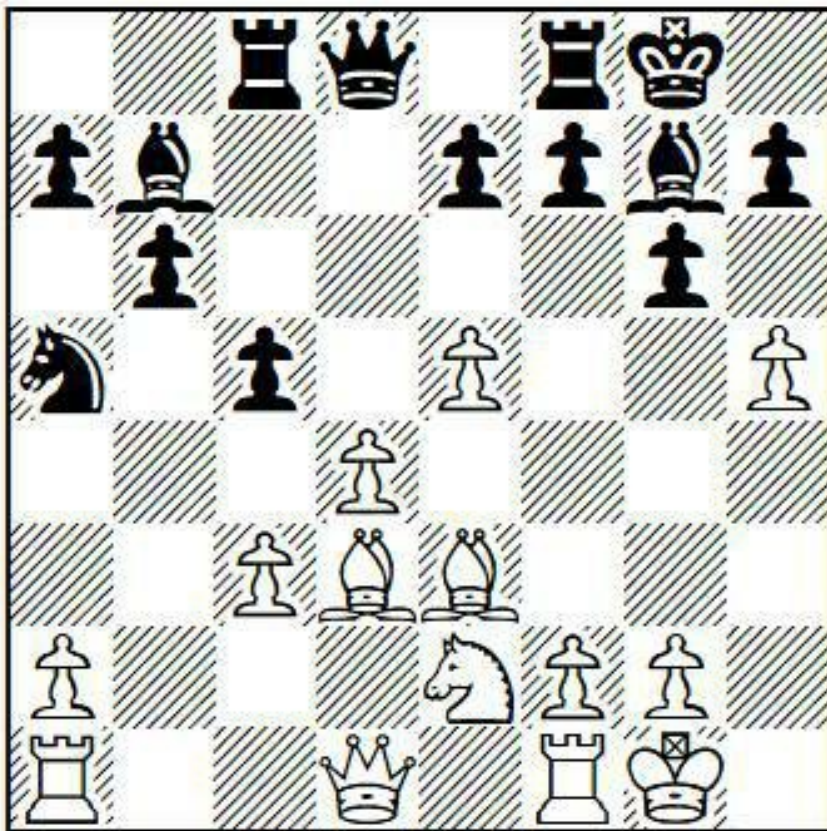
The most topical choice among the Grünfeld specialists and other top players. Alternatives are not safe from h4-h5 ideas:

a) 10 ... Bg4 11 f3 Bd7 (11 ... Na5 is the old main line, but for quite some time now Black has been under some pressure after 12 Bxf7+ for example, see A.Giri-M.Carlsen, internet 2020) 12 Rb1 Qc7 13 Qd2 Rfd8 14 Rfc1 (defending the bishop on c4 in the event of any 14 ... cxd4 15 cxd4 Nxd4 ideas) 14 ... Be8 15 h4! e5 16 Bd5 cxd4 17 cxd4 exd4 18 Nxd4 and White had a clear advantage in A.Giri-I.Nepomniachtchi, internet 2020.

b) 10 ... Qc7 11 Rc1 Rd8 (11 ... b6 12 h4 Bb7 13 h5 Rfd8 14 h6 Bf8 and in G.Sargissian-S.Sargsyan, Moscow 2020, White would have an excellent position after 15 Nf4 Qd7 16 e5 in view of Black's cramped kingside) 12

h4!? is very uncommon but very interesting. One sample line is 12 ... e6 (12 ... h5?! is a poor inclusion for Black because White gets an excellent square for his bishop after 13 Bg5) 13 h5 Qe7 14 h6 Bf8 15 Bd3 followed by Qd2 and Rfd1 with comfortable development and a slight edge.

c) 10 ... Na5 used to be one of the main lines for Black against the Classical Exchange. However, bringing the knight away from the centre is not the best way to deal with modern h4-h5 ideas. After 11 Bd3 b6 12 e5! is a rare and strong move suggested by the neural network engines. The idea is to block in Black's g7-bishop and prevent ... e5. Play continues 12 ... Bb7 (12 ... e6 temporarily prevents h4 but White can prepare it by playing 13 Qd2 Bb7 and then 14 h4 is quite strong; the h4-pawn cannot be captured because then the Black queen would be trapped after 15 Bg5) 13 h4 Rc8 14 h5! (14 Nf4 cxd4 15 cxd4 Nc4 16 Qg4 is another way of creating kingside play, as seen in F.Peralta-V.Artemiev, Caleta 2019)



As the newer engines point out immediately, White has a clear advantage

because Black is lacking counterplay in the centre. The game B.Villarreal-I.Kotyurigin, correspondence 2019, demonstrated the dangers in Black's position. Following 14 ... cxd4 15 cxd4 Nc4 16 Bxc4 Rxc4 17 h6 Bh8 18 Qb3 Bd5 19 Qb5 f6 20 Nf4 White had succeeded in achieving everything he set out to do with h5-h6. In the endgame that occurred after 20 ... e6 21 Nxd5 Qxd5 22 Qxd5 exd5 23 f4 Black was playing without his bishop on h8 for the rest of the game.

### **11 h4!?**

An innovative idea that became very popular after it was played by Dubov against Svidler near the end of 2019. However, the first time this move was played was in 2012 by Ivanchuk. White has also tried:

a) The direct 11 dxc5 Qc7 12 Nd4 Ne5 leads to a lot of theory where Black is holding his own. Occasionally some top players still try this with White, but usually with the aim of testing how well Black remembers the details.

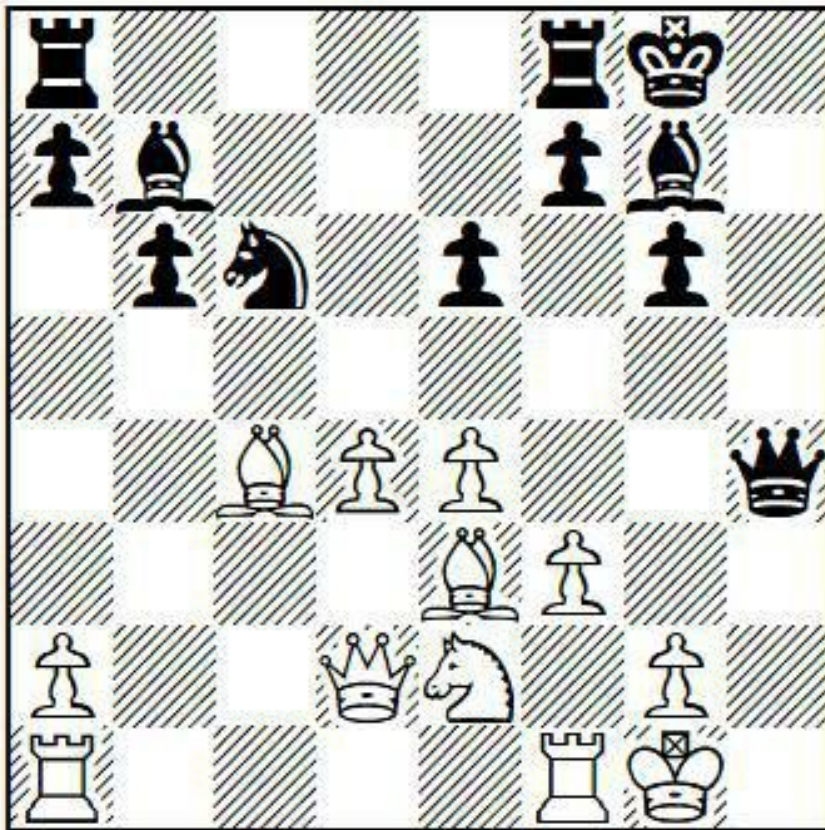
b) Natural development with 11 Qd2 followed by centralizing the rooks will be looked at later in the chapter.

### **11 ... e6 12 h5 Qh4!**

Attacking the e4-pawn and preventing White from playing h6.

12 ... Bb7?! is dubious because it is not great to allow 13 h6 here. For example, 13 ... Bf6 14 Bb5 (exchanging minor pieces to relieve some of the pressure on the d4-pawn) 14 ... a6 15 Bxc6 Bxc6 16 Qc2 (also deserving attention is 16 e5!? Be7 17 Nf4 and White will try to increase the pressure on the kingside by exchanging dark-squared bishops eventually) followed by activating the rooks with Rfd1 and Rab1 with a slight advantage.

### **13 hxg6 hxg6 14 f3 Bb7 15 Qd2 cxd4 16 cxd4**



An important moment for Black to decide how to place his major pieces.

**16 ... Qe7**

The critical 16 ... Rfd8! will be examined in the next game.

**17 Rad1**

A very natural developing move, but two alternatives are important to consider:

a) 17 Bg5! is very difficult for Black to equalize against, and the main reason 16 ... Rfd8! is a more accurate way of playing. Following 17 ... Bf6 (17 ... Qb4 18 Qxb4 Nxb4 19 Rfc1 leads to a pleasant endgame for White) 18 Bxf6 Qxf6 19 e5 the kingside dark squares may cause Black some problems.

b) 17 Rfd1 also makes sense, putting the rooks on d1 and c1. Play continues 17 ... Rac8 18 Bg5 Qb4?! (18 ... Bf6! 19 Bxf6 Qxf6 leads to a roughly balanced middlegame) and compared to the note on Black's 18th move in our main game, White is able to position his rooks on better squares after 19 Qxb4 Nxb4 20 Rac1 when Black is lacking active play in this

endgame. White can continue to improve his position with Kf2 and then prepare to play d5.

### 17 ... Rac8 18 Bg5 Qd6

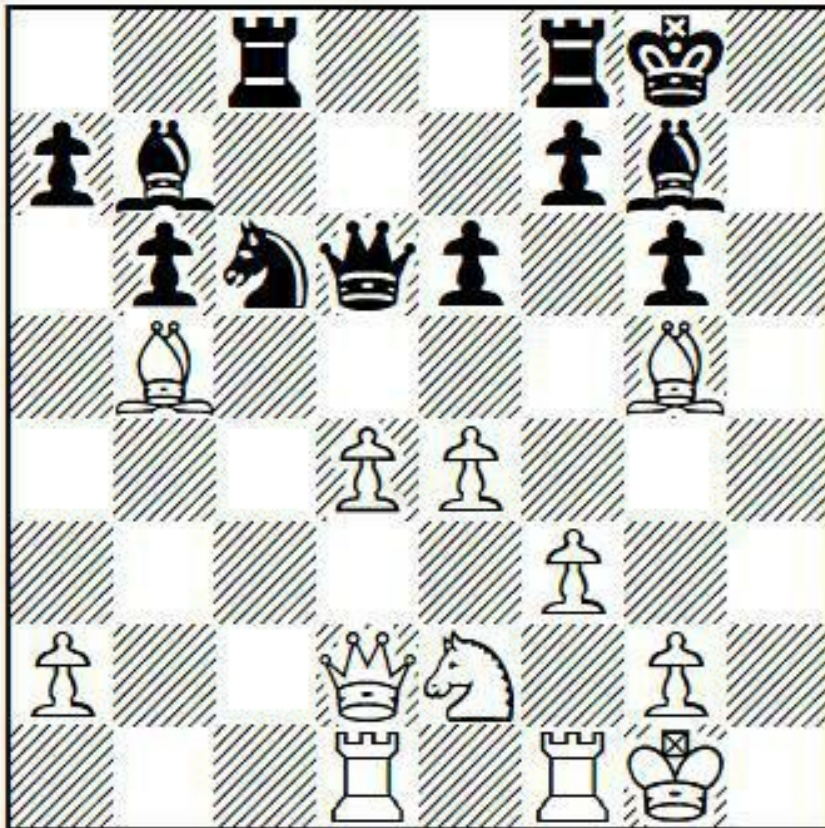
Keeping the queens on the board, perhaps Black underestimated some of White's attacking ideas on the kingside. Safer options were:

a) 18 ... Qb4! should allow Black to achieve sufficient counterplay on the queenside in the endgame after 19 Qxb4 Nxb4 for example, 20 Bb3 Ba6 21 Kf2 Nd3+ 22 Ke3 Nb2! followed by ... Nc4.

b) 18 ... Bf6 19 Bxf6 Qxf6 is also playable because White can't exploit the weakened kingside dark squares immediately.

### 19 Bb5

In view of the improvement Black has on move 19, 19 Bb3 also deserved attention. Then, White will try to create play on the kingside with e5 and Qf4.



### 19 ... a6?

19 ... e5! prevents White from playing e5 and takes control of the f6-

square. One sample line is 20 Bxc6 (the point is that 20 d5? runs into 20 ... Qc5+ so White is forced to exchange minor pieces first) 20 ... Rxc6 21 d5 Rc4 followed by ... Rfc8 with a fine position.

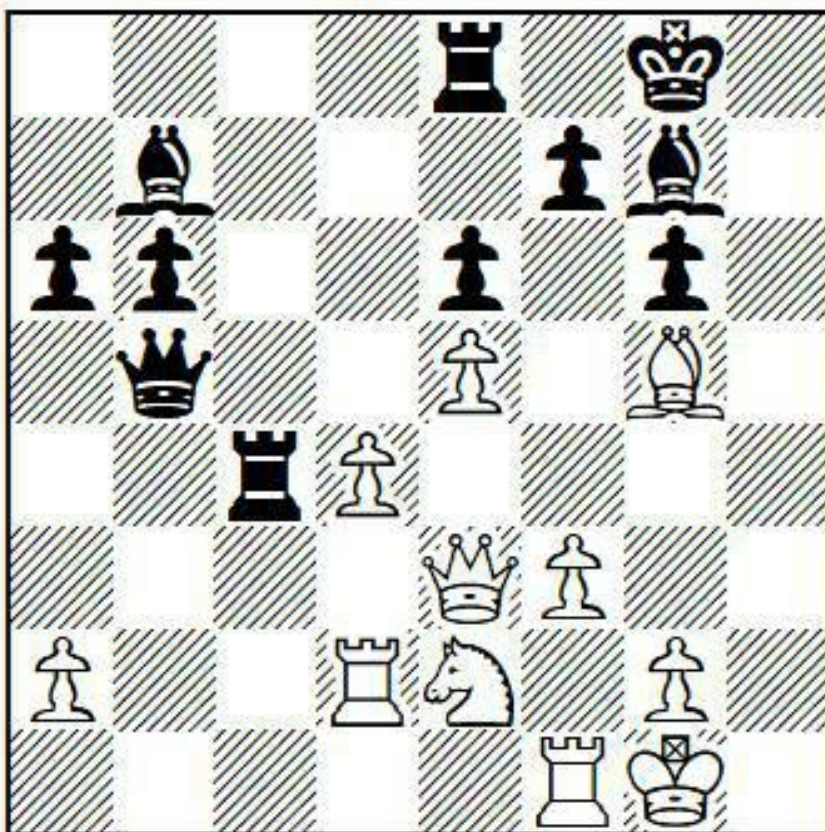
**20 Bxc6 Qxc6**

It appears that the two bishops and overall solid position will lead to balanced chances, but White has a very important attacking resource in store.

**21 Qe3 Qb5?!**

21 ... a5 and ... Ba6 to exchange the bishop for the e2-knight was a better try to reduce White's attacking potential.

**22 Rd2 Rfe8 23 e5 Rc4**



**Exercise:** What attacking resource does White have in store?

**Answer: 24 Kf2!**

Preparing to activate the f1-rook. Black is completely lost after this. Note that first playing 24 Qf4 Rec8 and then 25 Kf2! (but not 25 Qh4?? Bxe5) also

wins. However, 24 Bh6 Kh7! 25 Bxg7 Kxg7 26 Kf2 Rh8 makes things more difficult for White.

**24 ... f6**

24 ... Rec8 25 Rh1 Rc2 26 Bf6 wins.

**25 exf6 Bf8 26 Qf4 Qf5 27 Qh4 e5 28 Rh1 Kf7 29 Qh7+ Ke6 30 Qg8+ 1-0**

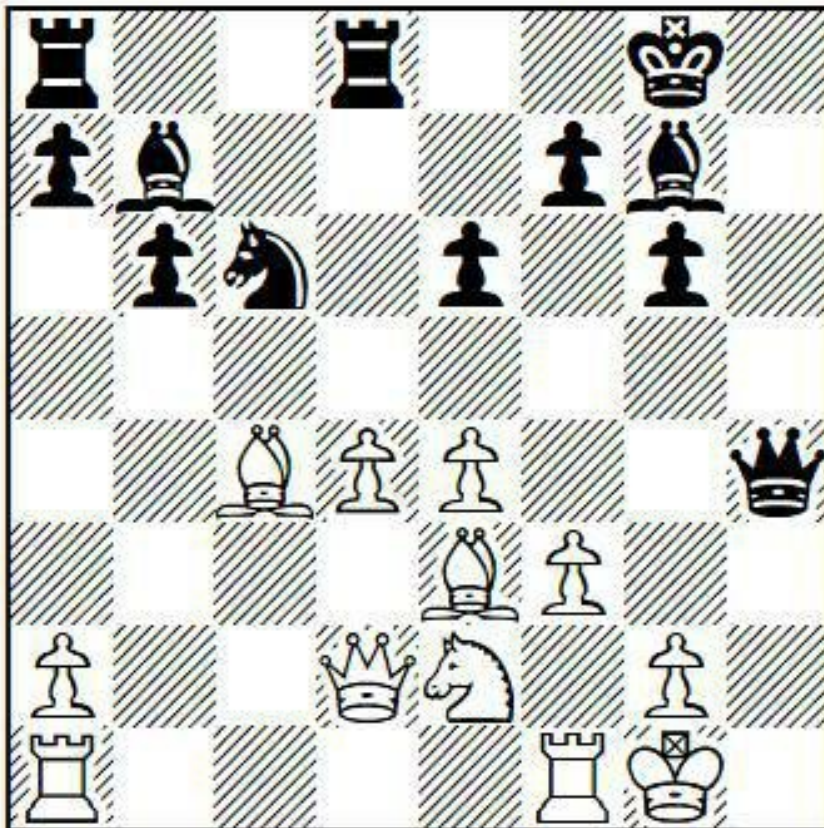
MVL faced the 11 h4!/? variation in the 2020 Candidates and responded very well, up until move 22 when he didn't find the most precise continuation. Having failed to equalize, he was tasked with defending a very unpleasant endgame for the rest of the game. Looking back at the game from a theoretical perspective, MVL's approach solves most of Black's problems and sends the ball back in White's court. This is very typical for opening discussions at the top level, especially in the Grünfeld: White comes up with an interesting idea for one game and creates practical problems for the opponent to solve. If Black was unable to respond in the best way, then he must repair the line with engine analysis and be ready in case it occurs again.

### *Game 5*

**Wang Hao-M.Vachier Lagrave**

FIDE Candidates 2020-21

**1 d4 Nf6 2 c4 g6 3 Nc3 d5 4 cxd5 Nxd5 5 e4 Nxc3 6 bxc3 Bg7 7 Bc4 c5 8 Ne2 0-0 9 0-0 Nc6 10 Be3 b6 11 h4 e6 12 h5 Qh4 13 hxg6 hxg6 14 f3 Bb7 15 Qd2 cxd4 16 cxd4 Rfd8!**



A more flexible choice than the previous game's 16 ... Qe7 because Black has the additional idea of playing ... Be5!? Also, this move actually does a much better job of discouraging White from playing Bg5.

### 17 Rac1

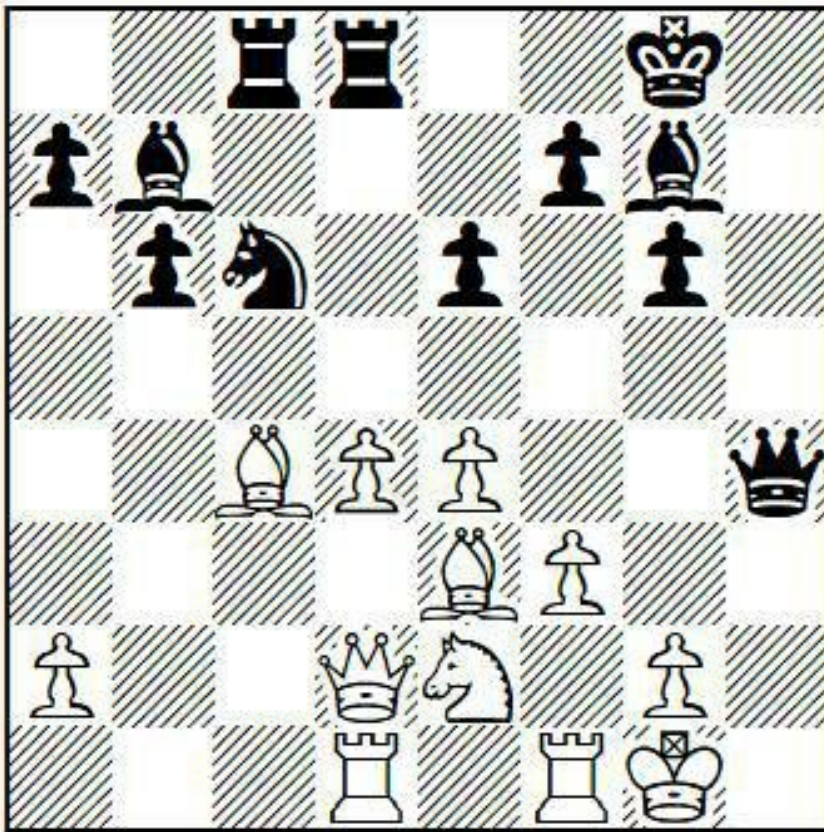
Often Black plays ... Rc8 and ... Na5, so the rook is useful on c1 to prepare to fight back on the c-file. Alternatively:

a) 17 Bg5? is a natural first thought, but White's position collapses instantly without the dark-squared bishop. This is seen after 17 ... Qh5 18 Bxd8 Rxd8 19 d5 Ne5 20 Bb3 and Black's bishops enter the game with devastating impact, 20 ... Ba6 21 Rf2 Bh6 is completely lost for White.

b) 17 Rad1 was seen in the first top level game that featured the 11 h4 line, between V.Ivanchuk-A.Grischuk, London 2012. Black has:

b1) 17 ... Be5! is best, leading to very sharp play after 18 f4 Bg7 19 Rf3 Rac8 and the unprotected bishop on c4 is a bit annoying for White to deal with. For example, 20 Rh3 Qe7 21 f5? (21 Bb3 is safer, but Black is doing

very well after 21 ... Na5) 21 ... exf5 22 exf5 Nxd4! exploits the c4-bishop.  
 This is why Wang Hao's 17 Rac1 is more accurate than 17 Rad1.  
 b2) 17 ... Rac8?



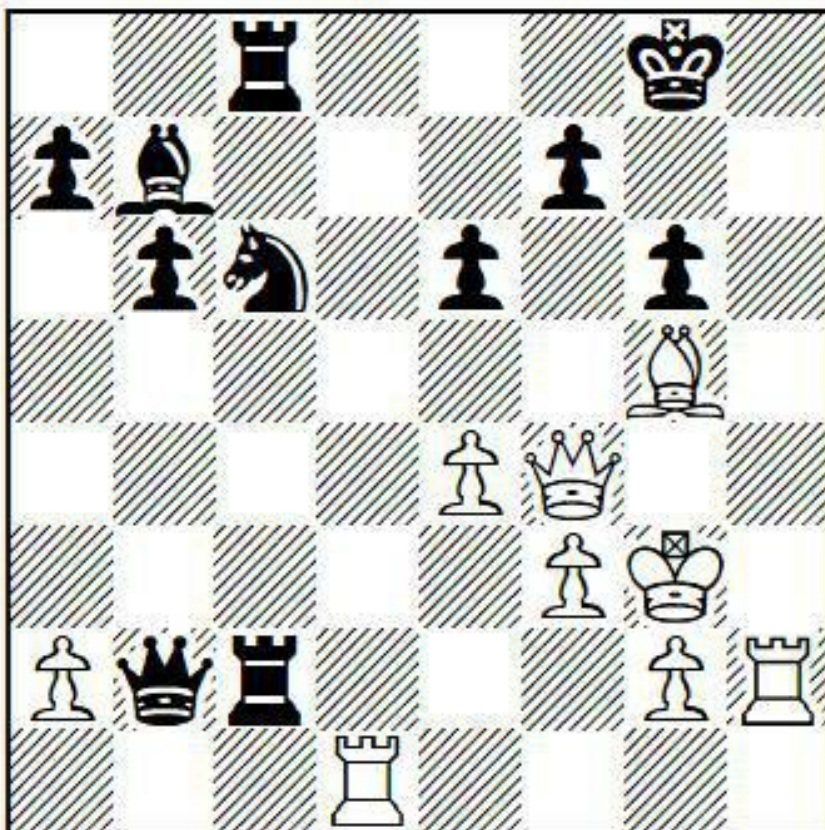
There is a brilliant attacking idea for White here, which is similar to one of the ideas from the previous game.

**Exercise:** Can you find a way for White to target Black's misplaced queen?

**Answer:** 18 Bg5! (instead, 18 d5 Na5 was fine for Black in the aforementioned game between Ivanchuk and Grischuk) is a natural way to attack the queen, but the key idea is seen on White's next move. 18 ... Qh8 (the alternative 18 ... Qh5 is met in similar fashion with 19 Kf2! and Rh1 next, if 19 ... Bxd4+ 20 Nxd4 Rxd4 then White wins after 21 Qe3 Qh8 22 Qf4! with two devastating threats: Rh1 and Bf6) 19 Kf2! threatening Rh1.

There is one very important forcing line to consider: 19 ... Bxd4+ 20 Nxd4

Rxd4 21 Qf4! Not giving Black the chance to breathe. Now in addition to Rh1, Bf6 is an idea. 21 ... Rxc4 22 Rh1 Rc2+ 23 Kg3 Qb2 24 Rh2



Remarkably, despite White's strangely placed king on g3 and the extra knight and pawn, Black's position is completely busted. White's main threats are Bf6 and Qh4 when the weak kingside dark squares cannot be defended. 24 ... Qe5 25 Bf6 is mate.

**17 ... Qe7!**

Retreating the queen is the safest option, though 17 ... Be5!? deserves attention as well. Sharp play arises after 18 f4 Bg7 19 Rf3! with some initiative for White in D.Dubov-P.Svidler, Hamburg (rapid) 2019. After 19 ... Rac8 20 Rh3 the best option for Black was to retreat his queen with 20 ... Qe7 and then 21 f5! leads to an incredibly dynamic position, though it feels much more dangerous to play as Black.

**18 Rfd1 Rac8 19 Bg5**

Forcing the exchange of bishops is a good idea because Black's bishop on

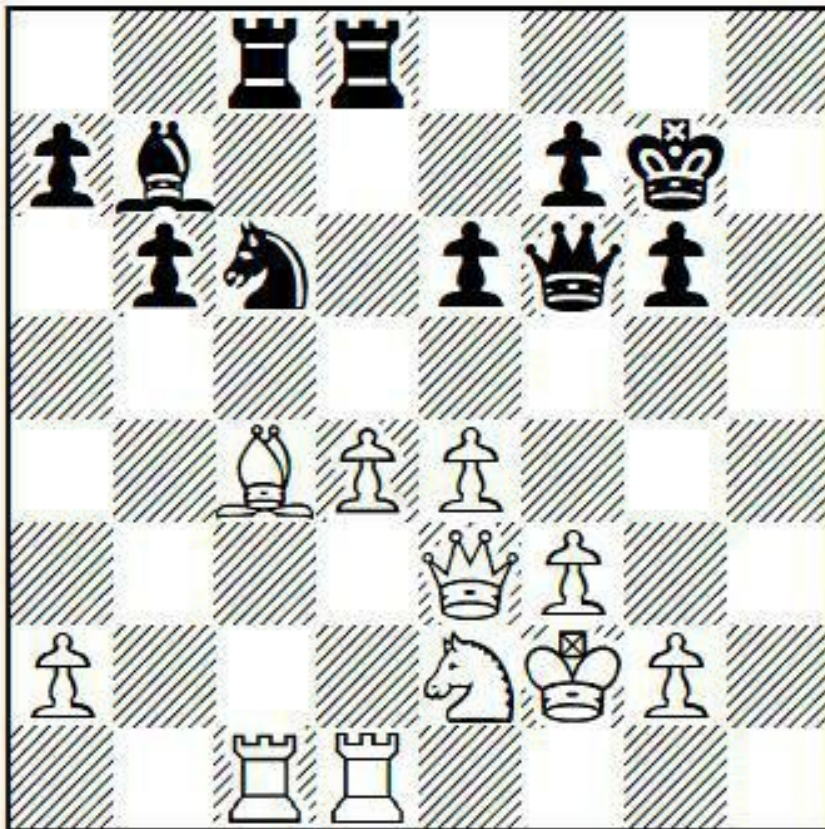
g7 puts a lot of pressure on the centre.

**19 ... Bf6 20 Bxf6 Qxf6 21 Qe3 Kg7**

Both sides prepare to use the h-file.

21 ... Na5 is the alternative, choosing the c-file as the battleground instead of the h-file. After 22 Bb5 Rxc1 23 Qxc1! Black should be fine, though White still has a bit of pressure, as the queen can invade to either h6 or c7 depending on how Black plays.

**22 Kf2**



**22 ... Rh8?!**

Leading to the exchange of both rooks on the h-file, but the simplified position is by no means easy for Black to hold.

In the interview after the game, Wang Hao said that he knew Black had a forced draw with precise play. Likely he was referring to 22 ... Qh4+! preventing White's rook from going to the h-file. Now:

a) 23 Kf1 Qh1+ 24 Kf2 Qh4+ repeats the position.

b) 23 Ng3 runs into 23 ... f5! and it is important to note that 24 Rh1?? loses to 24 ... f4 25 Rxh4 fxe3+ 26 Kxe3 Na5! and Black wins material after 27 Kd3 Nxc4 28 Rxc4 Ba6.

**23 Rh1 Rxh1 24 Rxh1 Rh8 25 Rxh8 Kxh8 26 Qc3 Kg8?!**

Keeping the queens on the board with 26 ... Na5 27 Bd3 Qe7 provided better defensive chances.

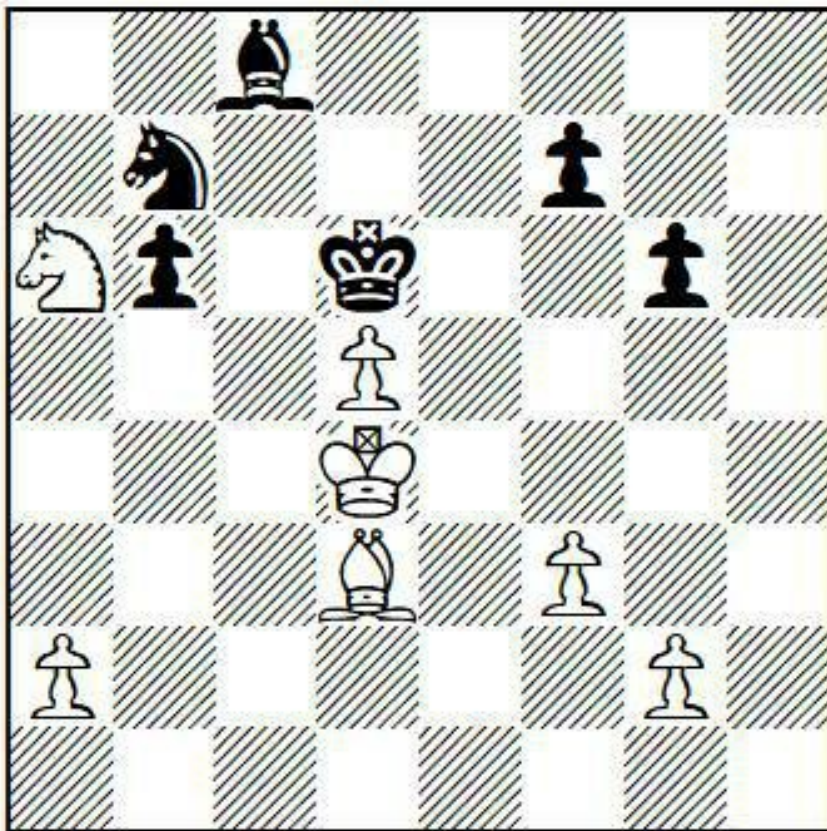
**27 d5**

Forcing an endgame with a passed d-pawn.

**27 ... Qxc3 28 Nxc3 Na5?!**

28 ... Ne5 was a more active square for the knight. Play may continue 29 Bb3 exd5 30 exd5 Kf8 31 Ke3 Ke7 32 Kd4 f6 with much better drawing chances compared to the game.

**29 Bd3 exd5 30 exd5 Kf8 31 Ke3 Ke7 32 Kd4 Bc8 33 Nb5 a6 34 Nc7 Kd6 35 Nxa6 Nb7**



Allowing Black to close the kingside, which turns out to considerably reduce White's winning chances.

36 Nb4! is much stronger, for example, 36 ... Bd7 37 Nc2 Ke7 38 Ne3 Nd6 leads to the same position as in the game (after Black's 39th move). Because g4 and ... g5 have not been played, White can gain more space on the kingside with 39 f4! intending to play g4-g5 and then maneuver the e3-knight around. Eventually White should be able to break through.

**36 ... g5 37 Nb4 Bd7 38 Nc2 Ke7 39 Ne3 Nd6 40 Nd1 Ba4 41 Nf2 f6 42 Be2 Be8 43 Nd1 Ba4 44 Nb2 Be8**

The closed kingside makes it very difficult for White to make progress in this endgame and Wang Hao doesn't find a way.

**45 Bd1 Nb5+**

MVL sets up an ideal defensive position with his knight on c7 and king on d6.

**46 Kc4 Nc7 47 Bb3 Kd6 48 Kd4 Nb5+ 49 Kd3 Nc7 50 Nc4+ Kc5 51 Nd2 Bb5+ 52 Ke4 Bd7 53 Nf1 Nb5 54 Ng3 Nd6+ 55 Ke3 f5 56 gxf5 Bxf5 57 Nxf5 Nxf5+ 58 Ke4 Nh4 59 Ba4 Kd6 60 Be8 Ng2 61 Bf7 Ne1 62 a4 Nc2 63 Be8 Ne1 64 Bb5 Ng2 65 Bc4 Nh4 66 Bf1 Kc5 67 Bh3 Kd6 68 Be6 Ng6 69 Bf7 Nh4 70 Be8 Ng2 71 Bb5 Nh4 72 Bd3 Kc5 73 Bf1 Kd6 74 Bh3 Ng6 75 Be6 Nh4 76 Bf7 Ke7 77 Bh5 Kd6 78 Bg4 Ng2 79 Kf5 Kxd5 80 Kxg5 Ke5 81 Kg6 Nf4+ 82 Kf7 Nd3 83 Ke7 ½-½**

## **New Battlegrounds**

Our discussion on the 7 Bc4 Exchange Grünfeld continues with the following two games. Both games take place in a rich opening battleground where the plans for White have changed dramatically since 2018. First, we will have a look at Game 6 in which the influence of modern engines is absent. Nakamura focusses on maintaining a solid centre and exchanges the dark-squared bishops, but MVL responds well, showcasing the long-term advantages of his position by creating queenside play.

### *Game 6*

#### **H.Nakamura-M.Vachier Lagrave**

London Chess Classic 2018

## 1 d4

Later in their mini-match, Nakamura switched to an Anti-Grünfeld setup with 1 Nf3 c5 2 c4 Nf6 3 Nc3 d5 4 cxd5 Nxd5 5 e3 and won in tiebreaks to become the 2018 Grand Chess Tour champion. But in the classical portion, he didn't achieve anything out of the opening.

**1...Nf6 2 c4 g6 3 Nc3 d5 4 cxd5 Nxd5 5 e4 Nxc3 6 bxc3 Bg7 7 Bc4 c5 8 Ne2 Nc6 9 Be3 0-0 10 0-0 b6 11 Rc1**

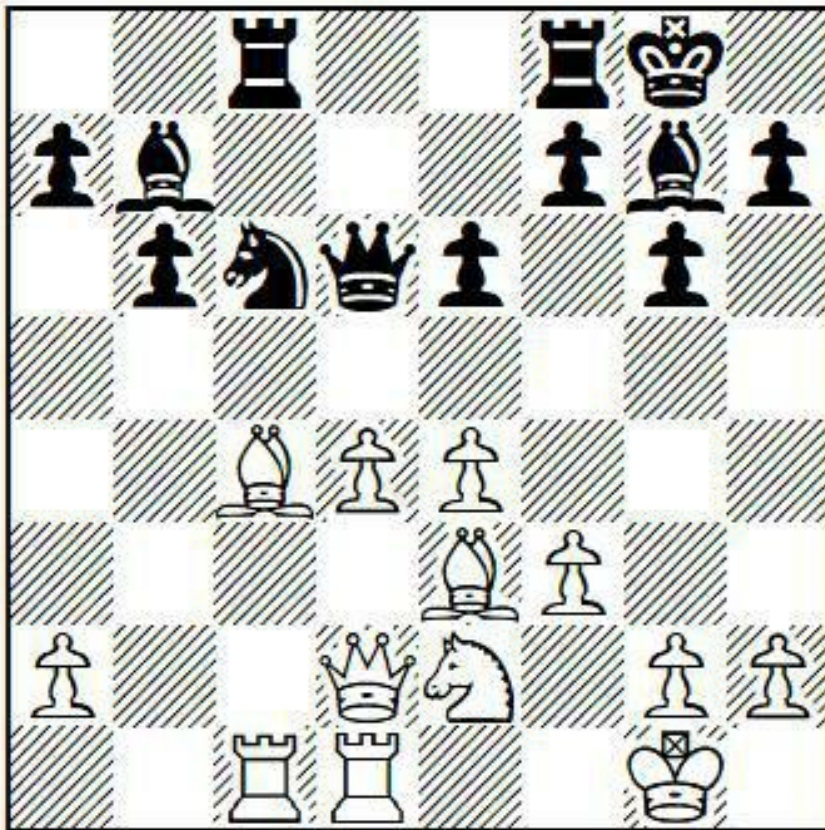
Deviating from the two previous games that saw 11 h4!?

**11...Bb7 12 Qd2 e6 13 Rfd1 Rc8 14 f3**

Supporting the centre is natural and favoured by many of the older engines. However, as we will see in the game, the reduced number of pieces and Black's play on the c-file (after ... cxd4 and ... Na5) will compensate for White's central control.

The AI-approved approach of 14 Bg5! followed by 15 h4 is examined in the next game on the note to Black's 12th move.

**14 ... cxd4 15 cxd4 Qd6**



**Question:** Why move the queen to d6 and not d7 or e7 - ?

**Answer:** The d6-square is best for the queen because it can move to b4 and offer a queen trade at some point. Others:

a) 15 ... Qd7?! would be met by 16 Bb5 threatening d5.

b) 15...Qe7 is slightly worse than MVL's move because after 16 Bg5! White intends to play h4-h5 next with good kingside play.

c) However, there was a playable alternative was 15 ... Na5 followed by exchanging some major pieces on the c-file.

### 16 Bh6

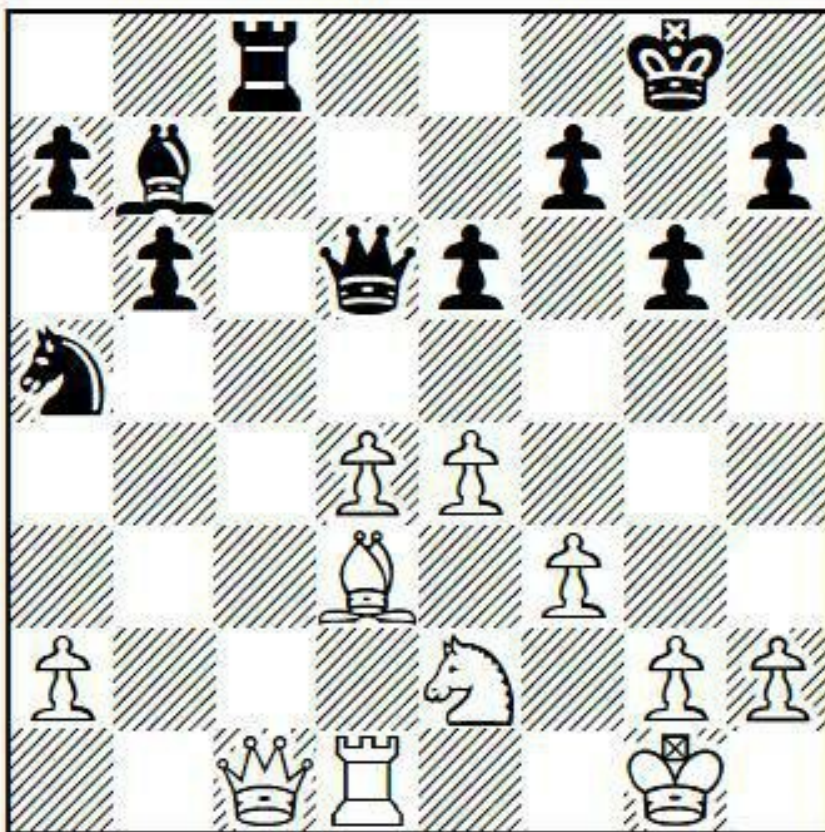
Not the most threatening approach, after which MVL's position is already easier to play. Even though the strong g7-bishop is exchanged off, White's dark-squared bishop was also quite useful on e3 to defend d4.

The modern engines view the thematic 16 h4! as the only serious attempt at an edge. Black has two main options; both intend to exchange some pieces:

a) 16 ... Qb4?! is very natural and consistent with the previous move, but we saw earlier in the chapter that the h-pawn can provide some long-term difficulties for Black in an endgame. For example, 17 Qxb4 Nxb4 18 h5 Rfd8 and in A.Salem-A.Grischuk, Doha (rapid) 2016, Black would have been faced with an unpleasant endgame after 19 Bg5 Rd7 20 h6! Bf8 21 Bb3 followed by bringing the king to e3. Later the weak kingside dark squares may be occupied by the White knight.

b) 16 ... Na5! is preferable. Black's knight is stronger on a5 than b4 because it annoys White's bishop and may jump to the c4-square in the future. Play continues 17 Bd3 Rxc1 18 Rxc1 Rc8 19 Rxc8+ Bxc8 20 h5 Bf8! and Black should obtain sufficient counterplay on the queenside, perhaps by starting with ... Qb4 or ... Qa3.

**16 ... Bxh6 17 Qxh6 Na5 18 Bd3 Rxc1 19 Qxc1 Rc8**



## 20 Qd2

The game A.Gaifullin-D.Kokarev, Sochi 2017, demonstrated some typical

ideas for Black in these positions. After 20 Qg5 Nc6 21 Qe3 Qa3 22 Qd2 Nb4 23 Bb1 Black increased the pressure by playing 23 ... Ba6! threatening to play ... Bxe2 followed by ... Rc1. And now:

a) 24 Rc1? Rxc1+ 25 Nxc1 Bc4 is winning for Black because all of White's pieces are tied down, while Black can simply push his queenside pawns forward.

b) 24 Nf4 Qc3 leads to a clearly better endgame for Black.

c) 24 Kf2 was a good defensive try (intending to meet 24 ... Bxe2 with 25 Kxe2! and the c1-square is defended from Black's rook). Still, Black obtained a comfortable advantage after 24 ... Nc6 25 Qe3 Qd6.

**20 ... e5!**

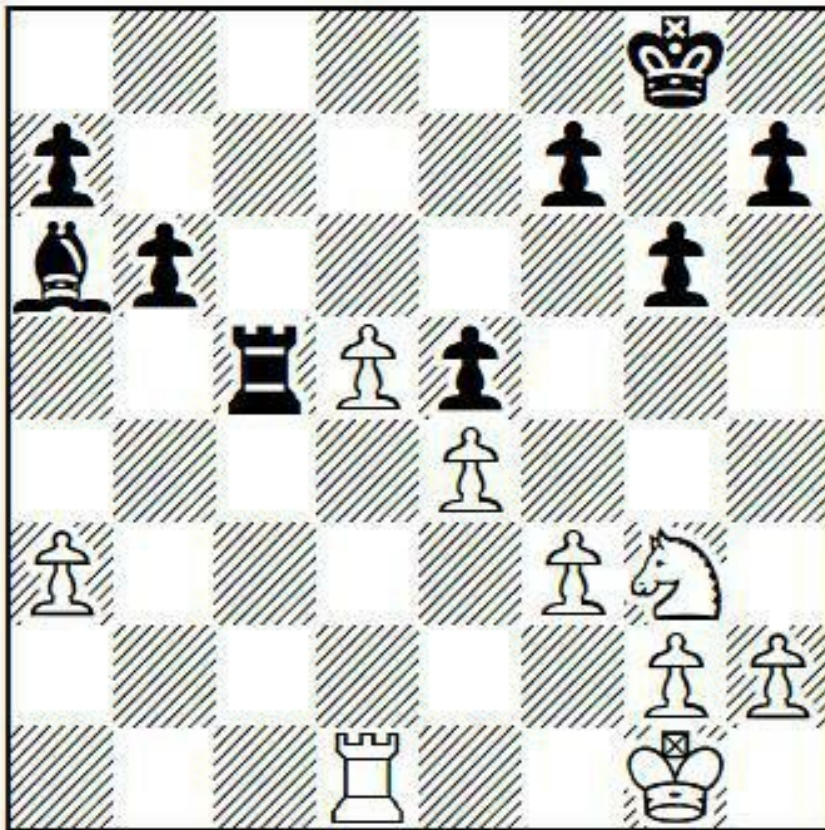
Fighting for control of the c5-square, which can be later used by Black's queen to create play on the c-file.

**21 d5 Nc4 22 Bxc4 Rxc4 23 Qe3?!**

Leaving the c2-square unprotected allows Black to create some pressure.

23 Rc1 should lead to a drawn endgame, for example, 23 ... Qc5+ 24 Kf1 Rxc1+ 25 Qxc1 Qxc1+ 26 Nxc1 Kf8 with equality.

**23 ... Rc2 24 a3 Ba6 25 Ng3 Qc5 26 Qxc5 Rxc5**



**27 d6?!**

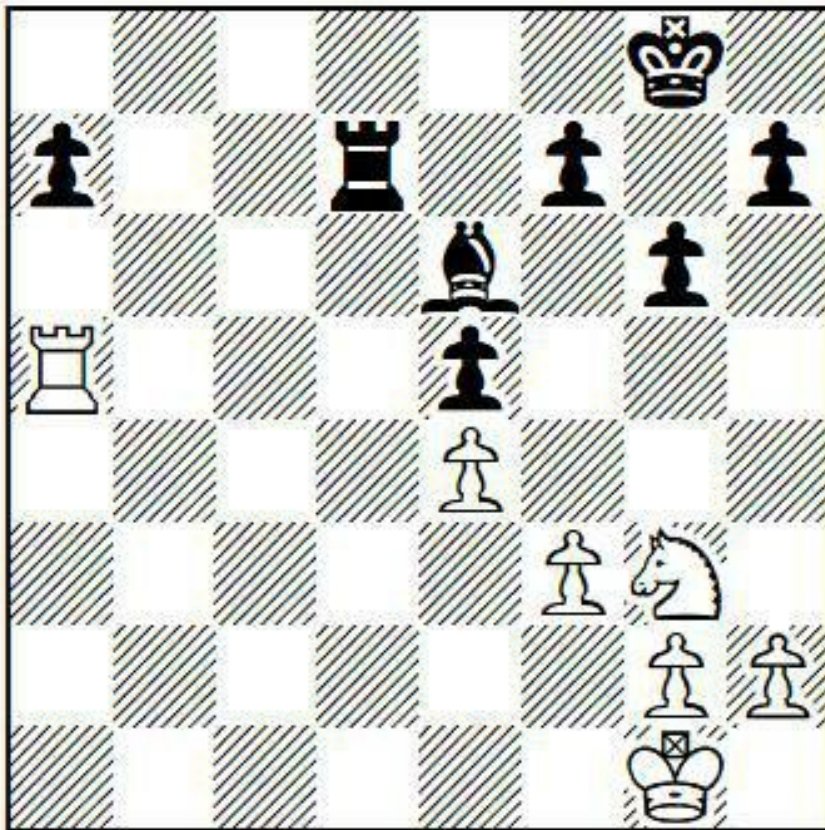
It was best for White to activate the knight on g3 by playing Nf1 either here or on the next move.

27 Nf1! intending Ne3 and White should hold fairly comfortably.

**27 ... Rc8 28 a4**

Again 28 Nf1 was preferable.

**28...Bc4 29 a5 bxa5 30 d7 Rd8 31 Rc1 Be6 32 Ra1 Rxd7 33 Rxa5**



### 33 ... f6?

Keeping everything protected, but it was much stronger to immediately put the a7-pawn to use.

33 ... Rd1+! 34 Kf2 Rd2+ 35 Kg1 Ra2! 36 Rxe5 a5 and the a-pawn will run up the board with excellent winning chances for Black.

### 34 Nf1! Rd1 35 Kf2 a6 36 Ne3 Rd2+ 37 Kg1?

It turns out that the White king would be much better placed on the active g3-square in some lines.

37 Kg3! Ra2 38 Rc5 a5 39 Nd5 Bxd5 40 exd5 h5 (keeping the h-pawn defended) 41 d6 Kf7 42 Rd5 Ke8 43 d7+ Kd8 44 Rd6 and the endgame is drawn because of White's active king.

### 37 ... Rd6?

Too passive. After this, Nakamura defends very well by seizing space on the kingside and MVL doesn't manage to create any more serious chances.

37 ... Ra2! 38 Rc5 h5! (38 ... a5?! 39 Rc6 Kf7 40 Rc7+ and the h7-pawn is

annoying for Black to deal with) 39 Nd5 Bxd5 40 exd5 a5 41 d6 Kf7 42 Rd5 Ke8 43 d7+ Kd8 44 Rd6 f5 45 Rxd6 a4 wins for Black. Here it is very clear that White's king would have been more sheltered and active on g3 instead of g1.

**38 h4 Kf7 39 g4 Bd7 40 g5 Bb5 41 Kf2 Ke6 42 gxf6 Kxf6 43 Nd5+ Kf7 44 Nc7 Rb6 45 Ke3 h6 46 Kf2 h5 47 Kg3 Be2 48 Kf2 Bb5 49 Kg3 Be2 50 Kf2 Bb5 ½-½**

The same opening system is played in our next game, a key match-up between Caruana and Nepomniachtchi in the first half of the 2020 Candidates Tournament. However, this time Caruana employs a plan that is clearly influenced by Lc0. His approach aims to pose Black with permanent weaknesses on the kingside, which could be very beneficial in the long run. Caruana succeeds in creating some pressure, but Nepomniachtchi defends well and demonstrates the robustness of Black's position. Despite the peaceful outcome, the practical difficulties that were created for Black in this game (and others at the top level) suggest that Caruana's approach will continue to be an important topic in future Grünfeld discussions.

### *Game 7*

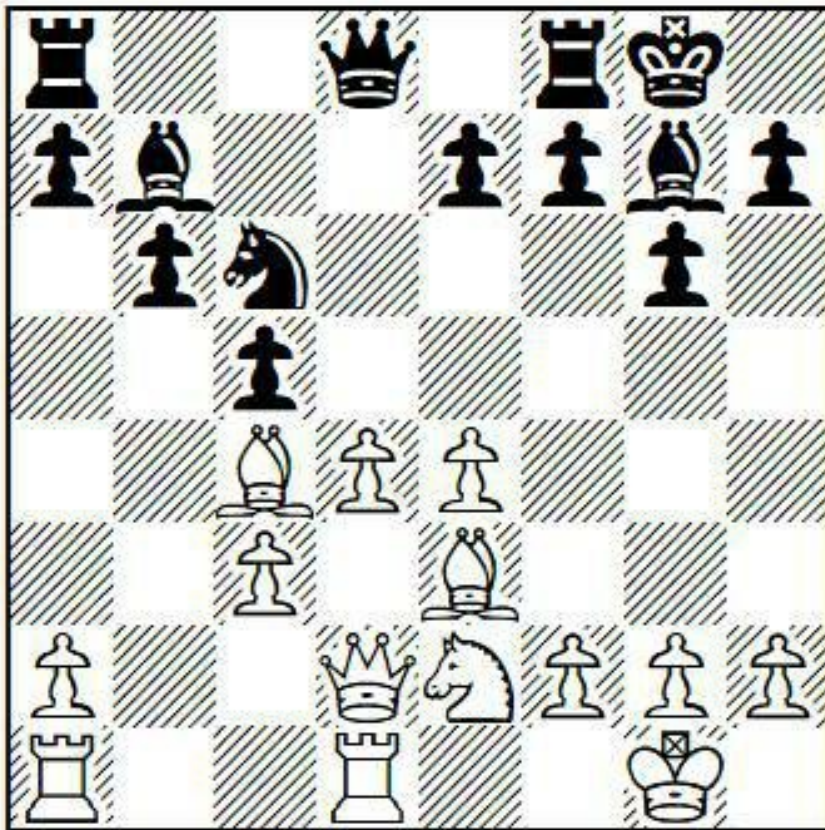
### **F.Caruana-I.Nepomniachtchi**

FIDE Candidates 2020-21

**1 d4 Nf6 2 c4 g6 3 Nc3 d5 4 cxd5 Nxd5 5 e4 Nxc3 6 bxc3 Bg7 7 Bc4 c5 8 Ne2 0-0 9 0-0 Nc6 10 Be3 b6 11 Qd2**

Note that there are some other possible move orders for White, such as 11 Rc1 Bb7 12 Bb5 Rc8 13 Qd2 e6 14 Rfd1 which has been tried by Anish Giri in a few games. There are some subtle differences between this approach and 11 Qd2, but the main plans remain the same.

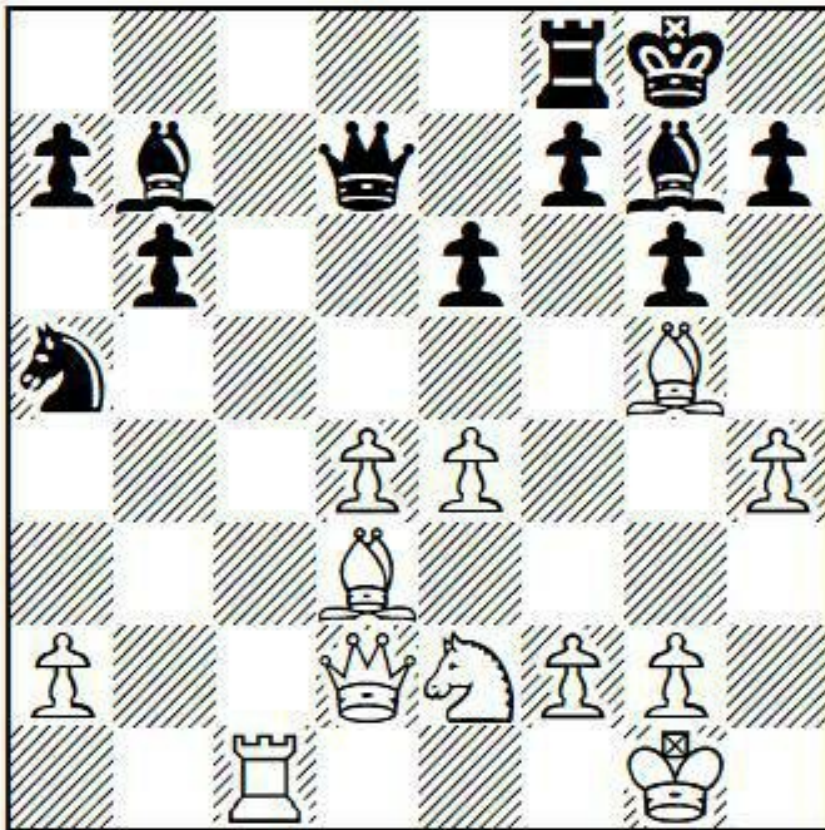
**11 ... Bb7 12 Rfd1**



In the past, meeting 10 ... b6 with the forcing 11 dxc5 was White's main try for an edge, but now it is more common to use a slower approach by playing Qd2, Rfd1, and Rac1 followed by the typical h4-h5 cramping ideas. The newer engines have been the driving force behind this setup's rise in popularity because of their greater appreciation for the long-term difficulties Black faces.

### 12 ... cxd4

Alternatively, Black can maintain the tension in the centre for a few moves. 12 ... Rc8 13 Rac1 e6 14 Bg5! (the modern engine's treatment of the position, which is more challenging than the previous game's 14 f3) 14 ... Qd7 15 h4 Na5 16 Bd3 cxd4 17 cxd4 Rxc1 18 Rxc1



Practice has seen:

a) 18 ... Nc6 aims to discourage h5-h6 by putting more pressure on White's centre. H.Melkumyan-M.Ragger, Zagreb 2019, continued 19 Bb5 a6 20 Bxc6 Bxc6 and quickly finished in a draw after 21 e5. Instead, White could try the interesting pawn sacrifice 21 h5!? Bxe4 22 h6 Bh8 23 Qf4 with a sharp position and one where Black must be extremely careful.

b) 18 ... Rc8 19 Rxc8+ leads to a further split:

b1) 19...Bxc8?! appears to not contain many problems for Black at first sight. But in F.Caruana-W.So, internet 2020, Caruana showed a very instructive way to create pressure. That game continued 20 h5 Nc6 21 h6! Bf8 22 Bb5 a6 23 Ba4 b5 24 Bb3 Bb7 25 d5! exd5 26 Bxd5 Ne5 27 Bxb7 Qxb7 28 Nc3 Ng4 29 Nd5 and Caruana won quickly because of Black's dark-squared weaknesses on the kingside.

b2) Ding Liren's 19 ... Qxc8 is preferable, preparing to bring the knight back into the game on c4. Still, White should retain some pressure.

B.Gelfand-Ding Liren, internet 2020, saw 20 h5 Nc4 21 Qc1 b5 and here 22 Be7! threatening h6 would have been very strong.

**13 cxd4 Rc8 14 Rac1 Na5**

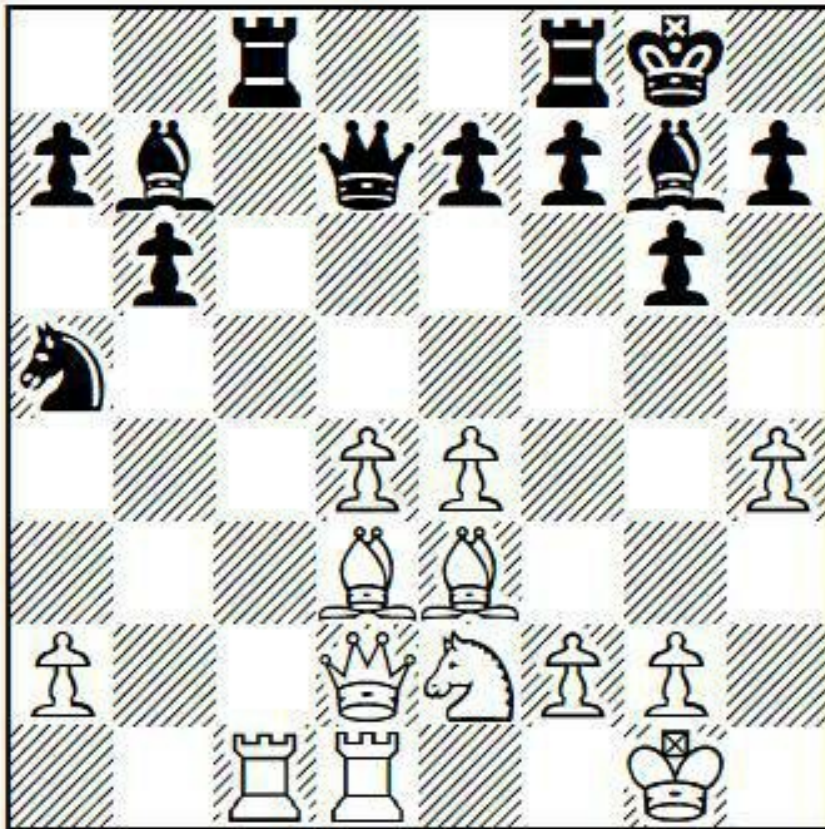
Preparing to exchange off all of the major pieces along the c-file to relieve some pressure.

14 ... e6 15 Bg5 Qd7 16 Bb5! is unpleasant for Black to face, for example, 16 ... a6 17 Ba4 b5 18 Bb3 and there are ideas of playing d5 or h4-h5 next.

**15 Bd3 Qd7**

15 ... e6 16 h4 Qxh4?! is extremely risky for Black because the queen will be completely out of the game on h4. One sample line is 17 Rxc8 Rxc8 18 Bg5 Qg4 (provoking f3, so that ... Qh5 Ng3 can be met by ... Bxd4 with check!) 19 f3 Qh5 20 e5 h6 21 Be7 g5 22 Bb1 Ba6 23 Qe3 Re8 24 Bb4 and Black's terrible piece coordination makes his position difficult.

**16 h4!**



A very familiar concept for us by now. White prepares to increase the

pressure on the kingside by placing the pawn on h5, or by pushing it all the way to h6.

**16 ... Rxc1**

16 ... h5? is a mistake because the inclusion of h4 and ... h5 is favourable for White due to the weakened g5 and h6-squares. For example, 17 Bh6 Rxc1 18 Rxc1 Rc8 19 Bxg7 Kxg7 20 d5 (Black's minor pieces will not be helpful when White begins to attack on the weak kingside dark squares) 20 ... Rxc1+ 21 Qxc1 Qc8 22 Qa1+! Followed by Nf4 and e5-e6.

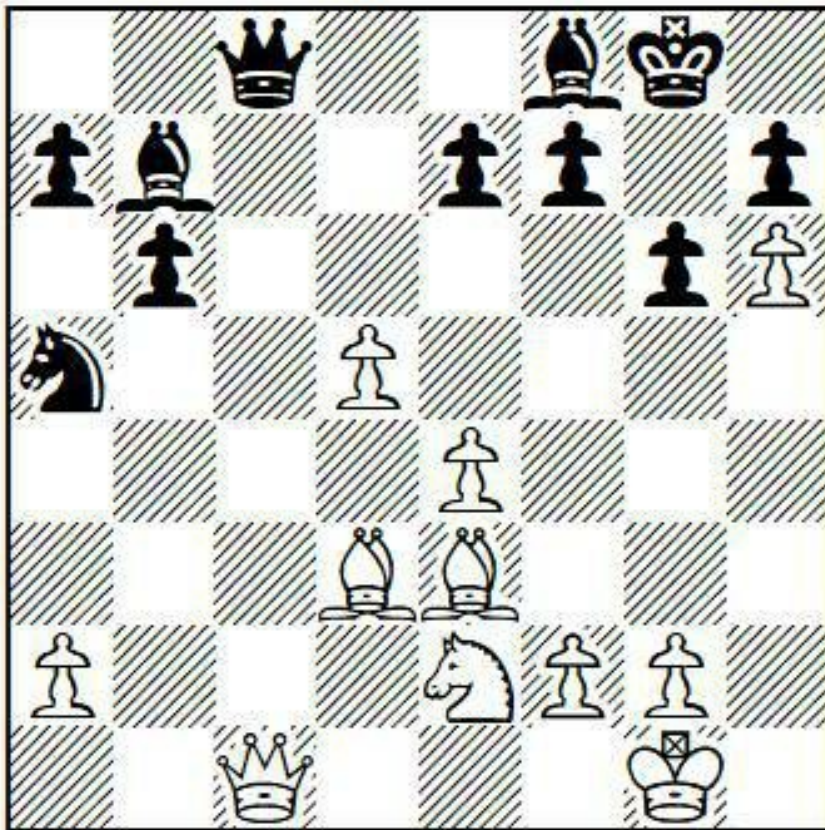
**17 Rxc1 Rc8 18 h5 Rxc1+**

18 ... e6 19 Bh6 (it is important to note that 19 h6 is not so effective in this case, as after 19 ... Bf8 20 Rxc8 Qxc8 Black lacks weaknesses; with fewer major pieces on the board, White won't be generating much of an attack on the kingside) 19 ... Rxc1+ 20 Qxc1 Bxh6 21 Qxh6 and once White brings the queen back, h6 will come soon.

**19 Qxc1 Qc8 20 h6 Bf8**

20 ... Bh8? 21 Qxc8+ Bxc8 22 e5 completely shuts in the bishop.

**21 d5!**



**Question:** What is the purpose of 21 d5 - ?

**Answer:** The pawn push limits the activity of Black's minor pieces on the queenside and reduces some of the pressure on White's centre. Without this move, Black would have very few problems to solve.

**21 ... e6**

The endgame after 21 ... Qxc1+ 22 Bxc1 e6 23 dxe6 fxe6 24 Nd4 contains some difficulties for Black because of White's active knight. Following 24 ... Bc8 25 Kf1 Bd7 26 Nf3 and Ne5 next should certainly be holdable for Black, but it might not be so easy. Or if 26 ... Bd6 then 27 g3 followed by Bf4 and Ne5.

**22 Nc3 Nc4**

22 ... Ba6 was also fully playable, though there are several important lines to consider: 23 Bxa6 Qxa6 24 e5 (24 dxe6 fxe6 25 Qd2 threatens Qd7 but it can be neutralized with 25 ... Qc4! 26 Qd7 Qc6 27 Qd4 Qd6 and Black is

fine) 24 ... Qd3 25 d6 Nc4 (25 ... Nc6!? is also playable because of 26 Bf4 f6! 27 exf6 e5 and the d6-pawn will be captured next) 26 Bf4 f6 27 d7 fxe5! (27 ... Qxd7?! 28 Ne4 Qd3 29 Nxf6+ Kh8 may cause some problems for Black with the king boxed in on h8) 28 Ne4 exf4 29 Qxf4 Qd1+ 30 Kh2 Qxd7 31 Nf6+ Kh8 32 Nxd7 Bd6! leads to a drawn endgame.

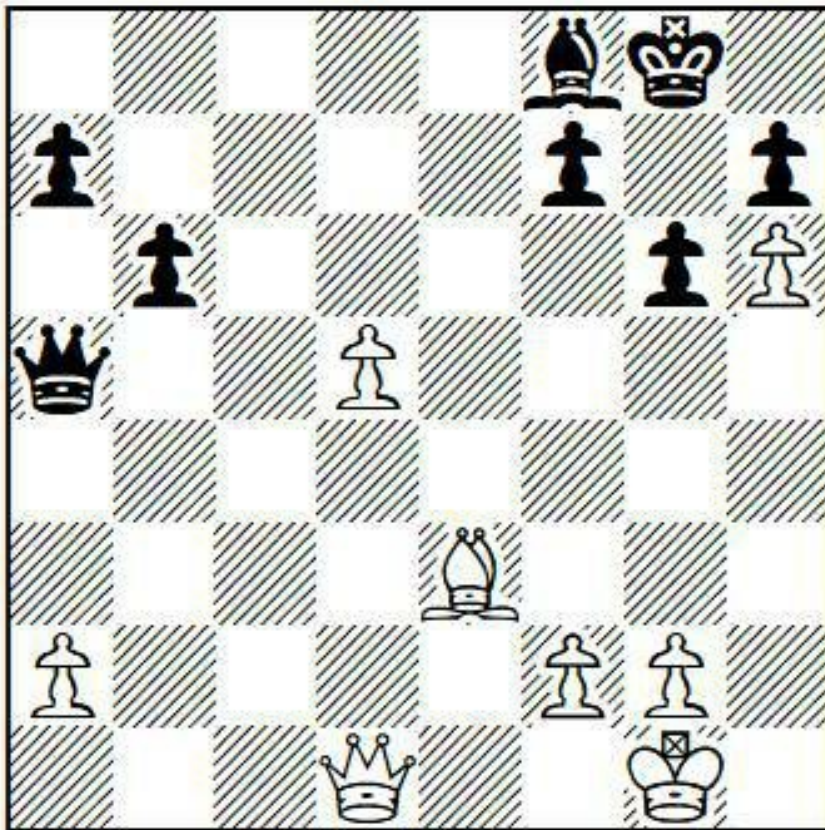
### **23 Bxc4**

23 Bf4! may have been more challenging, then 23 ... a6 intending to support the knight with ... b5, can be met by 24 Bxc4 (or 24 a4 Qc5 insisting on playing ... b5; White retains some slight pressure after 25 dxe6 fxe6 26 Ne2 b5 27 Qa1! because of Black's weakened kingside) 24 ... Qxc4 25 d6 Qd4 26 Qd1 Qxd1+ 27 Nxd1 Bc6 28 e5 looks like a difficult endgame for Black, but it should be holdable after 28 ... f6 29 exf6 e5! followed by ... Kf7-e6.

### **23 ... Qxc4 24 Qd2 exd5**

Nepomniachtchi's choice forces simplifications. There was also a more dynamic way to solve Black's problems with 24 ... b5! 25 d6 b4 26 Nb5 Qxe4 27 f3 Qd5 28 d7 Be7 29 Nxa7 Bd8 and all of White's main ideas have been defended against.

### **25 Nxd5 Bxd5 26 exd5 Qb4 27 Qd3 Qa3 28 Qc2 Qa5 29 Qd1**



Caruana can hope for some small pressure here, but it shouldn't be enough to create major problems for Nepomniachtchi.

**29 ... Bd6 30 g3 Kf8 31 Qf3**

Maybe White would have been slightly better after 31 Qd4 Ke7 32 Qe4+ Kf8 33 Bd4 Qb5 34 Kg2 though it is difficult to see how to make progress.

**31 ... Qe1+ 32 Kg2 f5!**

After this move, Caruana loses his hopes of keeping Nepomniachtchi under pressure.

**33 g4 Qb1 34 Bd4 Kf7 35 Qe3 Qe4+ 36 Qxe4 fxe4 37 f3 exf3+ 38 Kxf3 Ke7 39 Ke4 Kd7 40 a4 Bc7 41 Be3 a6 42 Bd2 b5 43 axb5 axb5 44 Kd4 Bb6+ 45 Kd3 Bc5 46 Bc3 Ba3 47 Bg7 Bc5 48 Bc3 Bf8 49 Bg7 Be7 50 Kd4 Bd6 51 Bf6 Kc7 52 Bg5 Kb6 53 Bd8+ Ka6 54 Kd3 Bf8 55 Kd4 Bd6 ½-½**

**Pawn Sacrifices for Black**

The remaining games in this chapter switch from White's new ideas in the Exchange Grünfeld to pawn sacrifices for Black in other areas of the Grünfeld. Pawn sacrifices are quite typical for the Grünfeld because they are consistent with the opening's active and dynamic nature. However, the twist in this section is that the pawn sacrifices have only become fashionable in recent years because they are recommended by the neural network engines. These engines have a better understanding of the dynamics and show that Black's active piece play provides good compensation for the sacrificed pawn.

The first game sees Black sacrificing a pawn to spice up one of White's safer lines against the Grünfeld. In return for the pawn, Black receives quick development and an initiative on the queenside.

### *Game 8*

#### **H.Barseghyan-N.Sunilduth Lyna**

Sunway Sitges International Open 2019

**1 d4 Nf6 2 c4 g6 3 Nc3 d5 4 Bf4 Bg7 5 e3 c5 6 dxc5 Qa5 7 Rc1**

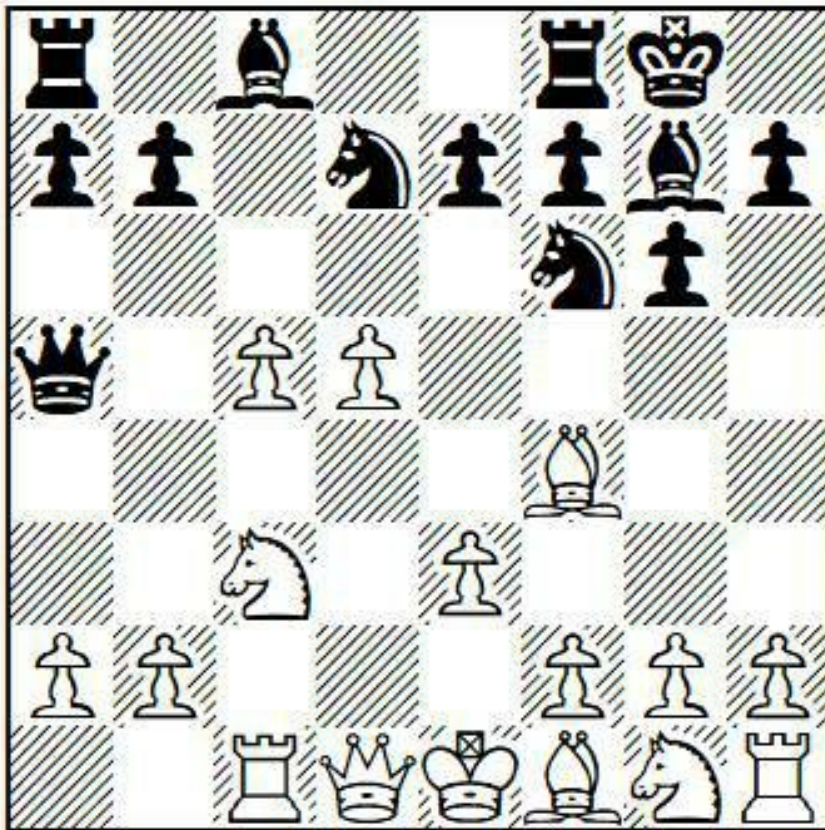
A very solid way to meet the Grünfeld. The main line is relatively risk-free for White and there are chances to play for some slight pressure.

**7 ... 0-0!?**

Sacrificing the d5-pawn in return for quick development and queenside play.

More standard is 7 ... dxc4 8 Bxc4 0-0 9 Nf3 (9 Nge2 is another important line, as tried by Wojtaszek on a few occasions) 9 ... Qxc5 10 Bb3 Nc6 (or 10 ... Bg4 followed by ... Qh5 and ... Bxf3 but here too White's position is slightly more pleasant) 11 0-0 Qa5 12 h3 is the beginning of the main line. In the arising middlegames, White may be able to obtain some slight pressure and it can be difficult for Black to unbalance the game.

**8 cxd5 Nbd7!**



White has tried many different moves in this position, most of which are based on supporting the d5-pawn.

8 ... Ne4? is much more popular, but Black is in a lot of trouble after 9 Nge2 Nxc5 10 a3.

The second most popular choice is 8 ... Rd8?! 9 Bc4 Be6 seeking to regain the d5-pawn, but White has 10 e4! Nxe4 11 Nge2 followed by 0-0 with a clear advantage because of his better piece coordination.

### 9 Bc4

The most logical developing move, protecting the centre. White has tried a variety of other moves:

a) The critical 9 f3! is examined separately after this game.

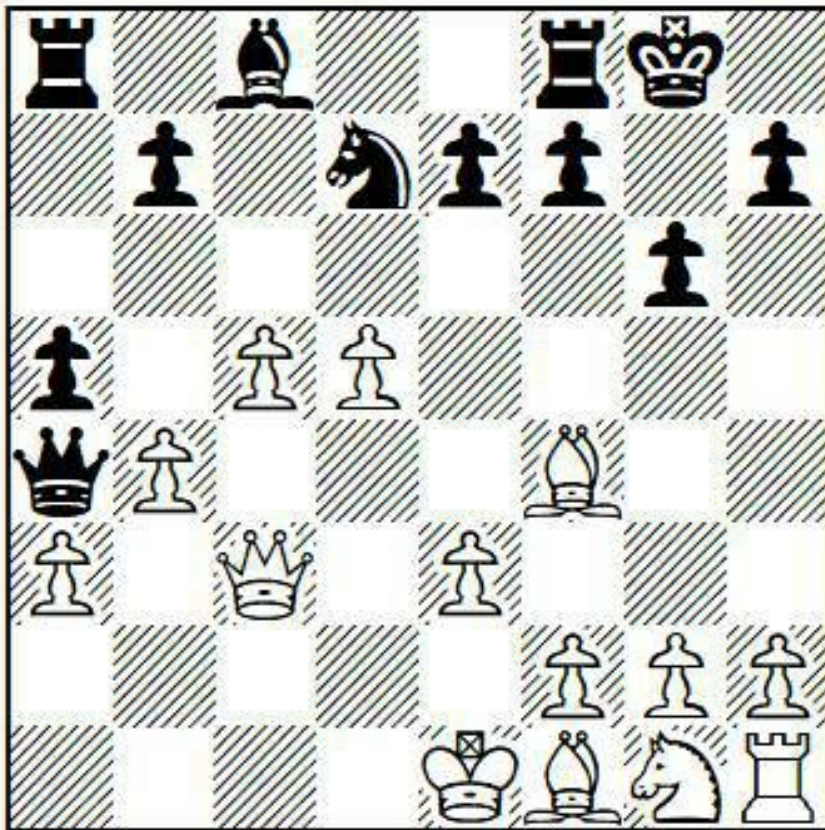
b) 9 Qa4 is harmless, Black obtains a comfortable endgame after 9 ... Qxa4 10 Nxa4 Nxd5 11 Bg3 N7f6 with the intention of playing ... Bd7 and ... Rfc8. A.Kelires-S.Nihal, Sitges 2019, continued 12 Bb5 a6 13 Bc4 Bd7 14 Nb6 Nxb6 15 cxb6 Rfc8 and the endgame was perfectly fine for Black. The b6-

pawn was picked up after ... Bc6 and ... Nd7.

c) 9 Nf3 Ne4 transposes to another line of the Grünfeld (i.e. 5 Nf3 0-0 6 e3 c5 7 dxc5 Ne4 8 Rc1 Nd7 9 cxd5 Qa5). Black is doing very well here, for example, 10 Nd4 Nxc3 11 bxc3 Qxa2 12 Nb3 Qa3 followed by ... Nxc5 and the passed a-pawn provides good long-term prospects.

d) 9 Qd2 Nxc5 10 Nf3 Qb6 11 Bc4 sees White nearly finishing development, though the king is still in the centre. Black should take this opportunity and play energetically with 11 ... Nce4 12 Qe2 Rd8 13 Nxe4 Nxe4 14 0-0 (note that the greedy 14 Rc2? is met by 14 ... Qa5+ 15 Nd2 Bf5 followed by ... Ng3) 14 ... Qxb2 regaining the pawn and a roughly balanced endgame should arise.

e) 9 a3!? prevents Black from playing ... Nxc5 due to 10 b4, but White falls further behind in development. Play continues 9 ... Ne4 10 b4 (10 Nge2 Ndxc5 11 f3 Nxc3 12 Nxc3 Bd7 followed by ... Rac8 or ... Na4, adding pressure to the pin on White's king) 10 ... Bxc3+ (10 ... Nxc3?! 11 bxa5 Nxd1 12 Kxd1 Nf6?! 13 Be5 led to a clearly better endgame for White in A.Timofeev-D.Wagner, internet 2021) 11 Rxc3 Nxc3 12 Qb3 Qa4 13 Qxc3 a5!



Obtaining sufficient queenside counterplay. For example, 14 b5 (or 14 Bh6 Nf6 15 b5 Rd8 16 d6 Be6 provides active piece play) 14 ... Qe4 15 f3 Qxd5 16 Bh6 and in R.Hungaski-V.Ivic, Sochi 2021, Black's 16 ... e5 led to a fine position. Also good is 16 ... Qe5 returning the exchange. Black has nothing to worry about because White's kingside is undeveloped.

### 9 ... Nxc5 10 a3?

Preparing b4 and the c4-bishop can retreat to a2. However, this idea is too slow in such a sharp position, and Black immediately seizes the initiative. Others:

a) 10 Qd2 a6 (10 ... Bd7?! is a much less effective way of preparing ... b5 in this case because of 11 Nf3 b5? 12 Nxb5!) 11 a3 b5 12 b4 (12 Ba2 b4 13 axb4 Qxb4 with excellent piece activity, as ... Bf5 and ... Nd3 are coming next) aims to counter Black's queenside play. After 12 ... Qxa3 13 bxc5 bxc4 14 c6 Bf5 the d3-square can be occupied by Black's bishop.

b) 10 Nge2 Bd7! creates the threat of ... b5. Should White prevents this

with 11 a3, then Black will have ... Ba4 ideas, exploiting the weakened queenside light-squares. For example, 11 a3? (11 d6 e6 12 a3 Na4! 13 b4 Nxc3 14 Rxc3 Qa4 and the exchange of queens leads to an endgame where White is lagging behind in development) 11 ... Ba4! (11 ... b5? 12 b4 is the point behind White's previous move) 12 Bc7 (12 b4 Bxd1 13 bxa5 Bb3 14 Bxb3 Nxb3 15 Rb1 Nxa5 also led to a much better endgame in A.Aleksandrov-P.Ponkratov, Cheliabinsk 2021) 12 ... Bxd1 13 Bxa5 Bb3 14 Bb4 Bxc4 15 Bxc5 Nxd5 and Black had an excellent endgame in S.Tica-K.Kulaots, Budapest 2018.

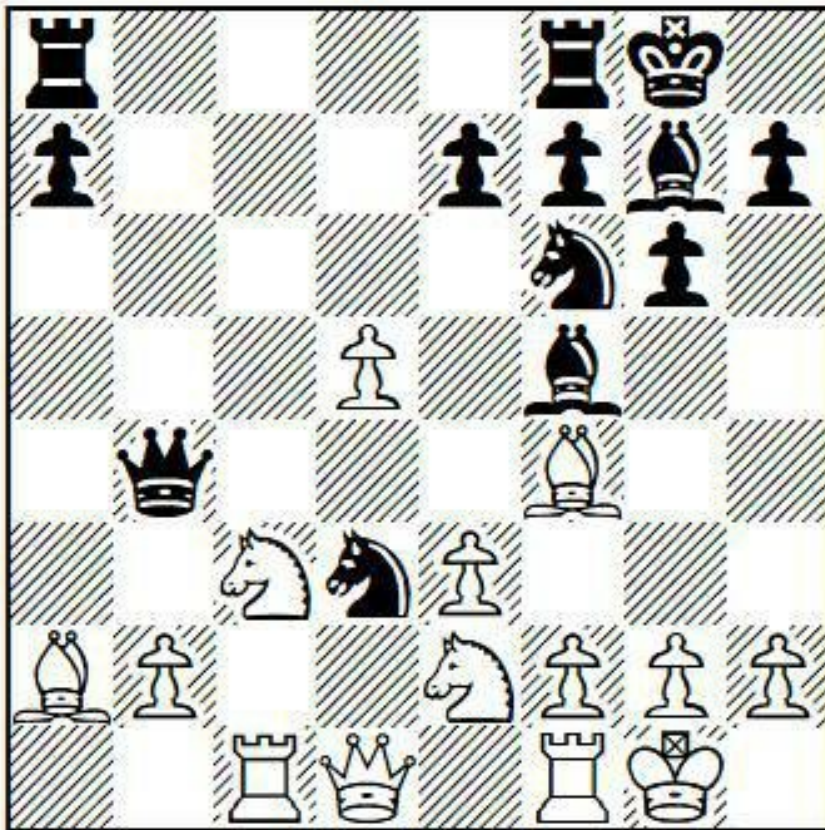
**10 ... b5! 11 Ba2**

11 Bxb5? loses to 11 ... Nfe4.

**11 ... b4**

First exchanging a pair of knights with 11 ... Nfe4 12 Nge2 Nxc3 13 Nxc3 may have been even more problematic for White, as Black breaks through after 13 ... b4.

**12 axb4 Qxb4 13 Nge2 Bf5 14 0-0 Nd3**



Seizing control of some key squares in White's position, leading to the collapse of the queenside.

**15 Ra1 Nxf4 16 Nxf4 Qxb2 17 Nce2 Nh5!**

A crushing idea, opening the diagonal for the g7-bishop.

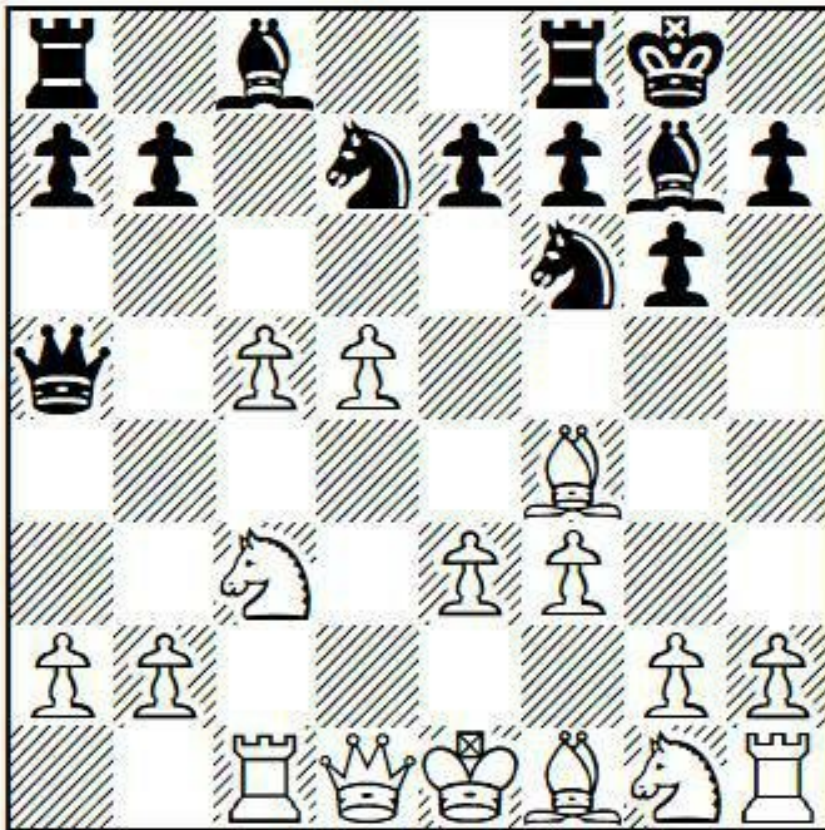
**18 Nxh5 Qxa1 19 Qa4**

19 Qxa1 Bxa1 20 Rxa1 gxh5 is an extra exchange for Black.

**19 ... Qb2 20 Nxg7 Bd3 21 d6 Qxe2 22 Ra1 e5 23 Bd5 Rad8 24 Bf3 Qb2 25 Rd1 e4 0-1**

**The Critical 9 f3!**

**1 d4 Nf6 2 c4 g6 3 Nc3 d5 4 Bf4 Bg7 5 e3 c5 6 dxc5 Qa5 7 Rc1 0-0 8 cxd5 Nbd7 9 f3!**



We saw in the previous game that White's 9th move alternatives do not pose serious problems to Black's pawn sacrifice. 9 f3 is the critical try for an advantage, but it leads to the type of complications that Black aims for with this gambit.

**9 ... Nxc5 10 e4**

10 a3?! threatens b4, so Black should react immediately and play 10 ... Nxd5! which is a powerful piece sacrifice that creates an overwhelming initiative. Play continues 11 Qxd5 Be6 12 Qd1 Rfd8 13 Qc2 Nb3! when Black's compensation hinges on the weakened b3-square because the knight attacks White's c1-rook and creates the threat of ... Rd2. Y.Zhao-D.Paravyan, Qingdao 2019, saw 14 e4 and now:

a) 14 ... Nxc1 was played but after 15 Qxc1 Rac8 16 Nge2 Bc4 17 Bd2 Qb6 18 Nf4 White managed to reduce the pressure and had a better position.

b) The best continuation was 14 ... Bd4! maintaining a tremendous amount of pressure. White should develop with 15 Bd3 but then Black regains the

material after 15 ... Bxc3+ 16 Qxc3 Rxd3 leading to a better endgame.

**10 ... b5!**

This energetic move is very consistent with the pawn sacrifice, fighting for active play on the queenside.

10 ... Bd7? 11 e5 Ne8 12 Qd2 is much better for White.

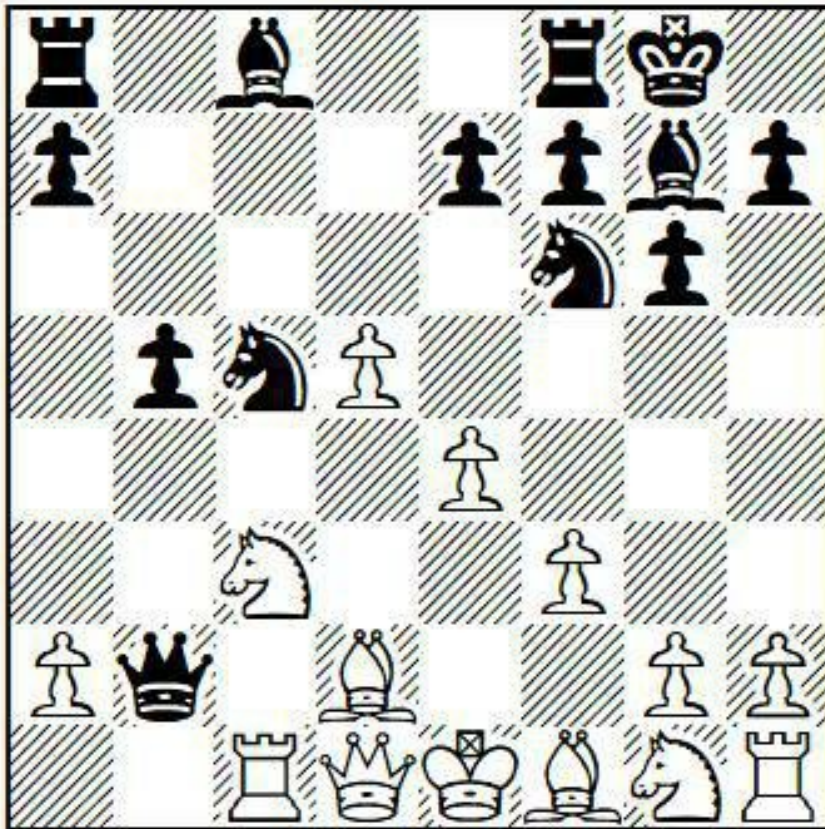
**11 b4!**

Slowing down Black's queenside play. The alternatives are much less challenging:

a) 11 Bxb5?! allows Black to comfortably regain his material after 11 ... Nfxe4! 12 fxe4 Bxc3+ 13 Rxc3 Qxb5 14 Qe2 Qxe2+ 15 Nxe2 Nxe4 with an equal endgame.

b) 11 Qd2? b4 12 Nd1 Rd8 followed by ... e6 and White's centre starts to fall apart.

**11 ... Qxb4 12 Bd2 Qb2!**



Bringing the queen further into White's position, creating the threat of ...

b4.

**13 Rc2**

The materialistic 13 Nxb5 is well met by the piece sacrifice 13 ... Nfxe4! and the position becomes a mess, but one that is more difficult for White to handle. For example, 14 fxe4 Nxe4 15 Nf3 (15 Rc2 Qf6 16 Nf3 Qb6 and the exposed king on e1 should provide Black with excellent compensation) 15 ... Rb8 16 a4 a6 17 Rc2 Qb3 18 Nbd4 Bxd4 19 Nxd4 Qb6 with sharp play. It is not at all clear how White will bring the king to safety.

**13 ... Qa3 14 Be2**

14 Bxb5 Ba6 and ... Nd3 is intended next.

14 Nxb5 Nd3+ 15 Bxd3 Qxd3 16 Nc7 and instead of the natural 16 ... Rb8, Black has a much more energetic option in 16 ... Nxe4! 17 Nxa8 Nc3 18 Rxc3 Bxc3 19 Ne2 Bxd2+ 20 Qxd2 Qb1+ 21 Qd1 Qb8 picking up the knight and reaching a comfortable position.

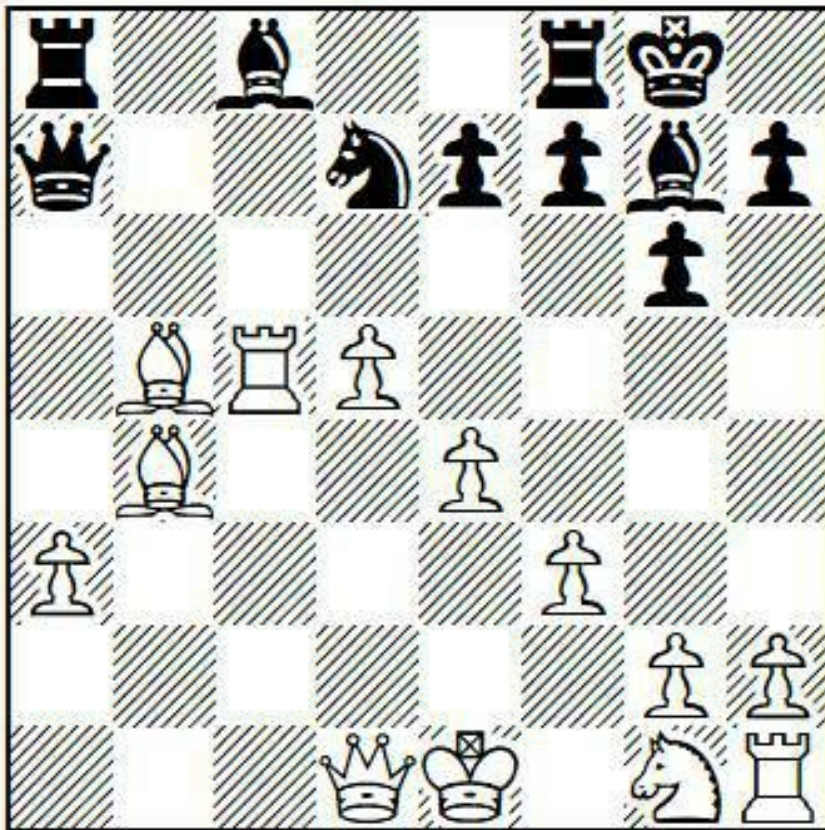
**14 ... b4**

The newer engines argue that Black obtains good play after the following sequence, while the older engines remain skeptical.

**15 Nb5 Qa5 16 Rxc5 a6 17 a3 axb5 18 Bxb4**

18 axb4 Qb6 19 Rxb5 Qd4 when White is faced with similar difficulties -- how to develop the kingside?

**18 ... Qa7 19 Bxb5 Nd7**



### 20 Bxd7

Alternatively, the bishop pair could be kept by playing 20 Rc2 but then Black's pieces jump into the game after 20 ... Rb8 21 Be2 Bd4! 22 Kf1 Ne5 and White's position is very unpleasant due to the undeveloped kingside pieces.

### 20 ... Bxd7 21 Ne2 Be5

Black has adequate compensation for the two pawns, especially because of the weak a7-g1 diagonal, which makes it difficult for White to castle. Two of Black's ideas are ... Rac8 and maneuvering the bishop with ... Bc7-b6.

The final game of the chapter is a pawn sacrifice that Carlsen employed in the second round of the 2021 World Cup. This new idea has only started to become fashionable in 2021, as both Giri and Carlsen gave it a try with the Black pieces. After seeing the game below, where Carlsen expertly handles the initiative out of the opening, it is natural to assume that the line's rise in popularity will continue for years to come.

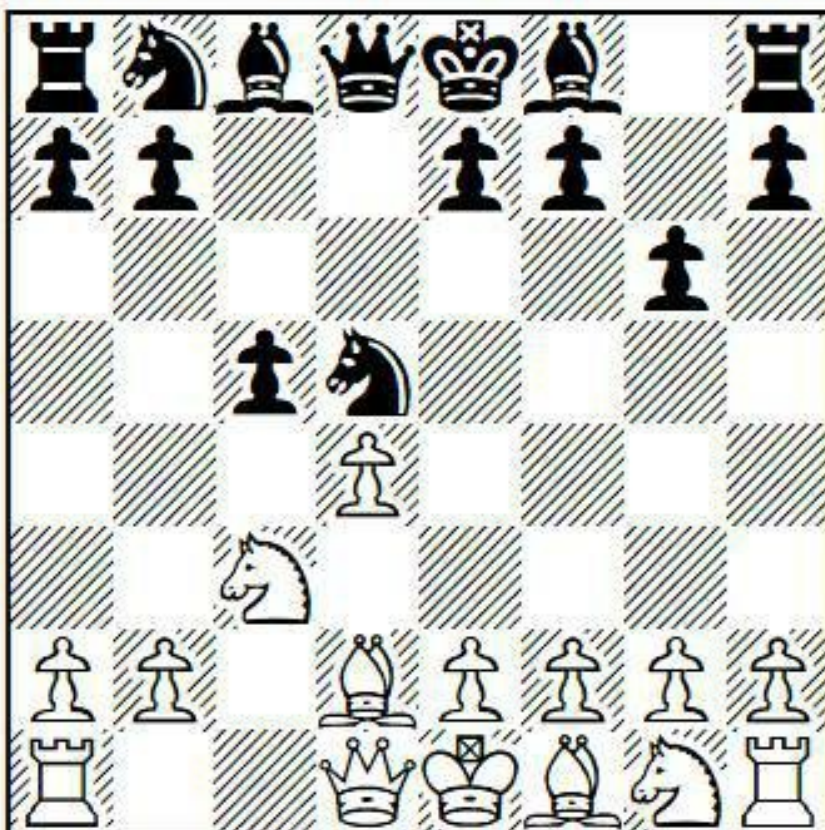
In general, lines that the World Champion plays and wins with become fashionable. Especially because Carlsen usually prefers to steer the opening towards rich, strategic middlegames (where there is a lot of opportunity to outplay his opponent) rather than sharp, tricky ideas that are only suitable for one game.

*Game 9*

**S.Martinovic-M.Carlsen**

FIDE World Cup 2021

**1 d4 Nf6 2 c4 g6 3 Nc3 d5 4 cxd5 Nxd5 5 Bd2 c5!?**



A very interesting and fresh pawn sacrifice which has become fashionable after it was played by Kateryna Lagno, Anish Giri and Carlsen in 2021.

## 6 Rc1

The most challenging continuation, eyeing the c5-pawn. Alternatives:

a) 6 e4 Nxc3 7 Bxc3 cxd4 8 Bxd4 (8 Qxd4 Qxd4 9 Bxd4 f6 is an equal endgame) 8 ... e5! sacrificing another pawn for some initiative. D.Gukesh-A.Giri, internet 2021, continued (the alternative 8 ... f6 9 Bc4 e5 10 Bc3 Qxd1+ 11 Rxd1 Nc6 12 f4! is unpleasant to face) 9 Bxe5 Bb4+ 10 Bc3 Bxc3+ 11 bxc3 Qa5 12 Qd2 and now instead of castling, immediately 12 ... Nd7! was best to quickly activate the minor pieces. For example, 13 Bc4 (or 13 Nf3 Nc5) 13 ... Ne5 14 Bd5 Be6 15 Bxe6 fxe6 with sufficient piece activity for the pawn. One important line is 16 Ne2 Rd8 17 Nd4 Nc4 18 Qd3 Ne5 offering a repetition of moves and reaching a balanced position.

b) 6 dxc5 Bg7 leads to a further split:

b1) 7 Rc1 Nc6 transposes to the game. Black could also consider 7 ... 0-0, as in A.Stefanova-K.Lagno, Caleta 2021.

b2) 7 Qb3?! is a very direct test of Black's pawn sacrifice, but it doesn't work out well after 7 ... Be6! 8 Qxb7 0-0 9 Qxa8 (9 Rc1 was played in H.Gretarsson-M.Antipov, Selfoss 2019; Black develops a strong initiative after 9 ... Nxc3 10 Bxc3 Bxc3+ 11 Rxc3 Bd5 12 Qb4 Nc6 13 Qa3 Qd7 because White still has the entire kingside to develop) 9 ... Qd7 traps the queen on a8. After 10 g3 Nc6 11 Qxf8+ Kxf8 Black's excellent development is more than enough to compensate for the material deficit. ... Ncb4 or ... Nd4 is coming next while White's king is stuck on e1 for the time being.

## 6 ... Nc6!

Insisting on sacrificing the c5-pawn.

The alternative was the slightly unusual idea 6 ... Nxc3 7 Bxc3 Bh6!? developing the bishop with tempo. Play continues 8 e3 cxd4 9 Bb5+ Nc6 10 Qxd4 Qxd4 11 Bxd4 0-0 12 Bxc6 bxc6 13 h4 and the endgame is slightly better for White due to the passive bishop on h6 and weak c6-pawn.

## 7 dxc5 Bg7 8 e4

8 Nf3 0-0 and now White should delay playing e4, in view of ... Ndb4. Some lines are:

a) 9 e4 Ndb4! transposes to the game.

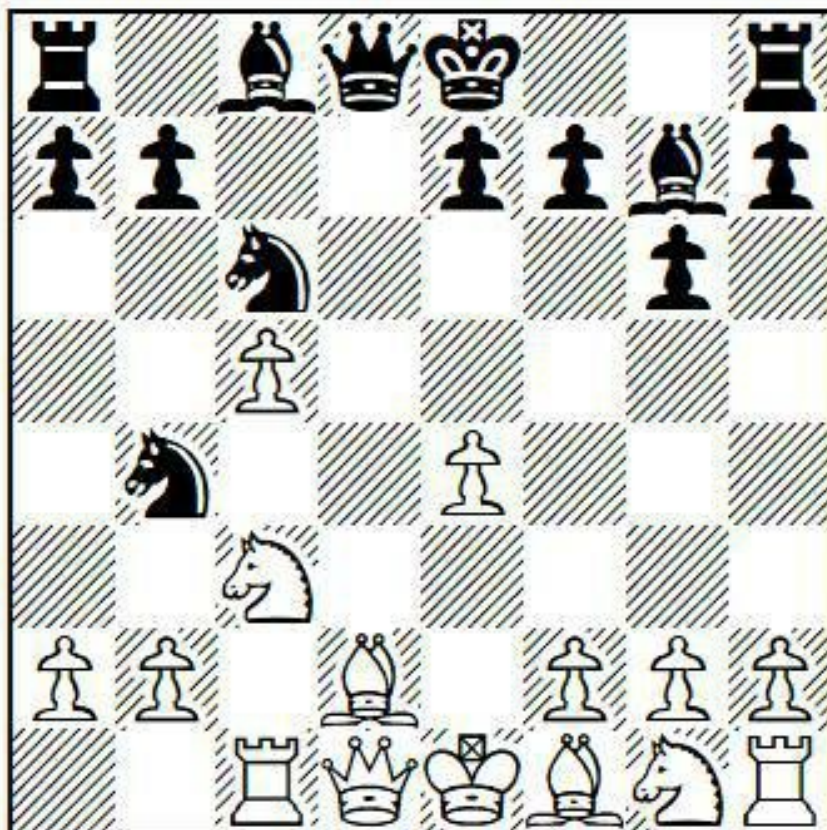
b) 9 g3 Nxc3 10 Bxc3 Qxd1+ 11 Rxd1 Be6 doesn't give White more than equality because of the vulnerable a2 and c5-pawns.

c) 9 a3 Nxc3 10 Bxc3 Qxd1+ 11 Kxd1 Rd8+ 12 Ke1 Bg4 13 e3 Rd5 followed by ... Rad8 provides sufficient activity for the pawn.

d) 9 Qa4!/? sidesteps ... Nxc3 and the exchange of queens. Black should

fight for the initiative with 9 ... Nxc3 10 Bxc3 Bxc3+ 11 Rxc3 b5! annoying the queen so that White doesn't have time to easily develop the kingside. One sample line is 12 cxb6 Bb7 13 e3 axb6 14 Qb3 Na5 15 Qd1 Qd5 16 Qxd5 Bxd5 leading to an equal endgame. White can't defend the a2-pawn and safely castle.

**8 ... Ndb4**



8 ... Nxc3 9 Bxc3 would likely lead to an endgame where Black must defend tediously.

**9 Nf3?!**

A natural developing move but it was better for the knight to retain the option of going to e2. After the text, White may not get the opportunity to castle.

The critical line runs 9 a3 Nd3+ 10 Bxd3 Qxd3 11 Nge2! (11 Qe2 Qxe2+ 12 Ngxe2 Be6 and the strong bishop pair provides sufficient compensation for the pawn) 11 ... 0-0 and now:

a) 12 Be3 Qxd1+ 13 Rxd1 Be6 leads to a fine endgame for Black because of the bishop pair and weak b3-square, for example, 14 f4 Bb3! 15 Rd7 Rab8 16 0-0 Rfd8 and the b3-bishop makes it very difficult for White's other rook to activate.

b) 12 0-0 Bg4 13 f3 Be6 14 Nf4 Qd4+ 15 Rf2 Qxc5 reaches a satisfactory middlegame for Black. 16 Ncd5 is simply met by 16 ... Qd6 and ... Bxd5 next.

**9 ... 0-0 10 a3 Nd3+ 11 Bxd3 Qxd3 12 Qe2**

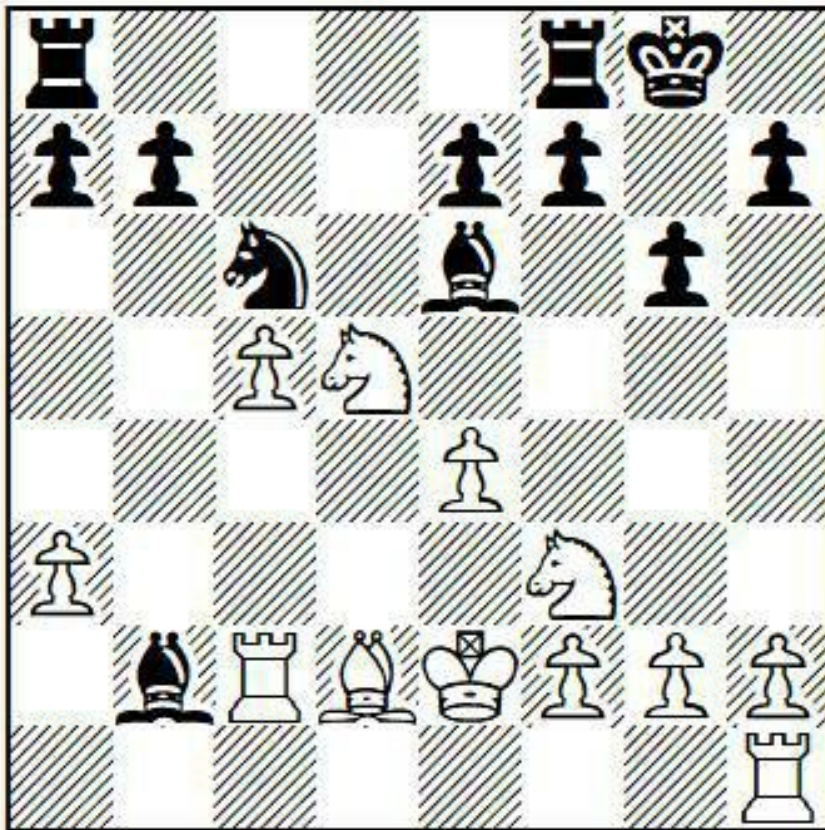
Alternatively, 12 Qc2 Qxc2 13 Rxc2 Be6 leads to a similarly unpleasant endgame for White but at least here it is possible to castle. Play continues 14 0-0 Bb3 15 Rcc1 Rfd8 followed by doubling rooks on the d-file.

**12 ... Qxe2+ 13 Kxe2 Be6**

13 ... Bg4 was good too, with ideas of playing ... Nd4+ and ... f5. For example, 14 h3 (14 Be3?! runs into 14 ... f5 15 exf5 gxf5 and ... f4 next) 14 ... Nd4+ 15 Ke3 Bxf3 16 gxf3 f5 provides excellent play for the pawn.

**14 Nd5 Bxb2 15 Rc2**

In view of Carlsen's strong 16th move, 15 Rb1 Bxa3 16 Be3 may have been a better defensive attempt. Despite being down a pawn, the a3-bishop is out of play and White has pressure along the b-file.



*Exercise:* Should Black take on a3 or retreat the bishop?

**Answer: 15 ... Bxa3 16 Ra1 f5!**

This important resource makes 15 ... Bxa3 possible and allows Carlsen to pick up a pawn.

**17 Rxa3 fxe4 18 Nxe7+ Nxe7 19 Nd4 Bd7**

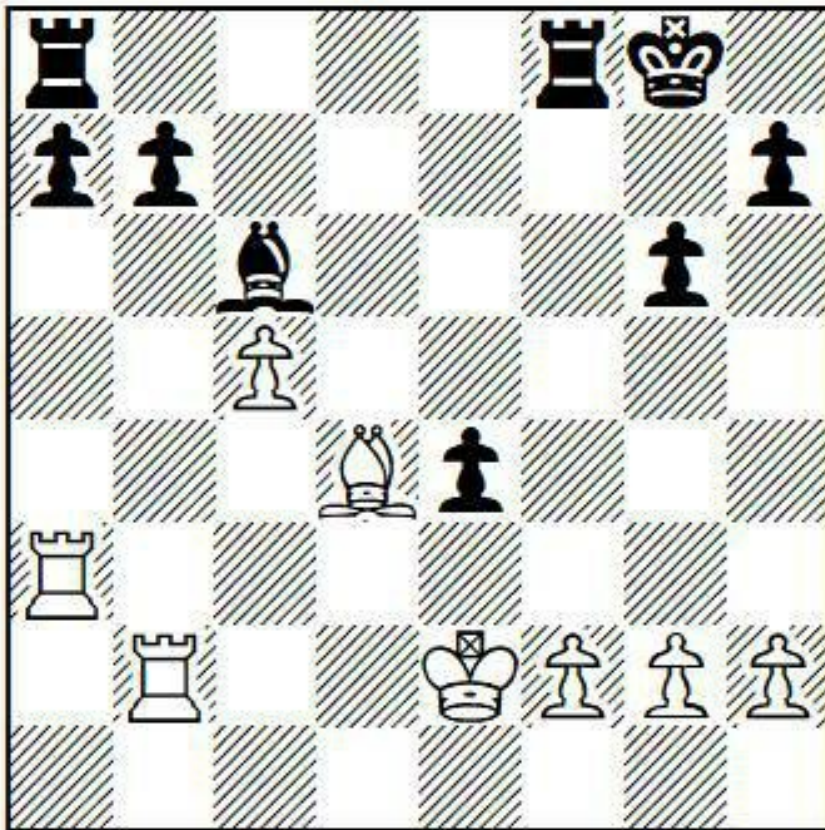
19 ... Bd5 would be met by 20 Nb5 so Carlsen decides to prevent this counterplay.

**20 Rb2 Nc6 21 Be3?**

After the exchange of knights, Carlsen's rooks quickly activate on the d-file and decide the game.

A better try was 21 Nb5 a6 22 Nd6 although 22 ... Nd4+ 23 Ke1 Bc6 sees Black up a pawn for little compensation.

**21 ... Nxd4+ 22 Bxd4 Bc6**



### 23 Rba2

23 Rd2 might prevent Black from doubling rooks on the d-file but it allows 23 ... a5 and the pawn will be very strong on a4.

**23 ... a6 24 Ke3 Rad8 25 Rd2 Rd5 26 Ke2 Rfd8 27 Be3 Rd3 28 Ra1 Kf7 29 g3 Rxd2+ 30 Bxd2 Bb5+ 31 Ke1 Rd3 32 Rb1 Ke6 33 Rb4 Bc6 34 Rb2 Kd5 0-1**

## Review of Chapter One

1. The Grünfeld is one of the openings that has been impacted the most by the newer engines. This recent increase in creative ideas has brought new life to systems that were previously thought to contain far fewer problems for Black. For example, see AlphaZero's approach to the endgame in Game 1 and Caruana's new ideas in Game 7.

2. The idea of advancing the h-pawn to h6 is not a revolutionary concept. It is simply appreciated more by the neural network engines because they have a better understanding of the long-term difficulties created on Black's kingside.
3. The h-pawn advance is relevant in Grünfeld endgames to shut in Black's dark-squared bishop, and in Grünfeld middlegames to suffocate Black's kingside and take away important squares from the king.
4. A fianchettoed bishop and the lack of a king's knight (e.g., the Exchange Grünfeld) is the ideal situation for an h-pawn advance to take place. In the following chapters, we will see examples from several different openings where the h-pawn advance is effective because a similar situation is present.
5. Despite the influence of neural networks, many Grünfeld specialists remain loyal to their opening and are confident in their ability to respond to surprises and handle the middlegame dynamics at least as well as their opponent. The engines have identified ways for Black to fight for counterplay and we saw their suggested improvements in the annotations to every game of this chapter.

## **Additional Material**

The 3 h4!? Grünfeld and Anti-Grünfeld are covered in Chapters 4 and 7 respectively.

Magnus Carlsen-Maxime Vachier-Lagrave, Tata Steel 2021

Anton Korobov-Ivan Cheparinov, Spanish League Honour Division 2020

Aleksandra Goryachkina-Anna Muzychuk, FIDE World Cup (Women) 2021

Sanan Sjugirov-Abhimanyu Sameer Puranik, Moscow Aeroflot Open 2019

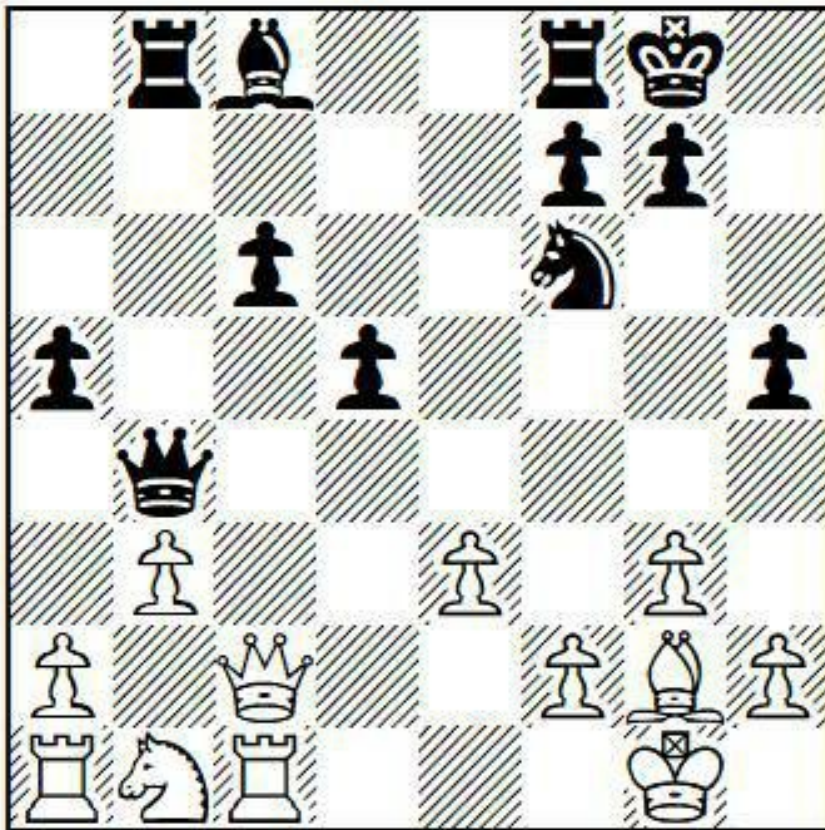
# Chapter Two

## The Catalan

The Catalan is a very popular opening systems at all levels. It can lead to tense middlegame/endgame positions full of piece maneuvers and long-term strategic ideas, or sharp pawn sacrifices and messy complications, depending on how both sides approach the opening.

The first game of the chapter sees Carlsen employing a fascinating new idea, deviating from Grischuk-Nakamura in the Introduction to win an excellent game over Ding Liren. Afterwards, Carlsen revealed that this idea had been prepared for his 2018 World Championship Match against Caruana. One of Carlsen's seconds for the 2018 Match, Daniil Dubov, has introduced several creative pawn sacrifices in the Catalan/QGD/Slav systems, and we will examine a couple of them throughout the chapter.

At the top level, two players who have made the Catalan a major part of their repertoire are Ding Liren and Anish Giri. In fact, we will see an interesting clash of ideas between these two players in Game 17, where Giri neutralizes White's positional pressure with deep preparation from the neural network engines. The ...h5-h4 advance in the diagram below closely resembles some of the themes in the Grünfeld chapter with reversed colours.



We will also get a first look at material imbalances in this chapter, as Games 14 and 19 see one side having a rook and bishop for a queen. The older engines tend to overestimate the value of a queen, which can lead to a very interesting difference in understanding with the newer engines.

### **Carlsen's Match Preparation**

Carlsen's Black games in the 2018 World Championship Match against Caruana all started with 1 e4, where he defended the Rossolimo and Sveshnikov Sicilians. This meant that his preparation against the closed openings was yet to be revealed. One year later, Carlsen had the chance to employ an unused idea from the match and score a crucial win, his first classical win ever against Ding Liren.

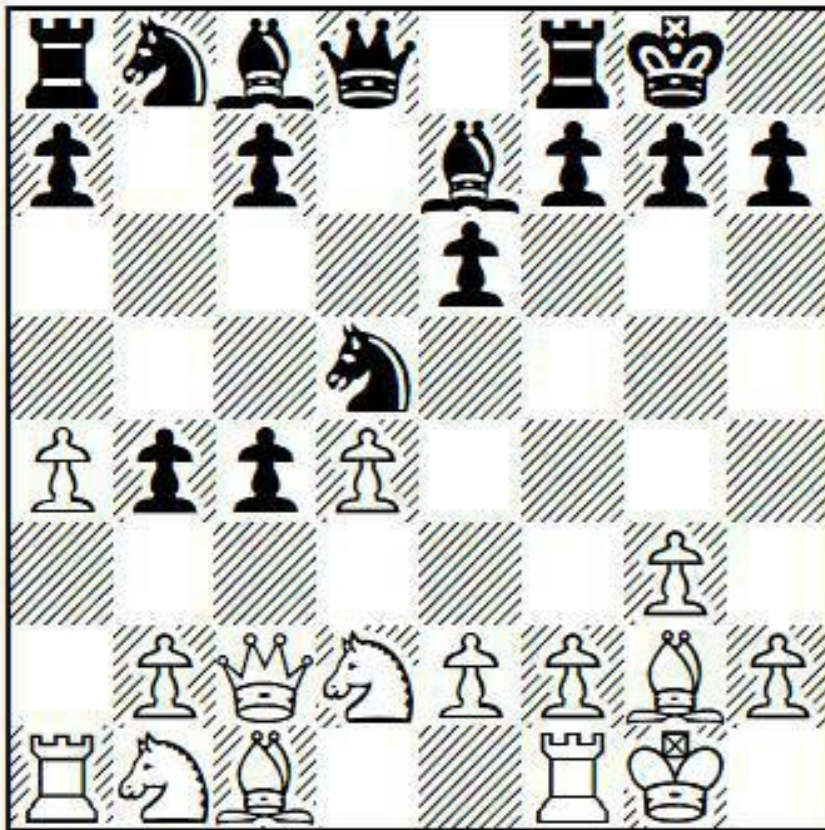
*Game 10*

## Ding Liren-M.Carlsen

Croatia Grand Chess Tour 2019

**1 d4 Nf6 2 c4 e6 3 Nf3 d5 4 g3 Be7 5 Bg2 0-0 6 0-0 dxc4 7 Qc2 b5 8 a4 b4 9 Nfd2 Nd5!**

Carlsen revealed after the game that this concept (9 ... Nd5 and 11 ... Ba6!) was prepared for the 2018 World Championship match. The older engines' preference of 9 ... c6 was seen in the Introduction game between Grischuk and Nakamura. In contrast to this approach, 9 ... Nd5! leads to positions where Black is the one sacrificing a pawn in return for quick development and an initiative.



**10 Nxc4 c5 11 dxc5 Ba6!**

The first new move, ignoring the c5-pawn and instead focussing on developing the queenside. This idea arguably revives the entire 7 ... b5

variation from a practical standpoint, as Black had been suffering in previous games.

### **12 Ne3!**

Immediately exchanging off Black's d5-knight is by far the most challenging of White's options.

### **12 ... Nd7 13 Nxd5 exd5 14 c6**

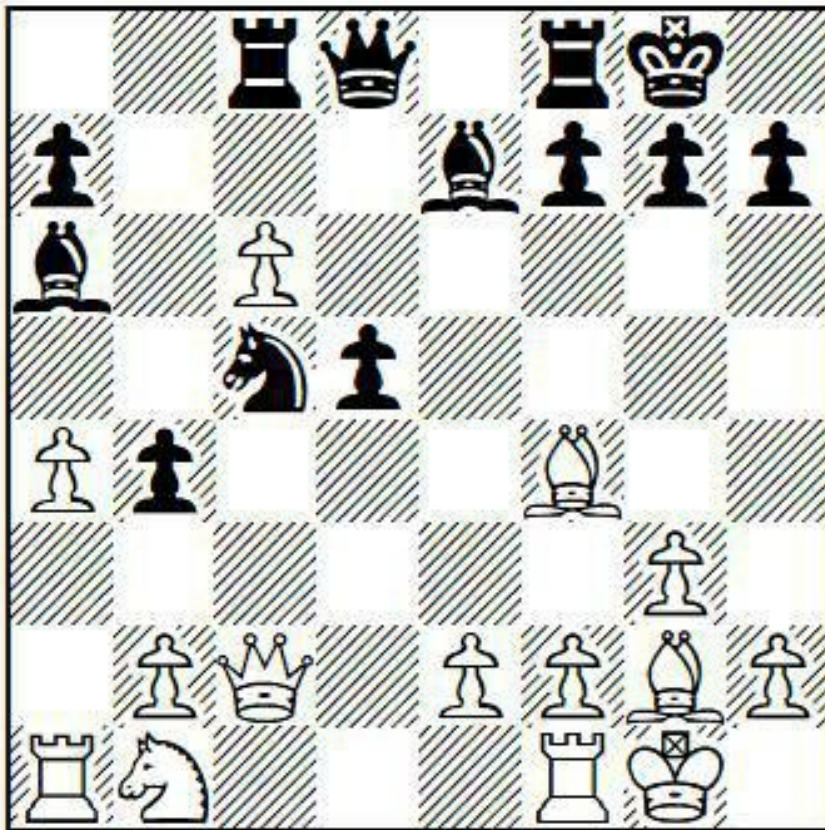
14 Bxd5? grabbing the pawn leads to a severe lack of development. Black can continue energetically by playing 14 ... Rc8 15 c6 Ne5 16 Rd1 Nxc6 (disregarding White's threat) 17 Bxf7+ Rxf7 18 Rxd8+ Bxd8 followed by ... Nd4 with an extremely scary position for White due to the kingside light-square weaknesses.

### **14 ... Rc8 15 Bf4**

15 Rd1 Ne5 16 Rxd5 (16 Bxd5?! transposes to 14 Bxd5 above) is a better way of capturing the d5-pawn compared to the previous note's 14 Bxd5? However, Black still obtains sufficient compensation because of his active pieces. For example, 16 ... Rxc6 17 Qd1 Qc8 18 Nd2 Rc5 19 Rxc5 Bxc5 followed by ... Rd8, when White will have some difficulties developing the queenside pieces.

### **15 ... Nc5**

So far, Ding has played the most critical test of Carlsen's line, but here he doesn't find the most challenging continuation. This is hardly surprising because of the unusual and sharp nature of the position.



### 16 c7

Avoiding the complications after 16 Rd1, but this also gives up a lot of White's chances for an advantage.

After 16 Rd1 d4 White has:

a) 17 Bf3 Ne6 18 Qe4 Bf6 19 Nd2 Re8 with a dynamic middlegame that could easily swing either way.

b) 17 Be5 d3 18 exd3 Bxd3 19 Qc1 Re8 20 Nd2 Be2 with another concrete and double-edged middlegame.

c) Gelfand's 17 h4! is an extremely critical test of Carlsen's system because the control over the g5-square is a very useful asset. Play continues 17 ... Re8 (17 ... h6 18 Bf3 Ne6 19 Qe4 and White had a clear advantage in J.Johansen-D.Morgan, ICCF 2020; it is important to note that 19 ... Bf6 is met by 20 Be5 and 20 ... Ng5 is not possible) 18 Nd2 Bxe2 19 c7 and now:

c1) 19...Qd7 20 Rdc1 Nd3? (20 ... Rxc7 needed to be tried) 21 Bc6! and Black's kingside counterplay was extinguished after 21 ... Qh3 22 Bxe8 Nxf4

23 Qe4 in B.Gelfand-B.Deac, Bucharest (rapid) 2019.

c2) Stronger was 19 ... Rxc7 20 Bxc7 Qxc7 21 Re1 d3 but after 22 Qc4 it is difficult to hold everything together because White has many ideas, such as Qxb4 or Bf1 next.

**16 ... Qd7 17 Nd2 g5!**

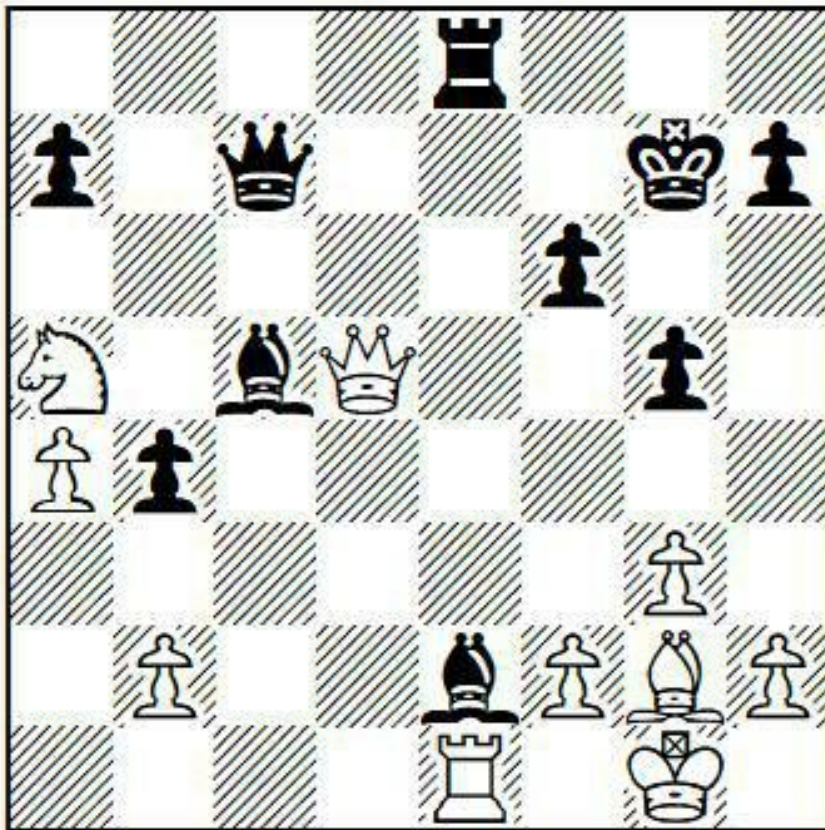
17 ... Bxe2 may lead to some piece coordination issues for Black. For example, 18 Rfe1 Bd3 19 Qd1 g5 20 Nb3! and White ends up with a clear advantage after 20 ... Nxb3 21 Qxb3 gxf4 22 Qxd3 due to the weakened kingside pawn structure.

**18 Be5 f6 19 Bd4 Rxc7 20 Qd1 Ne6 21 Nb3 Bc4 22 Na5**

Not a mistake, but the game starts to drift in Carlsen's favour after this.

Safer was 22 Be3! preserving the bishop and freeing the d4-square for the knight. An equal endgame arises after 22 ... d4! 23 Nxd4 Nxd4 24 Bxd4 Rd8 25 Be3 Qxd1 26 Raxd1 Rxd1 27 Rxd1 Bxe2 and Black should hold fairly comfortably.

**22 ... Nxd4 23 Qxd4 Kg7 24 Rfc1 Bxe2 25 Rxc7 Qxc7 26 Re1 Bc5 27 Qxd5 Re8!**



*Exercise:* White needs to exchange the queens and get rid of some of Black's pressure, but should this be done with Qb7 or Qc6?

**28 Qb7?!**

Unfortunately for Ding, after the queen trade, the knight turns out to be misplaced on b7.

*Answer:* 28 Qc6 would have given White an improved version of the game because the knight is more useful on c6. 28 ... Qxc6 29 Nxc6 Bh5 30 Rc1 prepares to win the a7-pawn, so Black should continue energetically with 30 ... Re2! 31 Rxc5 Re1+ 32 Bf1 Be2 and the endgame is equal after ... Rxf1.

**28 ... Qxb7 29 Nxb7 Bf8 30 Bc6?!**

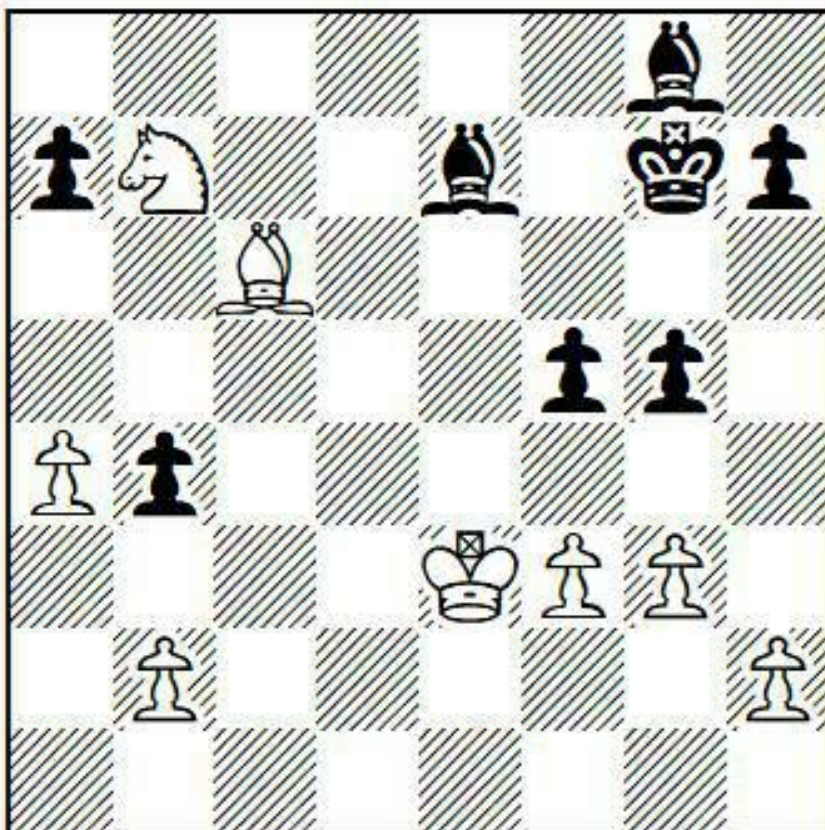
Alternatively:

a) 30 Bf1 is met by 30 ... Bh5 31 Rc1 Bf3 and the two bishops dominate the knight.

b) However, there was a strong defensive resource in 30 Nd8! and

although White's position still looks unpleasant after 30 ... Rxd8 31 Rxe2 Rd1+ 32 Bf1 Bc5 the opposite-coloured bishops provide reasonable drawing chances.

**30 ... Re7 31 f3 Bc4 32 Rxe7+ Bxe7 33 Kf2 f5 34 Ke3 Bg8!**



**Question:** What is the purpose of 34 ... Bf8?

**Answer:** The immediate 34 ... Bf6?! runs into 35 Nd6. By retreating the bishop to g8 first, Carlsen threatens ... Bf6 next and Nd6 won't come with tempo.

34 ... h5 is also good for Black, just gaining space on the kingside.

**35 Kd3**

The knight cannot easily escape: 35 Na5 Bd8! 36 Nb7 Bf6 37 Nd6 and now there is a nice idea with 37 ... f4+! 38 gxf4 gxf4+ 39 Kxf4 Bxb2 followed by advancing the passed b-pawn.

**35 ... g4!**

Gaining space on the kingside and fixing the h2-pawn.

35 ... Bf6?! would be inaccurate here. The king on d3 makes it more difficult for Black to advance his b-pawn. For example, 36 Nd6 Bxb2 37 Nxf5+ Kf6 38 Ne3 followed by exchanging bishops with Bd5.

### **36 Na5 Bc5!**

A couple of moves ago, ... Bf6 was the main threat, targeting White's queenside. Now ... Bc5-g1 is the idea, going after White's kingside.

**37 Nc4 Bg1 38 Ne3 Be6 39 fxc4 fxc4 40 Ke2 h5 41 Bd5 Bd7 42 Bb3 Bxh2 43 Kf2 h4 44 gxh4 Be5**

The powerful two bishops and passed g4-pawn decide the game in Carlsen's favour.

**45 Nc4 g3+ 46 Kg1 Bf4 47 Bd1 Bc6 48 b3 Kh6 49 a5 Be4 50 Kf1 Kg7 51 Kg1 Kf6 52 Kf1 Ke6 53 h5 Kd5 54 a6 Kd4 55 Bg4 Kc3 56 Be6 Bc2 57 Na5 Bc7 58 Nb7 Bd3+ 59 Kg1 Bxa6 0-1**

## **The Open Catalan**

The newer engines have a better understanding of how to create problems for the opponent in the tense middlegames that arise from the Open Catalan. In game 11, Giri employs a fresh, AI-influenced setup, first unbalancing the pawn structure with 11 Nc3 and then playing 14 Ne5! to enter a complicated middlegame full of strategic ideas.

As usual in modern chess, engines often severely underestimate the practical difficulties that a new idea can pose. The engine is unable to convey which side gets to have all the fun, or how one side's position is hanging by a thread and could collapse after one wrong move. Therefore, understanding the engine's suggestions and reasoning through its proposed variations is essential. In this example, the engines confirm that Black's setup is fully sound and solid, but it is much more difficult for him to find a productive plan or create active play. Wang Hao tries to equalize concretely out of the opening but this approach backfires as Giri creates tremendous positional pressure.

### *Game 11*

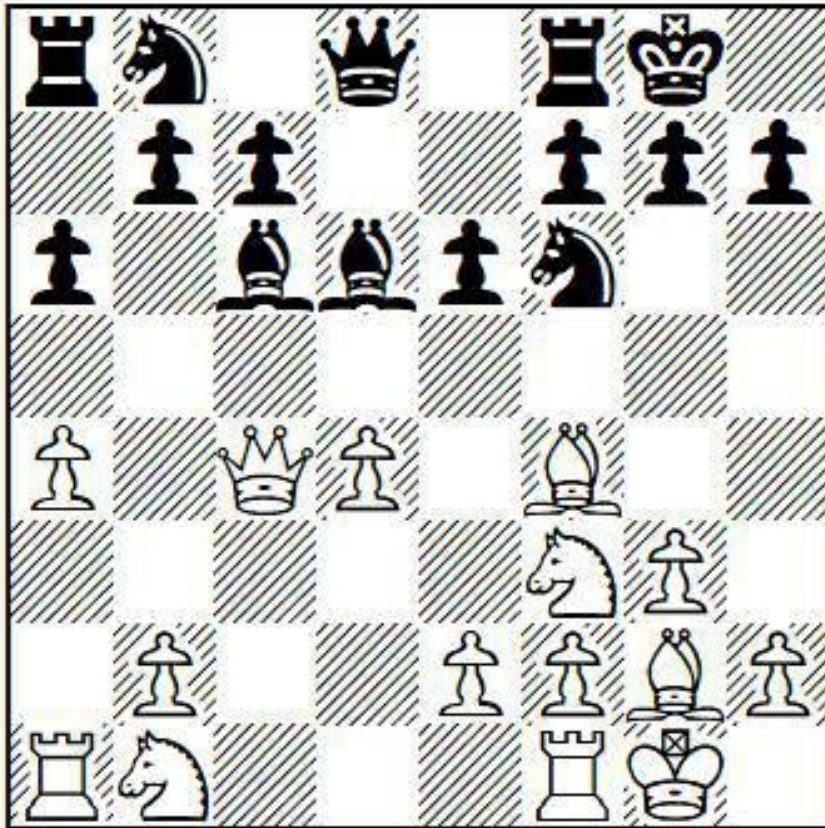
#### **A.Giri-Wang Hao**

FIDE Candidates 2020-21

**1 d4 Nf6 2 c4 e6 3 Nf3 d5 4 g3 Be7 5 Bg2 0-0 6 0-0 dxc4 7 Qc2 a6**

The Classical variation of the Open Catalan remains as solid as ever. It leads to a completely different type of game than the double-edged 7 ... b5, which we have already seen in Grischuk-Nakamura and Ding Liren-Carlsen.

**8 a4 Bd7 9 Qxc4 Bc6 10 Bf4 Bd6**



The tournament situation certainly influenced Giri's opening choice. This game was played in Round 9 of the 2020 Candidates, when Giri had 4/8 and needed to start winning to have any hope of catching Nepomniachtchi (who had 5/8 points).

**11 Nc3!?**

Playing for a win by heading for an unbalanced pawn structure and a complicated middlegame, where the game will not simplify quickly.

The main line 11 Qc1 provides good chances of obtaining slight positional pressure but may not be the best attempt at playing for a win because there is a risk of the game fizzling out early on. Following 11 ... Nbd7 (11 ... a5 12

Nc3 Na6 is another solid setup) 12 Nc3 Qe7 is the main line, trying to play ... e5 and equalize. There are also many playable alternatives that could also be considered. Now:

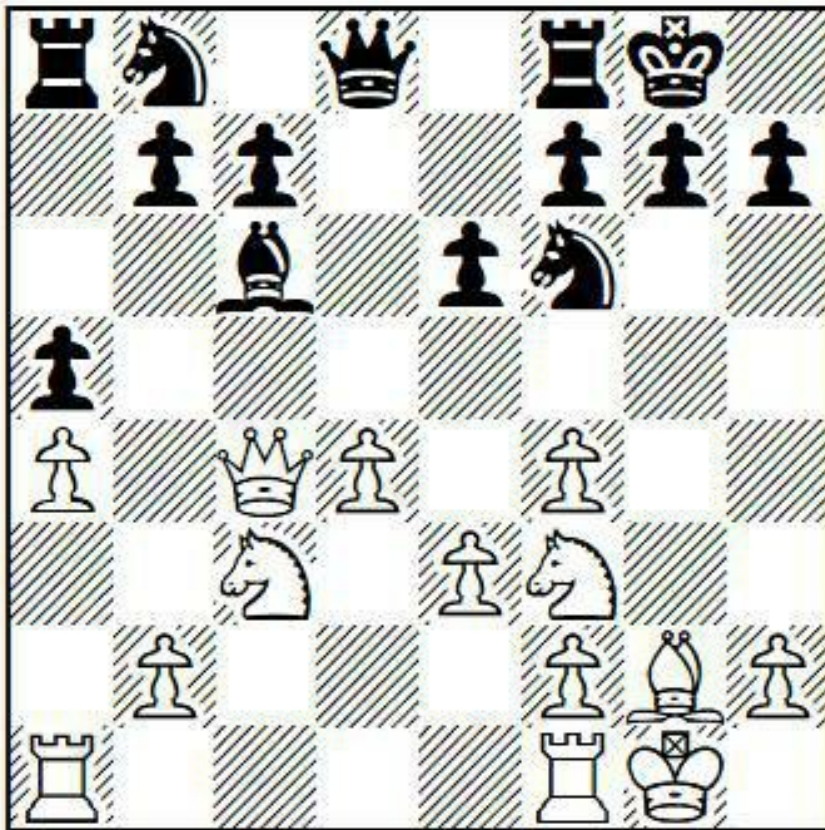
a) 13 Re1 Bxf3 14 Bxf3 Bxf4 15 Qxf4 c6 with a solid position. White may be able to create some slight pressure, but practice hasn't really supported this. For example, 16 a5 e5 17 dxe5 Nxe5 18 Bg2 Rfd8 19 Red1 Ng6 20 Qa4 Nf8! 21 Rxd8 Rxd8 22 Qa3 Rd6 23 Bh3 Ne6 and Black was fine in G.Gajewski-P.Leko, Germany 2019.

b) 13 a5 Rfe8 14 Re1 Bxf4?! (14 ... Bxf3! 15 Bxf3 Bxf4 16 Qxf4 c6 leads to a very solid position which is certainly not an ideal opening outcome for a crucial game with the White pieces) is a slightly dubious move order and it was expertly exploited by White in R.Wojtaszek-D.Navara, Prague 2021. The key point is 15 Qxf4 Bxf3 16 Qxf3 recapturing on f3 with the queen and the bishop stays back safely on g2. Play continued 16 ... c6 17 Na4! (17 Red1 e5 18 d5 e4 quickly led to simplifications and a draw in P.Harikrishna-W.So, Riga 2019) 17 ... e5 18 dxe5 Nxe5 19 Qc3 Nd5 20 Qc5 and Wojtaszek obtained a clear advantage in the endgame.

**11 ... Bxf4 12 gxf4 a5**

12 ... Bxf3 13 Bxf3 c6 14 a5! with some long-term weaknesses on Black's queenside.

**13 e3**



### 13 ... Na6

Continuing with the plan of fighting for the b4-square, though the alternatives are playable as well:

a) 13 ... Bxf3 still seems a bit too early in view of 14 Bxf3 c6 15 b4! Black is still quite solid after 15 ... axb4 16 Qxb4 Ra7 but White can play for a small edge by putting pressure on the b7-pawn.

b) 13 ... Nbd7 keeps the a6-square open for the rook. I imagine that Giri intended to play in similar fashion to the game with 14 Ne5! (14 Kh1 Ra6! 15 Rg1 Rb6 16 Qe2 Ne4 led to a complicated middlegame in L.Aronian-W.So, Saint Louis 2018, and one that should be fine for Black) 14 ... Bxg2 15 Kxg2 and White has good chances of obtaining slight, long-term pressure in the following sample line: 15 ... Ra6 16 Rfd1 Rb6 17 Nd3 c6 18 h3 followed by Kh2 and Rg1, while Black is lacking a clear plan.

### 14 Ne5!

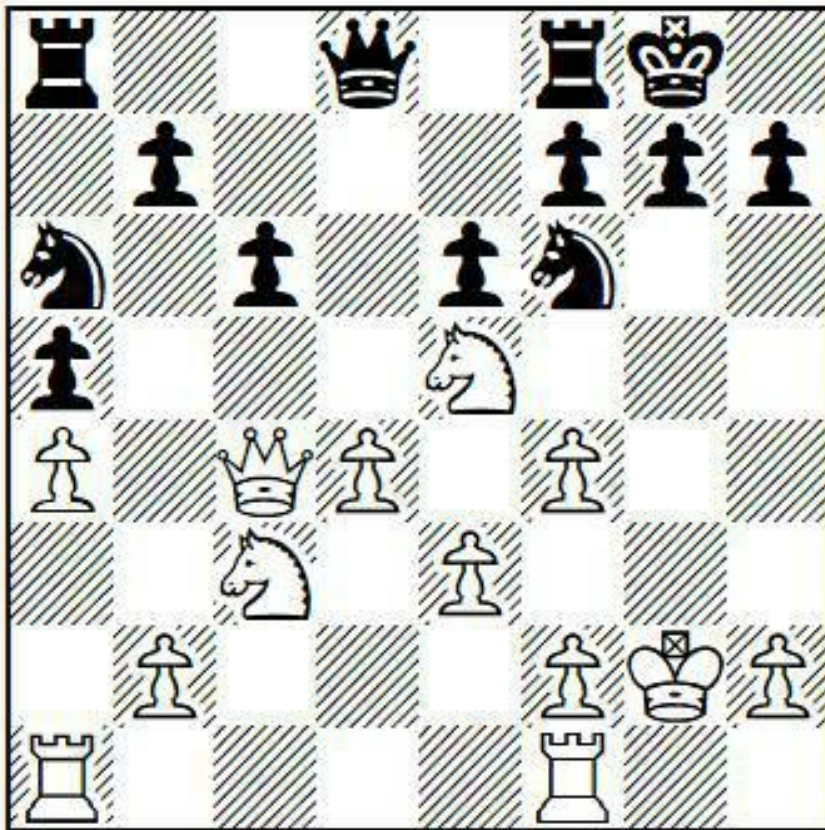
Instead of allowing ... Bxf3, Giri forces the exchange of light-squared

bishops.

14 Rac1 Bxf3! 15 Bxf3 c6 16 Kh1 Nb4 and although ideas of creating kingside pressure still exist for White, I think it is much preferable to have a knight on e5 rather than the bishop on f3.

**14 ... Bxg2 15 Kxg2 c6**

15 ... Nb4 16 Rac1 c6 is a very natural and solid approach. I am sure that Giri was expecting this pawn structure and knew how to create long-term difficulties for his opponent. For example, 17 Qe2 Qe7 18 h3 followed by fighting for the g-file and gradually making progress on the kingside. Although Black's position is extremely solid, the most important thing is that the position will remain complicated for a while and not quickly fizzle out to a draw.



**Question:** What is White's plan in this position?

**Answer:** White should slowly build up pressure on Black's kingside by

pushing the h-pawn and putting the major pieces on the g-file. It may not look like much now, but these small incremental improvements could lead to some real pressure. Meanwhile, Black is struggling to find a plan and in the game, Wang Hao rushes with ...c5.

### **16 h3!**

Giri prepares to play Kh2 and put his major pieces on the g-file. The older engines have a much more difficult time finding a productive plan for White.

16 Kh1 was seen in V.Fedoseev-I.Salgado Lopez, internet 2021, and also makes a lot of sense. It is instructive how Fedoseev managed to continuously improve his position while his opponent couldn't do much: 16 ... Nd5 17 Rg1 f6 18 Nd3 Rf7 19 Ne4 Kh8 20 Rg3 Re7 21 Rag1 Ndb4 22 Nxb4 Nxb4 23 Qf1! Nd5 24 Qg2 and White succeeded in bringing his major pieces to the g-file and soon provoked major weaknesses on Black's kingside.

### **16 ... Qb6 17 Qe2 c5?**

A direct attempt at equalizing the game, which demonstrates the strength of Giri's preparation. One of the main points of this line is that Black cannot equalize directly, so Wang Hao should have agreed to Giri's terms of playing a slow, maneuvering, and complicated game.

17 ... Nb4 18 Rg1 followed by Kh2 when there are ideas of doubling rooks on the g-file and pushing the h-pawn. Black's setup is extremely solid, but the game remains tense and complicated.

### **18 Rfd1**

The forcing 18 Qb5 leads to an endgame where White has an extra pawn after 18 ... Qxb5 19 axb5 cxd4 20 bxa6 dxc3 21 axb7 Rab8 22 bxc3 Rxb7 23 Rxa5 Ne4 followed by ... Rc8 and ... f6 with reasonable drawing chances. Giri prefers to create long-term, strategic problems for his opponent and keep most of the pieces on the board.

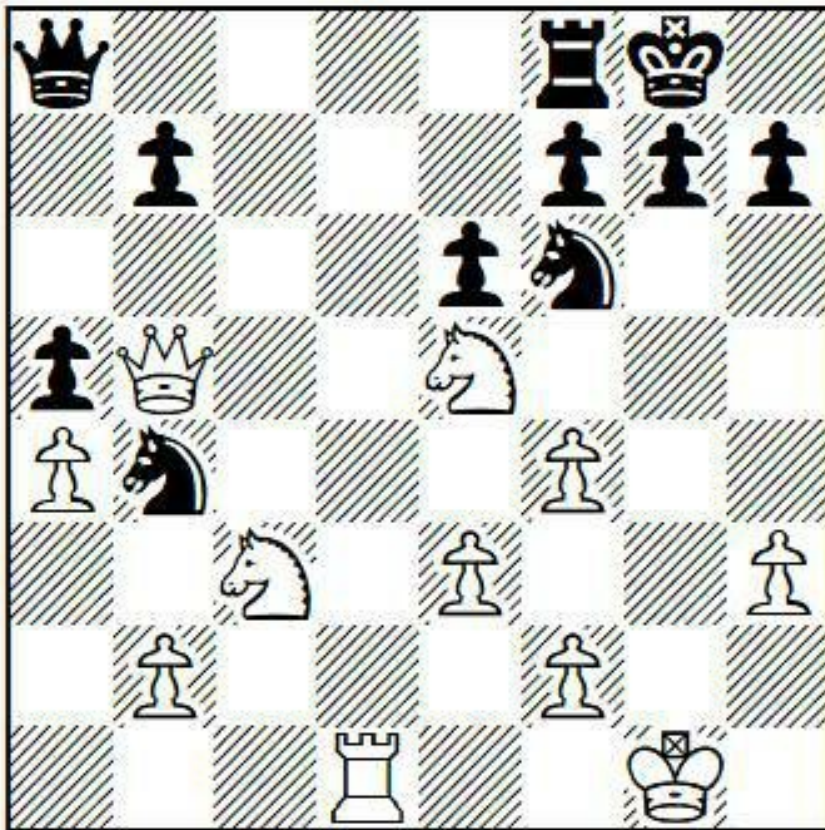
### **18 ... cxd4**

18 ... Rfd8 19 Qb5 Qc7 20 Rac1 is very pleasant for White. Even so, perhaps it was better than opening the d-file.

### **19 Rxd4 Rad8 20 Rxd8 Qxd8**

20 ... Rxd8 21 Qb5 Qc7 22 Nc4 wins the a5-pawn.

### **21 Rd1 Qa8 22 Kg1 Nb4 23 Qb5!**



Pressuring Black's queenside pawns and tying down the queen to a8.

**23 ... Nbd5 24 Nxd5 Nxd5 25 Rc1 h6**

25 ... Rd8 also deserved attention, preventing White's queen from invading on d7.

**26 Qd7 Nf6 27 Qd6 g6?**

A severe weakening of the kingside, Black needed to look for counterplay:

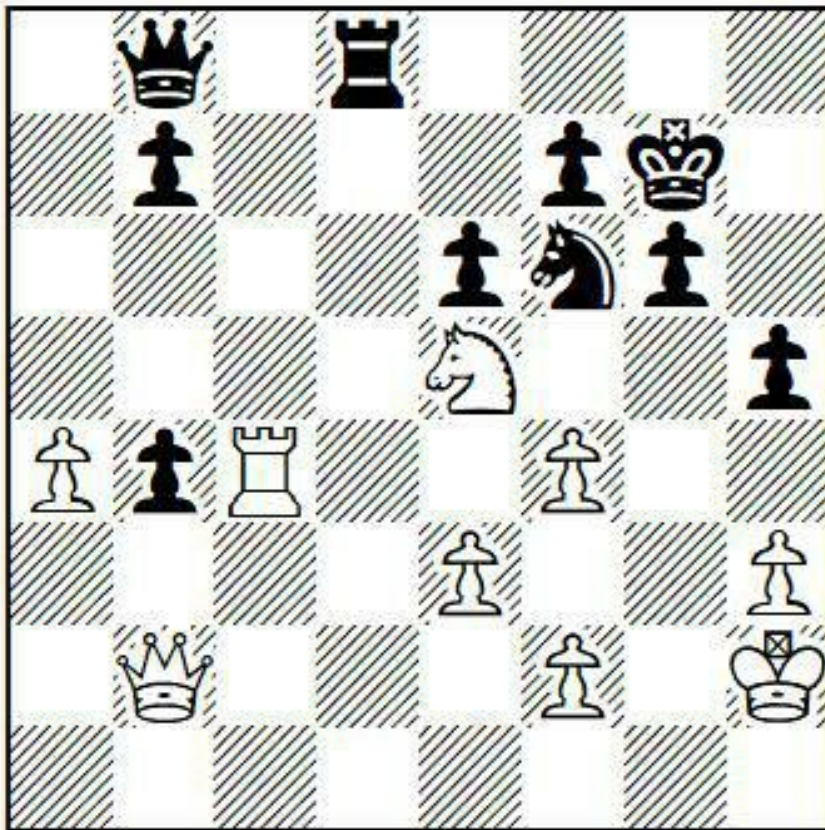
a) 27 ... Nd5 28 f5! Rd8 29 Nd7 would also have been very problematic.

b) However, Wang Hao could have created some fighting chances by freeing his queen with 27 ... Qe8! 28 b3 b5 obtaining some queenside counterplay.

**28 b3 h5 29 Kh2 Kg7 30 Qd4 Rd8 31 Qb2 Qb8 32 b4?**

32 Qc3 picks up the a5-pawn and keeps everything under control.

**32 ... axb4 33 Rc4?!**



Consistent with Giri's previous move, but there is a very unexpected opportunity for counterplay here which was missed by both players.

**Exercise:** Can you spot Black's idea for counterplay?

### 33 ... b3?

**Answer:** 33 ... Rd1! Targeting White's unprotected back rank and activating the major pieces was the best try for counterplay.

Some sample lines:

a) 34 Qxb4 Qd8 (setting up ideas with ... Ng4 and ... Qh4) 35 Qxb7 Ng4+!  
36 Nxb4 hxg4 Threatening ... Qh4. And if 37 Rc7 then 37 ... Qf6 and ... Rd2 next.

b) 34 Rxb4 Qd6! 35 Rxb7 Qd5 leads to a draw by perpetual: 36 Rxf7+ Kh6 37 Rxf6 (37 Qb7 Rh1+ 38 Kg3 Rg1+ and White has nothing better than repeating the position with 39 Kh2 because of 39 Kh4?? Qxe5! 40 fxe5 g5 mate) 37 ... Rh1+ 38 Kg3 Rxh3+! 39 Kxh3 Qh1+ 40 Kg3 h4+ 41 Kg4 Qg2+

42 Kxh4 Qh2+.

**34 Rb4 Qa7?**

The absolute last chance for Black was again based on activating the major pieces with 34 ... Qd6! intending ... Qd1 or ... Qd2 next. However, White will have an extra a-pawn on the queenside, making it unlikely that any of the resulting endgames can be saved.

**35 Rxb3 Qxa4 36 Rxb7 Qe8 37 Ra7 Rd5 38 Qb7 Ne4 39 Nxf7 1-0**

The following game surveys some of the latest developments in the main line of the Open Catalan. Grischuk gets a slight edge out of the opening and shows that White can gradually pose problems for Black's extremely solid setup. In contrast to some of the more unbalanced positions we have seen, the influence of AI engines is not as obvious in the resulting slow, maneuvering middlegames. However, they have much clearer picture of the long-term goals both sides are trying to achieve, which can be very helpful for human players who want to understand the subtleties of these lines.

### *Game 12*

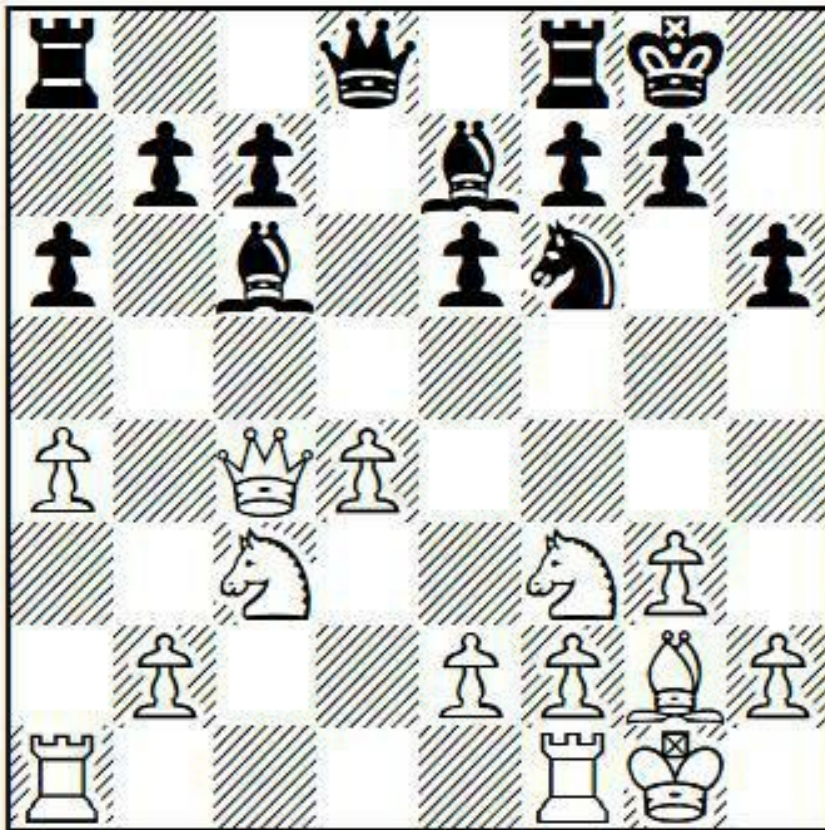
**A.Grischuk-L.Dominguez Perez**

FIDE World Cup 2019

**1 Nf3 d5 2 g3 Nf6 3 Bg2 e6 4 0-0 Be7 5 c4 0-0 6 d4 dxc4 7 Qc2 a6 8 a4 Bd7 9 Qxc4 Bc6 10 Bg5**

10 Bf4 Bd6 11 Nc3 was seen in the previous game.

**10 ... Nbd7 11 Nc3 h6 12 Bxf6 Nxf6**



### 13 Rfd1

White has also experimented with other move orders, such as 13 a5 or Sam Shankland's 13 e3!? against Karjakin in the 2021 World Cup. The general plan remains the same, to reach a very slightly better middlegame with chances to outplay the opponent.

13 b4 used to be the main line, but the arising simplified positions have not given White anything in practice lately. Play continues 13 ... Bd5 14 Nxd5 exd5 15 Qb3 c6 16 e3 Bd6 and White will push b5 at some point, creating a potential weakness in Black's position. However, one small weakness shouldn't be enough to create serious winning chances, for example, 17 b5 (or 17 Rab1 Qe7 18 Rfd1 g6 19 Ne1 Kg7 with balanced chances in W.So-A.Giri, Saint Louis 2019) 17 ... Qb6 18 Rab1 axb5 19 axb5 c5 20 dxc5 Bxc5 and Black's control over the a-file compensated for the isolated d5-pawn in R.Langeveld-N.Daubenfeld, correspondence 2020.

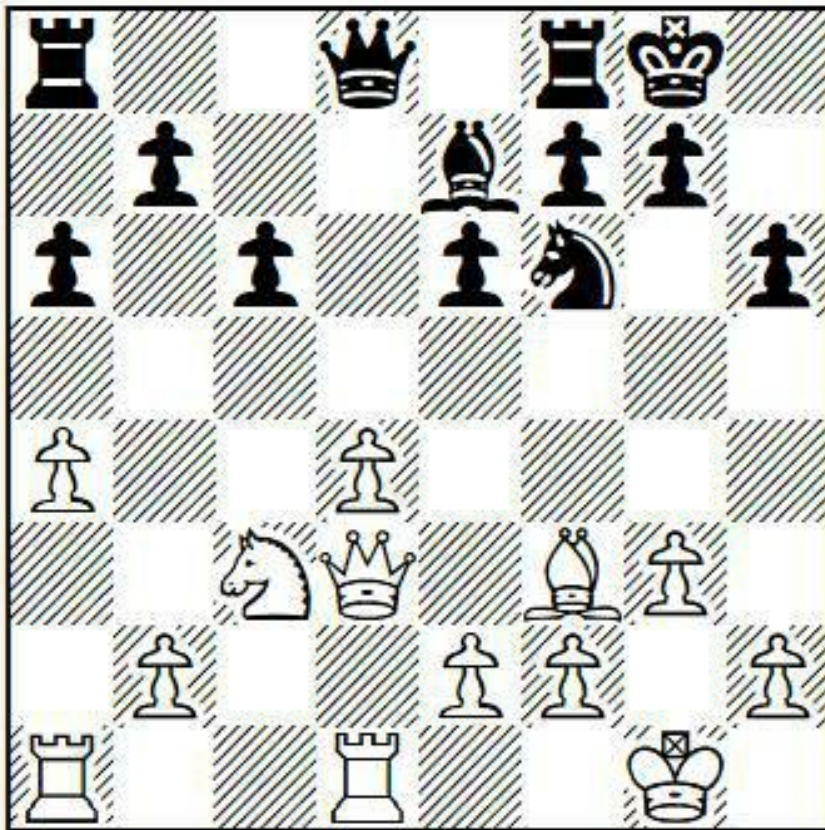
### 13 ... Bd5

A logical approach but not the best attempt at solving Black's problems. Either of the alternatives would be slightly preferable:

a) Later, Dominguez switched to 13 ... a5 14 Ne5 (a similar idea to the previous game, White wants to preserve the knight and trade bishops instead) 14 ... Bxg2 15 Kxg2 c6 16 e3 (16 Qb3 Qc7 17 Rac1 Rfd8 18 e3 Bb4 was very solid in P.Harikrishna-L.Dominguez Perez, Budva 2019) 16 ... Bd6 (16 ... Bb4 17 Rac1 Qe7 18 Ne2 and White will maneuver the knights around, perhaps with Nf4-d3, hoping for some slight pressure) 17 Qe2 Qe7 18 Nc4 e5 19 d5 quickly developed into a major advantage for White in D.Dubov-D.Gukesh, Sochi (rapid) 2021.

b) 13 ... Qd6! is the least natural of Black's options, though a couple strong players have given it a try. An important difference between this move and 13 ... a5 is that Black is staying more flexible with his pawn structure, so it is possible to play ... c5 in some lines. Following 14 e3 (14 Qd3 Rfd8 15 e4 Qb4! 16 Qc2 and in Q.Le-L.Aronian, Moscow (rapid) 2019, Black has a very solid setup after 16 ... a5) 14 ... Rfd8 15 a5 Rac8 16 Qe2 Black's position is perfectly fine, but it feels like White has the easier game because of the extra queenside space and the idea of playing e4 at any moment.

**14 Qd3 Bxf3 15 Bxf3 c6**



In these relatively quiet positions, the difference in understanding between the older and newer engines is not so obvious, but I have found that the older engines struggle to find a clear plan for either side in these types of positions. The newer ones have a much better idea of how White can make small improvements and create problems for Black to solve.

### **16 Kg2**

The series of small improvements begins. Alternatives:

a) In the rapid portion of the match, Grischuk tried 16 e3 when Black has:

a1) 16 ... a5 17 h4 h5 stopped both of White's flank advances, so Grischuk switched to fighting for the centre with 18 e4 g6 19 Qe3 Re8 20 Kg2 Kg7 21 Rd3 Qb6 22 Rad1 Rad8 23 e5 Nd7 24 Ne2 and had built up an excellent position in A.Grischuk-L.Dominguez Perez, Khanty Mansiysk (rapid) 2019.

a2) 16 ... Qa5 17 Nb1! (an alternative knight maneuver is 17 Ne2!? intending Nc1-b3 or Nf4-d3) is a strong knight maneuver to the c4-square. Another one of Grischuk's games continued 17 ... Bb4 18 Na3 Bxa3 19 Qxa3

Rad8 20 Kg2 Rfe8 was seen in A.Grischuk-D.Navara, Hamburg 2019, and now instead of the immediate 21 b4, better is 21 Rac1 e5 22 b4 creating slight pressure.

b) The newer engines suggest that a more ambitious plan is playable as well with 16 e4!? when Black can try:

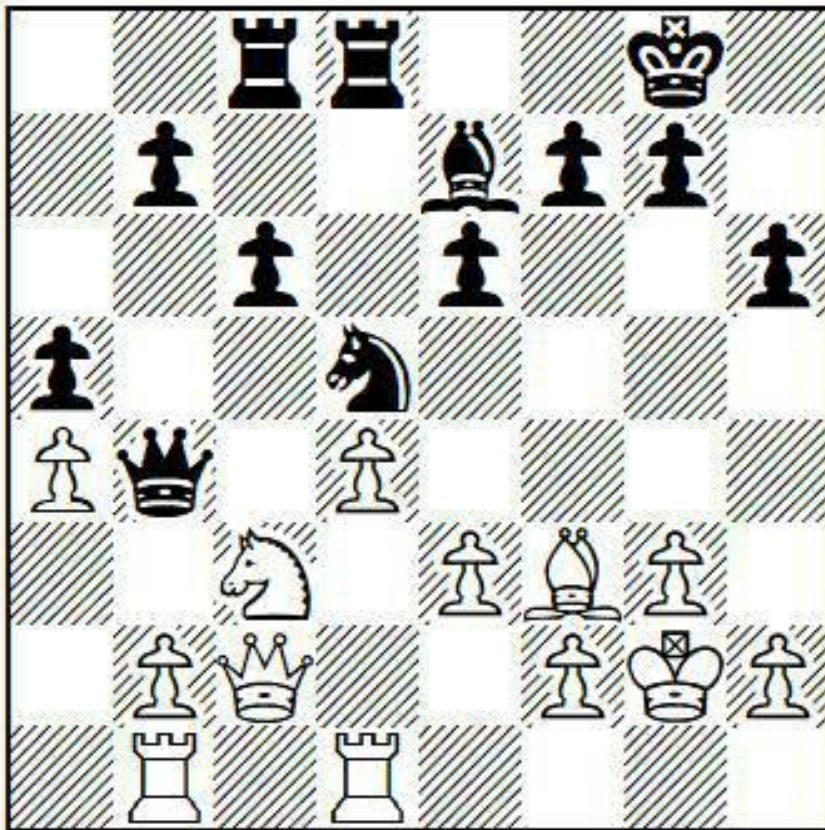
b1) 16 ... Rc8 17 h4 Qb6?! made it too easy for White to obtain a crushing space advantage after 18 a5! Qc7 19 e5 Nd5 20 Qc4 Rfd8 21 Kg2 Nb4 22 Qe2 Bf8 23 h5 and White had completely clamped down on Black's position in T.Srinath-J.Filípek, correspondence 2020.

b2) 16...Qa5 17 e5 Nd5 18 h4! gaining kingside space is very useful, especially because White may try to create play on the b1-h7 diagonal. For example, 18 ... Rfd8 (18 ... Nb4?! 19 Qe2 Rfd8 is too slow because of 20 Be4! with the dangerous idea of playing Bb1 and Qe4) 19 Be4 (but not 19 h5?! Nb4 20 Qe4 Rd7 and Black created good play against the d4-pawn in V.Dragnev-H.Raja, Sitges 2019) 19 ... Bb4! (19 ... Rac8 20 Qf3 followed by pulling the bishop back and playing Qe4) 20 Nxd5 cxd5 21 Bg2 followed by f4-f5, though Black should be able to create sufficient play on the queenside along the c-file.

**16 ... Qa5 17 e3 Rfd8 18 Qc4 Rac8 19 Rab1 Nd5**

19 ... Qb4 20 Qxb4 Bxb4 21 Na2 Bd6 22 b4 with a pleasant slight edge in the endgame.

**20 Qb3 Qb4 21 Qc2 a5**



**Question:** How can White create pressure in these types of positions?

**Answer: 22 h4!**

Advancing the h-pawn is very useful to gain space and pose Black some problems on the b1-h7 diagonal, which becomes relevant in another 10 moves. Grischuk's play throughout the middlegame is very instructive, creating small problems for Dominguez to solve and never allowing him to fully equalize.

**22 ... Nf6 23 h5 Rc7 24 Ne2!**

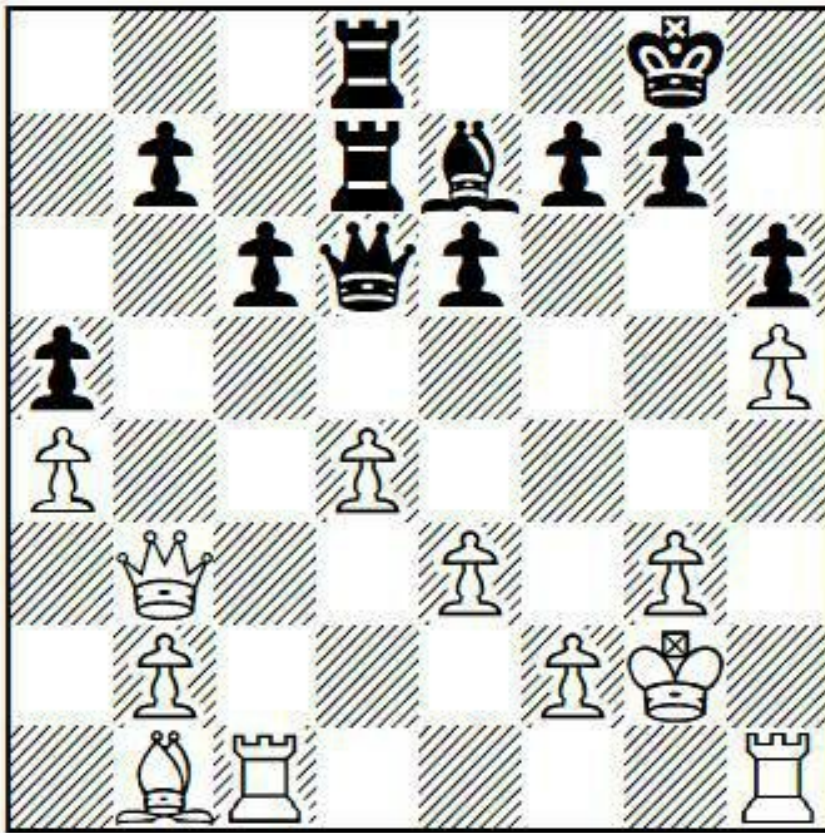
Maneuvering the knight to d3, where it controls several key squares.

**24 ... Qb6 25 Nf4 Nd5 26 Rbc1 Bd6**

26 ... Nxf4+ 27 gxf4 reaches the same pawn structure as the previous game. White will try to create play on the g-file or break with f5 at some point.

**27 Nd3 Nb4 28 Qb3 Rcd7 29 Be4 Qc7 30 Rh1 Nxd3 31 Bxd3 Be7 32**

## Bb1 Qd6



The control over the b1-h7 diagonal is an important asset that White should use immediately.

### 33 Qc2

In view of 33 Qc2 Qd5!, first activating the rook with 33 Rc5! Qc7 34 Rc4 was a very strong idea. Following 34 ... Qd6 35 Qc2 Qd5+ 36 e4 Qd6 37 Rd1 White has great central control and an advantage.

### 33 ... Bf6

33 ... Qd5+! 34 Qe4 Qxe4+ 35 Bxe4 Bb4 leads to a very solid endgame.

### 34 Qc5

Avoiding simplifications with 34 Qh7+ Kf8 35 Be4 leads to sharp play after 35 ... Qb4 though it should be more in White's favour due to Black's passive pieces.

### 34 ... Qxc5

The immediate 34 ... e5! would have solved Black's problems. Dominguez

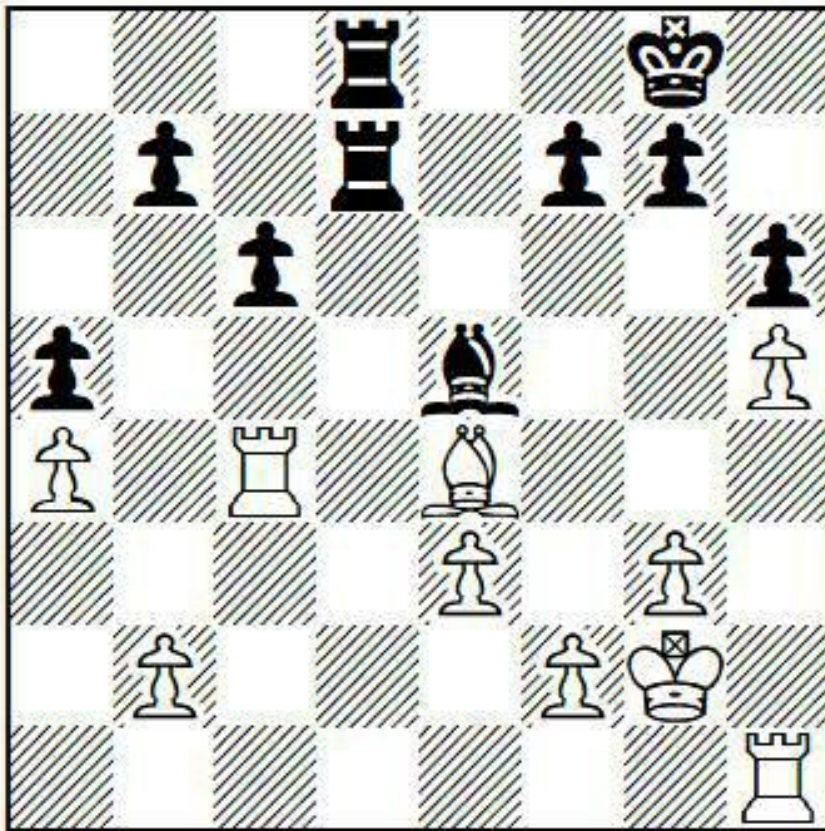
goes for the same idea in the game but then Grischuk has time to quickly activate his pieces.

**35 Rxc5 Rd5 36 Rc4 e5?!**

Grischuk activates his bishop and targets a major weakness in Black's position after this.

Passively waiting with 36 ... Be7 is not an attractive option, though it may have been the best try to hold the game.

**37 Be4 R5d7 38 dxe5 Bxe5**



**39 b4!**

Grischuk sets his sights on the backwards b7-pawn. The long endgame that follows switches from winning for White to drawn after both rooks are exchanged. However, after having defended for so long and playing with little time on the clock, Dominguez slips and loses the game.

**39 ... axb4 40 Rxb4 Ra8 41 Rhb1 Ra7 42 Bf5 Re7 43 Bc8 c5 44 Rb5 Rc7 45 Bxb7 Rxa4 46 Bd5 Kf8 47 f4 Bc3 48 e4 Bd4 49 e5 c4 50 Rb8+ Ke7**

**51 R1b7 Ra7 52 Bc6 f5 53 Rxc7+ Rxc7 54 Ba4 Ra7 55 Rb4 Rc7 56 Kf3 Ke6 57 Bc2 Ba7 58 Ra4 Bb6 59 Ke2 Kd5 60 Bxf5 Ra7 61 Rxa7 Bxa7 62 Kf3 Bc5 63 Bh7 c3 64 Kg4 Bf2 65 Bg8+ Kc6 66 Bb3 Kd7 67 Kf3 Be1 68 g4 Bd2 69 Ke4 Ke7 70 Kf5 Be3 71 g5 hxg5 72 Kxg5 Bd2 73 Kg4 Be3 74 Kf3 Bd2 75 h6 gxh6 76 f5 c2?**

Giving up the c-pawn is the decisive mistake, but it was anyway very difficult for Black to construct a proper defence with such little time left.

**77 f6+ Kf8 78 Bxc2 Bc3 79 Kf4 h5 80 Bd1 h4 81 Bg4 Ba5 82 Kf5 Bc7 83 e6 Bd8 84 Bh5 h3 85 Bg4 h2 86 Bf3 Kg8 87 Kg6 Kf8 88 Bc6 1-0**

### **QGD/Catalan Hybrid**

Daniil Dubov is well-versed in QGD/Catalan/Slav systems, including the QGD/Catalan hybrid (a setup that can be reached through the QGD or Catalan move order) which he has employed a number of times with the White pieces. It was interesting to see what he had in store when he faced it on the other side of the board in the 2020 Russian Team Championship.

#### *Game 13*

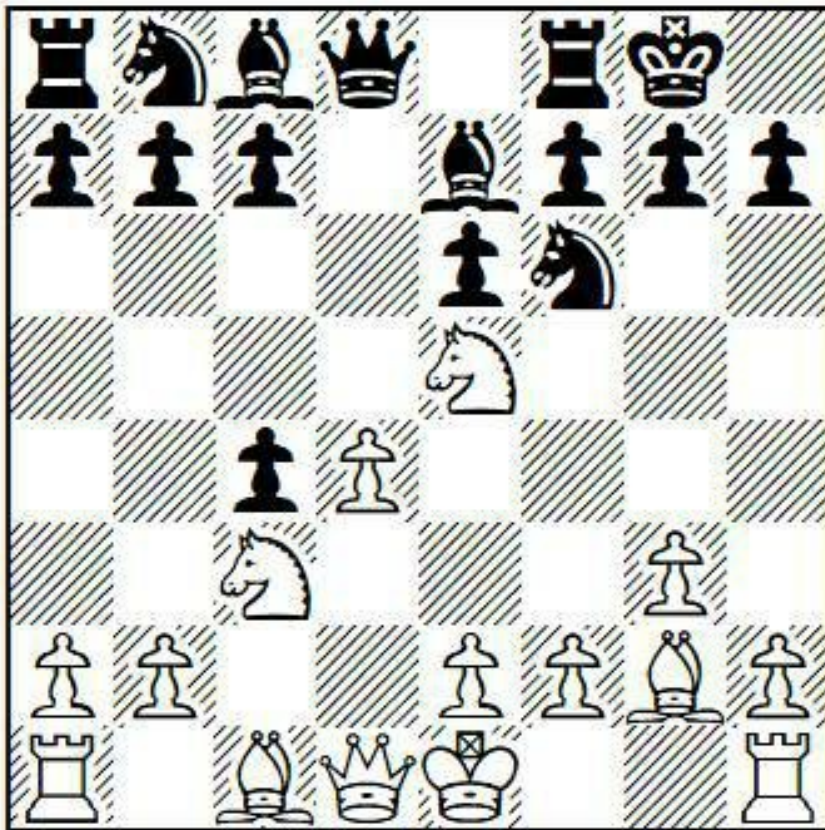
#### **A.Goryachkina-D.Dubov**

Russian Team Championship 2020

#### **1 Nf3**

The QGD/Catalan Hybrid can be reached through many different move orders, such as 1 d4 Nf6 2 c4 e6 3 Nf3 d5 4 Nc3 Be7 5 g3 0-0 6 Bg2.

**1 ... Nf6 2 c4 e6 3 g3 d5 4 d4 Be7 5 Bg2 0-0 6 Nc3 dxc4 7 Ne5**



A tabiya of the QGD/Catalan Hybrid. There are 3 lines that Black can play at this point and we will examine some interesting developments in each of them.

### 7 ... Nc6

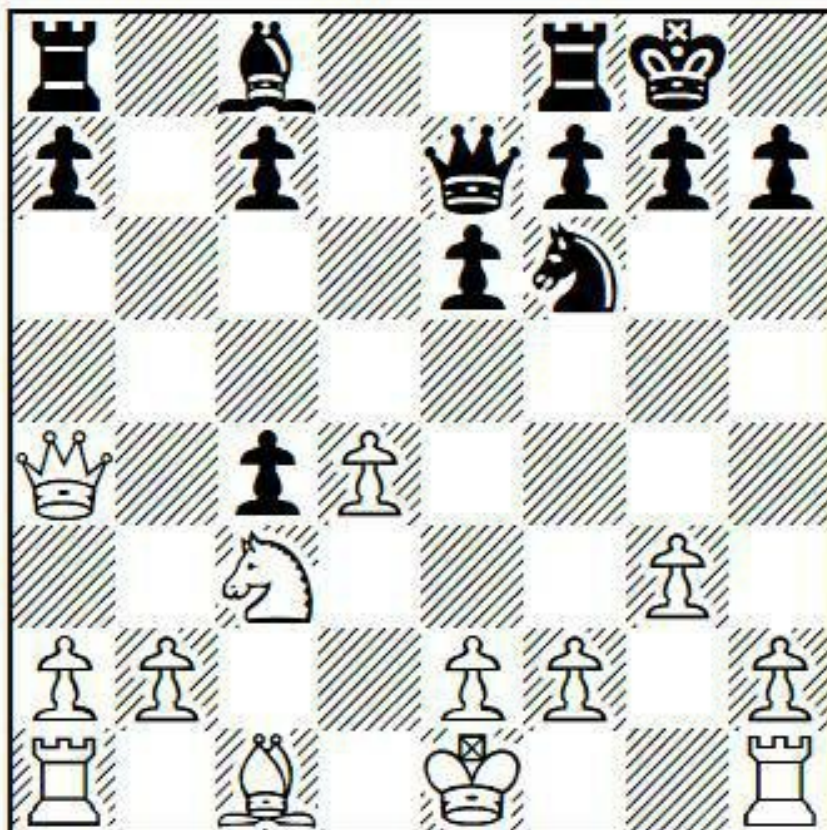
The other lines are:

a) The sharp 7 ... Qd6 will be looked at in the next game.

b) 7 ... c5 8 dxc5 Qxd1+ 9 Nxd1 Bxc5 is the most common line at the top level. White has tried many different moves here to create problems for Black, but let's just take a look at one of Dubov's games in the sharpest line of this endgame: 10 Ne3!? c3 11 bxc3 Nbd7 12 Nd3 Rb8 (12 ... Be7?! 13 a4 Rb8 14 a5 creates unpleasant queenside pressure; developing the c8-bishop will be a major challenge) 13 Nc4 b6 14 Bf4 exploits the awkward positioning of the b8-rook and leads to very forced play. D.Dubov-S.Karjakin, internet (rapid) 2020, continued 14 ... Bb7 15 Bxb8 Bxg2 16 Bd6 Bxh1 17 Bxf8 Kxf8 18 f3 Bg2! (the only move, threatening to escape with

the bishop via h3) 19 Nf4 Bh1 looks silly to put the bishop back on the square it came from, but there is still the threat of escaping with ... e5 followed by ... Bg2-h3. An interesting ending arose after 20 Kf1 b5 21 Nb2 e5 22 Nfd3 Ba3 23 Nd1 e4 24 N3f2 Bxf3 25 exf3 exf3 26 Rb1 and Dubov eventually overcame Karjakin's defence in a tense endgame.

**8 Bxc6 bxc6 9 Nxc6 Qe8 10 Nxe7+ Qxe7 11 Qa4**



### 11 ... Nd5!?

Dubov has played the QGD/Catalan hybrid with the White pieces a lot in faster time controls and likely came across 11 ... Nd5 in his preparation, so he decided to give it a try as Black. This idea had already been tried a couple years earlier by some strong players, but without much success in the opening.

By far the most popular approach to the position is 11 ... c5 12 dxc5 Qxc5 13 Be3 Qc7 and now 14 0-0-0!? has become extremely popular since Caruana used it against Nakamura in the 2018 Sinquefield Cup. Ironically,

Caruana mentioned after the game that it was an idea suited for one game and didn't expect it to become fashionable. 14 ... Ng4 (14 ... Bb7 15 f3 Nd5 16 Bd4 Rfd8 and in D.Navara-M.Karthikeyan, Caleta 2020, White could obtain some slight pressure after 17 Nxd5 Rxd5 18 Bc3 followed by trading rooks on the d-file and bringing the h1-rook into the game) prepares to take on e3 and weaken White's pawn structure. The game continued 15 Rd2 Nxe3 16 fxe3 Rb8 17 Rhd1 a5 18 Kb1 leading to a complicated strategic battle in F.Caruana-H.Nakamura, Saint Louis 2018, but one where it should be easier to play as White.

### **12 Qxc4**

Accepting the pawn sacrifice is critical, although it gives Dubov a way to activate his c8-bishop.

12 0-0 a5 13 Qxc4 (declining the pawn sacrifice with 13 Re1!? may be the topic of future discussions in this line) 13 ... Ba6 transposes to 12 Qxc4 a5 13 0-0.

### **12 ... a5!**

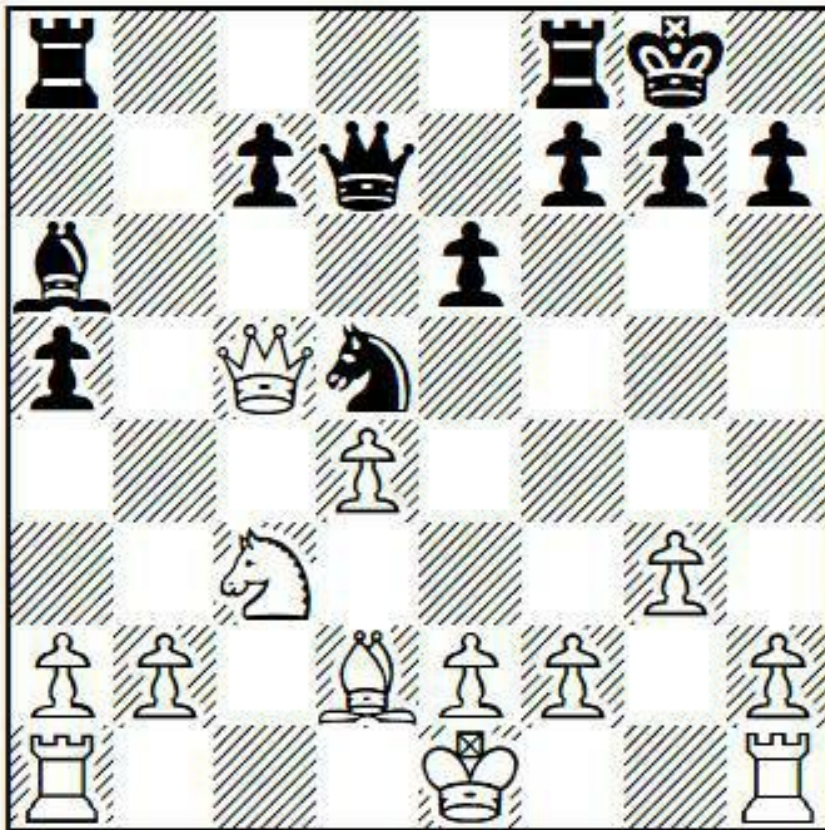
Intending ... Ba6 when the bishop exerts unpleasant pressure along the a6-f1 diagonal.

### **13 Bd2**

Goryachkina keeps her king on e1 to protect the e2-pawn.

Alternatively, 13 0-0 Ba6 14 Qa4 Rfd8 15 Re1 Qb4! (the exchange of queens leads to a satisfactory endgame for Black) 16 a3 Nxc3 17 axb4 Nxa4 18 Rxa4 Rxd4 19 Rxa5 Rxb4 and F.Bindrich-L.Nisipeanu, Magdeburg 2019, quickly ended in a draw.

### **13 ... Ba6 14 Qc5 Qd7**



The modern engines argue that Black has full compensation for the sacrificed pawn. The opposite-coloured bishops are very useful for Black because they increase attacking opportunities in the middlegame, as well as drawing possibilities in the event of a queen exchange.

### 15 f3

15 Rc1 Rfb8 (15 ... a4?! 16 f3 Rfb8 17 Nd1 f5 18 Kf2 saw Black lacking compensation in V.Malakhov-E.Bacrot, Zagreb 2018) 16 b3 Nxc3 17 Rxc3 (17 Qxc3 a4 liquidates the queenside and leads to an equal position) 17 ... Rb5 18 Qxc7 Qxd4 19 Be3 and now:

a) 19...Qe4? 20 0-0 and the back rank situation makes things very unpleasant for Black because he cannot play actively with his major pieces. After 20 ... Rbb8 21 Rfc1 h6 22 f3 White had an extra pawn and an excellent position in G.Oparin-R.Buhmann, Skopje 2019.

b) 19 ... Qf6! 20 0-0 Rd5 (controlling the d-file and opening the a6-f1 diagonal for the bishop) 21 Qc6?! Rc8! is an important point which is

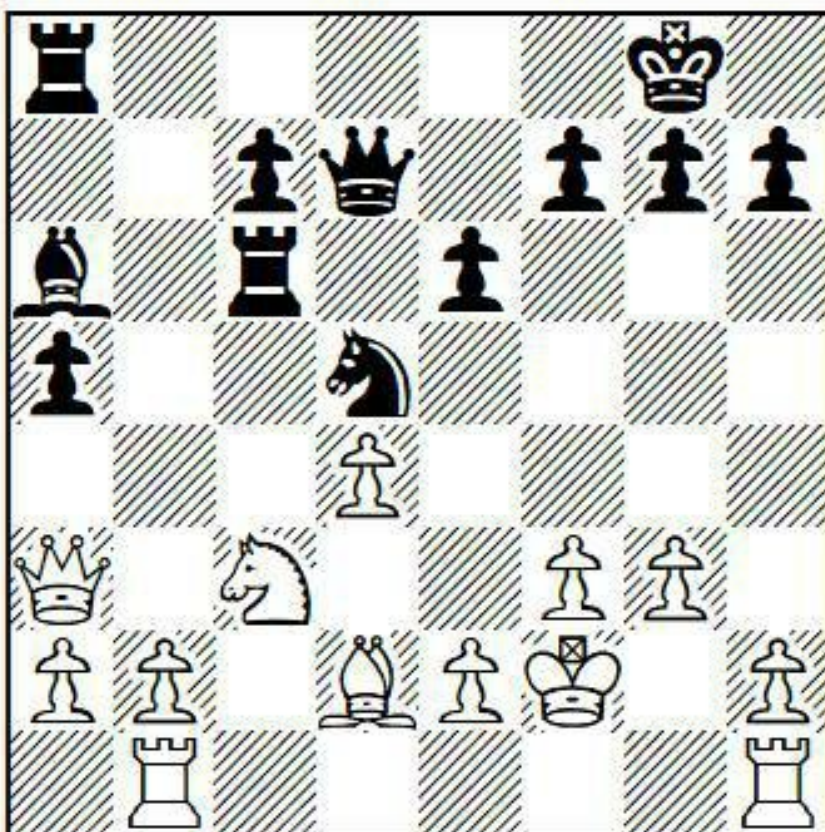
possible here with the Black queen on f6, helping to prevent back rank mating ideas.

**15 ... Rfb8 16 Rb1 Rb6 17 Kf2**

17 Qxa5 would probably be met by the same idea that occurred in the game, 17 ... Rc6 (freeing the b6-square for the knight) 18 Qa4 Nb6 19 Qc2 Nc4 and ... Qxd4 can be played next.

**17 ... Rc6 18 Qa3**

18 Qxa5?! Qe8! threatens to create a discovery on White's misplaced queen by playing ... Bxe2 or ... Bd3 next.



*Exercise:* How should Black keep up the initiative?

*Answer:* **18 ... Nb6!**

Rerouting the knight with tempo. Dubov's idea is to activate his pieces by chasing the queen on a3.

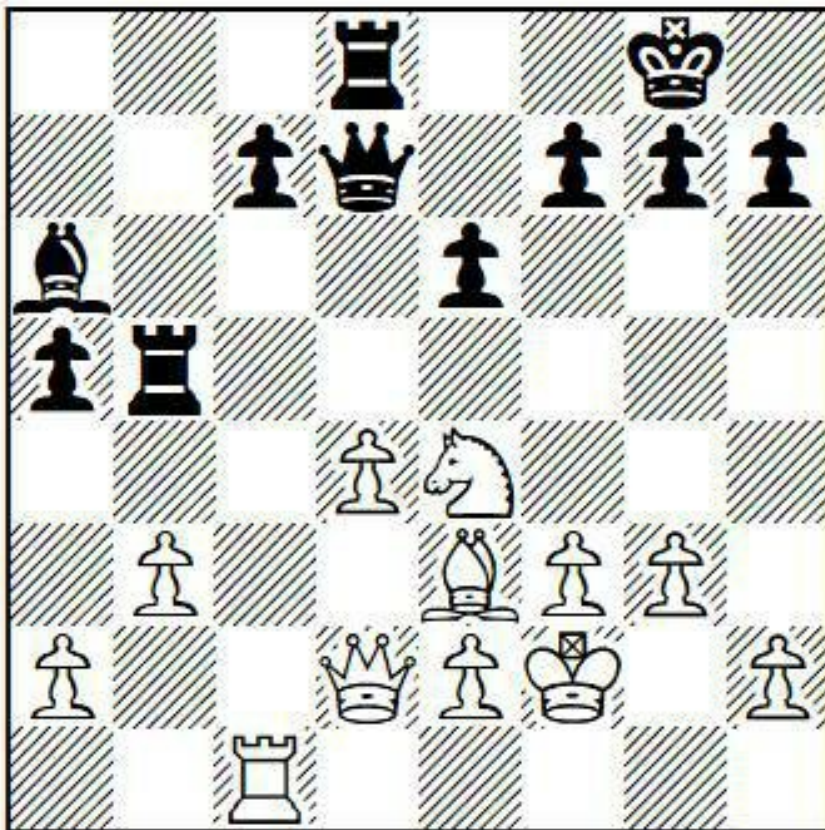
**19 Be3 Nc4 20 Qb3 Rb6 21 Qc2 Rab8 22 b3?!**

Goryachkina decides to sacrifice the exchange and remove Dubov's powerful knight on c4, but there was a defence based on the idea of activating her own knight.

22 Ne4! Rb4 (threatening ... Nxe3 and ... Qxd4 mate; 22 ... Rxb2?! is well met by 23 Nc5! Qc8 24 Qd3) 23 Nc5 Nxe3 24 Qe4! allows White to hold her position together after 24 ... Qd6 25 Qxe3.

**22 ... Na3 23 Qd2 Nxb1 24 Rxb1 Rd8 25 Ne4 Rb5 26 Rc1?!**

26 Qc3 would have been better preparation against 26 ... e5. Following 27 dxe5 Rd5 28 g4! there are much better defensive chances than in the game.



**26 ... e5! 27 dxe5**

27 Bg5! still would have kept some chances alive, but now Dubov's major pieces enter the game with a devastating impact.

**27 ... Rd5 28 Qc2 Qh3! 29 Rh1?**

The rook is completely tied down on h1, so 29 Kg1 was a better try. However, 29 ... Rxe5 30 Bf4 Re7 followed by ... Rde8 and ... Bb7 is

extremely difficult for White.

**29 ... Rxe5 30 Qxc7 Rde8 31 Bf4 R5e7 32 Qxa5 Bxe2! 33 Ng5 Qd7 34 Re1 Qd4+ 35 Kg2 h6 0-1**

The following game features a material imbalance (queen for rook and bishop) where there is a clear difference in understanding between the two types of engines. Modern engines argue that Black must be accurate from the start to avoid potential long-term weaknesses. Meanwhile, the older ones hardly show any fear and are confident in the solidity of Black's position.

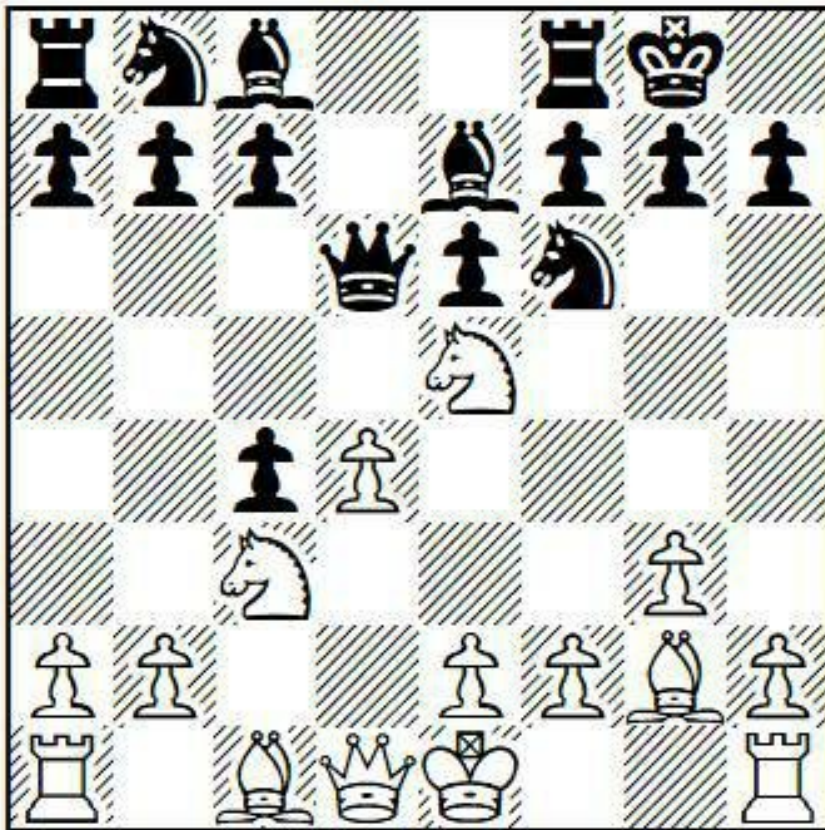
One important conclusion to draw from this game is the difficulties of analyzing such an opening from the Black side. Engines can often be misleading, suggesting equality everywhere, when it is actually very important to be precise right from the start.

*Game 14*

**P.Prohaszka-K.Wang**

Charlotte Spring GM 2021

**1 d4 d5 2 c4 e6 3 g3 Nf6 4 Bg2 Be7 5 Nf3 0-0 6 Nc3 dxc4 7 Ne5 Qd6!?**



Much sharper than 7 ... c5 and 7 ... Nc6, which we examined in the previous game. The idea is to bring the queen to a6 and free the d8-square for the rook.

**8 a4**

Securing the b5-square for the knight. It is more common to play the move order 8 0-0 Qa6 9 a4, leading to the same position.

**8 ... Qa6 9 0-0 Nc6!**

9 ... Rd8 was tried in G.Meier-L.Nisipeanu, Dortmund 2018, but Meier quickly seized the upper hand after 10 Nb5 Ne8 11 Qc2 Nc6 12 Qxc4 Nxd4 13 Be3 and Black's pieces become quite passive. Following 13 ... Nf5 14 Bc5 Bxc5 15 Qxc5 Qb6 16 Qxb6 axb6 17 Rfd1 the endgame was clearly better for Meier in view of the pieces stuck on the back rank.

**10 Nb5 Nxe5 11 dxe5**

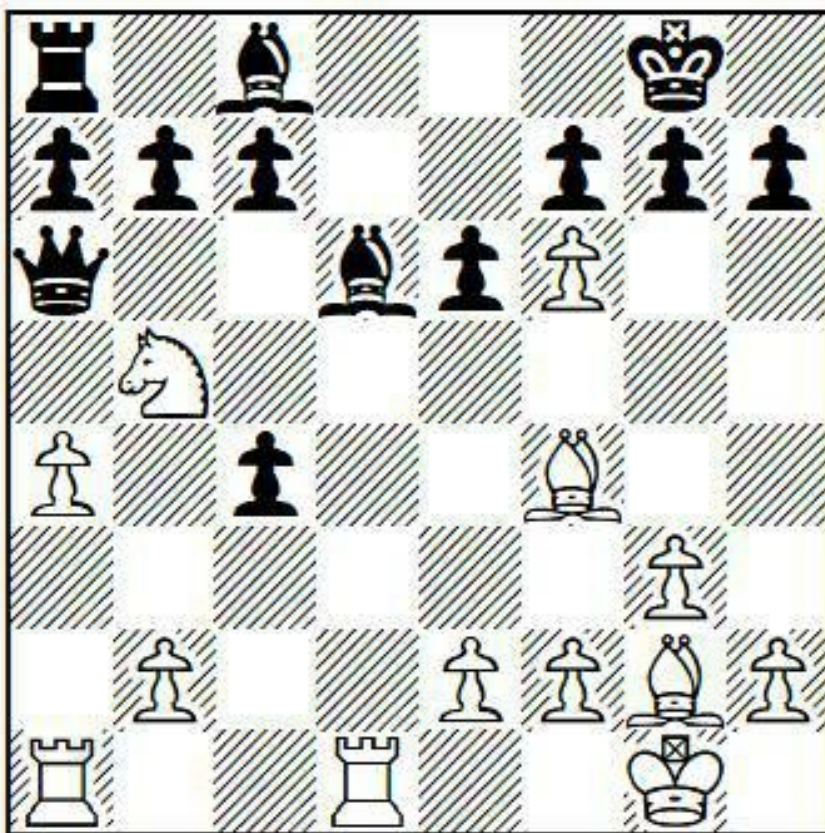
Another material imbalance is reached after 11 Nxc7 Qa5 12 Nxa8 Nc6 13 Bf4 Nd5 (also playable is 13 ... Bd7 14 Nc7 g5! 15 Be5 Nxe5 16 dxe5 Qxc7

17 exf6 Bxf6 with sufficient compensation; Black can continue by activating the f8-rook and then expand on the queenside) 14 Bd2 Qd8 15 e4 Ndb4 16 Bc3 Na5 led to a very complicated middlegame in G.Oparin-D.Fridman, internet 2020.

**11 ... Rd8 12 exf6!**

12 Qc2 is less challenging. After 12 ... Nd5 13 Qxc4 Bd7 14 Bd2 Bc6 Black was completely fine in Ni Hua-Li Yankai, China 2019.

**12 ... Rxd1 13 Rxd1 Bd6 14 Bf4**



The material imbalance of interest has been reached. Currently, Black is faced with some back rank problems so he needs to play a few accurate moves.

**14 ... Qa5**

Others:

a) The move order 14 ... gxf6 15 Nxd6 cxd6 16 Rxd6 Qa5 transposes to the game, but gives White additional options on move 15, such as 15 Bxd6 or 15

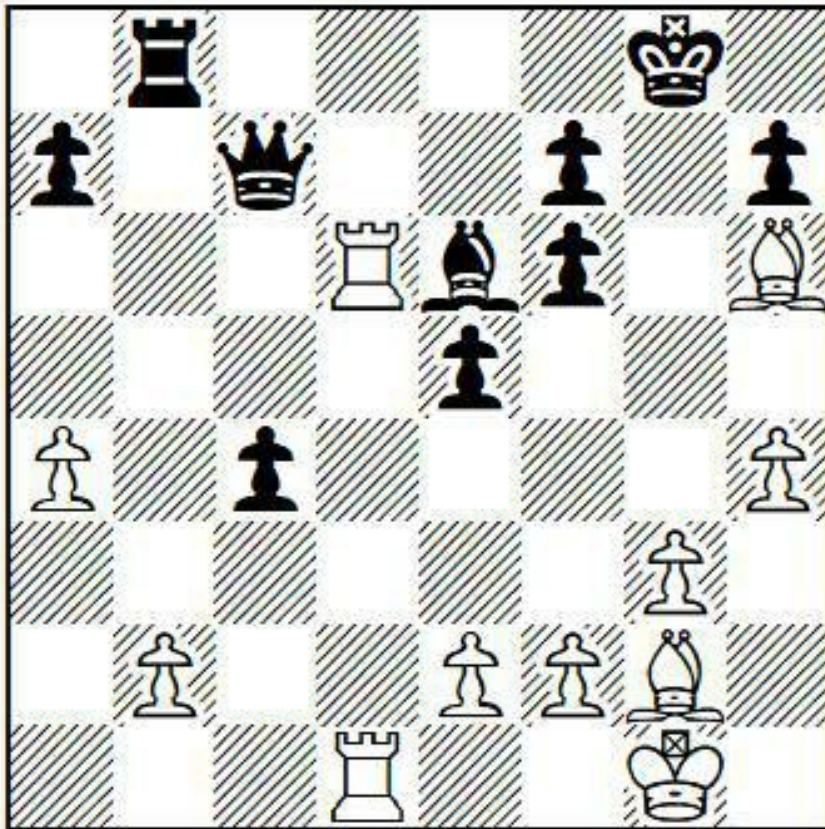
Nxc7.

b) 14 ... e5? 15 Nxd6 and now:

b1) 15 ... cxd6?! 16 Bxe5 Qa5 17 Rxd6 Bg4 18 Bc3 Qc7 19 Rad1 with excellent piece coordination and a winning position in L.Nisipeanu-H.Nakamura, Khanty Mansiysk 2019.

b2) 15...exf4! would have posed more challenging practical difficulties for White. Play continues 16 Ne8 Qa5 (16 ... Qb6 17 a5! Qxb2 18 Nxc7 gxf6 19 Nxa8 also leads to a winning position, as pointed out by Nisipeanu) 17 Rd8 gxf6 18 Rad1 Rb8 19 Bf3! (the immediate 19 Nxc7+? Kg7 20 Ne8+ Kf8 21 Nxf6+ Kg7 leads nowhere) is a very important move, controlling the h5-square and giving the king some breathing space. One sample line is 19 ... Qxa4 20 Nxc7+ Kg7 21 Ne8+ Kg6 22 R1d6 with a winning position.

**15 Nxd6 cxd6 16 Rxd6 gxf6 17 Bh6 e5 18 Rad1 Be6 19 Bxb7 Rb8 20 Bg2 Qc7 21 h4!**



Slowly improving the position by playing 21 h4 and 22 Kh2. One of the

key ideas behind this plan is to exchange light-squared bishops with Bh3 because then the rooks can invade more easily along the d-file.

### **21 ... f5?!**

The neural network engines understand the precision required by Black to maintain the equilibrium.

21 ... Kh8! preparing ... Rg8 and a f-pawn advance is the best way to meet White's plan. Play may continue 22 Kh2 Rg8 23 Bh3 f5 24 e4 f4! breaks down White's kingside defences and Black obtains sufficient counterplay for a draw in all lines: 25 Bxe6 fxe6 26 Rd7 (or 26 gxf4 Qf7 27 Rd7 Qh5) 26 ... Qb6 27 R1d2 c3! 28 bxc3 Qb1 with ideas of playing ... Qxe4 or ... Qf1 next.

### **22 Kh2! Re8**

Alternatives:

a) 22 ... e4?! is a concrete approach and one that is considered fully playable by many of the older engines. One sample line showing the difficulties of Black's position is 23 Bf4! Qb7 24 Be5 h5 25 e3 Kh7 26 Bf1! Qb4 27 a5 with a comfortable edge for White. It is not at all clear how Black intends to fight for counterplay.

b) 22 ... Kh8 23 e4! fxe4 24 Bxe4 Rg8 25 Bg2 is also unpleasant for Black because White has great piece coordination and an extremely well-defended kingside.

### **23 Bc6**

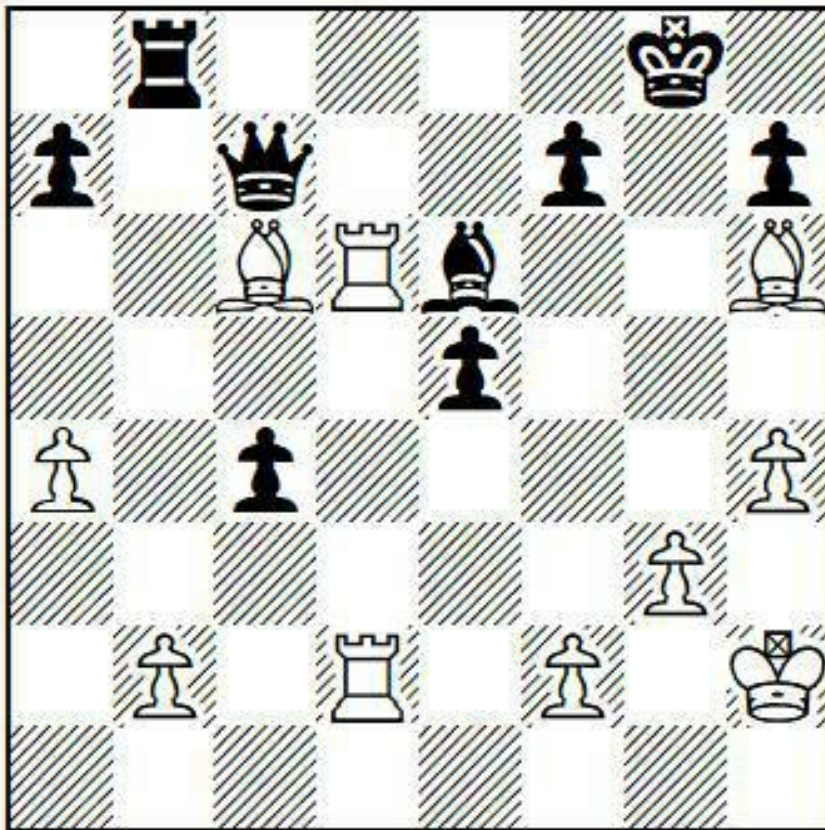
The immediate 23 e4!? fxe4 24 Bxe4 Kh8 25 R1d2 was a good alternative. As usual in these lines, Black is struggling to create counterplay while White has everything protected and can slowly improve his position.

### **23 ... Rc8 24 e3 Rb8 25 R1d2 Qa5 26 Rd1 Qc7 27 e4!**

Freeing the e3-square for the dark-squared bishop, where it can help to defend the kingside and pressure Black's queenside.

### **27 ... fxe4 28 Bxe4 Re8 29 Bc6 Rb8 30 R1d2?**

30 Bg2! retreating the bishop frees the c6-square for the rook. Then 30 ... Bf5? could be met by 31 Rc6! Qe7 32 Rd5 and the two rooks invade Black's position. Together, they will target one of Black's weak pawns (a7, c4, or e5) and cause endless problems.



*Exercise:* Can you find a way for Black to create counterplay?

**30 ... Qe7?**

*Answer:* 30 ... Bf5! The e6-bishop was an important defender, but now it would have a new purpose in disrupting the coordination between White's rooks. After 31 Bb5 Bd3! White loses his advantage.

**31 Bg5 f6 32 Bh6 Kh8 33 Bd7!**

Launching the decisive attack. The e6-bishop is kicked away from its defensive post.

**33 ... Bf7**

33 ... Bxd7 34 Rxd7 Qe8 35 R2d6 and both of Black's pieces are stuck on the back rank.

**34 Bf5 Bg6 35 Rd7 Qe8 36 Bxg6 hxd6 37 R2d6 Qc8 38 Rf7 Qe8 39 Rdd7 Qg8 40 Bg7+ Kh7 41 Bxf6+ Kh6 42 Bg5+ Kh5 43 Kh3 Rc8 44 g4 mate**

## **The Nbd2 Catalan**

Dubov likes to play the Catalan in a very enterprising and creative way whenever it is reasonable to do so. He has won many great games by sacrificing material early in the opening, seizing a powerful initiative, and launching a crushing attack. This section examines a pawn sacrifice on move 5 in which the neural network engines have provided many new ideas (see Game 16). In Game 15, Carlsen declines Dubov's pawn sacrifice, but the game quickly turns into a sharp fight anyway.

### *Game 15*

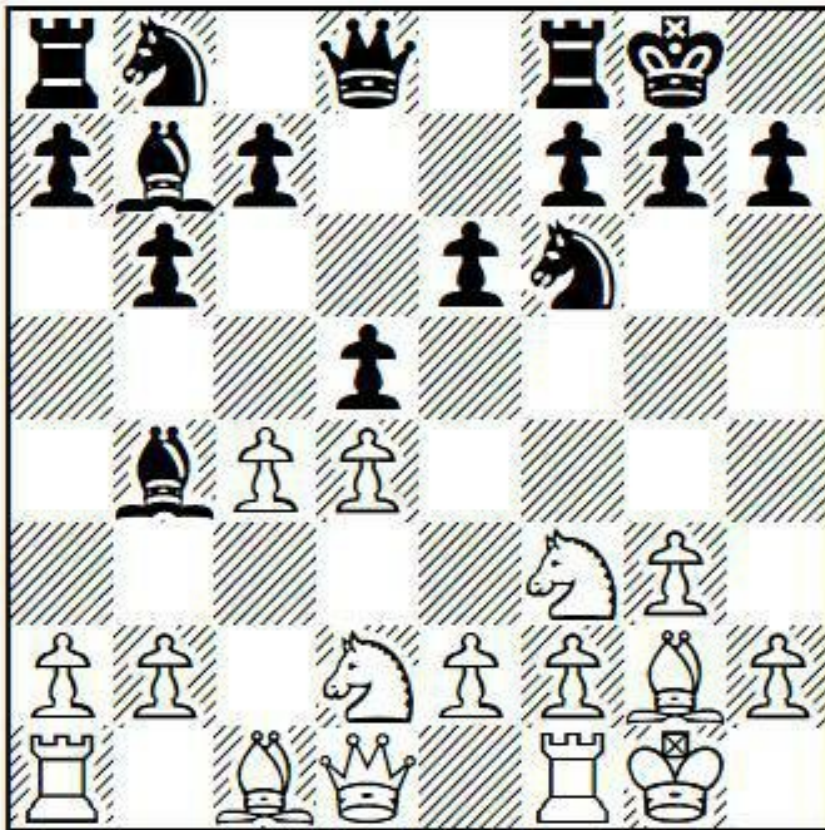
#### **D.Dubov-M.Carlsen**

Airthings Masters 2020 (rapid)

**1 d4 Nf6 2 c4 e6 3 Nf3 d5 4 g3 Bb4+ 5 Nbd2!? 0-0**

The sharper 5...dxc4 lines will be examined in the next game. There, we will see a much more noticeable influence of the modern engines. These ...dxc4 lines are well-suited to Dubov's aggressive and creative style, so Carlsen instead decides to play a very solid setup.

**6 Bg2 b6 7 0-0 Bb7**



## 8 Ne5

The main line, putting pressure on the g2-b7 diagonal and preparing to meet 8...Nbd7 with 9 Qa4! Lately, 8 b3 has become a fashionable choice as well, when two of Black's main choices are:

a) 8...c5 tries to clarify the centre but may not be the best attempt at equalizing. Several exchanges occur after 9 Bb2 Nc6 10 cxd5 exd5 11 a3 Bxd2 12 Nxd2 Nxd4 13 Bxd4 cxd4 14 Nf3 and Black is left with an isolated d5-pawn. M.Matlakov-A.David, Antalya 2017, saw 14...Re8 15 Nxd4 Ne4 16 Rc1 Rc8 17 Rxc8 Qxc8 18 Qa1! with a comfortable advantage for White.

b) 8...Re8 is a useful move to free the f8-square for the bishop. The position is rather quiet, so there are many other playable moves, such as 8...Nbd7, 8...c5, or 8...a5. Play continues 9 Bb2 Nbd7 10 Rc1 (10 Qc2 Rc8 11 Rad1 c5 and Black quickly solved all his opening problems in A.Giri-K.Alekseenko, Ekaterinburg 2021) 10...a5 leads to a further split:

b1) 11 Qc2 was met very precisely in R.Wojtaszek-S.Azarov, Czech

Republic 2020. The game continued 11...dxc4! 12 Nxc4 Be4 13 Qd1 Bf8 14 Nfe5 Bxg2 15 Kxg2 Nxe5 16 Nxe5 a4! And Black had absolutely no problems.

b2) 11 a3 Bf8 12 Ne5 Nxe5 (fighting for the centre with 12...c5 also deserves attention) 13 dxe5 Nd7 14 Qc2 c5 led to a complicated middlegame in A.Donchenko-M.Palac, Kirchweyhe 2021.

### **8...a5**

Gaining queenside space is useful in many variations to prevent White's ideas with a3 and b4, or b3 and Bb2. Alternatives:

a) 8...Nbd7 is the most popular move, but certainly not the best. After 9 Qa4! Black is struggling to equalize, following 9...Bd6 (9...Bxd2?! 10 Bxd2 Nxe5 11 dxe5 Nd7 12 Rad1!? Nxe5 13 Bc3 with serious difficulties for Black in view of the weak d5-pawn and White's powerful bishop pair) 10 Nxd7 Qxd7 11 Qxd7 Nxd7 12 cxd5 exd5 13 Nc4! Be7 14 Bf4 led to a very comfortable endgame in F.Vallejo Pons-M.Karthikeyan, Tbilisi 2017.

b) 8...c5 is another concrete attempt at equalizing, but Black is under some slight pressure after 9 a3 Bxd2 10 Bxd2 cxd4 11 Bb4 Re8 12 Qxd4 due to White's bishop pair advantage.

### **9 Qc2 a4!?**

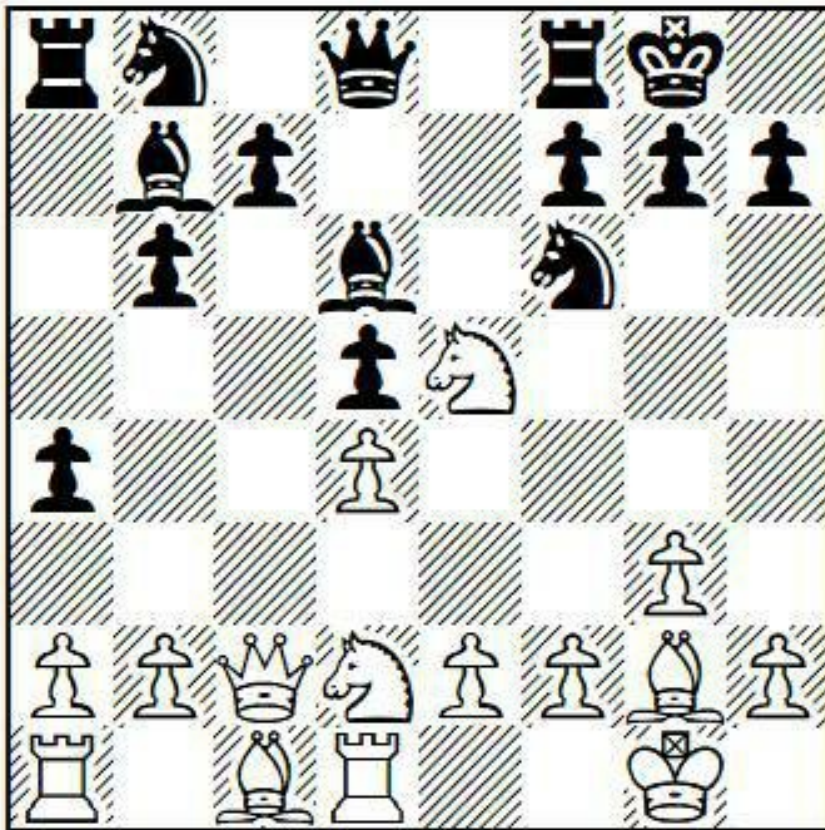
Preventing White from playing 10 b3 because then 10...a3 would be unpleasant.

Future theoretical discussions in this line may see 9...c5! White can try:

a) 10 cxd5 Bxd5 11 e4 Bb7 12 dxc5 Qc8! (12...Bxc5 is met by 13 Nb3 followed by Rd1 and Nc4) is the safest way to regain the pawn. Continuing 13 Nd3 Bxd2 14 Bxd2 Nxe4 the game is roughly balanced.

b) 10 a3 Bxd2 11 Qxd2 Nc6 (11 ... Qc7!? 12 Rd1 Na6 is also playable) 12 Nxc6 Bxc6 13 dxc5 bxc5 followed by ... Qb6 and activating the rooks, trying to create some queenside play.

### **10 Rd1 Bd6 11 cxd5 exd5**



*Exercise:* How should White continue developing?

**Answer: 12 Ndc4!**

Taking advantage of the pressure created by the g2-bishop. The c1-bishop is ready to develop next and there are also ideas of playing Nxd6 or Ne3-f5.

**12 ... h6 13 Bf4 Re8 14 Rac1 Na6**

14 ... Bf8? loses to 15 Nxf7! Kxf7 16 Bxc7! and the Black queen doesn't have a safe square. 16 ... Qe7 (16 ... Qxc7 17 Ne5+ wins the queen) 17 Nd6+ picks up the bishop on b7.

**15 a3?!**

Restricting the a6-knight, but there was a stronger alternative.

15 Nxd6! cxd6 16 Nc4 is a nice idea that takes advantage of the a6-knight. After 16 ... Re6 (16 ... dxc4 17 Bxb7 Ra7 and White wins a pawn with 18 Bxa6 Rxa6 19 Qxc4) 17 h4! prevents ... g5 and then Ne3 can be played. For example, 17 ... Nb4 18 Qd2 Nc6 19 Ne3 is clearly better for White.

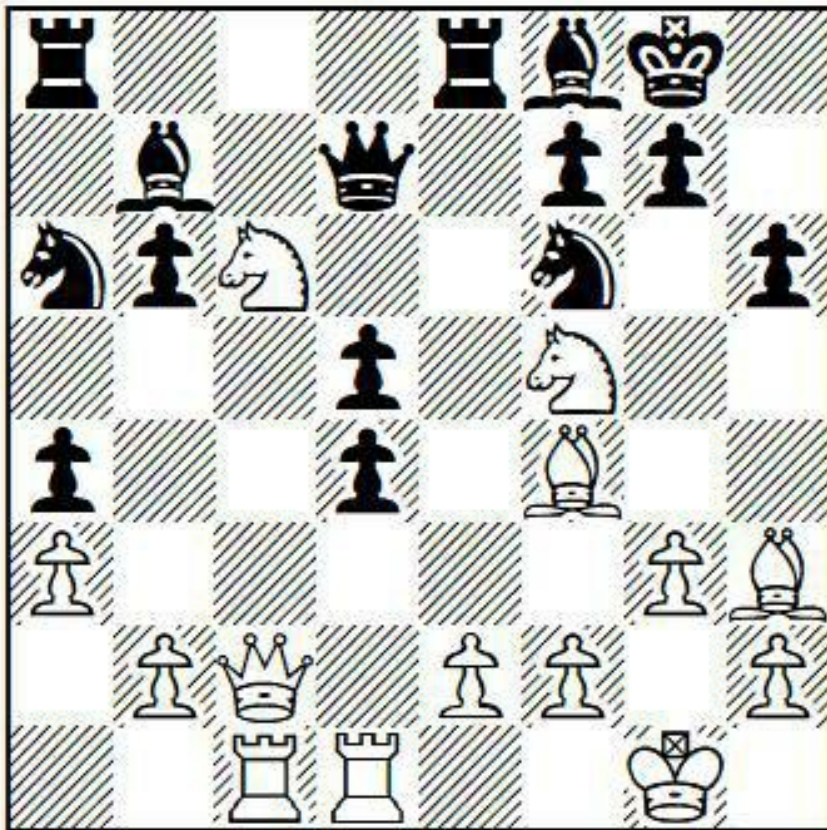
**15 ... Bf8 16 Ne3 c5**

16 ... g5!? forces White to sacrifice a piece, but he obtains a strong initiative in return: 17 Nxf7! Kxf7 18 Be5 and now:

a) 18 ... Bg7? 19 Bxf6 Bxf6 20 Qh7+ Kf8 21 Nf5 creates a crushing attack. There are even ideas of bringing in one of the rooks with Rc3-f3.

b) 18...Qd7! preventing Ng4 ideas is Black's best chance of keeping things together. However, it still looks incredibly dangerous after 19 h4!? gxh4 20 Nf5 hxg3 (20 ... Ne4 21 Bh3! creates problems for the d7-queen) 21 Bxf6 gxf2+ 22 Kxf2 Kxf6 23 Rf1! and White retains a powerful initiative.

**17 Nf5 cxd4 18 Nc6 Qd7 19 Bh3**



A critical moment because White's minor piece are creating a lot of threats.

**19 ... Kh8?**

This loses material because the queen on d7 is lacking squares. The c6-knight had to be eliminated.

19 ... Bxc6! 20 Nxb6+? (20 Qxc6 Qxc6 21 Rxc6 Rxe2 leads to a sharp endgame but one where Black is doing well) 20 ... g6 21 Bxd7 Bxd7 and the three pieces are much stronger than White's queen, especially because they have good squares to occupy. After 22 Rxd4 Nc5 Black has ... Nb3, ... Bb5, and possibly ... Bc5 coming next.

**20 Ne5 Rxe5 21 Bxe5 Ne4 22 Bxd4**

Despite the extra exchange for Dubov, Carlsen manages to create counterplay over the next 10 moves.

**22 ... Rc8 23 Qd3 Nac5 24 Qe3 Kh7 25 Bxc5 Nxc5 26 Qf3**

26 Qf4 should have been preferred instead, in view of Carlsen's pawn sacrifice.

**26 ... d4!**

A strong pawn sacrifice to open the long diagonal for the b7-bishop.

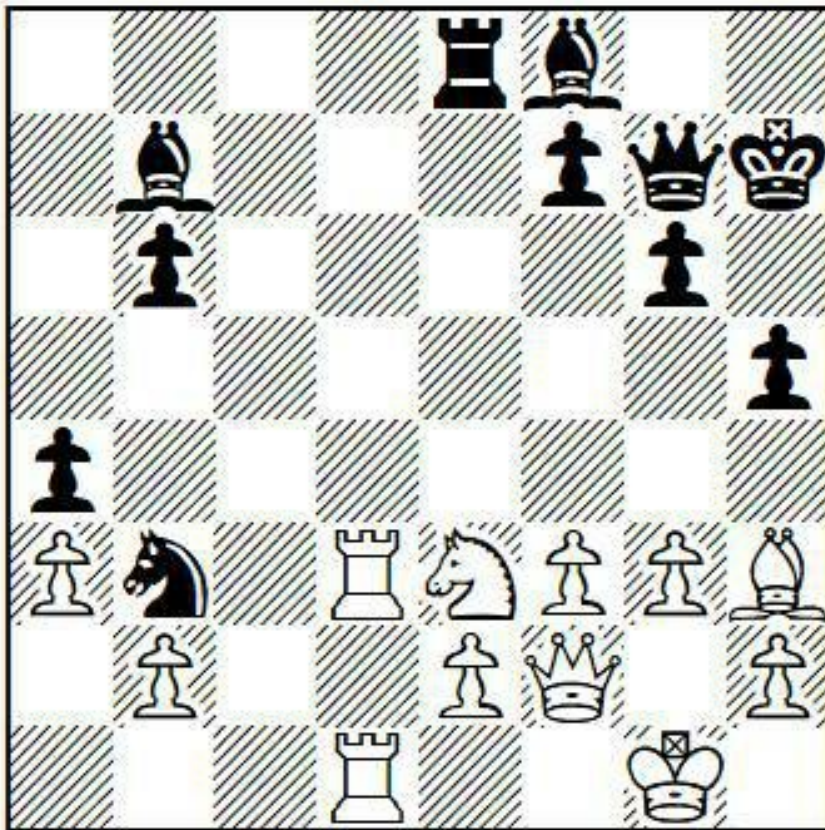
**27 Rxd4 Qe8 28 Qe3?**

28 Qg4! was a better square for the queen in order to meet 28 ... Qc6 with 29 e4 and there are far fewer weaknesses on White's kingside.

**28 ... Qc6 29 f3**

This move weakens the c5-g1 diagonal, so it was better to play 28 Qg4 and block the diagonal with 29 e4 instead.

**29 ... Re8 30 Qf2 g6 31 Ne3 Qf6 32 Ng4 Qg7 33 Rcd1 h5 34 Ne3 Nb3 35 R4d3**



**35 ... Qxb2**

35 ... Bc5! ties down the d3-rook to the defence of the knight. One sample line is 36 Bd7 Rxe3 37 Rxe3 Qxb2 38 Kg2 Nd2 threatening ... Nc4.

**36 Rd7! Bc5 37 Rxf7+ Kh6 38 Rdd7 Qa1+?**

It was still possible to defend with the unattractive 38 ... Qh8! and ... Bxe3 next.

**39 Kg2 Bxe3 40 Rh7+ Kg5 41 Rxb7 Rf8 42 Qxe3+ 1-0**

The next game examines the sharper ...dxc4 lines in the Nbd2 Catalan. It is a correspondence game, meaning that both sides were allowed to analyze with engines during the game. Black faces tremendous practical difficulties in these sharp pawn sacrifice lines, but very accurate defensive moves allow him to retain the balance.

## Game 16

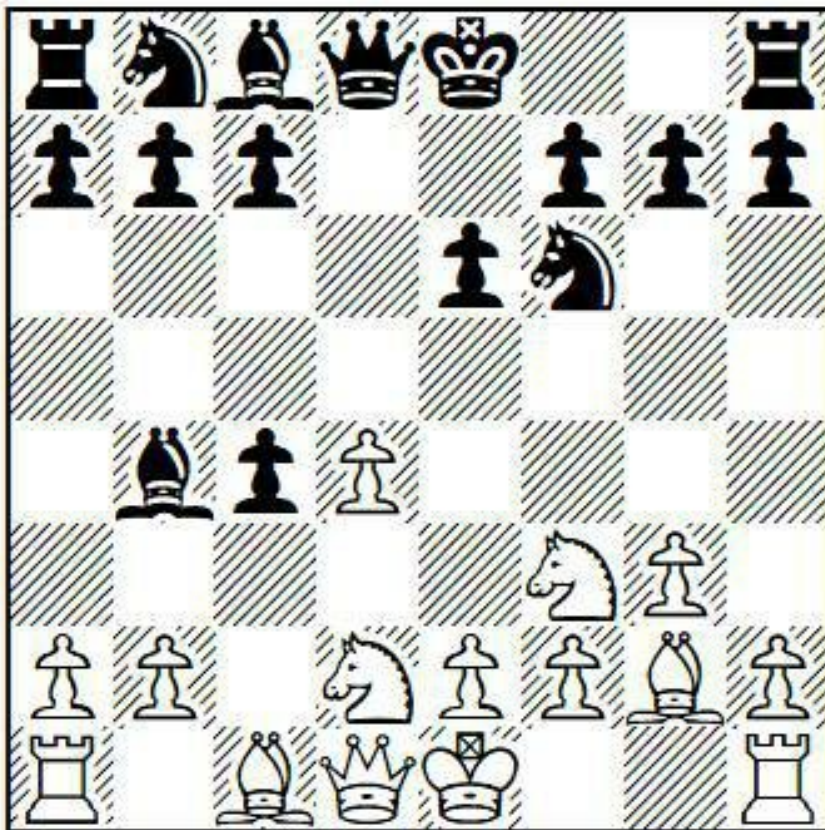
**T.Klauner-L.Machýcek**

ICCF 2020 (correspondence)

**1 d4 Nf6 2 c4 e6 3 Nf3**

The actual move order of this game was 3 g3 d5 4 Bg2 Bb4+ 5 Nd2 0-0 (5...dxc4?? 6 Qa4+ is an important difference with this move order) 6 Ngf3 dxc4. This move order might be slightly more sophisticated because it avoids Black's alternatives on move 6 in our main game.

**3...d5 4 g3 Bb4+ 5 Nbd2 dxc4 6 Bg2**



**6...0-0**

The lines where Black immediately castles kingside will be our focus because they contain many ideas from the newer engines. We can also take a

quick look at the alternatives:

a) 6...a5 contains some similarities to our main game after 7 a3 Bxd2+ 8 Bxd2 b5 9 a4 c6 10 Qc2 (a possible improvement is 10 Ne5! making it more difficult for Black to develop the queenside) 10...Bb7 11 h4!? is the same idea that we will see after 6...0-0 with the difference being Black's king in the centre. 11...Nbd7 12 h5 h6 13 Ne5 Nd5 14 Rh4! with a complicated fight ahead in D.Dubov-M.Carlsen, internet 2020.

b) 6...c3!? is an ambitious attempt at winning material. However, Black falls very far behind in development after 7 bxc3 Bxc3 8 Rb1 0-0 9 0-0 (ignoring the d4-pawn and focussing on rapid development) 9...Bxd4 10 Nxd4 Qxd4 11 Bb2 Qd8 12 Qc1 followed by Rd1 and Nc4. The position is quite interesting and can be analyzed further, but White has at least enough compensation for the two pawns and a much easier game.

c) 6...b5 7 Ne5 Nd5 8 0-0 0-0 leads to a complicated middlegame. Some ideas to consider are 9 a3 intending to play b3 next after the bishop retreats, or the surprising 9 b3!? leaving the c3-square undefended as tried in Matlakov-Wojtaszek, Sochi (rapid) 2021.

### **7 Qc2 a5!**

The immediate 7...b5 runs into some problems after 8 a4, so the text is a more effective way of gaining space on the queenside.

After 7...b5 8 a4 Black must decide how to return the extra pawn:

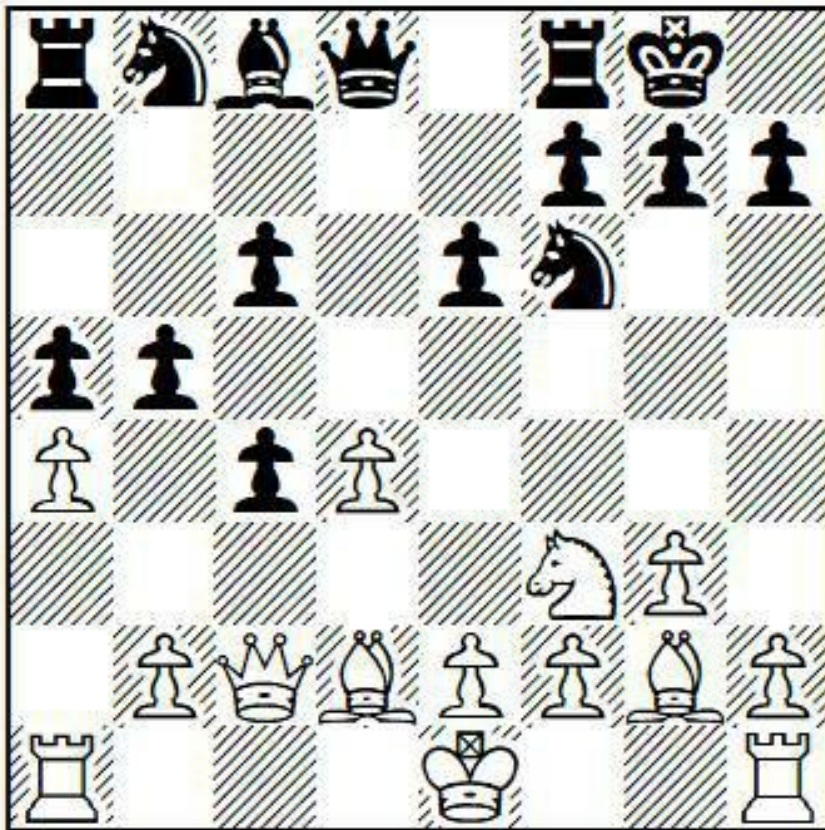
a) 8...Bb7 9 axb5 a6 10 bxa6 Rxa6 11 Rxa6 Bxa6 12 0-0 led to a better position for White in Y.Yu-S.Ganguly, China 2018.

b) 8...bxa4 9 0-0 Bb7 10 Nxc4 c5 11 Rd1 cxd4 12 Rxd4 Qe7 13 Bg5 followed by transferring the rook to the kingside became very problematic for Black in R.Wojtaszek-A.Naiditsch, Biel (rapid) 2020.

### **8 a3**

8 Qxc4?! is harmless because of 8...b6 followed by developing (...Bb7, ...Nbd7) and creating play in the centre with ...c5.

### **8...Bxd2+ 9 Bxd2 b5 10 a4 c6**



White has a crushing score in practice from this position. Even though Black is objectively fine, there are numerous attacking ideas on the kingside which must be accurately responded to.

### **11 h4!**

A very dangerous attacking idea, which requires very precise play from Black to survive.

The more direct 11 e4 threatens e5 followed by Ng5. Black can try:

a) 11...e5 12 dxe5 Nfd7 was seen in E.Tomashevsky-Ding Liren, Palma de Mallorca 2017. The newer engines find a very powerful pawn sacrifice here with 13 e6! fxe6 14 0-0 Nc5 15 e5 Nxa4 reaching a position where White has numerous attacking ideas. Despite being up two pawns, Black's development and king safety are quite poor. One idea is 16 Rfd1 Na6 17 h4! when Black needs to build up a defence on the kingside while also untangling the queenside pieces.

b) 11...h6! 12 g4! and now:

b1) 12...Nbd7? 13 g5 hxg5 14 e5 Nh7 15 h4! Ra6 (15...g4 meets a similar fate after 16 Ng5 forcing open the h-file) 16 hxg5 followed by transferring the queen to the h-file led to a quick win in R.Svane-D.Gavrilescu, Caleta 2018.

b2) A better defensive idea is 12...Nh7 13 h4 Na6! and Black should obtain enough counterplay to maintain the balance against White's kingside attack.

### **11...Bb7**

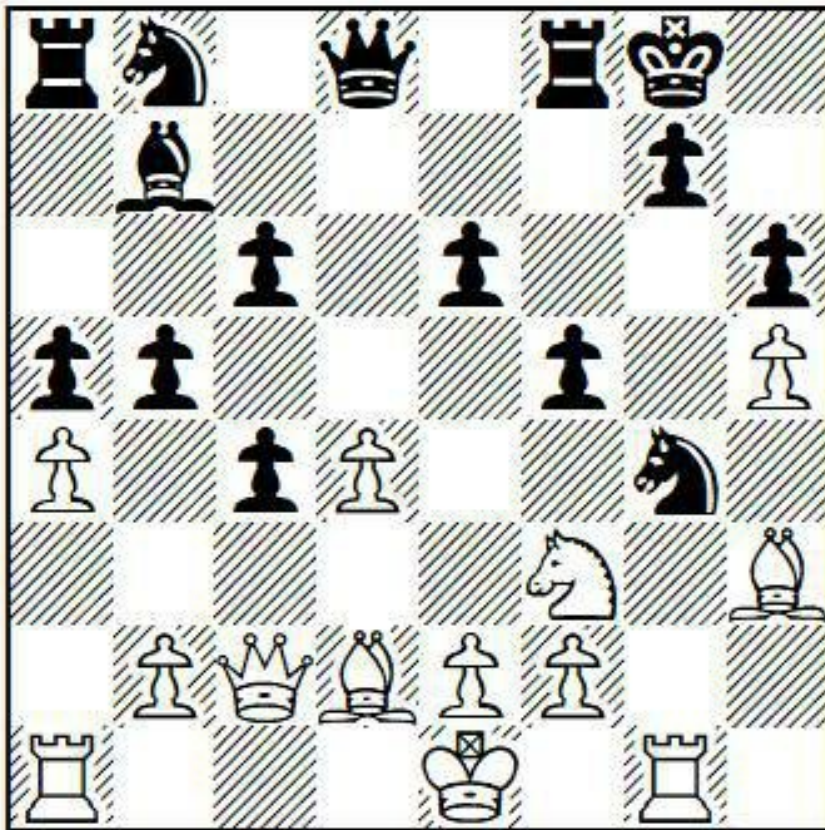
11...Nbd7? 12 h5 h6 (weakening the kingside is not ideal but otherwise White advances the pawn to h6 and provokes major weaknesses; 12...Bb7 13 h6 g6 14 0-0 sees Black stuck with a passive position and dark-squared weaknesses on the kingside) 13 g4! Nxf4 14 axb5 Bb7 (14...cxb5 15 Qe4! demonstrates why 11...Bb7 should be played instead of 11...Nbd7) 15 Nh2! was completely winning in D.Dubov-L.Ding, internet 2021. If 15...Nxf4 then there is the intermediate move 16 bxc6 and Black is lost.

11...Ra6?! is also extremely dangerous for Black after 12 h5 h6 13 g4 Nxf4 14 Rg1 f5 15 Bh3 when it is very difficult to see how the kingside can be defended.

### **12 h5 h6 13 g4 Nxf4 14 Rg1**

Black is forced to respond precisely and energetically to avoid being crushed on the kingside.

### **14...f5 15 Bh3**



**Exercise:** How should Black deal with the attack on the g-file?

**Answer: 15...c5!**

A crucial move. Opening up the diagonal for the b7-bishop allows Black to stay in the game.

**16 axb5**

16 Bxg4 Be4! is a very important intermediate move, kicking the queen away from the important c2-h7 diagonal. Following 17 Qc3 fxg4 18 Rxd4 was seen in P.Prohaszka-D.Gavrilescu, Batumi 2019. There was a missed opportunity here to play 18...Rxf3! (instead, 18...Bxf3? 19 exf3 cxd4 20 Rxd4 soon led to a better endgame for White) 19 exf3 cxd4 and suddenly Black seizes the initiative and has a crushing pawn storm in the centre.

**16...Nd7 17 Bxg4 fxg4 18 Nh2**

The alternative 18 Rxd4 also leads to very sharp play. Black hangs on after

18...Bxf3 19 exf3 (19 Rxc7+ Kxc7 20 Qg6+ Kh8 21 Qxh6+ leads to a perpetual) 19...cxd4 20 Bxh6 Rf7 21 0-0-0 Ne5 22 Rxd4 Qe8 and ideas with ...Nd3+ and ...Qxb5 should provide sufficient counterplay.

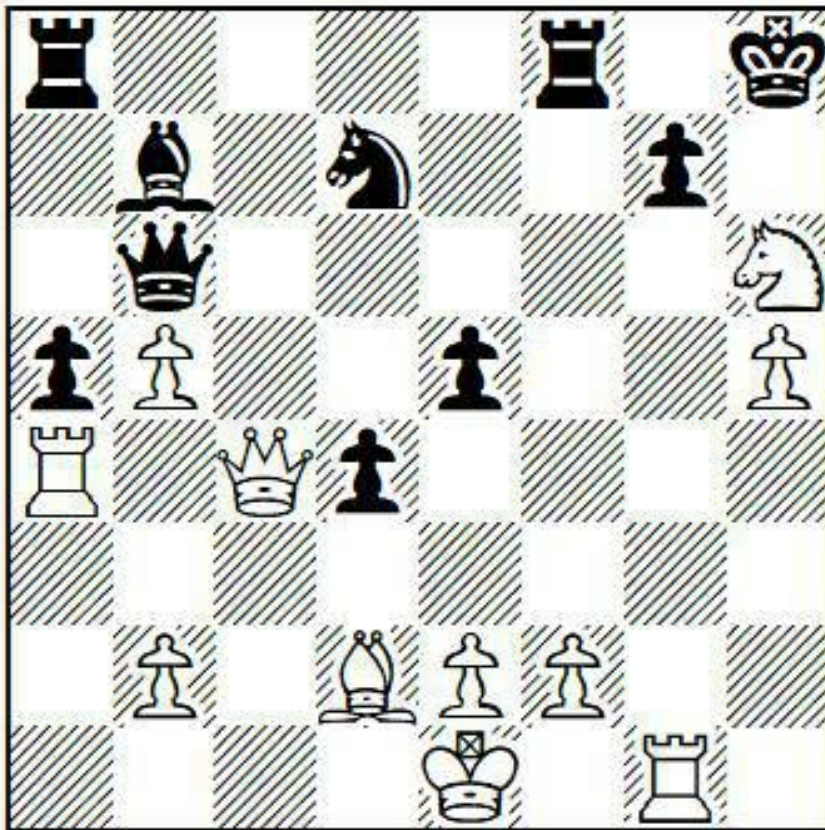
**18...cxd4 19 Qxc4**

19 Bxh6?! is well met by the counterblow 19...Rxf2! when the rook cannot be taken because of ...Qh4+. Instead, White can try 20 Qg6 (or 20 Qxc4 Rf7 intending ...Qh4+ next) but 20...Qf6 keeps everything together.

**19...Qb6 20 Nxc4 Kh8 21 Ra4**

Threatening Qxd4.

**21...e5 22 Nxh6**



**22...Rac8!**

Black creates a threat of his own and doesn't give White the chance to build up his attack any further.

22...gxh6? loses to 23 Rg6 Rf6 24 Bxa5! Qd6 25 Bb4 threatening to exchange the a8-rook and therefore forcing the Black queen to retreat to the

back rank. Following 25...Qb8 26 Rxf6 Nxf6 27 Qe6! Rxa4 28 Qxf6+ Kg8 29 Qg6+ Kh8 30 Be7! Black's king is left with no defenders.

**23 Nf7+ Kg8 24 h6!?**

24 Nh6+ Kh8 25 Nf7+ was a much more natural way to draw the game.

**24...g6 25 h7+ Kg7 26 Qa2 Rxf7 27 Bh6+ Kf6 28 Bg5+ Kg7 29 Bh6+**  
1/2-1/2

## **Giri's ...h5-h4 Against the Catalan**

In the 2020-21 Candidates tournament, Giri employed a rare system against Ding Liren's Catalan and followed it up with some AI-influenced ideas. Ding responded in a very principled manner to the surprise but couldn't achieve any advantage after Giri's h-pawn advance. There are some clear similarities between the ...h5-h4 in this game and the h4-h5 ideas that we saw in the Grünfeld chapter. In both openings, the king's knight is missing and the side carrying out the flank advance has a much greater presence in the centre.

### *Game 17*

## **Ding Liren-A.Giri**

FIDE Candidates 2020-21

A brief overview of the alternatives leading up to the critical position on move 13 has been provided in the notes.

**1 d4 Nf6 2 c4 e6 3 g3**

3 Nf3 d5 4 g3 Bb4+ 5 Bd2 a5 is an equivalent move order.

**3...Bb4+ 4 Bd2 a5!?**

Already a surprise, as most top players enter the main lines of the Catalan with 4...Be7 5 Bg2 d5.

**5 Bg2 d5 6 Nf3 0-0 7 Qc2**

7 0-0 dxc4 leads to another body of theory and it has a very good theoretical reputation for Black.

**7...c5!**

There is a solid way of handling the position with 7...Be7 8 0-0 c6. Giri prefers the more concrete and active approach.

**8 cxd5**

8 dxc5 is another important line. After 8...d4 9 Bxb4 axb4 White has a choice:

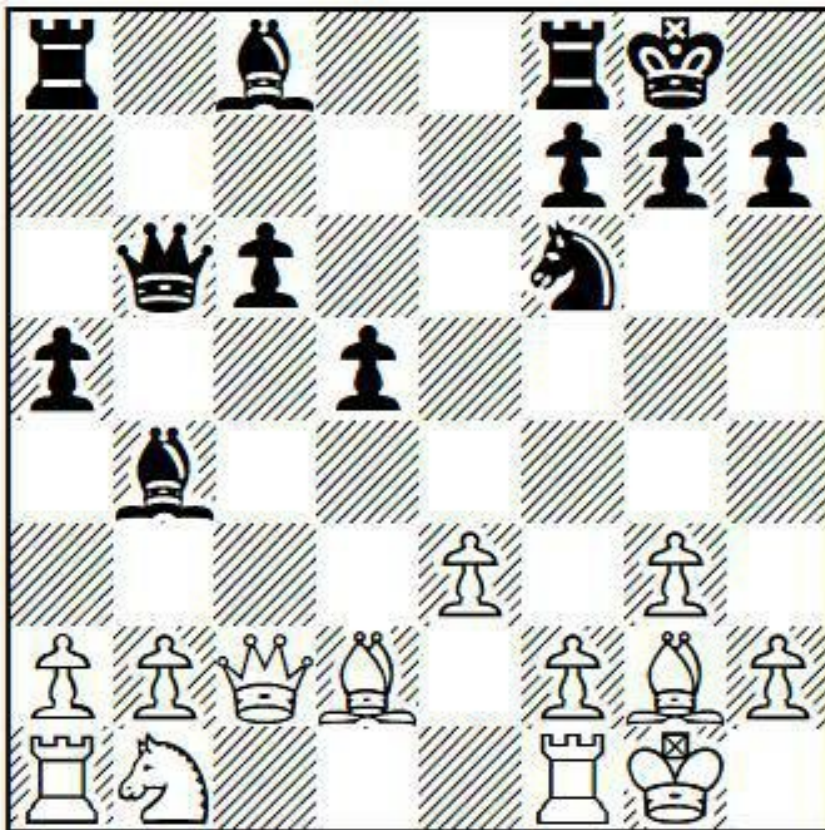
a) 10 0-0 Nc6 11 Nbd2 e5 12 Ng5 takes control of the e4-square, but 12... Qe7 13 Nge4 Nd7 and ...f5 next looks promising.

b) 10 Ne5!?! (intending Nd3 and holding on to c5) 10...Qc7 11 Nd3 Na6 12 Nd2 e5 13 0-0 Bf5 (13...h5!?! also makes sense, considering that White doesn't have a knight defending the h4-square) with a complicated middlegame. The extra c5-pawn is compensated by Black's strong central control.

**8...cxd4 9 Nxd4 Qb6! 10 e3**

Also playable is 10 Nf3 after which Black will have an isolated pawn structure instead of hanging pawns.

**10...exd5 11 0-0 Nc6 12 Nxc6 bxc6**



An important tabiya of this ...a5 Catalan line. It appears that Black's hanging pawns on c6 and d5 will become major targets, but there is an

important resource that Giri found to fight for counterplay.

### **13 Rc1**

The most logical move to attack the hanging pawns. There are two alternatives to consider:

a) 13 Bc3 Ne4! (13...Be7?! 14 Bd4 Qa6 15 Nc3 is an ideal position for White in this line because the hanging pawns are restrained) 14 Bxe4 dxe4 and the following lines demonstrate how Black's piece activity compensates for the poor pawn structure:

a1) 15 Qxe4 is not a free pawn, in view of 15...Bh3 16 Rc1 Bxc3 17 Nxc3 Qxb2 with equality.

a2) 15 a3 Ba6! (intending ...Bd3) 16 Bxb4 axb4 17 Rc1 Bd3 leads by force to an equal endgame after 18 Qxc6 Qxc6 19 Rxc6 Rac8 20 Rxc8 Rxc8 21 Nd2 Rc2.

a3) 15 Rc1 Bf5 16 Bxb4 (16 a3 Bxc3 17 Nxc3 Rfd8 18 Na4 Qb5 19 Nc5 Rd5 and Black's counterplay along the open b and d-files should make up for the weak c6-pawn) 16...axb4 17 Nd2 Rfd8 18 Nb3 Rd3 with a satisfactory position for Black.

b) 13 Nc3 Be6 (also possible is 13...Re8!? 14 Rfc1 h5 which may be more consistent with Giri's idea of playing for a kingside flank attack) is the most solid option, leading to a further split:

b1) 14 Na4 Qb5 15 Bc3 Ne4! 16 Rfc1 (16 Bxe4 dxe4 17 Bxb4 axb4 18 Nc5 Qc4 leads to an equal ending) 16...Bxc3 17 Bxe4 dxe4 18 Nxc3 Qh5 and the weak light squares on the kingside provide sufficient compensation in the following lines, 19 Qxe4 (or 19 Nxe4 Rad8 20 Nc5 Bh3) 19...Rab8 20 Qxc6 Rxb2 21 Rab1 Rb4 and the rooks can be activated on the c-file next, starting with ...Rc4.

b2) 14 Rfd1 makes it more difficult for Black to carry out ...c5, so instead 14...Rfc8 should be played. It is important that 15 Na4 Qa7 16 Bxb4 axb4 17 Nc5 does not secure the c5-outpost for the knight due to 17...Bf5! and the knight will not stay on c5 for long.

b3) 14 Rfc1 c5 15 a3 Bxc3 16 Bxc3 d4! 17 Be1 (17 Bxa8? loses to 17...dxc3 and ...cxb2, exploiting the positioning of White's rooks) 17...Rac8 18 Qd2 dxe3 19 Qxe3 Rfe8 with a sound position in H.Álvarez Villar-J.Rivas Maceda, correspondence 2018.

### **13...Rb8!**

Giri's idea is connected to some very interesting ...h5-h4! play.

We will also examine the surprising 13...Be6!? at the end of the chapter.

## **14 Bxb4**

Considering the novelty of Giri's 13th move, this is a very logical decision by Ding Liren, simplifying the position and playing for a slight advantage. However, Giri was obviously well-prepared and knew how to equalize comfortably. Others:

a) The critical 14 Nc3 will be examined in the next game.

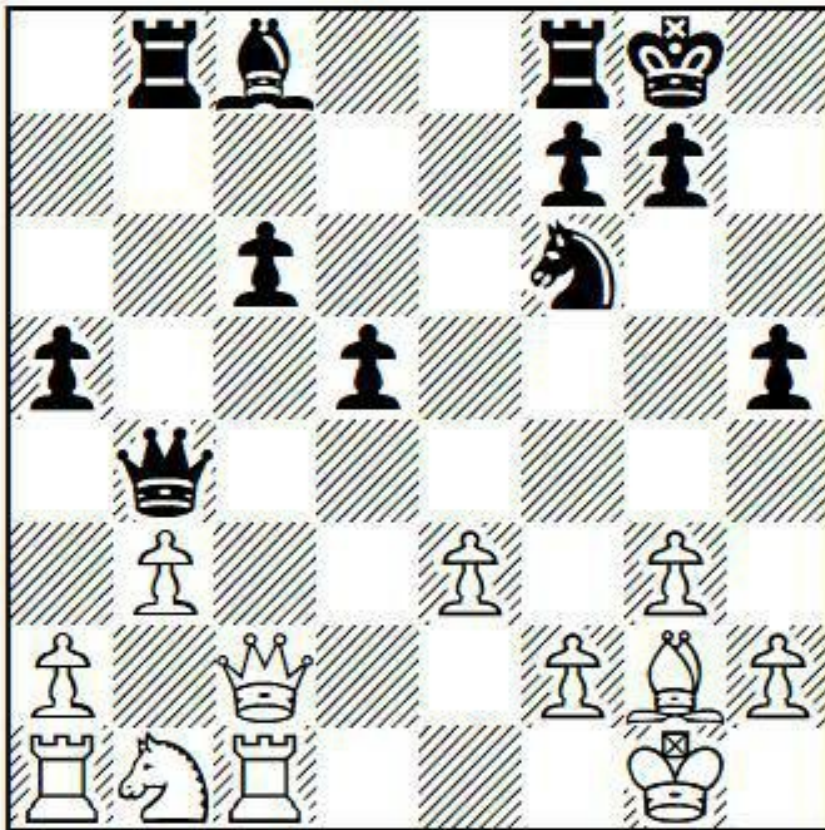
b) 14 Qxc6?! is completely harmless. After 14...Qxc6 15 Rxc6 Bxd2 16 Nxd2 Rxb2 17 Nb3 Ng4 Black has nothing to worry about.

c) 14 b3 Bd7 15 Nc3 Ba3! (15...h5?! runs into White's idea: 16 Na4 Qd8 17 Bxb4 axb4 18 Nc5 with unpleasant positional pressure) is a useful move, avoiding Na4 and Bxb4 while also taking away the c1-square from White's rooks. Play may continue:

c1) 16 Rd1 Bg4 17 Rf1 was seen in J.Cuenca Jimenez-F.Valenzuela Gomez, Barcelona 2021. Now a good idea is 17...Bh5! intending ...Bg6 next.

c2) 16 Na4 Qd8 17 Rd1 h5! reaches a complicated middlegame where Black's chances are not worse. He can develop with ...Re8, ...Bg4, and continue advancing the h-pawn.

**14...Qxb4 15 b3 h5!**



One of the key themes of Giri's 13...Rb8 line. Pushing the h-pawn takes advantage of the missing f3-knight and tries to provoke some light-squared weaknesses on the kingside.

Instead, 15...Be6 16 Nc3 c5 17 Ne2 Rfc8 18 Nf4 led to a pleasant middlegame for White in D.Fridman-A.Heimann, Dortmund 2021.

### 16 Nc3

Preparing Ne2-f4, where the knight prevents ...h3. The other development path for White's knight was likely also analyzed by Giri.

16 Nd2 Bd7 (16...h4? doesn't work out here because the knight can easily attack the pawn after 17 Nf3 h3 18 Bf1 Re8 19 Ng5 picking up the h3-pawn) 17 Nf3 Rfc8 18 Ne5 Qd6 19 Nxd7 Qxd7 looks like a long defensive task awaits Black at first glance, especially if White manages to put both rooks on the c-file. However, a drawn endgame quickly arises after the c-pawn advances, for example, 20 h4 c5 21 Rd1 c4! 22 bxc4 Rxc4 23 Qd3 g6 24 Bxd5 Qxd5 25 Qxd5 Nxd5 26 Rxd5 Rb2 and the resulting rook endgame is a

draw.

### **16...h4 17 Ne2 Bd7**

The hanging pawns on c6 and d5 appear to be weaknesses for Ding Liren to attack, but Giri obtains sufficient counterplay with his flank attacks. The h-pawn advance makes it much more difficult for White to target the hanging pawns on c6 and d5. For example, Ding Liren mentioned after the game that 18 Nd4 could be met by 18...h3!

### **18 Nf4**

18 Nd4?! h3! is very strong because the pawn cannot be easily targeted by White. Play continues 19 Bf3 Rfc8 20 Qc5 (with the queens on the board, Black could generate dangerous play on the kingside light squares; for example, 20 a3?! Qe7 21 Qc5 Qe8! 22 Rc3 Bg4 quickly becomes very dangerous for White) 20...Qxc5 21 Rxc5 a4 22 bxa4 g5 and Black has a pleasant endgame.

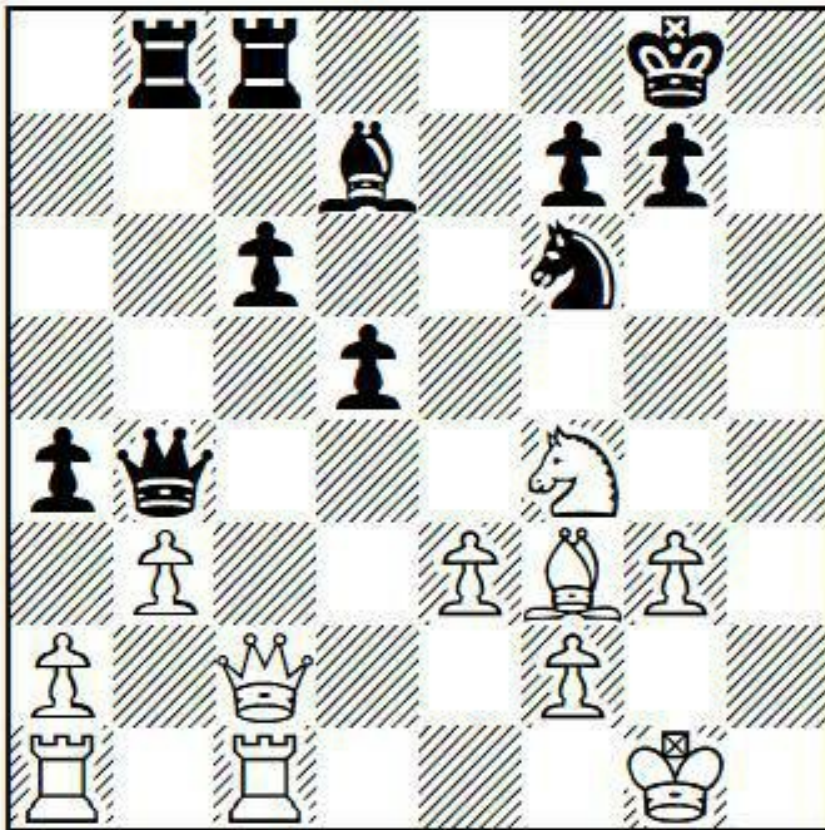
### **18...hxg3 19 hxg3 Rfc8**

19...Rfe8! may have been a better square for the rook, fighting for control of e5. After 20 Nd3?! Qg4 Black has kingside attacking ideas. It is very important that White has been prevented from playing Ne5.

### **20 Bf3**

20 Nd3 intending either Ne5 or Nc5 may have put Giri under a bit more pressure. Though after 20...Qg4 21 Ne5 Qh5 22 Nxd7 Nxd7 23 Rd1 Nf6 Black retains a very solid setup.

### **20...a4!**



Another flank advance liquidates the game into an equal endgame.

**21 bxa4 Ra8 22 Nd3 Qxa4 23 Qxa4 Rxa4 24 Nc5 Ra5 25 a4 Rca8 26 Bd1 Be8 27 Kf1 Kf8 28 Rab1 Ne4 29 Nxe4 dxe4 30 Rb7 c5 31 Bb3 R5a7 32 Rxa7 Rxa7 33 Ke1 Ke7 34 Ra1 c4 35 Bc2 Kd6 36 Kd2 Kc5 37 Kc3 Ra6 38 g4 g5 39 a5 Bc6 40 Ra2 Ra7 41 Ra1 Ra6 42 Ra2 Kd5 ½-½**

The following game was played in a (friendly) online match, but neither player shied away from a theoretical discussion. In fact, one of the critical lines of Giri's system is tested, where White tries to obtain a positional advantage while Black creates counterplay on the kingside. From this game, it appears that White cannot hope for much with Vidit's concrete approach and should consider deviating earlier to try for an advantage. One important alternative is covered on the note to White's 15th move, which leads to a complicated middlegame full of ideas for both sides.

## Game 18

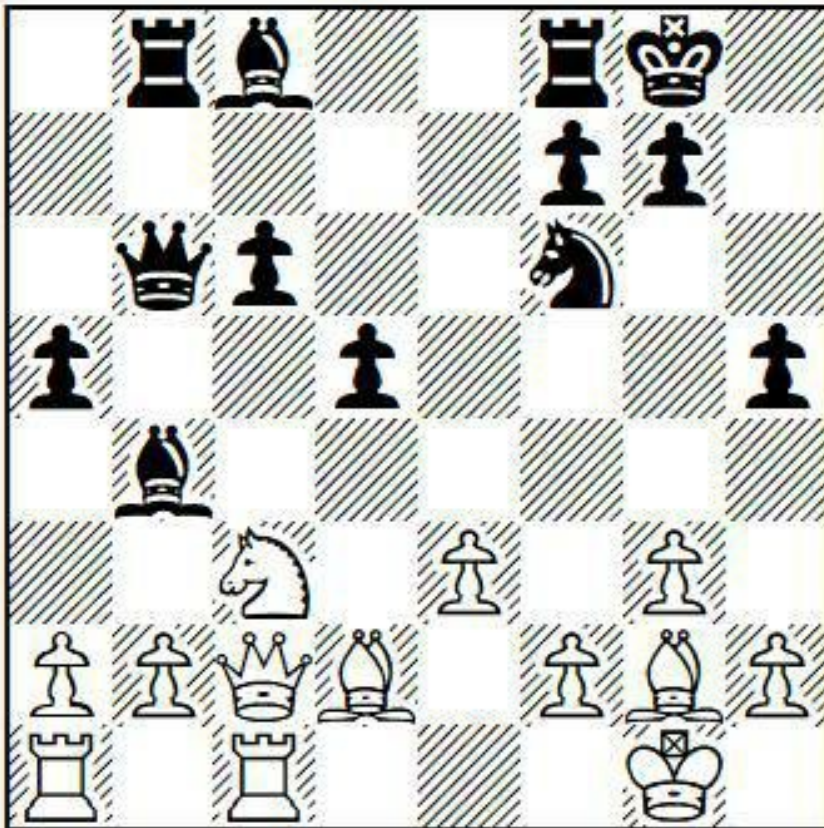
### S.Vidit-A.Giri

Giri-Vidit Match 2020 (rapid)

**1 d4 Nf6 2 c4 e6 3 Nf3 d5 4 g3 Bb4+ 5 Bd2 a5 6 Bg2 0-0 7 Qc2 c5 8 cxd5 cxd4 9 Nxd4 Qb6 10 e3 exd5 11 0-0 Nc6 12 Nxc6 bxc6 13 Rc1 Rb8 14 Nc3**

14 Nc3 is more ambitious than Ding's 14 Bxb4. The idea is to play Na4 and control the c5-square, when Black's hanging pawns will be blocked and weak.

**14...h5!**



As we saw in the previous game, the h-pawn advance is a very typical idea in Giri's line. In return for Vidit's positional pressure on the c-file, Giri plays for a kingside initiative and control over the light squares.

## 15 Na4

Alternatively, White can keep the bishops on the board with 15 a3 Be7 16 Na4 Qc7 and now:

a) 17 Nc5?! looks like a very natural choice, but it disregards Black's dangerous plan of advancing the h-pawn. In fact, the newer engines claim that Black already has a slightly favourable position because of ideas with ... h4-h3. After 17...h4 White has:

a1) 18 e4?! and in M.Andersen-M.Bluebaum, Karlsruhe 2020, instead of the immediate 18...Rb5, 18...h3! first would have created more difficulties for White. For example, 19 Bf3 Rb5 20 Be3 Bg4 and White's light squares will be under a lot of pressure.

a2) Stronger was 18 b4 securing the c5-square for the knight. Following 18...h3 19 Bf3 axb4 20 axb4 Qe5!? preparing ...Bf5 provides a very comfortable position.

b) 17 Qxc6 forces a roughly balanced endgame after 17...Qxc6 18 Rxc6 Bd7 19 Rc7 Bd8 20 Rxd7 Nxd7 21 Rd1 (21 Bxd5 Bf6 is also equal) 21... Nb6 22 Nxb6 and in R.Makarian-R.Hovhannisyan, internet 2021, 22...Rxb6 23 b4 axb4 24 Bxb4 Re8 followed by ...Be7 leads to equality.

c) 17 h4 may be White's most challenging try. It is often the case that the inclusion of ...h5 and h4 should be avoided by White due to the weak g4-square, but here Black's h-pawn advance is simply too dangerous. Play continues 17...Re8 18 Bc3 (intending Bd4 and Nc5 is a plan that Black must be met energetically) 18...Ng4! (18...Be6?! 19 Bd4 Ne4 20 Bxe4 dxe4 21 Nc5 with a clear positional edge in R.Makarian-R.Hovhannisyan, internet 2021) 19 Bd4 Qd8! and there are ideas of ...Bxh4 to create counterplay in this dynamic middlegame.

## 15...Qd8 16 Bxb4 Rxb4 17 b3?!

Alternatively:

a) 17 Nc5?! is a tempting but poor move because it doesn't stop Black's h-pawn: 17...h4 18 a3 Rb8 19 Qd2 h3 20 Bf1 Re8 with a slight edge because of White's weakened kingside light squares.

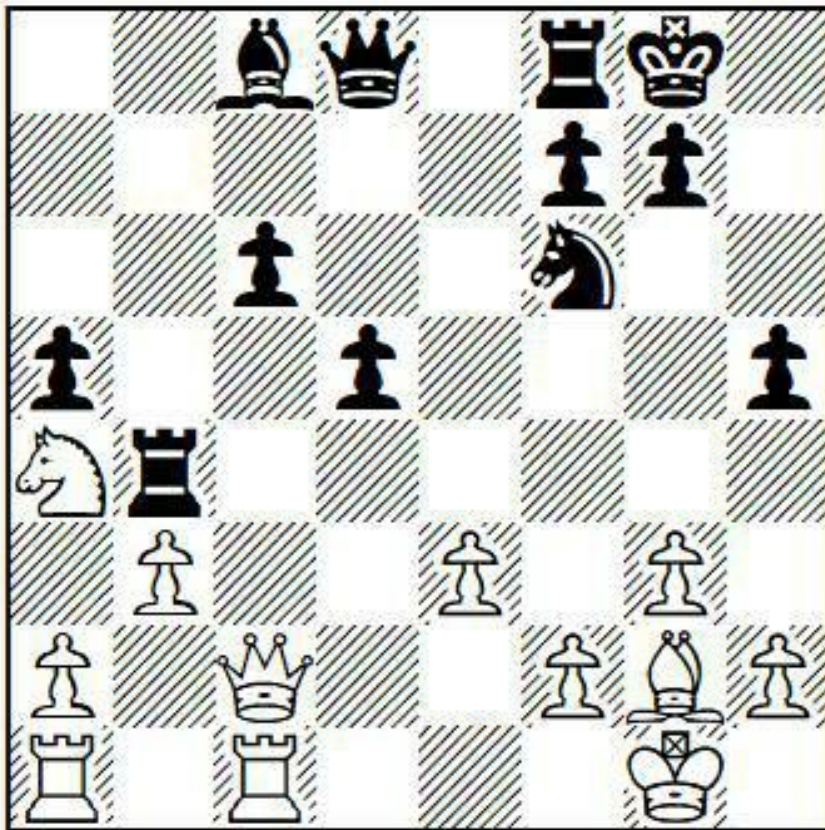
b) 17 a3 Rc4 18 Qb3 (18 Nc3 Bd7 19 b3 looks tempting to misplace the rook, but after 19...Rc5 Black will follow up with ...Qe7 and advance the h-pawn, when the c5-rook cannot be easily taken advantage of) 18...Rxc1+ 19 Rxc1 h4 leads to a sharp middlegame:

a) 20 Nc5 Re8 21 Qc3 h3 22 Bf1 Bg4 is roughly balanced, White has some weak squares on the kingside, while Black has some weaknesses on the

queenside.

b) 20 Qb6 h3 21 Bf1 Bg4 22 Qd4 Ne4 with active piece play. Next the major pieces will be activated (...Qe7 and ...Rb8).

c) 20 Rxc6 d4! 21 exd4 h3 22 Bf1 Ne4! With excellent attacking chances on the light-squares.



**Question:** Why is 17 b3 inaccurate?

**Answer:** Although 17 b3 is a very natural move, preventing ...Rc4 and threatening Qxc6, it does nothing to prevent Black's main plan of advancing the h-pawn. Additionally, the b4-rook remains on its outpost, where it may contribute to the kingside attack.

**17...h4**

Vidit has played very sensible moves so far, but Giri suddenly starts to seize the initiative and demonstrates the potential of the h-pawn advance.

**18 Qxc6 h3! 19 Bh1 d4!**

Threatening ...dxe3 to weaken White's kingside. Giri is also preparing ... Bb7 and the exchange of bishops, which would severely weaken White's kingside light squares.

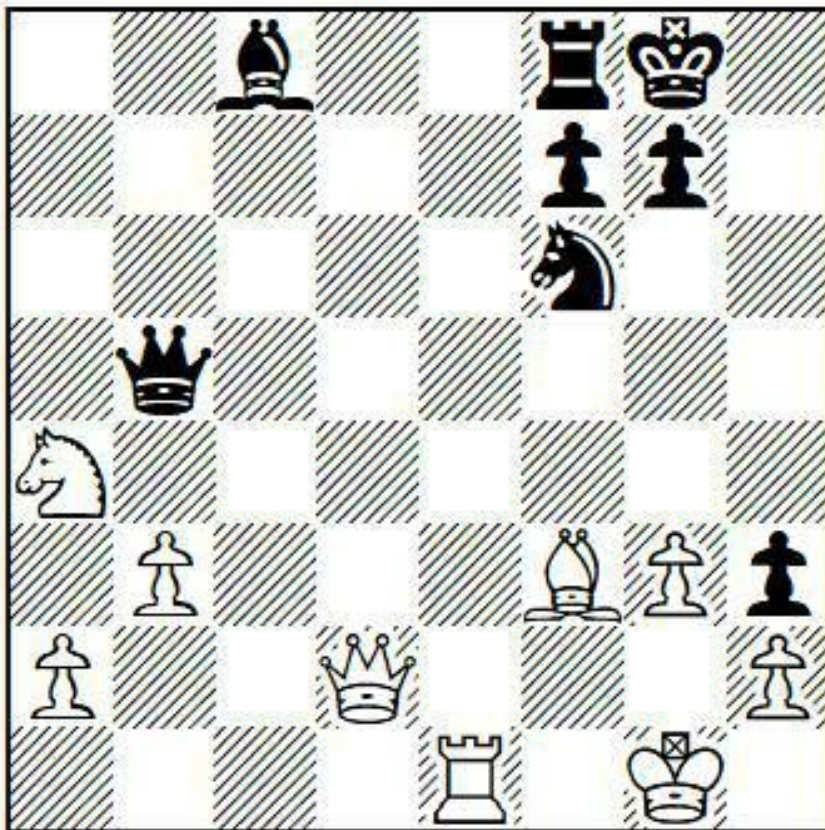
**20 Qc7 dxe3 21 fxe3 Qe8!**

Targeting the e3-pawn.

The tempting 21...Qd2 is met by 22 Qc3 and the Black queen would have to retreat.

**22 Re1 Re4 23 Qxa5 Rxe3 24 Qd2 Rxe1+ 25 Rxe1 Qb5 26 Bf3**

Only now does the pressure caused by the short time control affect the quality of Giri's play. The earlier part of the game was an excellent display of strong preparation followed by active play.



**Exercise:** How should Black continue the attack?

**26...Bb7?**

**Answer:** 26...Bg4! was very strong, exchanging one of White's most

important defenders. 27 Nc3 Qc5+ 28 Qe3 Qh5! (an important difference between 26...Bg4! and 26...Bb7: the bishop is well-supported on g4) 29 Bxg4 Nxg4 and White's kingside will be extremely difficult to defend because it is filled with holes.

**27 Nc3 Qc5+ 28 Qe3 Qb4?!**

28...Qc7 29 Bxb7 Qxb7 30 Ne4 and White manages to cover the weak light squares surrounding his king.

**29 a3! Qxb3 30 Rb1 Qc2 31 Bxb7 Re8 32 Qc1 Qd3 33 Rb2?**

33 Rb4! would have kept all the entry squares covered.

**33...Ng4 34 Qd2?**

The final mistake, undoubtedly caused by the lack of time.

**34...Qxd2 0-1**

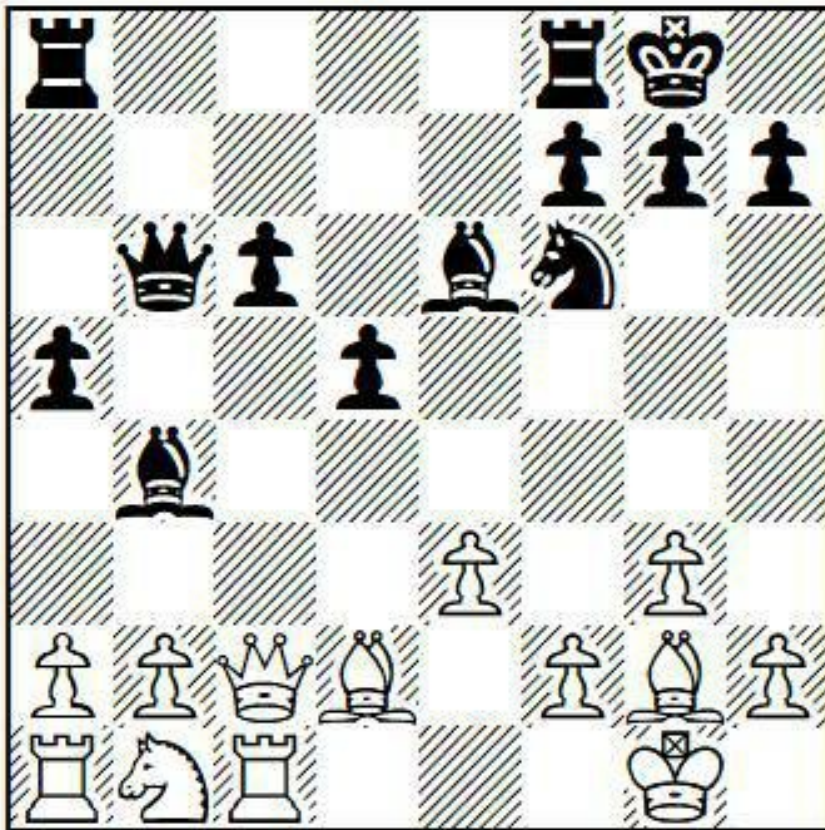
The final game of this chapter examines an exciting alternative to Giri's 13... Rb8. The arising material imbalance is much easier to analyze with the neural network engines because they have a better understanding of Black's defensive possibilities (fortresses) and do not overestimate White's material advantage. Paravyan demonstrates all the advantages in Black's position by using his bishop pair effectively and creating a powerful passed b-pawn. However, the positions are very double-edged with many dangers for both sides. On the note to Black's 21st move, we will see a game where Karjakin quickly seizes kingside space and scores a crushing victory.

### *Game 19*

#### **Z.Tsydypov-D.Paravyan**

Top 16 Rapid Grand Prix 2020 (rapid)

**1 d4 Nf6 2 c4 e6 3 Nf3 d5 4 g3 Bb4+ 5 Bd2 a5 6 Bg2 0-0 7 Qc2 c5 8 cxd5 cxd4 9 Nxd4 Qb6 10 e3 exd5 11 0-0 Nc6 12 Nxc6 bxc6 13 Rc1 Be6!?**



A very interesting idea, completely ignoring the hanging c6-pawn and trying to unbalance the game. From a theoretical perspective, I don't see a good reason to deviate from Giri's 13 ... Rb8! as we saw in the previous games. However, 13 ... Be6!? may be a strong surprise weapon, leading to very fresh and creative middlegame positions.

#### **14 Qxc6**

14 Nc3 is much less challenging because it allows the hanging c6 and d5 pawns to advance. After 14 ... c5 15 a3 Bxc3 16 Bxc3 d4 17 Be1 Rac8 Black is perfectly fine.

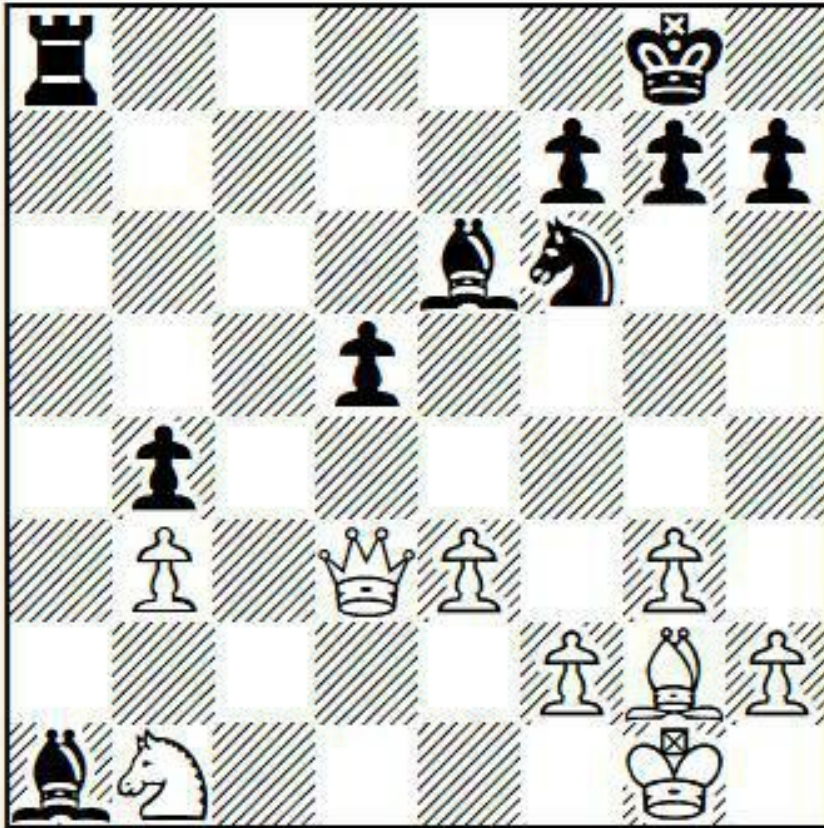
#### **14 ... Bxd2!**

The point of Black's idea, giving up the queen in return for a bishop and rook.

14 ... Qxc6 15 Rxc6 Rfb8 16 Bxb4 Rxb4 17 b3 with an extra pawn for White.

#### **15 Qxb6 Bxc1 16 Qd4 Rfb8 17 b3 Rb4 18 Qd3**

18 Qd1 leads to a similar position, but the queen is better placed on d3.  
18 ... Bb2 19 a3 Bxa1 20 axb4 axb4



The forcing play has concluded and we have reached the critical position of this 13 Rc1 Be6!?! line, where White has a queen for a rook and bishop.

**Question:** What are the plans for White and Black?

**Answer:** White will try to expand rapidly on the kingside. Meanwhile, Black should try to slow down White's advance and play for counterplay on the queenside, as Paravyan does successfully in the game.

**21 h3**

In view of 21 h3 h5!, it makes sense to consider the direct 21 g4! Rc8 22 Nd2 (22 Bf3!?! intending Kg2 is another serious attempt at putting pressure on Black) 22 ... h6 23 h3 Rc1+ 24 Nf1 Bc3 leads to a very complicated endgame. Black has ideas of creating queenside counterplay with ... d4 followed by ... Bxb3.

## **21 ... h5!**

Halting White's kingside expansion.

S.Karjakin-M.Matlakov, Moscow 2020, saw 21 ... h6 22 f4! and now:

a) 22...Rc8? 23 Nd2 Rc1+ 24 Nf1 Bc3 25 f5 (this is why White shouldn't be allowed to advance the kingside pawns so easily; Black's d5-pawn falls and the queen becomes extremely active) 25 ... Bd7 26 Bxd5 Be5 27 g4 and Karjakin went on to win without any difficulties.

b) 22 ... g6! was a much better attempt to slow down Karjakin's kingside play, but 23 g4 Kg7 24 f5 looks very dangerous, opening up Black's kingside and kicking away the e6-bishop. Still, there are some defensive resources, for example, 24 ... gxf5 25 gxf5 Bd7 26 Bxd5 Ra5! 27 e4 Bxf5 with good drawing chances.

## **22 Nd2**

White should consider gaining kingside space anyway:

a) 22 f4?! is quite poor because 22 ... g6 23 g4 hxg4 24 hxg4 Nxc4 targets the weakened e3-pawn. b) 22 g4!? gives Black a choice:

b1) 22 ... hxg4 23 hxg4 Nxc4 24 Qb5! and Bxd5 or Qxb4 next.

b2) 22 ... g6! 23 g5 Ne4 (giving up the d5-pawn in return for a favourable trade of minor pieces) 24 Bxe4 dxe4 25 Qxe4 Rd8 26 Kh2 Bc3 and the bishop pair should provide reasonable compensation.

## **22 ... Bc3 23 Qc2?!**

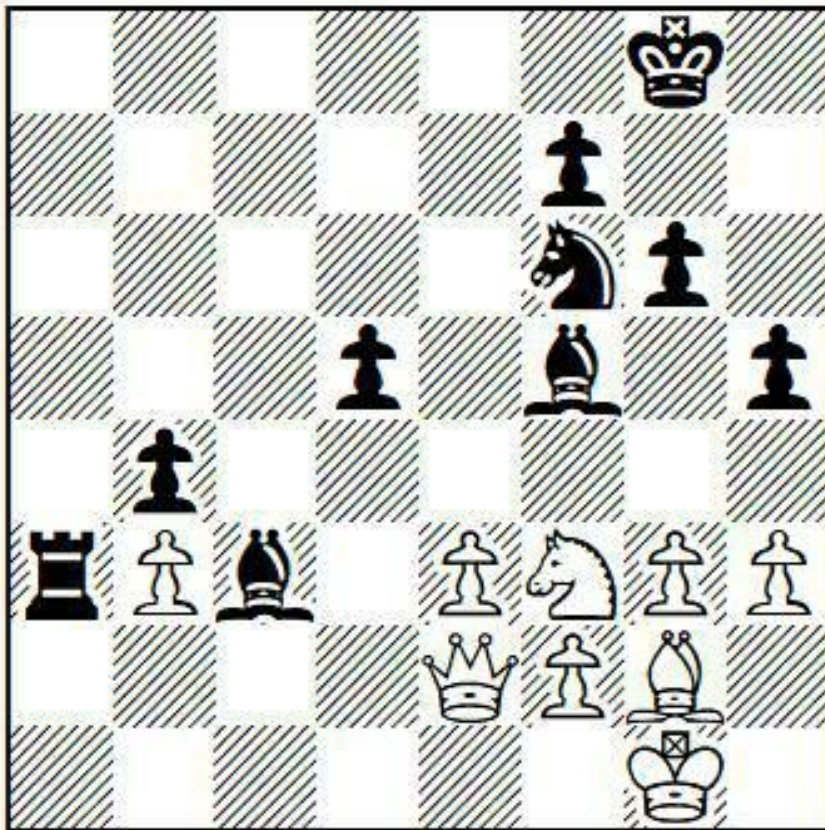
A passive square for the queen, which is exploited by Paravyan's next move.

23 Nf3 was a much better try, but Black still obtains some counterplay based on White's f2-pawn after 23 ... Ra1+ 24 Kh2 Ne4.

## **23 ... g6!**

Preparing ... Bf5 and the b3-pawn will lack defenders.

## **24 Nf3 Bf5 25 Qe2 Ra3**



The b3-pawn cannot be defended, so White must seek counterplay.

**26 Nd4?**

Eliminating Paravyan's bishop pair advantage, but Tsydypov does not obtain sufficient counterplay to deal with the passed b-pawn. The alternatives were preferable:

a) 26 Ng5! opens up the diagonal for the g2-bishop. 26 ... Rxb3 (26 ... Ra5! maintains the balance, preventing White from playing Qb5) 27 Qb5 and Bxd5 next, targeting the vulnerable f7-pawn.

b) 26 Qb5 was also stronger than the game continuation, following 26... Ra1+ 27 Kh2 Ra2 attacking f2 should lead to a repetition after 28 Kg1 Ra1+.

**26 ... Bxd4 27 exd4 Rxb3 28 Qe5?**

The decisive mistake in a difficult position. Instead of going after the d5-pawn, it was better to advance the kingside pawns.

28 f3! Rb1+ 29 Kh2 b3 30 g4 and White should be okay after his kingside pawns continue advancing, although the passed b-pawn still looks very

dangerous.

**28 ... Kg7 29 Bxd5 Rb1+ 30 Kg2 b3 31 g4**

Despite winning the d5-pawn, there isn't much White can do to stop the b-pawn.

**31 ... hxg4 32 hxg4 Bxg4 33 Be4 Re1 34 f3 b2 35 Qb5 Nxe4 36 Qxb2 Bh5 37 d5+ Nf6 38 Qd4 Re8 39 d6 g5 40 Kg3 Bg6 41 Qc3 Bf5 42 Qd4 Kg6 43 Qb6 Re2 44 d7 Bxd7 45 f4 g4 46 Qd6 Bf5 47 Qb6 Rd2 0-1**

## **Review of Chapter Two**

1. The Catalan's strategic and tense middlegames, as well as the sharp pawn sacrifices have been influenced by the newer engines. This is because of their clear understanding of both sides' strategic aims and greater appreciation for long-term compensation.
2. Neural network engines have introduced new setups and plans for both sides, even at the earliest stages of the game. In particular, the ideas that Giri showed against Ding Liren (Game 17) have significantly impacted the Catalan by providing Black with another viable and dynamic system.
3. The h-pawn advance in the Grünfeld carries over to other openings (including the Catalan), as long there is a similar pawn structure and placement of pieces on the kingside.
4. It is essential to understand the ideas behind the engine's recommendations and get to the essence of a position. Otherwise, analyzing with an engine can be very misleading and potentially have negative effects. Engines also aren't great at reflecting the practical difficulties in dynamic positions. We will discuss these issues further in Chapter 8.

## **Additional Material**

Daniil Dubov-David Anton Guijarro, Airthings Masters Preliminaries (rapid) 2020

Vidit Santosh Gujrathi-Nikita Vitiugov, Prague Masters 2019

Anish Giri-Vishwanathan Anand, Zagreb GCT (rapid) 2021

Mads Andersen-Matthias Bluebaum, Bundesliga Final 2020

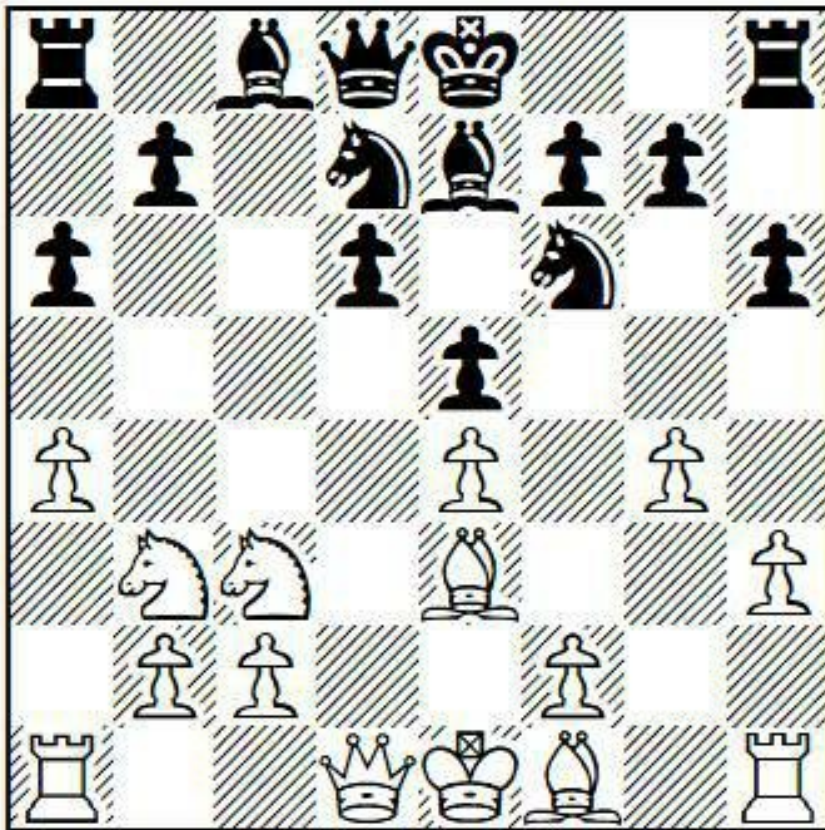
Radoslaw Wojtaszek-Magnus Carlsen, World Cup (rapid) 2021

# Chapter Three

## The Najdorf

The Sicilian Najdorf is not the first opening that comes to mind when considering the impact of neural network engines. Its dynamic and concrete nature suggests that the older engines' brute-force calculating abilities would be enough to properly analyze the opening. However, the modern engines are capable of bringing long-term strategic ideas into the sharpest positions. This is because in addition to their deep strategic planning skills, they have the calculation power to work out the concrete details and make the plans work.

This chapter focusses on new ideas in three big main lines of the Najdorf: 6 h3, The English Attack (6 Be3 or 6 f3), and 6 Bg5. The first two games of the chapter are clear examples of how the newer engines use their incredible strategic thinking to bring fresh ideas into a previously unknown line of the Najdorf. The system is based around creating long-term problems for Black by attacking on both sides of the board. Since 2019, Carlsen, Caruana, and many other strong grandmasters have given it a try with the White pieces.



Opening theory moves forward at an incredible rate these days, and Najdorf players quickly adapted to the problems posed by this new system by finding AI-influenced ideas of their own, as we will see in Games 22 and 23.

Another example of the neural network engines' impact on the Najdorf is Game 26 between Sergey Karjakin and Jan-Krzysztof Duda. In that game, Karjakin employs a new pawn sacrifice in the razor-sharp Poisoned Pawn variation and achieves tremendous long-term compensation.

### **Attacking on Both Flanks**

The idea of pushing both g4 and a4 in the Najdorf is a risky plan because there is no safe place for the White king. However, the neural network engines argue that this ambitious plan has a lot of potential in the long run because Black can be positionally squeezed on both sides of the board. In the first game, Ganguly struggles to find a good plan against this approach, and

by move 19 Carlsen achieves an ideal setup.

### Game 20

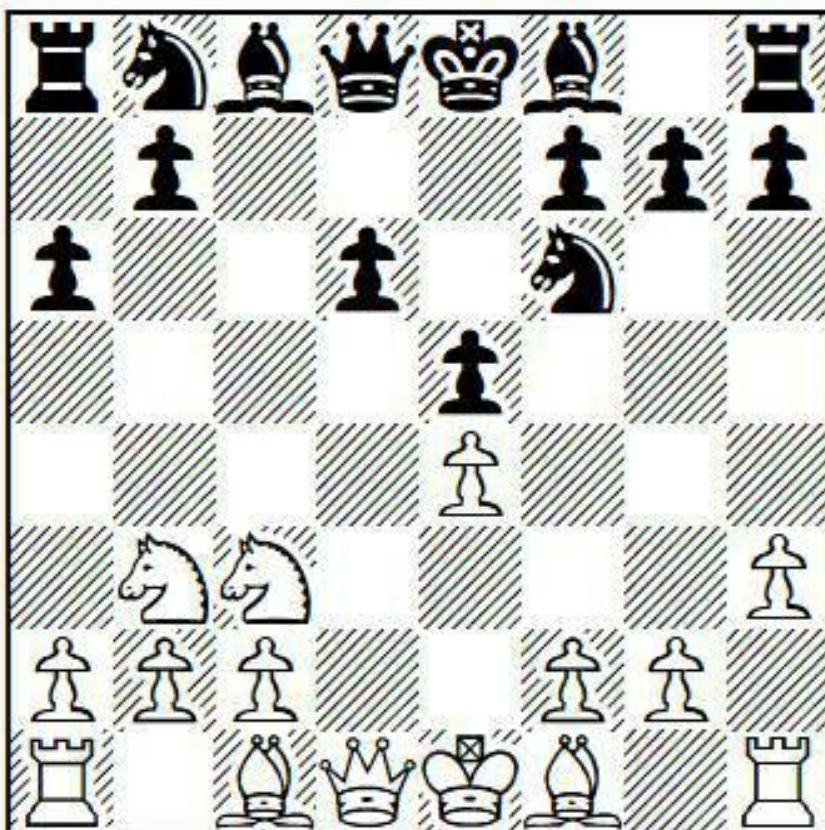
**M.Carlsen-S.Ganguly**

FIDE Grand Swiss 2019

**1 e4 c5 2 Nf3 d6 3 d4 cxd4 4 Nxd4 Nf6 5 Nc3 a6 6 h3 e5 7 Nb3**

In recent years, this retreat is overtaking 7 Nde2 as the main line of the 6 h3 variation.

There is also a third retreat: 7 Nf3 Be7 8 g4!? as played in A.Giri-M.Vachier Lagrave, Wijk aan Zee 2021.



**7 ... Be7**

7 ... Be6 8 f4 leads to another tabiya. Delaying the development of the

light-squared bishop by playing 7 ... Be7 is more popular these days as then f4-f5 is not really a threat.

### **8 g4**

Before 2019, this move was significantly less popular than 8 Be3, and for good reason. If it were not for an important Lc0-inspired idea in the main line of 8 g4, Black would have absolutely no problems. Others:

a) 8 Be3 used to be the main trend, when 8 ... Be6 is met by either 9 f4 or 9 Qf3. These lines remain viable setups for White, but attention has shifted to 8 g4.

b) 8 f4?! doesn't make sense here because there is no bishop on e6 to attack with f5, 8 ... 0-0 followed by ... b5 is already better for Black.

### **8 ... h6**

8 ... b5?! was tried in F.Caruana-I.Nepomniachtchi, Saint Louis 2019, but it is risky to allow White to gain kingside space and take control of the d5-square. Following 9 g5 Nfd7 10 Be3 Nb6 11 Nd5 the opening has clearly gone in White's favour. An important point is seen after 11 ... N8d7 12 Nxe7 Qxe7 when White can make his opponent's life very unpleasant with 13 Na5! and it is difficult to see how Black will manage to develop his pieces or create counter chances.

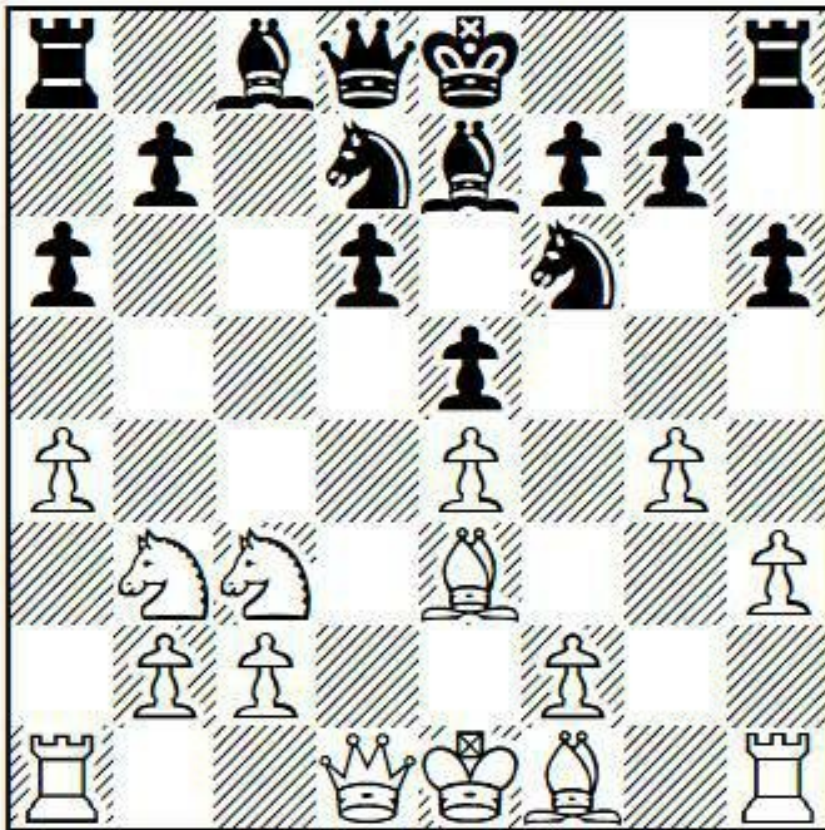
### **9 Be3 Nbd7**

The most popular continuation, played with the idea of quickly developing the queenside ( ... b5 and ... Bb7). Alternatives:

a) 9 ... Be6 10 Qf3 is another way for the game to develop, but 9 ... Nbd7 and 9 ... b5 are the main trends so we will focus on these.

b) 9 ... b5 was employed by Carlsen near the end of 2019 in a rapid game against Wesley So, which we will examine in the game after next game.

### **10 a4!**



**Question:** What are the advantages and disadvantages of playing 10 a4?

**Answer:** The main disadvantage of combining g4 and a4 was mentioned by Carlsen after the game: White lacks a safe place for his king. However, as the modern engines show, 10 a4 is a very challenging idea for Black to face, as long as White is careful to deal with queenside counterplay in the middlegame. The main advantage of gaining space on the queenside is to restrain Black's queenside play and create problems for the opponent on both sides of the board.

The way that an older engine may approach this position is shown after 10 f3 b5 and now:

a) First of all, 11 Qd2?! is way too slow because Black obtains a clear advantage after 11 ... Bb7 and ... d5 is coming. For example, 12 a3 d5 13 exd5 b4! 14 axb4 Bxb4 followed by ... Nxd5.

b) 11 a4 bxa4 12 Rxa4 Nb6 13 Bb5+ aims to disrupt Black's piece

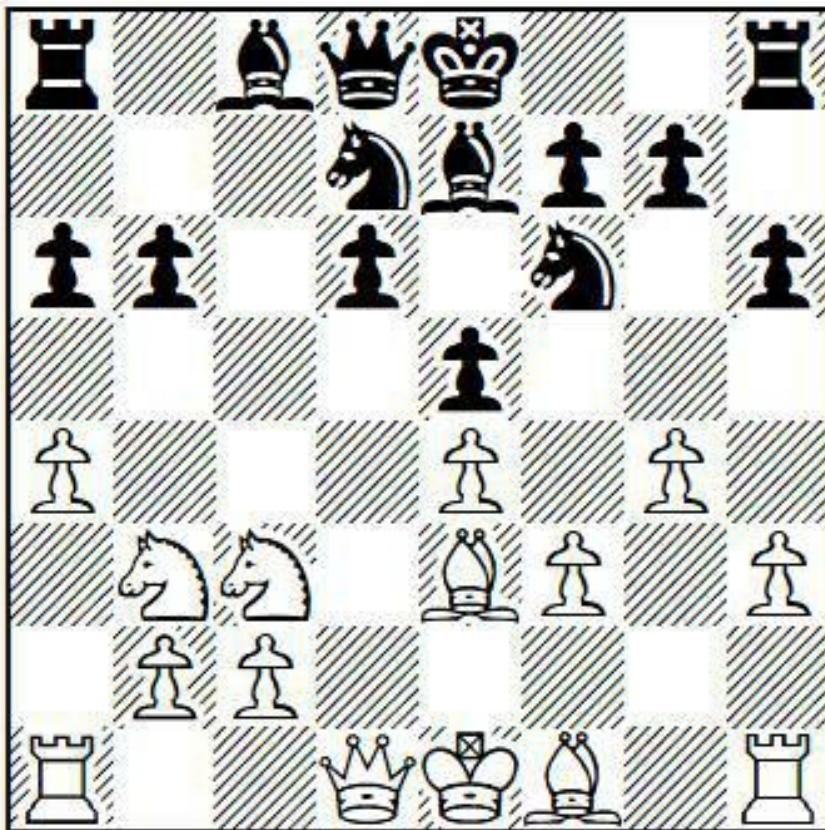
coordination, but 13 ... axb5! is a powerful exchange sacrifice. This is seen after 14 Bxb6 Qxb6 15 Rxa8 0-0 when Black obtains the bishop pair and White is left with weakened kingside dark-squares. Additionally, ... b4 followed by ... d5 may be an idea in the future.

### 10 ... b6

10 ... Nf8! is an improvement that was heavily contested in a match between Lc0 and Stockfish. We will look at it in the next game.

### 11 f3

Considering how Black has an opportunity to gain counterplay after Carlsen's move, the following development scheme was more effective for White: 11 h4! Bb7 12 Bg2 Rc8 (threatening ... Rxc3) 13 Nd2 when Qe2 and g5 are coming soon. Most importantly, counterplay with ... d5 is much more difficult for Black to carry out.



### 11 ... Qc7?!

11 ... Bb7! followed by ... d5 was suggested by Carlsen. White has:

a) 12 Qd2 12 ... d5! 13 Nxd5 (13 exd5?! is met by 13 ... Bb4) 13 ... Nxd5 14 exd5 Bh4+ (exchanging off White's good e3-bishop) 15 Bf2 Bxf2+ 16 Qxf2 Bxd5 17 0-0-0 leads to a double-edged middlegame. Although the a4-pawn looks like a major weakness after 17 ... Bc6, White will quickly develop kingside play with 18 Rg1 followed by advancing the pawns.

b) 12 Bc4 prevents ... d5 but the bishop is a bit loose on c4. For example, 12 ... 0-0 13 Qe2 Qc7 14 h4 Rfc8 and Black obtains great counterplay. The following pawn sacrifice illustrates this: 15 Nd2 b5! 16 axb5 axb5 17 Rxa8 Rxa8 18 Nxb5 Qc8 19 0-0 d5 with full compensation.

### **12 h4**

First castling with 12 Qd2 Bb7 13 0-0-0 may have been more accurate to restrain the d6-pawn.

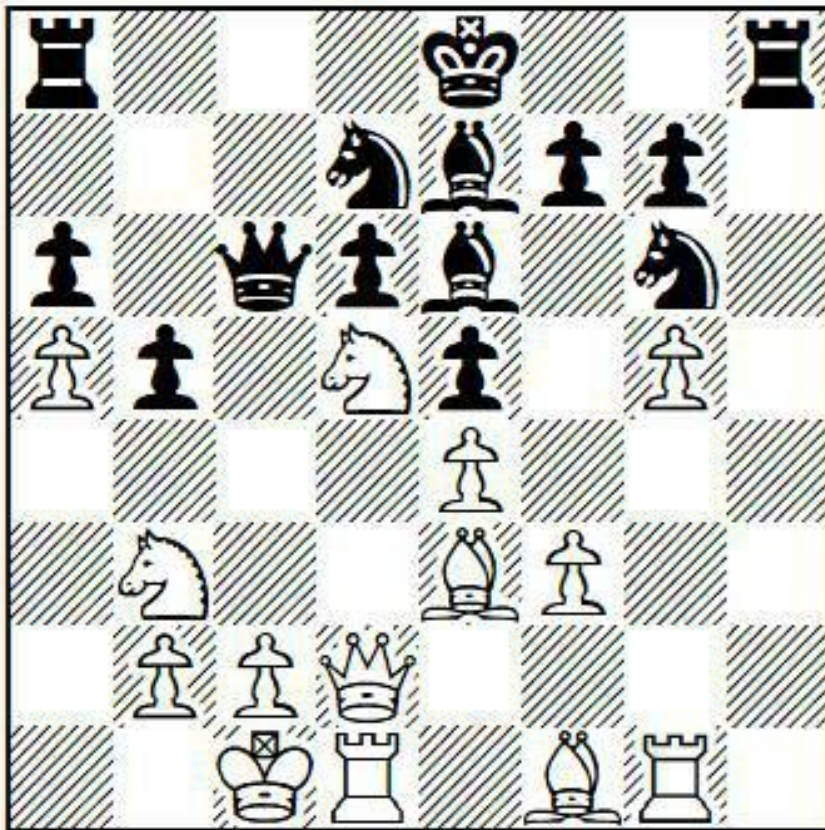
### **12 ... Nf8?!**

It was not too late to try for counterplay with ... d5 by playing 12 ... Bb7 13 Qd2 Rd8 14 0-0-0 d5! 15 exd5 Bb4 and at least here Black has managed to create some activity.

### **13 Rg1 Be6**

Ganguly seems to have combined several plans ( ... b6, ... Qc7, and ... Nf8). This loss of time allows Carlsen to seize control of the important d5-square.

**14 g5 hxg5 15 hxg5 N6d7 16 Nd5 Qc6 17 Qd2 Ng6 18 a5! b5 19 0-0-0**



**Question:** How would you assess this position?

**Answer:** This position illustrates exactly what White aims for in this 10 a4 line:

1) Black's pieces are very cramped because both of his knights have no where to go. The a5-pawn prevents most ideas for counterplay on the queenside.

2) White's knight is incredibly strong on d5.

3) White has made progress on the kingside and can prepare f4.

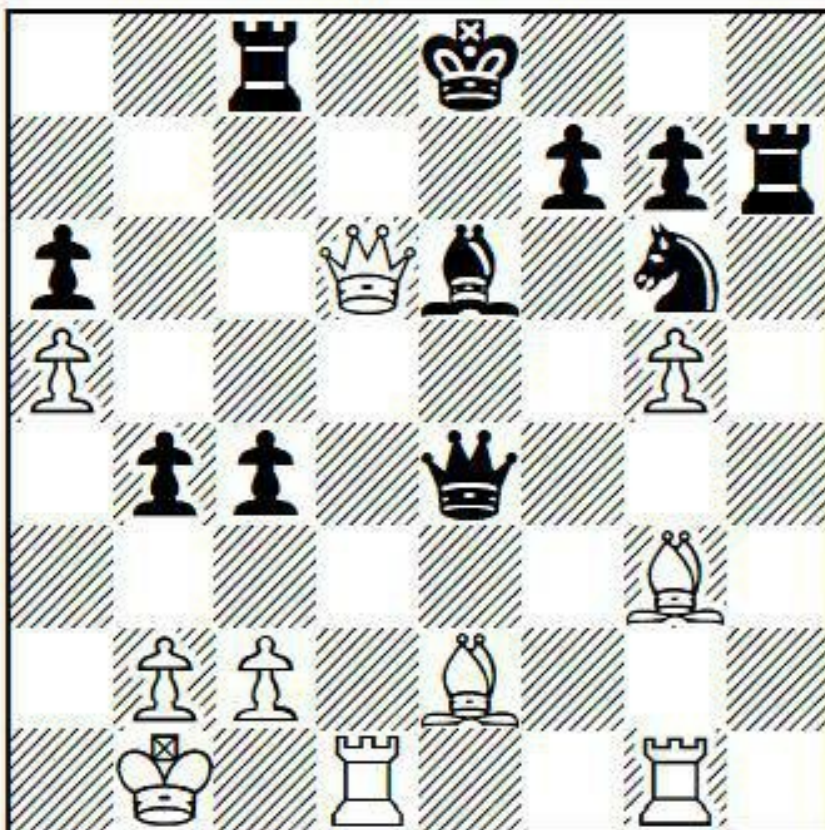
**19 ... Rc8 20 Kb1 Nc5 21 Be2 Bd8**

Threatening ... Nxb3 followed by ... Bxa5! and ... Qc2. Therefore, Carlsen seizes the moment and breaks through.

**22 Nxc5 dxc5 23 f4!**

The decisive opening of the centre, after which Ganguly never has the chance to come back into the game.

23 ... exf4 24 Bxf4 Be7 25 Nxe7 Kxe7 26 Bd6+ Ke8 27 Qc3 Rh7 28 Bg3  
 b4 29 Qd3 c4 30 Qd6 Qxe4



**31 Rd4**

Carlsen is careful to avoid any counterplay, for example, 31 Rge1? runs into 31 ... b3 32 Bd3? cxd3!

**31 ... Qb7 32 Qb6 Qa8 33 Rgd1 Rh1 34 Be1 Ne5 35 Bxb4 Rxd1+ 36 Rxd1 Qc6 37 Qe3 Qb5 38 Bc3 Rc5 39 b4 Nd3 40 cxd3 Rd5 41 dxc4 1-0**

The following game is an interesting clash of styles between the older and newer engines. In the same variation of the Najdorf, Stockfish plays an improved defensive setup and has complete confidence in the solidity of its position. Then, once Lc0's plans become clear after move 20, Stockfish finally understands how unpleasant its position is. Similarly to the Carlsen-Ganguly game, Lc0 created pressure on both sides of the board and completely squeezed Black's position.

## Game 21

### Lc0-Stockfish

TCEC 2019

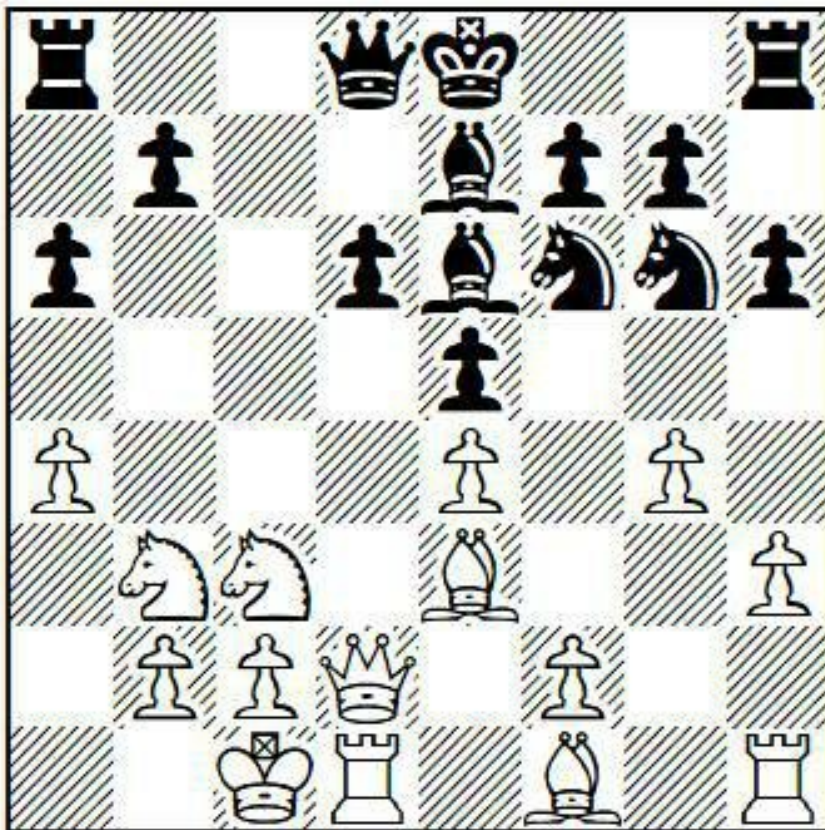
**1 e4 c5 2 Nf3 d6 3 d4 cxd4 4 Nxd4 Nf6 5 Nc3 a6 6 Be3**

Lc0 differs slightly from the move order which Carlsen played in the previous game: 6 h3 e5 7 Nb3 Be7 8 g4 h6 9 Be3.

**6 ... e5 7 Nb3 Be7 8 h3 h6 9 g4 Nbd7 10 a4 Nf8!**

An improvement over the previous game's 10 ... b6.

**11 Qd2 Be6 12 0-0-0 Ng6**



Looking at the diagram, it's not difficult to understand why this line (beginning with 8 g4 and specifically 10 a4!) was hardly seen at the top level before the newer engines. The pawn on a4 appears to be much more of a

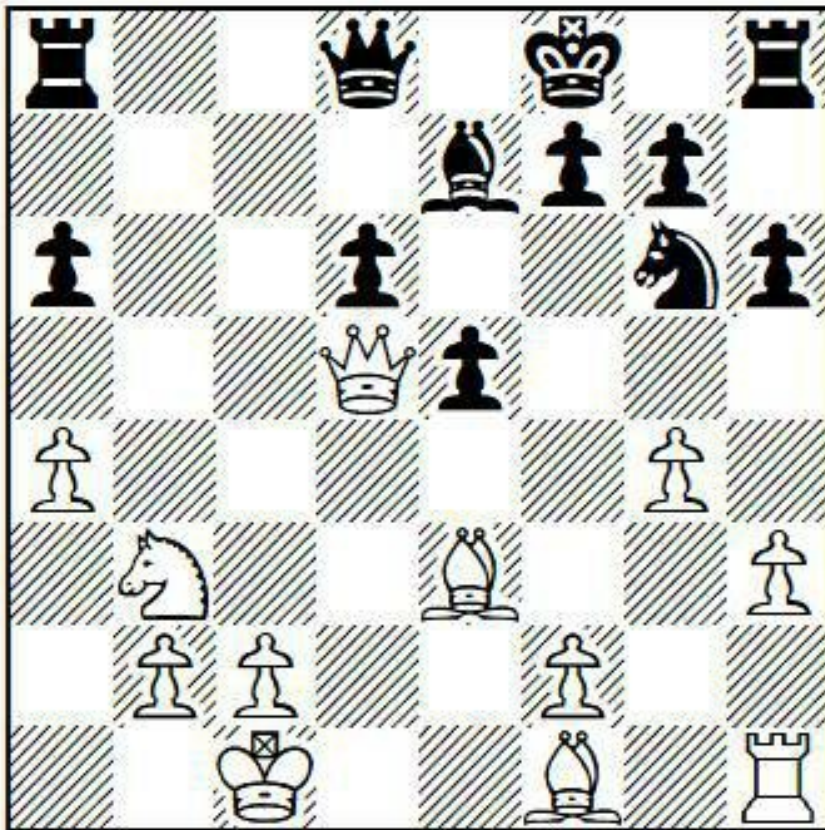
weakness than a strength, as well as a potential target for Black. Also, Black's setup on the kingside is very solid, making it difficult to see how White can advance the h and g-pawns. In fact, White isn't intending to play much on the kingside. Now that Black's knight is over on g6, White wants to gain space and squeeze the opponent on the queenside. This game between Lc0 and Stockfish is a great illustration of White's main plans.

### **13 f3**

13 Nd5!/? is also interesting. One of the key ideas in this line is to play Qb4 and put pressure on the opponent's queenside pawns. Black has:

a) 13 ... Bxd5 14 exd5 0-0 15 Qb4 Qc7 16 a5 and the bishop pair and queenside space provided White with a positional advantage in M.Boulanger-S.Brault, ICCF 2020.

b) 13 ... Nxe4 14 Qb4 giving up the e4-pawn turns out to be playable because of the exchange sacrifice that occurs after 14 ... Bxd5 15 Rxd5 Nf6 16 Qxb7 Nxd5 (16 ... 0-0 17 Ra5 and Black's queenside falls apart) 17 Qc6+ Kf8 18 Qxd5 reaching an interesting position.

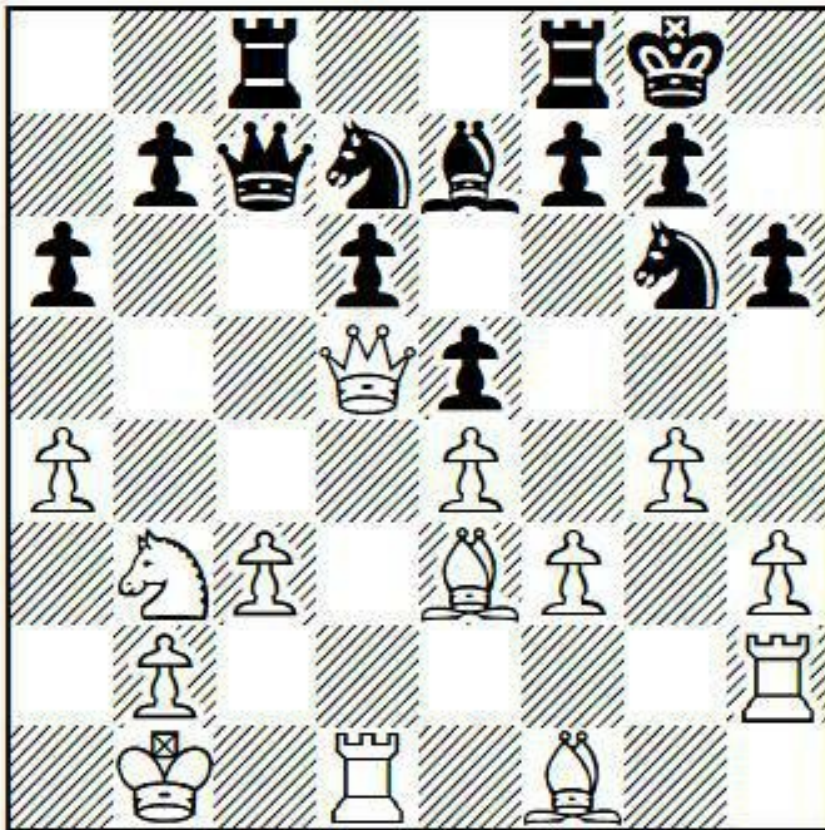


The newer engines immediately understand that Black's misplaced king and White's light-square domination along the c4-f7 diagonal provides overwhelming compensation for the exchange. Meanwhile, the older engines are much more skeptical, thinking that Black can hold everything together and retain a material advantage. One sample line is 18 ... Bg5 19 Bc4 Ra7 20 Nd2! Nf4 21 Qf3 Rd7 22 Bxa6 d5 23 Bb5 Rc7 24 h4! (24 Bb6?! Rxc2+! returning the exchange improves Black's piece coordination, for example, 25 Kxc2 Qxb6 26 h4 Bf6 and Black has time to activate the h8-rook with ... g6 and ... Kg7 next) 24 ... Bf6 (24 ... Bxh4 can be met by 25 Bb6 because the h4-bishop is hanging after 25 ... Rxc2+ 26 Kxc2 Qxb6 27 Rxh4) 25 Kb1 Qd6 26 Rd1 and by now the older engines have sharply reconsidered their evaluation of the position after move 18. Black has severe issues with his major pieces, as neither of the rooks have much potential. Meanwhile, White is exerting pressure on the d-file and can continue playing actively with the minor pieces.

### 13 ... Rc8

A possible improvement is to keep the rook on a8, so that there will be ... b5 ideas in the future, for example, 13 ... Nd7 14 Nd5 Bxd5 15 Qxd5 Qc7 16 Rh2?! (16 Qc4! and a5 next may allow White to maintain some slight pressure) continues in the same fashion as our main game, but 16 ... 0-0 17 Kb1 b5! is already very problematic for White.

**14 Kb1 Nd7 15 Nd5 Bxd5 16 Qxd5 Qc7 17 Rh2 0-0 18 c3**



The older engines have absolutely no fear in this position for Black, while the newer ones see clear ways for White to continue applying positional pressure and make incremental improvements.

### 18 ... Qb8

Stockfish is considering ideas with ... b5, which could create a lot of counterplay. Alternatively:

a) The immediate 18 ... Nc5?! can be met by 19 Nxc5 dxc5 20 Qb3 when White has a comfortable edge because of the bishop pair and the restriction of

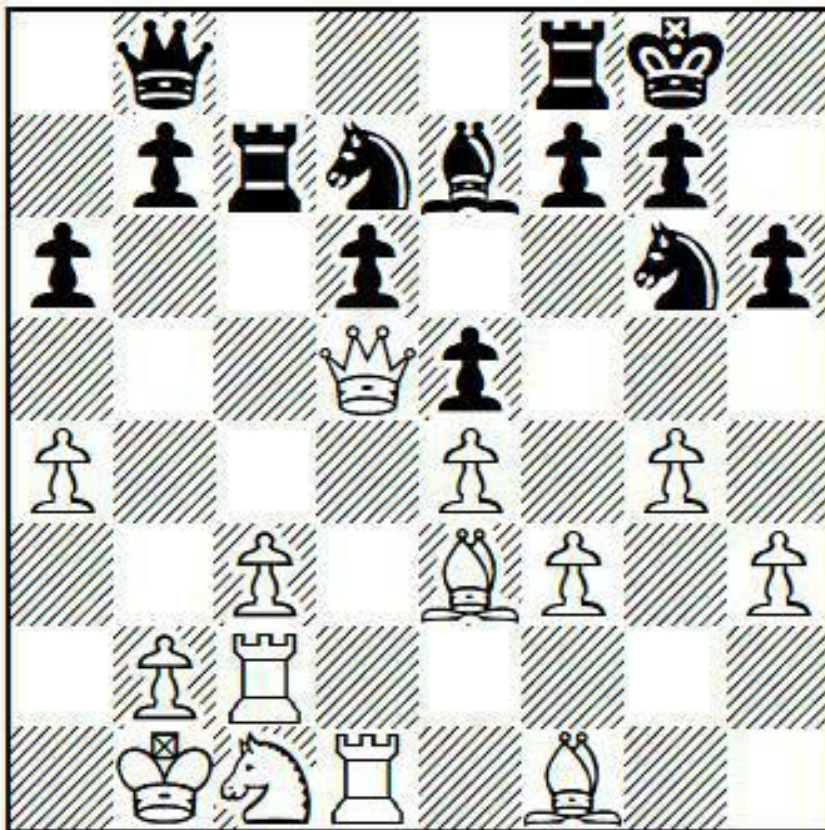
Black's queenside play.

b) 18 ... Rfd8 was also tried by Stockfish, threatening ... Nc5. Play may continue:

b1) 19 Rhd2?! Nh4! is very annoying for White to deal with, for example, 20 Rf2 (or 20 Be2 Ng2!) 20 ... Bg5 and the exchange of bishops diminishes White's hopes for an advantage.

B2) 19 Qa5 (moving the queen away allows the rooks to function better along the d-file) 19 ... Qb8 20 Rhd2 Rc7 and now Lc0 executed a very precise sequence to obtain a positional edge: 21 Ba7! (forcing Black's queen to a worse square) 21 ... Qc8 22 Na1! Nh4 23 Be2 Rc6 24 Be3 Nc5 25 Qb4 Rd7 26 Nc2 Kh8 27 Bf2 Bg5 28 Ne3 with an edge in Lc0-Stockfish, TCEC 2019.

**19 Rc2 Rc7 20 Nc1!**



**Question:** What is the idea behind 20 Nc1?

*Answer:* The knight is better placed on c1, where it can possibly maneuver to d5 via a2-b4. Additionally, with the knight out of the way, Lc0 can advance its pawns on the queenside more easily.

**20 ... Nc5 21 a5 Rd8 22 b4**

Only here does Stockfish realize the problems in its position. Lc0's evaluation had been slowly increasing in White's favour over the past few moves, whereas Stockfish suddenly jumps from equal to an advantage for White. This suggests that the older engines struggle against the newer ones in closed, strategic middlegames where long-term planning is essential. We will see more about this topic throughout the book, especially in Chapter 6 on Closed Positions.

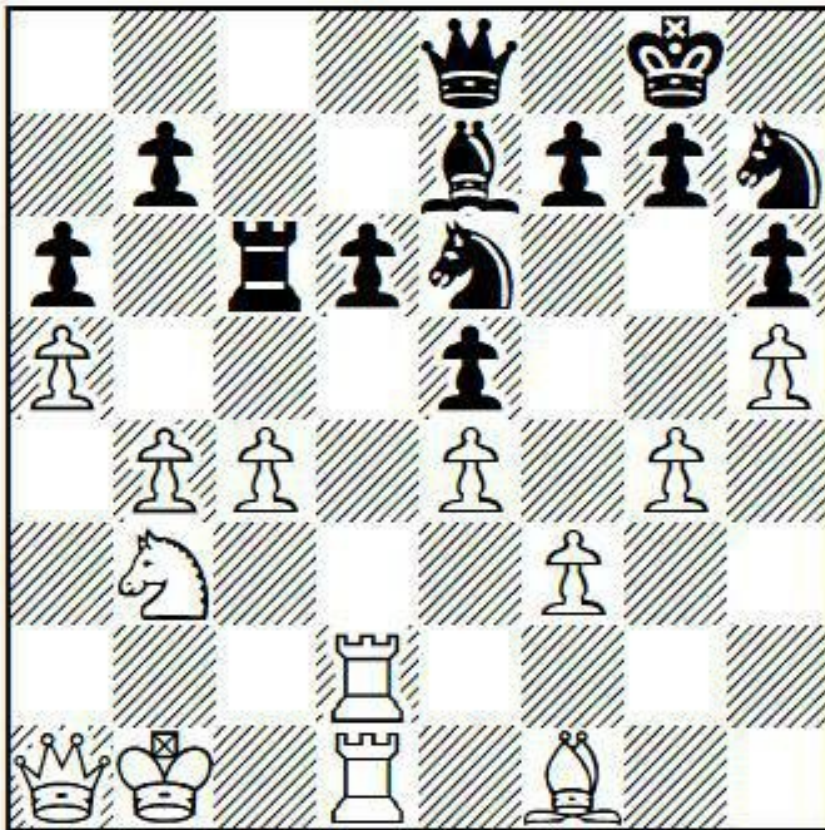
**22 ... Nf4 23 Qa2 Nce6**

23 ... Nd7 saves the c7-rook but 24 Ne2 Nxe2 25 Bxe2 Rdc8 26 h4 and g5 next looks very dangerous for Black.

**24 Bb6**

Winning the exchange provides Lc0 with a nearly winning advantage. Despite the relatively closed position, there are many ways to improve White's position. Lc0 begins by gaining space on both sides of the board before maneuvering its pieces to ideal squares and then breaking through on the queenside.

**24 ... Ng5 25 Bxc7 Qxc7 26 Qc4 Qb8 27 Rb2 Rc8 28 Qb3 Rc7 29 c4 Qc8 30 h4 Nge6 31 Qe3 Qe8 32 h5 Ng5 33 Nb3 Nfe6 34 Rdd2 Qc8 35 Be2 Nh7 36 Rd1 Nhf8 37 Bf1 Rc6 38 Qe1 Rc7 39 Rbd2 Rc6 40 Rd5 Qe8 41 Qc3 Nf4 42 R5d2 N4e6 43 Qa1 Nh7**



**44 b5**

Finally breaking through on the queenside.

**44 ... Rc8 45 Qa4 Rc7 46 Ra2 Qc8 47 c5! axb5 48 Bxb5 dxc5 49 Rd7 Nhg5 50 Rxc7 Nxc7 51 Be2 Na6 52 Rc2 Kf8 53 Rc1 Ne6 54 Bc4 1-0**

Lc0 eventually converted its advantage in a long endgame ... 1-0 (169)

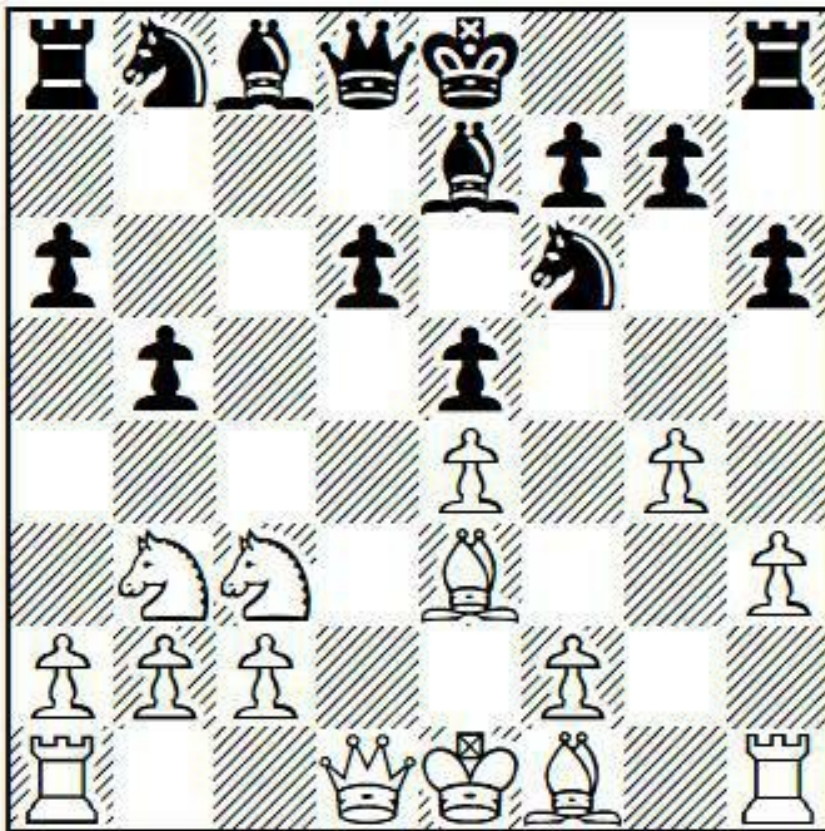
In view of the difficulties created for Black in the previous two games, an alternative on move 9 has become fashionable. The opening developments of this Najdorf line can be described as follows: the neural network engines posed strong new ideas for White against the main line with 9...Nbd7, but also suggested some great ideas for Black after 9...b5! This is typical of modern chess, where the newer engines often create challenging ideas against the older systems. Then, if that old system can't be repaired easily, an earlier alternative must be investigated.

## Game 22

**W.So-M.Carlsen**

Tata Steel India 2019 (rapid)

**1 e4 c5 2 Nf3 d6 3 d4 cxd4 4 Nxd4 Nf6 5 Nc3 a6 6 h3 e5 7 Nb3 Be7 8 g4 h6 9 Be3 b5!**



A fresh idea in 2019 which received a lot of attention after this game was played. Anish Giri also recommended it in his Chessable course, Lifetime Repertoires: Najdorf Sicilian.

**10 a4**

Besides this move, White has also tried 10 Qf3!? and the critical 10 Nd5 (see the next game).

10 Qf3!? leads to very complicated, fighting middlegames. For example:

a) 10 ... b4 11 Nd5 Nxd5 12 exd5 0-0 13 0-0-0 Nd7 14 Nd2 a5 with a dynamic battle ahead in V.Anand-I.Nepomniachtchi, internet 2020.

b) 10 ... Qc7! remaining flexible is a very good idea. Black doesn't reveal his own development plans and first waits to see how White will continue. A further split arises:

b1) 11 Bd3 delays castling long. One sample line is 11 ... Nbd7 12 h4 b4 13 Nd5 Nxd5 14 exd5 Nf6 15 g5 Nxd5! as pointed out by Giri is a crucial tactical point, exploiting the weak b7-h1 diagonal.

b2) 11 0-0-0 11 ... b4 12 Nd5 Nxd5 13 exd5 a5 14 Nd2 a4 15 Kb1 and now Giri suggests 15 ... Nd7!? continuing to delay castling. Black also achieves sufficient counterplay after 15 ... 0-0 16 Bd3 Nd7 17 g5 (or 17 h4 Nc5) 17 ... a3! 18 Rhg1 g6 19 gxh6 Kh8 with a satisfactory kingside defense.

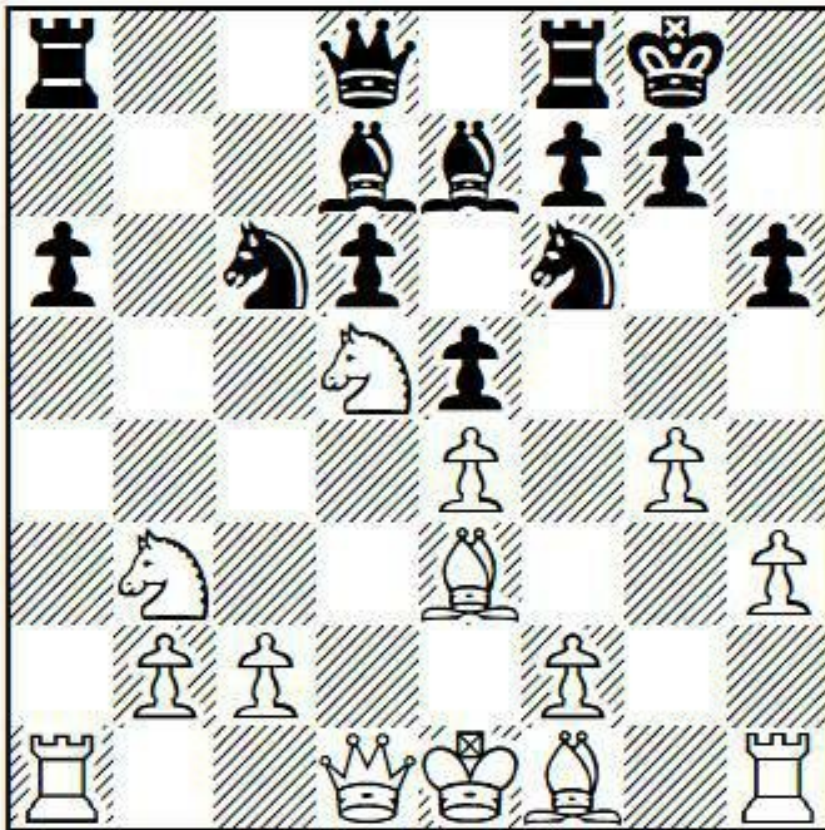
### **10 ... bxa4 11 Rxa4**

The other recapture 11 Nxa4 fights for the b6-square, but there is nothing to fear after 11 ... Nc6 12 Nb6 Rb8 13 Nxc8 Qxc8 14 Bxa6 Qc7 and despite the extra pawn, White has poor piece coordination and no safe place for the king. Giri gives 15 Bd3 0-0 16 0-0 Nh7! and ... Bg5 next with excellent play on the dark squares.

### **11 ... Bd7 12 Ra1 Nc6 13 Nd5**

13 Rxa6 accepts the pawn sacrifice but similarly to the previous variation, it isn't too concerning for Black. For example, 13 ... Rxa6 14 Bxa6 Nb4 15 Be2 0-0 16 0-0 Be6 and ... d5 is coming next, or ... Qc7 and ... Rd8 first.

### **13 ... 0-0**

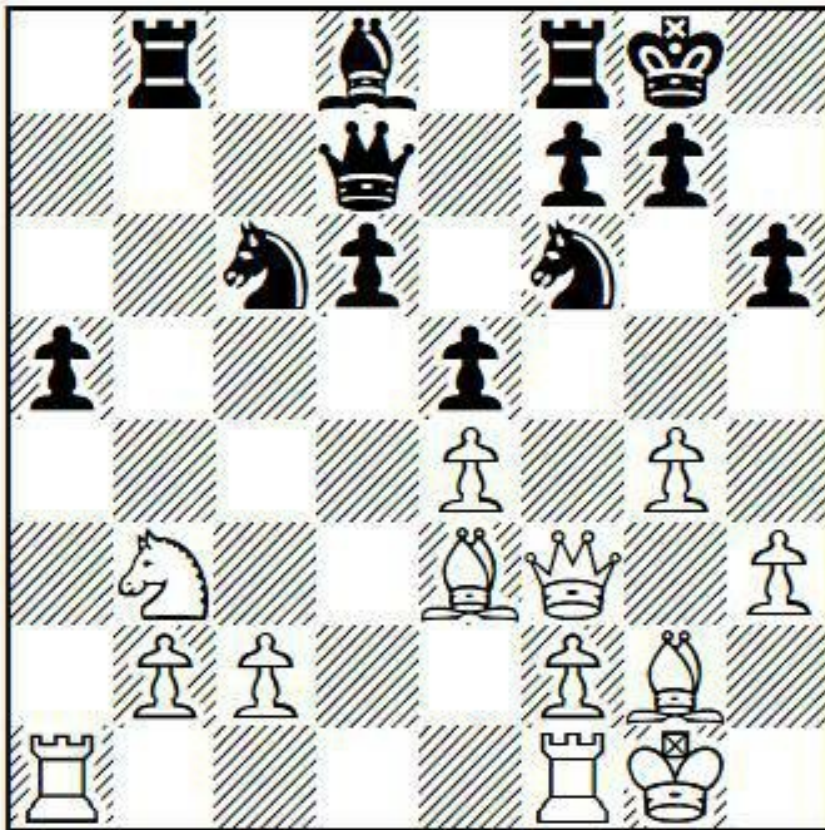


### 14 Nb6?!

Playing for the bishop pair advantage is not the most challenging approach.

The most critical move is 14 Bg2 when play may continue 14 ... a5!? (Giri's recommendation of 14 ... Nxd5 15 exd5 Nd4! is more enterprising) 15 0-0 a4 16 Nd2 (16 Nb6 Ra6 17 Nxa4 Nb4 18 Nc3 Rxa1 19 Nxa1 Qc7 also provides very reasonable compensation) 16 ... Qb8! (creating counterplay on the open b-file) 17 Nb6 Ra6 18 Nxa4 Nd4 19 b3 Rc8 with sufficient play for the pawn due to the queenside pressure and White's poor piece coordination.

**14 ... Rb8 15 Nxd7 Qxd7 16 Bg2 a5 17 0-0 Bd8 18 Qf3**



**Question:** How should Black continue?

**18 ... Nb4?!**

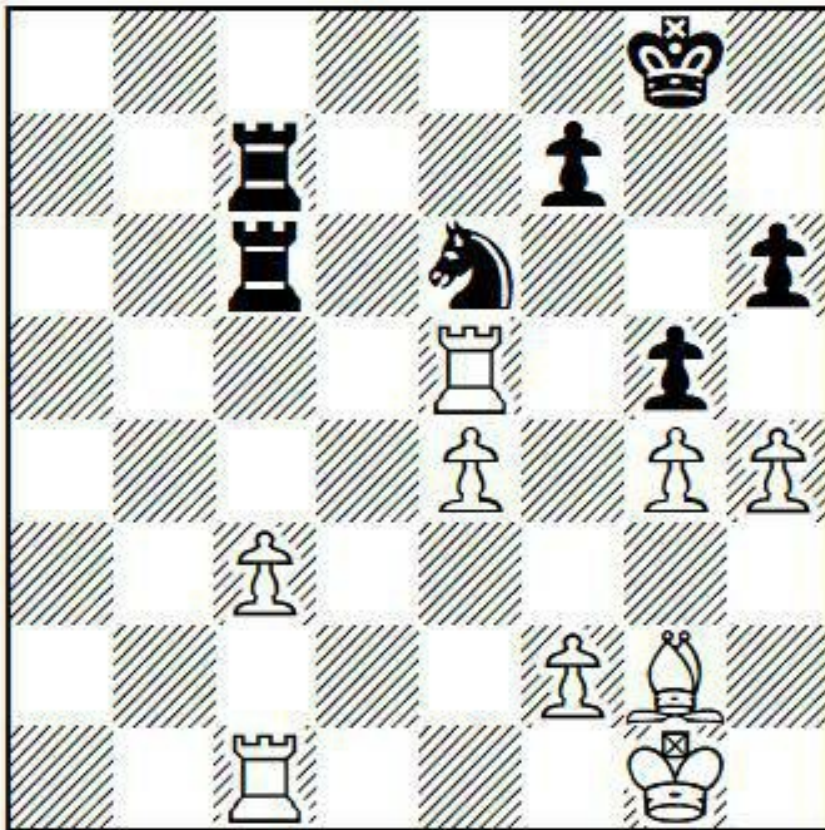
Hoping to create problems for White on the queenside, but it doesn't work out as planned.

**Answer:** 18 ... Nh7! preparing ... Bg5 and fighting for control over the dark squares would have kept the pressure on White. For example, 19 Rfd1 Bg5 20 Nxa5 Nxa5 21 Rxa5 Qc7 and the queenside pawns are very weak.

**19 Qe2 a4 20 Nc1 Qc6 21 c3 Na6 22 Nd3 Bb6 23 Nxe5**

The game simplifies into a drawn endgame after this.

**23 ... dxe5 24 Qxa6 Rfc8 25 Bxb6 Rxb6 26 Qxa4 Rxb2 27 Qxc6 Rxc6 28 Ra5 Nd7 29 Rd5 Rb7 30 Rfd1 Nf8 31 Rxe5 Ne6 32 Rc1 Rbc7 33 h4 g5**



The endgame is a complete draw despite White's extra pawn because Black has a much stronger minor piece.

**34 hxg5 hxg5 35 Rf5 Rxc3 36 Rxc3 Rxc3 37 e5 Rc4 38 Bd5 Rxc4+ 39 Kh2 Rd4 40 Bxe6 fxe6 41 Rf6 Rd5 42 Rg6+ Kf7 43 Rxc4 Rd1 44 f4 Rd3 45 Kg2 Ra3 46 Rg3 Ra4 47 Kf3 Ra1 48 Kg4 Kg6 49 Kf3+ Kf7 50 Rg2 Ra3+ 51 Kg4 Ra1 52 Rb2 Rg1+ 53 Kf3 Rf1+ 54 Ke3 Re1+ 55 Kf2 Ra1 56 Rb8 Ra3 57 Rb6 ½-½**

The critical test of the 9...b5! system is analyzed in the following correspondence game. Both the game and variations are full of creative ideas, where analyzing with the newer engines is essential to properly assess the position.

*Game 23*

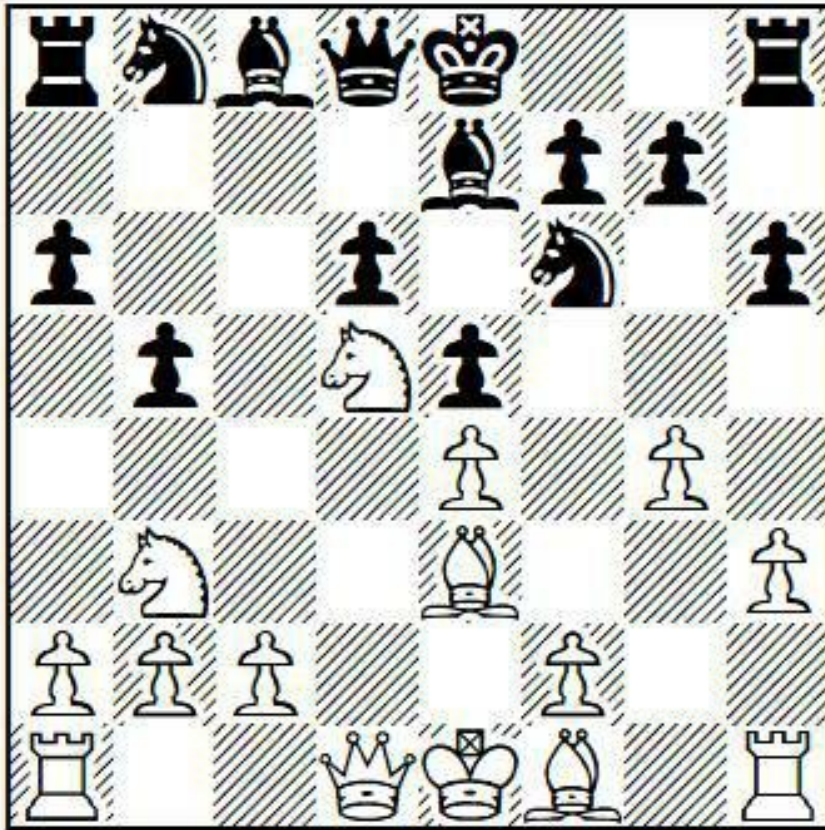
## A.Haugen-I.Bucsa

ICCF 2021 (correspondence)

**1 e4 c5 2 Nf3 d6 3 d4 cxd4 4 Nxd4 Nf6 5 Nc3 a6 6 Be3**

Another common move order is 6 h3 e5 7 Nb3 Be7 8 g4 h6 9 Be3 b5.

**6 ... e5 7 Nb3 Be7 8 h3 h6 9 g4 b5! 10 Nd5**



The most critical test of 9 ... b5, creating some very direct ideas with Bb6 or Nxe7.

### **10 ... Bb7!**

This surprising exchange sacrifice is the backbone of the 9 ... b5 line.

The first practical game in 9 ... b5 saw 10 ... Nbd7?! 11 Nxe7 Kxe7 (11 ... Qxe7 12 Bg2 is quite unpleasant for Black because castling is met by h4 and g5, while 12 ... Bb7 runs into 13 Na5) 12 f3 Nb6 and in A.Shirov-T.Burg, Lund 2019, 13 f4! Nc4 14 fxe5 Nxe5 15 Bg2 would have led to a very

difficult middlegame for Black.

**11 Bb6**

Alternatively, 11 Bg2 Nbd7 12 Nxe7 Kxe7! (12 ... Qxe7? leaves the a5-square undefended, 13 Na5! is quite problematic) provides good play. Black will develop the major pieces and begin attacking on the queenside.

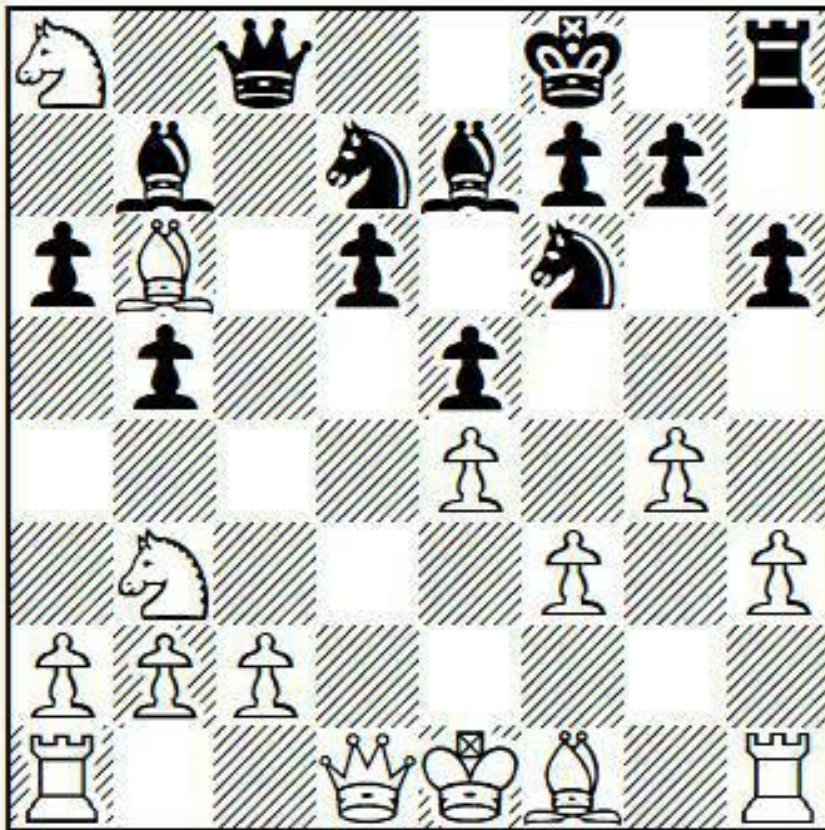
**11 ... Qc8 12 Nc7+**

12 Nxe7? might look tempting at first sight, but it is very dubious. After 12 ... Kxe7 13 f3 before White has the chance to finish his development, Black crashes through and exploits the undefended pieces with 13 ... Nxe4! 14 fxe4? Qc6 and White is in trouble.

**12 ... Kf8 13 f3**

13 Nxa8?! Bxe4 14 Rg1 Bxa8 and the slight material deficit is not at all a problem for Black because ... Nd5 is threatened followed by play in the centre. White will have difficulties developing the rest of his pieces and getting his king to safety.

**13 ... Nbd7 14 Nxa8**



### 14 ... Qxa8

White's minor pieces are temporarily tangled up on the queenside, so Black could first play 14 ... d5!? 15 Be3 Bxa8 16 Bg2 dxe4 17 fxe4 Nxe4 18 0-0 Ndf6 19 Rc1 g6 was seen in H.Gulbis-M.Schieferdecker, correspondence 2021. Compared to the game, Black's pieces are slightly more active here and the king is quickly getting to safety on g7. There are some disadvantages as well, such as White's bishop pair, but overall I would prefer this type of position over the game continuation.

### 15 Bf2 Bxe4 16 Be2

16 Bg2?! Bd5 and the g2-bishop is terribly passive.

### 16 ... Bg6

Other bishop retreats:

a) 16 ... Bd5?! would be the best square for the bishop, except that 17 a4! b4 18 Qd3 targets the a6-pawn and creates a lot of queenside pressure. Therefore, it is most logical for Black to keep the bishop along the h7-c2

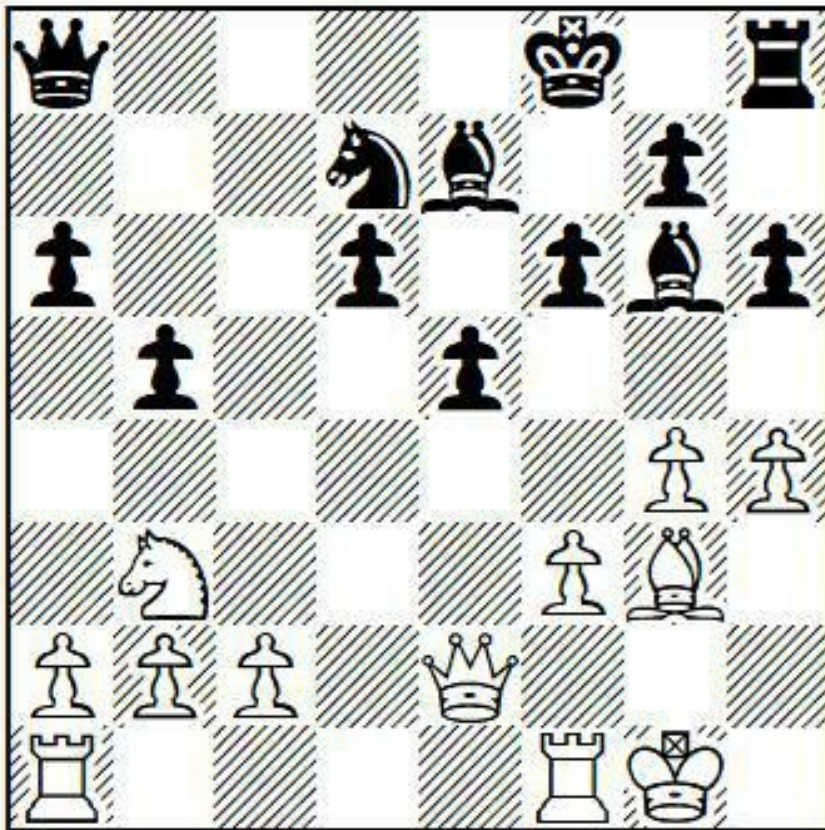
diagonal.

b) However, 16 ... Bc6!? discouraging a4 is quite interesting. One sample line is 17 Na5 (or 17 a4 bxa4 18 Na5 d5 with good central control) 17 ... g6 18 Nxc6 Qxc6 19 Qd2 Nd5 20 h4 Nc5 and despite the loss of the bishop pair, Black's active knights should provide reasonable compensation for the exchange.

**17 0-0 Nd5**

Intending to play ... Nf4 (attacking h3) or ... h5 and opening the h-file so White's next move prepares against these threats.

**18 h4! Nf4 19 Bg3 Nxe2+ 20 Qxe2 f6**



Giri stops his analysis here. Black has reasonable compensation for the exchange because of his bishop pair and central control. Still, I believe that the position is extremely dangerous for Black due to the weakened kingside and some aggressive ideas that White shows in the game.

**21 a4 b4 22 h5!**

Preventing ... h5 ideas and making it more difficult for Black to bring his king to safety.

**22 ... Bf7 23 Rae1 Nb6**

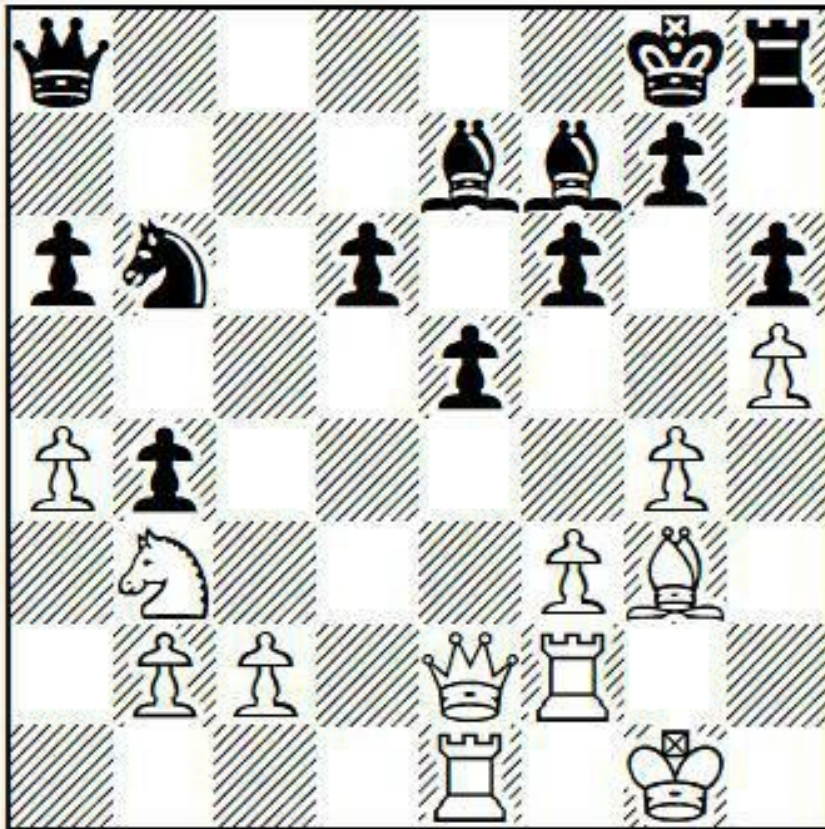
23 ... g6 24 hxg6 Bxg6 renews the threat of ... h5, but first Black must deal with White's initiative: 25 Nd4! h5 26 Ne6+ Kf7 27 Nf4 looks very dangerous.

**24 Rf2**

Sidestepping the threat of ... Bc4. It is not at all clear how Black should deal with his misplaced king on f8.

**24 ... Kg8**

A better practical choice would be 24 ... d5 fighting for some type of activity. However, White can meet this in several different ways. For example, one interesting continuation is 25 Bxe5!? fxe5 26 Qxe5 Qd8 27 Nd4 Bc5 28 Nf5 with a powerful initiative.



**Exercise:** How can White build up an attack?

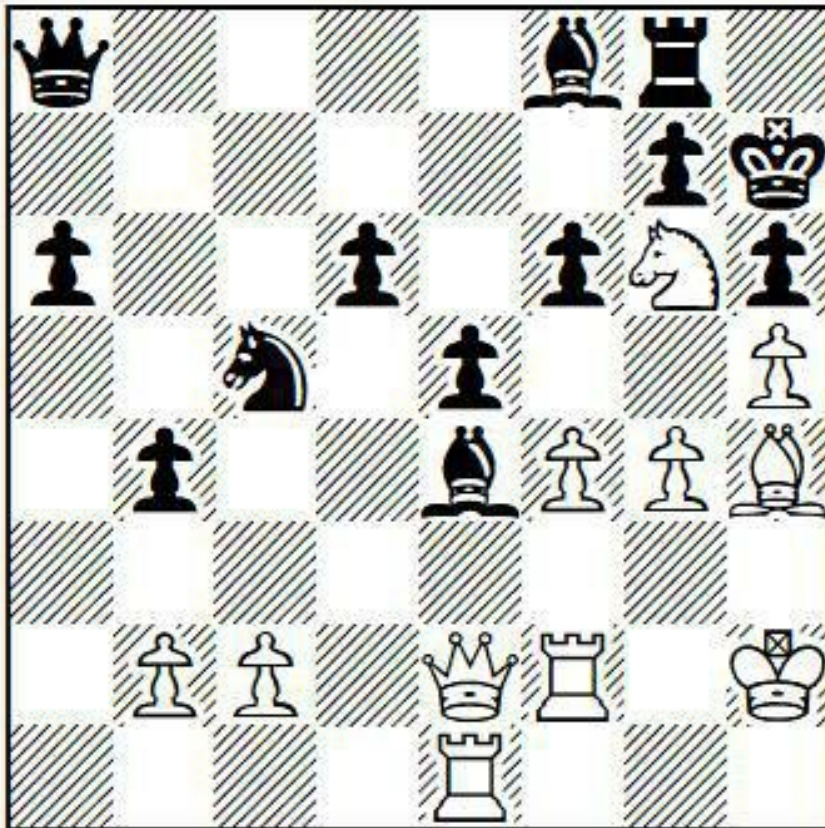
**Answer: 25 Nd4!**

Turning the passive knight on b3 into a powerful attacker.

**25 ... Bf8 26 Nf5 Nxa4 27 f4 Nc5 28 Nh4 Bd5 29 Kh2 Kh7 30 Ng6**

30 g5 would also be very dangerous.

**30 ... Rg8 31 Bh4 Be4**



In a practical game, this position would be considered a disaster for Black. The three pieces on the kingside are completely tied up and it looks like White is about to deliver the final blow. The engines find a series of accurate moves for Black and reach a salvageable endgame.

**32 g5 exf4 33 gxf6 f3 34 f7 fxe2 35 fxg8Q+ Kxg8 36 Rxf8+ Qxf8 37 Nxf8 Kxf8 38 Rxe2 d5** Black has reached a difficult endgame, but a holdable one in correspondence chess.

**39 Bd8 b3 40 cxb3 Nxb3 41 Kg3 a5 42 Rf2+ Ke8 43 Bc7 g6 44 hxg6**

**Bxg6 45 Rf6 Bc2 46 Rc6 Bd3 47 Be5 d4 48 Rxh6 Bc2 49 Kf2 Kd7 50 Rd6+ Ke7 51 Rc6 Be4 52 Bf6+ Kd7 1/2-1/2**

## **The English Attack**

The English Attack continues to be an extremely popular approach against the Najdorf at all levels because it leads to rich middlegames full of ideas for both sides. Over the next two games, we will explore some positions where the older and newer engines have a difference in understanding. Game 24 sees Levon Aronian using an AI-influenced pawn sacrifice to create extremely challenging problems for the line employed by his opponent.

### *Game 24*

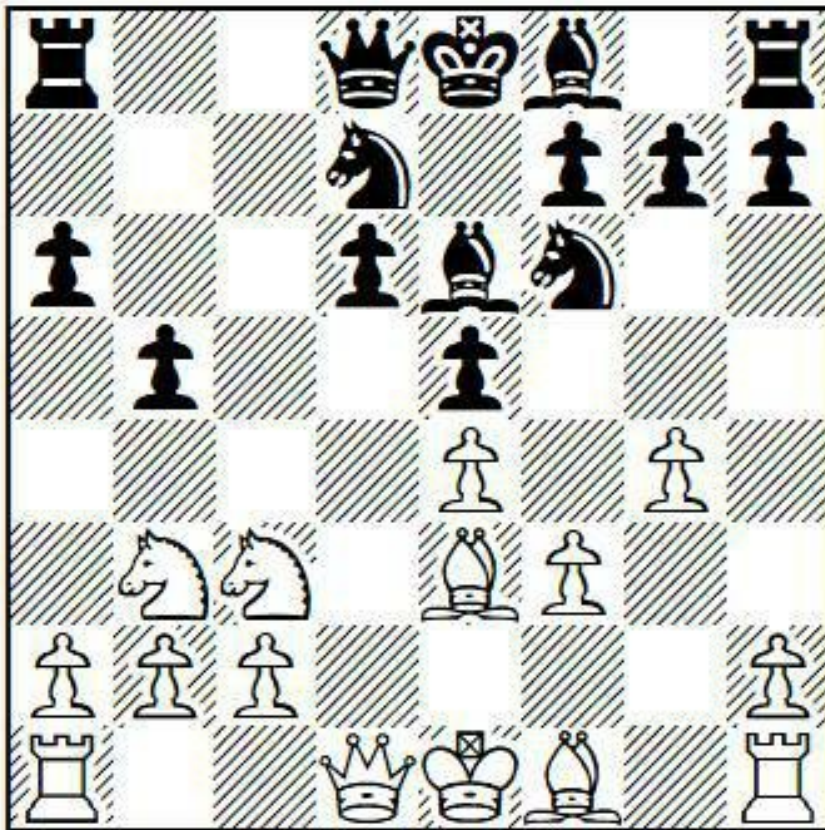
#### **L.Aronian-A.Sarana**

World Rapid Championship 2019

**1 e4 c5 2 Nf3 d6 3 d4 cxd4 4 Nxd4 Nf6 5 Nc3 a6 6 f3 e5 7 Nb3 Be6 8 Be3 Nbd7**

This system favors quick play on the queenside and leads to more unorthodox play than the two main lines, 8 ... Be7 and 8 ... h5.

**9 g4 b5**



### 10 a4!

A very rare move, but considering Aronian's idea in this game, it is definitely the most dangerous for Black to face. More common moves are:

a) 10 Qd2 b4! 11 Nd5 Bxd5 12 exd5 Nb6 is fine for Black, despite his undeveloped kingside. The position becomes quite sharp after 13 0-0-0 Nfxd5 14 Bxb6 Nxb6 15 Qxb4 Be7 16 f4 when Black can continue in several different ways, for example, 16 ... 0-0 17 fxe5 a5 with queenside counterplay.

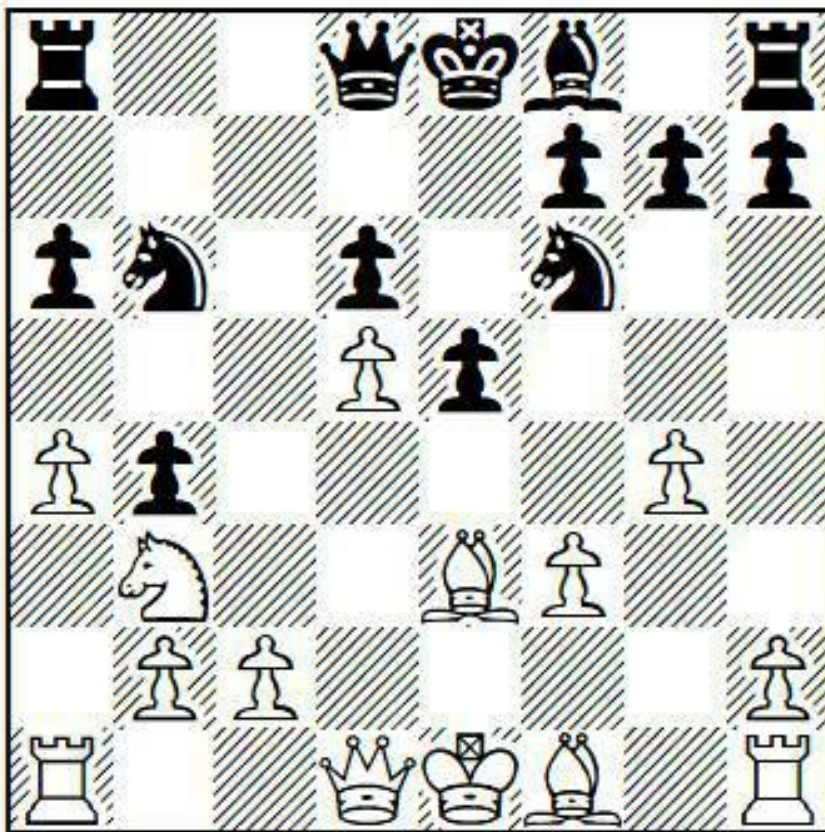
b) 10 g5 is the most popular move by far, leading to very creative and original play after 10 ... b4 (alternatively, Black can transpose to a respectable main line with 10 ... Nh5 11 Qd2 Be7 12 0-0-0 0-0) 11 Ne2 and now:

b1) Not 11 ... Nh5?! when the following pawn sacrifice gives White tremendous play: 12 Ng3! Nf4 13 Qd2 Qxg5 14 0-0-0 Be7 15 Kb1 and the queen is very misplaced on g5.

b2) 11...Ng8! looks strange, but Black can often counter White's kingside play with a timely ... h6! Despite the seemingly awkward piece development,

Black obtains reasonable play here, as demonstrated in the following lines: 12 a3 (or 12 Qd2 a5 13 a4 bxa3 14 Rxa3 a4 15 Nbc1 h6 with a very sharp middlegame ahead) 12 ... bxa3 13 Rxa3 h6! 14 gxh6 Nxh6 is very unclear because ... f5 is coming next.

**10 ... b4 11 Nd5 Bxd5 12 exd5 Nb6**



**13 Bg1!**

Securing the bishop by placing it on g1 is very important. Otherwise, the bishop could lack support on either e3 or f2.

Most older engines prefer 13 Bf2 h6 14 Bxb6 (14 f4?! Be7 15 a5 appears to be similar to the game, but the bishop is misplaced on f2 after 15 ... Nbd7 16 Qf3 exf4 17 0-0-0 Ne5 18 Qxf4 Nfxg4 and the dual threats of ... Bg5 and ... Nxf2 provide Black with the better chances) 14 ... Qxb6 15 Qd2 g6 16 0-0-0 Bg7 with a solid position. Correspondence games have shown that Black is holding his own here and should not be in too much danger on the kingside.

**13 ... h6**

The d5-pawn cannot be captured because 13 ... Nbx d5 runs into 14 g5 and 13 ... Nfx d5 is met by 14 a5. Now White has two good options, although neither is approved by the older engines.

#### **14 f4!**

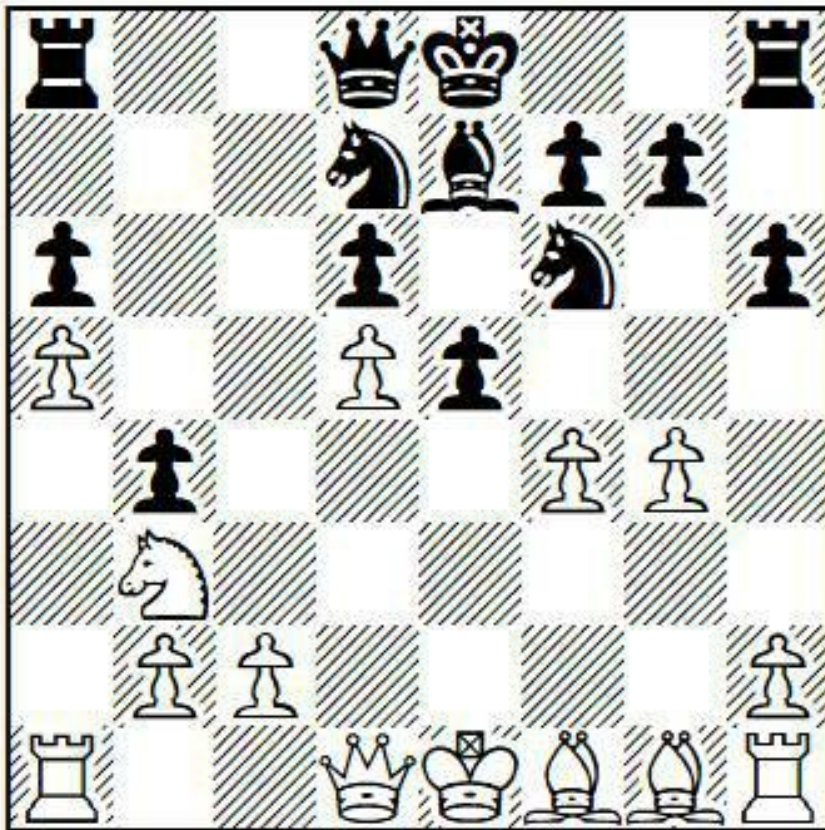
Preparing ideas with g5 and freeing the f3-square for the queen. Much weaker is 14 Bxb6?! transposing to 13 Bf2.

14 Qd2!? Nbx d5 15 h4 is a very interesting pawn sacrifice. Then 15 ... Qd7 brings the queen to c6, where it can support the knight on d5. Additionally, attacking the a4-pawn discourages White from castling queenside. Play may continue 16 Bh2! (threatening g5 and preventing ... Nf4) 16 ... Qc6 17 Na5 Qc5 18 Nc4 Qc6 19 g5 Nh5 20 g6! is another strong pawn sacrifice, provoking a weakness on Black's kingside. Some sample lines: 20 ... Nhf4 (20 ... fxg6 21 0-0-0 Nhf4 22 b3 and Black's pieces in the centre are tied up) 21 gxf7+ Kxf7 22 Bxf4 Nxf4 23 Qe3 Ng2+?! is an interesting try to disrupt White's piece coordination, but it doesn't work out following 24 Bxg2 Qxc4 25 Bf1 Qxc2 26 Rc1 because White obtains a powerful initiative after 26 ... Qxb2 27 Bc4+ Ke7 28 Bd5 followed by castling and activating the major pieces, while Black's king is stuck in the centre.

#### **14 ... Be7**

14 ... exf4?! 15 Qf3 Be7 16 0-0-0! Ignoring the a4-pawn because after 16 ... Nxa4 17 h4 White crashes through on the kingside. g5 and/or Bd4 are coming next.

#### **15 a5 Nbd7**



15 ... Nbx d5? 16 g5 Nxf4 17 gxf6 Bxf6 18 Qd2 Bh4+ 19 Kd1 was clearly better for White in T.Nguyen-J.Malik, Ostrava 2019. The three pawns do not give Black enough for White's bishop.

### 16 fxe5?

Allowing Black's knight to arrive on e5 immediately.

16 Qf3! is an improvement. Instead of having the queen on e2, it can be actively placed on f4 (after ... exf4). There, the queen targets Black's b4 and h6-pawns. Additionally, White would win a tempo compared to the game because Black needs to play two moves ( ... exf4 and ... Ne5) to get his knight on e5. Play may continue:

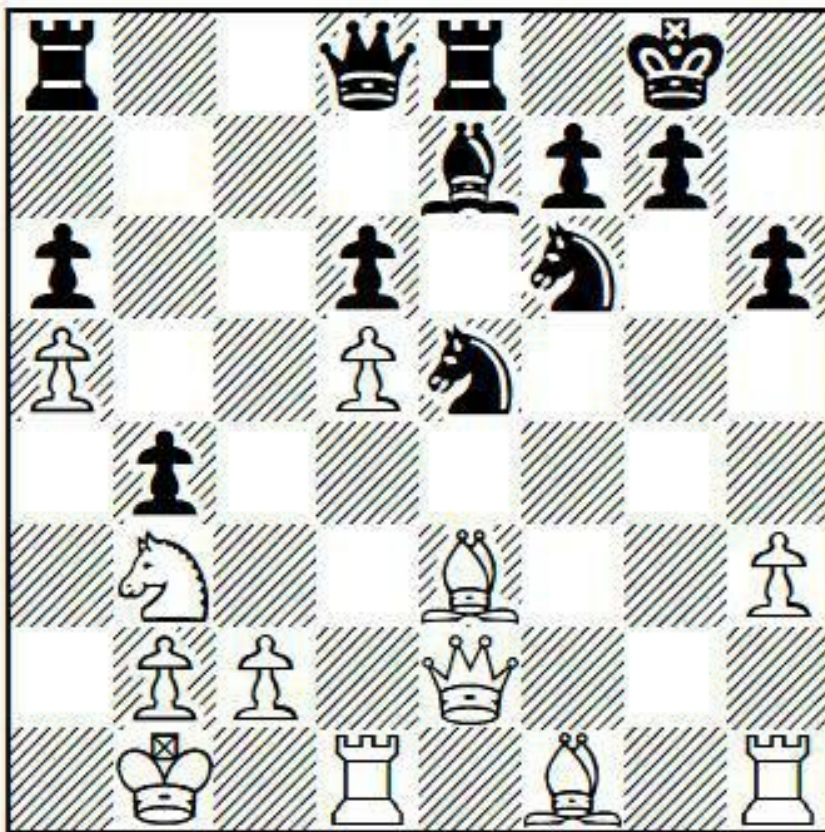
a) 16 ... exf4 17 0-0-0 Ne5 (17 ... Qc7 transposes to 16 ... Qc7) 18 Qxf4 Nfxg4 and it is instructive to note that White's bishop is safely tucked away on g1. This is an important point behind playing 13 Bg1 instead of 13 Bf2. After 19 Kb1 0-0 20 h3 Nf6 21 Bb6 Qd7 22 Rg1 White is clearly better due to the hanging b4-pawn and Black's lack of play.

b) 16 ... Qc7 17 0-0-0 exf4 18 h4 (18 Qxf4? is too rushed; in fact, Black can pick up a pawn with 18 ... Rc8 19 Rd2 Nxd5!) and following 18 ... Ne5 19 Qxf4 Nfxg4 20 Bb6 Qb7 21 Be2 h5 22 Nd4 White quickly developed a crushing position in D.Grabski-D.Saggese, correspondence 2021, as Nf5 is threatened next.

**16 ... Nxe5 17 Qe2 Nfxg4 18 0-0-0 0-0 19 Kb1 Re8 20 h3?!**

20 Bb6 Qd7 21 Rd4 should allow White to win the b4-pawn soon and retain some advantage. However, it is clear that White has a worse version of the 16 Qf3! lines that we saw above.

**20 ... Nf6 21 Be3**



**Exercise:** How should Black create a defensive setup on the kingside?

**21 ... Nh7?**

Black's minor pieces are misplaced on the kingside after this.

**Answer:** 21 ... Bf8! 22 Qg2 g6 was the best way to arrange the pieces on

the kingside because the bishop will serve a very useful defensive purpose on g7. It could also help to create pressure along the g7-b2 diagonal.

**22 Qg2 Bg5 23 Bb6 Qf6 24 Nd4 Be3 25 Nc6 Nd7?**

Missing a surprising resource for counterplay.

25 ... Bxb6 26 axb6 Rab8! sacrifices the exchange to eliminate the powerful c6-knight and fight for queenside counterplay. For example, 27 Nxb8 Rxb8 28 Bd3 Rxb6 followed by advancing the a6-pawn. It is not at all clear how White will be able to make progress on the kingside.

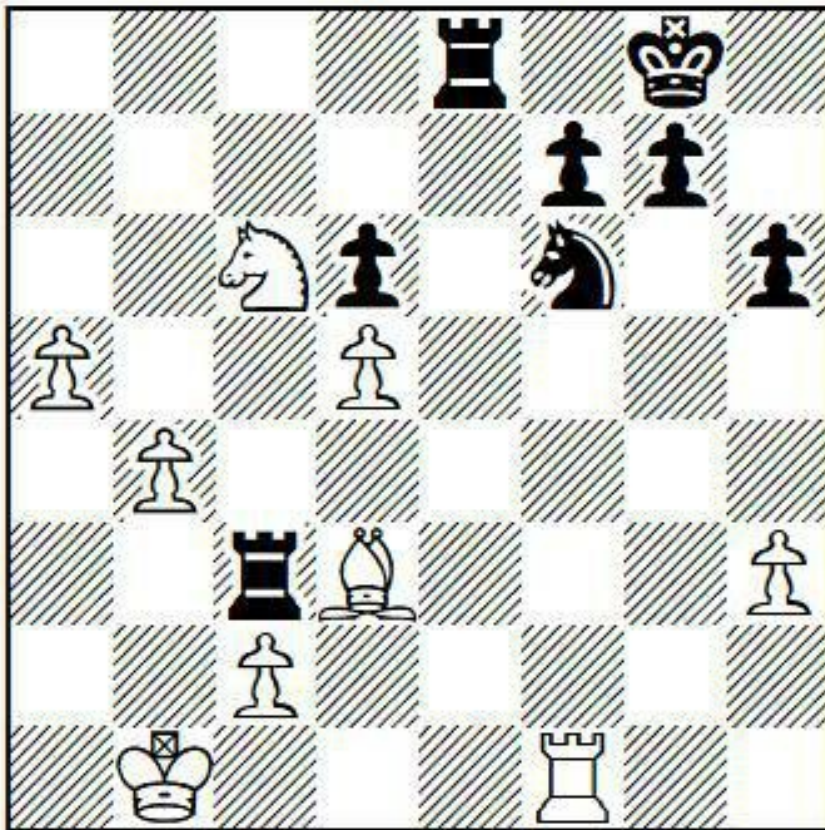
**26 Bxe3 Rxe3 27 Qd2**

The b4-pawn falls and Sarana is left without any serious ideas for counterplay.

**27 ... Rg3 28 Qxb4 Nc5 29 Qd4 Qf3 30 Bc4 Re8**

Abandoning the a6-pawn is not ideal of course, but otherwise the rook would be tied down on a8.

**31 Rhf1 Qe4 32 b4 Na4 33 Qxe4 Rxe4 34 Rd3 Nc3+ 35 Rxc3! Rxc3 36 Bxa6 Nf6 37 Bd3 Re8**



### 38 Rxf6!

A second exchange sacrifice is a nice way to conclude the game. Aronian's queenside passed pawns are far too strong for the rooks to defend against.

**38 ... gxf6 39 a6 Rxd3 40 cxd3 f5 41 b5 f4 42 Nd4 Ra8 43 Kc2 Kg7 44 Kb3 Kf6 45 Nf3 Ke7 46 Kb4 Kd7 47 Ka5 Rc8 48 a7 Rc2 49 Kb6 1-0**

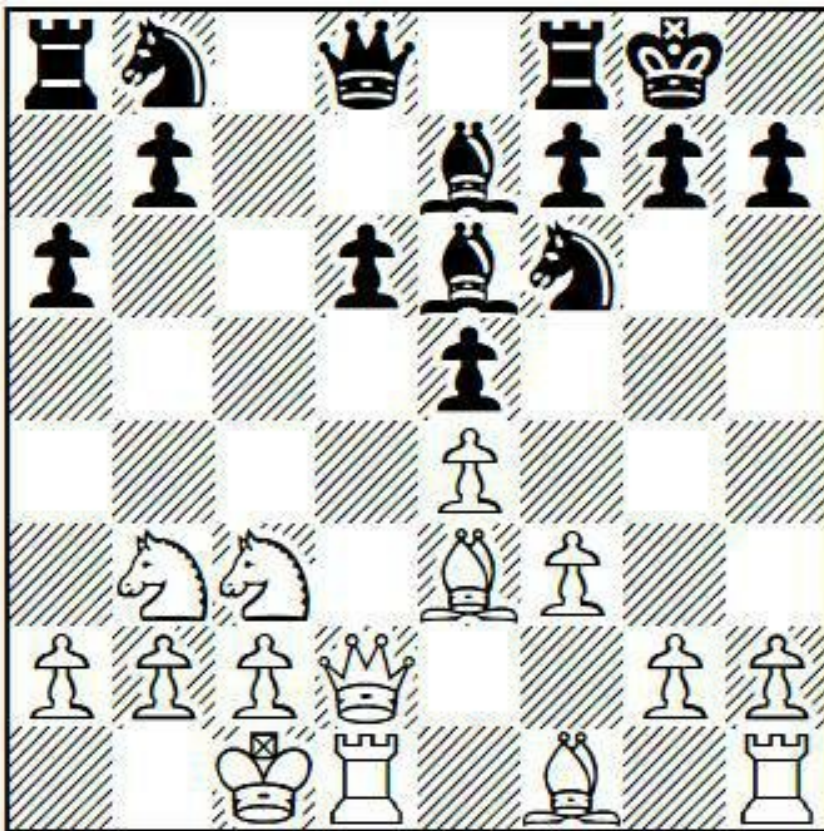
The idea of castling on opposite sides and then attacking on both sides of the board is one that we saw in the first two games of the chapter. This ambitious plan is not entirely new to the Najdorf, but it is one that is appreciated much more by the modern engines in certain situations. For example, in the following correspondence game, the older engines do not properly consider White's powerful strategic plan on their own. On the other hand, the modern ones immediately recognize its strength and see that Black is posed with major long-term difficulties.

Game 25

E.l'Ami-F.Pessoa

ICCF 2018 (correspondence)

1 e4 c5 2 Nf3 d6 3 d4 cxd4 4 Nxd4 Nf6 5 Nc3 a6 6 Be3 e5 7 Nb3 Be6 8 f3  
Be7 9 Qd2 0-0 10 0-0-0



**10 ... b5?!**

A very inaccurate move order, though not one that could be detected easily by the older engines.

The old main line of the English Attack runs 10 ... Nbd7 11 g4 b5 12 g5 b4 (12 ... Nh5 has mostly replaced 12 ... b4 at the top level – for example, see the games of Maxime Vachier-Lagrave in 2021) 13 Ne2 Ne8 14 f4 a5 15 f5 and here 15 ... Bxb3? (15 ... a4 is the main line, with many long theoretical

variations) used to be very popular, but it is a big mistake. After 16 cxb3 a4 White has a crushing idea in this position, which is pointed out immediately by most of the modern engines. Some of the older engines can find the idea too but would take significantly more time to realize the strength of it: 17 Kb1!! axb3 18 Nc1! bxa2+ 19 Ka1 Black's position should be completely lost here, as is suggested by the correspondence score of over 90% for White. The a2-pawn acts as a shield for the king so White can focus his efforts entirely on building up a kingside attack. The reason that the older engines struggled more with this idea is because their long-term thinking abilities are quite poor – they prefer to only calculate concrete variations. One game continued 19 ... Nb6 intending to create some counterplay with ... d5, but White simply replied with 20 Qf2 and then focussed on his own kingside play after 20 ... Na4 21 Rg1 Qc7 22 Nb3 Bd8 23 f6 Kh8 24 Rg3 with a crushing position in L.Despontin-J.Kragten, ICCF 2019.

### **11 Nd5!**

11 g4 gives Black the opportunity to transpose back to main lines (10 ... Nbd7) with 11 ... Nbd7.

### **11 ... Nxd5 12 exd5 Bd7 13 Na5!**

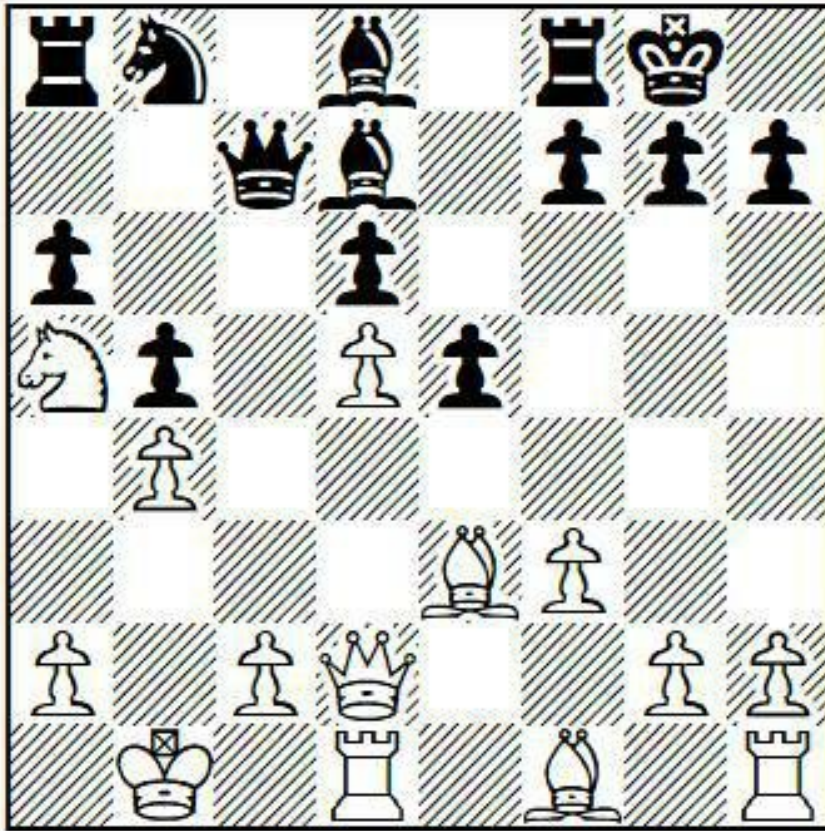
Playing on the queenside is a bit unusual for opposite-side castling positions but in this position it is the most challenging way of playing, as suggested by the newer engines.

13 f4?! is the way many older engines approach this position, and it is indeed the most popular choice in practical and correspondence chess at the time of writing. However, this rushed choice is not nearly as challenging as l'Ami's 13 Na5. Black obtains a fine position after 13 ... Bg4 (the point of inserting 13 ... Bg4 before playing ... Bf5 is shown after 13 ... Bf5? 14 fxe5 dxe5 15 d6! when White's rook on d1 helps to support the d6-pawn) 14 Re1 Bf5! and the middlegame is very complicated. White has ideas of opening the kingside with g4 while Black will try to expand on the queenside. These double-edged positions are satisfactory for Black, whereas the strategic problems that arise after 13 Na5 are significantly more difficult to handle.

### **13 ... Qc7 14 Kb1 Bd8**

14 ... Rc8 looks quite logical, activating the rook before maneuvering the two bishops. Play may continue 15 Bd3 Bd8 16 b4! (the same idea that we will see in the game) 16 ... Be8 and here White should switch plans and attack on the other side of the board with 17 g4 Nd7 18 g5 when Black is lacking counterplay on the queenside, largely due to the strong pawn on b4.

15 b4!



**Question:** Doesn't 15 b4 expose White's king?

**Answer:** The king on b1 looks a bit more vulnerable now, but it is very important to maintain the knight on a5, where it supports White's queenside attack and eyes the c6-square.

**15 ... Be8 16 c4**

Continuing with the plan of attacking on the queenside, despite the seemingly exposed king on b1.

**16 ... f5**

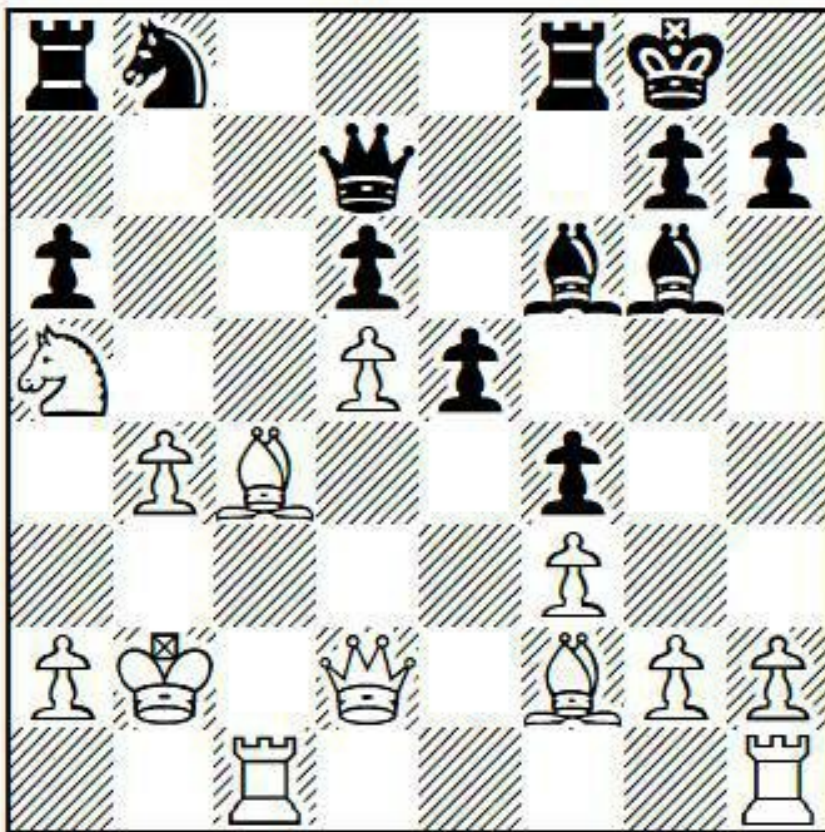
Pessoa later took up the White side in another high-level correspondence game. That game saw 16 ... bxc4 17 Bxc4 f5 (or 17 ... Qe7 18 Bb3 Bxa5 19 bxa5 Nd7 20 Rc1 provides White with several strategic advantages) 18 Rc1 f4 19 Bf2 Qf7 20 Nc6 Nd7 21 Nxd8 (removing the defensive d8-bishop makes it easier for White to continue making progress on the queenside) 21

... Rxd8 22 Ka1 Ra8 23 Bb3 Nf6 24 Bb6 Kh8 25 a4 with a crushing positional advantage in F.Pessoa-S.Ottesen, correspondence 2019.

**17 Rc1 f4 18 Bf2 Bg6+ 19 Kb2 Qd7**

19 ... Qf7 leaves the b5-pawn undefended. After 20 cxb5 axb5 21 Bxb5 Na6 22 Nc6 White's queenside looks a bit shaky, but there is no way for Black to take advantage of it.

**20 Be2 bxc4 21 Bxc4 Bf6**



**Exercise:** How should White deal with the threat of 22 ... e4?

**Answer: 22 Ka3!**

Prophylactics against ... e4-e3. The king's unusual position on a3 cannot be exploited because White controls all of the important squares on the queenside.

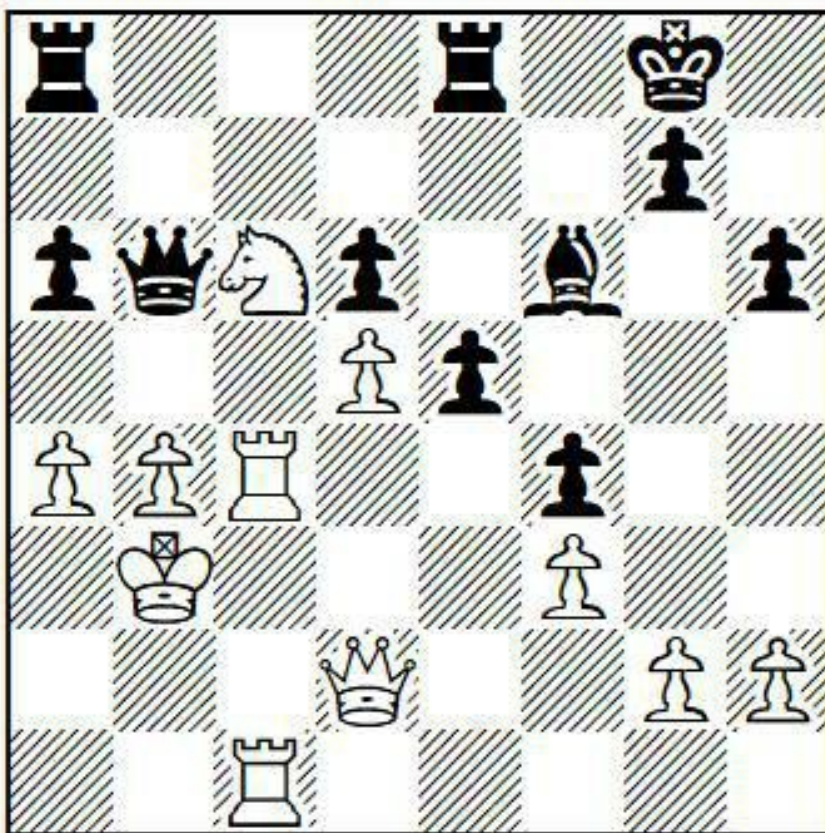
22 Rhe1 e4+ 23 Bd4 e3 is much less clear. The exchange of bishops is favourable for Black because his dark-squared bishop was quite poor

previously. Also, the passed e3-pawn promises some fighting chances in an endgame.

**22 ... Qe8**

Opening the position was a better practical try, although it shouldn't change the evaluation: 22 ... e4 23 fxe4 Bxe4 24 Rhe1 Bxg2 25 Re6! Bh3 26 Rce1 with a crushing positional advantage.

**23 Bb3 Nd7 24 Rhe1 Qb8 25 Ba4 Nb6 26 Bc2 Bxc2 27 Rxc2 Nc8 28 Nc6 Qb7 29 Rec1 h6 30 Rc4 Re8 31 Kb3 Nb6 32 Bxb6 Qxb6 33 a4**



**33 ... Bg5 34 Qe1 Bf6 35 Na5 e4 36 Rxe4 Rxe4 37 fxe4 Qd4 38 Qe2 Re8 39 Nc6 Qxd5+ 40 exd5 Rxe2 41 Rb1 Bh4 42 b5 axb5 43 axb5 Bf2 44 Rb2 Re3+ 45 Ka4 1-0**

### Theoretical Paths

The sharp Poisoned Pawn variation of the Najdorf appears to be an opening

that is handled perfectly fine by the older, brute-force calculating engines. These lines are filled with concrete variations and messy complications, where deep strategic plans aren't of much use. However, Game 26 sees Karjakin employing an AI-approved pawn sacrifice in one of the critical main lines of the Poisoned Pawn, which has led to major opening developments since 2019. This pawn sacrifice is based on long-term strategic ideas: creating strong outposts for White's pieces and restricting the opponent's piece mobility.

### *Game 26*

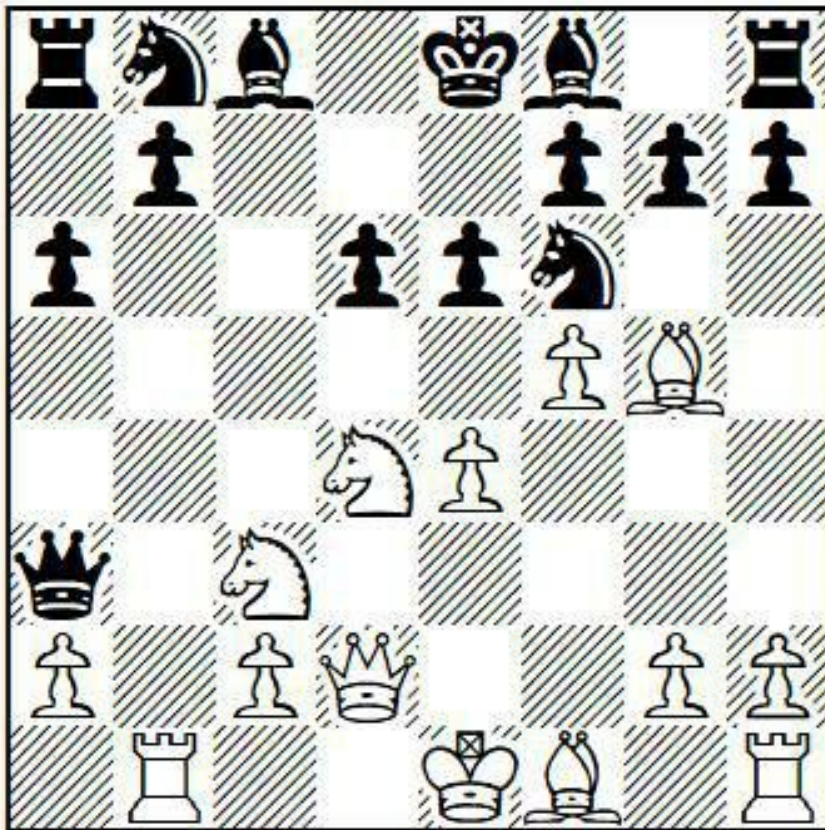
### **S.Karjakin-J.Duda**

Lindores Abbey Preliminaries 2020 (rapid)

**1 e4 c5 2 Nf3 d6 3 d4 cxd4 4 Nxd4 Nf6 5 Nc3 a6 6 Bg5 e6 7 f4 Qb6**

The reliable Poisoned Pawn variation is currently the preference of the top Najdorf specialists.

**8 Qd2 Qxb2 9 Rb1 Qa3 10 f5**



The latest trend in the Poisoned Pawn Najdorf, which is largely due to an Lc0-inspired idea in the main line.

### **10 ... Nc6**

10 ... Be7 has developed a significant body of theory since it was played by both MVL and Nepomniachtchi. Instead, we'll focus on 10 ... Nc6, which has always been the main line.

### **11 fxe6 fxe6**

By far the most popular way for Black to play, heading down the main line of 11 f5. However, due to the practical problems posed by the AI-approved pawn sacrifice in our main game, top players have begun to investigate alternatives. For example, 11 ... Bxe6!? here, or 10 ... Be7 as we saw on the previous note.

Anish Giri unleashed some deep preparation in a rare line with 11 ... Bxe6!? in a rapid match against Nepomniachtchi. The current state of theory is that this line holds for Black but requires detailed knowledge of the

concrete positions arising after 12 Rxb7 Nxd4 13 Qxd4 Be7 14 Bc4 Rc8 15 Nd5 Bxd5 16 Bxd5 Nxd5 and now either 17 Qxg7 or 17 Qxd5 force Black to respond precisely, see I.Nepomniachtchi-A.Giri, internet (rapid) 2021.

### **12 Nxc6 bxc6 13 Be2**

13 e5 was the old main line. By appearance, this pawn sacrifice looks like the one that we will see in the game, but they lead to completely different types of positions. Compared to the game, 13 e5 is much more forcing and concrete than Karjakin's strategic pawn sacrifice. Forcing play commences after 13 ... dxe5 14 Bxf6 gxf6 15 Ne4 when there are several satisfactory ways for Black to play. For example, 15 ... Qxa2 16 Rd1 Be7 17 Be2 0-0 18 0-0 f5 and a theoretical draw by repetition soon occurred in T.Radjabov-A.Grischuk, Moscow 2017.

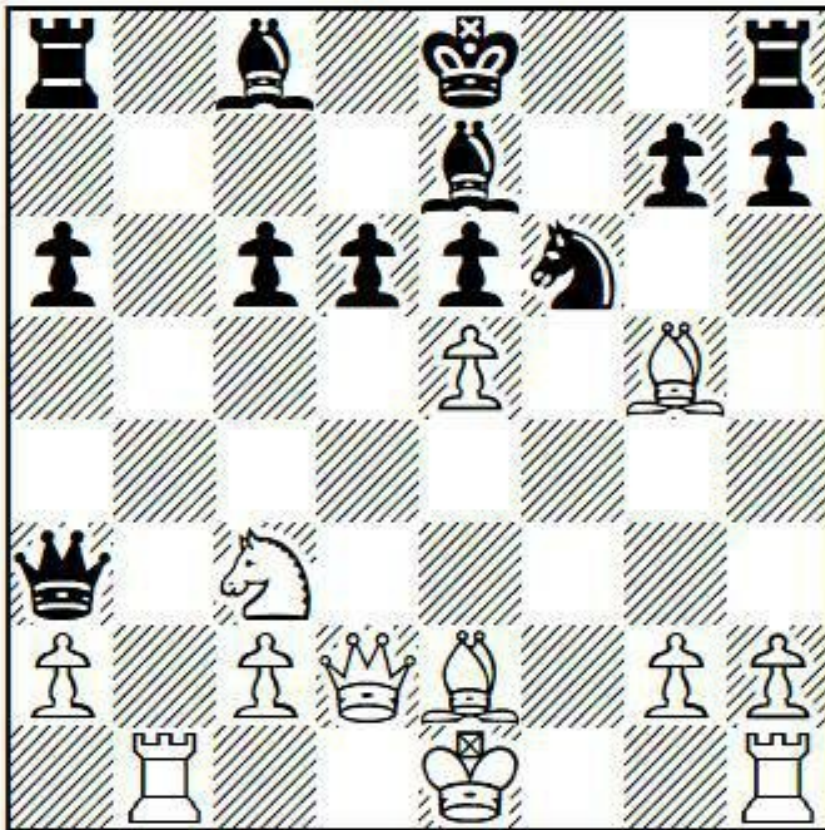
### **13 ... Be7**

13 ... Qa5?! is a poor square for the queen. After 14 0-0 Be7 15 Bf3 we have:

a) 15 ... 0-0? runs into 16 Nd5! when White obtains the initiative in the endgame arising after 16 ... Bd8 17 Qxa5 Bxa5 18 Nxf6+ gxf6 19 Bh6.

b) 15...Bd7 16 Rb7 is rather unpleasant for Black. The king is stuck on e8 and White has control over the b-file.

### **14 e5!**



This rare pawn sacrifice had already been tried a few times before the neural network engines emerged, though we can say that its popularity has increased substantially because of these engines. In fact, it is because of this line that many Najdorf players have switched their attention to an earlier alternative on move 11 or 10.

The old main line beginning with 14 0-0 is by far the most popular way for White to play. However, considering recent top-level games after 14 e5 as well as the modern engines liking to it, 14 e5 will certainly replace 14 0-0 as the main try for an edge.

14 0-0 0-0 15 Rb3 Qc5+ 16 Be3 Qe5 is the old main line of 10 f5, where it is very difficult for White to create any chances against a well-prepared opponent.

**14 ... dxe5 15 Bxf6 Bxf6 16 Bh5+!**

Provoking ... g6, which will make it easier for White to create play on the f-file. The old Stockfish spits out 0 00 here, but in a practical game Black's

position is significantly more difficult to play. As we will see in the game, Black's queenside pieces are left completely out of the game for some time.

16 Ne4 0-0 17 0-0 a5! followed by retreating the queen ( ... Qe7) and then exchanging bishops ( ... Ba6) provides adequate play.

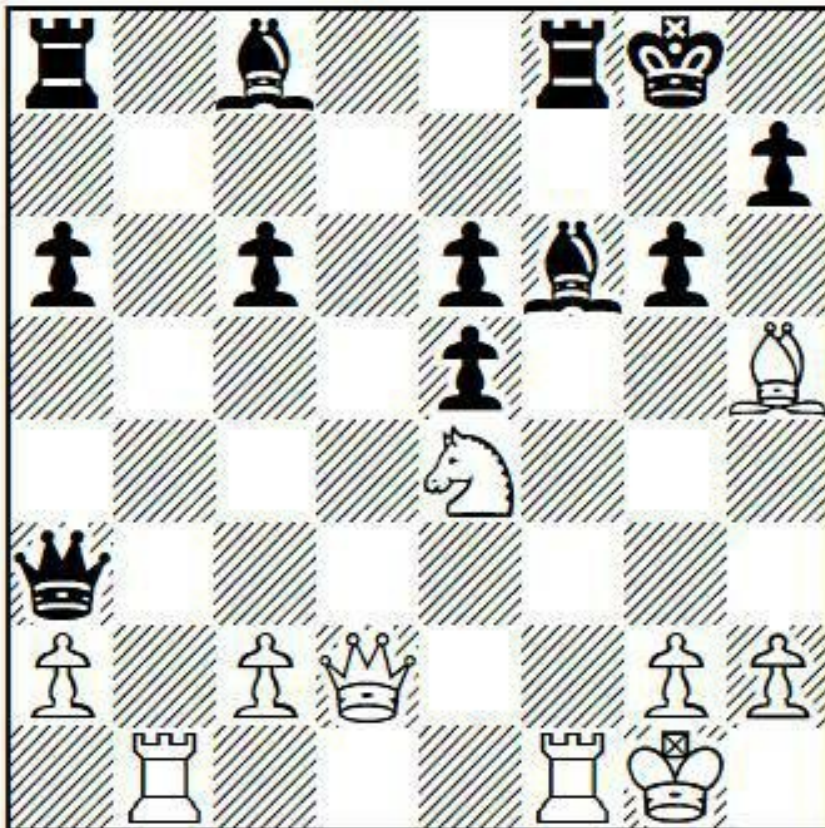
### **16 ... g6**

16 ... Ke7 aims to keep the bishop on f6, trying to prevent White's play on the f-file. After 17 Rd1 Black has:

a) 17 ... e4? 18 Nxe4 Ra7 19 0-0 Rd7 20 Qf2 Rf8 was seen in A.Giri-A.Korobov, Moscow (rapid) 2019, and now a decisive attack could have been launched with 21 Rxd7+ Bxd7 22 Qd2! threatening Rf3 and then a queen invasion to d6. For example, 22 ... Rd8 23 Rf3! and Black's queen cannot move anywhere because of Qd6 mate.

b) Stronger is 17 ... Qc5! 18 Ne4 Qd4 19 Qe2 Qb6 although after either 20 Rf1 or 20 Qf3 Black's position may be objectively sound, but it is extremely difficult to play in a practical game.

### **17 Ne4 0-0 18 0-0**



### 18...Bg7

18 ... Qe7 is the alternative. One sample line is 19 Bg4! Bg7 20 Rxf8+ Bxf8 21 Qa5 and Black's position is extremely unpleasant to play with nearly all of the pieces on the back rank.

### 19 Rxf8+ Qxf8

19 ... Bxf8?? leaves Black's kingside poorly defended. White crashes through with 20 Bxg6! hxg6 21 Qg5 Qe7 (or 21 ... Bg7 22 Rf1 when White's three attackers versus Black's one defender promises a decisive attack) 22 Nf6+ Kg7 23 Rf1 and Qh4 is next.

### 20 Bf3

In return for the two sacrificed pawns, Karjakin has obtained a clear advantage in piece activity. Both of Duda's bishops will struggle to escape from their passive positions.

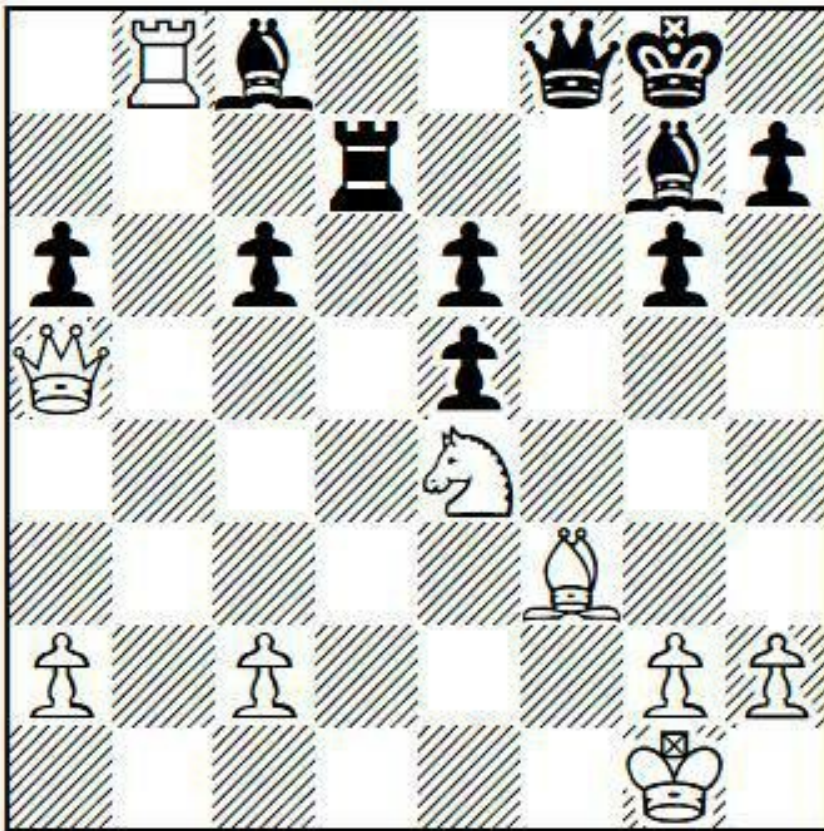
### 20 ... Ra7?

The light-squared bishop had to be freed from its cage. Alternatives:

a) 20 ... Qe7 21 Qa5! is extremely annoying for Black.

b) 20 ... a5! is crucial, without this move Black faces overwhelming practical difficulties. Now White's queen is prevented from invading to a5 and there is also the idea of activating the light-squared bishop with ... Ba6. After 21 Qc3 Bd7 Black survives, although such a position cannot be fun to defend in practice. White can increase the pressure with moves like Rb7 and Qd3 when Black must play very precisely to hold everything together.

**21 Rb8 Rd7 22 Qa5!**



**22...Qd8?**

Duda blunders in a very difficult position, allowing Karjakin to reach a winning endgame.

22 ... Bh6 aims to free the bishop, but Black's position remains paralysed after 23 Kf2! (23 Qxe5? Rd8 24 Nf6+ Kh8 and surprisingly, Black is okay because White doesn't have a clear follow-up) 23 ... Qd8 24 Qxd8+ Rxd8 25 Ra8 reaching a very unpleasant endgame for Black. White will continue to

improve his position with moves like Ke2 and c4, and the powerful knight on e4 can jump to c5 at some point.

**23 Qxd8+ Rxd8 24 Bg4**

Threatening Rxc8 followed by Bxe6+.

**24 ... Kf7 25 Rxc8 Rxc8 26 Nd6+ Kf6 27 Nxc8**

The extra piece provides Karjakin with a winning position.

**27 ... Bf8 28 Bf3 Kf5 29 Bxc6 e4 30 Kf2 Bc5+ 31 Ke2 Kf4 32 a4 a5 33 Kd2 Bb4+ 34 c3 Bc5 35 Ke2 Kf5 36 g3 Ke5 37 Kd2 Bg1 38 h3 Bf2 39 Bb7 Bc5 40 Kc2 h5 41 Kb3 g5 42 Kc4 Bf2 43 g4 h4 44 Ne7 Kf4 45 Nc6 Kg3 46 Nxa5 Kxh3 47 Nb3 Kxg4 48 a5 Ba7 49 Nd4 h3 50 Bxe4 e5 51 Ne2 Kh4 52 Kd5 g4 53 c4 g3 54 Nxc3 Kxc3 55 c5 1-0**

### **Combining 6 Bg5 and 6 f3**

The neural network engines have inspired several new systems against the Najdorf. One that has received a lot of attention (especially because Carlsen tried it several times) is a combination of two main lines: 6 Bg5 and 6 f3. When I first saw this line, I did not understand it at all – the bishop looks completely misplaced on g5, getting in the way of White's attack. However, the ideas that Lc0 and Carlsen introduced in the next two games demonstrate that the combination of Bg5 and f3 leads to complicated and rich middlegames, full of interesting ideas for both sides.

#### *Game 27*

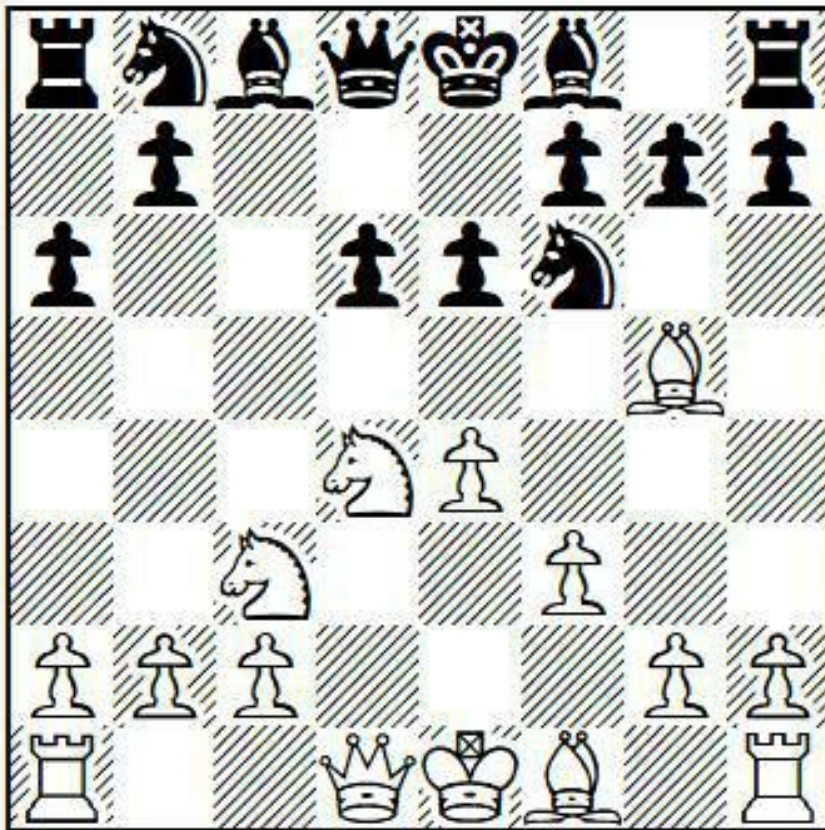
### **Lc0-ScorpioNN**

TCEC 2019

**1 e4 c5 2 Nf3 d6 3 d4 cxd4 4 Nxd4 Nf6 5 Nc3 a6 6 Bg5 e6**

The game started from this position.

**7 f3!?**



Considering how 7 f4 is the most popular choice by an extremely wide margin, this move looks bizarre. White is combining two of the most popular setups against the Najdorf: 6 Bg5 and the English Attack. The purpose of playing 7 f3 is to create an English Attack-like setup now that Black has committed to putting his pawn on e6. However, this appears to be at most a slight inconvenience for Black. A more significant problem seems to be White's bishop on g5, which blocks the g-pawn from advancing to g5. Nevertheless, as we will see in this game, things are not that simple.

**7 ... Be7**

7 ... h6 was MVL's choice against Carlsen and will be examined in the next game.

**8 Qd2 0-0**

It makes a lot of sense for Black to delay castling and focus on the queenside with 8 ... b5! when White has the following options:

a) 9 a4 is not so dangerous, the game is roughly balanced after 9 ... bxa4 10

Nxa4 0-0 11 c4 Bd7 and Black can continue with ... Nc6 and then prepare ... d5.

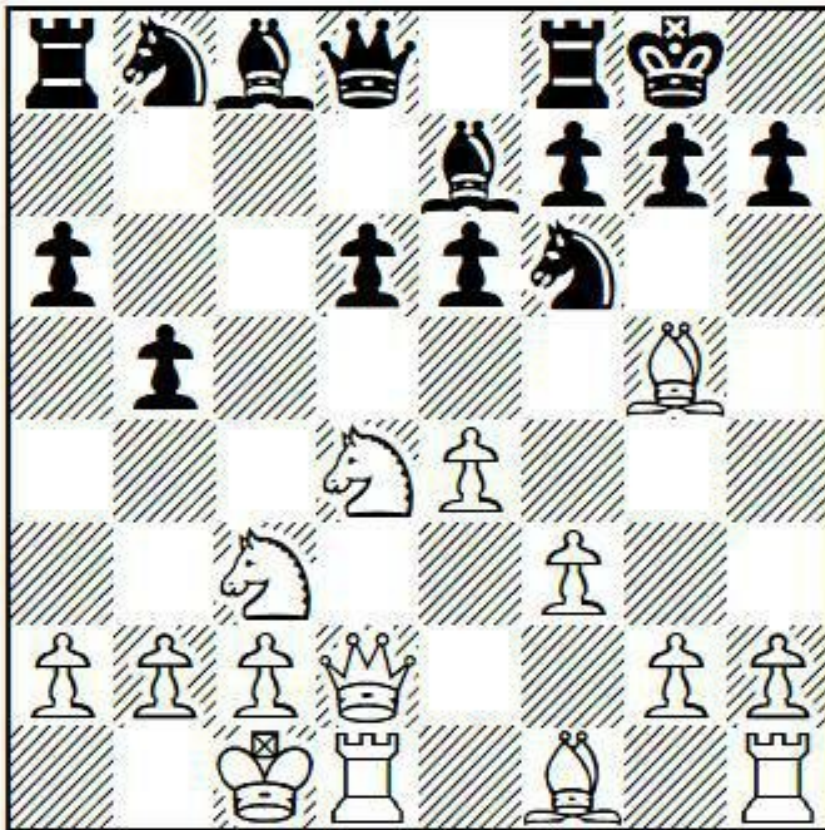
b) 9 g4 Bb7 10 h4 Nbd7 11 0-0-0 reaches a typical English Attack position with the bishop slightly misplaced on g5. There are several ways for Black to play this position, for example: 11 ... h6 12 Be3 and now it is necessary for Black to strike immediately. Otherwise, White will have enough time to play Rg1 and g5. Forcing play arises after 12 ... b4! 13 Na4 Qa5 14 b3 Nc5 15 a3 Nxa4 16 axb4 Qc7 17 bxa4 d5. Interestingly, this reaches an old main line of the 6 Be3 e6 Najdorf (for example, see G.Kasparov-V.Topalov, Wijk aan Zee 2001) with a very important difference: Black has an extra tempo, which was used to develop the bishop to e7.

c) 9 0-0-0 h6 10 Be3 b4! is direct and strong, Black creates immediate play on the queenside before White can finish his setup with a3, g4, Kb1, etc. After 11 Na4 Qa5 Giri mention in his Najdorf course, White has two ways to sacrifice material, but neither promise an advantage:

c1) 12 b3 Bd7 13 Nf5! exf5 14 Bb6 Qe5 15 Bd4 Qa5 16 Bb6 with a draw by repetition.

c2) 12 Nb6 Qxb6 13 Nxe6 Qa5 14 Nxg7+ Kf8 15 Bxh6 Ng8 (alternatively, Black could consider 15 ... Ng4!? with the point that after 16 fxg4 Rxh6 the rook can't be taken because of ... Bg5+; the middlegame remains complicated after 17 Nf5 Rg6) 16 Ne6+ Ke8 17 Ng7+ Kf8 is also a repetition.

**9 0-0-0 b5**



### 10 h4!

10 a3 Bb7 11 Kb1 Nbd7 12 Qe1? (12 h4! is very important, protecting the bishop on g5 and transposing to our main game with 10 h4) was Carlsen's choice in M.Carlsen-A.Giri, chess24 com INT 2020. The move is typical for the line because White wants to meet ... d5 with e5. However, there is a tactical problem:

a) 12 ... Nxe4! 13 Nxe4 Bxg5 14 Nxd6 Bd5 and the trade of minor pieces has provided Black with a clear advantage.

b) Instead, Giri played 12 ... Rc8 13 h4 Qc7 14 Rh3 Rfe8 15 h5 and then found 15 ... Nxe4! which was more than enough to secure the half point needed to win their rapid match.

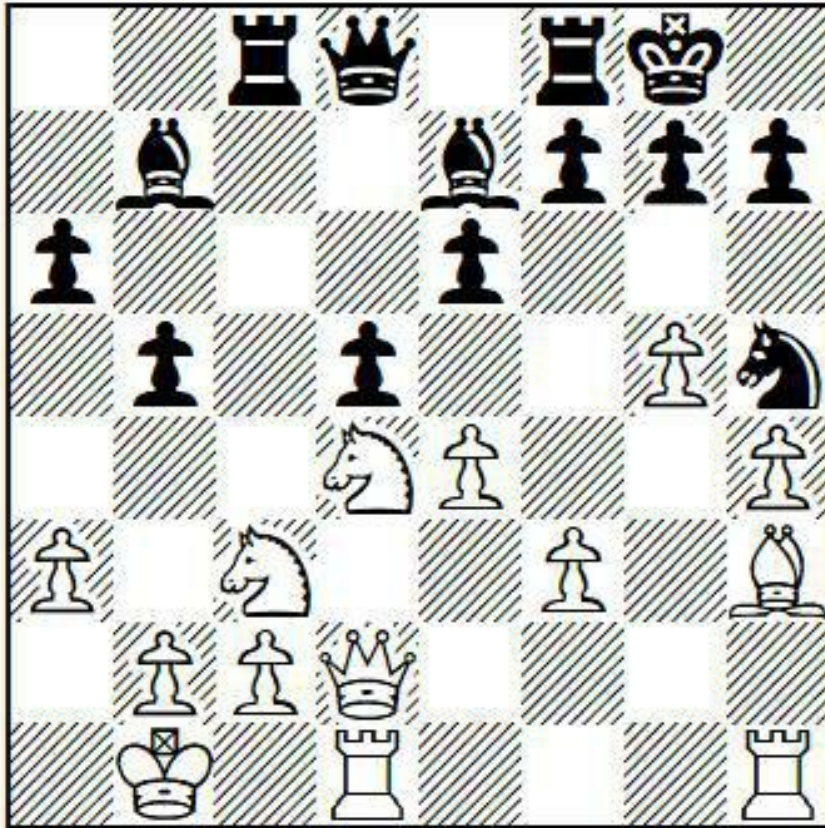
### 10 ... Bb7 11 Kb1 Nbd7 12 a3 h5

Slowing down White's expansion on the kingside. Alternatives:

a) White's setup has been designed to effectively meet 12 ... d5?! with 13 exd5 Nxd5 14 Nxd5 Bxd5 15 Nf5! which is very unpleasant for Black to

face.

b) 12 ... Rc8 13 g4 (the less direct 13 Qe1!? is also playable, after 13 ... h5 14 Rh3 White is ready to play g4 next with a sharp middlegame ahead) was Lc0's preference and it leads to very concrete play. 13 ... d5 14 Bxf6 (White should avoid 14 exd5? because of 14 ... b4 15 axb4 Bxb4 and there is a lot of pressure on the c3-knight) 14 ... Nxf6 15 g5 Nh5 16 Bh3!

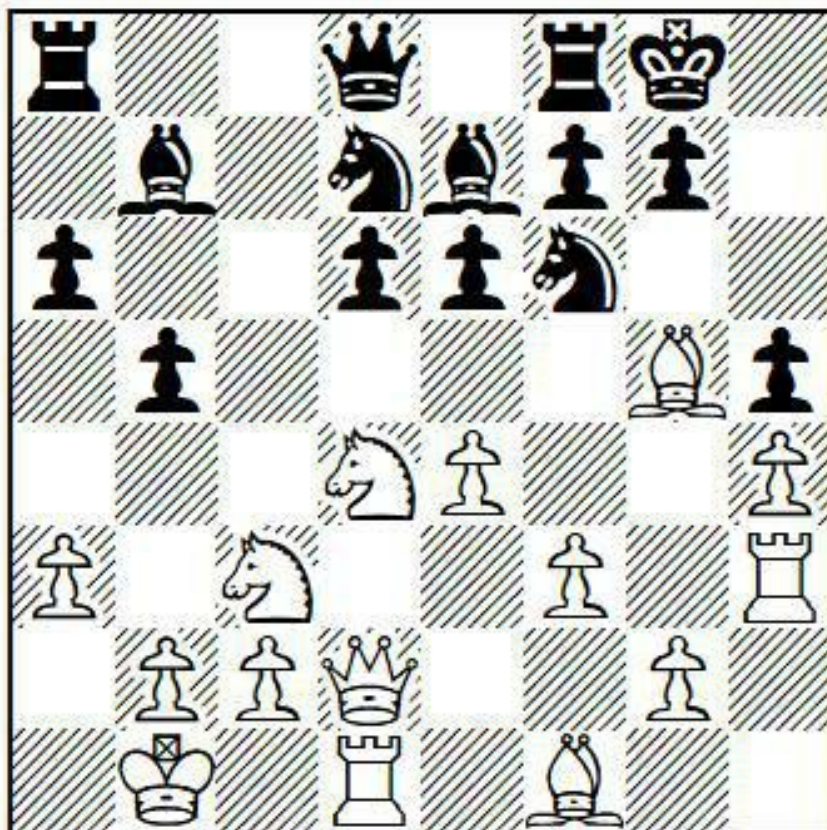


Sets up ideas with Nxe6 or Nxd5 next. Play continues:

b1) 16 ... b4? keeping the queens on the board, but perhaps Black underestimated the strength of Lc0's 21st move, following 17 Nxd5! exd5 18 Bxc8 Qxc8 19 Nf5 Bc5 20 axb4 dxe4 it appears that Black is seizing the initiative, but 21 Nh6+! is an extremely important intermediate move, exposing Black's king. The computer game continued 21 ... gxh6 22 bxc5 Qxc5 23 gxh6 e3 24 Qg2+ Kh8 25 Rhe1 and in Lc0-Andscacs, TCEC 2019, Lc0 eventually converted its advantage by trading off the queens and winning with the queenside passed pawns.

b2) Stronger was 16 ... dxe4! leading to an unbalanced endgame after 17 Nxe6 Qxd2 18 Rxd2 fxe6 19 Bxe6+ Kh8 20 Bxc8 Bxc8 21 Nxe4 where Black faces a slightly unpleasant defence, but it is certainly playable.

**13 Rh3!**



**Question:** What is Lc0's idea with Rh3?

**Answer:** There are several useful purposes of 13 Rh3. In some variations where the b7-h1 diagonal opens up, the rook is much safer on h3 (see 13 ... Rc8 14 g4! below). There are also some ideas of playing Rg3 followed by Bh6 (see 13 ... Rb8 14 Rg3 below). Lastly, the rook is simply more useful on h3 than on h1. As we will see in the game, the h3-rook serves a defensive purpose along the third rank and can be used to double the rooks on the h-file.

The immediate 13 g4 was also possible, but by starting with 13 Rh3, Lc0 prefers to not show its kingside intentions just yet. After 13 ... hxg4 14 fxg4

Rb8! intending ... Ba8 and ... b4 looks like a slow plan, but it works out. For example, 15 Bxf6 Bxf6 16 g5 Be5 17 g6 Nc5 18 h5 and despite White's far advanced kingside pawns, 18 ... Qa5! provides sufficient counterplay, threatening ... Nxe4 or ... b4 next.

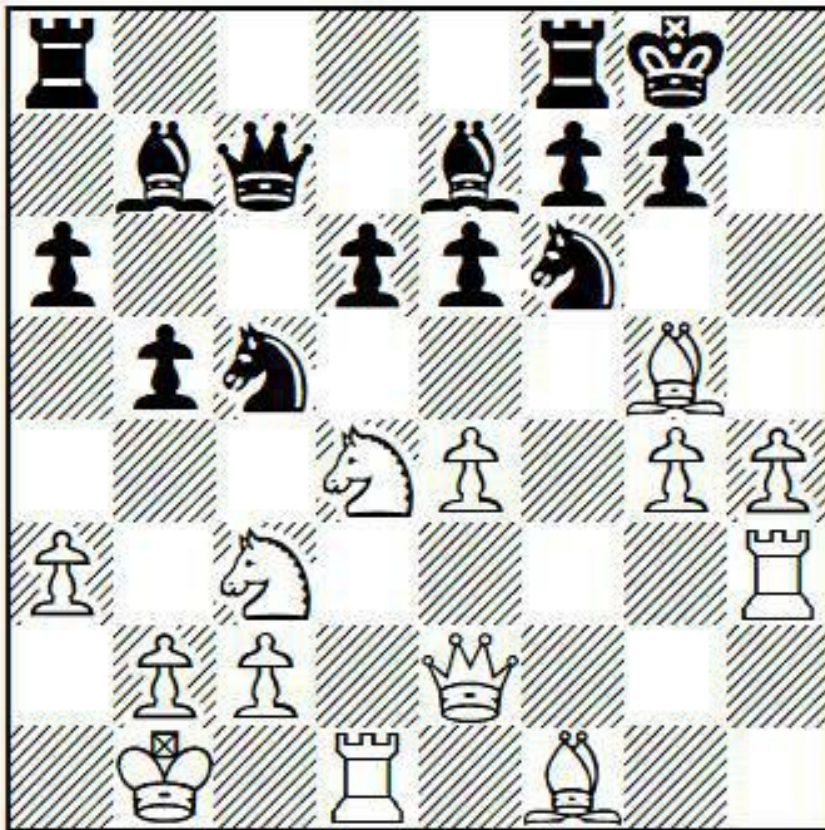
### **13 ... Qc7**

Other setups:

a) 13 ... Rc8 14 g4! is the most energetic continuation. Following 14 ... hxg4 15 fxg4 Nxe4 (15 ... Rxc3? is ineffective because after 16 Qxc3 Nxe4 17 Qe3 the rook is safely placed on h3; additionally, 17 ... Bxg5 18 hxg5 Qxg5 19 Qg1! threatens a powerful battery on the h-file with Qh2) 16 Nxe4 Bxe4 17 Bg2 Bxg2 18 Qxg2 looks very dangerous for Black because the g and h-pawns can quickly advance towards the king.

b) 13 ... Rb8! is one case where it is best for White to refrain from playing g4. A complicated middlegame arises after 14 Rg3 (14 g4 hxg4 15 fxg4 Ba8! and Black obtains sufficient counterplay along the b-file; for example, 16 Bxf6 Bxf6 17 g5 Be5 and ... b5 is threatened next) 14 ... Kh8 when White can choose from several different plans. Lc0 proposed the following deep plan: 15 Be2!? Ba8 16 Na2! preventing ... b4 and preparing Nb4-d3. After the knight reaches d3, Black will have major difficulties in creating queenside play. Meanwhile, White has ideas of creating play in the centre with e5 or playing Nf4 and targeting Black's weaknesses.

### **14 g4 hxg4 15 fxg4 Nc5 16 Qe2**



### 16...Rab8

Taking the e4-pawn doesn't solve Black's problems:

16 ... Ncxе4? runs into 17 Bxf6 Nxf6 18 g5 Nd7 19 g6 with a crushing attack.

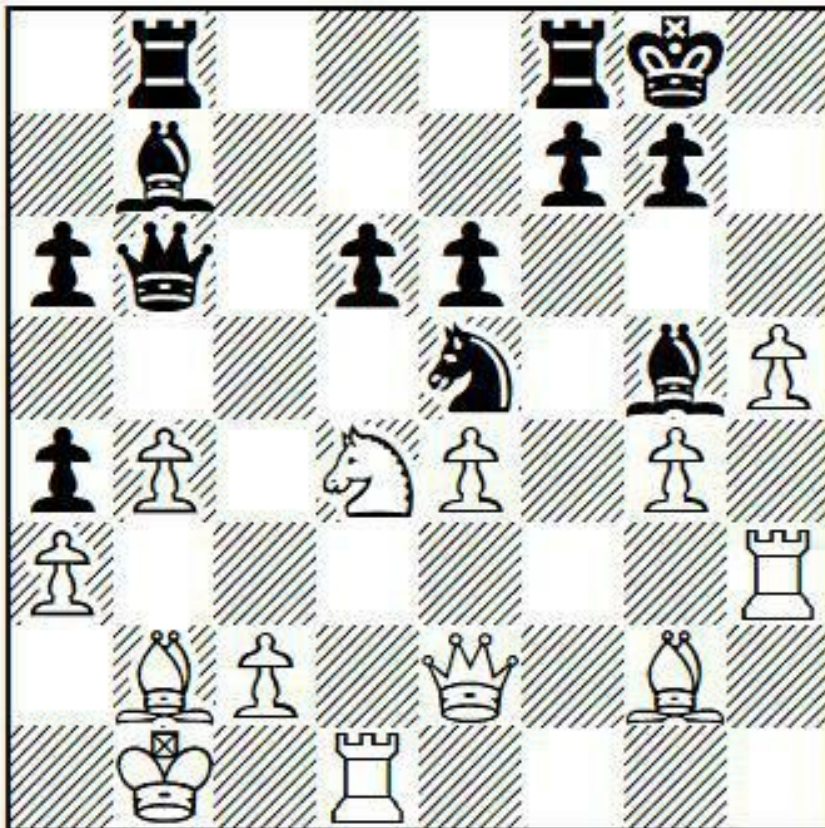
16 ... Nfxe4 is more difficult to crack, but White can employ the same idea that Lc0 uses in the game with 17 b4! Nf6 18 Bc1! (rerouting the bishop to the b2-g7 diagonal and clearing the path for the g4-pawn) 18 ... Nce4 19 Bb2 and Black will soon find himself faced with major difficulties on the kingside.

### 17 Bg2 Qb6 18 b4 Na4 19 Bc1!

A very powerful idea. By retreating the bishop, the g-pawn can move forward. More importantly, the bishop will find a home on b2, where it serves as a defensive piece and as an attacker pointing at the g7-pawn.

19 Nxa4 bxa4 20 Bc1! is the same.

19 ... Nd7 20 Nxa4 bxa4 21 Bb2 Ne5 22 h5 Bg5



*Exercise:* How to continue the attack?

**Answer: 23 h6!**

Not giving Black the chance to create a defensive barrier on the kingside.

For example, 23 Rdh1? Kh7! holds the kingside together. After 24 h6 g6 Black's king is perfectly safe on h7.

**23 ... gxh6**

23 ... g6 24 Nf3! followed by h7+, forcing the king to either g7 or h8, when the b2-bishop will be extremely useful on the long diagonal.

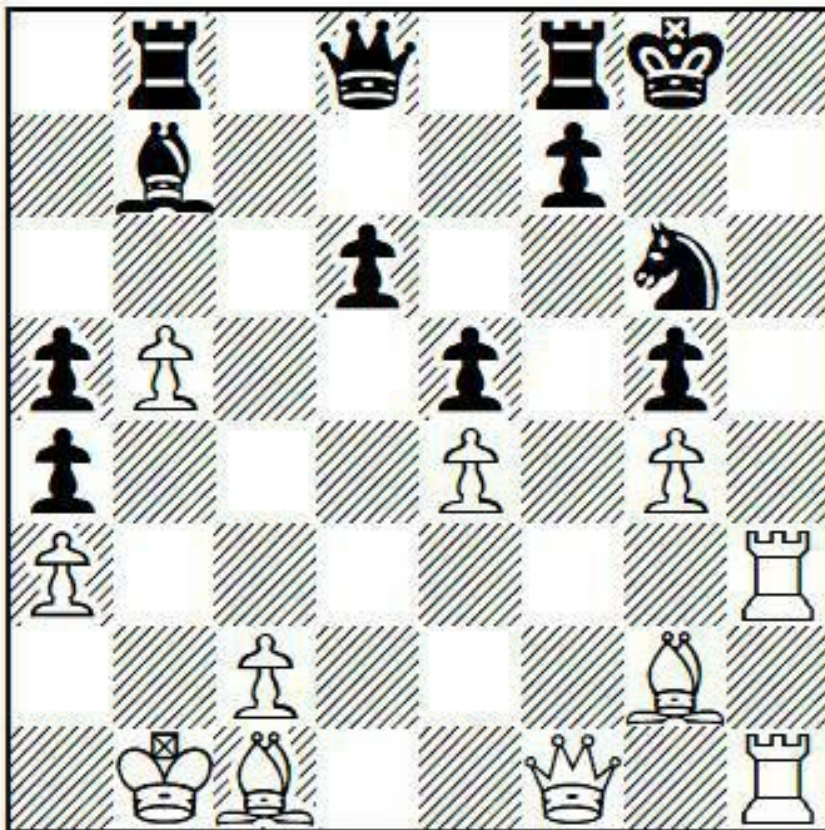
**24 Rdh1 a5 25 b5**

Rxh6 is threatened next, destroying Black's kingside.

**25 ... Ng6 26 Nf3**

26 Rxh6?! Bxh6 27 Rxh6 can be met by 27 ... e5 blocking the b2-h8 diagonal. White still has a great position, but it is not as clear as the one which occurs in the game.

26 ... e5 27 Nxc5 hxc5 28 Qf1 Qd8 29 Bc1!



The bishop switches back to the c1-h6 diagonal to target the weak g5-pawn, and Black's position collapses.

29 ... Bc8 30 Bf3 Qf6 31 Rh5 Rxb5+ 32 Ka1 d5 33 Bxc5 Qd6 34 Qxb5 Qxa3+ 35 Kb1 Qd6 36 Rh6 d4 37 Be2 Bd7 38 Rxc6+ fxc6 39 Bc4+ Be6 40 Bh6 d3 41 Bxe6+ Qxe6 42 Bxf8 dxc2+ 43 Kc1 g5 44 Bc5 Qf6 45 Qe8+ Kg7 46 Qh8+ Kf7 47 Rh7+ Kg6 48 Rh6+ 1-0

Carlsen and MVL had an extremely complicated battle in this 7 f3!? Najdorf system at the 2019 Grand Chess Tour Finals.

Game 28

M.Carlsen-M.Vachier Lagrave

London Classic 2019

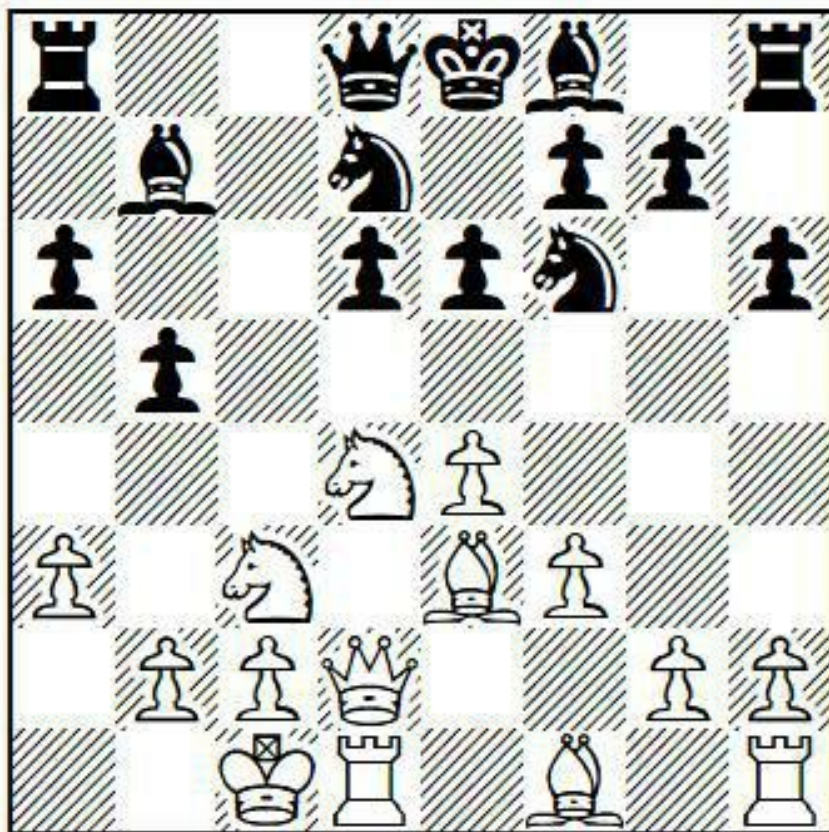
**1 e4 c5 2 Nf3 d6 3 d4 cxd4 4 Nxd4 Nf6 5 Nc3 a6 6 Bg5**

The English Attack move order 6 f3 e6 7 Be3 b5 8 Qd2 Nbd7 9 a3 h5 10 0-0 Bb7 is a more common way of reaching the position that arises in the game (see the position after Black's 11th move).

**6 ... e6 7 f3!? h6**

Faced with a surprise on move 7, MVL didn't try to find the most critical test of Carlsen's unusual setup. Instead, he finds a transposition to a line that he was familiar with from the English Attack.

**8 Be3 b5 9 a3 Nbd7 10 Qd2 Bb7 11 0-0-0**



**11...h5**

Black has spent two tempi on ... h6-h5 and White has also spent two tempi on Bg5-e3, so we have transposed to a line from the English Attack (usually arising via 6 f3 e6 7 Be3 b5 8 Qd2 Nbd7 9 a3 h5 10 0-0-0 Bb7). The

middlegame is full of subtleties and move orders, often centering around two ideas: Black playing ... d5 and White playing g4. Usually if one side gets their idea in favorably, they will obtain a very pleasant position. Besides pushing the pawn to h5, Black can consider:

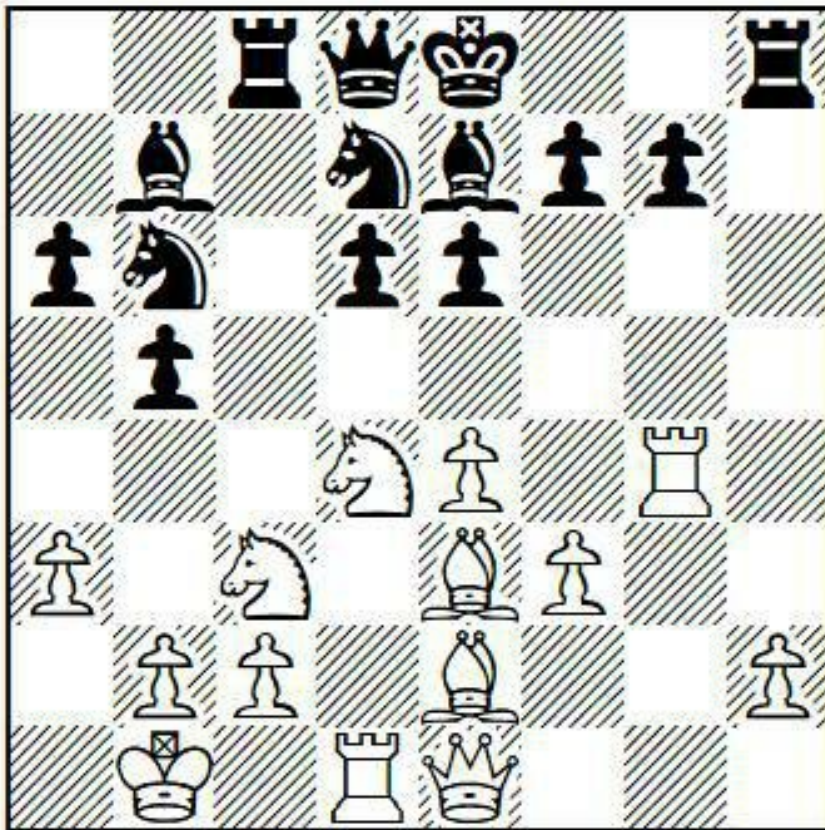
a) 11 ... d5?! is too early, following 12 exd5 Nxd5 13 Nxd5 Bxd5 14 Nf5! Black has difficulties in developing his kingside.

b) 11 ... Rc8 12 Kb1 Be7 13 Be2 Ne5 (13 ... d5?! is too early in view of 14 exd5 Nxd5 15 Nxd5 Bxd5 16 Nf5! and White is slightly better after 16 ... 0-0 17 Nxe7+ Qxe7 18 Qb4! with the idea of transferring the queen to the kingside) 14 Qe1! is a typical prophylactic measure against ... d5. The queen is much safer from Black's attacks on e1 and the d1-rook sets up an x-ray on Black's d8-queen. After 14 ... Qc7 (14 ... d5? runs into major problems after 15 f4 Nc4 16 Bxc4 Rxc4 17 e5 Nd7 18 f5 and Black's position collapses) 15 Rg1 we reach a very complicated middlegame where the plans for both sides are quite similar to our main game: White will play g4 and advance on the kingside, while Black will try to find the best moment to play ... d5.

### **12 Kb1 Be7 13 Qe1!?**

At the time of writing, theory is very undeveloped in these lines and players often improvise and go their own way. Still, it is more common in practical and correspondence chess to develop with Rg1 and Be2 before playing Qe1.

13 Rg1 Rc8 14 Be2 Nb6 15 Qe1!? (prophylactics against ... d5; 15 Bg5 is a popular choice in correspondence chess and I wouldn't be surprised if this is tested in future games, considering how MVL comfortably extinguished Alekseenko's play after 15 Qe1) 15 ... Nfd7 (15 ... d5? 16 e5 Nfd7 17 f4 and g4 next is very dangerous for Black) 16 g4 hxg4 17 Rxc4 reaches a critical position.



MVL has tried:

a) 17 ... Bf8? occurred a couple days after our main game, in the rapid portion of the match between M.Carlsen-M.Vachier Lagrave, London (rapid) 2019. But here, Carlsen could have taken advantage of MVL's undeveloped kingside with 18 Bg5! Qc7 19 Rh4 Rxh4 (Black cannot prevent the queen from reaching the h-file, for example, 19 ... Rg8?! 20 f4 Na4 21 Nd5! is crushing) 20 Qxh4 Na4 21 Nxa4 bxa4 22 Qh8! Ne5 23 Qg8 targeting the e6-pawn and creating ideas with Nxe6 or f4-f5.

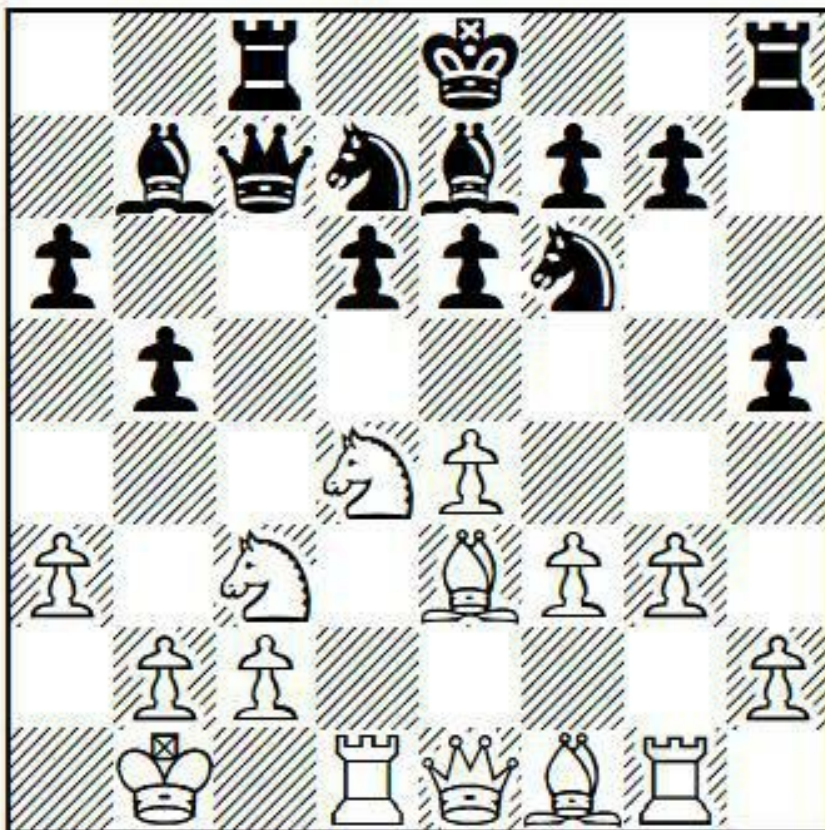
b) 17 ... g6! is a scary move to play unprepared because of the various sacrificial ideas that White has around Black's king. This was MVL's improvement over his game against Carlsen and one that he used in the 2020 Candidates Tournament. The main ideas for White here are based on breaking through by taking on either e6 or g6. However, MVL had clearly prepared this improvement and knew how to respond to these aggressive options. Play continued 18 Rxc6 (18 Nxe6 fxe6 19 Rxc6 Nf8 holds

everything together, Black can continue with ... Nbd7 and ... Bf6) 18 ... Rxc3! 19 Nxe6 (19 Qxc3 Na4! another intermediate move is necessary because Black's rook on h8 is targeted by White's queen; following 20 Qd2 fxe6 21 Nxe6 Qc8 reaching a very sharp but objectively balanced position) 19 ... Qc8 20 Ng7+ Kf8 21 Rh6 Rxh6 22 Bxh6 Rxc2 looks like a complete mess, but K.Alekseenko-M.Vachier Lagrave, Ekaterinburg 2020, soon ended in a draw by perpetual which was likely prepared by MVL in his home analysis.

**13 ... Rc8 14 Rg1 Qc7**

Carlsen provided some insight into the ideas of this middlegame after the game: it revolves around whether or not Black can achieve ... d5 under favourable circumstances.

**15 g3!?**



**Question:** What is the idea behind 15 g3?

**Answer:** 15 g3 has several purposes:

1. White intends to meet 15 ... d5 with 16 Bf4.

2. If Black doesn't play 15 ... d5, then White can play 16 Rg2 next (as occurs in the game).

3. White can consider playing 16 h3 next because ... h4 will not restrain the kingside.

15 Bg5 looks like a reasonable way to discourage ... d5, but there is 15 ... Nxe4! The game continues after 16 Ncxb5! axb5 17 Bxe7 Kxe7 18 fxe4 Qc5! (18 ... Nf6?! would allow White to develop comfortably with 19 Bd3 followed by Nxb5) and Black should be fine.

### **15 ... Ne5**

15 ... d5! leads to very sharp and unclear play. For example, 16 Bf4 e5 17 exd5 Nxd5 (17 ... exf4 18 Ndx5 axb5 19 d6 Qd8 20 gxf4 Kf8 is also very messy) 18 Nxd5 Bxd5 19 Bh3 as mentioned by Carlsen leads to a double-edged and unclear position.

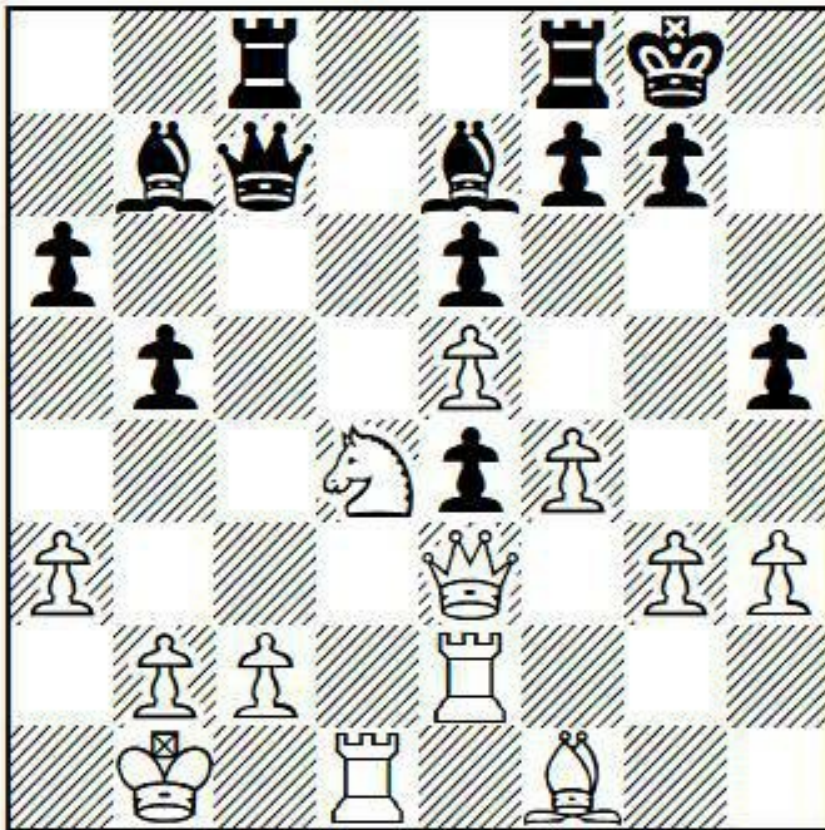
### **16 Rg2**

From g2, the rook defends the c2-pawn. However, 16 h3! was a more promising way of preparing to meet ... d5, for example, 16 ... d5 (16 ... 0-0? runs into 17 g4 and the kingside will be opened) looks very logical because White was ready to strike with g4 next. Play continues 17 f4 Nc4 18 e5 Ne4 (18 ... Nxe3?! 19 Qxe3 Ne4 20 Nxe4 dxe4 contains some similarities to the game, but because White's rook is not on g2, 21 Bg2 simply picks up the e4-pawn) 19 Bxc4 dxc4 (19 ... Qxc4 20 Na2! preventing Black from gaining space on the kingside; next will come Rg2 to defend the second rank and then g4) 20 Nxe4 (or the sharper 20 f5 preparing to open up the kingside leads to complications which should favour White) 20 ... Bxe4 21 Bd2! and Bb4 next creates a good defence on the dark squares and provides White with a positional advantage.

### **16 ... 0-0 17 h3 d5**

It is necessary to carry out this advance now because White was ready to open the kingside with g4.

### **18 f4 Nc4 19 e5 Nxe3 20 Qxe3 Ne4 21 Nxe4 dxe4 22 Re2**



The next critical moment has been reached. MVL's e4-pawn is about to be picked up with Bg2-e4, so he must continue playing energetically.

### 22 ... Bd5

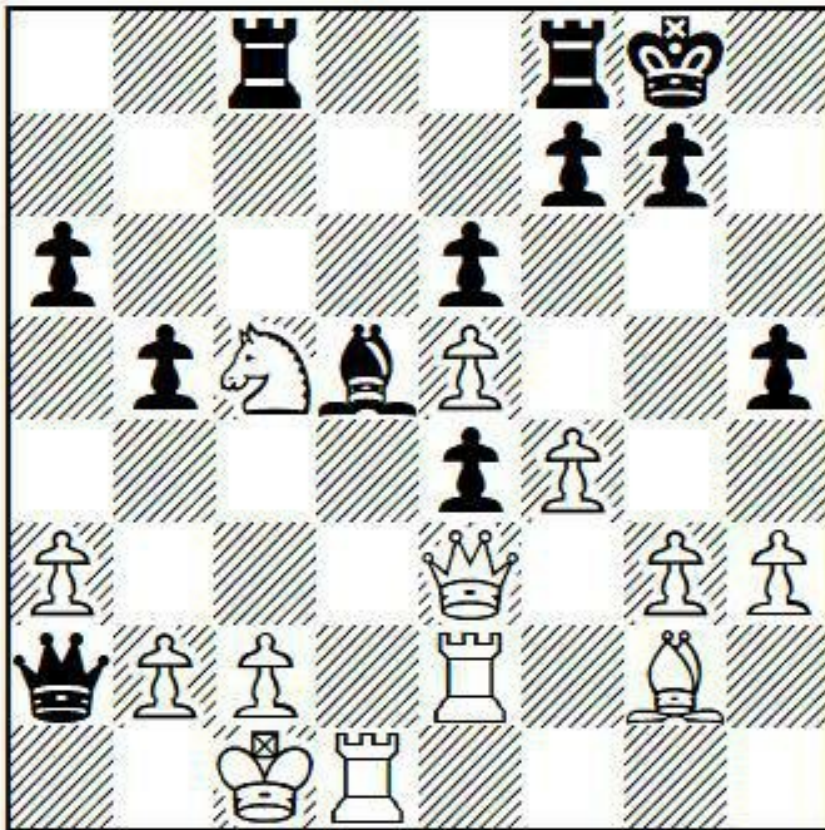
Aiming to target Carlsen's weak queenside light-squares. Opening up the queenside immediately was another attacking idea that also deserved attention.

22 ... b4! is very strong, based on an idea that Black has to counter White's pawn grabbing. Play may continue 23 axb4 Bxb4 24 Bg2 Rfd8 and now:

a) 25 Bxe4? Bxe4 26 Qxe4 Qb6! is the important point, intending ... Rc4 and White is lost.

b) 25 c3 Ba5 and ... Bd5 and ... Rb8 can be played next. Or if 26 Bxe4? then there is 26 ... Bxe4+ 27 Qxe4 Bxc3! breaking through on the queenside.

### 23 Bg2 Qc4 24 Nb3 Bc5 25 Nxc5 Qa2+ 26 Kc1



A very complicated position has arisen. Not only are the lines challenging to calculate accurately, but the resulting positions are incredibly difficult to evaluate as well. This is especially the case in the 28 Na4!/? lines below.

**26 ... Rfd8**

26 ... Bc4?! 27 Nxe4 Bxe2 28 Qxe2 Qa1+ 29 Kd2 Qxb2 30 Qd3 and Nd6 can be played next, when White is holding everything together.

**27 c4! bxc4 28 Red2**

The game fizzles out to a draw after this.

28 Na4!/? is scary to play as White in the following lines:

a) 28 ... c3? 29 Nxc3 Qa1+ 30 Kc2 and Carlsen pointed out the following line after the game: 30 ... Rxc3+ (30 ... Bb3+ doesn't quite work because of 31 Kxb3 Rxd1 32 Bxe4 Rb8+ 33 Ka4! and the king escapes, leaving Black with a lost position) 31 Qxc3 Bb3+ 32 Kxb3 Qxd1+ 33 Qc2 Qd5+ 34 Qc4 Rb8+ 35 Kc3 and White escapes again.

b) 28 ... Bc6! 29 Rxd8+ Rxd8 30 Nc3 Qa1+ 31 Nb1 Rd3 and although

White should be okay, it looks very dangerous with Black's major pieces swarming around the king and ... c3 coming soon. This line is the reason Carlsen rejected 28 Na4.

**28 ... Qa1+ 29 Kc2 Qa2 30 Kc1 Qa1+ 31 Kc2 Qa2 32 Kc1 ½-½**

### **Review of Chapter Three**

1. Castling on opposite sides and then attacking on both sides of the board is a very ambitious plan, but the neural network engines show that it can be extremely strong in certain situations. We saw examples of this at the start of the chapter and in l'Ami's Game 25.

2. In Game 21 between Lc0 and Stockfish, we observed that the older engines struggle against the newer ones in closed, strategic middlegames because concrete calculation is much less effective in such positions. More examples of their differences in long-term thinking can be found throughout the book, especially in Chapter 6 on Closed Positions.

3. The newer engines have the remarkable ability to bring long-term strategic ideas into the sharpest positions. Karjakin's pawn sacrifice in Game 26 is an excellent example of this. In a critical main line of the Poisoned Pawn variation, he sacrificed another pawn for piece activity and obtained long-term positional advantages.

4. The Najdorf is an incredibly rich opening with new systems and ideas constantly being generated by the world's best players. One piece of evidence for the Najdorf's inexhaustibility was shown near the end of the chapter with Carlsen's 7 f3!? system, which leads to fascinating complications. It is remarkable that in one of the most heavily analyzed openings, such a fresh idea exists at an early stage.

### **Additional Material**

Kirill Shevchenko-Lu Shanglei, Seville Open 2020

Fabiano Caruana-Maxime Vachier-Lagrave, Candidates Tournament 2021

Fabiano Caruana-Maxime Vachier-Lagrave, Sinquefield Cup 2021

Jorden Van Foreest-Nils Grandelius, Tata Steel 2021

Maxime Vachier-Lagrave-Ding Liren, Opera Euro Rapid 2021

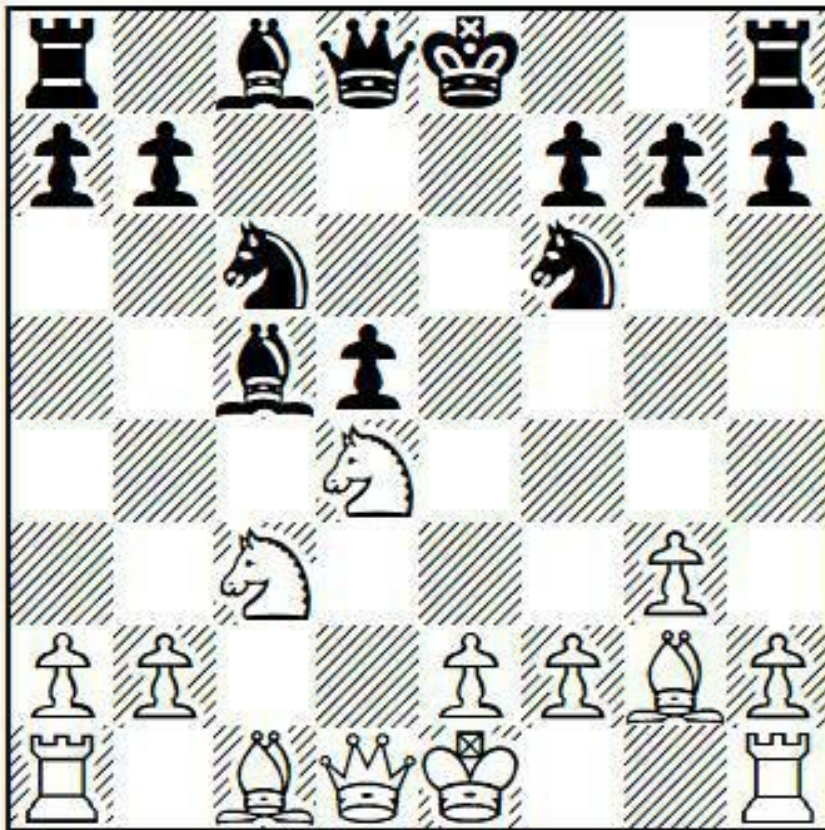
# Chapter Four

## AI-inspired Openings

The impact of neural network engines on the opening extends beyond new ideas in existing openings. They have inspired entirely new systems by suggesting innovative concepts at a very early stage in the game. We will discuss three systems in this chapter: the 3 h4 Grünfeld, Dubov's Tarrasch, and a fresh approach to the Rossolimo. These three openings, especially the first two, have been thoroughly inspired by the neural network engines and now do not look anything like the way someone in 2018 or before would handle them.

The 3 h4 Grünfeld firmly established itself as a serious try in 2021 when it was used in many important games by the world's best players. Black has experimented with lots of different defences, but none of them has proven to be fully satisfactory in practice. The 3 h4 system leads to very rich and complicated middlegames, where it is difficult for Black to solve his opening problems concretely, unlike many other lines of the Grünfeld.

One of the most interesting openings that I analyzed for this book was the Dubov Tarrasch. All of the middlegames are so fresh and full of pawn sacrifices, flank attacks, and unusual pawn structures. It is remarkable that a new system exists at such an early stage in a classical opening like the Tarrasch.



Finally, the chapter concludes with three games on the Rossolimo where White delays capturing on c6 in favour of play in the centre. This system is not new at all, but the ideas that the neural network engines have introduced completely changes the picture of the opening.

### **A Surprise on the Third Move**

Back in Chapter 1, we saw many fresh ideas involving h4-h5 in the Exchange Grünfeld. However, I omitted one of the most surprising development in the Grünfeld over the past few years: advancing the h-pawn on move 3. This new and exciting system has been filled with creative ideas by the neural network engines. Among others, Alexander Grischuk and MVL have put these ideas into practice and significantly advanced the theory of 3 h4, so we will pay close attention to their games throughout this section. Since 2019, 3 h4 has developed a major body of theory and the main setups that Black can choose

are loosely divided into the following:

1. Benko Gambit (Grischuk-MVL).
2. Grünfeld (see the notes to Grischuk-MVL).
3. King's Indian Defence (Fedoseev-Carlsen).
4. Benoni (Paravyan-Wagner and Ding Liren-MVL).

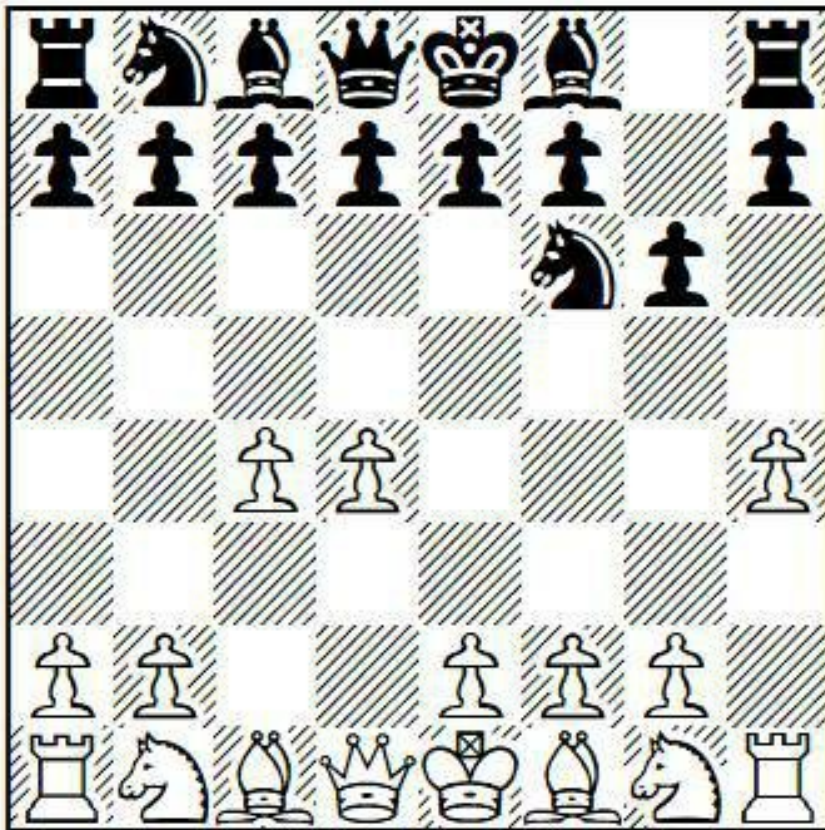
As we will see in the following four games, there is something rather unusual about the 3 h4 variation. All of Black's options look great: Black can get a good version of a Benko Gambit, a good version of a Benoni, or a King's Indian where White has committed to h4!? But the one thing that Black cannot get is a satisfactory version of the Grünfeld. Therefore, 3 h4 is truly an Anti-Grünfeld system, where White is willing to accept worse versions of other openings just to avoid the Grünfeld.

*Game 29*

**A.Grischuk-M.Vachier Lagrave**

Riga FIDE Grand Prix 2019

**1 d4 Nf6 2 c4 g6 3 h4!?**



An extremely modern system, which first arrived at the top level in the 2016 Candidates when Topalov used it against Giri. In 2019, this move experienced a tremendous burst in popularity, especially because modern engines have found that h4 is useful in many different lines. Since then, 3 h4 has been used in many important games, including the present game, MVL-Nepomniachtchi (Jerusalem 2019), Shankland-Svidler (Sochi 2021), and by Ding Liren in the 2021 FIDE Candidates against MVL.

### 3 ... c5

3 ... Bg7 4 Nc3 d5 seems natural for a Grünfeld, but Black is under quite a lot of pressure in this line. Play continues 5 h5! Nxh5 6 cxd5 e6 and now:

a) The less aggressive 7 dxe6 gave Black a decent position in A.Grischuk-I.Nepomniachtchi, Amsterdam (rapid) 2019, after 7 ... Bxe6 8 Nf3 Nc6 9 e3 Qe7 when Black didn't have too much to worry about because it is difficult to see how White could generate a kingside attack.

b) 7 g4! was MVL's improvement over Grischuk's 7 dxe6. White's idea is

connected with a pawn sacrifice in return for central control and the initiative. Following 7 ... Nf6 8 dxe6 Bxe6 9 e4! (9 g5?! Nh5 10 Bg2 c6 is not nearly as dangerous for Black) sacrificed the g4-pawn in return for active play. The game continued 9 ... Bxg4 10 f3 Be6 11 Bg5 h6 12 Be3 c6 13 Nge2 Bc4 14 Qc2 when White had excellent compensation for the pawn in M.Vachier Lagrave-I.Nepomniachtchi, Jerusalem 2019.

#### **4 d5 b5**

Black plays a Benko Gambit (1 d4 Nf6 2 c4 c5 3 d5 b5) and argues that White's h4 has been a wasted tempo. Objectively speaking however, this approach doesn't allow Black to solve his opening problems. If Black wants to play the Benko Gambit against 3 h4, then he should play it through the move order seen in M.Vachier-Lagrave-P.Svidler, Saint Louis 2021, which we will briefly look at in the next game. Others:

a) 4 ... Bg7 will be analyzed in the next game.

b) 4 ... e6 intends to play ... exd5 and reach a good version of a Benoni pawn structure. Now (5 Nc3 exd5 6 cxd5 d6 would lead to an excellent Benoni for Black, the pawn on h4 is probably more of a weakness than a strength because it weakens the g4-square) 5 dxe6! forces Black to accept either a slightly worse endgame, or a poor pawn structure: 5 ... fxe6 (or 5 ... dxe6 6 Qxd8+ Kxd8 7 Nc3 Bg7 8 Bf4 followed by castling queenside with some pressure because of the weak d6-square) 6 Nc3 Nc6 7 Nf3 when there is no clear path to finish developing, for example, 7 ... d5 (or 7 ... Bg7 8 Qd6! Qe7 9 Bf4 is unpleasant) 8 Bg5 Be7 9 e3 and the d5-pawn is very weak.

#### **5 cxb5 a6 6 e3!**

Grischuk's improvement over the Topalov-Giri game below.

6 bxa6 Bg7 7 Nc3 0-0 8 e4 d6 9 Nf3 Qa5 10 Bd2 Bxa6 gave Black a good version of a Benko Gambit in V.Topalov-A.Giri, Moscow 2016.

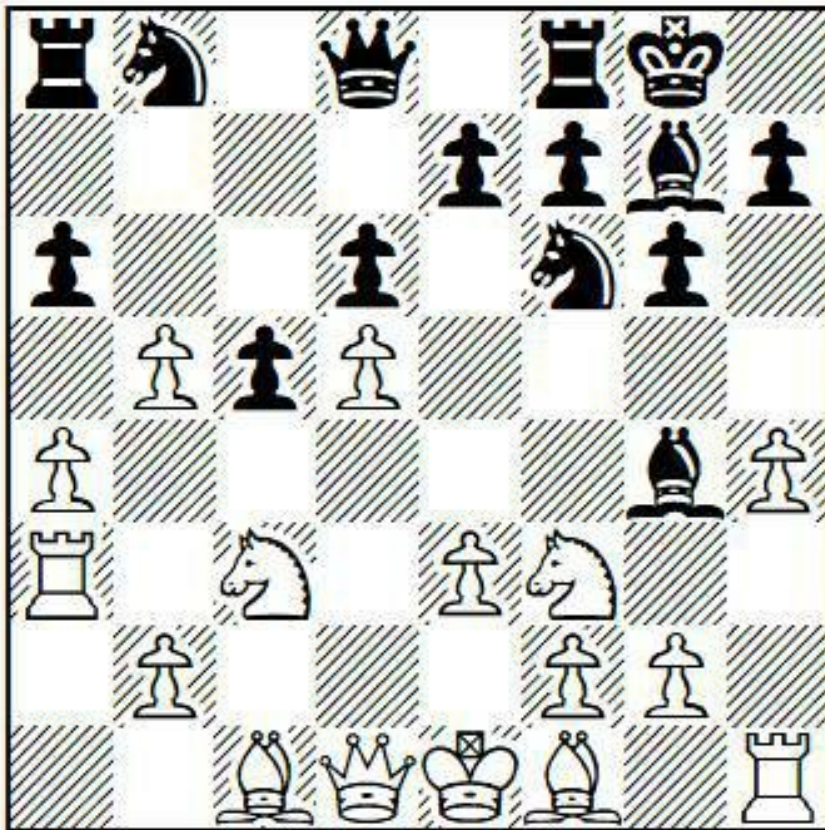
#### **6 ... Bg7 7 Nc3 0-0 8 Nf3**

8 h5?! is a direct attempt that doesn't quite work after 8 ... Nxe5 9 g4 Nf6 10 g5 Ne8 11 Qa4!? brings the queen over to h4 but fails to a typical defensive idea. Black is doing very well after 11 ... Bb7 12 Qh4 h5! 13 gxh6 Bf6 when there is no way for White to break through on the kingside.

#### **8 ... d6**

A more direct plan was 8 ... e6!? aiming for quick counterplay in the centre before White has the chance to play a4 and castle. Still, White has the upper hand after 9 a4 exd5 10 Nxd5 Bb7 11 Nxf6+ Qxf6 12 Be2 and castles next.

#### **9 a4 Bg4 10 Ra3**



Stabilizing the rook, but perhaps in future games, White will omit this move:

a) 10 Be2 prepares castling, but then White will just need to move his bishop again after 10 ... axb5 11 Bxb5.

b) 10 e4 may be a slight improvement over Grischuk's 10 Ra3. One sample line is 10 ... axb5 11 Bxb5 Na6 12 Be2 Nb4 13 0-0 Qb6 14 Be3 Nd7 15 Qd2 with a similar position to the game. Black has typical Benko-like compensation on the queenside, but the extra pawn should provide White with an advantage.

**10 ... axb5**

10 ... Nbd7!? deserved attention, aiming to create some problems for White before he finishes his development. For example, 11 bxa6 Ne5 12 Be2 Nxf3+ 13 gxf3 Bc8 followed by ... Bxa6 with reasonable compensation.

**11 Bxb5 Na6 12 e4 Nb4 13 Be2**

13 0-0?! Bxf3 14 Qxf3 Nc2! 15 Ra2 Nd4 16 Qd3 Ng4 activates the knights

and gives Black counterplay, as pointed out by MVL after the game.

**13 ... Nd7 14 0-0 Qb6 15 Re1?!**

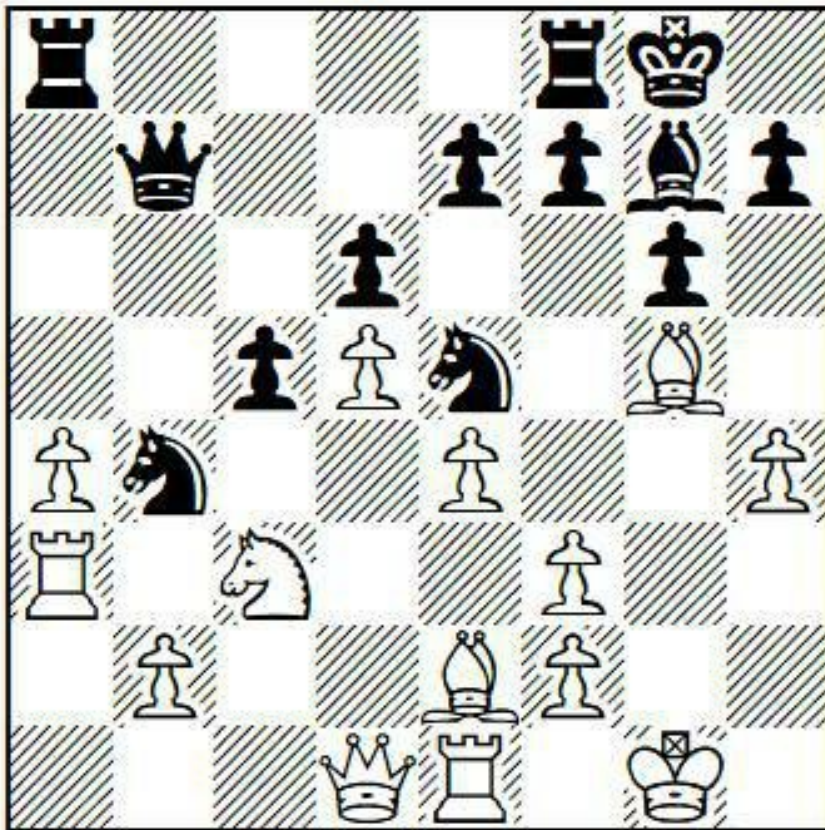
The rook turns out to be misplaced on e1 once Black's knights come into the game.

15 Be3 followed by Qd2 was preferable. Later, White can try to advance on the queenside by doubling rooks on the a-file and playing a5.

**15 ... Qb7 16 Bg5 Bxf3 17 gxf3**

The alternative 17 Bxf3 leads to sharp complications: 17 ... Ne5 18 Be2 c4 19 Qd2 Nbd3 20 Rb1 f5! provides dangerous compensation.

**17 ... Ne5**



Suddenly it's clear that MVL has been able to generate a lot of play for the sacrificed pawn. Two of Black's main ideas are ... f5 and ... c4, and both of the knights are well-positioned for these advances.

**18 Rf1?!**

The rook spends another tempo moving back to f1, in view of incoming ...

Nd3 ideas. Alternatively:

a) The natural 18 f4? runs into 18 ... f6 19 fxe5 fxg5 and Black's bishop and rook will quickly create an attack on White's exposed king ( ... Bxe5 and ... Rf4).

b) 18 Na2! offers an exchange of knights. Now:

b1) In this case, MVL's idea with 18 ... c4? would be pointless because of 19 Nxb4 Qxb4 20 Qd2.

b2) Instead, Black should prefer 18 ... f5 with a sharp position. One sample line is 19 exf5 Nxa2 20 Rxa2 Rxf5 21 a5 and White has good chances because of the strong passed a-pawn and the well-defended kingside.

**18 ... c4!**

Securing the d3-square for the knights.

**19 b3 Rfc8 20 Bd2 Nbd3 21 f4**

21 bxc4? loses to 21 ... Nxc4 22 Rb3 Qxb3! 23 Qxb3 Nxd2.

**21 ... Qb4!**

21 ... Nb2 22 Qb1 Ned3 23 Nb5! as mentioned by MVL leads to complications because the knights are a bit loose. MVL's 21 ... Qb4 puts White under more pressure.

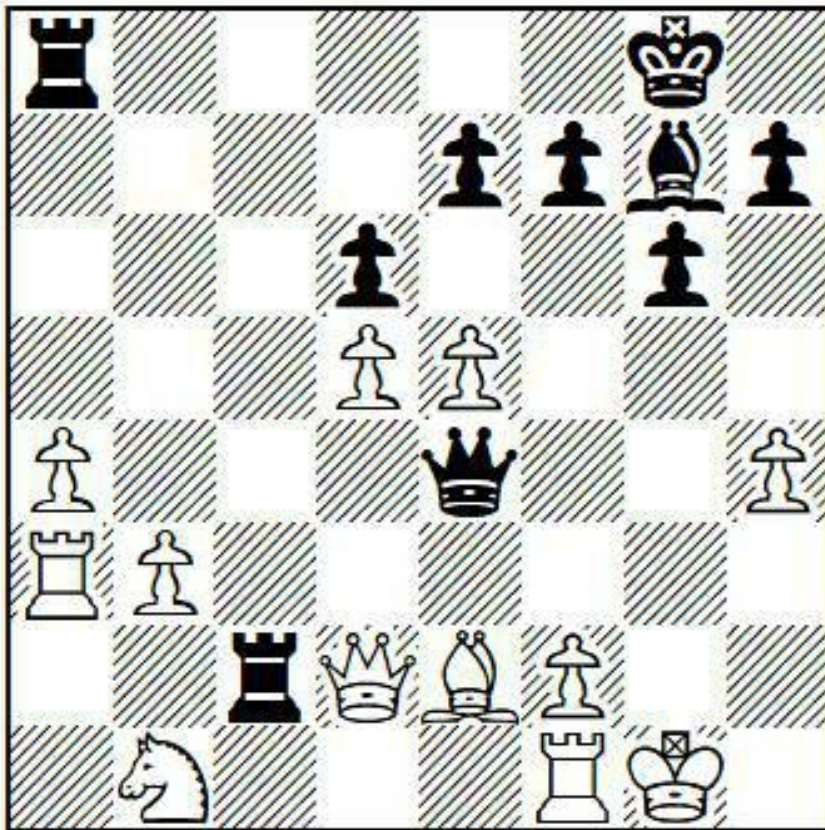
**22 Nb1**

22 Nb5 c3 23 fxe5 cxd2 24 Bxd3 Rc1! 25 Qf3 Bxe5 with great play for Black.

**22 ... c3 23 fxe5 Nb2**

23 ... cxd2?? 24 Bxd3 Rc1 25 Qxd2 demonstrates the point behind 22 Nb1.

**24 Qc2 cxd2 25 Qxb2 Qxe4 26 Qxd2 Rc2**



### 27 Qd3

Leading to a clearly better endgame for Black after which MVL comfortably converts his advantage. The alternatives run into severe difficulties on the kingside:

a) 27 Nc3?? leaves the kingside completely undefended. Black wins after 27 ... Qxh4 28 Qxc2 Bxe5 29 Kg2 Qh2+ 30 Kf3 Qh3+ 31 Ke4 f5 mate.

b) 27 Bf3? loses for White, as demonstrated by the following forcing line: 27 ... Qxf3 28 Qxc2 Qg4+ 29 Kh1 Qxh4+ 30 Kg1 Qg4+ 31 Kh1 Qh3+ 32 Kg1 Bxe5 (threatening mate on h2 and there is also the idea of activating the a8-rook on the c-file) 33 Rc1 Bh2+ 34 Kh1 Bf4+ 35 Kg1 Qh2+ 36 Kf1 Bxc1 37 Qxc1 Qh1+ picks up the queen.

27 ... Rxe2 28 Qxe4 Rxe4 29 exd6 exd6 30 Nd2 Rg4+ 31 Kh1 Rxh4+ 32 Kg2 Rd4 33 Nf3 Rg4+ 34 Kh3 Rb4 35 Rb1 Rc8 36 Kg2 Rc3 37 Ng1 Rc2 38 Nf3 Rg4+ 39 Kf1 Rf4 40 Kg2 Rg4+ 41 Kf1 Rf4 42 Kg2 g5 43 Rf1 Rg4+ 44 Kh1 Rc3 45 Rg1 Rf4 46 Nh2 Rxf2 47 Rxf2 Rcc2 0-1

Even though the engines were quite optimistic about Grischuk's chances out of the opening, these Benko Gambit positions are very complicated and may be easier for Black to play. It is often the case that the engine (whether it utilizes a neural network or not) can be very misleading in its evaluation because it fails to consider the practical difficulties that a human encounters. To reduce such practical problems, thorough preparation must be done to understand the nuances of the position, which can be a challenging and time-consuming task. We will discuss some of these issues further in Chapter 8.

## **Carlsen's Masterpiece**

In the match for third place at the 2021 FIDE World Cup, Carlsen played a strategic masterpiece against Vladimir Fedoseev. The two debated a very modern treatment of the 3 h4 system, where Black plays a King's Indian setup and fights for active piece play early in the opening. In the notes, we will see another important game from the World Cup between Sam Shankland and Peter Svidler. Shankland's approach is the critical test of Black's setup because it leads to much more double-edged play.

### *Game 30*

#### **V.Fedoseev-M.Carlsen**

FIDE World Cup 2021

#### **1 d4 Nf6 2 c4 g6 3 h4 Bg7 4 Nc3 d6**

Playing for a King's Indian setup is logical, although h4 is quite useful in these lines.

Delaying ... d6 and playing 4 ... Nc6!/? directly is interesting. The theory here is very undeveloped and full of unexplored ideas for both sides. A few sample lines:

a) One of the ideas behind this move order is to meet 5 e4 with 5 ... e5 6 d5?! Nd4.

b) 5 d5 Ne5 6 e4 d6 7 Be2 transposes to the main game.

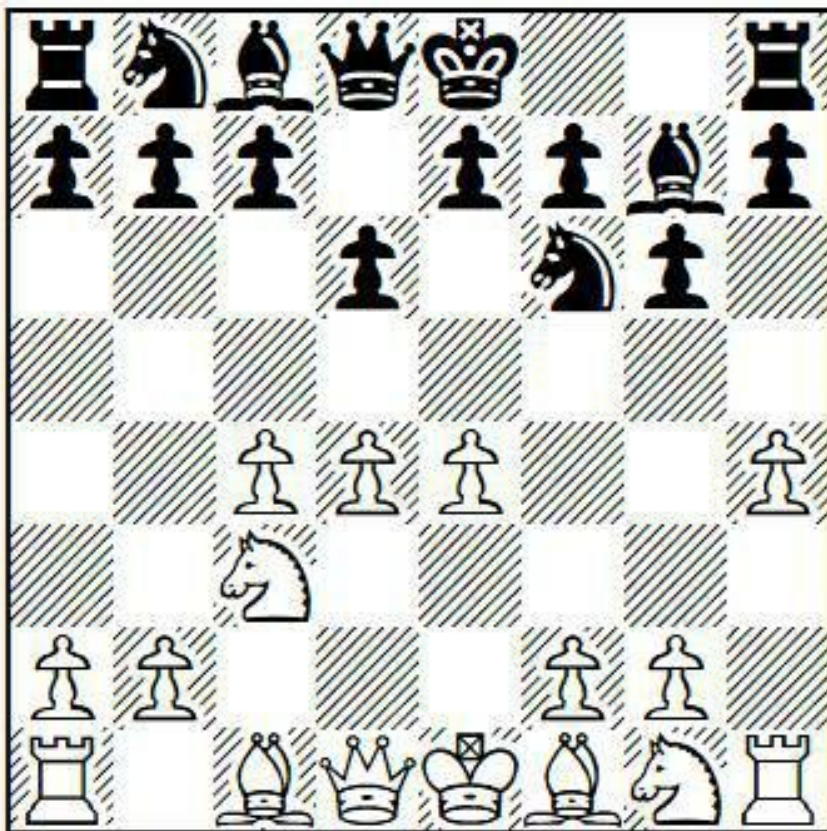
c) 5 Nf3 d6 6 d5 Nb8 7 e4 0-0 (7 ... c6 was slightly better for White after 8 Be2 Bg4 9 Be3 Qa5 10 0-0 0-0 11 Nd4 in M.Bluebaum-V.Ivic, Sochi 2021) 8 Be2 e6 leads to very original play. Below are a couple ways which the game

could continue, though practical encounters are necessary to see how theory will develop:

c1) 9 dxe6 Bxe6 10 Nd4 Qe8! (the best way to create counterplay against White's centre) 11 h5 Nc6 12 Be3 Bd7 with a fighting middlegame ahead.

c2) 9 h5!? also deserves consideration, leading to much sharper play after 9 ... Nxh5 10 g4 Nf6 11 g5 Nfd7 12 Be3 when the open h-file looks very dangerous for Black, but 12 ... exd5 13 cxd5 c5 provides counterplay.

5 e4



**5...Nc6!**

Two important games in the 2021 World Cup (Fedoseev-Carlsen and Svidler-Shankland) took place in this line of the Grünfeld.

**Question:** What is the point of delaying castling with 5...Nc6 - ?

**Answer:** One of the key points behind Black's move order (developing instead of castling) is that 6 Be2?! is discouraged due to 6 ... e5 7 d5 Nd4!

getting rid of White's bishop pair.

Alternatively, 5 ... 0-0 6 Be2 and now:

a) 6...e5 7 d5 (The quieter 7 dxe5?! dxe5 8 Qxd8 Rxd8 9 h5 c6 was perfectly fine for Black in M.Vachier Lagrave-M.Carlsen, internet 2020) 7 ... Na6 (7 ... h5 weakens the g5-square and eventually a g4 advance by White will come with even greater impact; following 8 Nh3 a5 9 f3 Na6 10 Nf2 and g4 will be played soon with good play on the kingside) 8 h5 Nc5 9 h6! Bh8 10 Bg5 and Black's cramped kingside gives White good long-term prospects. The game remains complicated after 10 ... a5 11 f3 Bd7 12 g4 c6 13 Qd2 though White's chances are preferable after Nh3-f2 and 0-0.

b) 6 ... c5 is probably best, following 7 d5 b5! (7 ... e6 8 h5 exd5 9 exd5 transposes to the topic of our next game) 8 cxb5 a6 9 a4 axb5 10 Bxb5 Ba6 Black has achieved a better version of a Benko Gambit compared to the previous game because the e-pawn is more vulnerable on e4 than e3. However, it may still not be enough to entirely solve Black's opening problems. M.Vachier Lagrave-P.Svidler, Saint Louis 2021, continued 11 Bd2 (also possible is 11 Bxa6 Nxa6 12 Nf3 Nb4 13 0-0 Qd7 14 Qe2 when the engines say White is slightly better, but it is not at all simple because Black has a good Benko) 11 ... Bxb5 12 axb5 Nbd7 13 Nf3 Rxa1 14 Qxa1 Qb6 15 0-0 Rb8 16 Qa6 Ne8 17 Ra1 Kf8 and Svidler was doing perfectly fine but later erred after MVL seized the initiative.

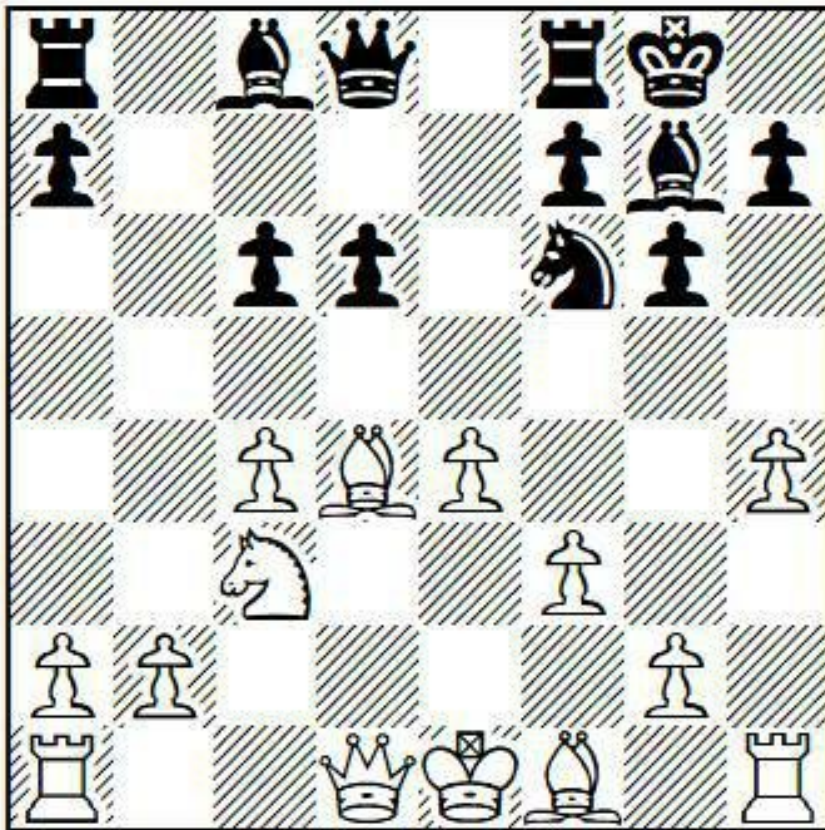
## 6 d5

Deviating from the Shankland-Svidler game and playing for a slower, more closed structure. However, Black has much less to fear in these lines.

6 Nge2! was Shankland's choice and is a very critical test of 5 ... Nc6. Play continues 6 ... 0-0 (6 ... Nh5!? is interesting but perhaps a bit too creative to solve Black's opening problems, for example, 7 d5 Ne5 8 Nf4 Bg4 9 Be2 Nxf4 10 Bxf4 Bxe2 11 Qxe2 is better for White because of the space advantage and good development) 7 f3 and now:

a) 7 ... a6 is a typical move for the King's Indian, when one interesting try for White is 8 h5!? Nxh5 9 g4 Nf6 10 Bg5 b5 11 Qd2 with a very double-edged middlegame ahead, though it should be more in White's favour after 11 ... bxc4 12 0-0-0 Re8 13 Nf4 as the pieces quickly jump into the attack.

b) 7...e5! is the most principled response, Black is ready to sacrifice a pawn for active play and open files. This occurred after 8 d5 Nd4 9 Be3 c5 10 dxc6 bxc6 11 Nxd4 exd4 12 Bxd4



A very dynamic middlegame was reached in S.Shankland-P.Svidler, Sochi 2021. Black faces an important choice here:

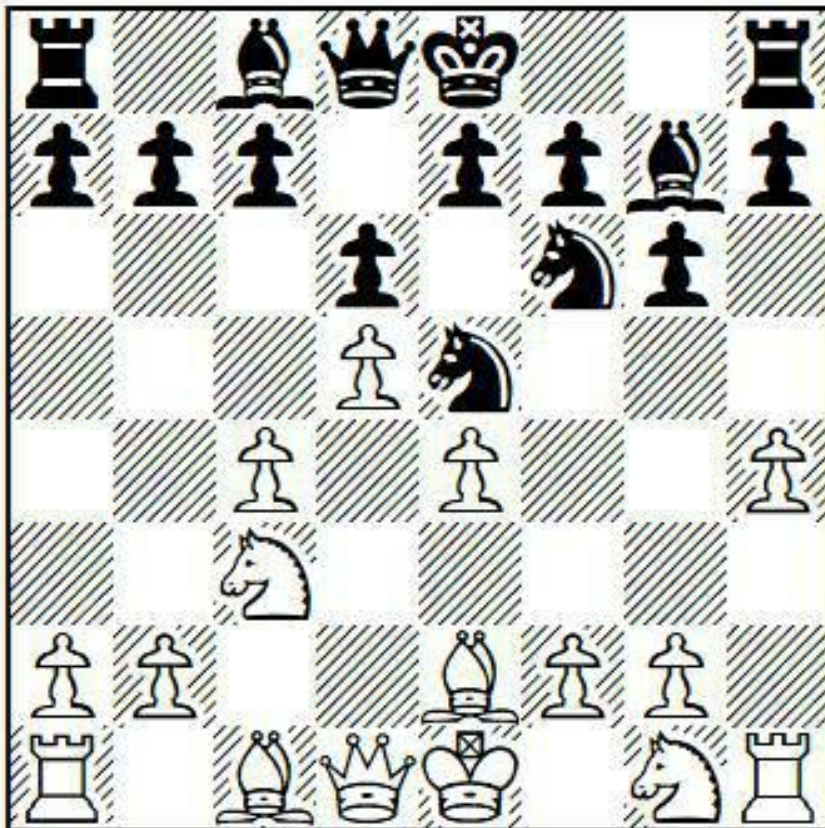
b1) The pawn sacrifice 12 ... d5!? aims to exploit White's lack of development (and king on e1) but it doesn't equalize after 13 cxd5 cxd5 14 Nxd5 Bb7 15 Nxf6+ Bxf6 16 Bxf6 Qxf6 17 Be2 and despite White's major pieces all sitting on their starting squares, Black doesn't have sufficient compensation for both pawns.

b2) Svidler played 12 ... Rb8 13 Qc2 c5 14 Bf2 Be6 (14 ... Nh5 15 0-0-0 Qa5 is another way of creating threats on the kingside but 16 Be1! keeps the advantage) 15 0-0-0 Nd7 16 Rxd6 (it was a good idea to ignore the d6-pawn and build up a kingside initiative with 16 f4! Qa5 17 Be1 Nb6 18 h5 when White has a good position objectively, but it could go either way because such unbalanced positions are difficult for both sides to handle) 16 ... Qa5 17 Be1 Ne5 led to an extremely sharp fight in S.Shankland-P.Svidler, Sochi 2021, where Shankland eventually came out on top and advanced to the

quarterfinals of the World Cup.

b3) Shankland mentioned after the game that 12 ... c5! should be played immediately instead of ... Rb8. Play may continue 13 Be3 (also deserving attention is 13 Bf2 – even though this is not an ideal square for the bishop, it does prevent ... Nh5-g3 which is one of Black's main ideas) 13 ... Nh5 14 Qd2 Ng3! (starting with 14 ... Rb8 first is playable too, though White obtains an initiative after 15 0-0-0 Ng3 16 Rg1 Be6 17 Bh6 Bd4 18 Bd3 when Black's position seems rather unpleasant due to the threats on the kingside 18 ... Qxh4) 15 Rg1! sacrificing the h4-pawn is best. One correspondence game continued 15 ... Qxh4 16 0-0-0 Be6 17 Bg5 Qh2 18 Bd3 with a very dangerous position for Black in H.Schulenberg-W.Klewe, correspondence 2019, in view of the misplaced queen. Although bringing the queen to h2 may be playable, one should be very hesitant about entering such lines without detailed preparation.

**6 ... Ne5 7 Be2**



### 7...h5

Black could also consider including 7 ... a6 8 a4 before playing 8 ... h5 although it isn't clear if this inclusion provides any meaningful difference.

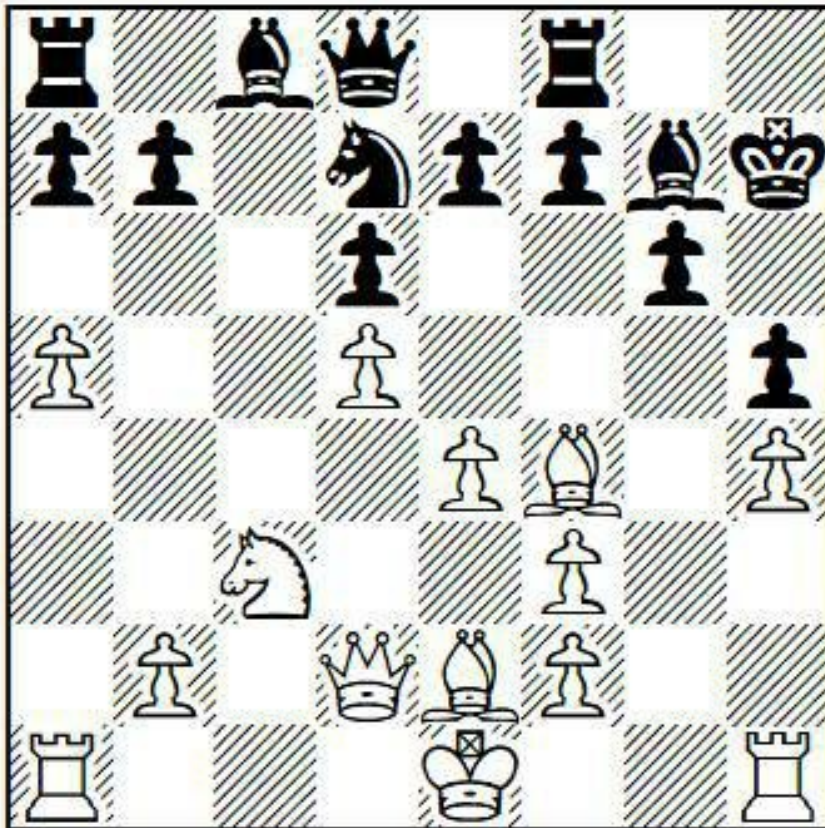
### 8 Bf4

The alternative 8 Bg5 makes a lot of sense because the bishop is slightly more secure on g5. We reach an identical pawn structure after 8 ... 0-0 9 Nf3 Nxf3+ 10 gxf3 c6 11 Qd2 cxd5 12 cxd5 a6 with ideas of creating queenside play. An unbalanced middlegame lies ahead.

### 8 ... 0-0 9 Nf3 Nxf3+ 10 gxf3

Accepting doubled pawns on the kingside takes away the important g4-square from Black's minor pieces. However, White's king will not find a safe place on either side of the board.

### 10 ... c6 11 Qd2 cxd5 12 cxd5 Kh7 13 a4 Nd7 14 a5



### 14 ... f5!

The most ambitious choice. At the cost of weakening his own kingside,

Carlsen goes after White's weaknesses on the f-file. Several alternatives also deserved consideration:

a) 14 ... a6 followed by ... b6 to open up the queenside was another good plan.

b) After the game, Carlsen suggested another pawn sacrifice that looked interesting, 14 ... b5!? 15 Nxb5 f5 with very sharp play ahead.

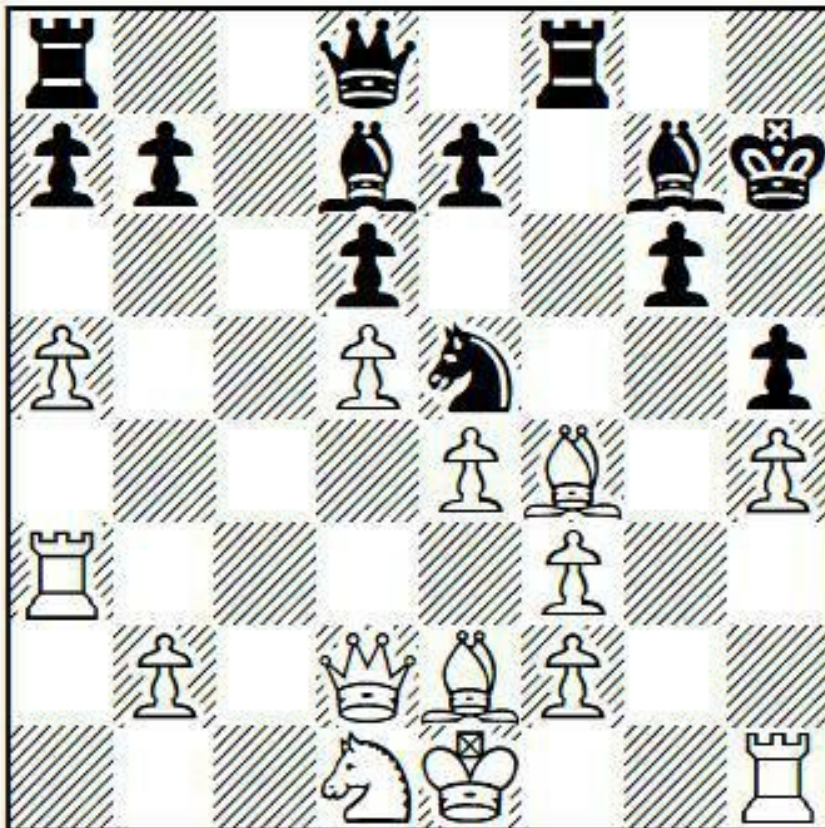
### **15 Ra3**

Activating the rook along the third rank. Others:

a) 15 Be3 f4! 16 Bxf4 Ne5 with very similar play to the game. Black is threatening to sacrifice the exchange on f4 and play ... Bh6, fighting for control of the dark squares.

b) In view of Carlsen's sacrifices and subsequent domination over the dark squares, 15 exf5! Rxf5 16 Be3 was the best approach to the position. Although White has some clear weaknesses (the doubled f-pawns as well as the d5-pawn), Black is lagging behind in development and has some weaknesses of his own on the kingside. One sample line is 16 ... Nc5 17 Ra3 Bxc3 18 Qxc3 Rxd5 19 b4 Ne6 20 Bd3 with good kingside play in return for the missing d5-pawn.

**15 ... Ne5 16 Be3 f4! 17 Bxf4 Bd7 18 Nd1**



*Exercise:* How should Black follow-up with the pawn sacrifice from a couple of moves ago?

*Answer:* **18 ... Rxf4!**

A powerful exchange sacrifice, removing White's good bishop and taking control of the dark squares. Additionally, White's queen will be forced out of the game on the kingside.

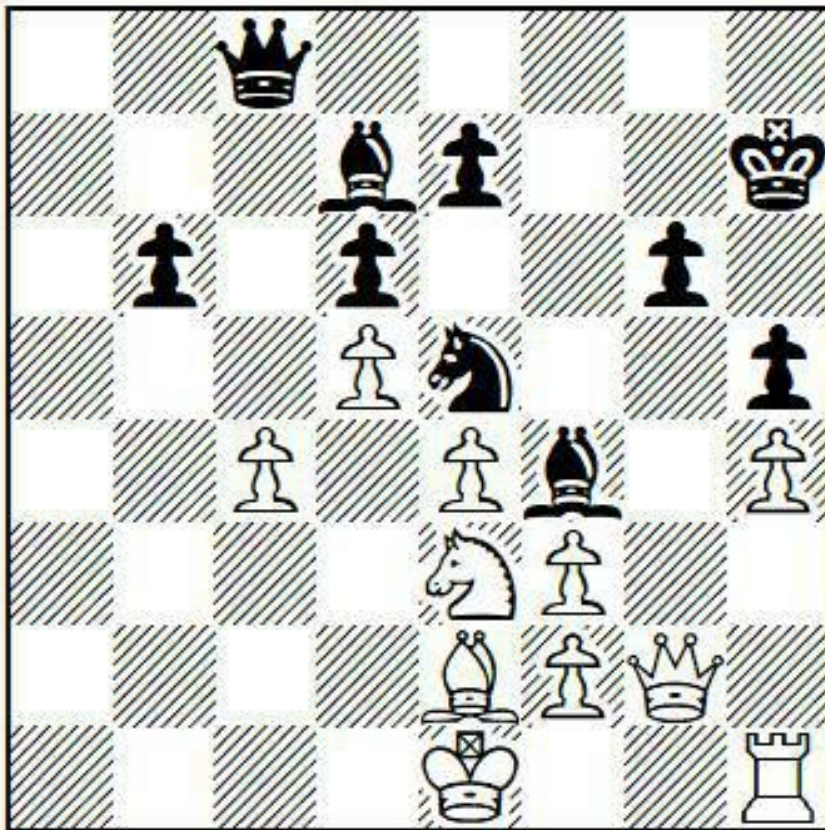
**19 Qxf4 Bh6 20 Qg3 Qf8 21 Ne3**

Fedoseev's position is difficult to play because of his lack of piece coordination and he quickly drifts into a very unpleasant position.

**21 ... Bf4 22 Qg2 Rc8 23 Rc3 Rxc3 24 bxc3 Qc8 25 c4 b5!**

Opening the queenside before White has the chance to organize his pieces.

**26 axb6 axb6**



### 27 Qg1?

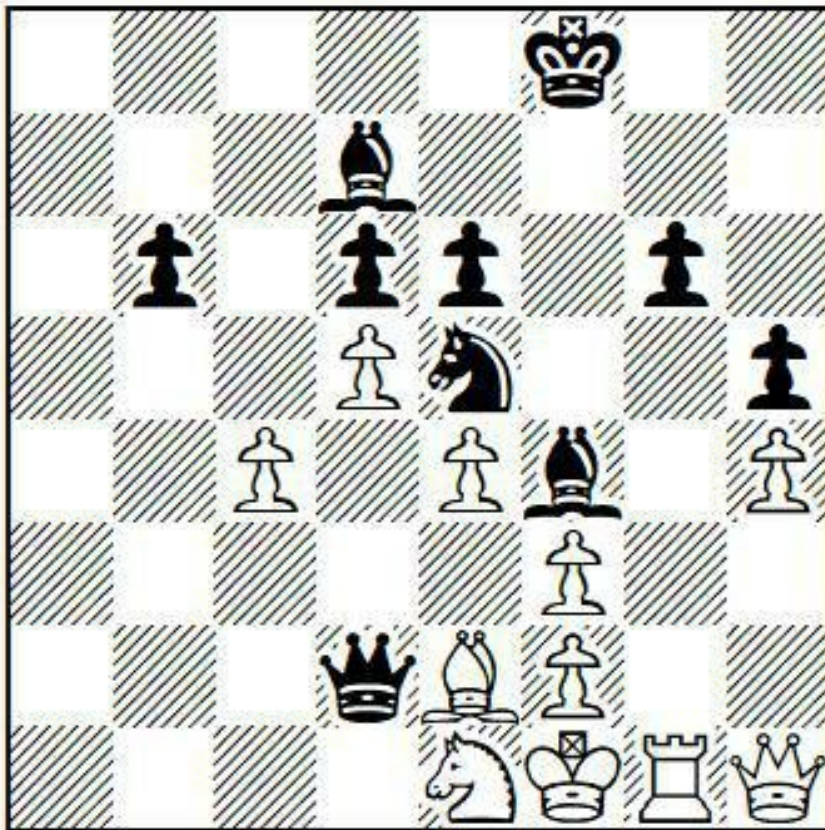
It was necessary to get at least one of the major pieces out of the cage on the kingside.

27 0-0! returns the exchange after 27 ... Bh3 28 Qh1 Bxf1 29 Kxf1 followed by Kg2 and bringing the queen into the game.

### 27 ... Qa8 28 Kf1 Qa2

Tying down the king to the defence of the bishop.

29 Ng2 Qa1+ 30 Ne1 Qb2 31 Ng2 Qc1+ 32 Ne1 Qd2 33 Qg2 Kg7 34 Rg1 Kf8 35 Qh1 e6



The dream position for Carlsen's exchange sacrifice on move 18.

### 36 Rg3

Carlsen mentioned that after 36 dxe6 Bxe6 his winning plan could involve activating the king all the way into White's position via e7-d7-c6-c5, etc. Eventually the Black queen goes to b1 and the king to d2!

**36 ... exd5 37 exd5 Bf5 38 Rg1 Kf7 39 Rg3 Nd7 40 Rg5 Bxg5 41 hxg5 Ne5 0-1**

### The Benoni Structure

The Benoni structure against 3 h4 is the topic of the next two games. In Game 31, we will observe a typical idea from Chapter 1: advancing the h-pawn all the way to h6. Although Black does get his share of chances in the middlegame, the long-term kingside weaknesses prove to be decisive after his

ideas for counterplay run out.

### Game 31

**D.Paravyan-D.Wagner**

Aeroflot Open 2020

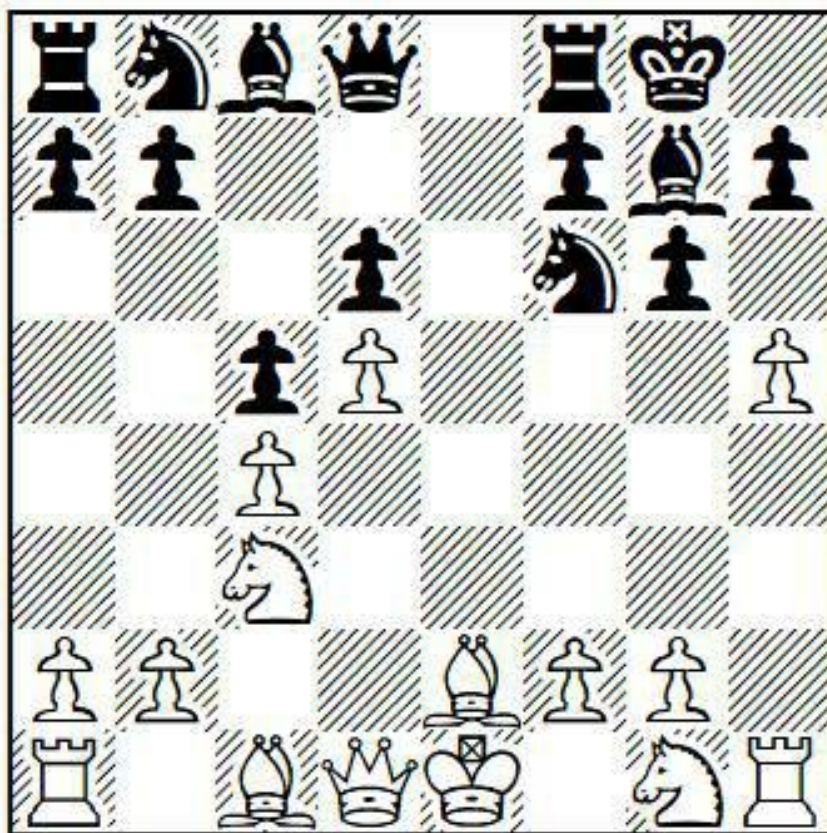
**1 d4 Nf6 2 c4 g6 3 h4 c5 4 d5 Bg7**

A very natural setup for Black, who intends to castle and play ... d6 and ... e6 followed by ... exd5, reaching some type of Benoni pawn structure.

**5 Nc3 d6 6 e4 0-0**

MVL's idea of delaying castling will be examined in the next game.

**7 Be2 e6 8 h5 exd5 9 exd5**



The key idea for White in this line is based on playing h6 and cramping

Black's kingside. White will argue that these long-term weaknesses are more important than his lack of development. One interesting concept in this system is that putting the king on f1 is often better than castling because it is important to keep the rook on the h-file (supporting the h-pawn). Additionally, castling on the kingside would require White to develop the g1-knight to f3, which is not ideal because then Black has ... Bg4. The light-squared bishop is a problem piece for Black in these lines and White should try to keep it that way.

### **9 ... Re8**

9 ... Nbd7 is slightly less accurate than 9 ... Re8. There are some lines where the knight should retain the option of developing to a6 and not block in the c8-bishop. Play continues 10 h6! Bh8 11 Bg5 Re8 12 Nf3 Qb6 13 Qd2 (the slower 13 Rb1 led to a satisfactory position for Black in R.Gramstad-H.Elyoseph, ICCF 2020, after 13 ... Ne5 14 Nxe5 Rxe5 15 Bf4 Re7 16 0-0 Bf5) 13 ... Ne4 opening up the diagonal for the bishop on h8, hoping to put pressure on the b2-pawn. One game continued 14 Nxe4 Rxe4 15 0-0! (ignoring the hanging b2-pawn and focussing instead on quick development) 15 ... Qxb2 16 Rae1 Nf8 17 Bd3 Qxd2 18 Bxd2 Rxe1 19 Rxe1 Bg4 20 Re7 and Black's position was very unpleasant in J.de Mingo Matías-R.Khairullin, ICCF 2019.

### **10 h6!**

The critical try for an advantage.

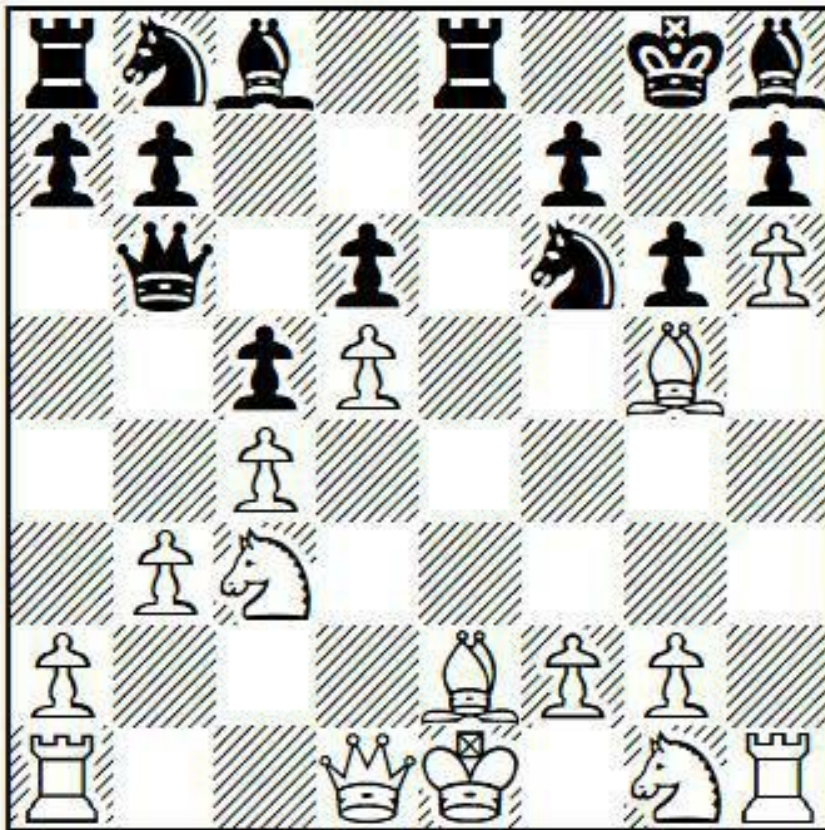
Most of the older engines prefer 10 hxg6 but this is significantly less challenging for Black to face. For example, 10 ... fxg6 11 Nf3 Nbd7 12 0-0 Ne5 with a fighting middlegame ahead, where Black's chances are not worse.

### **10 ... Bh8 11 Bg5 Qb6!?**

Removing the queen from the pin and creating some problems for White on the queenside.

11 ... Nbd7 transposes to 9 ... Nbd7.

### **12 b3**



### 12 ... Ne4

A rapid game between Grischuk and MVL saw 12 ... Qa5!? 13 Bd2 Qd8 and now 14 Kf1! (standard development is not as challenging: 14 Nf3 Ne4 15 Nxe4 Rxe4 16 0-0 Bg4! followed by ... Nd7 and Black has nothing to complain about) was a very strong and important idea. The development of the g1-knight is delayed and thus Black cannot play ... Bg4. The game continued 14 ... Ne4 15 Nxe4 Rxe4 16 Rc1 Rh4 17 Rxh4 Qxh4 18 g3 and Black was in some trouble due to his lack of development, for example, 18 ... Qd8 (18 ... Qh2 leads to similar problems with development after 19 Bg4 Nd7 20 Nf3 Qh1+ 21 Ke2 and the exchange of queens leads to a better endgame for White) 19 Kg2 Nd7 20 Nf3 with a comfortable advantage in A.Grischuk-M.Vachier Lagrave, Paris (rapid) 2019.

### 13 Nxe4 Rxe4 14 Rc1

14 Kf1! is more accurate. The main point is seen after 14 ... Na6 when White restricts all of Black's play with 15 Bd3 Rd4? (15 ... Re8 16 a3! and

Black's knight and queen are misplaced) 16 Qe2 Bg4 17 Nf3 Rxd3 18 Re1! is an important intermediate move that shows another benefit of the h5-h6 idea. Black is lost because of the back rank mate threat.

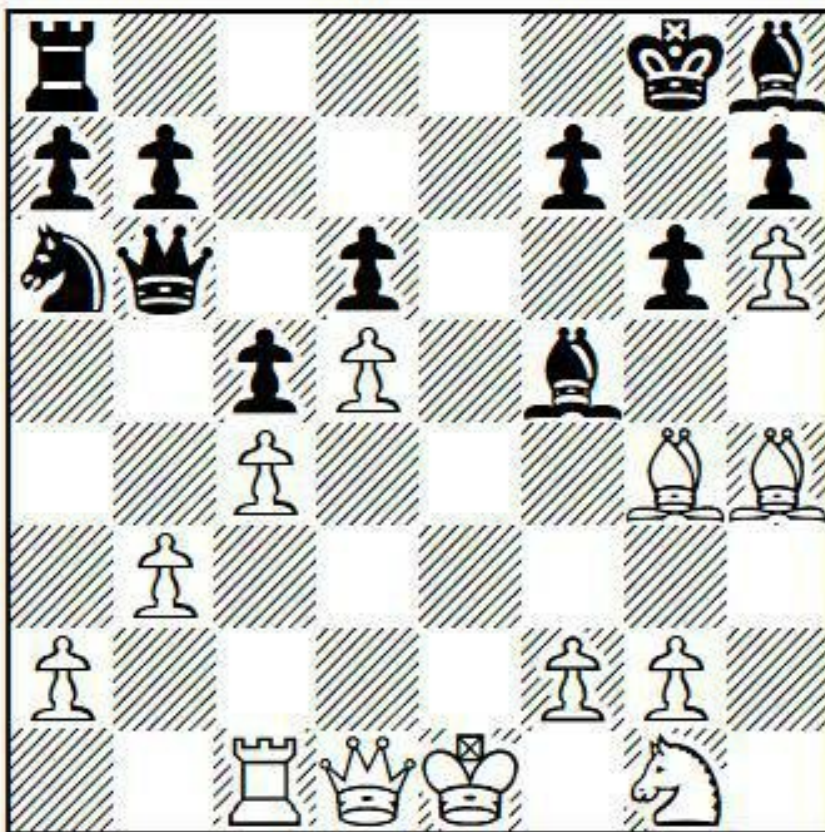
**14 ... Na6 15 Rh4!?**

White can't castle after this, but the rook on e4 was a very active piece so it makes sense to exchange it.

The alternative was the more natural 15 Nf3 Qa5+ 16 Qd2 Nb4 17 a4 although now Black could develop his light-squared bishop to g4 and obtain a satisfactory position, 17 ... Bg4 followed by ... Rae8.

**15 ... Rxh4 16 Bxh4 Bf5 17 Bg4**

In view of Black's tactical resource after 17 Bg4, it was stronger to kick back the f5-bishop with 17 g4! Bd7 18 Bg3 Re8 19 Kf1 and Black is under some pressure due to the weak d6-pawn.



**Exercise:** How should Black fight for counterplay?

### **17 ... Re8+?**

An extremely natural check, though it pushes White's king to safety on f1.

*Answer:* 17 ... Bxg4! 18 Qxg4 Nb4 brings the knight into the game and threatens ... Nxa2 and ... Nd3+. The only way to defend against these two threats is 19 Qe2 but now 19 ... Nxd5! exploits the loose bishop on h4 after 20 cxd5? (20 Kf1 should be played, although White is down a pawn) 20 ... Qb4+ 21 Kf1 Qxh4 when the extra pawn and the weak h6-pawn provide Black with a winning position.

### **18 Kf1 Bxg4**

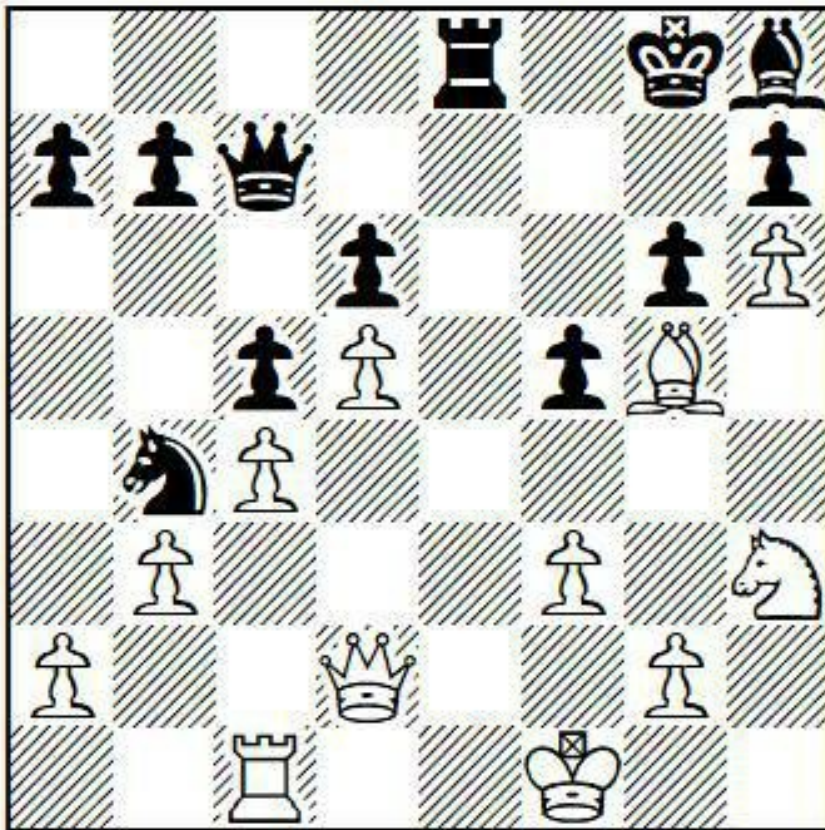
The aggressive 18 ... Re4 19 f3 Rd4 runs out of steam after 20 Qe1 Bd3+ 21 Kf2 Be5 22 Bf6! and Black's pieces in the centre are left without a purpose.

### **19 Qxg4 f5**

Makes sense to prevent 20 Qd7 but this severely weakens the e6-square.

The alternative 19 ... Qc7 is met with 20 Nf3 followed by Re1 to exchange rooks. In the arising endgame, all of Black's pieces lack good squares and will be stuck defending. Meanwhile, White can target the weak dark squares on the kingside.

### **20 Qd1 Re4 21 Bg5 Nb4 22 f3 Re8 23 Qd2 Qc7 24 Nh3**



Black has run out of opportunities for counterplay. The knight heads to the weak e6-square, deciding the game in White's favour.

**24 ... Qd7 25 Nf4 b6 26 Ne6 Na6 27 Re1 Be5 28 a3 Rc8 29 f4 Bh8 30 Ng7!**

The decisive breakthrough, highlighting the weaknesses around Black's king.

**30 ... Bxg7 31 Re7 Qxe7 32 Bxe7 Bxh6 33 Qe3 Nc7 34 Bxd6 Re8 35 Qh3 1-0**

MVL has a lot of experience on both sides of the 3 h4 system, so it was quite interesting to see what he had prepared when Ding Liren tried 3 h4 against him in the 2020-2021 Candidates tournament. MVL introduced a new move order in the Benoni structure, where he delayed castling in order to discourage White's h-pawn advance. However, Ding Liren found a fantastic idea to fight for the initiative out of the opening, which resulted in a crushing

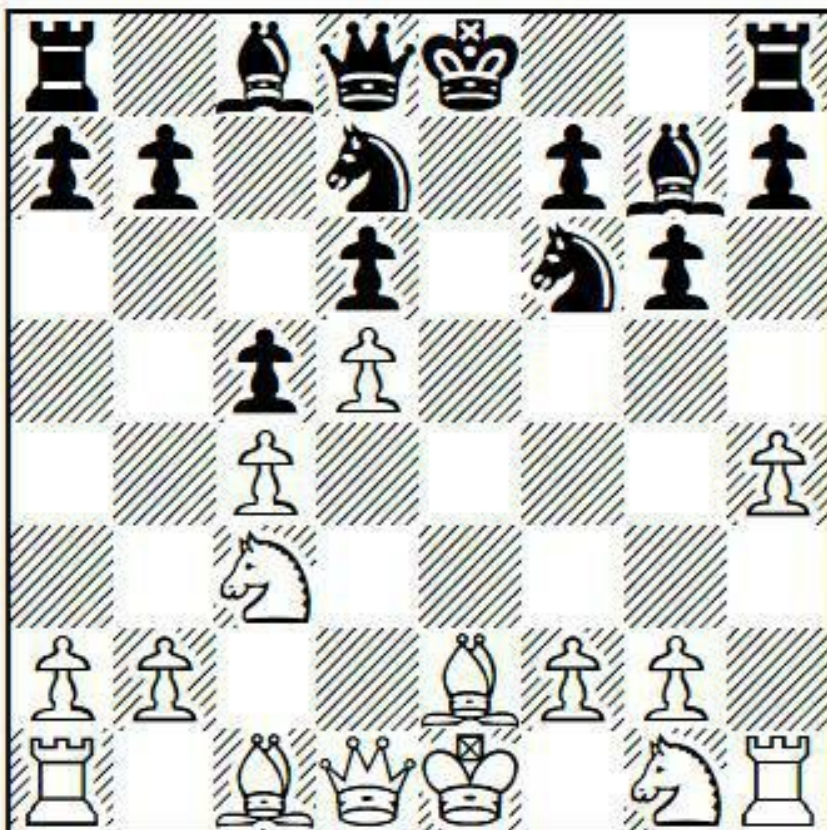
positional advantage.

### Game 32

**Ding Liren-M.Vachier-Lagrave**

FIDE Candidates 2021

**1 d4 Nf6 2 c4 g6 3 h4 Bg7 4 Nc3 c5 5 d5 d6 6 e4 e6 7 Be2 exd5 8 exd5 Nbd7!?**



A new move order by MVL designed to effectively counter White's h5-h6 plan.

8 ... 0-0 transposes to the previous game.

**9 Nf3**

9 h5 can be met by 9 ... Nxh5! 10 Bxh5 gxh5 when the shattered kingside

pawn structure isn't a major concern for Black. The bishop pair and the e5-square for the knight provide adequate counter chances, as the following line shows, 11 Nf3 Ne5 12 Nxe5 Bxe5 13 Qxh5 (threatening Bg5) 13 ... Rg8! 14 Qxh7 Rg6 15 Bd2 Bf5 with sufficient compensation because of the strong bishop pair.

**9 ... Ng4!**

**Question:** What is the purpose of 9 ... Ng4?

**Answer:** Black is trying to develop his queenside pieces with ... Ndf6 and ... Bf5 next. Additionally, the diagonal is opened for the g7-bishop, creating ideas of playing ... Bxc3 in some lines.

9 ... 0-0 10 Bf4 reaches an unusual Symmetrical Benoni structure. The pawn on h4 would very much like to move back to h3, controlling the g4-square. However, Black's position isn't perfect either because the knight is slightly misplaced on d7. For example, 10 ... Qb6 11 Qd2 Nh5 12 Bg5 followed by castling and advancing the a-pawn should be slightly better for White.

**10 h5**

Preventing 10 ... Ndf6, as then 11 h6! would be devastating.

**10 ... Qe7!?**

This idea came as a surprise to Ding Liren. MVL delays castling and is ready to play ... Nde5 next to create pressure on the e-file.

Also playable is 10 ... 0-0 even though it appears that Black is castling right into White's attack. Now:

a) 11 h6 is well met by 11 ... Bxc3+ 12 bxc3 Nde5.

b) More challenging is 11 Ng5 Re8 12 hxg6 hxg6 13 Kf1 leading to a complicated position where White will try to create play on the kingside, starting with Rh4 and Bf4.

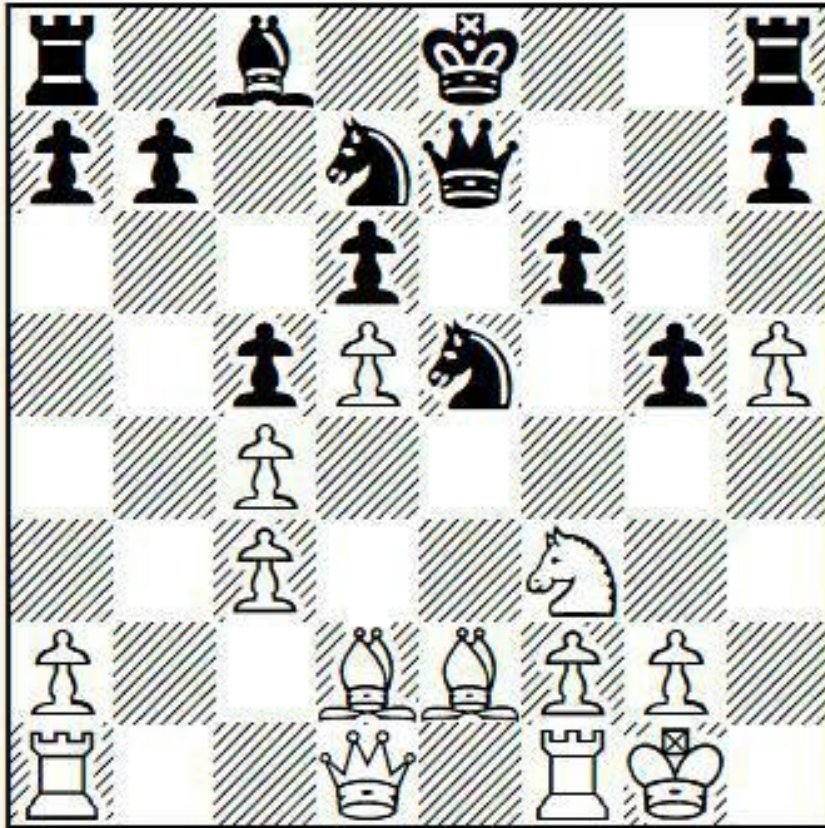
**11 Bg5**

Alternatively, 11 Qc2 discourages ... Bxc3 ideas and prepares to play h6 next. Black should respond by activating his minor pieces quickly, for example, 11 ... Nde5 12 h6 Bf6 13 Ne4 Bf5 14 Nxf6+ Qxf6 15 Qa4+ Kf8 reaching a very unbalanced and complicated position. Black's activity should compensate for White's positional advantages (bishop pair and dark-squared control).

**11 ... Bxc3+ 12 bxc3 f6 13 Bd2 g5 14 0-0**

15 Nxg5 is threatened next, so Black should bring one of the knights to e5,

but which one?  
14 ... Nge5?!



The most natural knight move, preparing to take on f3 and activate the d7-knight.

However, the best choice was 14 ... Nde5! 15 Nxe5 (15 Nd4 is not effective because the e6-square is defended by the bishop; Black can simply ignore the knight and play 15 ... 0-0 with a good position) 15 ... Nxe5 16 f4 gxf4 17 Bxf4 Bd7 followed by castling queenside and fighting for the g-file.

**Exercise:** Can you spot Ding Liren's idea to play for the initiative?

**Answer: 15 Nd4!**

Sacrificing the knight in return for central control and open lines to attack on.

15 Nh2 is another way of preventing Black's idea with ... Nxf3 and ... Ne5. White can play f4 next and develop his major pieces. However, Ding Liren's

idea is far more dangerous and extremely difficult to face over the board.

**15 ... cxd4**

15 ... Nb6?! covers the e6-square but 16 Re1 0-0 17 a4! threatens a5 and Ne6, which is very problematic for Black.

**16 cxd4 0-0?!**

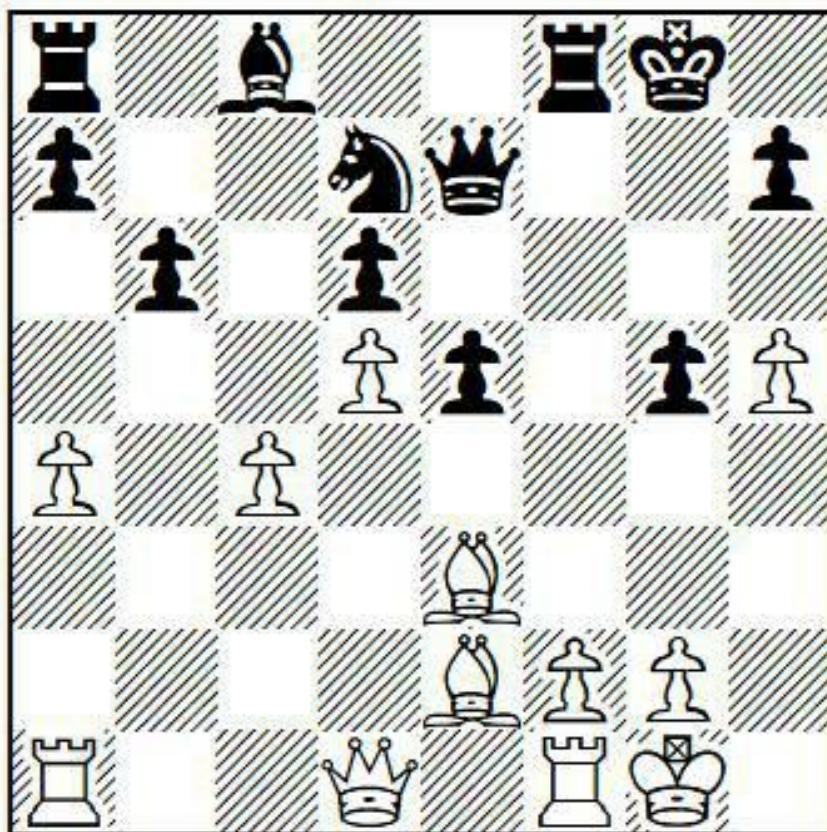
The safest option, returning the sacrificed piece. After this, White is left with clear positional advantages, the bishop pair and excellent play on the queenside.

16 ... Nf7 is critical, when White needs to find a way to generate compensation for the piece:

a) The aggressive 17 Qc2 0-0 18 Rae1 Nh6 19 f4 was intended by Ding.

b) The computer prefers a quieter approach with 17 Re1 0-0 18 Bd3 Qd8 19 a4 Re8 20 Qc2 and ideas of Bxh7 and c5 make Black's position very unpleasant on both sides of the board.

**17 dxe5 fxe5 18 Be3 b6 19 a4**

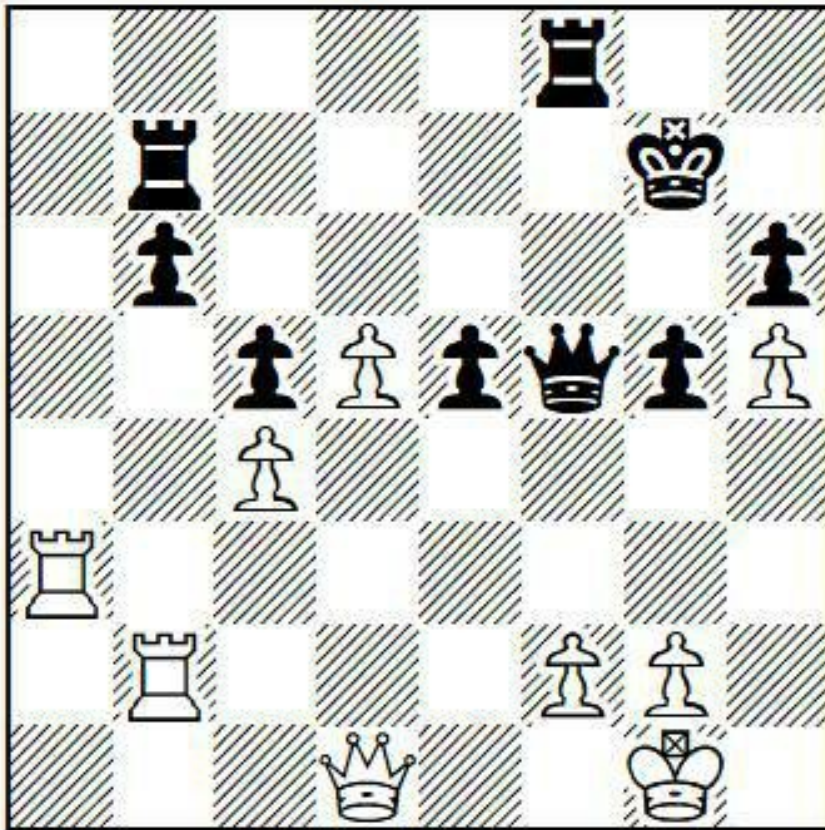


White is ready to play a5 next and transfer the major pieces to the a- and b-files, putting Black's queenside under fire.

**19 ... Nc5 20 a5 Rb8 21 Ra3 h6 22 Qd2 Bf5 23 axb6 axb6 24 Rfa1**

Seizing complete control over the open a-file.

**24 ... Rb7 25 Qd1 Kg7 26 R1a2 Ne4 27 Bd3 Qf7 28 Rb2 Nc5 29 Bxf5 Qxf5 30 Bxc5 dxc5**



### **31 Qe2?!**

31 Rf3! exchanges a pair of rooks and makes it easier to exploit the weaknesses in Black's position. Some sample lines:

a) 31 ... Qe4 32 Rxf8 Kxf8 33 Qa1 and the queen invades on the a-file with decisive effect.

b) 31 ... Qd7 32 Rxf8 Kxf8 33 Qb1! (threatening Rxb6 and Qg6) 33 ... Qd6 covers both of White's threats, but then 34 Ra2 creates endless problems for Black. One idea is the rook maneuver: Ra8-Re8-Re6!

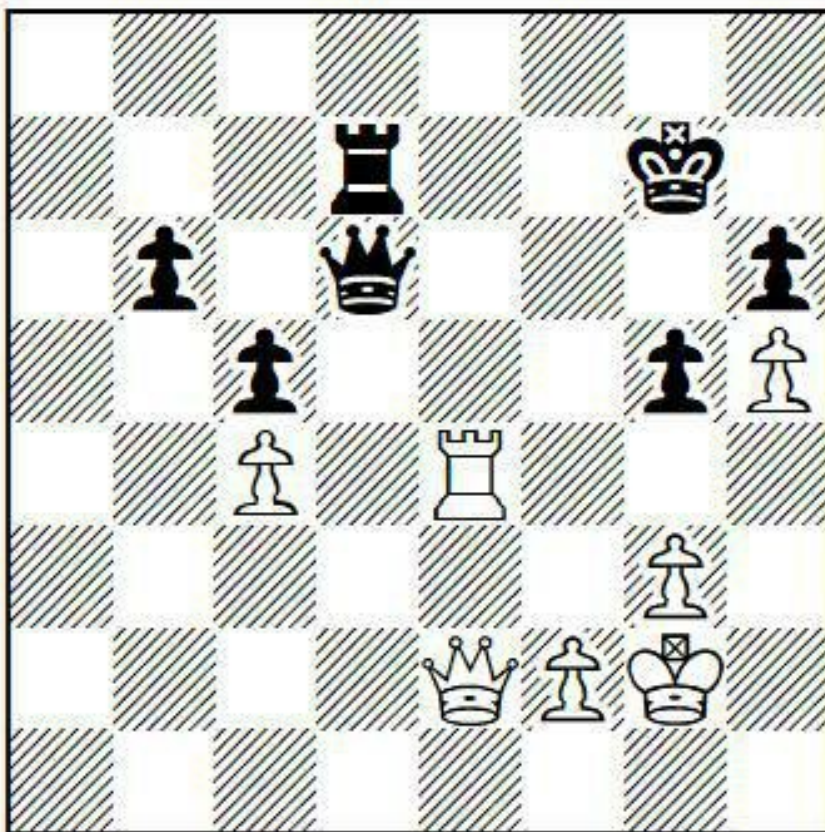
**31 ... e4! 32 Re3 Re8 33 Rb5 Qe5 34 g3 Qd4 35 Rb1 Rf7 36 Rd1 Qf6 37**

## d6?

A miscalculation by Ding Liren, leading to the exchange of the d-pawn for MVL's e4-pawn.

The following arrangement of the major pieces is a more effective way to target Black's e4-pawn: 37 Re1 Rfe7 (37 ... Re5 38 Qc2 Rf5 39 R1e2 and Rxe4 next) 38 Qc2 Qd4 39 Rd1 Qf6 40 Qb1 with so much pressure on the b6 and e4-pawns, in addition to threatening the advance of the passed d5-pawn, it is only a matter of time before Black's position falls apart.

**37 ... Re6 38 d7 Rd6 39 Rxd6 Qxd6 40 Rxe4 Rxd7 41 Kg2**



The position is still clearly favourable for White, but the simplifications have made Black's position much easier to defend. Ding Liren tries for another 40 moves but never manages to break MVL's defence.

**41 ... Qc6 42 Kh2 Qf6 43 Kh3 Qf5+ 44 g4 Qf6 45 Re5 Qd6 46 Kg2 Qc6+ 47 f3 Qd6 48 Qe4 Ra7 49 Qe2 Rd7 50 Qe4 Ra7 51 Kh3 Rf7 52 Re8 Qf6 53 Kg2 Qb2+ 54 Kh3 Qf6 55 Kg2 Qb2+ 56 Kg3 Qf6 57 Qd3 Qf4+ 58**

**Kg2 Qf6 59 Kg3 Qf4+ 60 Kg2 Qf6 61 Qe2 Rd7 62 Qe4 Rd2+ 63 Kh3 Qd6  
64 Re5 Kf6 65 Rf5+ Kg7 66 Re5 Kf6 67 Rf5+ Kg7 68 Qb7+ Kh8 69 Qa8+  
Kg7 70 Qa7+ Kh8 71 Qa1+ Kg8 72 Qa8+ Kg7 73 Qa1+ Kg8 74 Re5 Qf8  
75 Qa3 Rf2 76 Kg3 Qf4+ 77 Kxf2 Qxe5 78 Qa8+ Kf7 79 Qb7+ Kf8 80  
Qc8+ Ke7 81 Qb7+ Kf8 82 Qxb6 Qh2+ 83 Kf1 Qh1+ 84 Ke2 Qg2+ 85  
Ke3 Qg1+ 86 Ke2 Qg2+ 87 Ke3 Qg1+ 88 Ke2 ½-½**

## **The Dubov Tarrasch**

The creative Russian Grandmaster Daniil Dubov is one of the most exciting players to follow because of his original opening preparation and fighting playing style. In 2019, he introduced some revolutionary new ideas to a previously unknown Tarrasch line and completely revived the opening as a dynamic weapon for Black. Dubov's Tarrasch is based around many concepts that have been influenced by the neural network engines: original pawn structures, pawn sacrifices for active piece play, and advancing the h-pawn.

### *Game 33*

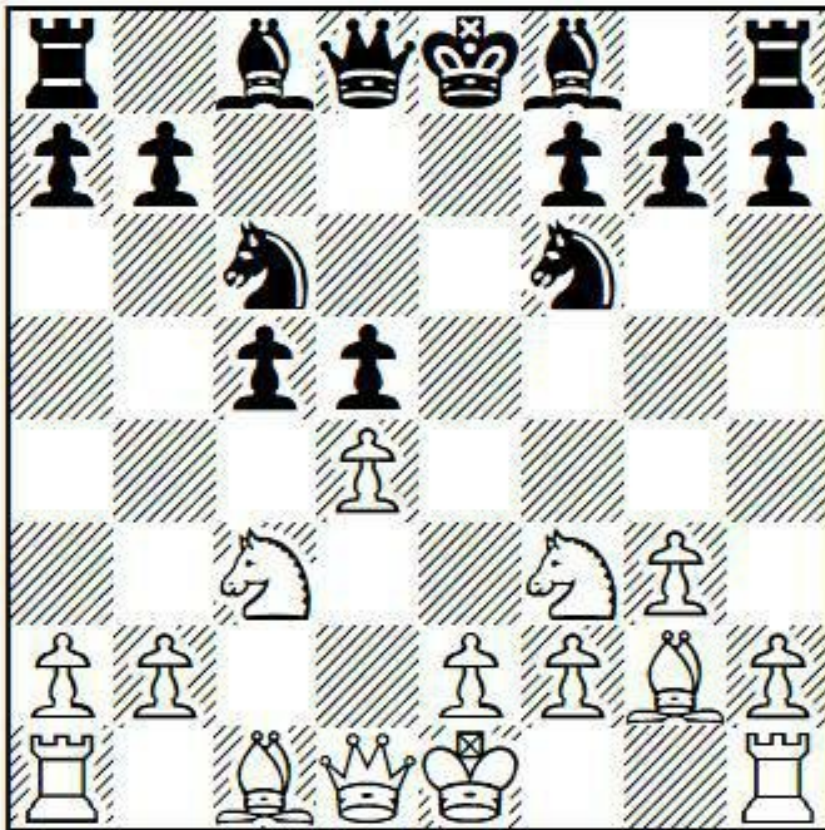
#### **H.Nakamura-D.Dubov**

Moscow FIDE Grand Prix 2019

#### **1 c4**

There are many possible move orders to reach the Tarrasch. In the 2019 World Rapid Championship, Carlsen tried 1 d4 Nf6 2 c4 e6 3 Nf3 d5 4 Nc3 c5 5 cxd5 exd5!? with the Black pieces and entered the Dubov Tarrasch after 6 g3 Nc6 7 Bg2 cxd4 8 Nxd4 Bc5.

**1 ... Nf6 2 Nc3 c5 3 g3 e6 4 Nf3 d5 5 cxd5 exd5 6 d4 Nc6 7 Bg2**



**7 ... cxd4!**

Dubov's line and the ideas that he has brought with it have completely changed the picture of the Tarrasch Defense.

7 ... Be7 used to be by far the main option for Black. This was until Dubov introduced some ideas after 7 ... cxd4 8 Nxd4 Bc5 in this game against Nakamura.

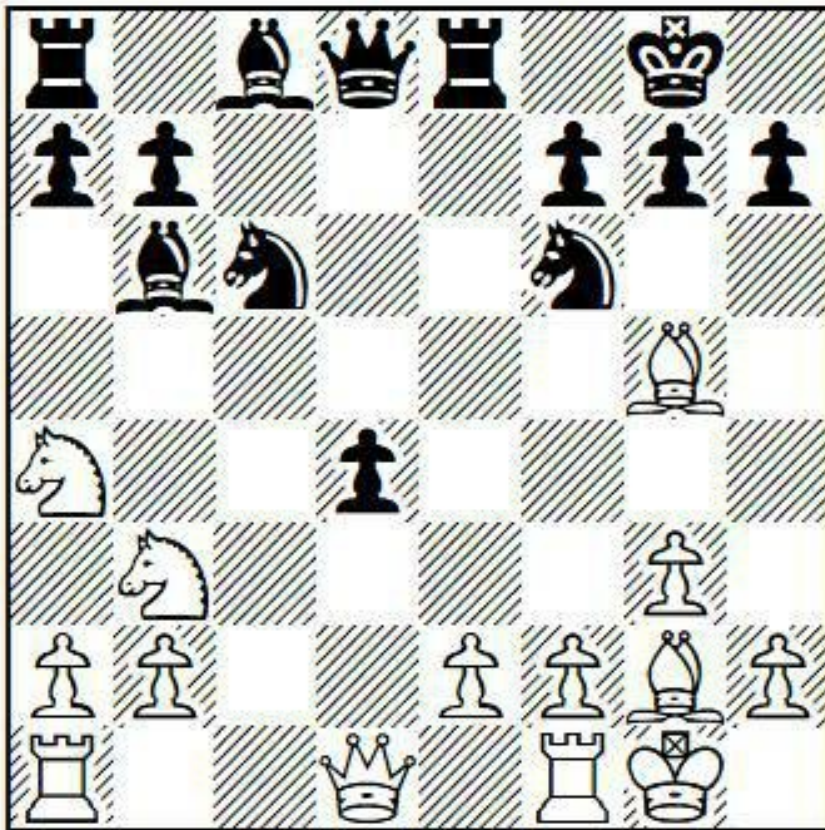
**8 Nxd4 Bc5 9 Nb3**

The critical continuation, targeting the isolated d5-pawn. We will see the quieter 9 Nxc6 in the game after next game, which was Nakamura's choice against Dubov (in rapid) two months later.

**9 ... Bb6 10 0-0**

Two less challenging alternatives: 10 Nxd5 and 10 Na4 are examined in the next game.

**10 ... d4 11 Na4 0-0 12 Bg5 Re8**

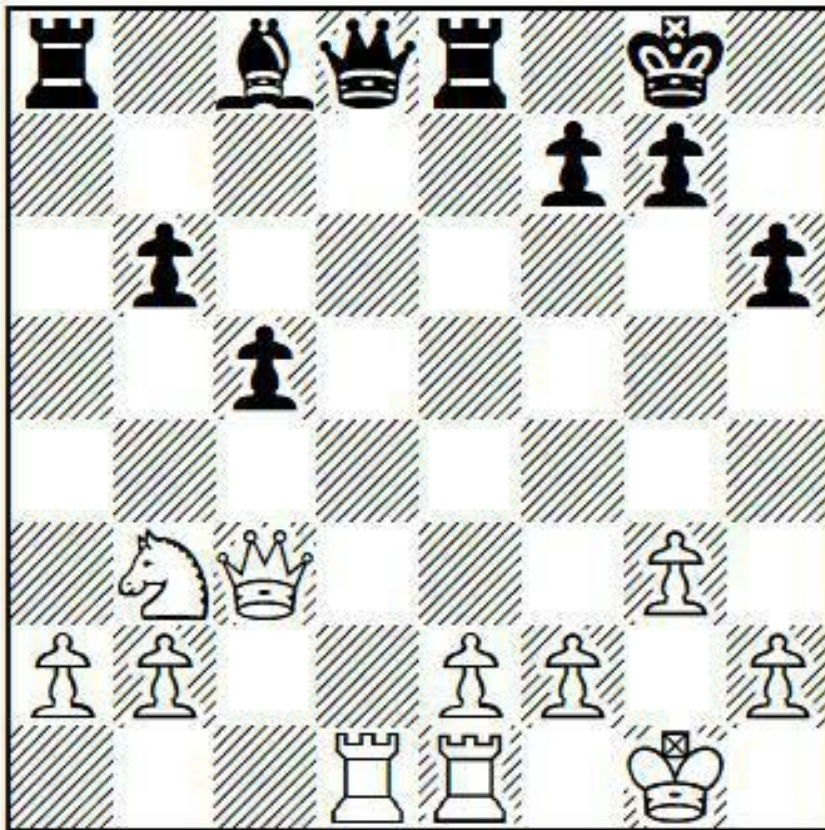


**Question:** Isn't the d4-pawn a major weakness in Black's position?

**Answer:** Yes, the pawn on d4 is quite vulnerable, but to win the pawn, White must trade off several pairs of minor pieces (including the important bishop on g2). This could result in Black obtaining serious counterplay on the kingside light squares.

### 13 Nxb6

The critical test of the Dubov Tarrasch is 13 Re1 protecting the e2-pawn and preparing to win Black's d4-pawn. The line continues 13 ... h6 14 Bxf6 Qxf6 15 Nxb6 (the slow 15 Rc1?! was played in Ding Liren-D.Dubov, internet 2020; Dubov quickly seized the initiative after 15 ... d3! 16 Nxb6 axb6 17 Qxd3?! Rxa2 18 Nd2 Bf5 and had a clear advantage) 15 ... axb6 16 Bxc6 bxc6 17 Qxd4 Qd8! 18 Qc3 (the queen exchange 18 Qxd8 Rxd8 promises White absolutely nothing due to the difference in rook activity) 18 ... c5 19 Rad1



Reaches an important position which most experts on the line, including Carlsen and l'Ami, believe is very critical for the Dubov Tarrasch. Following 19 ... Qc7 (in the 2019 World Blitz Championship, Dubov tried a very aggressive approach against Carlsen with 19 ... Qe7 20 Nc1 h5! 21 a3 h4 22 Nd3 Ra4!? 23 Nf4 Bb7 24 Rd3 leading to a dynamic and complicated position in M.Carlsen-D.Dubov, Moscow (blitz) 2019) 20 Nc1 Ba6 White has:

a) 21 Rd2 Re7 22 b4 c4 23 e4?! (instead of placing the rooks on the e-file, 23 Red1 with ideas of Rd6 was stronger) 23 ... Rae8 24 Rde2 Bb7 25 f3 b5 26 Kg2 g5 27 Re3? g4 was an opening disaster for White in A.Giri-I.Sirosh, internet 2020.

b) 21 f3 Rad8! (21 ... Re6 22 Qd2 Qe7 23 e4 g5 24 g4! Qf6 25 Kg2 with a slight edge for White in J.Pérez Fernández-L.Schmidt, correspondence 2020) as recommended by l'Ami in his Chessable course on The Dubov Tarrasch looks to be Black's best choice. Then, 22 Qc2 (22 e4 Re6 followed by

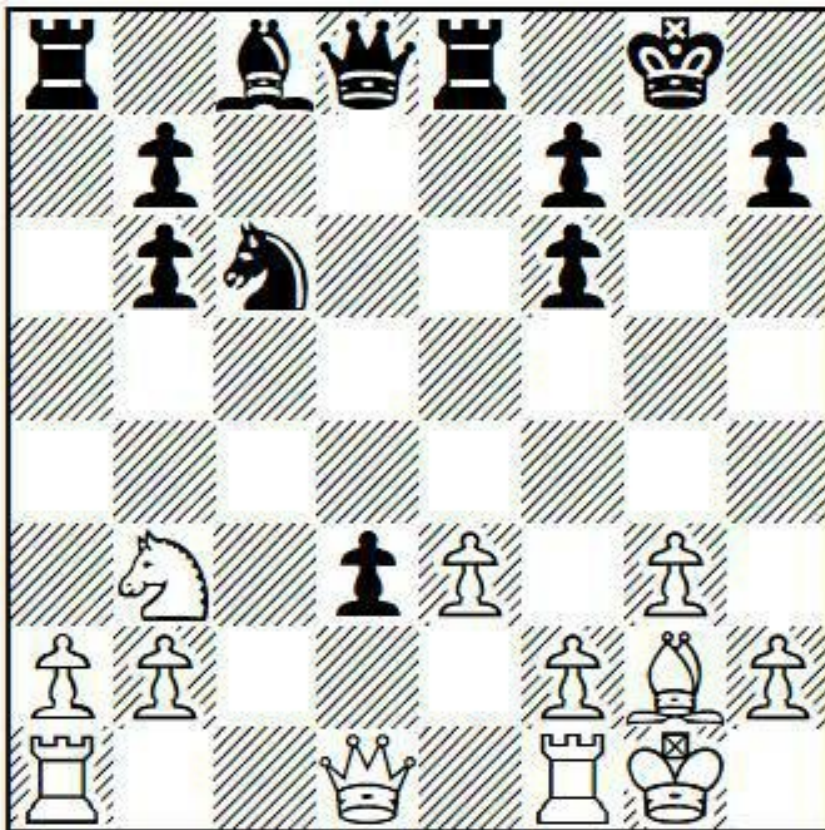
doubling rooks with ... Red6 next) can be met by centralizing the queen with 22 ... Qe5 23 e4 and here the direct 23 ... f5! provides good play.

**13 ... axb6 14 e3 d3!**

A new idea by Dubov and consistent with the dynamic nature of the Dubov Tarrasch.

Prior to Dubov's novelty, some correspondence games had seen 14 ... dxe3?! 15 Bxe3 Bd7 16 Re1 with a pleasant slight advantage for White because of the bishop pair.

**15 Bxf6 gxf6**



**Question:** Black's pawn structure looks terrible and the king is exposed on g8, isn't White clearly better here?

**Answer:** At first sight, Black's position does not look very good, but the d3-pawn is extremely strong and difficult for White to remove. Furthermore,

as l'Ami highlights, Black's pieces have a lot of mobility. The a8-rook is very useful on the a-file where it puts pressure on the a2-pawn, and the minor pieces can support the d3-pawn with ... Ne5 and ... Bf5.

### **16 a3**

Protecting the a-pawn and preparing to activate the a1-rook with Rc1-c3.  
Alternatives:

a) 16 Qh5 intends to create some threats on the kingside, but 16 ... Re5 17 Qh4 b5! creates the powerful threat of ... Ra4, when the rooks dominate White's queen on h4. 18 Be4 can simply be met by 18 ... Bf5.

b) 16 Qd2 is well met by the following rook maneuver, 16 ... Re6 17 Qc3 Rd6 18 Nd2 Bf5 and ... Ne5 is coming next with active piece play and an excellent position.

### **16 ... Be6**

Also playable is 16 ... Bf5 to provide better support for the d3-pawn and prepare ideas with ... Ne5 and ... Qd7.

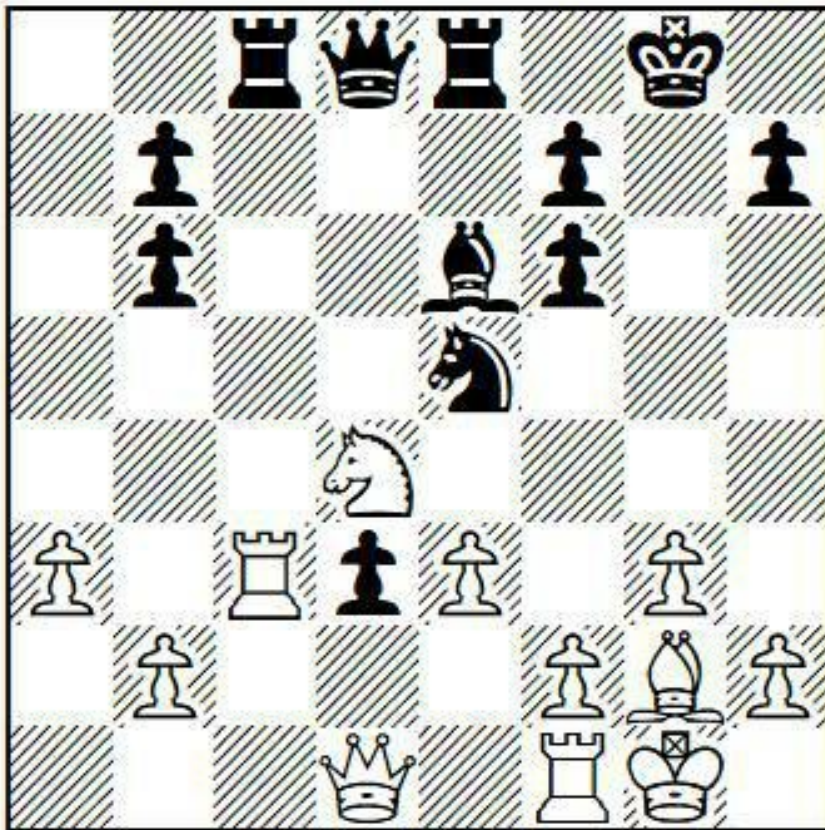
### **17 Rc1 Rc8**

Much of both sides' play revolves around the d3-pawn. Black will use his passed pawn to cramp his opponent's play, while White tries to eliminate it as quickly as possible.

### **18 Rc3**

The following forcing attempt at winning the d3-pawn is an important one to consider: 18 Bxc6 Rxc6 19 Nd4 and now Black must play very energetically to keep his d3-pawn. Following 19 ... Bh3 20 Re1 Qd5 21 f3 Rxe3! as pointed out by l'Ami leads to an interesting material imbalance after 22 Nxc6 Rxe1+ 23 Qxe1 bxc6 when the game remains very complicated but Black should have sufficient compensation for the exchange because of the strong d3-pawn and weaknesses surrounding White's king.

### **18 ... Ne5 19 Nd4**



Nakamura surrounds the d3-pawn and prepares several dangerous ideas, such as f4 and capturing on d3, or a kingside attack with Be4 followed by Qh5. Unfortunately for him, Dubov was ready for this opening line and executed the next few moves from his preparation.

**19 ... Rxc3 20 bxc3 Qc7 21 Qd2**

21 f4?! removes the defender of the important d3-pawn, but the drawback is shown after 21 ... Bg4! 22 Qd2 Nc4 23 Qxd3 Rxe3 with excellent piece play.

**21 ... Bd7 22 Re1**

22 Be4 threatens to win the d3-pawn. Play continues 22 ... Qc5! 23 Bxb7 (the idea behind Black's last move is demonstrated after 23 Bxd3?? Qxd4! 24 cxd4 Nf3+ winning a piece) 23 ... Qxa3 24 f4 Nc4 25 Qxd3 and even though the d3-pawn is lost, White's e3-pawn has become major weaknesses. After 25 ... Nb2 26 Qd2 Nc4 we have a repetition of moves.

**22 ... Rc8 23 Rc1 Qc5 24 f4 Nc4 25 Qxd3**

Finally the d3-pawn falls, though Black picks up the a3-pawn in return. The arising positions are close to equal, but White needs to be a bit careful with his weak c3 and e3-pawns.

**25 ... Qxa3 26 Rb1 Nd6 27 Ne2**

27 Rb3 Qa1+ 28 Rb1 should just be a draw.

**27 ... Bf5**

27 ... Bg4! intending ... Bxe2 and ... Rxc3 would have exploited the weak pawns in White's position and given Black a slight edge.

**28 e4 ½-½**

One interesting observation that can be made from the previous game is that the newer engines are generally less averse to accepting doubled pawns on the kingside because they have fewer predispositions towards static features (pawn structures, material imbalances, etc.). I would argue that the older engines' hard-wired rules make them very set in their ways. For example, positions where one side has a terrible pawn structure may be rejected almost automatically because of some rule in the engine's evaluation function. Even better examples of this can be found in Chapter 7: Material Imbalances, in which the older engines often favour the side with a queen almost automatically. On the other hand, the newer ones are more flexible and therefore can understand a position much more deeply by considering the features that will be important in the long-run and disregarding those that won't.

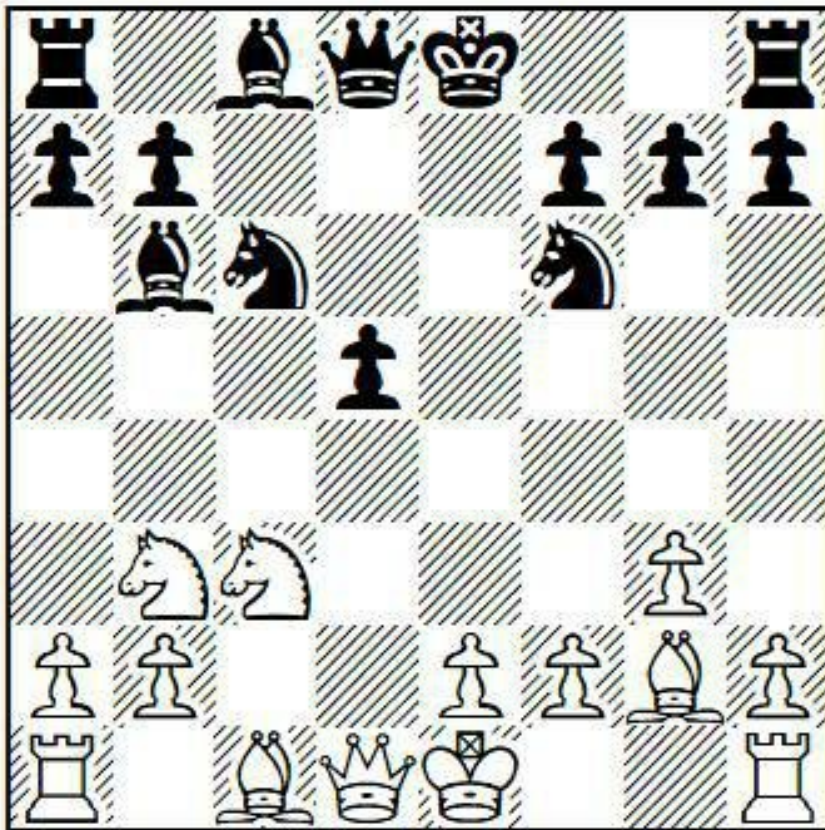
The next game is also played by Dubov and he counters his opponent's plan with the most well-known plan of the neural network engines.

### *Game 34*

**S.Mamedyarov-D.Dubov**

Riga FIDE Grand Prix 2019

**1 c4 Nf6 2 Nc3 c5 3 g3 e6 4 Nf3 d5 5 cxd5 exd5 6 d4 Nc6 7 Bg2 cxd4 8 Nxd4 Bc5 9 Nb3 Bb6**



### 10 Na4!?

Immediately trying to remove Black's bishop pair and fight for control over the d4-square.

In the previous game, we examined the main continuation 10 0-0. In this game, we will look at two less critical alternatives.

Accepting the pawn sacrifice with 10 Nxd5 is the first move that comes to mind. After 10...Be6 White has several options, but none of them pose serious problems:

a) 11 Nxb6 exchanges the queens but misplaces the White king and opens the a-file for the a8-rook. Play continues 11...Qxd1+ 12 Kxd1 axb6 13 Bxc6+ bxc6 14 Nd2 0-0 15 a3 Rfe8 reaching a balanced endgame. White has some development problems to solve, while Black can create play by targeting e2 and activating the knight.

b) 11 e4 Bg4 12 Bf3 was tried in M.Kobalia-A.Dreev, internet 2021. The game continued 12...Bxf3 13 Qxf3 Nxd5 14 exd5 Ne5 15 Qe4 0-0 16 0-0

Re8 and Black had full compensation for the pawn because of his active pieces and White's weakened light-squares on the kingside.

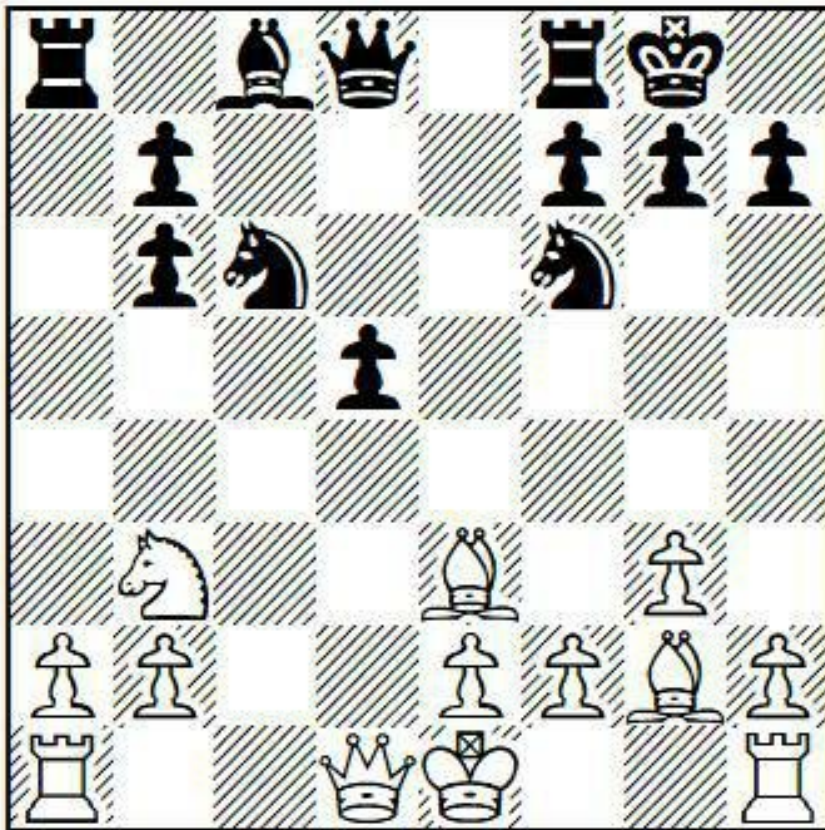
c) 11 Nc3 Qe7 12 0-0 allows Black to activate his pieces with tempo, following 12...Rd8 13 Qc2 Nb4 14 Qb1 0-0 White is lagging behind in development. l'Ami further analyzes 15 Bg5 and 15 Na4 in his course, showing that Black's active play provides sufficient compensation for the pawn.

**10...0-0 11 Nxb6**

11 0-0 d4 transposes to the previous game.

**11...axb6 12 Be3!?**

12 0-0 d4! advancing the d-pawn is a very typical idea in the Dubov Tarrasch. White can win the d4-pawn but must part with his strong g2-bishop to do so. Play continues 13 Bxc6 (13 Bg5 Re8 transposes to the previous game between Nakamura and Dubov) 13...bxc6 14 Qxd4 Qc7 and Black obtains sufficient counterplay based on the weakened light-squares, for example, 15 Bf4 Qb7 16 Qd2 c5 (threatening ...Bh3) 17 f3 Nd5 was comfortable for Black in J.Deforel-A.Lujambio, correspondence 2019.



The idea behind delaying castling is to prevent Black from playing ...d4, take full control over the d4-square, and eventually target the isolated pawn.

**Question:** How should Black meet White's plan?

**Answer: 12...h5!**

The typical h-pawn advance is effective here because of the White's fianchettoed bishop and the lack of a knight on f3. White is faced with an unpleasant choice: he must decide between allowing ...h4-h3, or making some type of concession on the kingside.

12...Re8 13 0-0 Bf5 (13...h5 14 Bg5 should be slightly better for White; it is better to play ...h5 a move earlier, before White has the chance to finish development) 14 Nd4 Be4 15 Bh3 with a comfortable edge for White because Black is not in time to create any counterplay.

**13 0-0**

Slowing down the h-pawn's advance was also possible:

a) 13 h3 stops ...h4-h3 but also weakens the kingside. This is shown after 13...Re8 14 Bd4 Ne4 15 0-0 h4 16 g4 f5! and White's kingside is on the verge of falling apart.

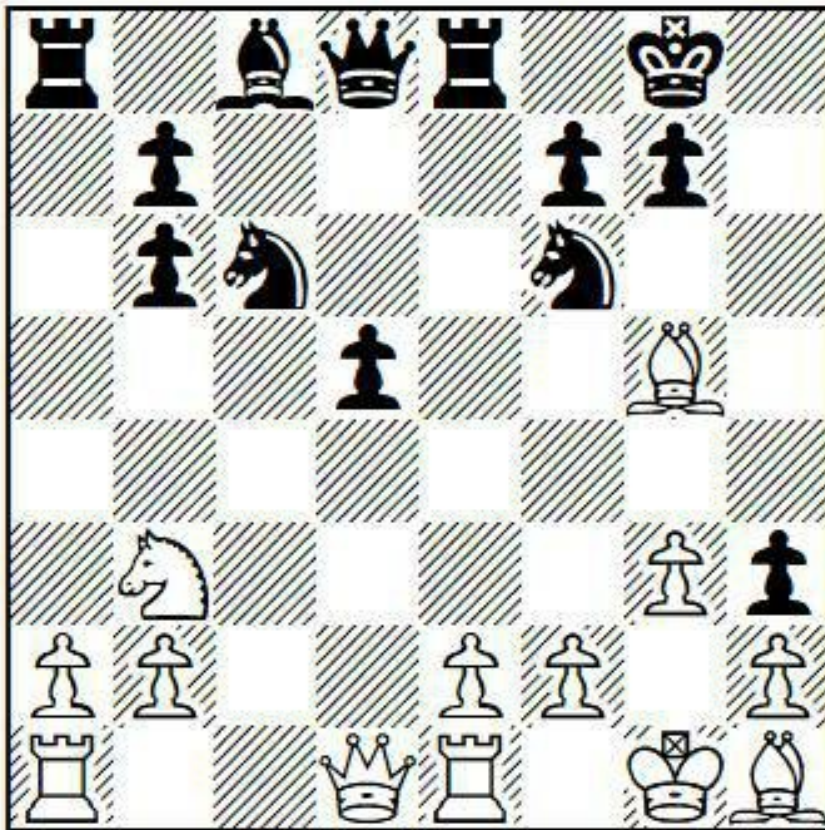
b) 13 Bg5 Qd6 unpins the queen and leads to equality after 14 0-0 Qe5 15 Bxf6 Qxf6 16 Qxd5 Bg4 with a fine position because White's b2-pawn is awkward to defend.

### **13...h4 14 Bg5?!**

We have already seen many examples throughout the book of how dangerous it is to allow the h-pawn to push all the way.

In view of the long-term dangers of allowing ...h3, the best continuation was 14 gxh4! Ng4 15 Bf4 Qxh4 16 Qxd5 Qf6 17 Qd2 and Black can play in several different ways. For example, 17...Rd8 (17...Be6 18 Bg3 Rfe8 looks very playable for Black, the active piece play provides good compensation) 18 Bg5! (18 Qc1 Ra4 19 Bg3 Be6 is given by l'Ami with sufficient compensation for the pawn) 18...Rxd2 19 Bxf6 Rxe2 20 Bc3 Nh6 21 Nd4 Nxd4 22 Bxd4 led to a slightly better endgame for White in R.Sutkienė-C.Sundqvist, correspondence 2020.

### **14...h3 15 Bh1 Re8 16 Re1**



### 16...Bg4

l'Ami suggests a slight improvement with 16...Bf5! intending ...Be4 next. The idea is to either exchange bishops and weaken White's light-squared control, or provoke f3. Both options result in the weakening of White's kingside.

### 17 a3 Qd6 18 Qd2 Qe5

Mamedyarov's position looks a bit unpleasant because of his cramped kingside and less active pieces. However, the position remains balance after he plays a series of concrete moves.

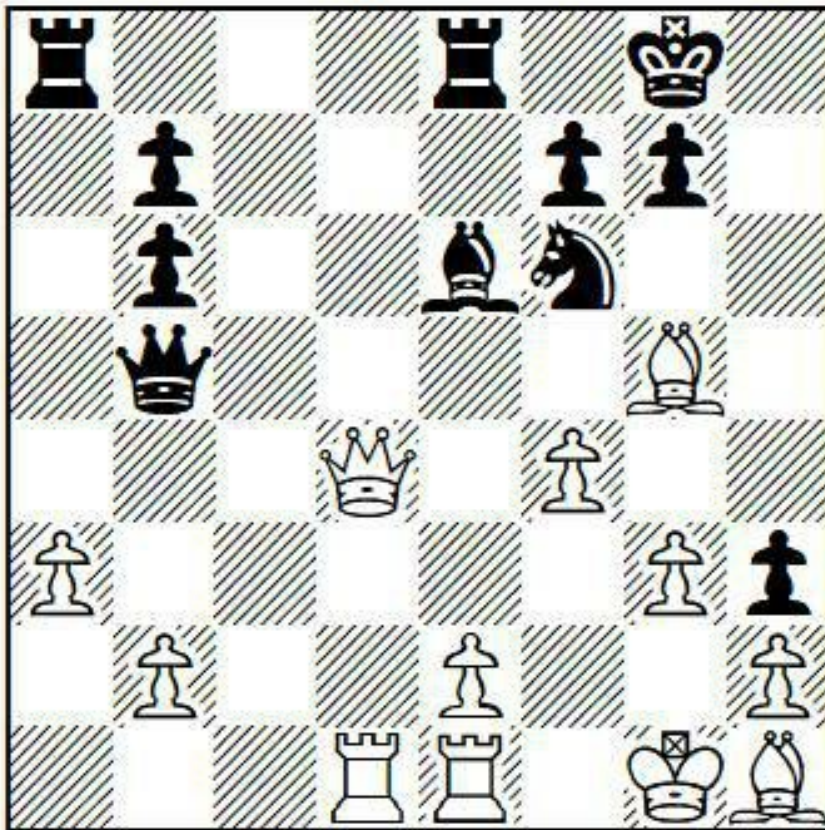
### 19 f3

Weakening the kingside but also preventing ...Ne4.

### 19...Be6 20 Rad1 d4 21 f4

21 Nxd4?! Nxd4 22 Bf4 Nxe2+ 23 Qxe2 Qa5 is clearly better for Black due to the passive h1-bishop and long-term weaknesses on White's kingside.

### 21...Qb5 22 Nxd4 Nxd4 23 Qxd4



### 23...Bb3

A good square for the bishop, where it blocks the b2-pawn from advancing. This is very relevant if Black decides to play ...Ra4, as then White cannot play b4.

Very sharp play could have occurred after 23...Ng4!? 24 Bxb7 (forcing a queen trade with 24 Qb4? Qxb4 25 axb4 runs into 25...f6 26 Bh4 Rac8 and the h4-bishop is completely shut out of the game; meanwhile, Black will have very active piece play) 24...Ra4! 25 Qd6 (threatening Bc6) 25...Rc4 reaching a very complicated position, which looks much more dangerous for White due to his exposed king.

### 24 Rd3

As Dubov pointed out after the game, 24 Rd2?! runs into 24...Ra4! 25 Qd6 Ne4 with a very unpleasant position for White.

### 24...Bc4

24...Ra4?! could now be safely met by 25 Qc3 retreating the queen and

creating a threat on the b3-bishop.

### **25 Rc3**

25 Rd2 holds on to the e2-pawn. Following 25...Rad8 26 Qxd8 Rxd8 27 Rxd8+ Kh7 28 Bxf6 gxf6 White's two rooks and pawn for Black's queen does not promise any advantage because of the poor piece coordination and exposed king on g1.

### **25...Bxe2 26 Bxf6 gxf6 27 Qxf6**

Both sides' kings are very exposed, and the game soon ends in a forced draw after Dubov's accurate next move.

**27...Bf3! 28 Re5 Rxe5 29 fxe5 Bxh1 30 e6 Qd5 31 Qxf7+ Kh8 32 Qf6+ Kg8 33 Qg6+ Kh8 34 Qf6+ Kg8 35 Qf7+ ½-½**

Our last game on the Dubov Tarrasch examines the quieter 9 Nxc6 line, where Black gets a hanging pawn structure instead of an isolated pawn. I would suggest comparing the following game with Giri's line in Chapter 2, which he used against Ding Liren and Vidit (see Games 17 and 18). In both openings, the neural network engines argue that the slight positional weakness of the hanging pawns is compensated by the h-pawn advance and active piece play.

## *Game 35*

### **M.Rodshtein-D.Dubov**

Netanya Masters 2019

**1 c4 Nf6 2 Nc3 c5 3 g3 e6 4 Nf3 d5 5 cxd5 exd5 6 d4 Nc6 7 Bg2 cxd4 8 Nxd4 Bc5 9 Nxc6 bxc6 10 Qc2**

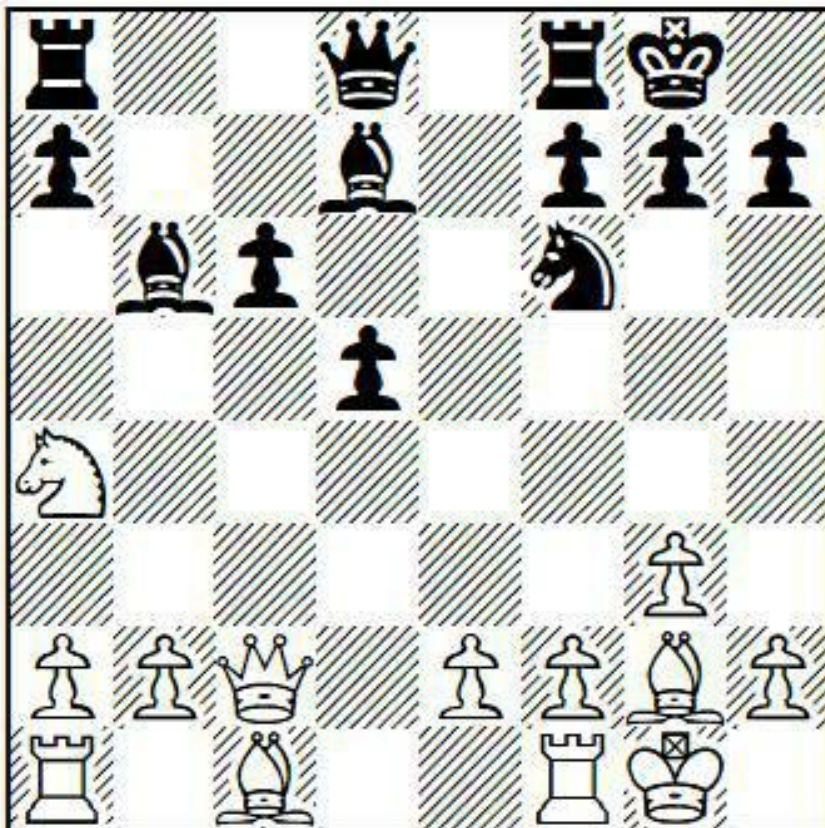
A rapid game between Nakamura and Dubov, played two months after the previous game took place, saw 10 0-0 0-0 11 Na4 Bb6 12 Nxb6 axb6 13 Qc2 c5 (13 ... Bd7 transposes to a position discussed in our main game on the note to White's 13th move) 14 Bg5 and now:

a) 14 ... Be6?! 15 e4 d4 16 e5 h6 17 exf6 hxg5 18 fxg7 and after 19 Bxa8, Black should not have sufficient compensation for the exchange. See H.Nakamura-D.Dubov, Paris (rapid) 2019.

b) 14...Ra7! is l'Ami's suggested improvement. One important line is 15 Bxf6 (15 Rfd1 d4 16 b4 is another try, but Black should be fine after 16 ...

Qd6) 15 ... gxf6 16 e3 Re8 17 Rfd1 d4 18 Rd2 Re5! intending ... Bf5 and ... Rd7 when Black's active piece play and the strong d-pawn compensate for his weakened pawn structure.

10 ... 0-0 11 0-0 Bb6 12 Na4 Bd7



**Question:** What are the most challenging plans for White and Black?

**Answer:** The most challenging plan for White begins with 13 Nxb6 axb6 14 a4! gaining space on the queenside and preparing 15 b4-b5 to undermine the d5-pawn. Meanwhile, Black should be looking to create play along the e-file and on the kingside with ... h5-h4, as we will see in the examples below.

**13 b3**

13 Nxb6 axb6 and White must decide how to create queenside play:

a) 14 b4 b5! appears to be a very poor positional move, but it is much stronger than it looks. The weak c5-square can't be exploited by White, and it is impossible to play b5 and undermine Black's central d5-pawn.

H.Melkumyan-M.Carlsen, Moscow (rapid) 2019, continued 15 Bb2 Re8 16 e3 h5 17 Qc3 Qc8 18 Rfd1 Bh3 19 Bh1 Qf5 and Carlsen had succeeded in creating pressure on the kingside light squares.

a) More accurate is first 14 a4! Re8 15 b4 when play continues 15 ... Ne4 16 Bb2 Qe7 17 Qb3 h5! reaching an interesting middlegame. The older engines will tell you that White has a comfortable advantage: the bishop pair and ideas of playing b5 put Black under some positional pressure. However, the e4-knight is very well placed and the h-pawn advance can create problems for White on the kingside. For example, 18 Rfd1 h4 19 b5 Qg5 followed by activating the e8-rook via e6-h6.

### **13 ... Re8 14 Bb2 h5**

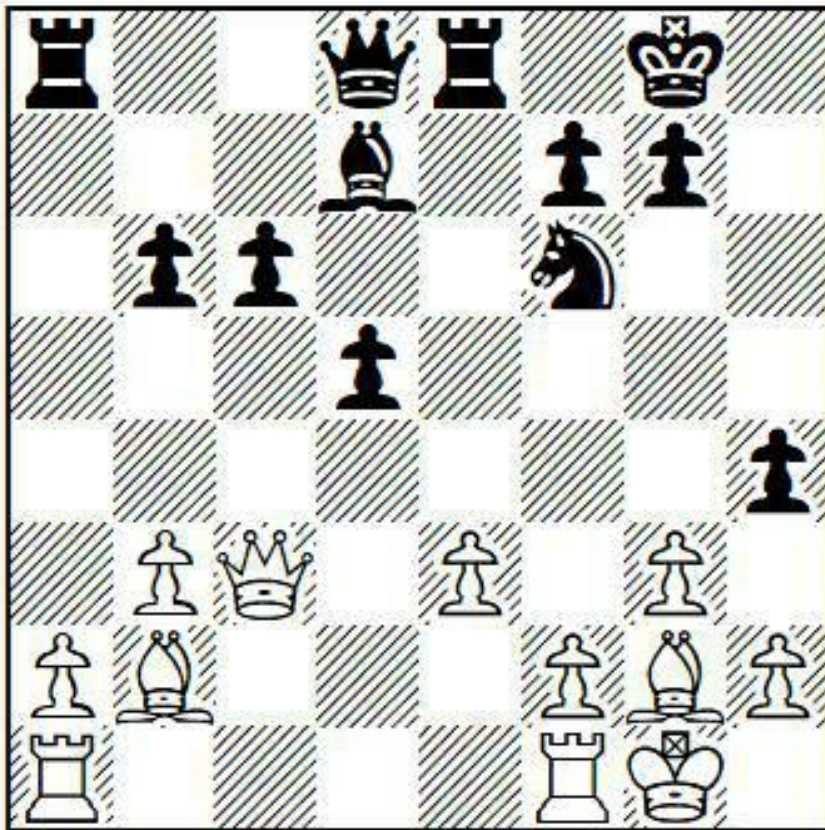
The h-pawn advance is one of the main ideas for Black in these positions, taking advantage of White's missing knight on f3.

A good alternative is 14 ... Ne4 preparing ... c5. The ideas with ... h5-h4 will be viable later in the middlegame as well.

### **15 e3**

Considering the dangers of allowing the h-pawn to advance freely, it was stronger to play 15 h4 as in L.Aronian-M.Carlsen, Moscow (rapid) 2019. That game continued 15 ... Ne4 16 e3 Rc8 17 Nxb6 axb6 18 Qd1 Bf5! (sacrificing the h5-pawn and focussing on development) 19 Qxh5 Qd7 20 Qd1 (objectively stronger was 20 Bxe4 although this greatly weakens the kingside light-squares) 20 ... c5 21 Re1 Rcd8 22 Rc1 Bh3 and Carlsen had sufficient compensation for the pawn in this dynamic middlegame.

### **15 ... h4 16 Nxb6 axb6 17 Qc3**



An important moment has arisen. The h-pawn has advanced to h4, but what should Black do with it now?

### **17 ... Rc8**

After seeing many flank advances throughout this book, the first move that comes into consideration is 17 ... h3! then 18 Bf3 is well met by 18 ... Qc8 intending ... Bg4 and ... Qf5 to weaken White's kingside defences.

### **18 Rad1 hxg3?!**

The exchange of flank pawns is not ideal here. Perhaps Dubov was hoping to create a kingside attack, but it shouldn't work out after 19 hxg3.

Again, 18 ... h3! was very strong. After 19 Bf3 Bf5 followed by ... Be4 creates some pressure on the light squares.

### **19 fxg3?!**

Opening the f-file gives the game a much more dynamic character, creating ideas of doubling the rooks and targeting the f6-knight. However, the following maneuver by Dubov keeps everything under control.

19 hxg3 Bf5 20 Rd4! is a dangerous idea, posing Black with very unpleasant problems after 20 ... Be4 (20 ... Qe7 21 Rh4 creates the strong threat of Bf3, Kg2, and Rfh1) 21 Bxe4 Rxe4 22 Rxe4 dxe4 23 Qb4 and Bxf6 next, when it is not clear how the e4-pawn can be defended.

**19 ... Re6!**

Maneuvering all of the major pieces to the kingside.

**20 e4**

20 Rf4 Qe7 21 Re1 Re8 sees Black set up a strong battery on the e3-pawn, demonstrating one of the key ideas behind 19 ... Re6!

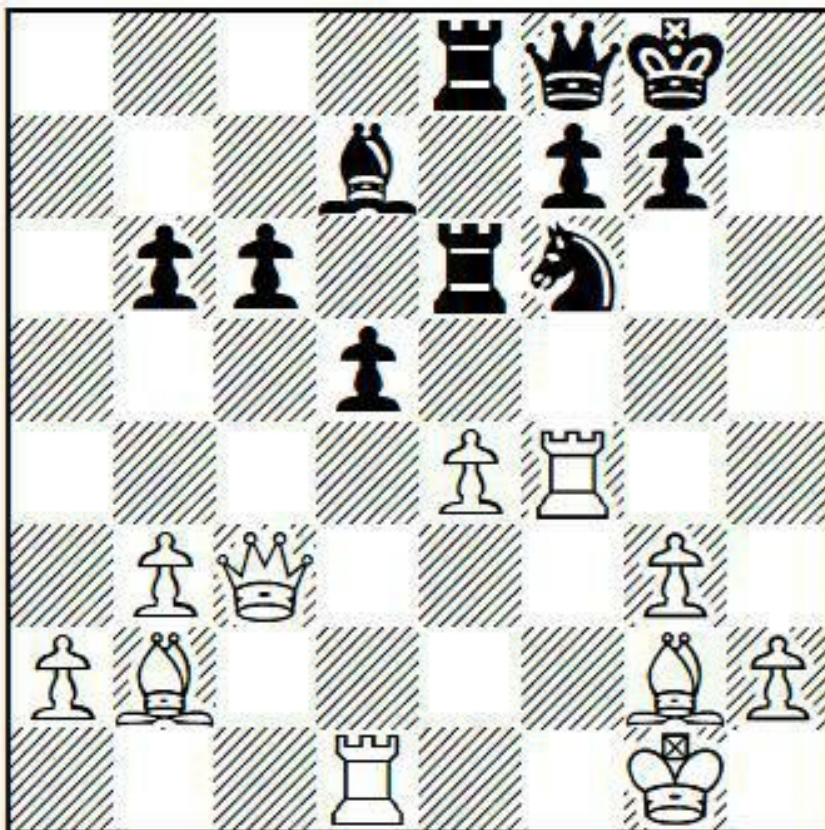
**20 ... Qf8**

Protecting g7 and freeing the e8-square for the other rook.

**21 Rf4**

21 exd5 Nxd5 22 Qc1 (on c1, the queen discourages ... Qc5+) 22 ... Qe7 23 Rfe1 should have been preferred, leading to equality.

**21 ... Rce8**



## **22 exd5?!**

Exchanging the light-squared bishop leaves White with undefended weak squares around his king.

There was a concrete solution in 22 Rdf1 dxe4 23 Rxf6! leading to simplifications after 23 ... gxf6 24 Bh3 Qc5+ 25 Qxc5 bxc5 26 Bxe6 Bxe6 27 Bxf6 with a balanced endgame.

## **22 ... Nxd5 23 Bxd5 cxd5 24 Rdf1 f6**

The middlegame dynamics have mostly come to an end and it becomes clear that Dubov has the advantage because of his safer king and control over the e-file.

**25 Qd3 Qf7 26 Bd4 b5 27 g4 Re4 28 h3 Qe6 29 R4f2 b4 30 Rd1 Qd6 31 Kg2 Bc8**

Another bishop maneuver, seen after 31 ... Rc8 32 Qg3 Qe7 33 Kh2 Be8! followed by ... Bg6 may have created more problems for White to solve.

## **32 Qg3 Qe6 33 Kh2 Re2 34 Rg1 Qe4 35 Rxe2 Qxe2+ 36 Qg2?**

Black's major pieces quickly launch a decisive attack on the kingside after this.

36 Rg2 Qd1 37 Bf2 promised better defensive chances.

**36 ... Qd3 37 Qxd5+ Be6 38 Qc6 Bf7 39 Bf2 Re2 40 Qc5 Rc2 41 Qb6 Qf3 42 Rf1 Kh7 0-1**

## **New Trends in the Rossolimo**

Since the 2018 World Championship match between Carlsen and Caruana, the Rossolimo has become an even more popular choice against the 2...Nc6 Sicilian. The first couple games in that match debated the lines where White plays Bxc6 early on. In the following year, another Rossolimo system became very popular, where White plays 5 c3 and fights for central control. The neural network engines have essentially turned the 5 c3 line into a completely new system by providing many new ideas for both sides. Our first game of this section sees White using some ideas by the newer engines to obtain an advantage out of the opening and eventually win an excellent positional game.

### *Game 36*

**J.Smeets-R.Mamedov**

Tata Steel-B 2020

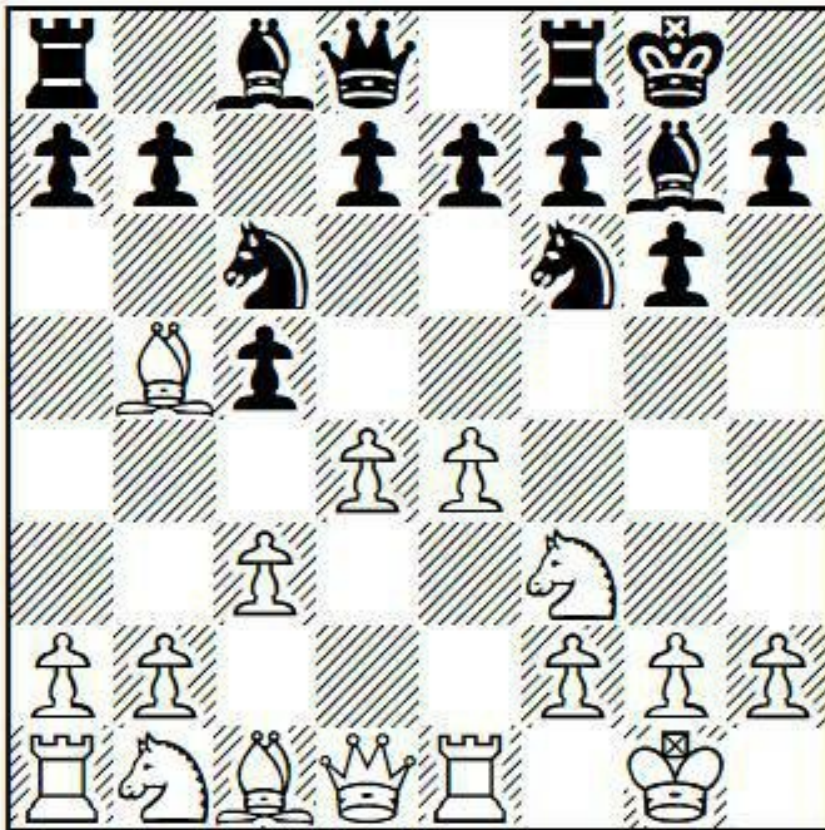
**1 e4 c5 2 Nf3 Nc6 3 Bb5 g6 4 0-0 Bg7 5 c3**

A new idea in the main line of this system has revitalized 5 c3 as a very serious attempt to pose Black some problems.

**5 ... Nf6**

The more concrete 5 ... e5 will be analysed at the end of the chapter.

**6 Re1 0-0 7 d4**



**7 ... d5**

A very popular continuation, challenging White's central control. We will look at the interesting 7 ... a6!? and the unusual 7...Qb6!? in the next game.

Another alternative is 7 ... cxd4 8 cxd4 d5 which used to be the main line but nowadays most players prefer to keep the tension in the centre for a bit longer. Play continues 9 e5 Ne4 10 Nc3 when Black has a choice:

a) 10 ... Nxc3 11 bxc3 Na5 is a very popular approach but not a good one,

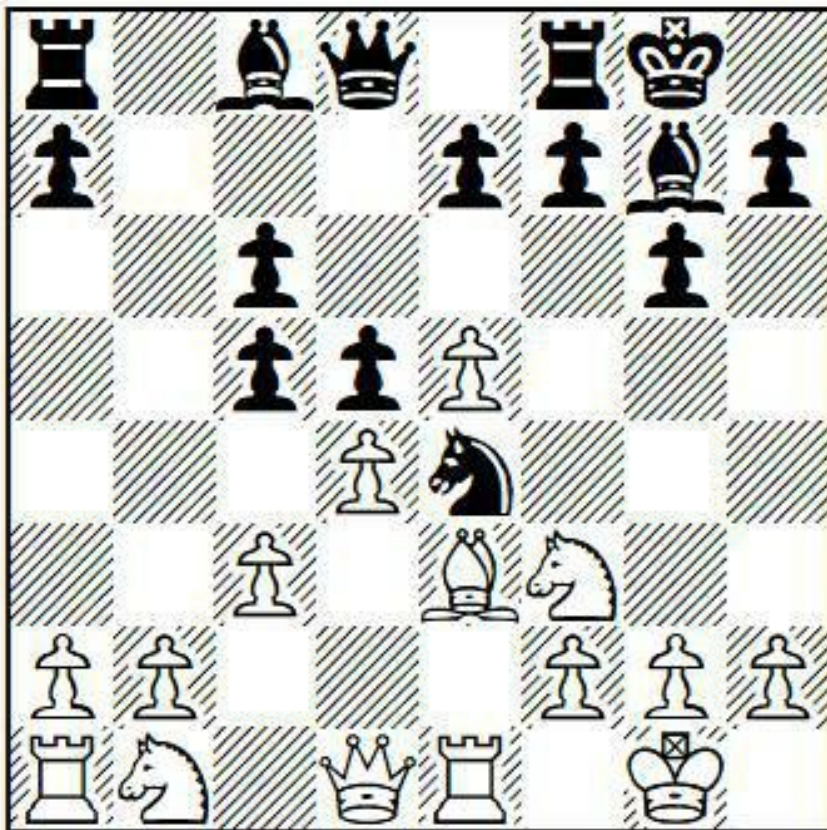
due to the lack of defenders on Black's kingside. For example, 12 Bd3 Bd7 13 Qc2 Qc7 14 h4 provided promising kingside play in N.Cipressi-M.Turczynski, correspondence 2021.

b) 10...Bf5 11 Bd3 Nxc3 12 bxc3 Qd7 is a better try, at least in these lines White's light-squared bishop is challenged. One game continued 13 Bxf5 (13 Ng5!? also deserves attention, with the idea of advancing the h-pawn or activating the e1-rook via e3-h3 in some lines) 13 ... Qxf5 14 Qb3 Qd7 15 h4! h6 16 Qb1 Qe6 17 h5 g5 and in J.Van Foreest-R.Praggnanandhaa, Brest 2019, Black would be under some pressure after 18 Nh2 intending f4 next.

**8 e5 Ne4 9 Bxc6**

An alternative move order is 9 Be3 Qb6 10 Bxc6 which usually leads to similar types of positions.

**9 ... bxc6 10 Be3!**



This move was barely seen before the end of 2019, when a couple of strong players started to play it and its popularity exploded. The idea behind

10 Be3 is to encourage a change in pawn structure (10 ... cxd4 11 cxd4), which is viewed optimistically by the newer engines – White has excellent chances to fight for an advantage after the exchange of pawns.

10 Nbd2 was the old main line. Black has far fewer problems here, for example, one common continuation is 10 ... cxd4 11 cxd4 c5! 12 dxc5 Nxc5 13 Nb3 Nxb3 14 Qxb3 Bg4 15 Nd4 Qb6 16 Qxb6 axb6 reaching a roughly balanced endgame.

### **10 ... Rb8**

Mamedov decides to develop his major pieces before exchanging on d4.

10 ... cxd4 11 cxd4 and now:

a) 11 ... Qb6 12 Qc1 a5 (12 ... Rb8 13 b3 transposes to our main game) 13 Nc3 Nxc3 14 Qxc3 Bf5 reaches a typical position for this 10 Be3 line which is of interest to us. The newer engines are quite optimistic about White's chances because Black lacks pawn breaks, while White is prepared to expand on the kingside. Following 15 b3 Rfb8 16 h3! (16 Nd2?! is inaccurate because of 16 ... a4! 17 h3 h5 and it is not clear how White will continue his plan of creating kingside play) is very strong, immediately creating ideas with g4 before Black has the chance to develop serious play on the queenside. 16 ... a4 (16 ... h5?! 17 Bg5 threatens the e7-pawn and Nh4 is coming next) 17 g4 Be6 18 Reb1! reveals one of the key ideas behind gaining kingside space with h3 and g4. Black's light-squared bishop is forced to retreat and White can fight back on the queenside. After 18 ... Qa6 19 b4 f5 20 Nh2 White had neutralized all of the opponent's counterplay and obtained a clear positional edge in P.Frendzas-M.Reichgeld, correspondence 2020.

b) In view of the difficulties Black faces without a pawn break, the direct 11 ... f6!? deserves attention. Play continues 12 Nbd2 Nxd2 13 Qxd2 Bg4 14 exf6 exf6 15 Bh6 when all of the minor pieces are likely to be exchanged off. The most natural continuation appears to be 15 ... Bxh6 16 Qxh6 Bxf3 17 gxf3 and surprisingly, the doubled kingside pawns are not much of a concern for White. After 17 ... Qd7 18 Kg2 Rae8 19 b4 White developed serious positional pressure in C.Vasselon-B.Zhorov, correspondence 2020.

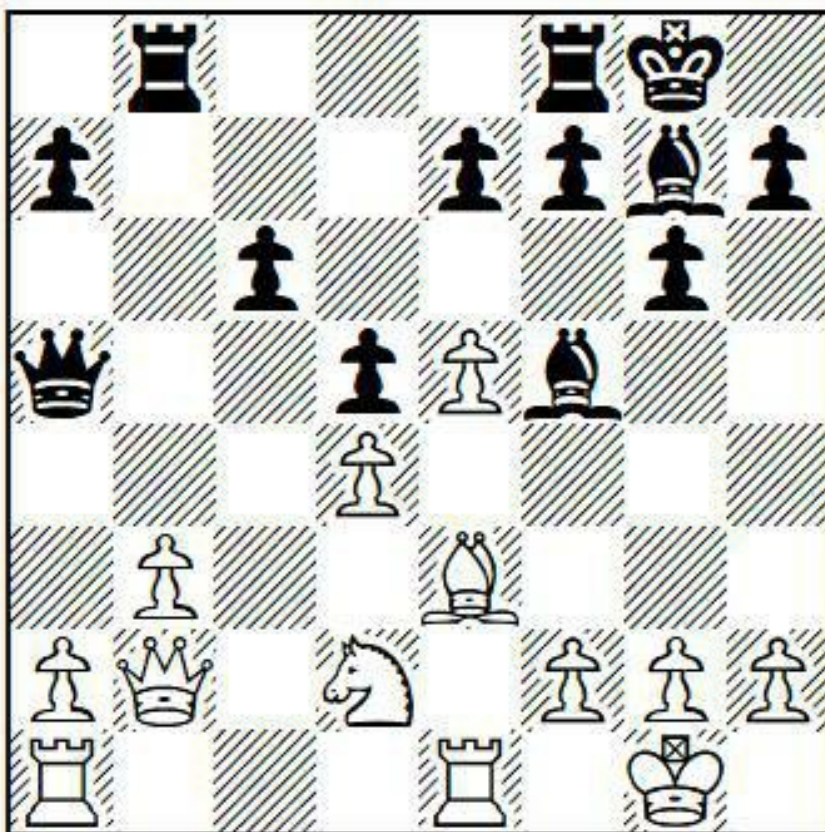
### **11 Qc1 Qb6 12 b3 cxd4?!**

Reaching a worse version of the 10 ... cxd4 11 cxd4 Qb6 positions discussed above.

The forcing 12 ... Qa5 13 dxc5 Rxb3 14 axb3 Qxa1 15 b4 Qa4 was debated in F.Caruana-D.Dubov, Wijk aan Zee 2020. And now instead of Caruana's 16 Nd4, more challenging is 16 Nbd2 a5 17 Qa1 Qxa1 18 Rxa1 leading to an

unpleasant endgame for Black, for example, 18 ... axb4 (or 18 ... Nxc3 19 Rxa5 Bb7 20 Nb3 also looks very nice for White) 19 cxb4 Nxd2 20 Bxd2 and Black did not manage to create a strong defence in E.Safarli-V.Kotronias, Banja Vrujci 2021.

**13 cxd4 Qa5 14 Nbd2 Bf5 15 Nxe4 Bxe4 16 Nd2 Bf5 17 Qb2**

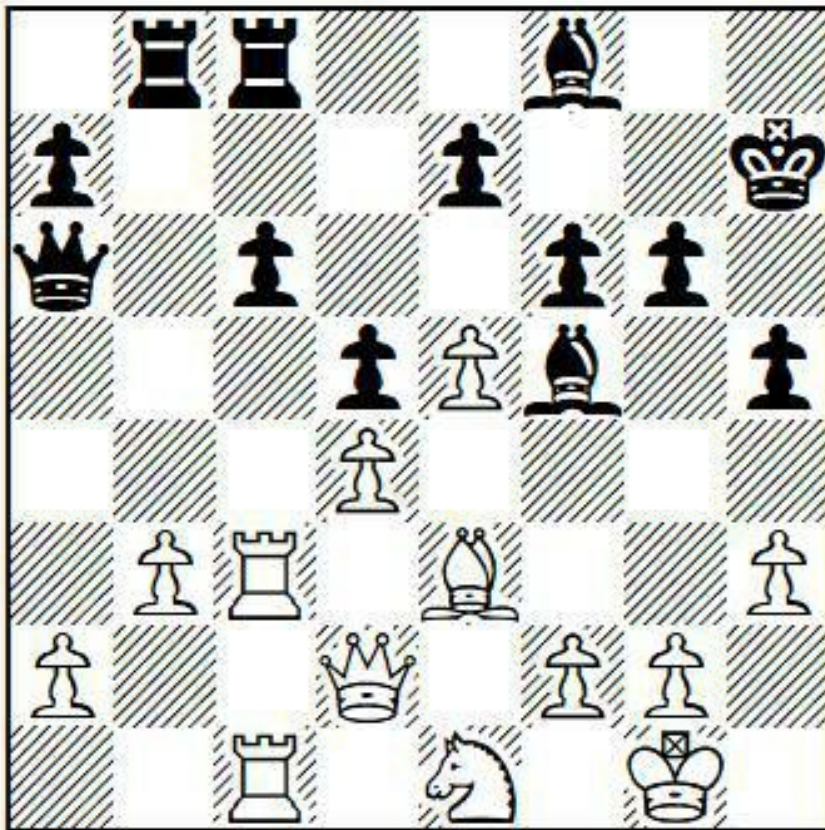


We have reached the same pawn structure that was analyzed on the note to Black's 10th move (10 ... cxd4). However, the situation is even worse for Black here because counterplay on the queenside is far too slow. The a7-pawn hasn't advanced yet and the placement of the rooks is not ideal. They are more effective on a8 and b8, where they would both contribute to the queenside play.

**17 ... Rfc8 18 Rec1 Bf8 19 Rc3 Qa6 20 Nf3!**

Maneuvering the knight to a more promising square via e1-d3.

**20 ... Be4 21 Ne1 h5 22 h3 Bf5 23 Rac1 f6 24 Qd2 Kh7**



**25 f3!**

Renewing the threat of g4. In order to keep the f5-bishop on the h7-b1 diagonal, Black must further weaken his kingside.

**25 ... g5 26 Nd3 Bg7 27 Nc5 Qa5 28 g4 Bg6 29 f4**

The decisive opening of the position causes Black's defences to collapse.

**29 ... gxf4 30 Bxf4 Rg8**

30 ... fxe5 31 dxe5 Rg8 avoids the loss of material, although Black position is still lost after 32 Ne6 and White will soon break through on the kingside.

**31 exf6 exf6 32 Bxb8 Rxb8 33 Ne6 Bh6 34 g5 fxg5 35 Nxc5+ Kg8 36 Qf4 Rf8 37 Qd6 Qxa2 38 Qxc6+ Bg7 39 Qh7 mate**

The type of positional pressure that White created in the previous game has prompted defenders of the Black side to investigate more concrete solutions to their opening problems. We will examine two such ideas in the remainder of the chapter.

## Game 37

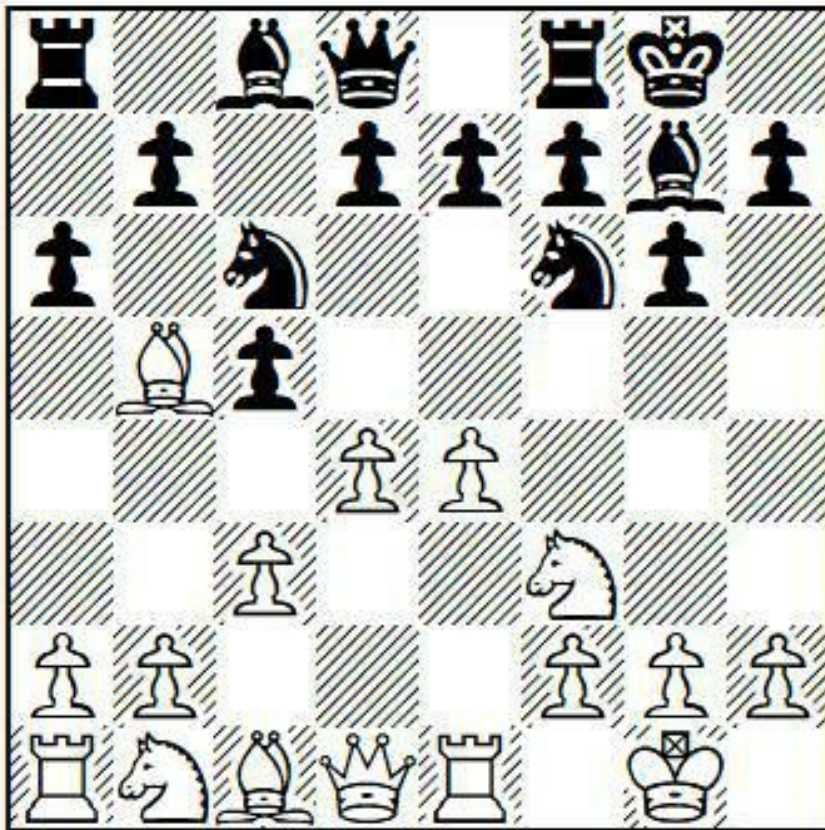
**N.Grandelius-D.Anton Guijarro**

Prague Masters 2020

**1 e4 c5 2 Nf3 Nc6 3 Bb5 g6 4 0-0 Bg7 5 c3 Nf6 6 Re1 0-0 7 d4**

In the previous game, we examined the main lines with 7 ... d5 and 7 ... cxd4 8 cxd4 d5. In this game, we'll take a look at two moves that delay countering in the centre.

**7 ... a6!?**



A very rare and unusual-looking idea. Before hitting back in the centre, Black forces White to decide what he wants to do with the bishop.

Another unusual move 7 ... Qb6!? has not been seen much at the higher levels of practical chess, but it also looks playable. Play continues 8 Bxc6

dx6 9 h3 Rd8 10 a4 (or 10 Qc2 cxd4 11 cxd4 c5! 12 dxc5 Qc6 when White should give back the pawn and play 13 Nc3 Qxc5 14 Be3 Qc4 15 Rad1 with a lead in development and a slight edge) 10 ... a5 11 Qc2 cxd4 12 cxd4 Be6 13 Bg5 h6 14 Bd2 Nh7! 15 Bc3 Qc7 16 Qc1 Ng5 promised Black a very solid position in K.Sasikiran-K.Stein, correspondence 2020.

### **8 Bd3**

The main alternative is 8 Bxc6 dx6 when there are two moves to consider:

a) 9 e5 Nd7 10 e6! fxe6 11 Be3 cxd4 12 cxd4 looks very unpleasant for Black in view of the undeveloped queenside. K.Jones-G.Magat, correspondence 2020, demonstrated the following strong plan pointed out by the newer engines: 12 ... a5! (12 ... c5 13 dxc5! is a strong exchange sacrifice, following 13 ... Bxb2 14 Nbd2 Bxa1 15 Qxa1 White has excellent compensation due the passive pieces and weak squares in Black's position) 13 Nc3 Nb6 14 Qe2 a4 (gaining queenside space and preparing to activate the a8-rook) 15 Rad1 Ra5 16 Ne4 Raf5! and ... Nd5 is coming next with a perfectly fine position, despite the damaged pawn structure and passive bishop on c8.

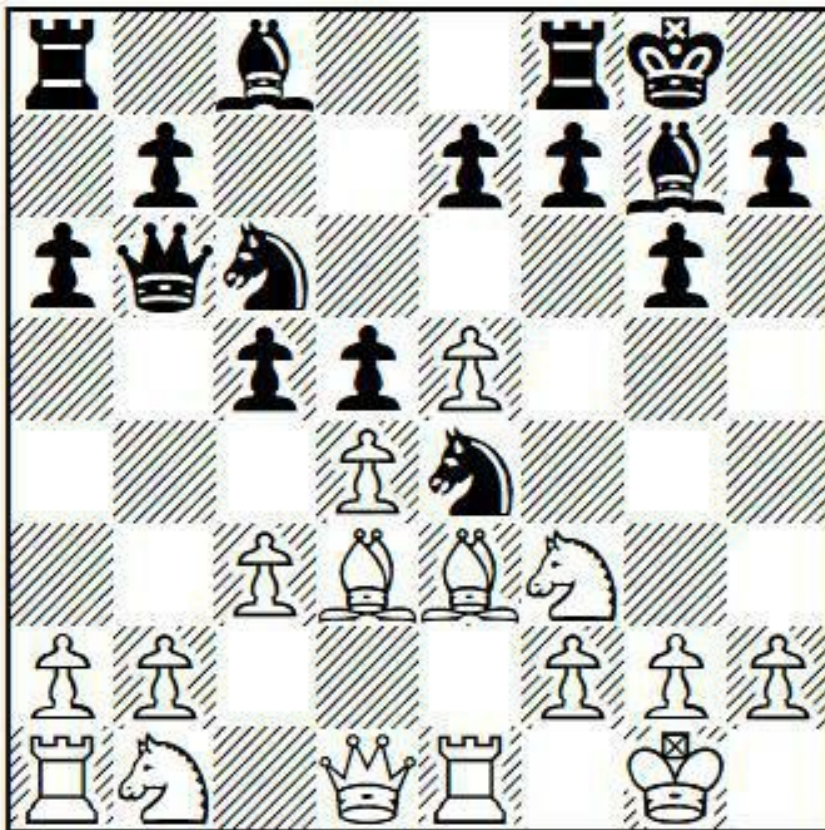
b) 9 h3 cxd4 10 cxd4 c5 (all other moves fail to challenge White's control over the centre) 11 d5 b5 12 Nc3 (development of the b1-knight was delayed in N.Vitiugov-D.Anton Guijarro, Prague 2020; that game saw 12 Qc2!? c4 13 a4 Bb7 14 Bd2 and here 14 ... Re8 preparing ... e6 leads to a complicated middlegame, but one where Black should be fine) 12 ... Bb7 13 Bf4 (13 Bg5 h6 14 Bf4 has been tried in a couple games, although the inclusion of ... h6 strongly favours Black in the variation 14 ... e6 15 dxe6 Qxd1 16 Raxd1 fxe6 and White cannot occupy the g5-square with his knight) 13 ... Rc8 leads to an interesting middlegame structure. Black intends to gain space on the queenside with ... c4 and play ... Nd7 to open the diagonal for the fianchettoed bishop. Meanwhile, White will try to disrupt his opponent's plan and maintain control over the centre. One correspondence game continued 14 Be5 Bh6 15 Nh2! (continuing the prophylactics against ... Nd7, now 15 ... Nd7 can be met by 16 Ng4) 15 ... Re8 16 Ng4 and White stood slightly better in B.Thompson-R.Sherwood, correspondence 2020. However, the game remained unclear after 16 ... Bf8 17 a3 h5 18 Nxf6+ exf6 19 Bg3.

### **8 ... d5 9 e5 Ne4**

9 ... Ne8?! was tried in V.Anand-M.Carlsen, Wijk aan Zee 2020. Carlsen faced some opening difficulties after 10 dxc5 (10 h3 may be even stronger, preventing the light-squared bishop from developing) 10 ... Bg4 11 Be2 Nc7

12 Nbd2 with an edge for White.

**10 Be3 Qb6**



The most natural continuation but there are other playable alternatives, such as 10 ... Qc7 and 10 ... Bg4.

**11 Qc2 cxd4 12 cxd4 Bf5 13 Nc3 Nxc3 14 bxc3**

Played quickly by Grandelius. In fact, there was a surprising alternative to this natural move.

14 Bxf5!? Nxa2 15 Rxa2 Nb4 16 Qb3 gxf5 and despite the extra pawn, Black has some problems to solve due to the damaged kingside structure and undefended queen on b6. One sample line is 17 Bg5 Rfe8 18 Ra3 Rac8 19 Bd2! (switching from kingside to queenside play) 19 ... Rc4 20 Ra4 a5 21 Rea1 is very dangerous, as Black's pieces are tangled up on the queenside.

**14 ... Bxd3 15 Qxd3 Na5**

A double-edged middlegame has arisen. Black's plan is to play on the queenside and target the weak c3-pawn and c4-square. Meanwhile, White

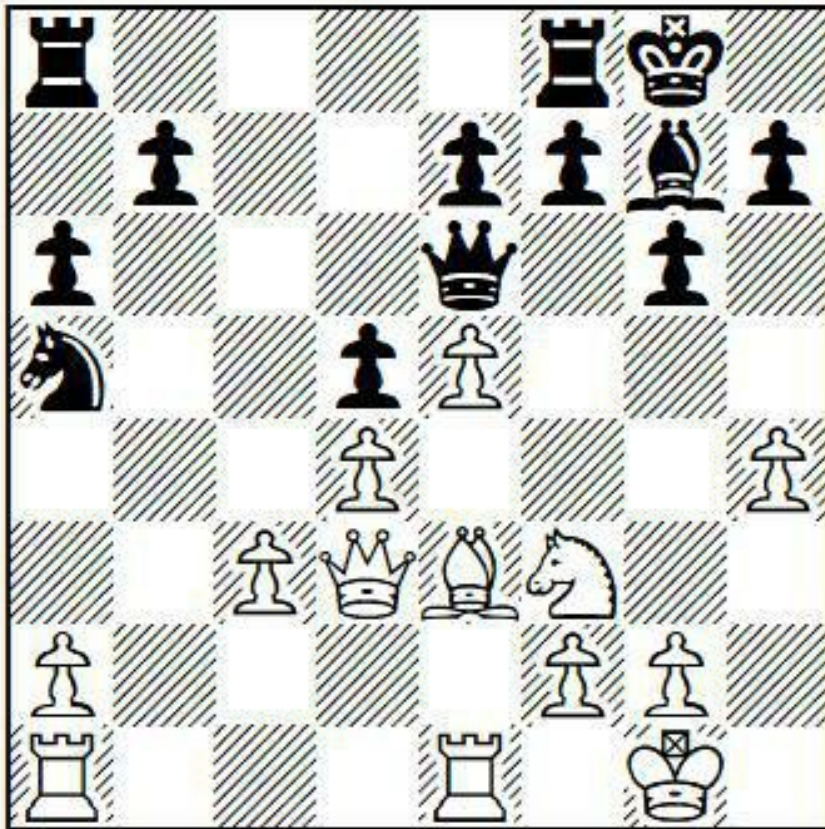
should fight for an initiative on the kingside and take advantage of Black's lack of defenders.

### 16 h4

This typical advance would be very strong if it were not for Black's next defensive move.

16 Rab1 Qe6 (16 ... Qc6 allows the h-pawn to advance freely after 17 h4 Rac8 18 h5 threatening h6, or if 18 ... gxh5 then 19 Nh4 leads to a dangerous position for Black due to the damaged kingside) 17 Bd2! (17 h4 is not the most effective plan with Black's queen on e6, for example, 17 ... b5 18 h5 gxh5 19 Nh4 f6! provides excellent counterplay in the centre) preparing Ng5 followed by e6. One sample line is 17 ... b5 (or 17 ... h6 18 Nh4 followed by advancing the kingside pawns with f4 and f5) 18 Ng5 Qc6 19 e6 f6 20 Nf7 severely cramping Black's kingside and h4-h5 is coming soon.

### 16 ... Qe6!



**Question:** Why is the queen well-placed on e6?

**Answer:** Black was lacking kingside defenders, so it is a good idea to transfer the queen to the kingside (the g4-square). The queen also gets in the way of White's e5-pawn, which is especially relevant in the 17 h5 variation below.

16 ... Rac8? 17 h5 gxh5 18 Nh4! is extremely dangerous, when Black is not in time to create any counterplay.

**17 Ng5**

17 h5 gxh5 18 Nh4 (18 Ng5 is simply met by 18 ... Qg6) would be a great try, if it were not for 18 ... f6! creating counterplay in the centre. The queen on e6 puts pressure on the e5-pawn and prevents it from moving forward. Play may continue 19 Bf4 Nc4 20 Nf5 fxe5 21 Nxg7 Kxg7 22 Bxe5+ Kg8 and despite the exposed king, Black has a fine position.

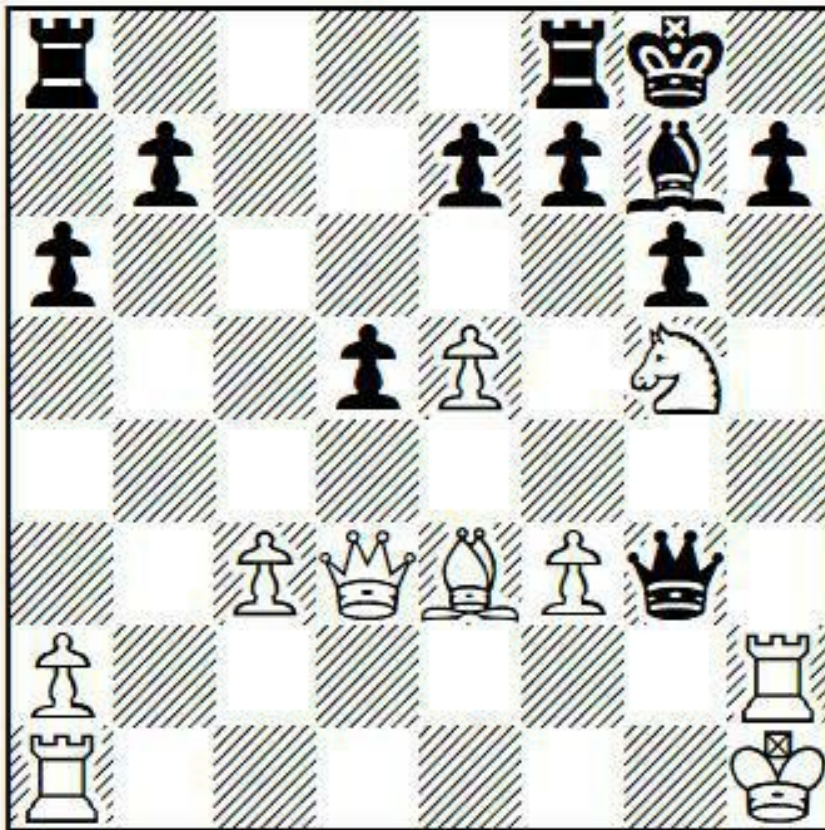
**17 ... Qg4 18 f3**

The h4-pawn is sacrificed in return for some initiative and play against Black's misplaced queen.

**18 ... Qxh4 19 Re2 Nc4 20 g3 Qxg3+ 21 Rg2 Qh4 22 Rh2 Qg3+ 23 Kh1**

23 Rg2 repeating the position may have been a better choice. The complications after 23 Kh1 seem to be more difficult for White to play due to his exposed king and poor piece coordination.

**23 ... Nxe5 24 dxe5**



### 24 ... Qxe5

Including 24 ... h6 before taking on e5 would have made things very sharp and unclear. One sample line is 25 Rg1 Qxe5 26 Bd4 Qd6 27 f4! which looks incredibly dangerous for Black, 27 ... hxg5 28 Qh3 f6 leads to complications that are very difficult to calculate.

### 25 Bd2

Grandelius avoids the simplifications after 25 Nxh7 and keeps the game unbalanced and sharp. Alternatives:

a) 25 Nxh7 was a tempting pawn to grab. Both players likely calculated the following forced line: 25 ... Qxc3 26 Qxc3 Bxc3 27 Rc1 Rfc8 28 Rhc2 d4 29 Bxd4 Bxd4 30 Rxc8+ Rxc8 31 Rxc8+ Kxh7 leading to a drawn endgame.

b) Another alternative was 25 Rc1 h6 26 f4 Qc7 27 Nf3 and compared to the game, White's pieces are working together much better.

### 25 ... h6 26 Nh3?!

Clearly not a good square for the knight, so serious consideration had to be

given to 26 f4! For example, 26 ... Qc7 27 Qh3 e6 28 Nf3 and the knight should find a more active outpost on d4 or e5.

**26 ... e6 27 Re1?!**

27 Rg1 Rac8 28 Nf4 provided more fighting chances. Black's kingside pawns would still be vulnerable here.

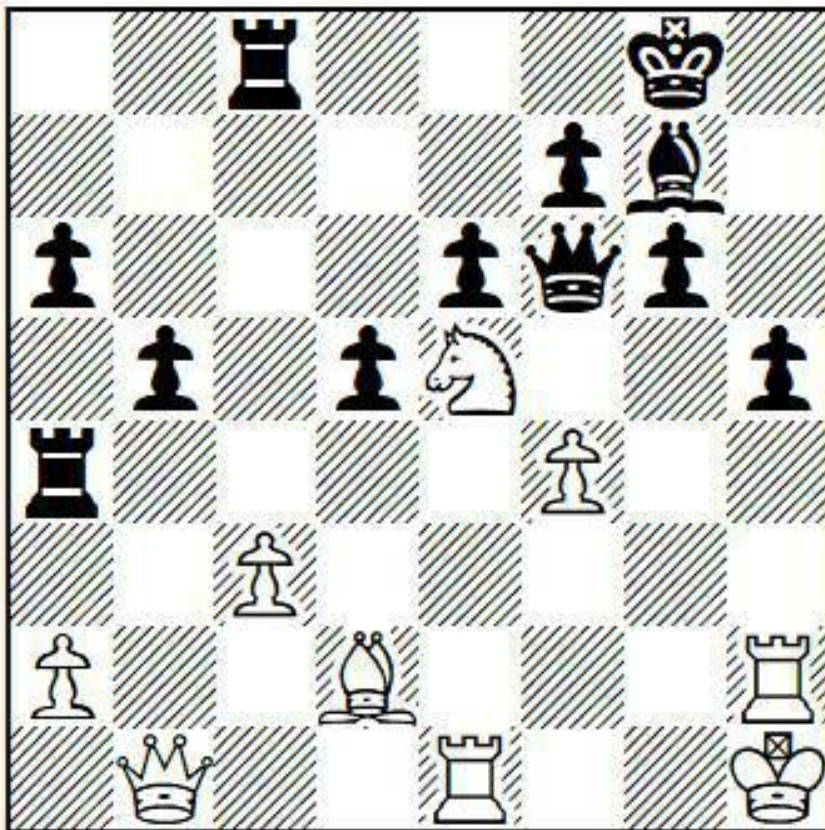
**27 ... Qf6 28 Nf2 h5!**

Black's pawns form a wall, controlling many key squares and restricting White's pieces.

**29 Nh3 Rfc8 30 Ng5 Rc4**

The rooks enter the game with a powerful impact.

**31 f4 Rac8 32 Nf3 Ra4 33 Qb1 b5 34 Ne5**



Finally the knight finds a good square, but Black has been given enough time to activate his rooks and completely shut down White's play.

**34 ... Qf5 35 Qxf5 exf5 36 Rh3 d4!**

Opening up the position and creating active squares for the rooks.

Meanwhile, White is still struggling to coordinate his pieces and cover all the weaknesses.

**37 cxd4 Rxd4 38 Nf3 Rd3 39 Re7 Bc3 40 Bxc3 Rxc3 41 Kg2 Rc2+ 42 Kg3 Rc4 43 Re2 b4 44 Rh1 a5 45 Rf1 a4 46 Re8+ Kg7 47 Re7 b3 48 axb3 Rxb3 49 Re2 a3 50 Rd2 Ra4 51 Ra2 f6**

The kingside pawn majority proves decisive as the pawns easily roll forward.

**52 Rh1 Rc4 53 Rf1 h4+ 54 Kxh4 Rxf4+ 55 Kg3 g5 56 Kg2 Kg6 57 Nd2 Rg4+ 58 Kf2 Rb2 59 Rxb2 axb2 60 Rb1 Rb4 61 Nf3 f4 62 Ne1 Rb3 63 Ke2 g4 64 Nd3 f3+ 65 Kd2 g3 66 Kc2 Rb8 67 Nxb2 f2 0-1**

The chapter concludes with a fascinating theoretical duel between Caruana and Carlsen. Carlsen decides to sidestep the positional pressure that White often creates in the main 5...Nf6 lines and instead plays the concrete 5...e5. They head down one of the most critical lines, where White sacrifices a pawn in return for an initiative and kingside attack. Carlsen doesn't find the most precise path and falls under serious pressure, but his defensive resourcefulness saves the game in the end.

### *Game 38*

#### **F.Caruana-M.Carlsen**

Norway Chess 2020

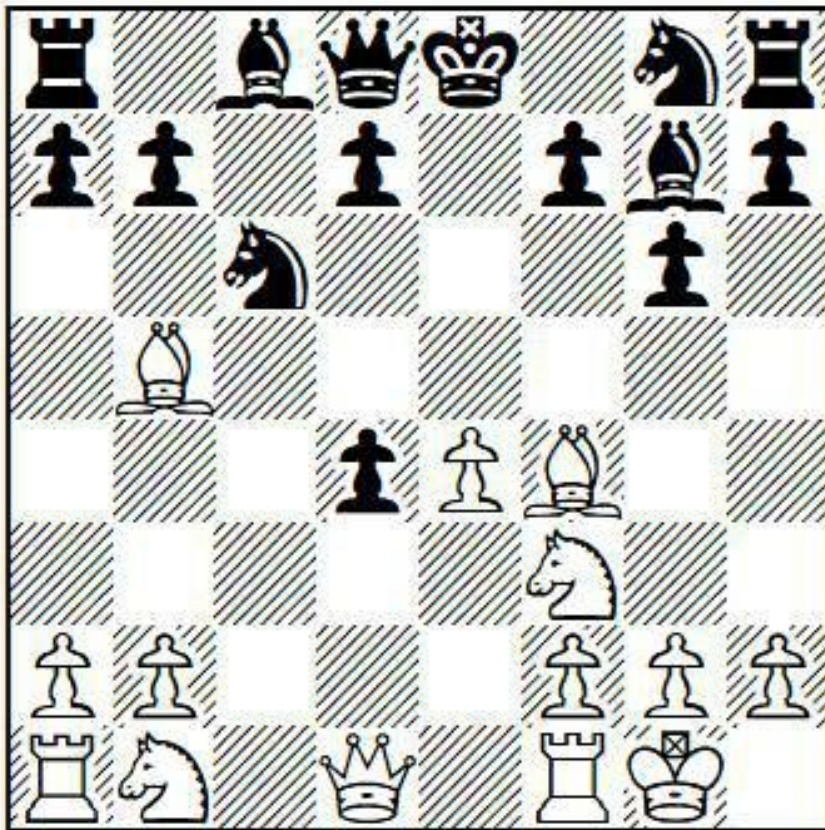
**1 e4 c5 2 Nf3 Nc6 3 Bb5 g6 4 0-0**

Prior to this game, the Caruana-Carlsen debates in the Rossolimo centered around the strategically complicated pawn structures arising after 4 Bxc6 dxc6. This time, the two players enter a completely different type of game.

**4...Bg7 5 c3 e5 6 d4**

The pawn sacrifice is by far the most critical test of 5 ... e5.

**6 ... cxd4 7 cxd4 exd4 8 Bf4**



### 8 ... a6

Black should not wait to kick back the b5-bishop with ... a6 and ... b5. Otherwise, 8 ... Nge7?! 9 Bd6 0-0 10 Nbd2 a6 11 Qa4!? targets the poor development of Black's queenside. F.Caruana-V.Fedoseev, Douglas 2019, continued 11 ... Ra7 (11 ... b6 12 Qa3! Bb7 13 Bxc6 is White's point, picking up the exchange after 13 ... Nxc6 14 Bxf8) 12 Bd3 b5 13 Qc2 Bb7 14 a4 with tremendous queenside pressure.

### 9 Ba4 Nge7 10 Bd6 b5 11 Bb3 Bb7

Carlsen and Caruana have entered one of the most critical lines in the 5 c3 e5 system. White's compensation for the pawn lies in the strength of his d6-bishop, which blocks the d7-pawn and prevents most active ideas from Black. To defend the Black side of this position, detailed preparation and defensive resilience are required.

### 12 Re1

The alternative is 12 Ng5 0-0 13 Qf3 putting pressure on the f7-pawn. Play

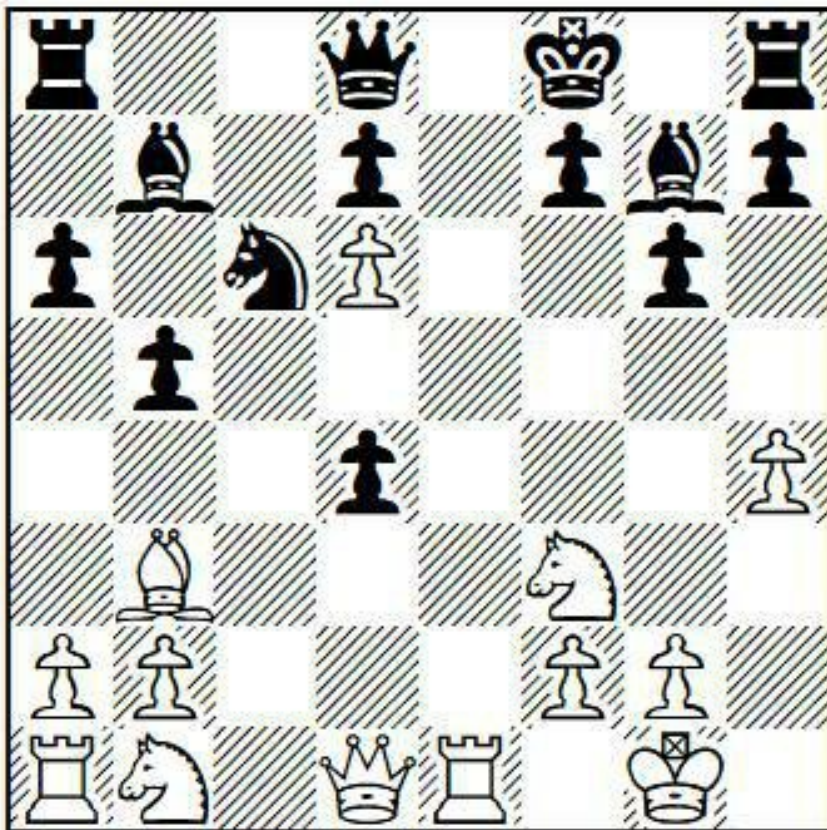
continues 13 ... Qe8 14 Qg3 Na5 15 Nd2 h6 16 Ngf3 Rc8 with a very complicated middlegame in V.Pavlov-A.Dutra, correspondence 2019. Black's central pieces are currently tied up due to the pressure created by the powerful d6-bishop. After 17 Rfe1 Black has two playable options: 17 ... Qd8 (or 17 ... Nc4 fighting for queenside play) prepares ... Re8 followed by ... Qb6 to untangle the pieces.

### 12 ... Nc8!

The bishop on d6 must be removed immediately.

12 ... 0-0?! is not satisfactory because White finishes his development and obtains a clear positional advantage. For example, 13 Nbd2 Na5 14 Rc1 (threatening Bc7) 14 ... Bc6 15 e5 followed by Nxd4 and transferring some major pieces to the kingside.

### 13 e5 Nxd6 14 exd6+ Kf8 15 h4!



Advancing the h-pawn makes it much more difficult for the Black king to find a safe shelter.

15 Nbd2 f5! followed by ... Bf6 and ... Kg7 with a reasonably safe position for the king.

**Question:** Can Black win the d6-pawn with 15 ... Qf6 - ?

### 15 ... Bf6

Carlsen chooses the most logical approach, preparing to bring his king to safety on g7.

**Answer:** 15 ... Qf6?! is a flawed idea because 16 Nbd2 Qxd6? 17 Ne4 allows White to develop a crushing initiative. One sample line is 17 ... Qc7 18 Bxf7! Kxf7 19 Qb3+ Kf8 20 Nfg5 Ne5 21 Rac1 Qd8 22 Nc5 and Black is completely busted.

However, 15 ... f5! deserves serious consideration. Black prepares two ideas: the first is to bring the king to safety with ... Bf6 and ... Kg7 and the second is to win the d6-pawn ( ... Qf6-d6). Play may continue:

a) 16 h5 Qf6 (16 ... Bf6 17 Qd2 makes it difficult for the king on f8 to move, following 17 ... Na5 18 Qh6+ Bg7 19 Qf4 Black is under a lot of pressure due to his cramped kingside) 17 a4! is very important, fighting for the c4-square. Following 17 ... bxa4 (17 ... Qxd6 18 axb5 axb5 19 Rxa8+ Bxa8 20 Qd2 and the game remains complicated but Black is struggling to develop his kingside; the b1-knight can develop to c3 or a3 on the next move) 18 Bxa4 Qxd6 19 Nbd2 intending Nc4 with very active piece play and excellent compensation for the two pawns.

b) The computer points out a fascinating alternative in 16 Nc3!? Qf6 (16 ... dxc3? loses to 17 Qd5 Qf6 18 Ng5 Bh6 19 Nxh7+! Rxh7 20 Qg8 mate) 17 Nd5 Qxd6 picks up the d6-pawn but the kingside remains under tremendous pressure after 18 Qd2 Re8 19 h5.

### 16 Nbd2

16 h5?! is not quick enough. Black keeps everything under control after 16 ... Kg7 17 Qd2 h6 18 Qf4 Rf8 and ... Bg5 next.

### 16 ... Kg7

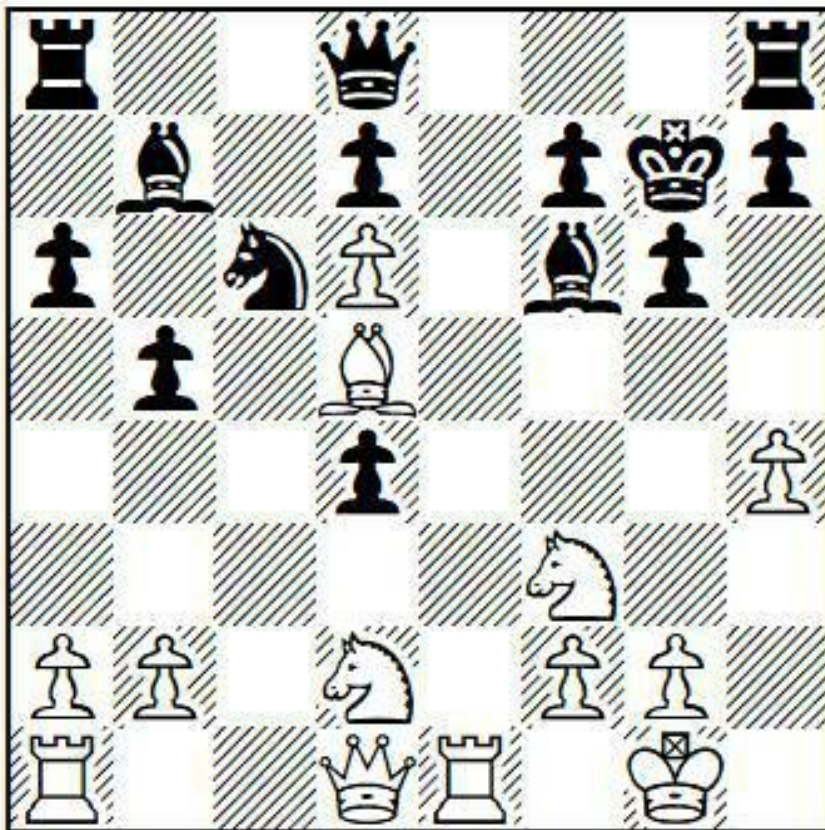
Consistent with the plan set out on the previous move. Alternatives:

a) Capturing on h4 with the king still on f8 is far too dangerous: 16 ... Bxh4? 17 Re4 Bg5 18 Nxc5 Qxc5 19 Nf3 (bringing pieces into the attack with tempo) 19 ... Qc5 20 Qd2 Kg7 21 Rc1 Qxd6 22 Nxd4 (threatening Nf5+) 22 ... Kg8 23 Qe3 and the holes on the kingside as well as the threat of 24 Re8+ put Black in a very dangerous position.

b) 16 ... Na5 17 Ne5 Bxe5 18 Rxe5 and White would like to occupy the e7-

square with his rook. After 18 ... Nc6 19 Rc5 Qxh4 20 Qf3 there is a lot of pressure on Black's position. The following moves are mostly forced, 20 ... Nd8 21 Bd5 Bxd5 22 Qxd5 Nc6 23 Rxc6! dxc6 24 Qe5 Rg8 25 Nf3 and the coordination between Black's major pieces is awful. Meanwhile, White's knight is prepared to exploit all of the weak dark-squares with Ng5-e4 next.

**17 Bd5**



**17 ... Na5?!**

Exchanging a pair of bishops, but the knight will be shut out completely on the queenside.

17 ... Bxh4! was the only way to maintain the equilibrium. White has several dangerous attacking ideas: 18 Ne4 (the alternate 18 Re4 Bg5 19 Rg4 h6 20 Ne4 f5! leads to many exchanges by force, 21 Rxc6 hxg5 22 Bxc6 fxe4 23 Bxb7 exf3 24 Bxa8 Qxa8 25 Qxd4+ Kf7 and Black is fine) 18 ... Bf6 prepares ... Na5 and the exchange of bishops. To continue posing problems, White must play energetically here, after 19 Qd2 Black has:

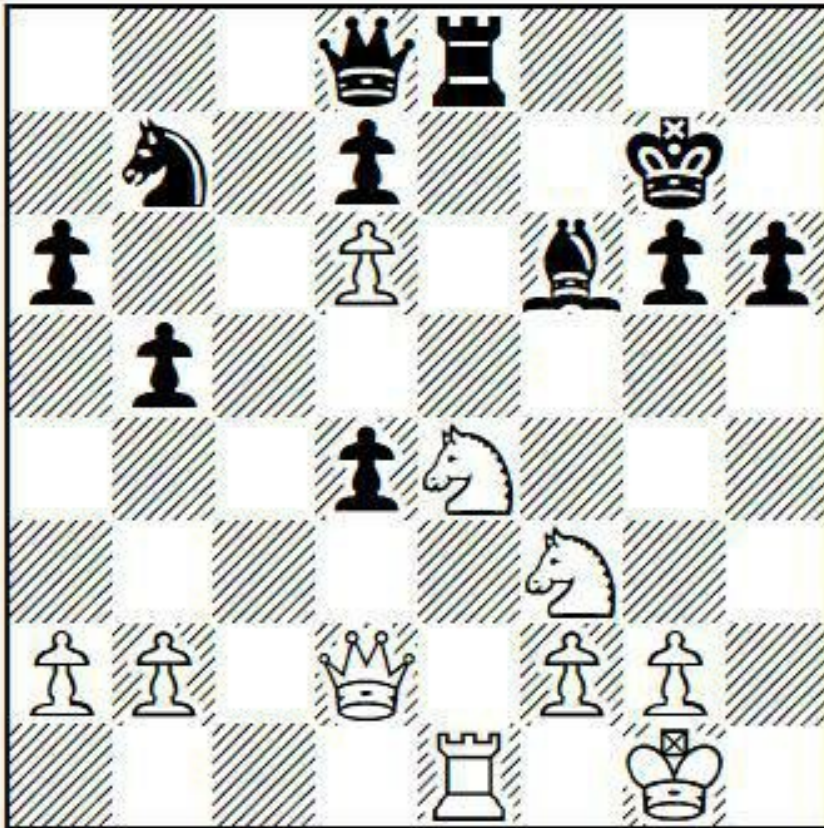
a) 19...Na5?! is natural but dubious because of 20 Bxb7 Nxb7 21 Nh2! and White's pieces are ideally placed for a kingside invasion. The game continues after 21 ... h5 22 g4! Kg8 but Black is faced with an extremely challenging defensive task.

b) Instead, stronger is 19 ... Rb8! 20 Qf4 Nb4 21 Bxb7 Rxb7 and Black's knight is actually very useful on b4, where it can jump to either d3 or d5.

**18 Bxb7 Nxb7 19 Ne4 Re8**

19 ... h5 weakens the g5-square. White can exploit this weakening with the aggressive 20 Qb3 (or 20 a4 to create some play on both sides of the board) 20 ... Na5 21 Qd5 Nc4 22 Nfg5 Rf8 23 Rad1 and White has good, active squares for all of his pieces.

**20 h5 Rc8 21 Rc1 Rxc1 22 Qxc1 h6 23 hxg6 fxg6 24 Qd2**



Black's position looks extremely unpleasant due to his poor piece coordination and the misplaced b7-knight. Carlsen defends excellently for the rest of the game and even manages to obtain a better position.

## **24 ... d3!**

Giving up the d4-pawn in an attempt to free the knight on b7. Another point is that White isn't allowed to centralize his other knight, which could occur after 24 ... Re6 25 Nxd4.

24 ... Na5? loses to 25 Nxf6 Rxe1+ 26 Qxe1 Kxf6 27 Qe5+ Kf7 28 Qd5+ Kg7 29 Ne5 and the queen and knight form a powerful attacking pair.

## **25 b4**

Looks like a good idea to dominate the b7-knight, although after Black's pieces pile up on the d6-pawn, things become much less clear.

25 Qxd3! was best, even though it allows the b7-knight to enter the game. After 25 ... Na5 (25 ... Bxb2? wastes a valuable tempo 26 Re2 Ba1 27 Qd1 Bf6 28 Nh2! h5 29 g4 and Black's kingside is on the verge of collapsing) White has a couple different ways to create problems:

a) There is a quieter alternative in 26 Qa3 Nc4 27 Qxa6 likely leading to the exchange of queens and a better endgame.

b) 26 Rc1 Nc6 (26 ... Nc4 27 b3 Ne5 28 Qd5 Nxf3+ 29 gxf3 and Rc7 next when Black's major pieces are struggling to find any play) 27 Rxc6! dxc6 28 Nc5 is a powerful exchange sacrifice. The passed d-pawn is incredibly strong, and it is always difficult to defend against a queen and knight, especially with Black's partially exposed kingside.

## **25 ... Re6 26 Qxd3 Qb6 27 Rd1 Qc6**

Forcing White to exchange the e4-knight, as otherwise the d6-pawn will become too vulnerable.

## **28 Nxf6 Rxf6 29 Ne5 Qc8**

Caruana spent a fair bit of time here but didn't find a way to put Carlsen under any more pressure.

## **30 Qd5 Re6 31 Ng4 Kh7 32 Qd4 Qf8 33 Qa7?!**

The most straightforward path to a draw was 33 Qb6 Rxd6 34 Rxd6 Qxd6 35 Nf6+ Kh8 36 Qxd6 Nxd6 37 Nxd7 leading to an equal endgame.

## **33 ... Rxd6 34 Re1 Nd8 35 Ne5 Qe7 36 Nf3 Re6**

Instead of repeating moves, Black could consider playing on with 36 ... Qf6, or 36 ... Ne6. However, considering how Carlsen was under pressure for most of the game, his decision to finish the game is very understandable.

**37 Rd1 Rd6 38 Re1 Re6 39 Rd1 Rd6 ½-½**

## **Review of Chapter Four**

1. The 3 h4 Grünfeld leads to highly original and creative middlegame positions which have been influenced greatly by the newer engines. For example, the long-term strategic idea of advancing the h-pawn is relevant in several important lines. After it was employed in numerous important tournaments, including the 2020-21 Candidates and the 2021 World Cup, 3 h4 has firmly established itself as a serious try against the Grünfeld and will continue to be popular for many years to come.

2. Dubov's Tarrasch is another excellent example of how the neural network engines have influenced opening play. Many of the ideas in this opening involve original pawn structures, pawn sacrifices for active piece play, and advancing the h-pawn.

3. Older engines are often very set in their ways. Positions where one side has a poor pawn structure may be viewed as unfavourable automatically. An example of this was seen in Game 33 between Nakamura and Dubov, in which many of the older engines are strongly against Black's doubled f-pawns, even though Dubov showed that his setup is perfectly playable. In contrast, the newer engines are generally more flexible in their evaluation of a position and can understand it more deeply by considering which features will truly be important in the long run.

4. The 5 c3 Rossolimo has essentially been rewritten by the neural network engines with their new ideas in every line. A modern example of opening duels was seen in Game 38 between Caruana and Carlsen, where Carlsen opted to try and solve his opening problems concretely. By doing so, he avoided long-term positional pressure but had to defend very precisely against Caruana's initiative.

## **Additional Material**

Erwin's Opening Lab: The Dubov Tarrasch, Erwin I'Ami (Chessable 2019)

Levon Aronian-Magnus Carlsen, World Rapid 2019

Vladimir Fedoseev-Magnus Carlsen, FIDE World Cup 2021

Maxime Vachier-Lagrave-Peter Svidler, Sinquefield Cup 2021

One interesting new system that I didn't get to cover in this chapter is 1 Nf3 d5 2 g3 Nd7!? which has become extremely fashionable since the newer engines emerged. Some notable games are:

Sergey Karjakin-Kirill Alekseenko, FIDE Grand Swiss 2019

Richard Rapport-Peter Svidler, Sinquefield Cup 2021

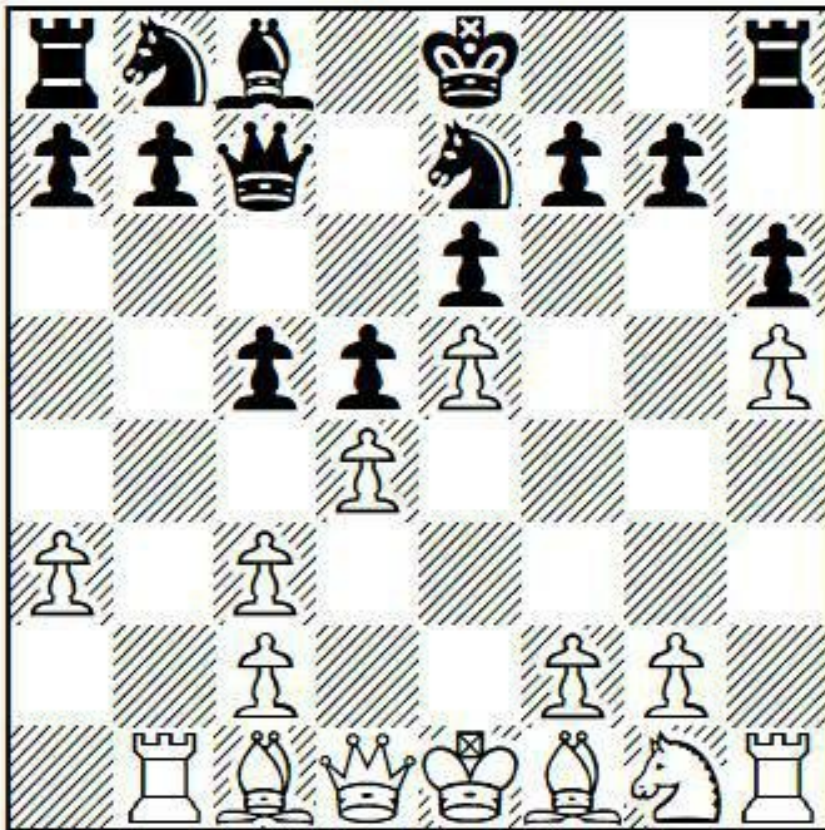
Vladislav Artemiev-Fabiano Caruana, Tata Steel 2020

# Chapter Five

## Pawn Sacrifices

Pawn sacrifices have already been a major topic discussed throughout this book. We saw several examples in each of the first three chapters and Chapter 4 covered The Dubov Tarrasch, an opening that revolves around sacrificing the d5-pawn. This chapter takes a closer look at pawn sacrifices in the French pawn structure, which can arise from a number of openings, including the French, London System, and Caro-Kann. There is a clear difference in understanding between the older and newer engines in these pawn structures. Almost all examples from this chapter see White sacrificing a pawn in return for a kingside initiative. The older engines are usually quite confident in Black's defensive resources, while the newer ones see plans for White to gradually build up the attack and continue making progress.

The first five games of this chapter examine the influence of neural network engines on the London System, which includes pawn sacrifices in two main lines, as well as a fashionable new line for Black. Then, we will move on to the French Defence, where one of the biggest developments in recent years was the setup employed by MVL against Nepomniachtchi in the 2020-21 Candidates.



The setup itself is not entirely new, but it is the top choice of most newer engines and they have provided many new ideas for both sides. Finally, the chapter concludes with a great win by Kirill Alekseenko, who uses a pawn sacrifice to create major problems for Black in a variation of the Caro-Kann.

### **Attacking with the London System (Part One)**

The first two games examine a very direct approach against the London System. Black snatches a pawn on b2 early in the game and argues that this pawn will make up for his lack of development. Inspired by the neural network engines, a fresh approach on move 10 has received a lot of attention, where White achieves a favourable pawn structure and a kingside initiative in return for the sacrificed pawn. In the game, Black doesn't find the best defensive setup and runs into a lot of trouble due to the weakened kingside dark squares.

## *Game 39*

### **F.Berkes-D.Forcen Esteban**

Spanish League Honour Division 2020

**1 d4 d5 2 Nf3 Nf6 3 Bf4 c5 4 e3 Nc6 5 Nbd2**

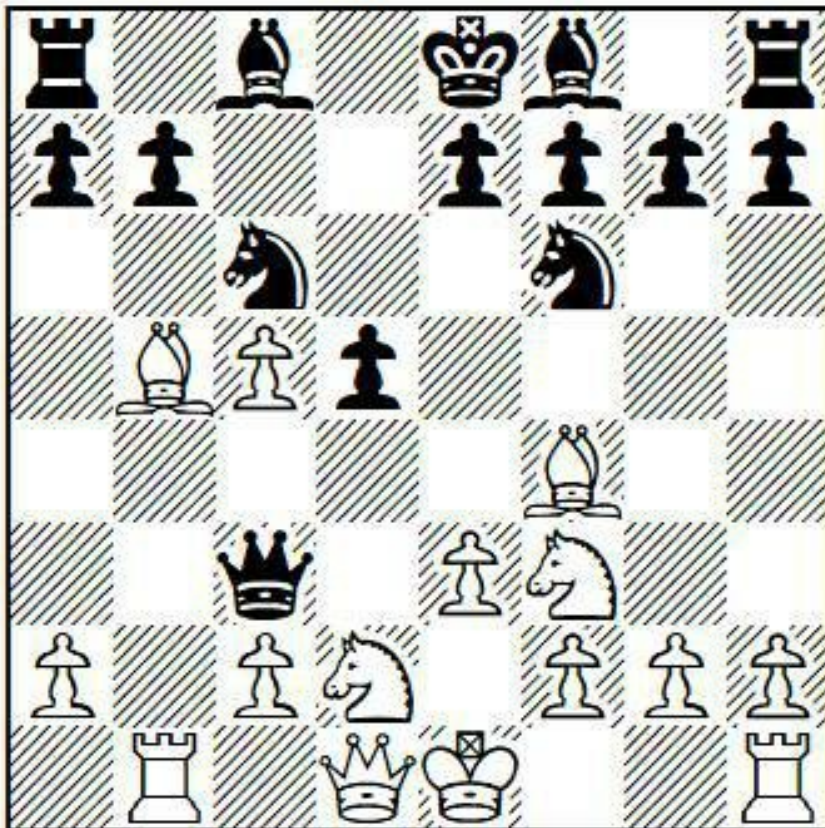
This modern move order provides a much more ambitious way of playing against 5 ... Qb6.

5 c3 is an older move order, which allows Black to immediately solve all openings problems after 5 ... Qb6!

**5 ... Qb6**

The most direct approach and one that has been very popular in correspondence chess because the older engines like it. Alternatives such as 5 ... cxd4 and 5 ... Bg4 usually lead to quieter play.

**6 dxc5 Qxb2 7 Rb1 Qc3 8 Bb5**



The two players have entered one of the sharpest lines in the London System. At the cost of development, Black has damaged his opponent's pawn structure and hopes to pick up the c5-pawn.

**8 ... e6**

8 ... g6!? has become fashionable in recent times but we will focus on the main line with 8 ... e6 which has been greatly impacted by the newer engines.

**9 0-0 Be7 10 e4!**

AlphaZero's approach is by far the most critical move for Black to face, heading for a pawn structure that typically arises from the French Defence.

The main line with 10 Ne5 is much less challenging. Play continues 10 ... Bd7 11 Nd3 (the forcing 11 Nxd7 Nxd7 12 e4 doesn't provide White with anything after 12 ... 0-0 13 exd5 exd5 14 Ne4 dxe4 15 Qxd7 Bxc5 16 Qxb7 Rac8 with a balanced position in M.Kribben-A.Kochemasov, correspondence 2017) 11 ... 0-0 12 Bc7! threatens 13 Rb3 trapping the queen. Following 12 ... Qa3!? 13 Rb3 Qxa2 14 Nb1 (14 Rb2 Qa3 15 Rb3 is a draw by repetition)

appears to trap the queen on a2, but in fact there is nothing to worry about after 14 ... Rfc8 15 Nc3 Qxb3 16 cxb3 Rxc7 when Black had no weaknesses and a perfectly sound position in D.Harvey-J.Baúles, correspondence 2019.

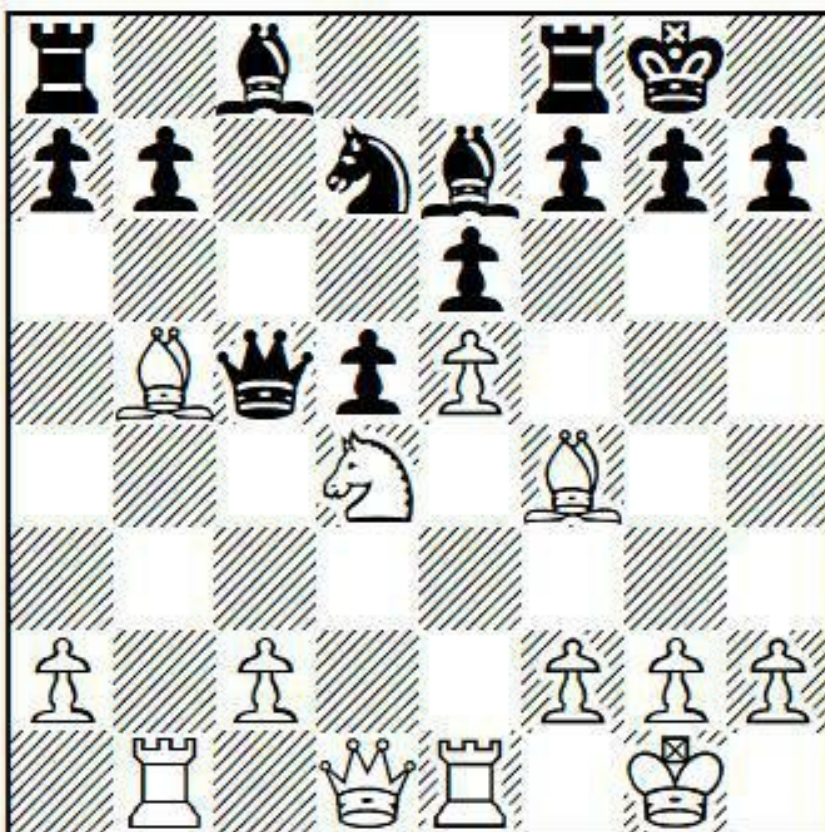
**10 ... 0-0**

Capturing on e4 is too greedy:

a) 10 ... dxe4? 11 Nc4! is a very nice idea, trapping the queen on c3 after 11 ... exf3 12 Rb3.

b) 10 ... Nxe4? 11 Nxe4 dxe4 12 Bxc6+ bxc6 13 Bd6! exploits Black's king on e8. For example, 13 ... exf3 14 Bxe7 Kxe7 15 Qd6+ Kf6 16 Rb3 wins.

**11 e5 Nd7 12 Nb3 Qb4 13 Nfd4 Nxd4 14 Nxd4 Qxc5 15 Re1**



We have reached the critical position of AlphaZero's 10 e4 and a very important one for the entire 5 Nbd2 Qb6 line. In return for the sacrificed pawn, White has obtained a clear lead in development and a good version of a French pawn structure.

### **15 ... Rd8?!**

A very natural developing move, freeing the f8-square for the knight. However, it turns out that this idea is too slow and 15 ... a6! (see the next game) should have been preferred, as occurred in a game between AlphaZero and Stockfish 8.

### **16 h4!**

Posing Black with an unpleasant choice. If Black chooses to ignore the h-pawn advance, White will push h5 and control the important g6-square. If Black decides to take on h4, then White wins an important tempo off of the bishop and launches an attack on the h-file.

16 Rb3 Nf8 17 Rh3 Bd7 18 Bd3 g6 has two differences compared to the game: Black has an extra tempo ( ... Bd7) and White still has the h2-pawn. The extra tempo is very significant because White doesn't have enough time to properly exploit the weakened kingside dark squares. For example, 19 Nf3 Bb5 20 Bg5 Bxd3 21 cxd3 Bxg5 22 Nxd3 Qb4 and it is not clear how the kingside attack will continue.

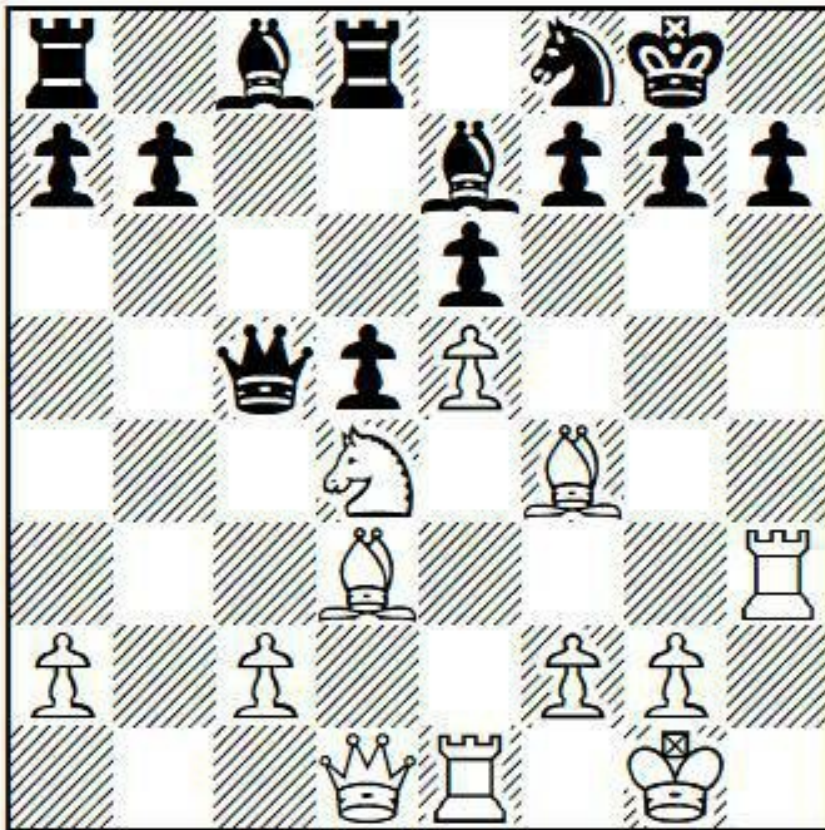
### **16 ... Bxh4**

16 ... Nf8 17 h5 Bd7 18 Re3! promises excellent kingside play. White's other rook remains on b1 in order to recapture on b5 after 18 ... Bxb5 19 Rxb5.

### **17 Rb3**

Even stronger was 17 Bxd7 Bxd7 18 Re3 followed by transferring the major pieces to the kingside and Black is left without his important knight defending on f8.

### **17 ... Nf8 18 Rh3 Be7 19 Bd3**



### 19...g6?

Severely weakening the dark squares on the kingside.

19 ... f5! 20 exf6 Bxf6 21 Be5 remains extremely dangerous for Black due to the difference in piece activity, but at least here there are fewer weaknesses on the kingside.

### 20 Nf3 Bd7 21 Bg5?!

In view of the defensive opportunity on the note to Black's 22nd move, 21 Nh2! intending Ng4 was a stronger way of exploiting Black's dark squares. One sample line is 21 ... h5? 22 Rxh5! gxh5 23 Re3 Ng6 24 Qxh5 crashing through on the kingside.

### 21 ... Bxg5 22 Nxg5 Qb4?!

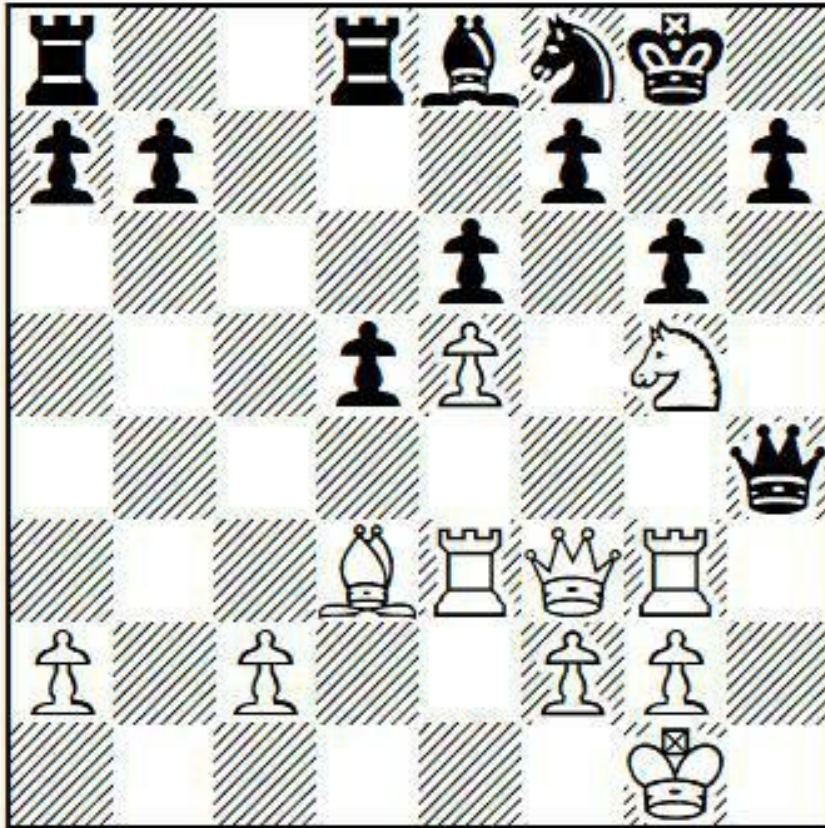
22 ... Bb5! exchanges off White's good bishop and frees the d7-square for the rook. Play continues 23 Qd2 Bxd3 24 cxd3 Rd7 25 d4 (the direct 25 Nxh7?! Nxh7 26 Qh6 leads to a messy and unclear position after 26 ... f6 27 exf6 Kh8) 25 ... Qe7 26 Qf4 Rc8 27 Ree3 and Black's situation on the

kingside looks extremely dangerous, although it is possible to defend after 27 ... h5 28 g4 Nh7 29 Nxh7 Kxh7 with the point that gxh5 can be met by ... g5.

**23 Ree3**

23 Qc1! with ideas of taking on h7 and playing Qh6 in the near future was crushing as well.

**23 ... Qf4 24 Rhg3 Qh4 25 Qf3 Be8**



**Exercise:** How should White continue the attack?

**Answer: 26 Bb5!**

White has already placed his attackers on ideal squares, so now he focusses on removing one of Black's defenders.

Alternatively, 26 Rg4 Qh6 27 Qf4 Qg7 28 Rh3 Rac8 29 Rgh4 Rd7 and despite the extremely passive defenders, it isn't easy to break through Black's position.

**26 ... Bxb5**

Other defensive tries:

a) 26 ... Nd7 leads to the removal of another important defender in Black's position after 27 Bxd7 Rxd7 28 Rg4 Qh6 29 Qf6 and Rh3 is coming next, or if 29 ... Qg7 then 30 Nxf7! forces open the h-file, 30 ... Kxf7 31 Rh4+ Kg8 32 Re3 and mate occurs on h8.

b) 26 ... Qxg5! 27 Rxf5 Bxf5 eliminating all of White's minor pieces would have created a lot more resistance. White will need quite some time to prepare a decisive breakthrough.

**27 Qxf7+ Kh8 28 Qf6+ Kg8 29 Rh3 Qxh3 30 Rxf3 Rd7 31 Rf3 1-0**

A better defensive try in the same opening is analyzed in the following game. Although Black should be holding his own objectively, the defensive task is highly unpleasant and could very easily turn out badly in a practical game.

*Game 40*

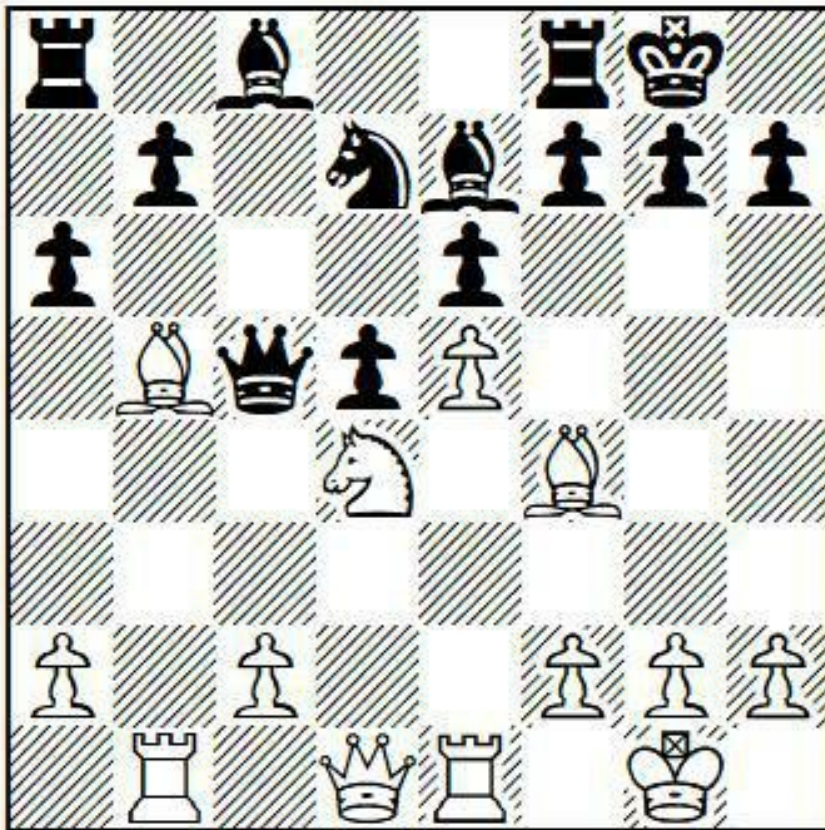
**M.Höppenstein-A.Kupsys**

ICCF 2021 (correspondence)

**1 d4 d5 2 Bf4 Nf6 3 e3 c5 4 Nd2 Nc6 5 Ngf3 Qb6 6 dxc5 Qxb2 7 Rb1 Qc3 8 Bb5 e6 9 0-0 Be7 10 e4 0-0 11 e5 Nd7 12 Nb3 Qb4 13 Nbd4 Qxc5 14 Re1 Nxd4**

The actual move order of the game was 14 ... a6 15 Bd3 Nxd4 16 Nxd4. The advantage of playing 14 ... a6 is that White cannot take on d7. On the other hand, White has the option of meeting 14 ... a6 with 15 Bxc6!? bxc6 16 Re3.

**15 Nxd4 a6!**



An improvement over the previous game's 15 ... Rd8.

### 16 Bd3

The alternative 16 Bxd7 Bxd7 17 Rxb7 could be tricky to face:

a) 17 ... Rfd8 looks very natural, keeping the bishop on d7 so that the e6-pawn is defended. However, 18 Rb3! Rdb8 19 Rg3 quickly poses Black with major problems to solve. Play may continue:

a1) One brilliant correspondence game continued 19 ... g6?! 20 h4 Rb2 (or 20 ... Bxh4?! 21 Rh3 Be7 22 c3 Rb2 23 Qf3 creates excellent kingside play) 21 h5 Rxa2 (a better practical try would be 21 ... Rab8 intending ... Rb1) 22 c3 Rb8 23 Qg4 Qc8 24 Rf3 Qd8 25 Bh6 Ra4 26 Kh2 Qe8 27 Rf4 Rc4 28 Re3 and in M.Höppenstein-D.Volovici, correspondence 2020, Black's kingside collapsed after 28 ... Rbc8 29 Ref3 Rxc3 30 Rxf7 Qxf7 31 Rxf7 Kxf7 32 Qf4+ Kg8 33 Bg5 due to the dark-squared holes and lack of defenders on the kingside.

a2) Black should not play ...g6 unprovoked. Instead, 19 ... Rb2! 20 h4

Rab8 is a much better counterattacking idea, preparing ... Rb1. Only after 21 Qg4 is it necessary to play 21 ... g6.

b) The best way to deal with the undefended d7-bishop is 17 ... Ba4! because now the rook on b7 cannot transfer to the kingside via b3-g3. Play continues 18 Be3 Qa3 19 Qg4 (threatening Nxe6) 19 ... h5! distracts the queen from its excellent position in g4. White loses the initiative after this, for example, 20 Qxh5 (20 Qg3 Rfb8 21 Reb1 Bb5 completely extinguished White's play in M.Höppenstein-J.Dijon, correspondence 2021) 20 ... Rab8 21 Ra7 Bc5 22 Rxa6 Bxd4 23 Bxd4 Qxa2 led to equality in V.Eremin-W.Bunk, correspondence 2021.

### **16 ... g6 17 Nb3**

Gaining a tempo off Black's queen and keeping open the idea of Qg4.

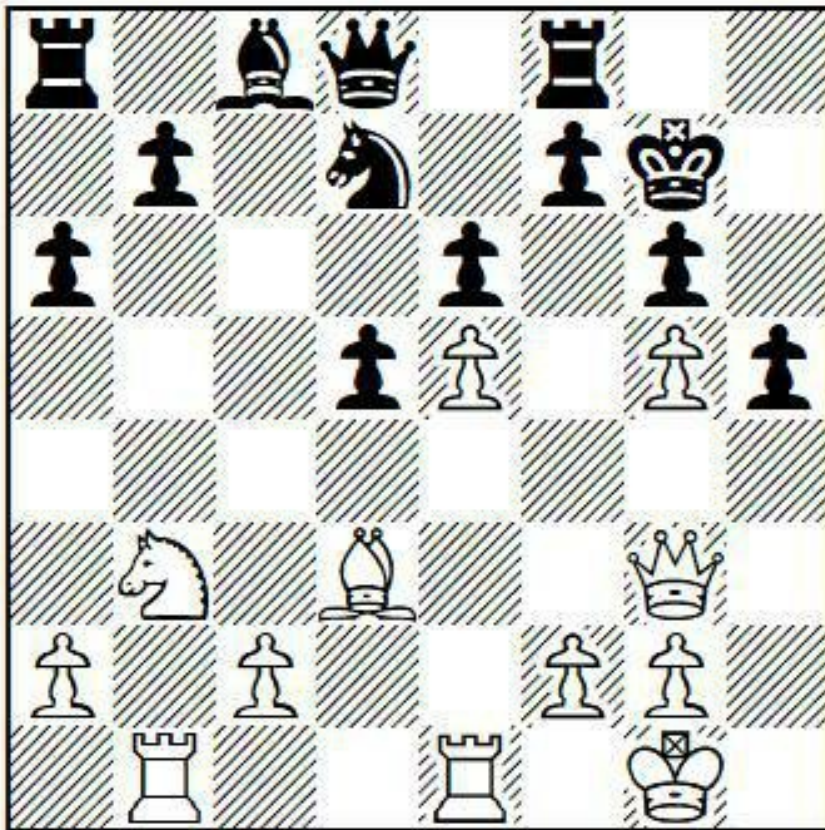
The alternative retreat 17 Nf3 is a bit slower and can be met by an aggressive queenside expansion. One correspondence game continued 17 ... b5 18 Qd2 b4 19 Bh6 Re8 20 h4 a5 21 Qf4 Ba6! (the trade of bishops reduces White's attacking strength) 22 h5 Bxd3 23 cxd3 Bf8 24 g3 Bxh6 25 Qxh6 Qf8 and Black had everything under control in M.Höppenstein-O.Ruggieri, correspondence 2020.

### **17 ... Qc7!**

Other queen moves (17 ... Qa3 and 17 ... Qb4) have also been tried but 17 ... Qc7 is the most natural choice and likely the soundest as well.

17 ... Qa3 18 Qg4 (compared to the game's move, there is less pressure on White's e5-pawn, so it is also possible to play 18 Bh6 Re8 19 Nd4 with a dangerous position for Black to defend) 18 ... f5! (18 ... Qa4?! 19 Qg3 Re8 20 h4 Bf8 21 h5 saw White develop an overwhelming kingside initiative in A.Haugen-A.Jonvik, correspondence 2020) is the best defensive try, blocking the d3-bishop. Following 19 Qg3 Nc5 20 h4 Kh8 21 Bh6 Rf7 Black had some development problems but was otherwise okay in K.Barkov-B.Komarica, correspondence 2021.

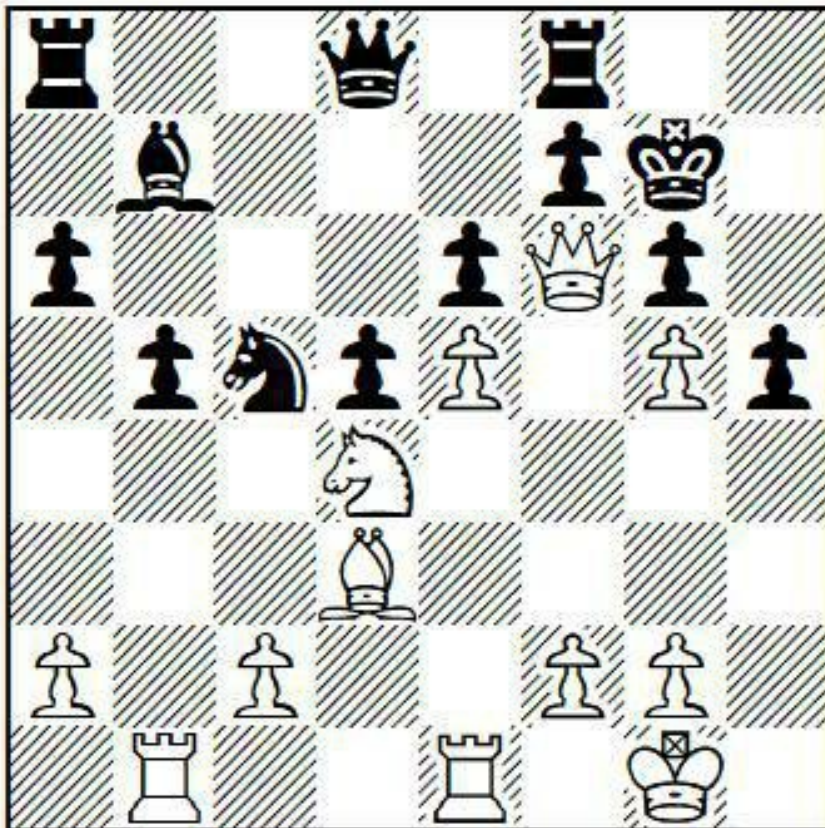
### **18 Qg4 h5 19 Qg3 Kg7 20 h4 Qd8 21 Bg5 Bxg5 22 hxg5**



## 22 ... b5

The passive 22 ... b6?! was played in AlphaZero-Stockfish 8, London 2018. The following approach would have been a very challenging one for Black to face: 23 Nd4 Qc7 (23 ... Bb7?! can be met very directly with 24 f4 Nc5 25 f5! gxf5 26 Bxf5 exf5 27 e6 crashing through in the centre and on the kingside) 24 Re3 Bb7 25 Qf4 b5 26 Rbe1 sees White transferring the rooks over to the kingside. One sample line is 26 ... Qa5 (or 26 ... Rae8 27 Rh3 and White continues building up the kingside attack before eventually breaking with g4) 27 Bxg6!! Kxg6 28 Qh4 is extremely unpleasant for Black to defend because of the exposed king on g6 and White's numerous attacking ideas. For example, 28 ... Rae8 (28 ... Nc5 29 c3 Ne4 30 Rf3 followed by Rxe4 and Rf6) 29 f4 Qb6 30 c3 Nc5 31 g4 Kg7 32 gxh5 and White will continue attacking on the kingside by preparing either f5 or g6 in the near future.

**23 Nd4 Nc5 24 Qf4 Bb7 25 Qf6+**



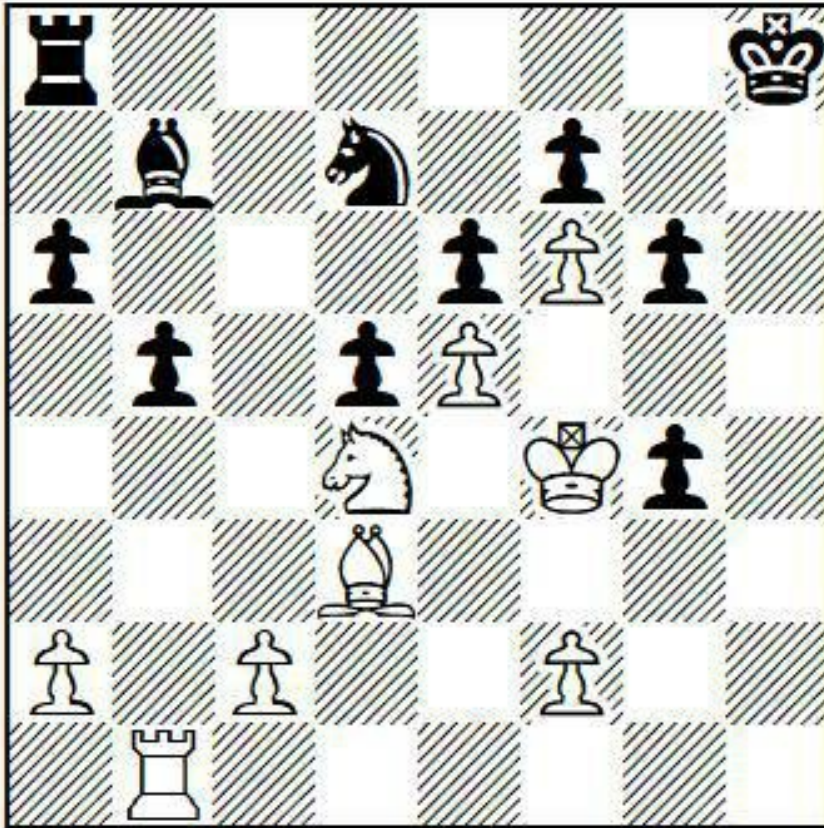
### 25 ... Kh7

Keeping the h8-square open for the rook so that White will not have the opportunity to double rooks on the h-file in the endgame. Alternatives:

a) 25 ... Qxf6 26 gxf6+ Kh6 27 g4 (the slower 27 f3 followed by Kf2 and g4 also puts Black under some pressure) 27 ... hxg4 28 f4! Kh7 (28 ... gxf3? loses to 29 Kf2) 29 Kf2 Rh8 leads to a similar endgame that occurs in the game.

b) 25 ... Kg8 26 g4 (also deserving attention is 26 f3!? preventing ... Ne4 and intending g4 next) 26 ... hxg4?? (instead of opening the h-file, 26 ... Ne4! immediately should be preferred. After 27 Qxd8 Rfxd8 28 gxh5 gxh5 Black reaches what should be a satisfactory endgame) 27 Kg2 Ne4 (the endgame also does not save Black, 27 ... Qxf6 28 gxf6 Nd7 29 Kg3 Rac8 30 Kxg4 and the king on g8 will not manage to escape from its cage) is met by a remarkable queen sacrifice: 28 Rh1!! Nxf6 29 exf6 Qb6 30 c3! and the threat of doubling rooks on the h-file followed by Rh8 mate is unstoppable.

26 g4 Qxf6 27 gxf6 hxg4 28 Kg2 Rh8 29 Rh1+ Kg8 30 Rxh8+ Kxh8 31 Kg3 Nd7 32 Kf4



At first glance, the endgame appears to be very unpleasant for Black due to the cramped minor pieces and passive king. However, because this was a correspondence game, Black had worked everything out and was confident in the robustness of his position.

32 ... Rc8 33 a4 Bc6 34 Nxc6 Rxc6 35 axb5 axb5 36 Bxb5 Rc7 37 Bxd7 Rxd7 38 Kg5 Rd8 39 Rb7 Kg8 40 Rc7 Rf8 41 Kxg4 Kh7 42 Kg5 Kg8 43 Rc6 1/2-1/2

### Attacking with the London System (Part Two)

The next two games analyze one of the old main lines in the London System, where Black had been doing perfectly fine up until a few years ago when a dangerous pawn sacrifice started to gain traction. This idea was found

without the newer engines, but they have still influenced the line greatly. The newer engines realize the strength of the pawn sacrifice much more easily than the older ones because many of the lines rely on long-term compensation and permanent kingside weaknesses. Therefore, they can accurately work out the arising complications and give a clear assessment of the position.

### *Game 41*

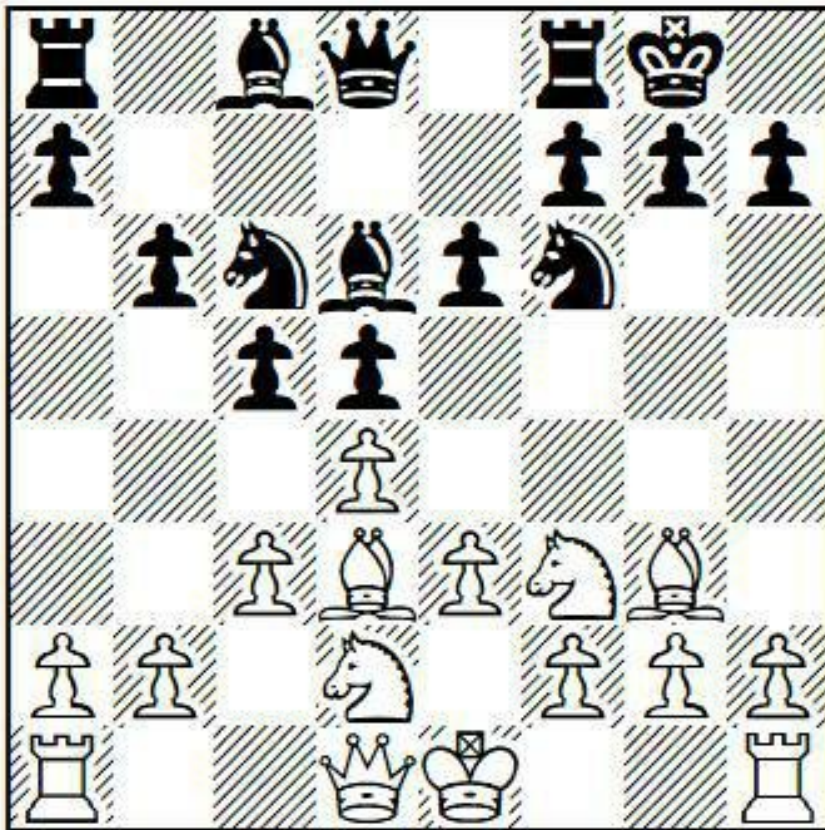
**A.Demchenko-D.Frolyanov**

Kurnosov Memorial 2020 (rapid)

**1 d4 d5 2 Nf3 Nf6 3 Bf4 e6**

An equivalent move order is 3 ... c5 4 e3 Nc6 5 Nbd2 e6.

**4 e3 c5 5 Nbd2 Nc6 6 c3 Bd6 7 Bg3 0-0 8 Bd3 b6**



The old main line of the London System was a solid choice for many years, but a pawn sacrifice in one of the key lines poses serious challenges to Black's setup.

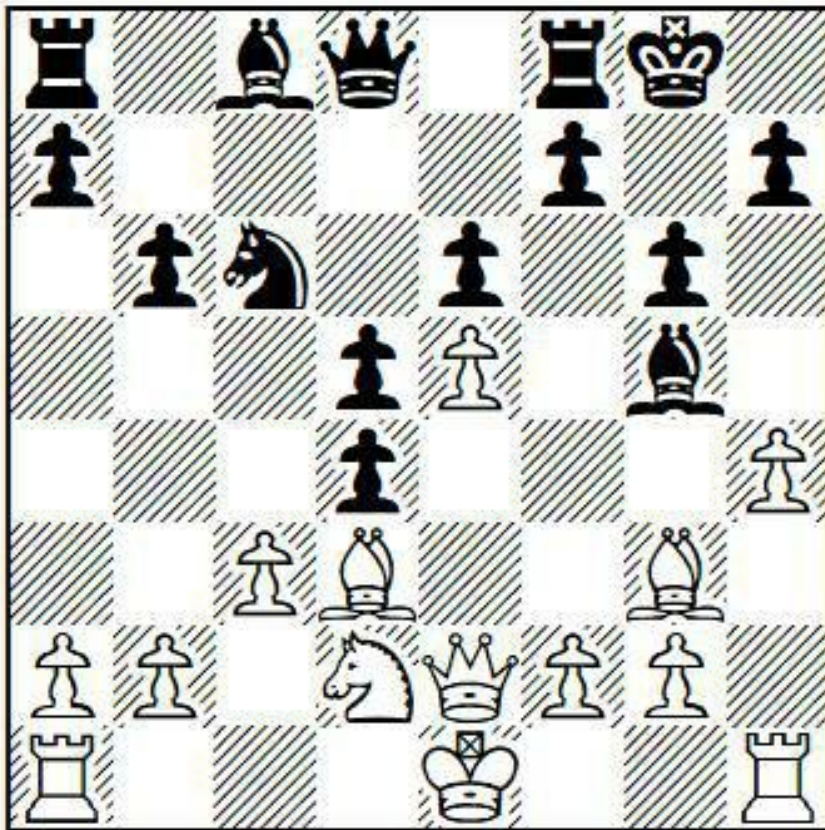
**9 e4! Be7**

The pawn should be allowed to advance, as 9 ... dxe4?! 10 Nxe4 Nxe4 11 Bxe4 Bb7 12 dxc5 Bxc5 13 Qa4! creates extremely unpleasant positional pressure. A.Tari-H.Koneru, internet 2021, continued 13 ... Rc8 14 Rd1 Qe7 15 0-0 a5 16 a3 followed by b4 with a clear advantage.

**10 e5 Nh5 11 Ng5!**

This idea already started becoming popular around 2017, but it was the newer engines that introduced a number of key concepts in the critical variations. White sacrifices the d4-pawn in return for a dangerous initiative on the kingside.

**11 ... Bxg5 12 Qxh5 g6 13 Qe2 cxd4 14 h4**



### 14 ... Bh6?!

Retreating to g7, where the bishop hopes to serve as a useful defender for the king. However, we have already seen many examples of how dangerous White's h5-h6 plan can be in the long-term, cramping the kingside and locking in the g7-bishop. Alternatives:

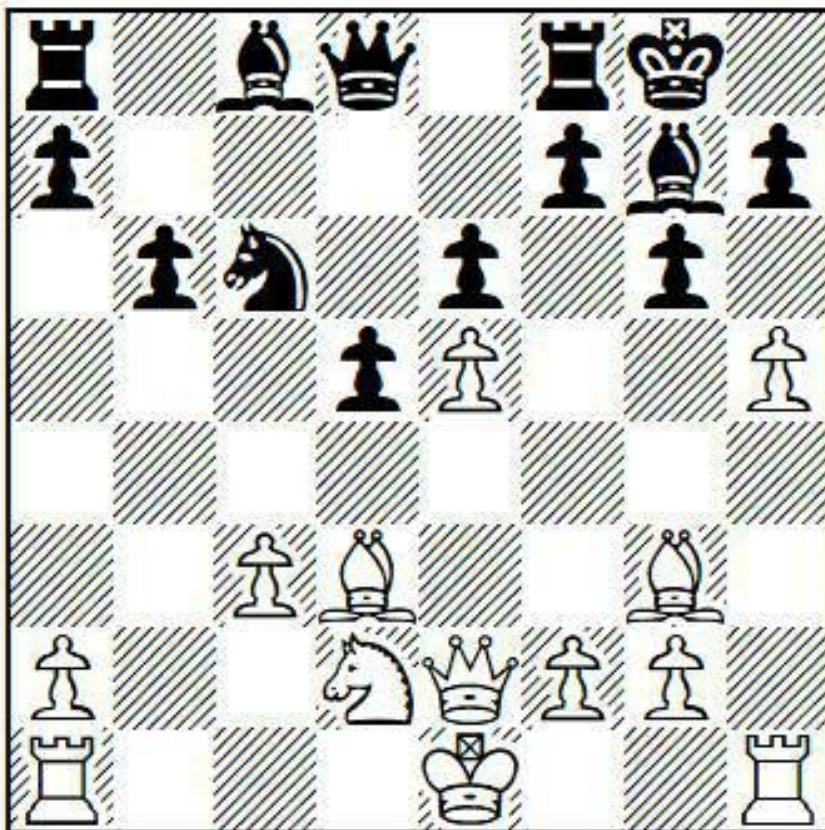
a) The old Stockfish's choice of 14 ... Be7 will be examined in the following game.

b) 14 ... dxc3?! 15 hxg5 cxd2+ 16 Qxd2 a5 prepares ideas with ... Nb4 and ... Ba6. White can take advantage of the open h-file with 17 Qf4 Ba6 (17 ... Nb4 18 Be2 Nc2+ loses to 19 Kd2 Nxa1 20 Qh4 h5 21 Bxh5) 18 Bxa6 Rxa6 19 Rc1 b5 20 Ke2! and the open h-file created unsolvable problems for Black in S.McLeod-R.Kolanek, correspondence 2020.

c) The direct 14 ... Bxd2+ 15 Qxd2 dxc3 16 bxc3 d4! 17 c4 Qe7 threatens an exchange of queens with ... Qb4. 18 Rb1 (alternatively 18 Be4 Bb7 19 h5 g5 20 0-0 leads to a complicated middlegame where White should have

slightly better chances, but Black is not without counterplay in the centre and on the queenside) 18 ... h5 (18 ... Qc5 19 h5 Qa5 20 Qxa5 Nxa5 21 Bh4 Bb7 22 f3 reaches an extremely dangerous endgame for Black due to the strong bishop pair and lack of defenders on the kingside) 19 Bf4 Ba6 (19 ... Bb7?! gives White enough time to exploit the dark squares with 20 0-0 Rfc8 21 Bg5 Qf8 22 Bf6 led to a crushing victory in J.Van Foreest-R.Svane, Germany 2016) is playable, but only with perfect defensive play: 20 Bg5 (20 0-0? Qc5 targets the c4 and e5-pawns) 20 ... Qa3 21 Bf6 Qa5 22 f4 Rac8 23 g4 Qxd2+ 24 Kxd2 and despite the vicious attack incoming on the kingside, after 24 ... Nb8! Black managed to hang on in B.Bratovic-J.Potrata, correspondence 2020.

**15 h5 dxc3 16 bxc3 Bg7**



White's space advantage and far advanced h-pawn create severe problems for Black to solve on the kingside. The older engines are misguided in their belief that the Black setup is sound. In fact, as we will see in a couple

examples below, they struggle to find a good plan for Black and often fail to generate any type of counterplay.

16 ... g5?! aims to close the kingside but the bishop becomes very passive on h6. One sample line is 17 Nf3 f6 18 exf6 Qxf6 19 0-0 Bg7 20 Rfe1 h6 21 Rad1 and White's pieces are perfectly placed to create play in the centre, perhaps starting with c4.

### **17 Nf3**

17 f4! is an extremely dangerous plan for Black to face and it has scored a remarkable 6.5/7 for White in correspondence games. This is quite shocking, especially considering that the older engines believe Black's position is completely sound. Play may continue:

a) 17 ... Qe7 prepares to activate the queen on c5 or a3. White should reply with 18 Rc1 Qa3 19 Rc2 Bd7 and now launch a kingside attack by playing 20 Bh4! threatening Bf6, or if 20 ... Ne7 then 21 g4 prevents ... Nf5 and continues building kingside pressure.

b) 17 ... Qc7 18 Nf3 d4 (the slower 18 ... Bb7 19 h6 Bh8 20 0-0 Rfe8 21 Bh4 was excellent for White in U.Schuster-J.Potrata, correspondence 2020, due to the useless bishop on h8; The game continued 21 ... Na5 22 Rac1 Qc5+ 23 Kh2 Rac8 24 g4 Qa3 25 f5 Nc6 26 f6 and the bishop was permanently shut in on h8) 19 h6 as we have already seen throughout the book, the strength of this idea is severely underestimated by the older engines. M.Höppenstein-H.Gromotka, correspondence 2020, continued 19 ... Bh8 20 Rc1 dxc3 21 Rxc3 Bb7 22 Kf2 Qb8 23 Rhc1 Nb4 24 Kg1 Nd5 25 R3c2 a5 26 Ng5 and by now it was very clear that Black is in major trouble with his cramped kingside and useless bishop on h8.

### **17 ... Bd7**

The newer engines point out a very strong way of creating counterplay with 17 ... Bb7 18 Kf1 d4! 19 h6 Bh8 20 Rd1 (20 cxd4?! Nxd4 21 Qe3 Nxf3 22 gxf3 f6 frees the bishop on h8) 20 ... dxc3! (20 ... Rc8 21 Be4 keeps Black under some pressure) 21 Bxg6 fxg6 22 Rxd8 Nxd8 and the material imbalance is fine for Black because his king is well-defended and the c-pawn is a major asset. ... Nf7 and ... Rc8 will follow next.

### **18 Kf1 Qc7 19 Qe3?**

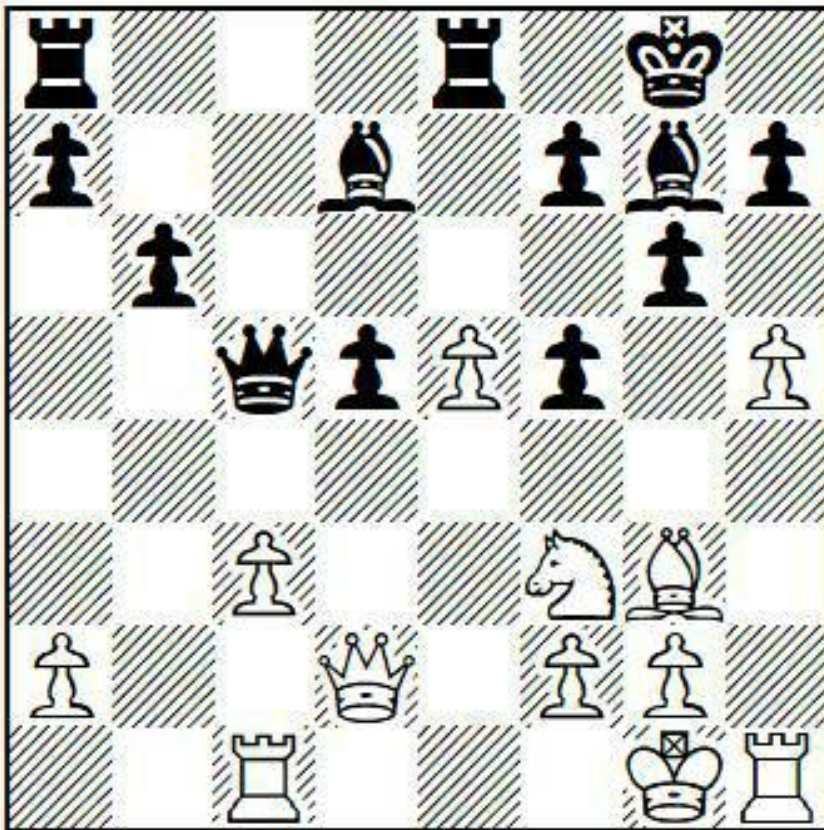
Preparing ideas with Bf4-h6. However, the queen can be targeted on e3.

It was more accurate to first improve the position with 19 Kg1 Rac8 20 Rc1 when 20 ... Ne7 can be met by 21 Bf4 followed by Qd2 and Bh6.

### **19 ... Ne7!**

Creating the threats of ... Qxc3 and ... Nf5. The latter will force White to exchange his light-squared bishop.

**20 Rc1 Nf5 21 Bxf5 exf5 22 Kg1 Qc5 23 Qd2 Rfe8**



**Exercise:** How should White target Black's kingside dark squares?

**24 Bf4?!**

The correct idea of fighting for the dark squares but it was stronger to activate the bishop via h4-f6.

**Answer:** 24 hxg6 fxc6 25 Bh4 (threatening Bf6) 25 ... Bxe5? (25 ... Re6 26 c4 takes advantage of Black's poor piece coordination) would allow a decisive invasion on the kingside after 26 Nxe5 Rxe5 27 Bf6 Re6 28 Qh6.

**24 ... Rac8 25 Bh6 Bh8?**

It was necessary to play 25 ... Bxe5 26 hxg6 fxc6 27 Nxe5 Rxe5 when White doesn't have enough time to take advantage of the weaknesses on the kingside.

**26 Be3 Qe7 27 Bg5! Qf8**

27 ... Qe6 prevents Bf6, but White has 28 Re1 followed by Nd4.

**28 Bf6 Bg7 29 hxc6 fxc6 30 Ng5**

The knight joins the attack with a decisive effect.

**30 ... Be6 31 Nxe7 Qa3 32 Qg5 Rxc3 33 Rxc3 Qxc3 34 Bxc7 Qe1+ 35  
Kh2 Qxf2 36 Nf6+ 1-0**

The following game analyzes a defensive setup employed by the old Stockfish. Stockfish plays the early middlegame slowly, missing an important opportunity for counterplay on move 15, and puts too much trust in the solidity of its position. As the game continues, White fights for dark-squared control on the kingside, which creates endless problems for the Black king.

Note that “AllieStein” is similar to Lc0 in the sense that they are both neural network engines inspired by AlphaZero.

*Game 42*

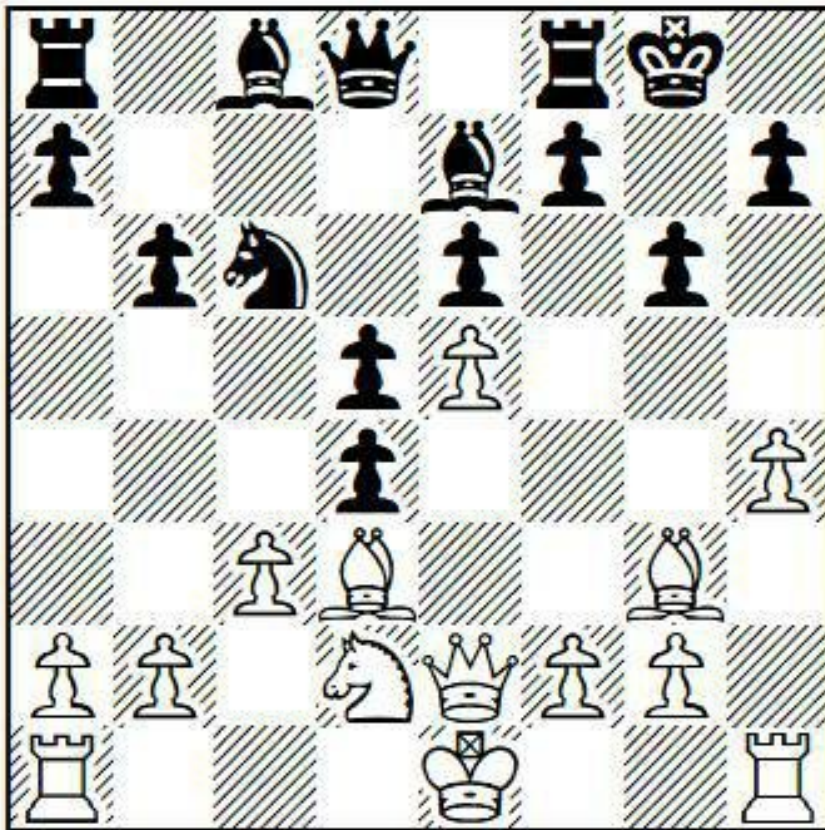
**AllieStein-Stockfish**

TCEC 2020

**1 Nf3**

The game started from this position.

**1 ... Nf6 2 d4 e6 3 Bf4 d5 4 e3 c5 5 Nbd2 Nc6 6 c3 Bd6 7 Bg3 0-0 8 Bd3  
b6 9 e4 Be7 10 e5 Nh5 11 Ng5 Bxc3 12 Qxh5 g6 13 Qe2 cxd4 14 h4 Be7**



Compared to the previous game's 14 ... Bh6, the bishop on e7 is safer and more active because it isn't stuck on the kingside. However, the Black king lacks a defender. Retreating the bishop to e7 is playable but only if it is followed up with energetic play on the next move, otherwise there are major issues for Black's kingside (as we will see in the game).

### 15 h5 Kg7?

Stockfish underestimates the dangers of its position and chooses to not take immediate action. Alternatives:

a) 15 ... g5? is also not the correct approach. Black is left with major weaknesses after 16 0-0 dxc3 17 bxc3 f5 (if Black refrains from playing ... f5, then 17 ... Bd7 18 Nf3 Rc8 19 Nh2 followed by Ng4 and f4 is very dangerous) 18 exf6 Bxf6 19 Rac1 Bd7 20 Rfe1 and c4 is coming soon, threatening to rip apart the centre.

b) A more direct attempt at fighting back is called for. Specifically, 15 ... dxc3 16 bxc3 d4! creates counterplay in the centre and makes it much more

difficult for White to focus on the kingside. I believe this is Black's best defensive try against White's pawn sacrifice with 11 Ng5! Now:

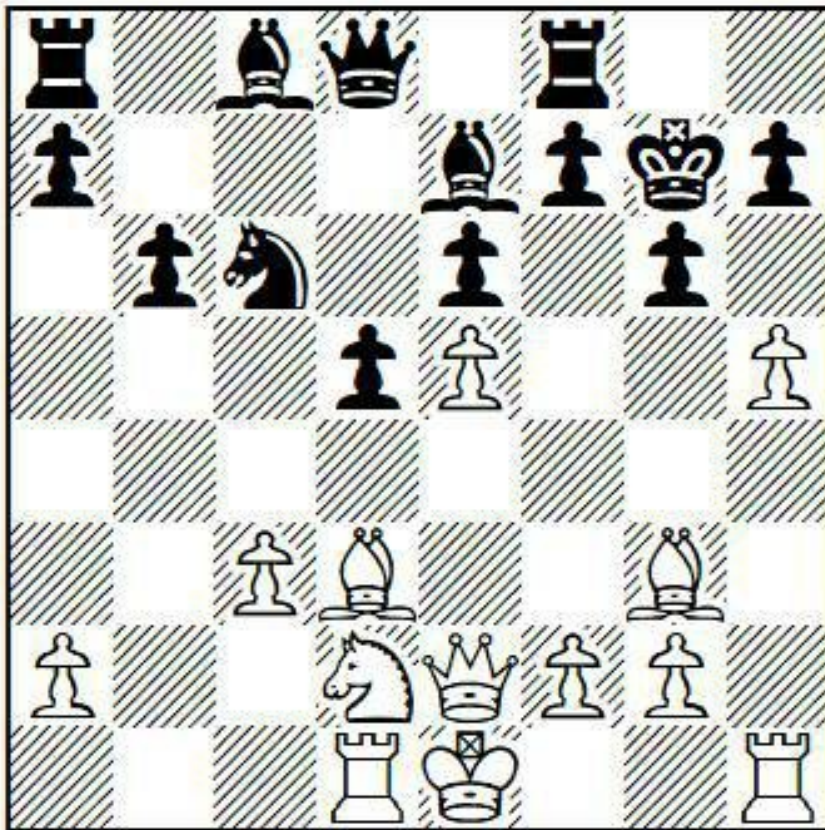
b1) the sharper 17 hxc6 hxc6 18 Ne4 Kg7 19 Nd6 is quite testing, but the following sequence leads to a satisfactory position for Black: 19 ... Rh8 20 Rxh8 Qxh8 21 Qf3 Qh1+ 22 Bf1 (22 Ke2 runs into 22 ... Qh5) 22 ... Bxd6 23 exd6 Bd7 24 cxd4 Rc8 25 Rc1 f6 with a solid defence.

b2) 17 c4 Nb4 18 Be4 d3 19 Qg4 leads to a further split:

b21) 19 ... Nc2+? is a useless check because the knight served an important purpose on b4. White wins the d3-pawn after 20 Kf1 g5 (20 ... Nxa1? 21 hxc6 fxc6 22 Rxh7 leads to mate) 21 Rd1 Rb8 22 Nf3 followed by taking on d3.

b22) 19 ... g5 20 0-0 Rb8 21 h6 (preventing Black from playing ... h6) 21 ... Kh8 22 a3 Na6 23 Nb3 hopes for some slight pressure based on Black's weakened kingside, but in R.Anderskewitz-V.Orekhov, correspondence 2021, White failed to achieve this after 23 ... Bb7 24 Rfd1 Bxe4 25 Qxe4 Qc7 26 Qxd3 Rbc8 with a roughly balanced position.

**16 Rd1 dxc3 17 bxc3**



**Question:** What are the dangers in Black's position?

**Answer:** The undefended dark squares on the kingside are currently the biggest danger, which White can try to exploit with Bf4 and Qe3. Another danger that Black is faced with is the cramped kingside, as demonstrated in our main game and the games below. The older engines significantly underestimate these dangers and Stockfish takes another dozen moves before understanding the severity of its long-term weaknesses.

**17 ... Bb7**

17 ... Bd7 18 Bb1! is a very nice idea. The point is that White would like to play Bf4 and attack on the dark squares, but then Black would have ... g5 and ... f5 (for example, 18 Bf4 g5! 19 Bg3 f5 20 exf6+ Bxf6 21 0-0 Qe8 and despite the weaknesses on the kingside, Black keeps things under control). By putting the bishop on b1, White is prepared to meet ... g5 with h6+ and Qd3! setting up a deadly attack on Black's kingside. The following

correspondence game was a nice demonstration of some weaknesses in the older engines: 18 ... Rc8 19 Bf4 Rh8 (19 ... g5?? 20 h6+ Kg8 21 Qd3 is the point behind 18 Bb1) 20 Nf3 Na5 (20 ... h6 covers the h6-square but weakens g6 after 21 hxg6 fxg6 22 Rh3 and Rg3 next; White can also consider ideas with c4 to open up the centre) 21 Qe3 Qc7 22 Bh6+ Kg8 23 0-0 Qxc3 is a typical materialistic approach by the older engines. It is true that Black has two extra pawns and White has no clear way of breaking through, but the long-term health of the kingside is quite unfortunate. After 24 Bd3 Nc4 25 Qf4 Black's king and rook were completely boxed in on the kingside, providing White with a crushing advantage in M.Höppenstein-T.Schmidt, correspondence 2019.

### **18 Qg4**

Also deserving attention is 18 Bb1!? with the same idea from the previous note. Following 18 ... Qc7?! (the queen should stay on d8 to help cover the g5-square, a better try was 18 ... a5 19 Nf3 Ba6 although here too, 20 Qd2 Rh8 21 Bf4 followed by Bh6 creates long-term difficulties for Black) 19 Qe3 Rh8 20 Bf4 Ba6 21 Bh6+ Kg8 22 f4 Black was left with a severely cramped kingside in E.Spagnoli-A.Lujambio, correspondence 2019.

### **18 ... Rg8**

18 ... Rc8 19 f4 Na5 is too slow, White develops tremendous play on the kingside after 20 Nf3 Rxc3 21 Bh4 and the exchange of bishops will lead to a disaster for Black on the dark squares.

### **19 Qf4!**

Threatening h6+ to take advantage of the poorly defended f7-pawn.

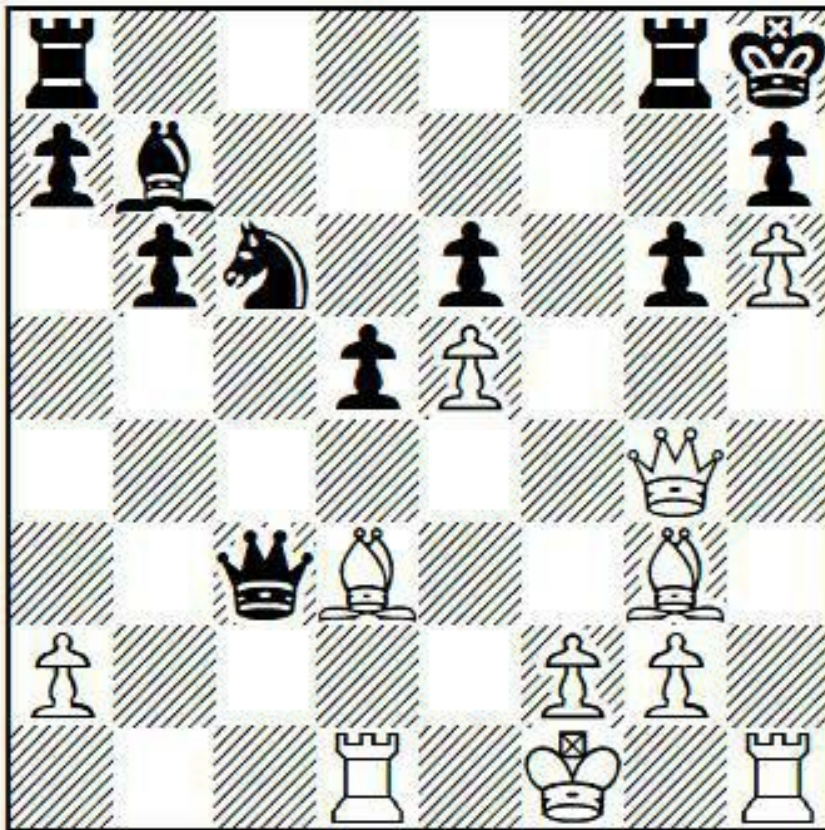
### **19 ... Bg5**

It is important that 19 ... g5? is met by 20 h6+ Kf8 21 Qg4.

### **20 h6+ Kh8**

20 ... Kf8 protects f7 but shuts in the rook. White can continue his plan of fighting for the dark squares with 21 Qg4 Rc8 22 Nf3 Be7 23 Bf4 and Ng5 is coming next.

**21 Qxf7 Qe7 22 Qf3 Qa3 23 Qg4 Bxd2+ 24 Rxd2 Qc1+ 25 Rd1 Qxc3+ 26 Kf1**



A critical moment. Black should strike before White has the chance to activate the h1-rook and bring his king to safety.

### 26 ... Rgf8?!

It is interesting to note that Stockfish still didn't fully understand the danger of its position at this point, believing that White is only slightly better. Over the next 10 moves, the evaluation of Stockfish steadily rises from slightly better for White to winning, as it realizes that the extra pawn is meaningless. What matters most is White's powerful bishop pair, the dark-squared weaknesses on the kingside, and the vulnerable e6-pawn.

Fighting for activity with 26 ... Nb4! was essential. Some sample lines: 27 Bb5 (or 27 Qg5 Raf8 28 Bb1 d4 creates serious counterplay) 27 ... Raf8 28 Kg1 (28 Bd7 wins the e6-pawn but leaves the d3-square undefended; following 28 ... Nd3 29 Kg1 Qc2 30 Rxd3 Qxd3 31 Bxe6 Bc8! Black is okay) 28 ... Rf5 and compared to the game, Black has a couple more active pieces and better defensive chances.

## 27 Rh4!

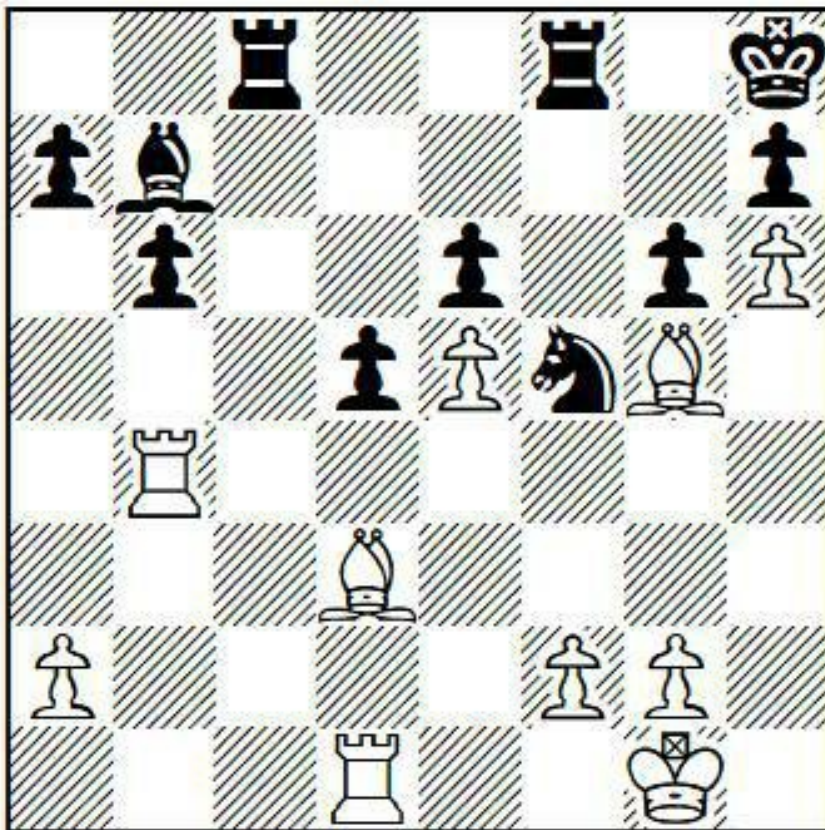
Activating the passive rook and preparing a counter against Black's threat of ... Nxe5.

White should not rush to take the e6-pawn because 27 Qxe6? Ba6! is a very strong resource for counterplay when the bishop cannot be taken because of 28 Bxa6?? Qxg3.

## 27 ... Rae8

The tactical point behind 27 Rh4 is 27 ... Nxe5? 28 Qb4! Qxb4 29 Bxe5+ picking up a piece.

28 Kg1 Qa3 29 Qe2 Rc8 30 Bf4 Nd4 31 Qg4 Nf5 32 Bg5 Qb2 33 Qb4 Qxb4 34 Rxb4



The arising endgame is won for White. Despite Black's extra pawn, there are numerous weaknesses (the e6 and a7-pawns, and kingside dark squares) that must be defended. Also, it is very important that the knight is lacking a safe square, so Black must defend against g4.

### **34 ... Rc7 35 Ra4!**

Asking Black a question on the queenside before switching to the kingside and targeting e6.

### **35 ... Ra8 36 Rf4 Kg8 37 g4 Ne7 38 Rf6**

The e6-pawn falls and White develops a crushing pawn majority on the kingside.

**38 ... Nc6 39 Rxe6 Nd4 40 Rf6 Rf8 41 Rxf8+ Kxf8 42 Kg2 Ne6 43 Bd2 Kf7 44 Kg3 Nc5 45 Be3 Nxd3 46 Rxd3 Ke6 47 Ra3 Bc6 48 f4 Bd7 49 Kh4 Rc4 50 Rxa7 Re4 51 Bd2 Rd4 52 Bc1 Rc4 53 Be3 Re4 54 Ra3 d4 55 Bc1 Kd5 56 Ra7 Kc6 57 Kg5 Re2 58 Ra4 Kd5 59 Ra8 Rg2 60 Kf6 Bxg4 61 Rd8+ Ke4 62 e6 Bxe6 63 Re8 Kf3 64 Rxe6 Rc2 65 Re1 b5 66 Kg7 Rc7+ 67 Kg8 Rd7 68 Re5 Ra7 69 Rd5 Ke4 70 Rxb5 Kd3 71 Bb2 Kc4 72 Rb8 Rd7 73 a4 d3 74 Bc1 Kd4 75 Bd2 Ke4 76 a5 Kf3 1-0**

## **A New System against the London**

The latest developments in the London System are not one-sided, as new systems for Black have also been recommended by the newer engines. One of these systems is shown in the following game, which can be used to avoid some of the sharper lines in the London and reach a solid middlegame.

### *Game 43*

### **J.Xiong-S.Vidit**

FIDE World Cup 2021

### **1 d4 Nf6 2 Nf3 d5 3 Bf4 c5 4 e3 e6 5 Nbd2**

Carlsen tried an interesting pawn sacrifice through a different move order: 5 c3 Bd6 6 Nbd2!? cxd4 (6 ... 0-0 7 Ne5 leads to a complicated middlegame, typical for the London System, for example, see A.Firouzja-J.Duda, Wijk aan Zee 2021) 7 Bxd6! leads to an important junction for Black:

a) 7 ... Qxd6 8 exd4 is a clearly better pawn structure for White because of the passive bishop on c8.

b) 7 ... dxe3 8 Ba3 exd2+ 9 Qxd2 Nc6 10 Qg5! (forcing Black to make a concession on the kingside) 10 ... Rg8 11 Bd3 h6 12 Qe3 and because Black was unable to castle on the kingside, he quickly ran into decisive problems in

M.Carlsen-Ding Liren, internet 2020.

c) 7 ... dxc3! 8 Ba3 (8 Qa4+ Nc6 9 Qa3 cxd2+ 10 Nxd2 Qa5 exchanges queens and reaches a fine endgame) 8 ... cxd2+ 9 Nxd2 Nc6 (preparing ... Ne7 and ... 0-0, so White must stop this) 10 Bb5 Bd7 11 Bxc6 Bxc6 12 0-0 h5! prevents White from activating his queen on the kingside. Black will play ... Ne4, ... f6, and ... Kf7 next.

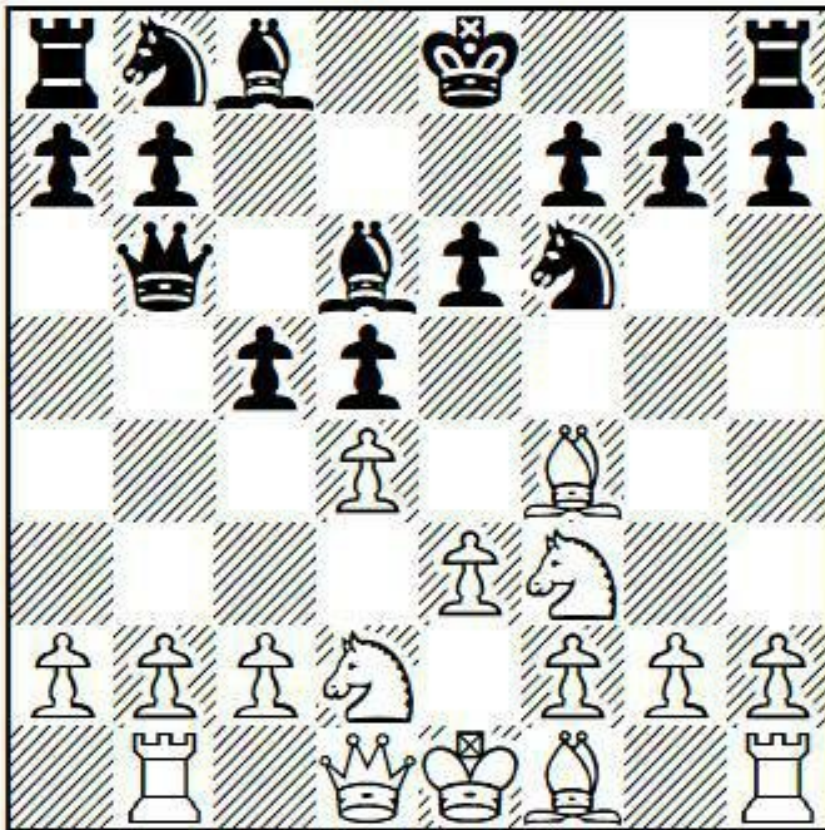
### **5 ... Qb6!?**

This line has become quite popular because it receives the newer engines' approval and sidesteps the more dangerous lines of the London, where White gets good attacking chances (for example, the previous four games of this chapter). Others:

a) 5 ... Nc6 6 c3 Bd6 was analyzed in the previous two games.

b) 5 ... Bd6 is also playable but White has a pleasant position after 6 dxc5 Bxf4 (or 6 ... Bxc5 7 c4 0-0 8 cxd5 exd5 9 Rc1) 7 exf4 Qc7 8 g3 0-0 9 Bd3 a5 10 0-0 Na6 11 Rc1 as in M.Höppenstein-R.Wydornik, correspondence 2020.

### **6 Rb1 Bd6**



### 7 dxc5

Others:

a) 7 Bxd6 Qxd6 8 dxc5 isn't White's best try for an edge. Following 8 ... Qxc5 9 c4 Nc6 10 cxd5 Qxd5 11 Bc4 Qd6 12 0-0 0-0 Black is completely fine.

b) 7 c3!? cxd4 8 Bxd6 was a pawn sacrifice by Firouzja, perhaps inspired by the one we saw in the Carlsen-Ding Liren game above. However, it appears that this is a slightly worse version for White. Play continues 8 ... dxe3 (but not 8 ... dxc3?! 9 Nc4! dxc4 10 bxc3 Qa6 11 Ne5 with a very tricky position for Black to play) 9 Ba3 exd2+ 10 Qxd2 Ne4 11 Qc2 Na6! 12 Bd3 (12 Nd4? Bd7 13 f3 Nd6 saw White's compensation for the pawn evaporate in A.Firouzja-L.Dominguez Perez, internet 2021) 12 ... Nac5 13 Bxe4 dxe4 14 Bxc5 Qxc5 15 Qxe4 leads to equality.

### 7 ... Qxc5 8 Bd3

Similar play arises after 8 b4 Qc7 9 Bxd6 Qxd6 10 c4 0-0 11 Be2 b6 12 0-

0 Qe7 (Black could also consider 12 ... a5!? either here or on the previous move) 13 Qb3 and Black's position is very solid but White will argue that his slight lead in development gives chances for a small edge. A battle between neural network engines continued 13 ... Nbd7 (worse is 13 ... Bb7?! 14 c5! Rc8 15 Rfc1 when White had good prospects on the queenside in M.Höppenstein-J.Alfaro de Hombre, correspondence 2020) 14 Rfc1 dxc4 15 Nxc4 Bb7 16 Nd4 Bd5 17 a4 Rfc8 with a very solid position in AllieStein-Lc0, TCEC 2020.

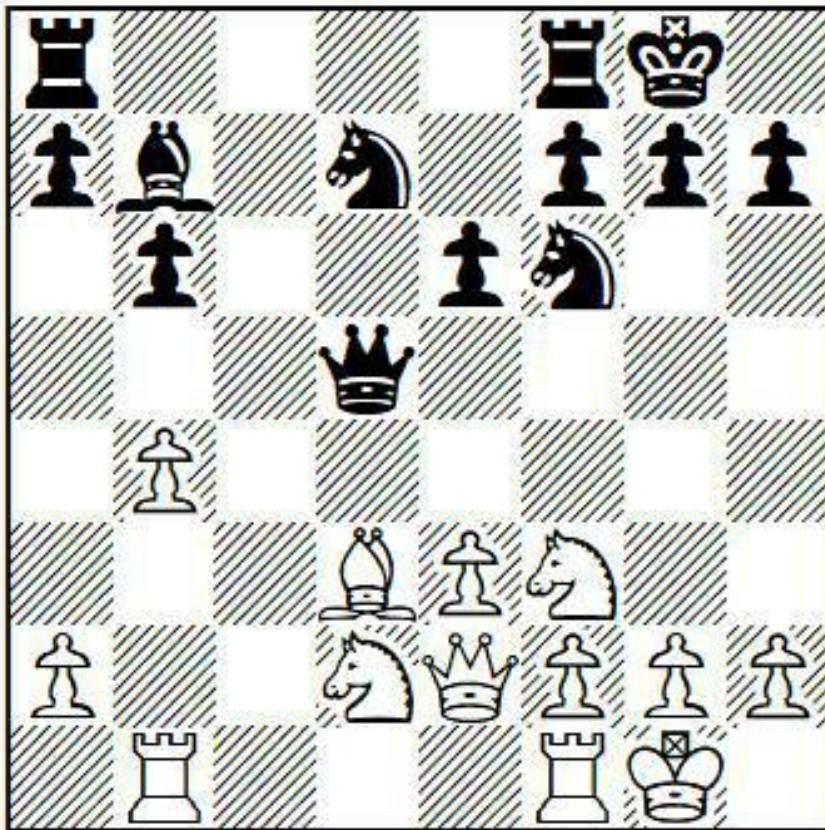
### **8 ... 0-0**

Vidit had already faced this line in a rapid game against Duda. That game continued 8 ... Nbd7 9 b4 Qc7 10 Bxd6 Qxd6 11 c4 b6 reaching a position similar to our main game except that neither side has castled. After 12 cxd5 Nxd5 13 Nc4 Qe7 14 Qd2 0-0 15 e4 Nc7 16 Qf4 White had created some slight pressure in J.Duda-S.Vidit, internet 2021.

### **9 0-0 Nbd7 10 b4 Qc7 11 Bxd6 Qxd6 12 c4 b6 13 cxd5 Qxd5 14 Qe2**

The opening was rather quiet so there are many playable options for both sides. For example, 14 Nc4!? Ba6 (White's idea is to meet 14 ... Bb7? with 15 e4 Qh5 16 Nd6) 15 Rc1 Rfd8 16 Be2 with hopes of fighting for a slight edge in the endgame.

### **14 ... Bb7**



The opening has gone fairly well for Vidit. His position is very solid, and it is not yet clear how Xiong will try to create chances.

**15 e4**

Again 15 Nc4 was a fine alternative, leading to a very slightly better endgame for White after 15 ... Qh5 16 Nd4 Qxe2 17 Bxe2 Bd5 because of the extra space on the queenside.

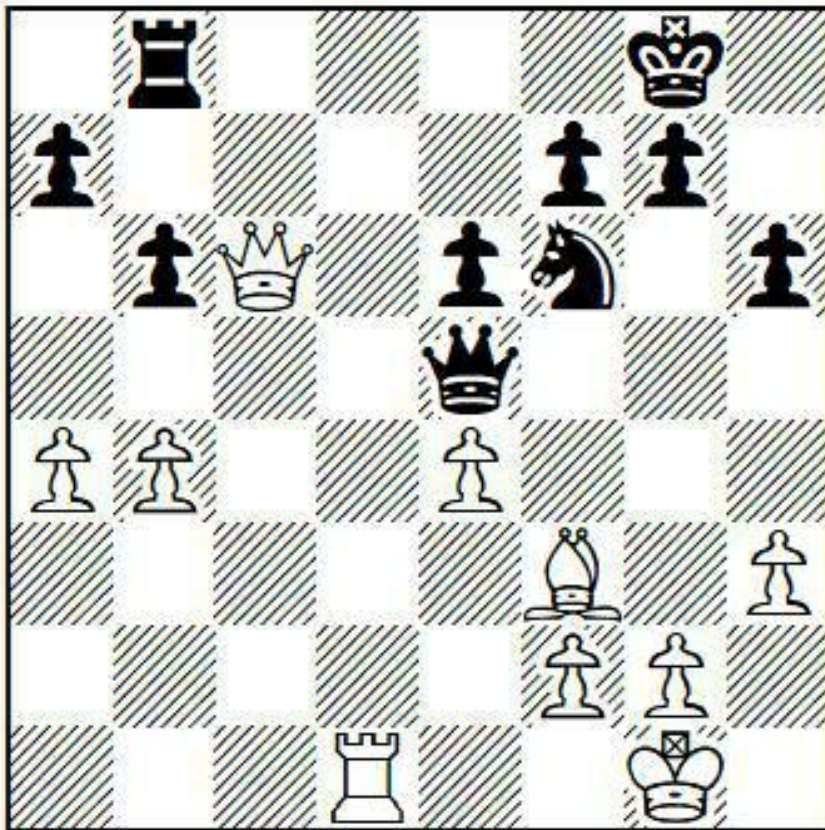
**15 ... Qh5 16 Nc4 Rfd8 17 Rbd1 Nf8**

Transferring the knight to the kingside.

**18 h3 Ng6 19 Qe3 Ba6 20 Nd6 Rxd6**

There was a direct path to equality with 20 ... Bxd3 21 Rxd3 Nd5! 22 exd5 Rxd6 23 dxe6 Rxe6 24 Qd2 Ne5 and a draw would be agreed soon.

**21 Bxa6 Rxd1 22 Rxd1 Ne5 23 Be2 Nxf3+ 24 Bxf3 Qe5 25 Qc1 h6 26 Qc6 Rb8 27 a4**



### 27...Kf8?!

In view of how dangerous the a-pawn becomes on a6, preventing this advance by playing 27 ... a5 28 b5 Kf8 was better. Even though the b6-pawn is more vulnerable here, White cannot easily take advantage of it.

### 28 a5 bxa5 29 bxa5 Ne8 30 a6!

Out of a seemingly equal middlegame, Xiong has seized some queenside space and created some problems for Vidit. The following time scramble before the extra time on move 40 takes several sharp turns.

### 30 ... Qc7 31 Qa4 Qc5 32 Qa1 Nc7

32 ... Rb3!? immediately activating the rook to c3 deserved attention.

### 33 Rd7

The safer 33 Be2 protects the a6-pawn and keeps the back rank well-defended.

### 33 ... Kg8 34 e5 Rb4 35 Qd1 Nb5

Activating the knight to d4 appears to be the best try for counterplay but

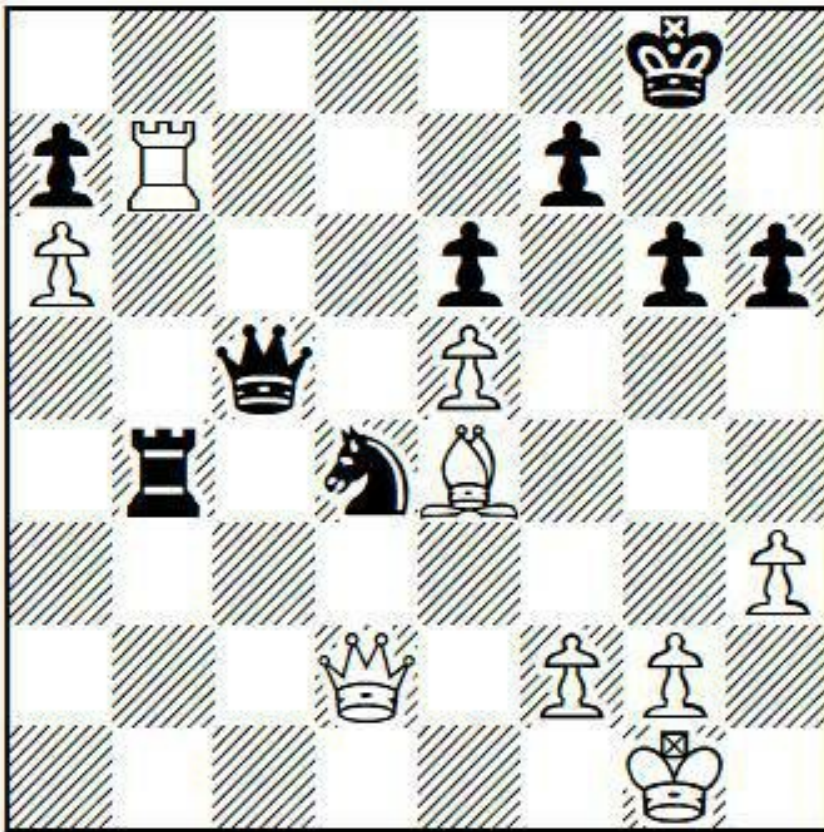
White has a strong prophylactic idea.

The a6-pawn is indirectly defended because of 35 ... Nxa6? 36 Rd8+ Kh7 37 Qd3+ picking up the knight.

**36 Rb7**

36 Be2! Nd4 37 Bf1 and the f1-bishop keeps everything under control, giving White a large advantage.

**36 ... Nd4 37 Be4 g6 38 Qd2?**



The beginning of a flawed kingside attack, played with just a couple minutes left on the clock.

Stronger was 38 Bd3 retreating the bishop to f1 where it serves a useful defensive purpose for the king as well as protecting the pawn on a6.

**38 ... Rc4 39 Bxg6? fxc6 40 Qxh6 Rc1+ 41 Kh2 Qxe5+ 42 f4 Nf3+!**

After making the time control, Vidit had enough time to work out all the complications. He spots this crucial resource, which decides the game in his favour.

### **43 Kg3**

43 gxf3 Qe2+ 44 Kg3 Rg1+ 45 Kh4 Qe1 is mate.

### **43 ... Qe1+ 44 Kg4 Ne5+ 45 Kg5**

45 fxe5 Rc4+ also wins.

### **45 ... Nf7+ 46 Rxf7 Kxf7 47 Qh7+ Ke8 48 g4 Rc5+ 49 f5 exf5 0-1**

## **A Flank Attack in the Classical French**

The Classical French has had a bit of a resurgence in recent years with Grischuk employing the opening twice in the 2020-21 Candidates, Nepomniachtchi using it in some rapid games, and Matthias Bluebaum introducing new ideas for Black. Once an opening becomes fashionable, fresh ideas are generated at an incredible rate as players search for ways to create problems for their opponents. The following game sees White trying a very modern concept against the main line of the Classical French, where the h-pawn advances to provoke weaknesses on Black's kingside.

### *Game 44*

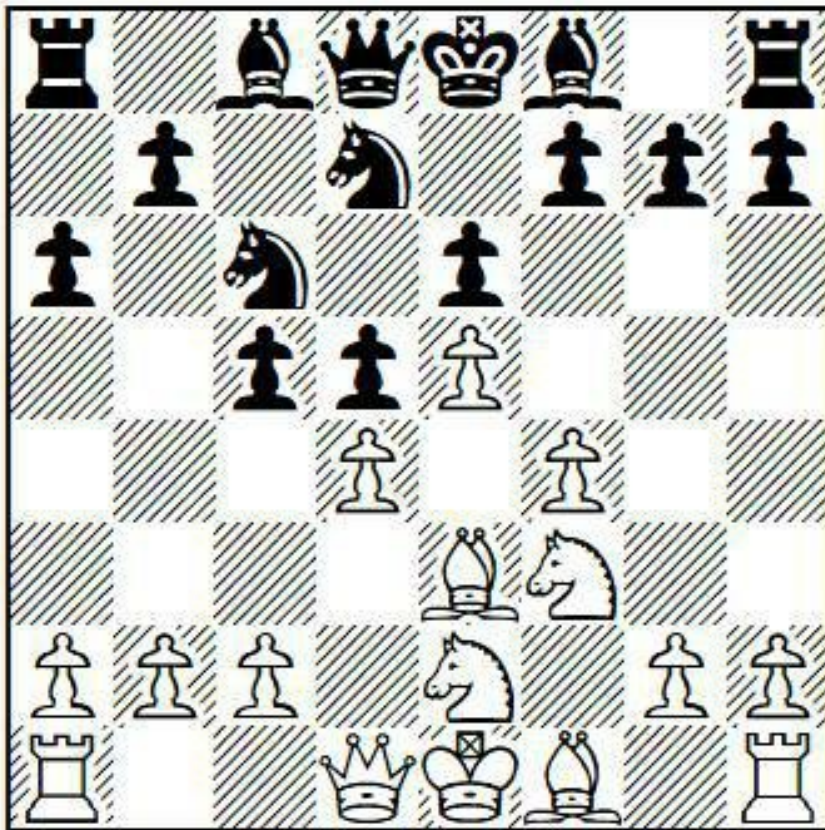
### **Xu Yi-Xu Yinglun**

Chinese Championship 2021

### **1 e4 e6 2 d4 d5 3 Nc3 Nf6 4 e5 Nfd7 5 f4 c5 6 Nf3 Nc6 7 Be3 a6**

It is interesting to see that two slightly unusual-looking moves, 8 Ne2 and 8 a3, are overtaking the main line 8 Qd2.

### **8 Ne2!?**



Preparing c3 and supporting the d4-pawn, which is often targeted by Black in these French lines. The downside is that the light-squared bishop is shut in. White may develop it with g3 and Bg2, or simply leave it on f1 as we will see in the game.

### 8...Qb6

Others:

a) 8...b5 9 c3 b4 immediately tries to create play on the queenside but this certainly isn't the most effective plan against White's setup. K.Sasikiran-R.Svane, Moscow 2017, continued 10 cxb4 cxd4 11 Nxd4 Bxb4+ 12 Kf2 Nxd4 13 Bxd4 0-0 and now 14 Rc1 is quite strong, fighting for the c5-square.

b) 8...Be7 9 c3 0-0 10 h4 leads to a slightly better version of the game because White's queen isn't on c1. For example, 10...f6 11 Qc2 b5 12 g3 b4 13 Bh3 put Black under some pressure in R.Kazantsev-P.Groot, ICCF 2019.

### 9 Qc1 Be7!

A natural developing move and the preference of most top players. The

two alternatives are:

a) The actual move order of the game was 9...f6 10 c3 Be7. However, this gives White an important extra option in 11 exf6 (11 h4 0-0 transposes to the game) 11...Nxf6 12 dxc5 Bxc5 13 Bxc5 Qxc5 14 Ned4 when there are chances for a small edge, for example 14...0-0 15 Bd3 (15 Be2 Bd7 16 0-0 Rae8 17 Qe3 Ng4 followed by ...e5 in W.So-M.Bluebaum, Tbilisi 2017) 15...Bd7 16 0-0 Ng4 (playing for ...e5) 17 Qd2 e5 18 b4 Qb6 19 fxe5 Ncxe5 20 Nxe5 Nxe5 21 Qg5! with an advantage in P.Rallabandi-M.Blake, correspondence 2019, due to the isolated d5-pawn and the more active d3-bishop.

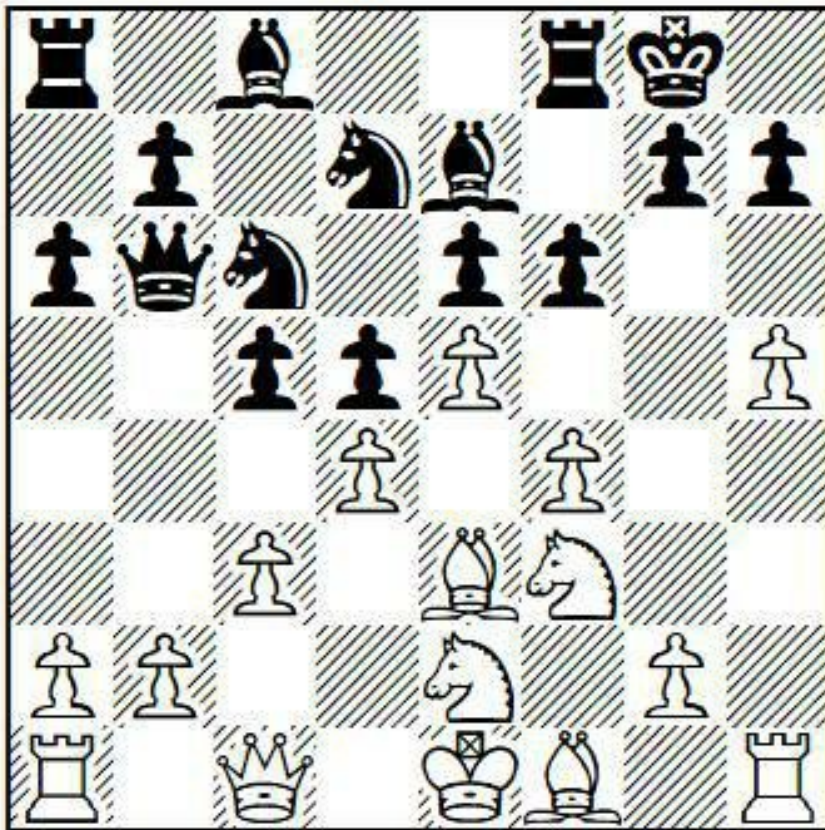
b) The direct 9...g5?! leads to weaknesses on the kingside after 10 c3 cxd4 11 Nexd4 gxf4 12 Bxf4 Bg7 13 Qe3 Qxb2 14 Rd1 with excellent compensation for the pawn in C.Jensen-L.Hyldkrog, correspondence 2019, because Black is struggling to develop and find a safe place for his king.

### **10 c3 0-0 11 h4!**

A very strong plan that has been put in the spotlight recently because the newer engines have a much greater appreciation for the h4-h5-h6 idea.

The older engines prefer 11 g3 which is a much less challenging approach. Play may continue 11...a5 12 Bg2 cxd4 13 Nexd4 Nc5 14 0-0 Bd7 15 Qc2 Ne4 leading to a roughly balanced middlegame. For example, 16 Nd2 (or 16 Rfe1 Bc5 17 a4 f6! 18 exf6 gxf6 provides good play) 16...Nxd2 17 Qxd2 Bc5 was perfectly fine for Black in J.Potrata-M.Boccia, correspondence 2020.

### **11...f6 12 h5**



### 12...h6

Improving over a game that Xu Yinglun had just played a few days prior against Wei Yi.

12...Qa5?! underestimates White's h5-h6 plan which will create some long-term weaknesses on Black's kingside after 13 h6! g6 14 Kf2 (also good is 14 a3 cxd4 15 Nxd4 Nxd4 16 Bxd4 as in Wei Yi-Xu Yinglun, Xinghua 2021) 14...cxd4?! (14...b5 was a better try, keeping the middlegame more complicated; following 15 Kg1 b4 16 Rh3 Rb8 17 a3 bxc3 18 bxc3 c4 19 g4 White has good attacking prospects on the kingside) plays for a piece sacrifice idea to attack White's king on f2, but it is not effective in this case. This was demonstrated in V.Ivic-F.Vallejo Pons, Sochi 2021 after 15 cxd4 fxe5 16 fxe5 Ndx5 17 dxe5 Nxe5 18 Kg1 and Black did not have enough play for the sacrificed piece. We will see a similar piece sacrifice in our main game on the note to Black's 13th move, but in that case White's rook can be targeted on h3 and Black doesn't have any kingside weaknesses.

### **13 Rh3 Rf7!**

A very useful defensive move which had clearly been deeply prepared by Black. The g7-pawn is supported and the f8-square is freed for the knight.

The main alternative is 13...Qa5 when White has tried:

a) 14 Kf2?! works well in the game, although here it runs into 14...cxd4 15 cxd4 fxe5 16 fxe5 Ndx5! which is an excellent piece sacrifice, taking advantage of White's temporary lack of piece coordination. Following 17 dxe5 Nxe5 18 Kg1 Ng4 19 Rg3 (19 Bd4?! runs into 19...e5! exploiting the rook on h3 after 20 Nxe5 Nxe5 21 Bxe5 Bxh3) 19...e5 led to a sharp battle in L.Aronian-M.Bluebaum, internet 2021, where Black is certainly not worse.

b) 14 Bd2 is preferable, eliminating Black's ideas for counterplay in the centre. One game continued 14...cxd4 15 cxd4 Qd8 16 Be3 a5 17 a4 Bb4+ 18 Nc3 Nb6 19 g4 and White's space advantage and kingside play promised good attacking chances in V.Quevedo García-J.Dzenis, correspondence 2020.

### **14 Kf2 fxe5 15 fxe5**

15 dxe5!? would be great, if it were not for 15...d4! leading to very concrete play following 16 cxd4 cxd4 17 Nexd4 Bc5 18 Nb3 (18 Ne2 protects f4 but runs into 18...Nb4 threatening ...Nd3+) 18...Bxe3+ 19 Qxe3 Rxf4 20 Qxb6 Nxb6 reaches an endgame where White has a space advantage. Meanwhile, Black's position is very solid and he has ideas of playing on the queenside with ...a5-a4.

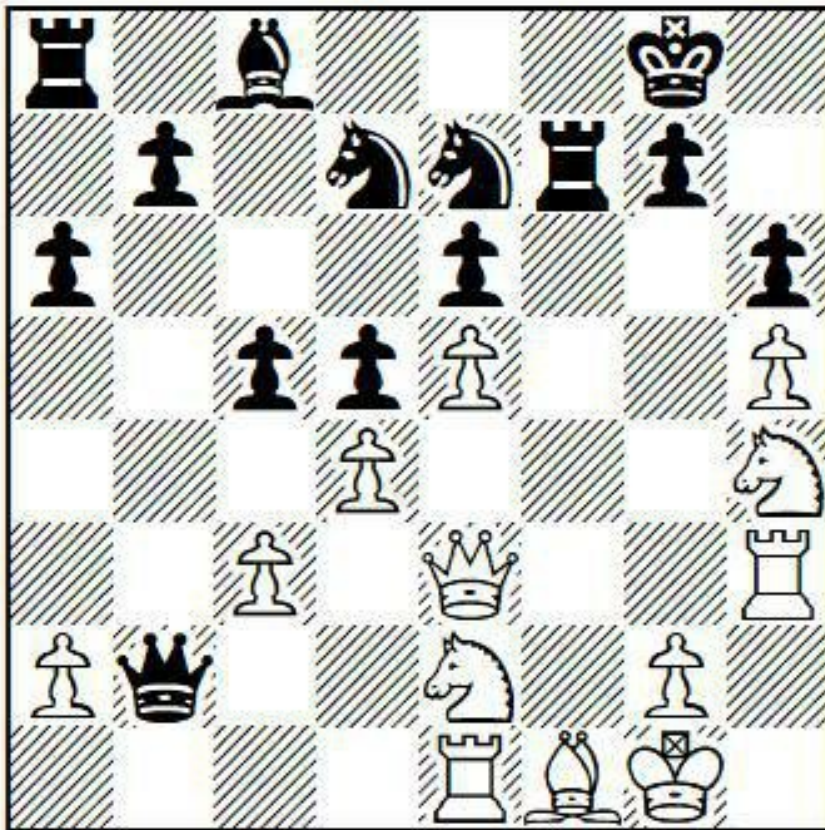
### **15...Bg5 16 Kg1**

Sacrificing the b2-pawn and focussing on the initiative. Alternatives are much worse:

a) 16 Bxg5? runs into 16...cxd4! 17 cxd4 Ndx5 threatening ...Nd3+ and ...hxg5.

b) 16 b3?! is a very timid way of defending the b-pawn. Indeed, Black develops excellent play after 16...Ndx5! 17 dxe5 Nxe5 18 Kg1 Bxe3+ 19 Qxe3 Ng4 20 Qd2 e5 with a powerful pawn centre and threats of ...c4+ or ...e4.

### **16...Bxe3+ 17 Qxe3 Qxb2 18 Re1 Ne7 19 Nh4**



### 19...Nf8

The most logical move to defend the kingside.

The rook on f7 can hold the kingside together for a couple moves, giving the d7-knight enough time to activate after 19...cxd4! 20 cxd4 (or 20 Nxd4 Nc5) 20...Nb6! 21 Rg3 Nc4 22 Qxh6 Bd7 23 Qg5 (23 Qc1 Qxc1 24 Nxc1 Rf4 led to an equal endgame in C.Schmitt-E.Emrich, correspondence 2021) 23...Nd2! achieves sufficient counterplay with ...Ne4 coming next.

### 20 Rg3 Kh8?

Black's defensive play seems to make a lot of sense, and yet this isn't enough to survive against the opening problems posed by the extremely dangerous 11 h4! plan.

The correct defensive path would have required extreme precision after 20...Qxa2 21 Qxh6 Qc2 22 Qg5 when White develops a crushing initiative against most lines:

- a) 22...cxd4 23 cxd4 and h6 next.

b) 22...Bd7 23 h6 Nh7 24 Qxg7+! Rxc7 25 Rxc7+ Kf8 26 Nf4 with overwhelming play for the sacrificed queen. Re2-f2 may be coming next, bringing another piece into the attack.

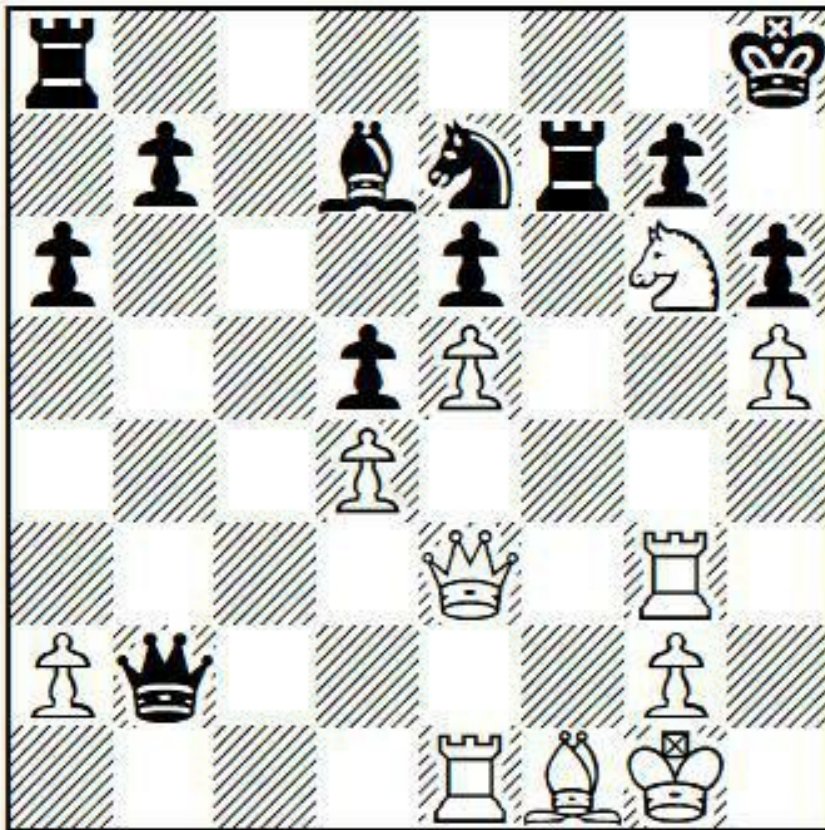
c) 22...Nh7! 23 Qe3 Qe4 24 Qxe4 dxe4 leads to a worse endgame for Black but there are better chances of defending this compared to lines with queens on the board.

**21 Nf4 cxd4 22 cxd4 Bd7 23 Nfg6+?!**

The most direct approach provides Black with one opportunity to defend, but it was missed by both players.

In view of this opportunity, more accurate was 23 Bd3! bringing another piece to the g6-square. One sample line is 23...Bb5 24 Bg6 Nxc6 25 Nxc6+ Nxc6 (25...Kg8 26 Nxf8 Rxf8 27 Nxe6 picks up an important pawn and White's passed e5-pawn becomes a very dangerous asset) 26 hxc6 Re7 27 Rh3 is winning for White, due to the problems that Black will be faced with along the h and f-files.

**23...Nxc6 24 Nxc6+**

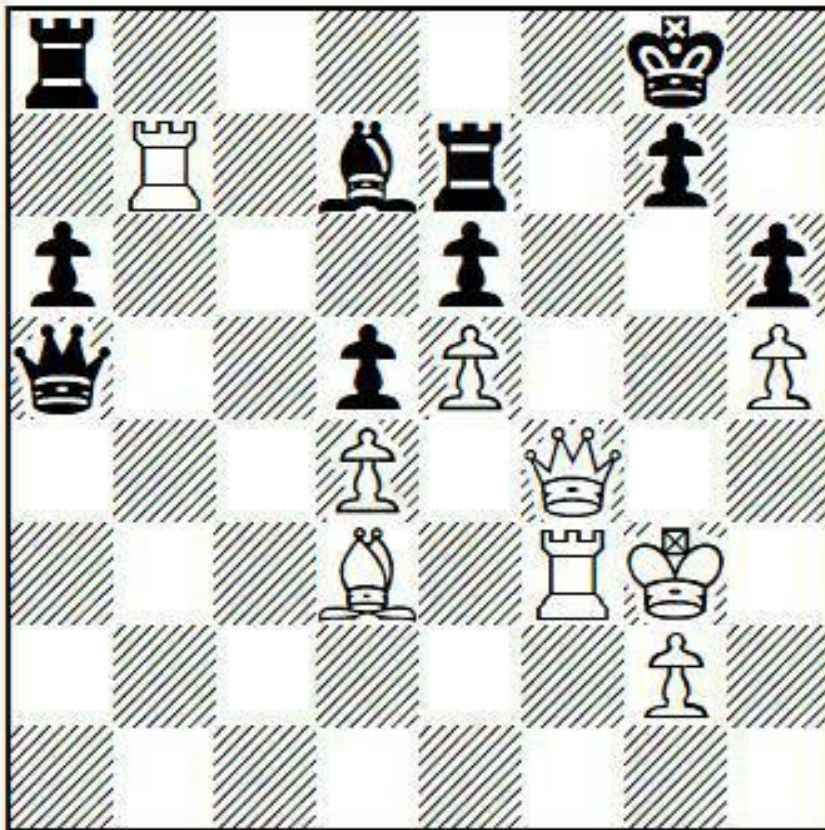


### 24...Kg8?!

Missing a crucial defensive idea. The text leads to a lost position for Black due to the severe kingside weaknesses.

The narrow path to a defence was 24...Nxb6! 25 hxb6 Rff8 26 Rh3 Kg8 27 Rxb6 gxb6 28 Qxb6 and it would be easy to stop calculating here and assume White is winning, but there is 28...Qf2+ 29 Kh1 Rf7 30 gxf7+ Kxf7 31 Re3 Rh8! (not 31...Qxf1+? 32 Kh2 and Rf3+ next) 32 Qxb8 Qxe3 and Black survives.

**25 Nxe7+ Rxe7 26 Bd3 Kh8 27 Rb1 Qxa2 28 Rxb7 Qa4 29 Rf3 Qd1+ 30 Kf2 Kg8 31 Kg3 Qa4 32 Qf4 Qa5**



**33 Kh2**

33 Qg4! intending Qg6-h7 was even stronger.

**33...Qd8 34 Rb1?!**

34 Rb2! and the rook goes to f2 next.

**34...Bb5**

Fighting for the f1-square.

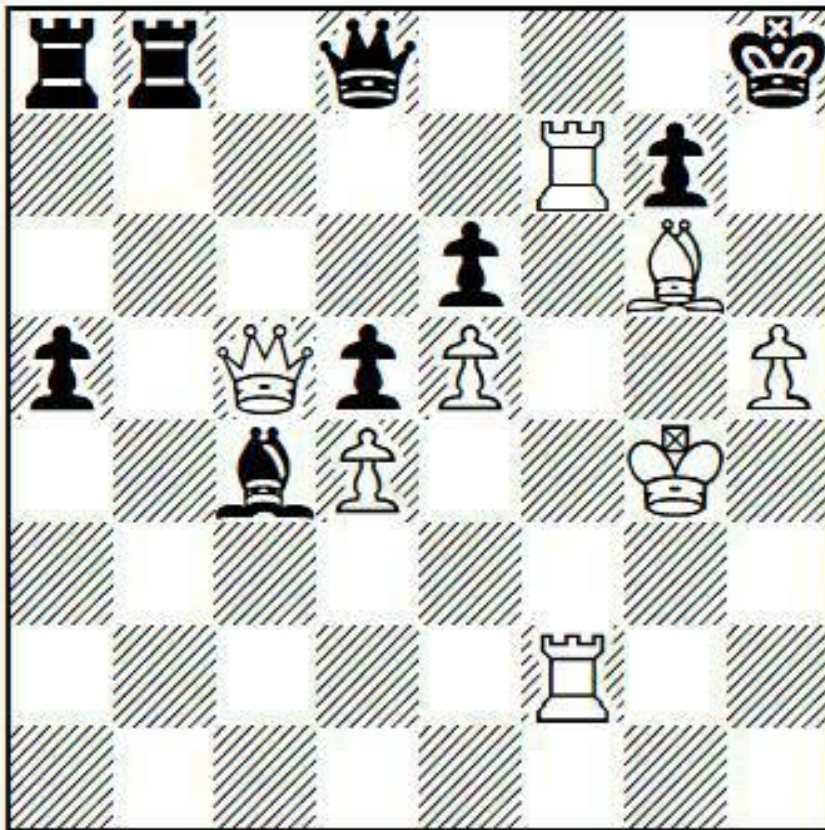
**35 Bg6 Kh8 36 Rb2!**

Admitting the mistake (34 Rb1?!) and heading to f2.

**36...Qg8 37 Rbf2 a5 38 Qc1 Rb7 39 g4!**

The g-pawn advance opens the kingside and decides the game in White's favour.

**39 ... Qd8 40 g5 hxg5 41 Qc5 Rbb8 42 Rf7 g4 43 Kg3 Bc4 44 Kxg4**



White improves his position to the maximum because Black's pieces are stuck defending the back rank.

**44 ... Rc8 45 Qa3 Kg8 46 Qe3 Rc7 47 h6 Rxf7 48 Rxf7 Rb8 49 hxg7 Qb6 50 Qf4 Qb4 51 Kg5 Qa3 52 Kh6 Qh3+ 53 Bh5 1-0**

### **New Ideas in the Winawer**

The French Winawer is one of many opening systems where there is a big disagreement between the older and newer engines. In some of the slower lines, the older engines are very confident in the solidity of Black's setup and will often close the position completely and sit behind their defensive wall. Meanwhile, the newer ones have a much greater understanding of the incremental improvements that White can make in the closed pawn structures. We will see a good example of this gradual improvement strategy in the next game, where White makes progress in an endgame that the older

engines believe is satisfactory for Black.

*Game 45*

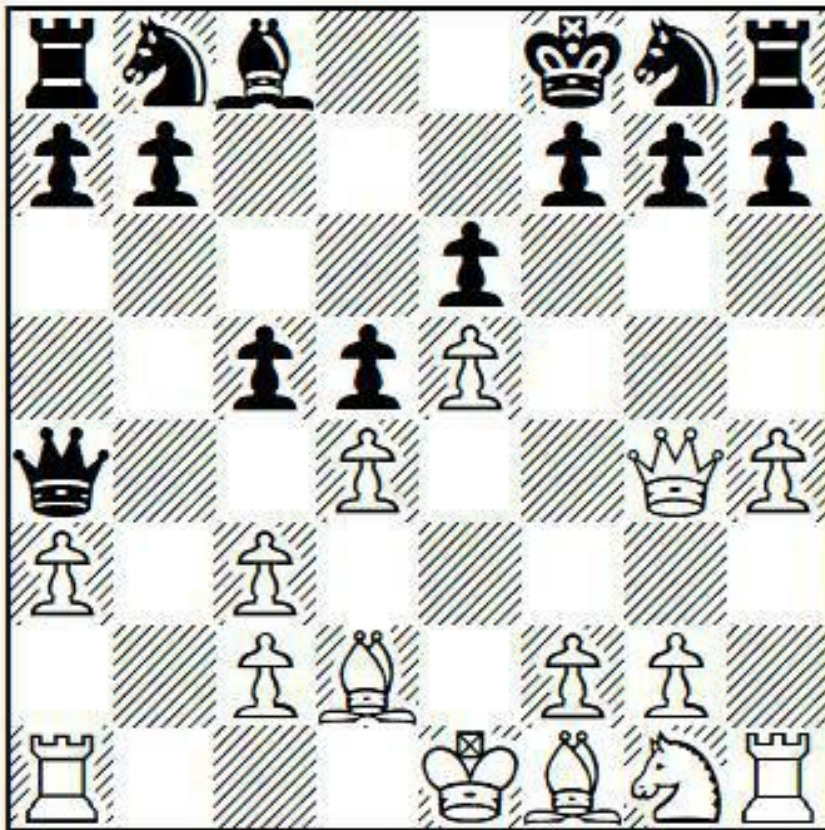
**D.Kollars-G.Meier**

German Masters 2021

**1 e4 e6 2 d4 d5 3 Nc3 Bb4 4 e5 c5 5 a3 Bxc3+ 6 bxc3 Qa5 7 Bd2 Qa4 8 Qg4**

A game between Lc0 and Stockfish saw 8 h4 h6?! (a surprising decision by Stockfish as there is no reason to commit the pawn to h6 already; better is 8 ... Nc6 9 Qg4 Kf8 transposing to the note to Black's 9th move in our main game) 9 Qg4 Kf8 10 Rh3 Ne7 11 Qf4 Ng6 12 Qe3 Ne7 13 h5 c4?! was another poor decision by Stockfish, closing up the centre and giving White a free hand on the kingside. Lc0 developed a crushing advantage after 14 Kd1 Ke8 15 g4 Kd8 16 Rf3 Qe8 17 Qf4 Rf8 18 a4! (playing on both sides of the board) 18 ... b6 19 a5 bxa5 20 Rxa5 f5 21 Bh3 and Black's position was quite sad in Lc0-Stockfish, TCEC (Season 14) 2019.

**8 ... Kf8 9 h4**



### 9 ... Ne7

9 ... Nc6 10 h5 can be met by the natural ... h6 or capturing one of White's hanging pawns:

a) 10 ... Qxc2?! 11 Rc1 and now:

a1) 11 ... Qb2 12 Bd3 c4 13 Bc2 Qxa3 wins two pawns but after 14 Nf3 White's pieces are perfectly setup for a kingside attack with Ng5 and h6 being two immediate threats. If 14 ... h6 then 15 Nh4 Nge7 16 0-0 and f4-f5 next.

a2) 11...Qe4+ doesn't diminish Black's problems because his pawn structure is severely weakened after the exchange of queens, for example, 12 Qxe4 dxe4 13 Ne2 f5 14 g4! (leading to further weakening of Black's pawn structure) 14 ... Nge7 15 gxf5 Nxf5 16 Bg2 h6 17 Bxe4 quickly became a winning endgame in A.Grischuk-H.Tikkanen, Astana 2019.

b) 10 ... Nxe5?! wins a central pawn but gives White a valuable tempo. Play continues 11 Qf4 Nc6 12 h6! gxh6 (12 ... g6 13 Nf3 faces similar

difficulties, the kingside is weakened and Black has a lot of development to catch up on) 13 Qd6+ Ke8 14 Qxc5 Qxc2 15 Rc1 Qg6 16 Ne2 and the knight will find an outpost on h5. Meanwhile, Black's king is stuck in the centre as he falls further behind in development.

c) 10 ... h6 11 Qd1 and practice has seen:

c1) Again, accepting pawn sacrifices is not advisable considering the lack of development and king on f8. F.Caruana-A.Lenderman, Saint Louis 2018, saw White achieve a crushing initiative after 11 ... cxd4? 12 Nf3 dxc3 13 Bxc3 g5 14 hxg6 Qe4+ 15 Be2 Qxg6 16 Qd2 Nge7 17 Bd3 Qxg2 18 Ke2 and activating the two rooks quickly led to victory.

c2) 11...b6 preparing the exchange of bishops is viewed as fully sound for Black by the older engines, but the long-term difficulties of Black's kingside are underestimated. Following 12 Nf3 Ba6 13 Bxa6 Qxa6 14 dxc5 bxc5 15 Qe2! forces Black to make an unpleasant decision between exchanging queens and closing up the centre. C.Salvador Marques-F.Powers Roibal, correspondence 2019 continued 15 ... c4 (15 ... Qxe2+ 16 Kxe2 Nge7 17 Rab1 is clearly better for White due to Black's awkwardly-placed king on f8) 16 0-0 Nge7 17 a4 Kg8 18 Kh2 Kh7 19 g4 Qb6 20 Nh4 and White developed a crushing kingside attack while Black was left without any serious counterplay.

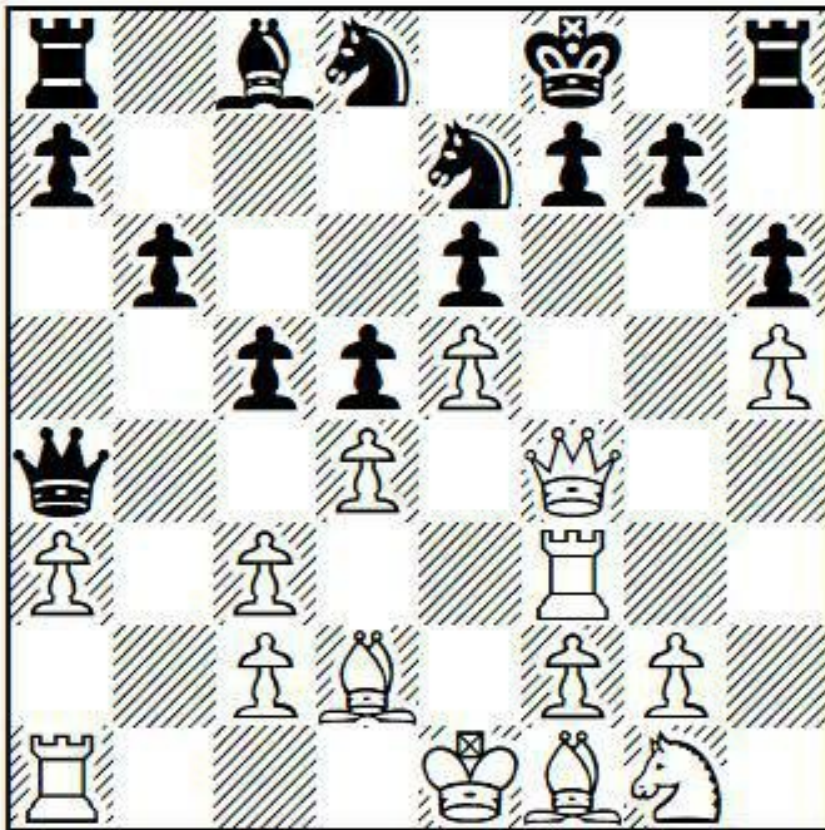
**10 h5 h6 11 Qf4?!**

A more accurate move order is 11 Rh3! discouraging 11 ... Qxc2? (11 ... Nbc6 12 Qf4 transposes to the game) because then 12 Bd3 Qa4 13 Rg3 Rg8 14 Qh4 provides a crushing initiative. Rxc7 is threatened next.

**11 ... b6**

11 ... Qxc2! is playable because of the move order White has chosen. Black is doing fine after 12 Rc1 Qf5 13 Qe3 b6 followed by ... Ba6.

**12 Rh3 Nbc6 13 Rf3 Nd8**



## 14 dxc5

**Question:** It looked like White was creating a powerful kingside attack, why does he want to exchange queens?

**Answer:** Black's queen is the main source of counterplay because it creates threats on the queenside. White wants to eliminate this counterplay and enter an endgame where he has good long-term prospects: the bishop pair, a kingside space advantage, and a clear plan of pushing the g and f-pawns. There were a couple more aggressive alternatives:

a) The sharper 14 c4!? should also be promising for White, although the play is much more concrete and double-edged.

b) An interesting pawn sacrifice is pointed out by the newer engines: 14 Bd3!? c4 15 Be2 Qxc2 (threatening ... Qb2) 16 Bc1! defends against Black's threat and prepares a4 and Ba3. One sample line is 16 ... Qe4 (or 16 ... Bd7 17 Bd1! Qe4+ 18 Ne2 Qxf4 19 Rxf4 Ndc6 20 a4 followed by Ba3 with

excellent long-term prospects on the kingside) 17 Qg3 Ndc6 18 Rf4 Qh7 19 a4 Bd7 20 Ba3 leading to a very unpleasant defence for Black. White can gradually increase the pressure on the kingside and consider playing Bd1-c2 in the future.

#### **14 ... Qxf4**

The daring 14 ... Qxc2? 15 Bd3 Qb2 16 Rb1 Qxa3 17 cxb6 axb6 was seen in Ju Wenjun-A.Kashlinskaya, Skolkovo 2019, and now 18 c4! threatening Bb4 is extremely dangerous to face. For example, 18 ... Nec6 19 Ne2 Qe7 20 Rg3 and the pressure builds up on the kingside while it isn't clear how Black will try to fight back.

#### **15 Rxf4**

The other recapture was favoured by Lc0 in a game against Stockfish. After 15 Bxf4 bxc5 16 Be3! is important to provoke the weakening of Black's pawn structure. The game continued 16 ... c4 (16 ... Ndc6 removes the strong e5-pawn but leads to a very passive position after 17 Bxc5 Nxe5 18 Re3 Nd7 19 Bd6 Ke8 20 Bd3 and Black is struggling to find active play) 17 Rh3 f6 18 f4 fxe5 19 fxe5 Nf7 20 Nf3 Nc6 21 Bf4 Ke7 22 Rg3 Rg8 23 Be2 Bd7 24 Kd2 Rab8 25 Nd4 was clearly better for White in Lc0-Redfish (enhanced Stockfish), TCEC 2019. Later, the e6-pawn was targeted with Rg6 and Bg4.

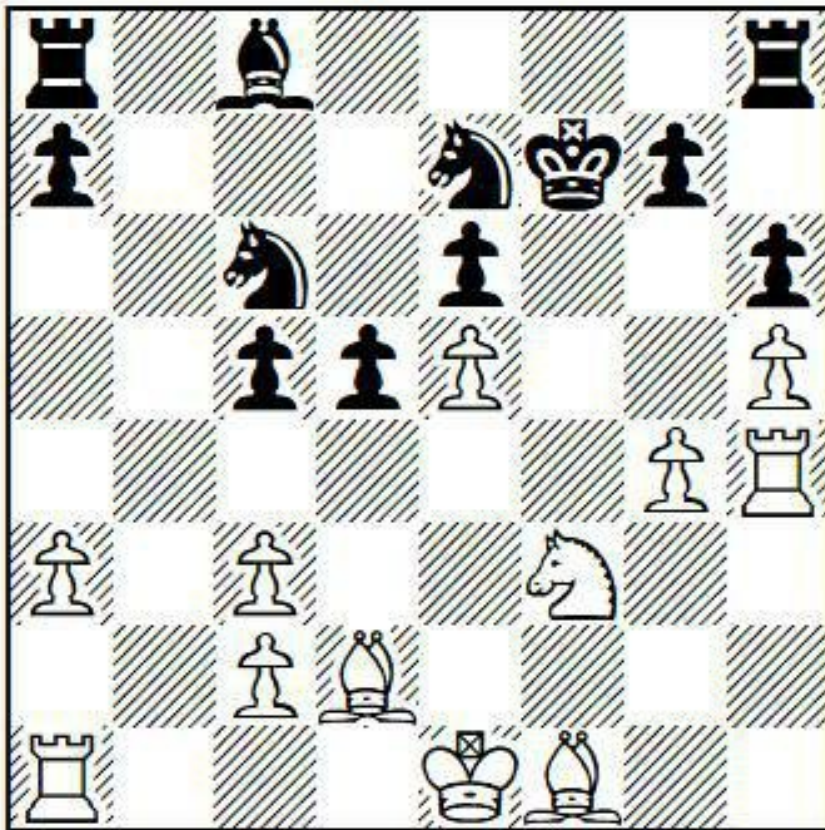
#### **15 ... bxc5 16 Rh4 Ndc6**

16 ... c4 17 f4 Ke8 is a slightly different defensive setup, although the problems remain the same for Black after 18 g4 f6 19 Nf3 Nf7 20 0-0-0 and Be2 and Rg1 come next, preparing an eventual g5.

#### **17 f4 f6**

Without this break, White would carry out the same plan: 17 ... Rb8 18 Nf3 Ke8 19 g4 followed by developing and preparing further advancements on the kingside.

#### **18 Nf3 Kf7 19 g4 fxe5 20 fxe5**



The endgame is a very difficult one for Black. He is struggling to finish development and coordinate his pieces, while White can break through at any moment with g5 and create threats on the kingside.

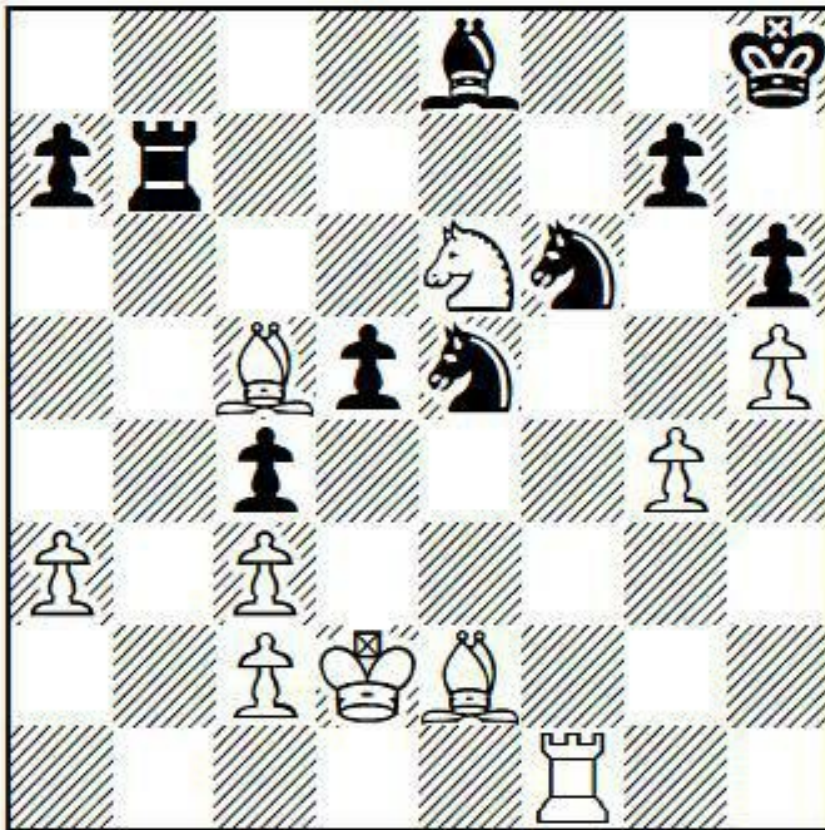
**20 ... Rf8 21 0-0-0 Kg8 22 Rh3 Bd7 23 Be2**

23 g5! here or sometime over the next couple moves was stronger to immediately open the kingside.

**23 ... c4 24 Rg1 Rab8 25 Rhg3 Rb7 26 Be3 Be8 27 Kd2 Kh7 28 Rf1 Kh8 29 Rgg1 Ng8 30 Bc5**

More accurate was 30 Rb1 fighting for control of the open b-file.

**30 ... Rf4 31 Nd4 Rxf1 32 Rxf1 Nxe5 33 Nxe6 Nf6**



The situation has clearly improved for Black with the removal of White's e5-pawn but a long and unpleasant defence is still required.

**34 Bd4 Re7 35 Bxe5 Ne4+?!**

35 ... Rxe6! would have made it much more difficult for White to bring the f1-rook into the game. For example, 36 Bxf6 (36 Bd4 Ne4+ 37 Kc1 Kg8! is very important; the key difference compared to the game is that White's rook cannot easily activate) 36 ... gxf6 37 Rb1 activates the rook but at the cost of the strong dark-squared bishop. Advancing the a-pawn with 37 ... a5 38 Rb7 a4 leads to a drawn endgame.

**36 Kd1 Rxe6 37 Rf8+ Kh7 38 Bd4 Re7 39 Bf3 a6 40 Kc1 Bf7?**

The last mistake, allowing White's rook to become even more powerful on a8.

40 ... Bc6 keeps the bishop as a defender on the queenside to protect the a6-pawn.

**41 Ra8 Ng5 42 Bd1 Re6 43 a4! Ne4 44 a5**

The a-pawn is the decisive factor in White's victory.

**44 ... Ng5 45 Ra7 Kg8 46 Bb6 Ne4 47 Kb2 Rf6 48 Rxa6 Rf1 49 Ra8+ Kh7 50 a6 Rxd1 51 a7 Nd2 52 Rb8 1-0**

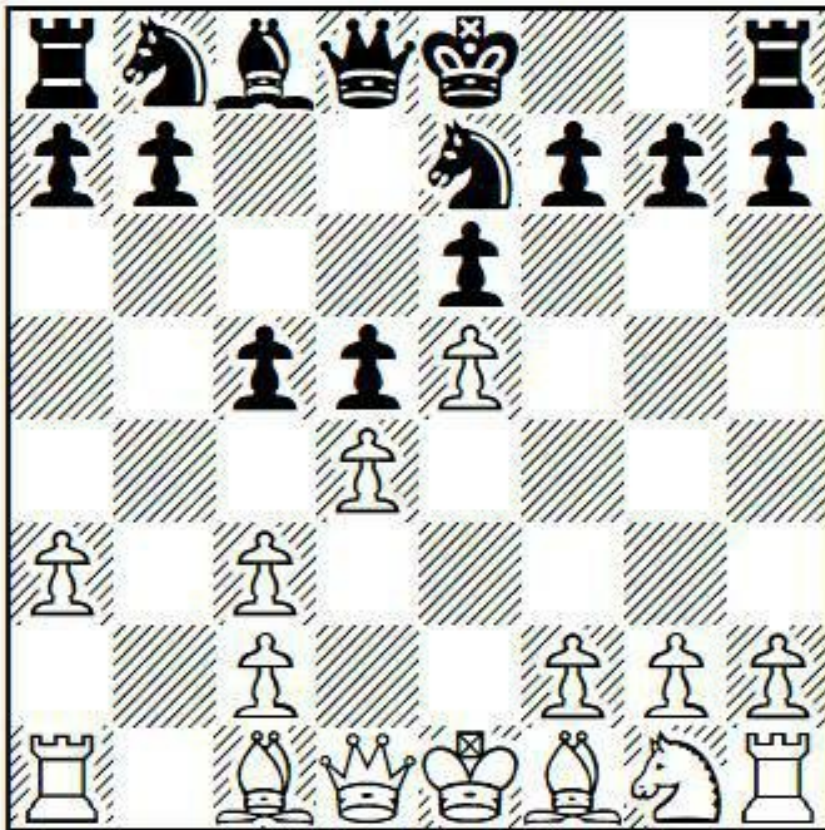
In a crucial Round 7 matchup at the 2020-21 Candidates, MVL played the neural network engines' favourite approach against Nepomniachtchi's Winawer. Nepomniachtchi's response may be fully sound, but the arising closed positions contain many long-term dangers for Black to deal with as MVL expertly demonstrates in the game.

*Game 46*

**M.Vachier Lagrave-I.Nepomniachtchi**

FIDE Candidates 2020-21

**1 e4 e6 2 d4 d5 3 Nc3 Bb4 4 e5 c5 5 a3 Bxc3+ 6 bxc3 Ne7**



### 7 h4!?

The Winawer Poisoned Pawn lines after 7 Qg4 cxd4 8 Qxg7 (or 8 Bd3) 8 ... Rg8 9 Qxh7 Qc7 lead to sharp and theoretical play.

### 7 ... Qc7

7 ... Qa5 8 Bd2 Qa4 looks very similar to our previous game. In fact, 9 h5 h6 (9 ... b6 is risky because of 10 h6 creating dark-squared weaknesses on Black's kingside) 10 Qg4 Kf8 is a direct transposition.

### 8 h5 h6

A game between AlphaZero and Stockfish saw 8 ... cxd4?! 9 cxd4 Qc3+ 10 Bd2 Qxd4 11 Nf3 Qe4+ 12 Be2 when Black has an extra pawn but is lagging behind in development and the queen is clearly misplaced on e4. White obtains a powerful initiative after 12 ... Nf5 13 Rb1! (a nice prophylactic idea against ... b6, but also good is 13 Kf1 b6 prepares to meet 14 Bd3 with 14 ... Ba6, so White should play 14 Bb5+ Nd7 15 Rh3 and after the king is tucked away safely on g1, there are many different attacking ideas, such as Bd3,

Rb1-b4, and possibly Ng5) 13 ... Nc6 (13 ... b6? as in A.Pichot-M.Lagarde, Biel (rapid) 2021, loses to 14 Rb4! d4 15 g4! Qxg4 16 Ng5 Qg2 17 Bf3 trapping the queen) 14 Kf1 Nxe5 15 h6! gxh6 16 Nxe5 Qxe5 17 Bd3 Rg8 18 Rh5 Qg7 19 Qf3 with excellent compensation for the three(!) pawns in AlphaZero-Stockfish 8, London 2018.

### **9 Rb1!**

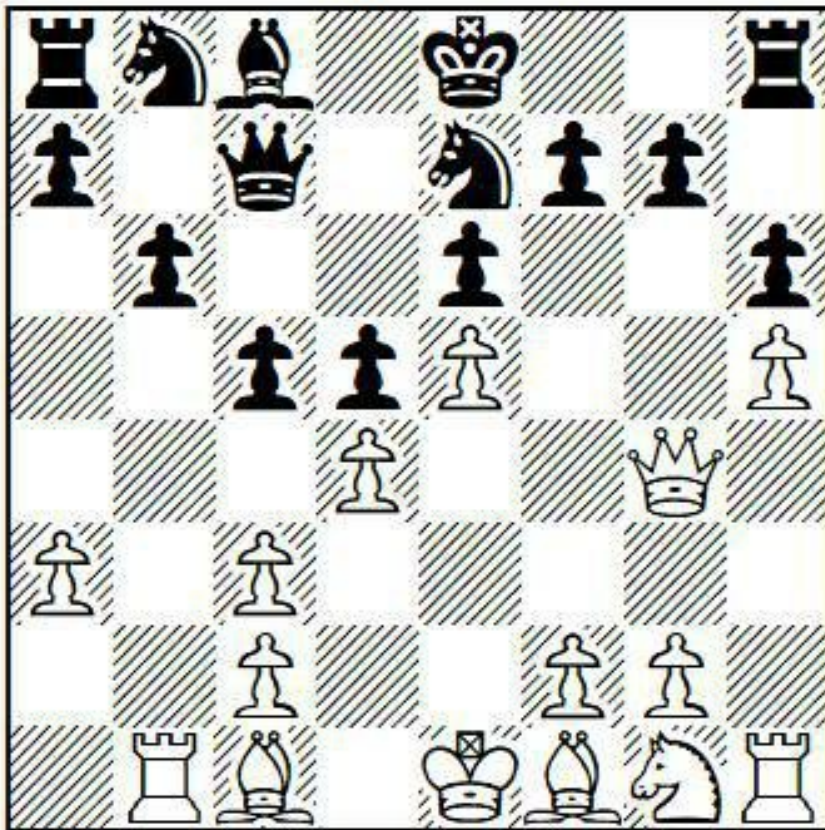
A rare and very dangerous idea which was first employed by Peter Leko in the 2015 FIDE World Cup. This idea should not have come as a surprise to Nepomniachtchi, considering that Leko was one of his seconds for the 2020-21 Candidates tournament. Additionally, it is one of the top recommendations by the newer engines against the Winawer. The idea is to develop the queen to g4 without having to worry about Black's threat of ... cxd4 cxd4 Qc3+!

The developing 9 Nf3 either here or on move 8 used to be the main way for White to play the 7 h4 system.

### **9 ... b6**

We will focus on the fashionable 9 ... b6, though it should be noted that 9 ... Nbc6 is a playable alternative.

### **10 Qg4**



A modern tabiya of the 7 h4 variation has been reached.

### 10 ... Rg8

Three other moves have been tried:

a) The sharper 10 ... cxd4! is more in the spirit of the Winawer Poisoned Pawn and will be analyzed in the next game.

b) 10 ... Nf5?! is certainly not the best way of defending g7. White can play 11 Bb5+ Kf8 (11 ... Nc6 12 Nf3 Bd7 13 Bd3 0-0 14 Qf4 with a clear advantage in M.Bartel-M.Petr, Czech Republic 2016) 12 a4! Ba6 13 Ne2 Bxb5 14 axb5 Nd7 15 Qf4 followed by Rh3 and g4 with excellent kingside play.

c) Some older engines are quite confident in 10 ... Kf8?! but this could lead to major problems for Black in the long run. Play continues 11 Rh3! Ba6 12 Rf3 Nf5 (12 ... cxd4?! 13 cxd4 and it is very important that Black's king is misplaced on f8 because this gives White the threat of Qxe6, for example 13 ... Bxf1 14 Qxe6! wins) 13 Bxa6 Nxa6 14 Ne2 Kg8 15 Qh3 intending g4-g5

looks incredibly dangerous for Black.

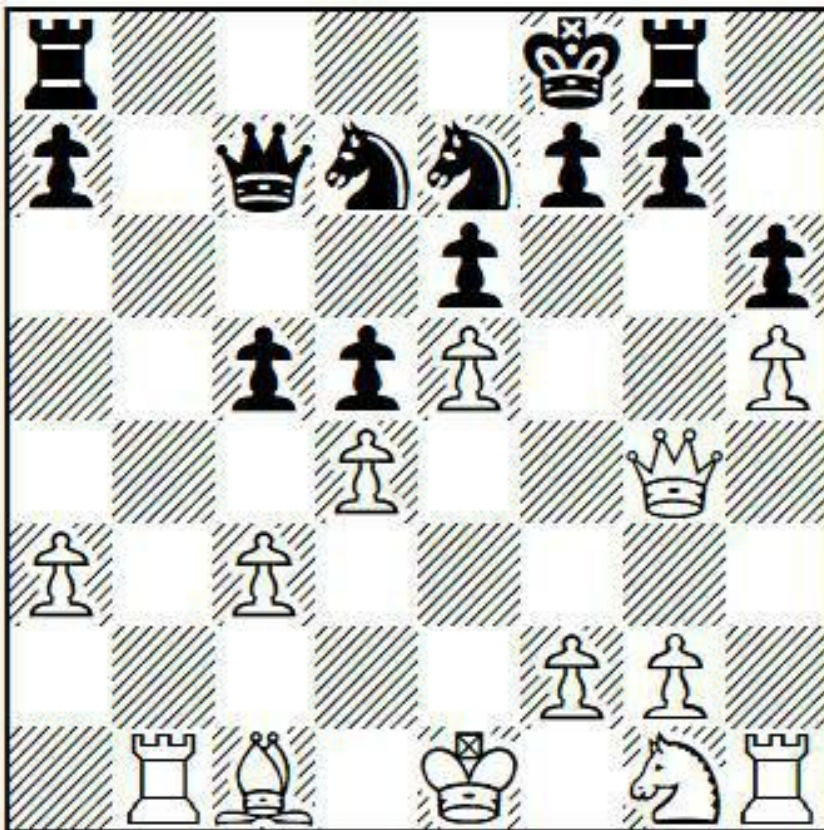
**11 Bb5+ Kf8!**

If Black had blocked the check with one of his minor pieces, he would not be able to play ... Ba6.

**12 Bd3 Ba6 13 dxc5 Bxd3**

13 ... Qxe5+ 14 Ne2 Bxd3 15 cxd3 Nd7 16 cxb6 axb6 17 Qb4 puts Black under a lot of pressure on the b4-f8 diagonal. White can increase the pressure by activating the c1-bishop via f4-d6 or by playing a4 and Ba3.

**14 cxd3 Nd7 15 d4 bxc5**



**16 Qd1**

All of White's pieces are placed on the back rank but Black has some long-term structural weaknesses and a misplaced king on f8.

16 Ne2 is another challenging idea for Black to face. A later rapid game between the same two players continued 16 ... Rb8 17 Rxb8+ Qxb8 18 0-0 and now:

a) 18...c4 and MVL found a nice rook maneuver with 19 Rd1 Qb1 20 Rd2! Nb6 21 Rb2 Qd3 22 Bd2 Ke8 23 Nf4 when Black was in a lot of trouble in M.Vachier Lagrave-I.Nepomniachtchi, internet 2020.

b) 18 ... Qb5 avoids closing the pawn structure but White obtains excellent play after 19 dxc5 Qxc5 20 Be3! Qxa3 21 Nd4 because Black's kingside is undeveloped.

**16 ... Qa5 17 Bd2 Rb8**

17 ... Qxa3 is very dangerous because Black is already quite far behind in development. After 18 Ne2 Qa6 19 0-0 followed by f4 and Be3 it is difficult to see how Black intends to fight for counterplay.

**18 Ne2 c4?**

Locking the pawn structure like this in the centre was certainly welcomed by MVL. The idea is to bring the king over to the queenside and double rooks on the b-file, but Black isn't in time to do this.

18 ... Rxb1 19 Qxb1 Qa6! ties down White's king to the defence of the e2-knight. Finally Black will be able to develop the kingside with either ... f6 and ... Kf7, or by bringing the king over to the queenside. For example, 20 f3 Ke8! 21 Kf2 Kd8 and after ... Kc7 Black is okay.

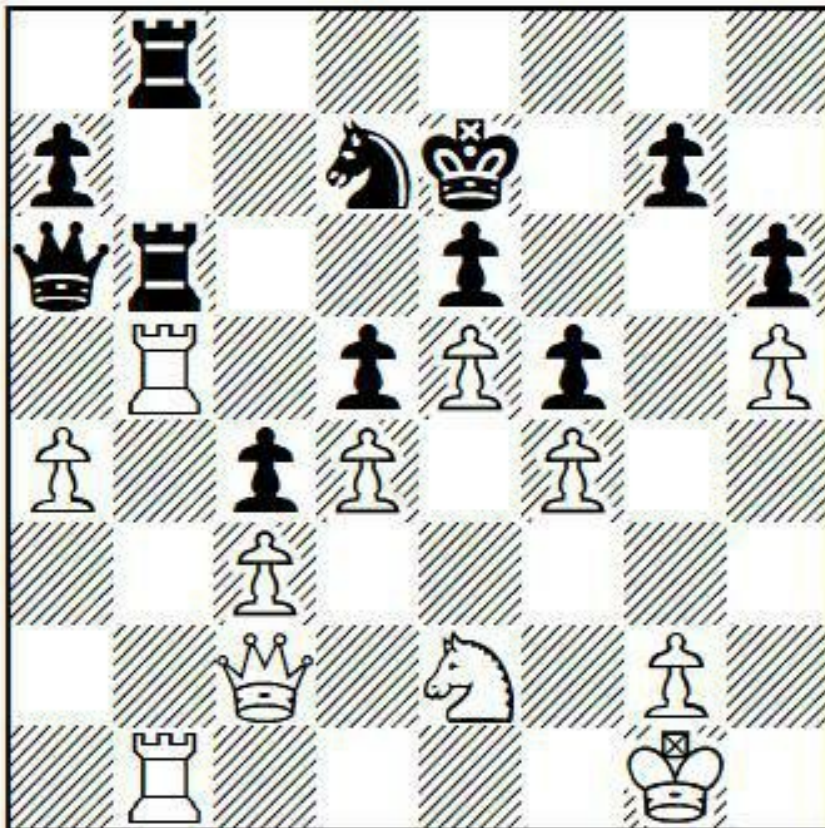
**19 0-0 Rb6 20 Qc2 Rh8 21 a4 Ke8 22 Rb4 Nc6 23 f4!**

Ignoring Black's threat of taking on b4.

**23 ... Ne7**

As pointed out by MVL, 23 ... Nxb4 runs into 24 cxb4 Qa6 25 b5 Qc8 26 f5 followed by Bb4 with complete dominance over the dark squares.

**24 Rfb1 f5 25 Rb5 Qa6 26 Bc1! Kf7 27 Ba3 Rhb8 28 Bxe7 Kxe7**



*Exercise:* How does White continue?

**Answer: 29 g4!**

Forcing Black to make a concession on the kingside.

**29 ... Rxb5 30 axb5 Rxb5 31 gxf5**

The other move order 31 Rxb5 Qxb5 32 gxf5 Qb3! creates some counterplay.

**31 ... Rxb1+ 32 Qxb1 exf5 33 Ng3!**

33 Qxf5 Qe6 and the Black queen will cause some problems on the kingside.

**33 ... Qb6 34 Nxf5+ Kf8 35 Qa1 Qe6 36 Ng3 Qg4 37 Kg2**

The knight serves as the ideal defender for White's king, ensuring that Black will never have the opportunity to give perpetual check.

**37 ... Qxf4**

37 ... g6 38 Qa3+ Ke8 39 Qd6 gxf5 40 e6 and White's queen plus the f and

e-pawns are too much for Black's king to handle.

**38 Qxa7 Ke7 39 Qa3+ Kd8 40 Qd6 g5 41 hxg6 h5 42 g7 1-0**

*Game 47*

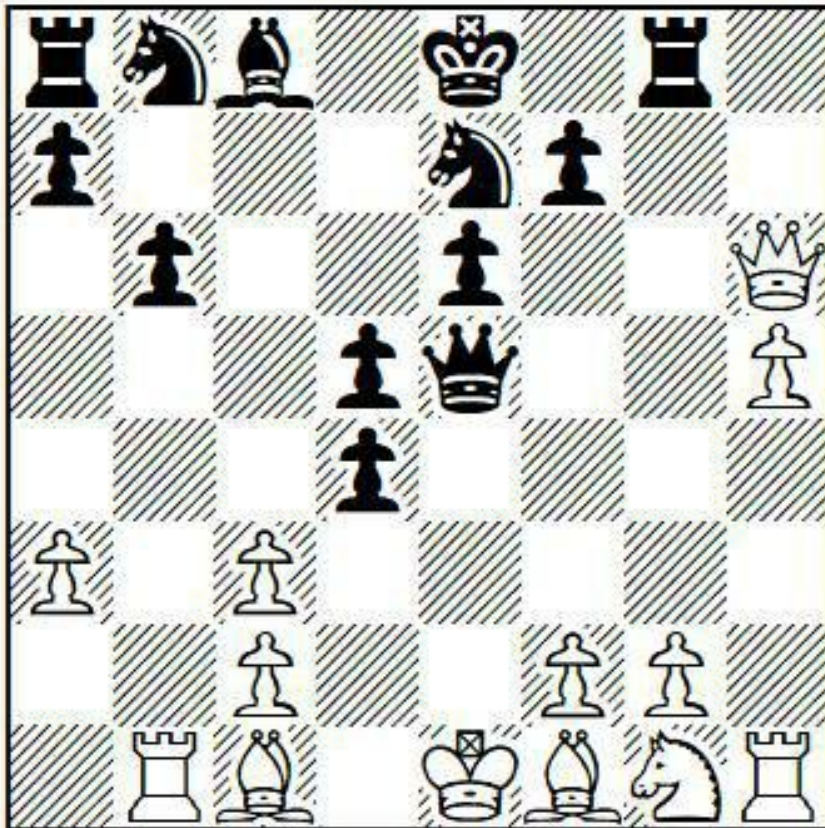
**Lc0-Stockfish**

TCEC 2020

**1 e4 e6 2 d4 d5 3 Nc3 Bb4 4 e5 c5 5 a3 Bxc3+ 6 bxc3 Ne7 7 h4 Qc7 8 h5 h6 9 Rb1 b6 10 Qg4 cxd4!**

This concrete move is Black's best attempt at equalizing against the 9 Rb1! line.

**11 Qxg7 Rg8 12 Qxh6 Qxe5+**



**13 Ne2**

13 Kd1!? retains the idea of developing the knight to the more active f3-square. Play continues 13 ... dxc3 14 Nf3 Qh8 15 Qxh8 Rxh8 16 Bg5 creates the strong threat of Bf6, so Black must respond precisely with 16 ... Ng8! 17 h6 f6 18 h7 fxg5 19 hxg8Q+ Rxg8 20 Rh7 leading to an unpleasant-looking endgame for Black. However, if he manages to develop his pieces on the queenside (perhaps starting with 20 ... Ba6) then it should be fine.

### **13 ... dxc3 14 Bf4**

A very challenging try which has featured in several games of Lc0 (with both colours).

14 Qf4 is very natural and has been seen in a couple high level rapid games. After 14 ... Qxf4 15 Bxf4 Black has:

a) 15 ... Ba6!? 16 Rb3 (16 Nxc3 gives up the bishop pair advantage, 16 ... Bxf1 17 Kxf1 Nbc6 leads to a completely fine endgame for Black) 16 ... Bxe2 17 Bxe2 d4 is Black's idea, holding on to the c3-pawn. Despite the extra pawn, the arising endgames are quite tricky for Black to play due to the strong bishop pair and passed h-pawn.

b) 15 ... Nbc6 16 Nxc3 e5 17 Bd2 Bf5 reaching a very unbalanced endgame. In return for White's bishop pair and kingside pawns, Black has excellent control over the centre. Two moves have been tried:

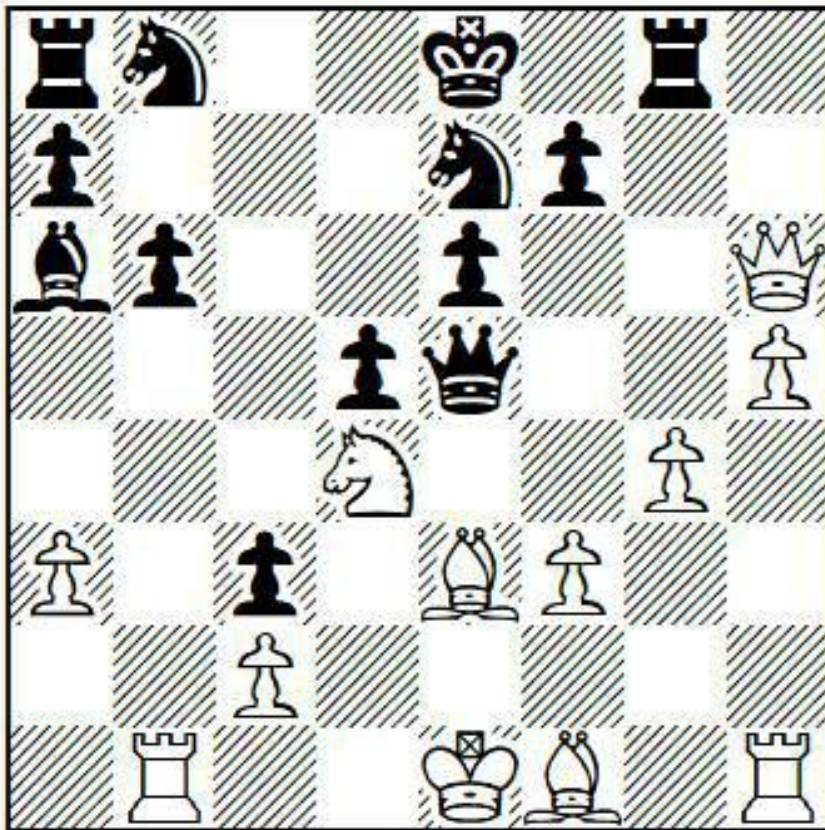
b1) 18 f3!? was tried in F.Caruaana-I.Nepomniachtchi, internet 2020. Black obtains good play after 18 ... Nd4 (18 ... Bxc2? 19 Rc1 Bb3 20 h6 and the kingside pawns roll forward) 19 Kf2 Rc8 20 Rb2 Kd7 and ... Bxc2 is threatened next.

b2) 18 Rb2 f6 (stronger is 18 ... Kd7! followed by ... Nd4 and ... Rac8) 19 f3 Nd4 20 Nb5 Nxb5 21 Bxb5+ Kf7 22 Kf2 led to a somewhat better endgame for White in A.Esipenko-A.Shimanov, internet 2021, although it isn't easy to play against Black's strong centre.

### **14 ... Qf5**

14 ... Qe4 was Lc0's choice in a game where it was forced to play the Black side of a Winawer. White continued by chasing the queen around: 15 Rb4! Qxc2 16 Rh3! e5 17 Rxc3 Qf5 18 Ng3 Qe6 19 Qxe6 Bxe6 leading to an endgame where Black is under serious pressure, but Lc0 was confident in its ability to hold the game. Following 20 Bb5+ Bd7 21 Bxe5 Nbc6 22 Rxc6 Nxc6 23 Bxc6 Bxc6 24 Bf6 (24 h6! is a better try, threatening Bg7 and Nh5-f6) 24 ... Kd7 Black didn't encounter any difficulties in Scorpio-Lc0, TCEC 2021.

### **15 Nd4 Qe4+ 16 Be3 Ba6 17 f3 Qe5 18 g4**

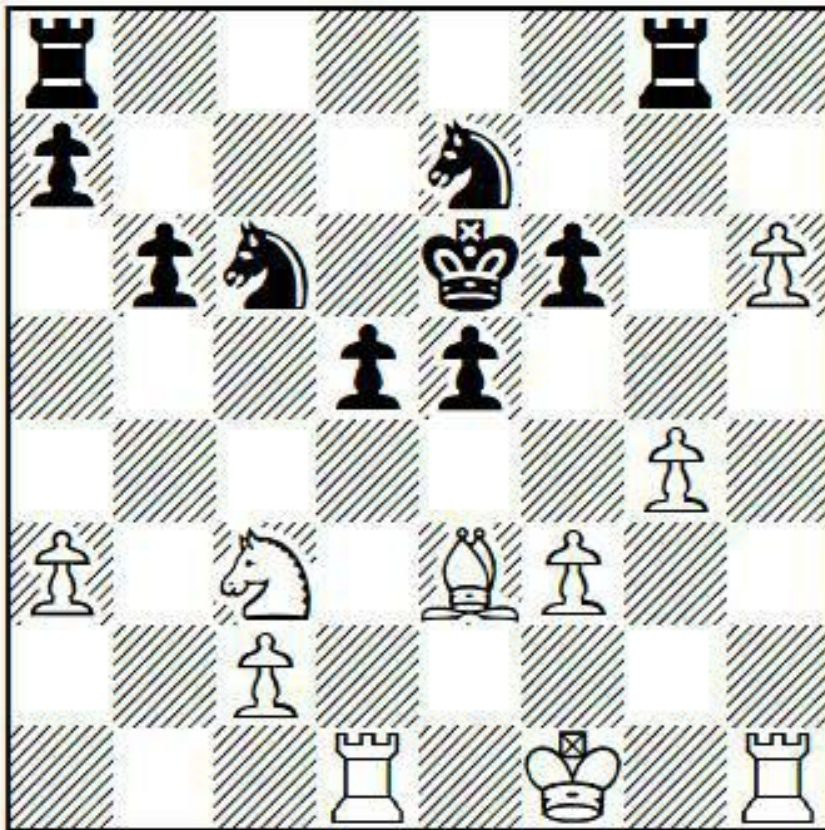


Black should decide between keeping the middlegame complicated with 18 ... Bxf1 or entering the endgame after 18 ... Qg3+.

**18 ... Qg3+**

One correspondence game continued 18 ... Bxf1 19 Kxf1 Nbc6 20 Rd1 Nxd4 21 Bxd4 Qg3 22 Qe3 and Black's position is very dangerous and difficult to play, but with accurate defensive play, he managed to hold in A.Donchenko-H.Tauber, correspondence 2020.

**19 Bf2 Qe5+ 20 Qe3 Qxe3+ 21 Bxe3 Bxf1 22 Kxf1 Kd7 23 h6 e5 24 Nb5 f6 25 Rd1 Nbc6 26 Nxc3 Ke6**



The resulting endgame is typical for the French Winawer and comparable to the ones we have seen in the 14 Qf4 variation. White has a strong passed h-pawn, while Black has excellent central control and a setup without any clear weaknesses.

**27 Ne2**

Lc0 decides to keep the h-pawn on h6 and doesn't manage to pose any problems for Stockfish's defence.

If White wants to try to make progress, then the h-pawn should be advanced: 27 h7! Rh8 28 Rh6 Raf8 29 f4 (or White can play less directly with 29 Rd2!? preparing to swing the rook over to the h-file eventually) 29 ... d4 30 Ne4 leads to a very tactical and concrete position. Stockfish would have held this endgame, but practically speaking, these endgames and all the lines after 14 Bf4 are rather dangerous for Black to play.

**27 ... Rh8 28 Kf2 Rac8 29 c3 Rcg8 30 Rh5 Na5 31 Rg1 Rh7 32 a4 Nc4**

**33 Bc1 Kf7 34 Rgh1 Nd6 35 Rd1 Ke6 36 Re1 Kf7 37 Rf1 ½-½**

In terms of opening theory, the conclusion that can be drawn from these past two games is that 10...cxd4 is likely the best attempt at equalizing against the neural network engines' favourite 9 Rb1! line. It leads to very concrete play and dynamic endgames but Black is holding his own, as Lc0 and Stockfish both demonstrated.

### **Alekseenko's Caro-Kann Pawn Sacrifice**

Finally, the chapter concludes with a pawn sacrifice in the Caro-Kann, which takes place in a similar pawn structure to some of the other games that we saw. The purpose of this pawn sacrifice is to fight for control over the c5-square and obtain a long-term positional advantage. Alekseenko carries out his plan flawlessly and wins a model endgame.

*Game 48*

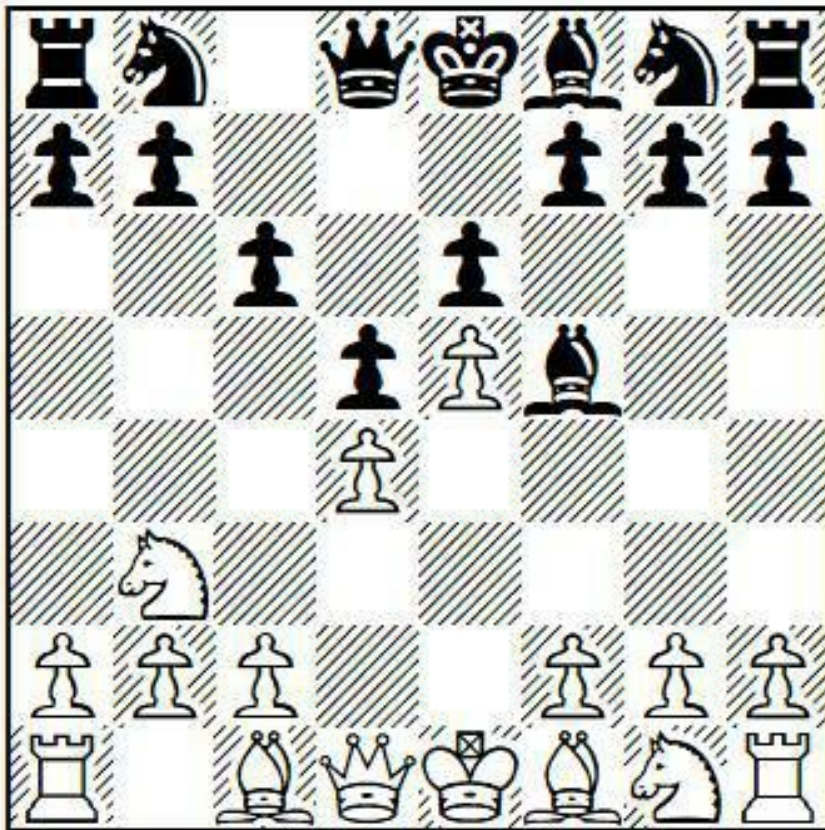
**K.Alekseenko-S.Sjugirov**

Russian Team Championship 2021

**1 e4 c6 2 d4 d5 3 e5 Bf5 4 Nd2**

The point of White's move order is to sidestep the ... c5 variations after 4 Nf3 e6 5 Be2 c5! or 5 ... Ne7 6 0-0 c5!

**4 ... e6 5 Nb3**



### 5 ... c5

A popular approach, ignoring White's attempt at discouraging ... c5. However, it is unlikely to remain popular after this game, considering the strength of Alekseenko's idea. Others:

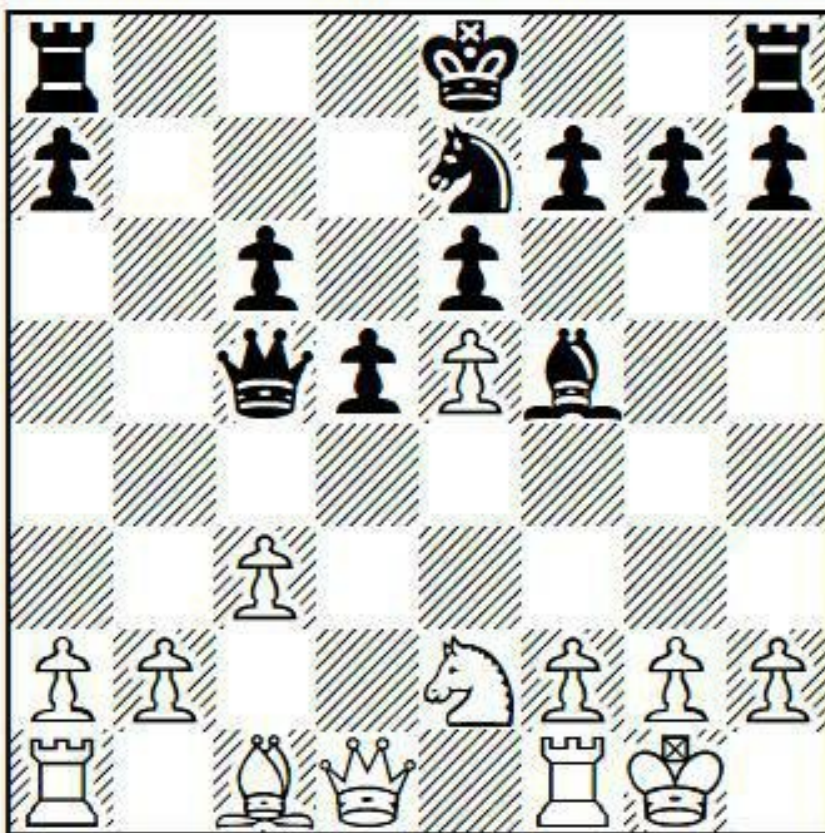
a) In view of the pawn sacrifice in this game, Erwin I'Ami recommends 5 ... a6!? in his course, *Lifetime Repertoires: Caro-Kann*. 6 Nf3 (or 6 Be3 Nd7 7 Nf3 Rc8 and ... c5 next) 6 ... c5 7 dxc5 Bxc5 8 Nxc5 Qa5+ 9 c3 Qxc5 leads to a typical middlegame for the 4 Nd2 line. White has the bishop pair and is fighting for a small edge, but Black's setup is perfectly sound.

b) 5 ... Nd7 6 Nf3 c5 (note that 6 ... Ne7 7 Be2 would transpose to some of the slower main lines in the 4 Nf3 e6 5 Be2 variation) is another way of carrying out the ... c5 break. One game continued 7 dxc5 Bxc5 8 Nxc5 Nxc5 9 Nd4 Ne7 10 Bb5+ Nd7 11 Bg5 Bg6 12 h4! h6 13 Bxe7 Qxe7 14 h5 with a space advantage and a comfortable edge in A.Giri-A.Macovei, Batumi 2019.

### 6 Bb5+!

Many games have continued along the lines of 6 dxc5 Bxc5 7 Nxc5 Qa5+ 8 c3 Qxc5 9 Be3 (or 9 Nf3 Ne7 10 Nd4 and soon f4 reaches a similar structure) 9 ... Qc7 10 f4 Ne7 11 Nf3 Nbc6 12 Be2 0-0 13 0-0 and White has good chances for a slight advantage in these types of positions, but Black is holding his own in practice. Alekseenko's idea is far more dangerous and poses major strategic problems right out of the opening.

**6 ... Nc6 7 dxc5 Bxc5 8 Bxc6+ bxc6 9 Nxc5 Qa5+ 10 c3 Qxc5 11 Ne2 Ne7 12 0-0**



A key part of the middlegame centers around control over the c5-square. If Black is able to play ...c5, then he will likely solve his problems completely. Therefore, White must play energetically to prevent it from happening.

12 Be3?! Qc4 13 0-0 Bd3 and the exchange of minor pieces after ... Bxe2 reduces White's positional pressure and leads to a roughly balanced position.

**12 ... a5**

The older engines generally believe that Black's position is completely

sound after this move, while the newer ones strongly disagree.

The natural 12 ... 0-0 cedes control of the c5-square after 13 Be3 Qb5 14 b4! when Black must be careful to avoid being crushed positionally:

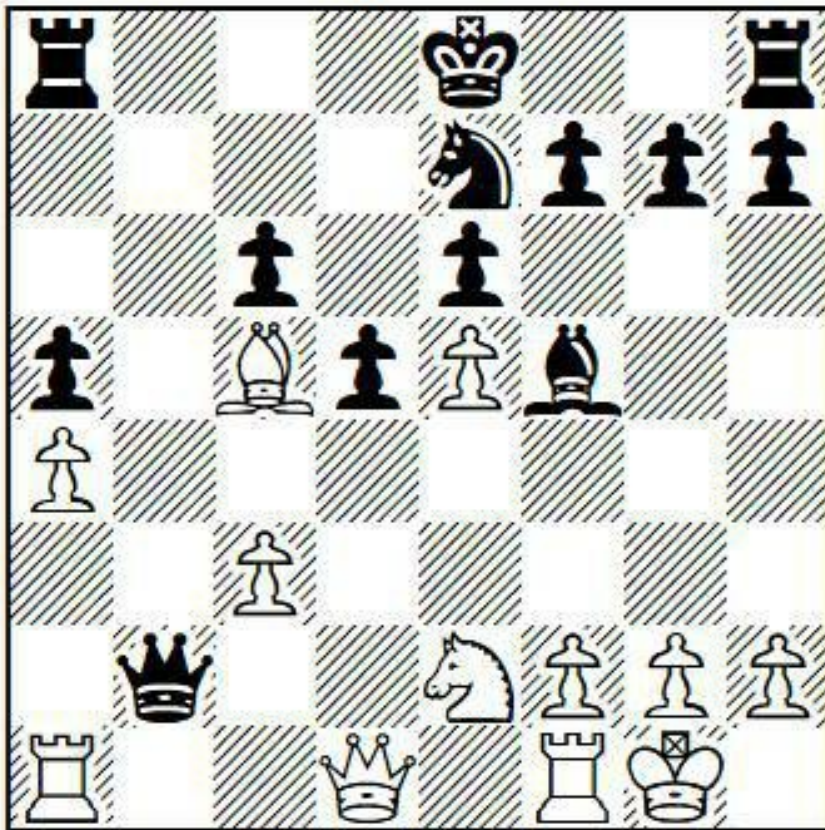
a) 14 ... Ng6 15 Bc5 Rfc8 16 Nd4 Qc4 17 g4! leads to very sharp play where the complications should work in White's favour. For example, 17 ... Be4 18 f3 Bd3 19 Re1 a5 20 Qd2 and the Black bishop is a bit stuck on d3.

b) 14 ... Bd3 15 Nd4! (the alternative 15 Re1 Bxe2 16 Rxe2 also promises an edge because of the c5-square; however, 15 Nd4! is more direct and challenging) 15 ... Qc4 16 Re1 Qxc3 (16 ... c5 prevents White from placing a minor piece on c5 but 17 bxc5 is a full extra pawn for White) 17 Rc1 Qa3 18 Nb3 (eyeing the c5-square) 18 ... Bc4 19 Bc5 Rfe8 20 Na5 Qxa2 21 h4! and White has overwhelming compensation for the two sacrificed pawns. Black is lacking a plan and the queen is completely out of the game on a2. Meanwhile, White's minor pieces are perfectly placed and a kingside attack will soon be launched.

**13 Be3 Qb5 14 a4!**

A powerful pawn sacrifice by Alekseenko.

**14 ... Qxb2 15 Bc5**



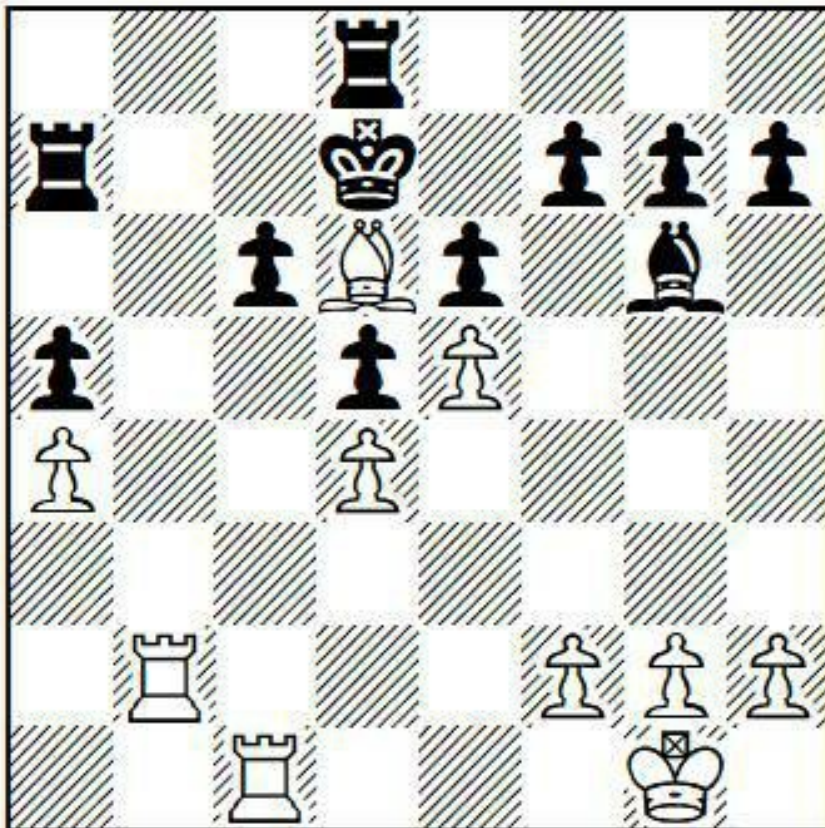
### 15...Qc2

The line 15 ... Qb7 16 Nd4 0-0 17 g4! Bg6 18 h4 h6 19 h5 Bh7 20 Qf3 was mentioned by l'Ami, when White builds up a crushing kingside attack with Rae1, Kh2, Rg1, and eventually g5.

### 16 Qxc2 Bxc2 17 Nd4 Bg6

The bishop could also retreat to another diagonal with 17 ... Bd3 18 Rfd1 Ba6 although White has a very clear plan of making progress here. First one of the rooks can be activated on the b-file, for example, 19 Rdb1 Kd7 20 Rb6 Rhc8 21 f4 and the kingside pawns advance, when White will eventually find the opportunity to breakthrough. Another idea is to maneuver the minor pieces further into Black's position with Nb3, Bd6, and Nc5.

### 18 Ra2 Nf5 19 Rb2 Nxd4 20 cxd4 Kd7 21 Bd6 Ra7 22 Rc1 Rd8



*Exercise:* How does White make progress in this endgame?

**Answer: 23 h4!**

The key idea is to attack on both sides of the board and create more problems for Black to solve.

**23 ... Bd3 24 Bc5 Rc7 25 Rc3 Bc4 26 Rg3 g6 27 Rf3 Ke8 28 h5!**

Creating a second opening.

**28 ... gxh5 29 Rg3 Kd7 30 Rg7 Kc8 31 Bd6 Rb7 32 Rxb7 Kxb7 33 Rxf7+**

Picking up Black's central pawns and obtaining a pair of passed pawns (e and f-pawns). The Black rook is completely dominated on d8.

**33 ... Ka8 34 Re7 Bb3 35 Rxe6 Bxa4 36 Rf6 Kb7 37 Rf7+ Ka6 38 f4 Bc2 39 f5 Be4 40 e6 1-0**

## **Review of Chapter Five**

1. Two main lines against the London System are challenged by the newer engines' pawn sacrifices. Both pawn sacrifices allow White to achieve a favourable French pawn structure and a kingside initiative. Although these lines remain playable for Black, the defensive task can be very unpleasant because White gets to have all the fun attacking.
2. The older engines suffer a lot against the newer ones in the French Winawer because long-term factors must be evaluated accurately. MVL's approach against Nepomniachtchi in Game 46 has become extremely fashionable because the neural network engines show that Black's position is very dangerous strategically in many critical lines.
3. The newer engines have found many new ideas and plans for White against the French pawn structure, but they have also identified improvements for Black. For example, Game 47 explores a potential solution to MVL's setup, where Black seeks to solve his opening problems concretely instead of defending in a slow, closed middlegame.

## **Additional Material**

Velimir Ivic-Matthias Bluebaum, European Individual Championship 2021

Krishnan Sasikiran-Noel Studer, Gibraltar Masters 2020

Examples of AI-influenced pawn sacrifices in other pawn structures:

Daniil Dubov-Vladimir Malakhov, FIDE World Cup 2021

Ding Liren-Fabiano Caruana, FIDE Candidates Tournament 2020

Aryan Tari-Fabiano Caruana, Norway Chess 2020

Leinier Dominguez Perez-Levon Aronian, Nations Cup Online (rapid) 2020

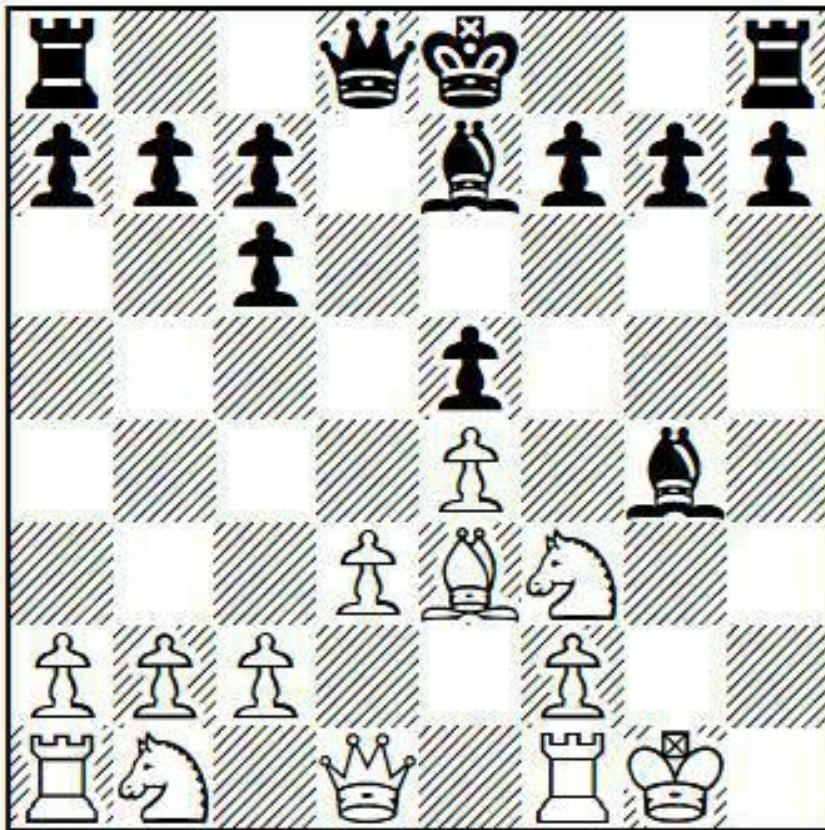
# Chapter Six

## Closed Positions

Many years ago, when human versus machine matches were still competitive, one effective anti-computer strategy was to enter a closed position where the human's strategic understanding could outweigh the engine's calculating abilities. The older engines struggle in closed, strategic middlegames because they don't fully appreciate the idea of making incremental improvements over a long period of time. In recent years, the situation has changed dramatically because neural network engines are very strong in these types of middlegames with their long-term thinking abilities.

Examples on this topic can be seen in some of the AlphaZero-Stockfish games, where the old Stockfish doesn't understand how either side can make progress while AlphaZero makes incremental improvements before gradually preparing the decisive breakthrough. Another good example can be found in the first game of this chapter in which Stockfish severely misplays a King's Indian Defence against Lc0.

Throughout the chapter, we will see great strategic games from several different openings, including the Reti, Queen's Gambit Declined, and Semi-Slav. There is also a very interesting piece sacrifice in the Anti-Berlin discussed at the end of the chapter.



In the arising closed middlegames, the older engines are skeptical about Black's chances due to White's material advantage. However, the newer ones show how Black can obtain a fully playable game by tying down White's major pieces to the passed kingside pawns.

### **Incremental Improvements**

Our discussion of closed positions begins with a King's Indian battle (the game started on move 13) between Lc0 and the old Stockfish. The way Stockfish handles the closed middlegame demonstrates some major weaknesses in the older engines. They fail to understand incremental improvements and how the opponent can gradually build up the pressure, often realizing the long-term flaws in their position when it is much too late.

In the game, Stockfish closes the kingside on move 20 which is a clear sign that things have gone terribly wrong. However, it still has a lot of confidence

in its position, believing that Black is slightly better! Only after Lc0 builds up the pressure for the next dozen moves does Stockfish realize how severely it had miscalculated the situation.

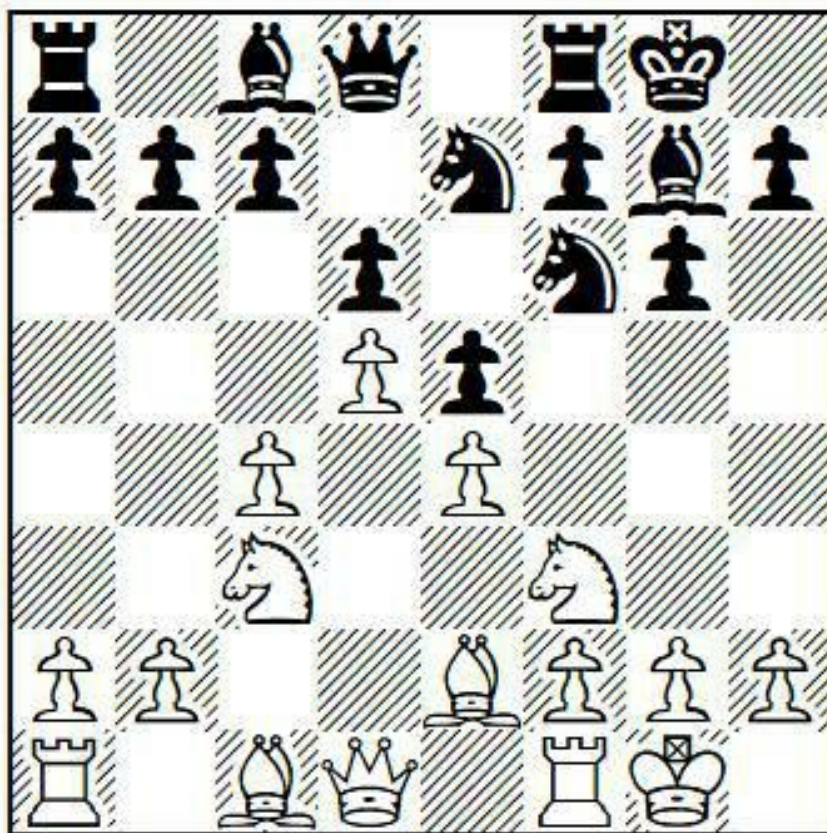
### Game 49

### Lc0-Stockfish

TCEC 2020

**1 d4 Nf6 2 c4 g6 3 Nc3 Bg7 4 e4 d6 5 Nf3 0-0 6 Be2 e5 7 0-0 Nc6 8 d5 Ne7**

AI influence on King's Indian pawn structures is an extremely broad topic, which could span several chapters, so we will narrow our focus on the pawn sacrifice employed by Lc0 in this game.



9 Ne1

Lc0's favourite approach against the King's Indian Defence is 9 b4 Nh5 10 Re1 f5 11 a4 Nf6 12 a5! which has scored excellently in correspondence and practical games.

**9 ... Nd7 10 Be3 f5 11 f3 f4 12 Bf2 g5**

The game started here.

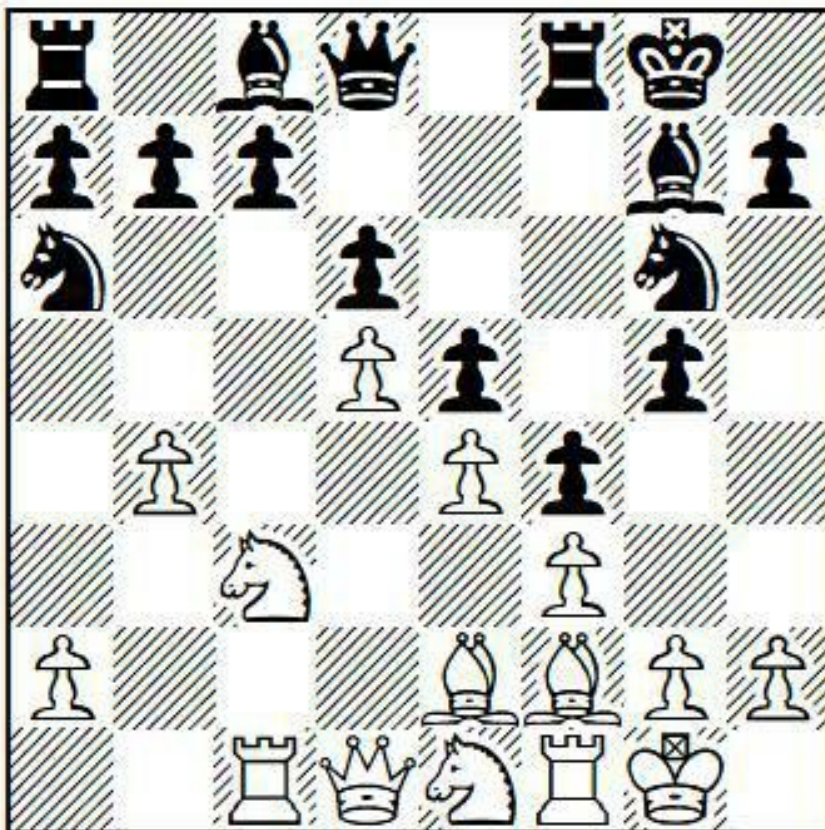
**13 Rc1**

When the two engines switched colours, Stockfish played 13 b4 Nf6 14 c5 Ng6 15 a4 h5 16 c6 bxc6 17 dxc6 Be6 18 Ba6 but didn't achieve anything after the typical pawn sacrifice 18 ... g4 19 Qe2 g3! 20 hxg3 fxg3 21 Bxg3 h4 22 Bh2 Bf7 23 Bc4 Nh5 and Black had seized control of the important f4-square in Stockfish-Lc0, TCEC 2020.

**13 ... Ng6 14 c5!**

A strong pawn sacrifice, White opens the c-file and forces the Black knight to defend passively on the queenside.

**14 ... Nxc5 15 b4 Na6**



### **16 Nd3**

The immediate 16 Nb5 may lead to more concrete play after 16 ... Bd7 17 Nxa7 Rf7 with a very sharp and unclear game ahead.

### **16 ... h5 17 Nb5 b6 18 Be1 Qd7**

I believe this is the beginning of a dubious plan because the important light-squared bishop should remain in full control of the c8-h3 diagonal.

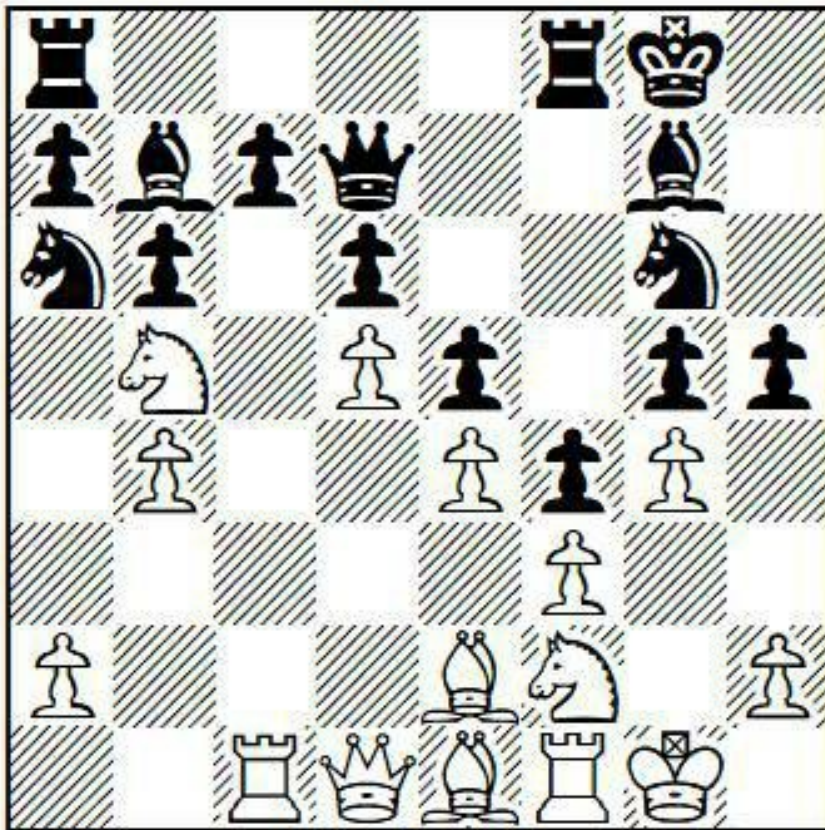
A stronger plan focusses more on the kingside. For example, 18 ... Rf7 19 Bd2 (perhaps a more challenging setup is 19 Nf2 Bf6 20 Qc2! intending to create threats on the queenside with Qc6) 19 ... Bf6 20 Nf2 Qe8 21 Qa4 Rg7! (a top-level game continued 21 ... Bd8 22 Qa3 g4 23 fxg4 hxg4 24 Nc3 and White went on to win an excellent game in W.So-Ding Liren, Bilbao 2015) 22 Kh1 Nh4 23 Qd1 g4 24 fxg4 hxg4 25 Nxc4 Qg6 with excellent kingside play in S.Zielinski-L.Gonzaga Grego, correspondence 2020.

### **19 Nf2 Bb7?**

Lc0's evaluation jumps considerably after this poor move from Stockfish, which releases the pressure on the c8-h3 diagonal and allows White to comfortably play g4.

Lc0 suggested a better plan with 19 ... Bf6 bringing the bishop to d8 and opening some squares for the queen. Play may continue 20 Qc2 Bd8 21 Bd2 Bb7 (preventing Qc6) 22 Kh1 Qh7 and the middlegame remains very tense.

### **20 g4!**



White obtains a crushing strategic advantage after this, although the older engines don't realize it yet. The opening of the kingside doesn't promise Black much because the light-squared bishop (an extremely important minor piece in the King's Indian Defence) is out of play on b7. Also, if the kingside is closed, White can gradually make progress on the queenside as occurs in the game.

#### **20 ... h4**

The game is completely one-sided after this. The alternatives aren't great either, though they do promise better practical chances to fight:

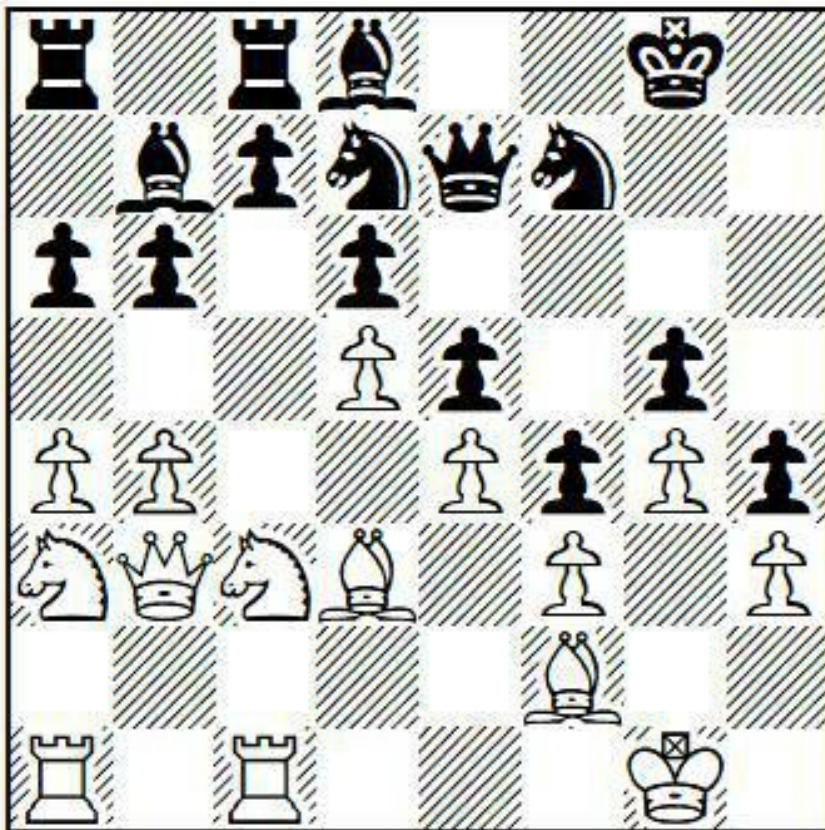
a) 20 ... hxg4 21 Nxg4 Bf6 22 Bd3! preparing Qe2 and Nxd6, exploiting the a6-knight. Play may continue 22 ... Bd8 (or 22 ... Qh7 23 Qe2 followed by Nxd6) 23 Qe2 Nb8 24 h4! gxh4 25 Kh1 followed by Rg1 and White may be the one creating kingside play. At the very least, White is not in danger on the kingside and can easily create play on the other side of the board (along the open c-file).

b) 20 ... fxg3 21 hxg3 h4 22 g4 Nf4 23 Bd2 and once the f4-knight is removed, Black's hopes of creating kingside play evaporates.

**21 Qb3 Rfc8 22 a4 Nb8**

The older engines fail to sense the danger in Black's position because they don't appreciate White's long-term advantages on the queenside. Over the next 10 moves, Stockfish gradually changes its evaluation from slightly better for Black to winning for White.

**23 Na3 a6 24 Nd1 Bf6 25 h3 Bd8 26 Ra1 Qe7 27 Bf2 Nh8 28 Nc3 Nd7 29 Rfc1 Nf7 30 Bd3**



**Question:** How does White make progress if Black does nothing?

**30 ... a5**

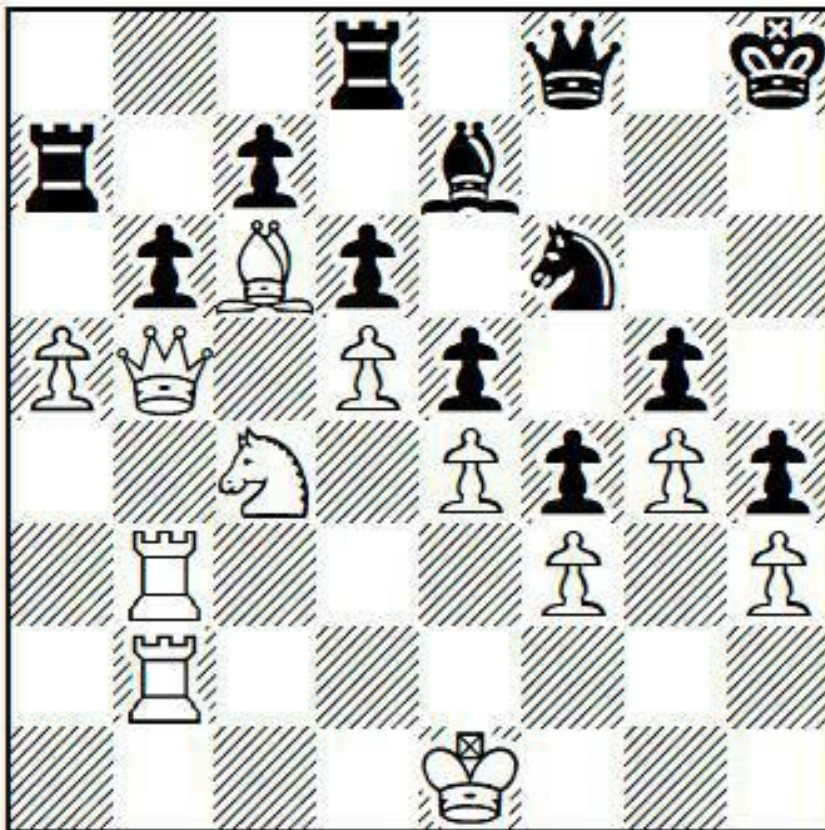
**Answer:** White will eventually breakthrough on the queenside with a5. For example, 30 ... Kg7 31 Qb2 (making some slight improvements before opening the queenside) 31 ... Nf6 32 Kg2 Nd7 33 a5! threatening b5 when the

queenside opens completely. Black can try 33 ... b5 and then White wins with 34 Naxb5! axb5 35 Bxb5 Nb8 36 Be2 followed by advancing the queenside pawns.

**31 bxa5 Rxa5 32 Bb5**

There isn't much to comment on for the remaining moves. Lc0 patiently improves its position for another 20 moves before finally breaking through with a5! Meanwhile, Black is left without any counterplay whatsoever.

**32 ... Nc5 33 Qb1 Raa8 34 Nc4 Kg7 35 Rc2 Ba6 36 Rca2 Rcb8 37 Kg2 Kg6 38 Qb4 Qf8 39 Bc6 Nd3 40 Qb3 Nxf2 41 Kxf2 Bxc4 42 Qxc4 Ra5 43 Rb1 Nh6 44 Rb5 Ra6 45 Rb3 Ra5 46 Qb4 Rc8 47 Nb5 Ng8 48 Rc2 Nf6 49 Ke1 Kh7 50 Na3 Be7 51 Nc4 Ra7 52 Rcb2 Rd8 53 Qb5 Kh8 54 a5!**



The decisive breakthrough, opening the b-file and reaching a winning position.

**54 ... bxa5 55 Qa4 Kh7 56 Kd2 Kh6 57 Kc2 Ra6 58 Rb7 Rc8 59 Rb1 Kg6 60 R7b2 Rd8 61 Rb7 Rc8 62 R7b3 Rd8 63 Kd2 Kh6 64 Kc2 Qf7 65**

Rb7 Bf8 66 Na3 Bg7 67 Qc4 Raa8 68 Nb5 Ne8 69 Na7 Nf6 70 Qa4 Rg8 71 Nb5 Ne8 72 Qa3 Kg6 73 Nxc7 Nxc7 74 Qxd6+ Qf6 75 Qxc7 Rgc8 76 Qd7 Kh7 77 Rc7 Rxc7 78 Qxc7 Qd8 79 d6 Rc8 80 Qxd8 Rxd8 81 d7 Kg8 82 Rb6 Bf6 83 Kc3 Rf8 84 Kc4 Bd8 85 Rb5 Rf6 86 Rb8 Kf7 87 Rxd8 Rxc6+ 88 Kd5 Ke7 89 Rg8 Rd6+ 90 Kxe5 Kxd7 91 Rxc5 Ra6 92 Kxf4 a4 93 Rd5+ Ke7 94 Kg5 a3 95 Rd1 Rd6 96 Ra1 Rd3 97 f4 Rxh3 98 f5 Re3 99 Kxh4 Kf7 100 Kg5 Ke7 101 Kf4 Rc3 102 Ra2 Rb3 103 g5 Rh3 104 Kg4 Rd3 105 Kf4 Rd1 106 Rxa3 Kd6 107 g6 Rf1+ 108 Rf3 Rg1 109 Rg3 Rf1+ 110 Kg5 1-0

## **An Improved King's Indian Attack**

By using an unusual opening move order in the following game, White succeeds in obtaining a favourable King's Indian Attack where the e4-square is under his control, and it is much more difficult for Black to create queenside counterplay. It is important to note that the older engines could easily fall for this move order trick because they fail to understand how much potential White's setup has in the long run.

*Game 50*

### **D.Paravyan-A.Gaifullin**

Russian Team Championship 2020

**1 Nf3 Nf6 2 c4 e6 3 g3 d5 4 Bg2 d4**

One of the main options these days, behind 4 ... Be7 and 4 ... dxc4.

**5 d3!?**

An unusual move order with an interesting point behind it.

The main line runs 5 0-0 c5 6 e3 Nc6 7 exd4 cxd4 8 d3 Bd6 leading to a reversed Benoni pawn structure.

**5 ... c5?!**

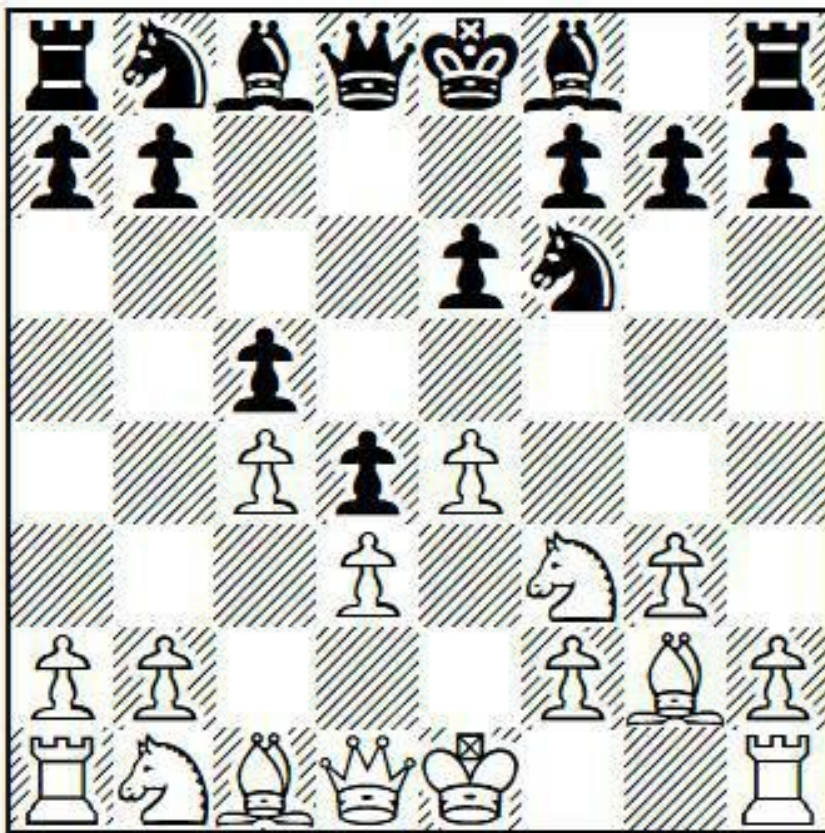
This natural move appears to be similar to 5 0-0 c5. Indeed, it is the most popular move but a highly inaccurate one, allowing White to obtain a favorable King's Indian Attack. Very few older engines understand this.

In view of the idea shown in the game, 5 ... Bb4+! 6 Bd2 a5 is a much better approach. After 7 0-0 Nc6 White has:

a) 8 Na3 e5 9 Nb5 0-0 10 e3 and in E.Iturrizaga Bonelli-D.Anton Guijarro, Salamanca (rapid) 2021, Black would be perfectly fine after 10 ... Bxd2 11 Qxd2 dxe3 12 Qxe3 Re8.

b) White could also play more directly in the centre with 8 e3 0-0 9 exd4 Nxd4 10 Nxd4 Qxd4 11 Bc3 though Black retains a sound position after 11 ... Bxc3 12 bxc3 Qd6 13 d4 c5 followed by developing with ... Rd8 or ... Bd7 next.

**6 e4!**



Establishing an advantageous King's Indian Attack pawn structure in the centre, which will become apparent as we go through the examples below.

**6 ... Nc6**

6 ... dxe3?! provides White with comfortable development. For example, 7 Bxe3 Nc6 8 0-0 Be7 9 d4 cxd4 10 Nxd4 Bd7 11 Nc3 is clearly better for White because of the space advantage and more active pieces.

**7 e5 Nd7 8 Bf4**

In Yu Yangyi-Wen Yang, Xinghua 2020, White chose a slightly different move order and developed an ideal King's Indian Attack setup after 8 Qe2 Be7 9 h4 b6 10 Bf4 Bb7 11 Nbd2 Nf8 12 h5 quickly obtaining a clear advantage. I think that Yu Yangyi's move order with 8 Qe2 (delaying development of the dark-squared bishop) is a good idea because Black often tries to create counterplay by attacking White's dark-squared bishop on f4.

### **8 ... Be7**

8 ... Qc7 9 Nbd2 when Black can try:

a) 9...Ne7!? was tried in A.Donchenko-M.Oleksienko, Brest 2019. A good way to deal with the threat of ... Ng6 is 10 h4 Ng6 11 h5 Nxf4 12 gxf4 and White intends to develop a kingside initiative by playing Nh4 and Qg4. For example, 12 ... Be7 13 Nh4 f5 14 Qf3 and the open g-file should provide good play.

b) Another interesting defensive try is 9 ... h6 10 h4 f5! and White cannot take because of 11 exf6? e5 trapping the f4-bishop.

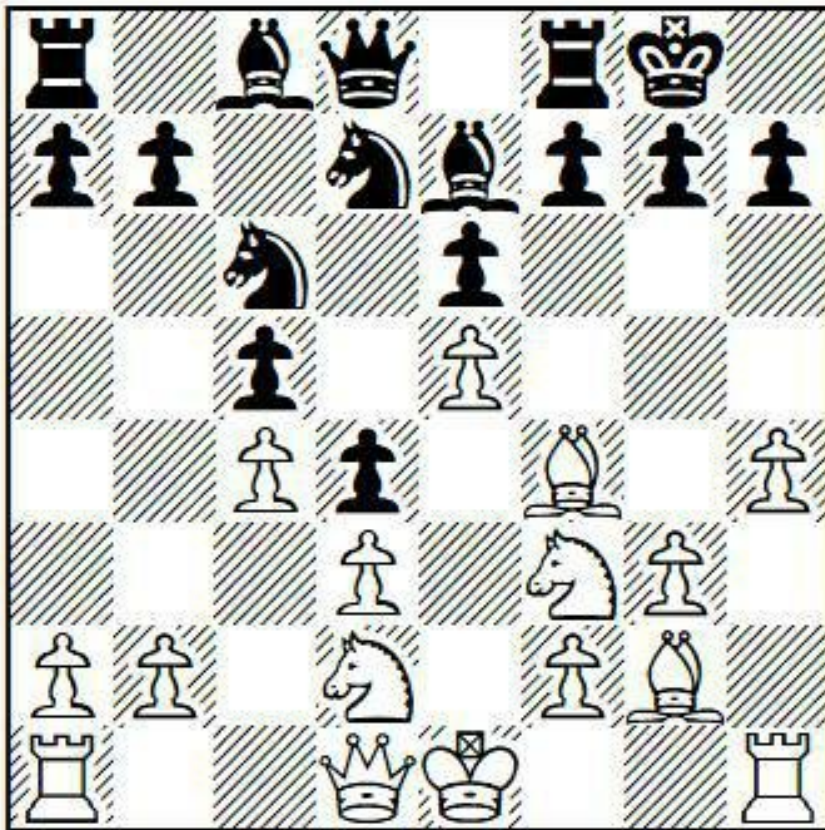
### **9 h4 0-0**

9 ... h5! secures the g6-square for the knight, so that ... Nf8-g6 can be played next to attack White's bishop on f4. Because of this idea, I believe the 8 Qe2 move order is more accurate. Play may continue 10 0-0 (an alternative plan involves delaying castling with 10 Nbd2 Nf8 11 Ne4 Ng6 12 Qd2 supporting the bishop on f4; if Black tries 12 ... Qa5 then the endgame looks better for White after 13 Qxa5 Nxa5 14 b4! cxb4 15 Nxd4) 10 ... Nf8 11 Re1 Ng6 12 Bd2 and now:

a) 12 ... Qd7 was seen in D.Fridman-D.Mastrovasilis, Batumi 2019, when White first prepared the queenside advance with 13 Na3-c2, but even stronger was the immediate 13 b4! cxb4 14 a3 bxa3 15 Nxa3 opening up lines on the queenside and weakening the d4-pawn.

b) 12 ... f6! is critical, leading to very unclear play after 13 b4! Ncxe5 14 bxc5. Some sample lines are: 14 ... Bxc5 (or 14 ... Nxd3 15 Ba5! Qxa5 16 Qxd3 and Black has several poorly defended pieces) 15 Nxe5 Nxe5 16 Rxe5 fxe5 17 Bg5 provides excellent compensation for the exchange because White's minor pieces find great squares to occupy.

### **10 Nbd2**



**Question:** Why has White achieved a favourable King's Indian Attack?

**Answer:** The pawns on c4 and d4 give White a clearly favorable version of a normal King's Indian Attack. It is significantly more difficult for Black to create counterplay on the queenside or in the centre because the centre is closed. Additionally, White controls the e4-square which could be occupied by a knight, bishop, or queen.

**10 ... Qc7**

Other setups:

a) 10 ... Rb8 prepares ... b5, though White can ignore it and continue in the same manner as our main game with 11 Qe2 b5 12 Ng5! Nb4 13 Kf1 bxc4 14 Nxc4 and Be4 is coming next, creating dangerous kingside play.

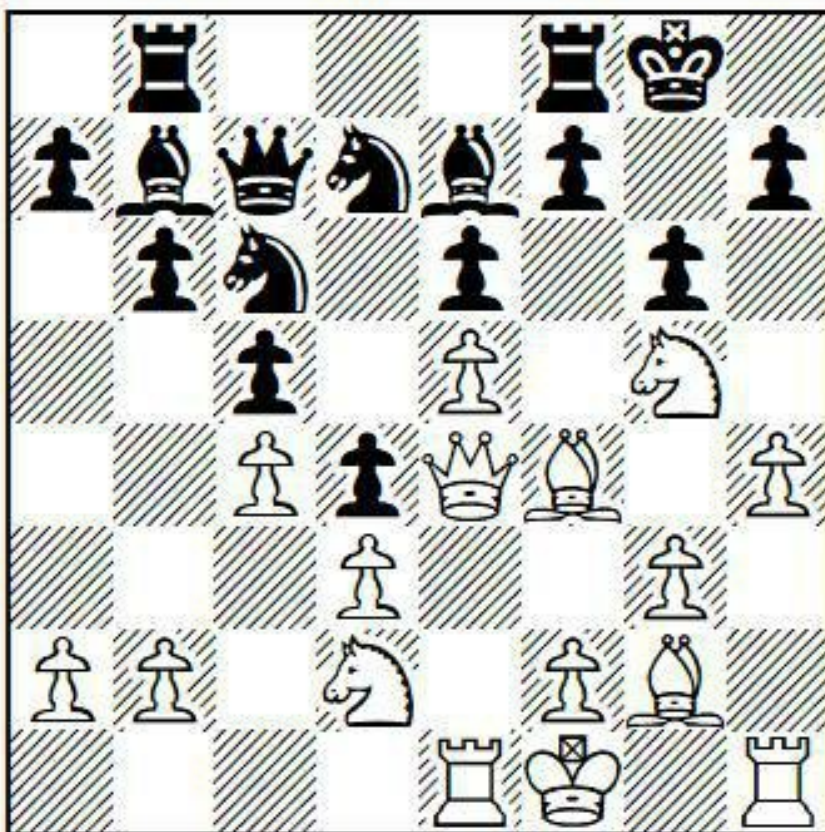
b) 10 ... f6!? was an interesting attempt to change the pawn structure and sharpen the game in A.Donchenko-P.Villegas, Brest 2019. Black succeeded in this regard after 11 exf6 (11 Qe2! may be the best move to keep everything

under control in the centre) 11 ... gxf6 12 Ne4 e5 13 Bh6 Rf7 14 g4 Nf8 15 Bh3 (15 Nh2! Ne6 16 Ng3 followed by Be4 and Nf5 provides active piece play; most importantly, Black is lacking counterplay here) 15 ... Ne6 16 Qe2?! b5! led to very double-edged play. The point is that 17 cxb5?! runs into 17 ... Nb4 creating a lot of counterplay. ... c4 is threatened, and ... Nd5-f4 is another idea.

**11 Qe2 b6 12 Ng5 Bb7 13 Qe4 g6 14 Kf1!**

Defending the g2-bishop against Black's threat of ... Na5. By putting the king on f1 instead of castling, the h1-rook continues to support the h-pawn.

**14 ... Rab8 15 Re1**



White has constructed an excellent attacking setup, where all of his pieces are serving a useful purpose. Black's lack of defenders on the kingside, as well as the dark-squared weaknesses created by the g6-pawn, signal trouble lying ahead.

**15 ... b5 16 Qe2**

16 cxb5 Nb4 17 Qe2 h6 is less clear. White would have more difficulties in creating a kingside attack here.

**16 ... bxc4 17 Nxc4 Na5**

Exchanging a couple minor pieces and trying to create some counterplay on the queenside.

17 ... h6? runs into the powerful blow 18 Nxe6! fxe6 19 Qg4 crashing through on the kingside. All of Black's three kingside pawns are undefended.

**18 Nxa5 Qxa5 19 Bxb7 Rxb7 20 b3 Qa6**

20 ... h6? is again met by 21 Nxe6! fxe6 22 Qe4 attacking the rook and g6-pawn.

**21 h5**

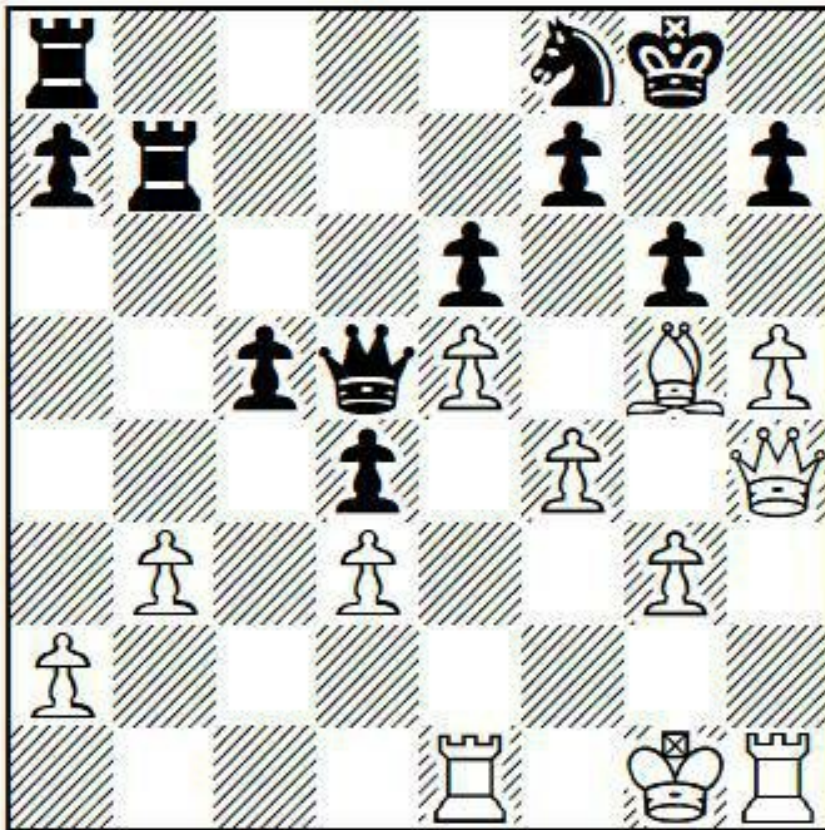
Avoiding the exchange of pieces with 21 Ne4 was even stronger when h5 is coming next.

**21 ... Bxg5 22 Bxg5 Qc6 23 Kg1 Qd5 24 f4?!**

Not a bad move, but it exposes the king on g1 which later provides Black with serious counterplay.

Less committal was 24 Bf4! followed by activating the queen with Qg4-h4.

**24 ... Ra8 25 Qh2 Nf8 26 Qh4**



### 26 ... Qf3

Going after the undefended d3-pawn. Black could also consider a way to involve the passive rooks on the queenside.

26 ... a5 provides some ideas for counterplay. White has several options:

a) 27 Bh6 Qd8! prevents Qf6.

b) 27 Bf6 Qf3 28 Qg5 h6! 29 Qxh6 Qxg3+ is a perpetual.

c) 27 Rh2! is a useful improvement to White's position and the most challenging try. Play continues 27 ... a4 28 Bf6 h6! (28 ... Qf3? 29 Qg5 h6 30 Qxh6 Qxg3+ 31 Rg2 Qxe1+ 32 Kh2 and mate on g7) 29 hxg6 fxg6 30 f5! (but not 30 Qxh6?? Rh7 31 Qg5 Raa7 and suddenly Black's major pieces set up a crushing attack on the h-file) 30 ... exf5 (30 ... gxf5 31 Qxh6 Rh7 32 Qg5+ leads to mate) 31 e6 Nxe6 and only now that Black doesn't have the idea of playing ... Rh7 can White play 32 Qxh6 with a decisive kingside invasion.

**27 g4 Qxd3 28 Rh3 Qc2 29 Bh6 f5!**

An important resource, bringing the b7-rook into the defence.

**30 exf6 d3 31 f5!**

Preparing to sacrifice the bishop for Black's passed pawn.

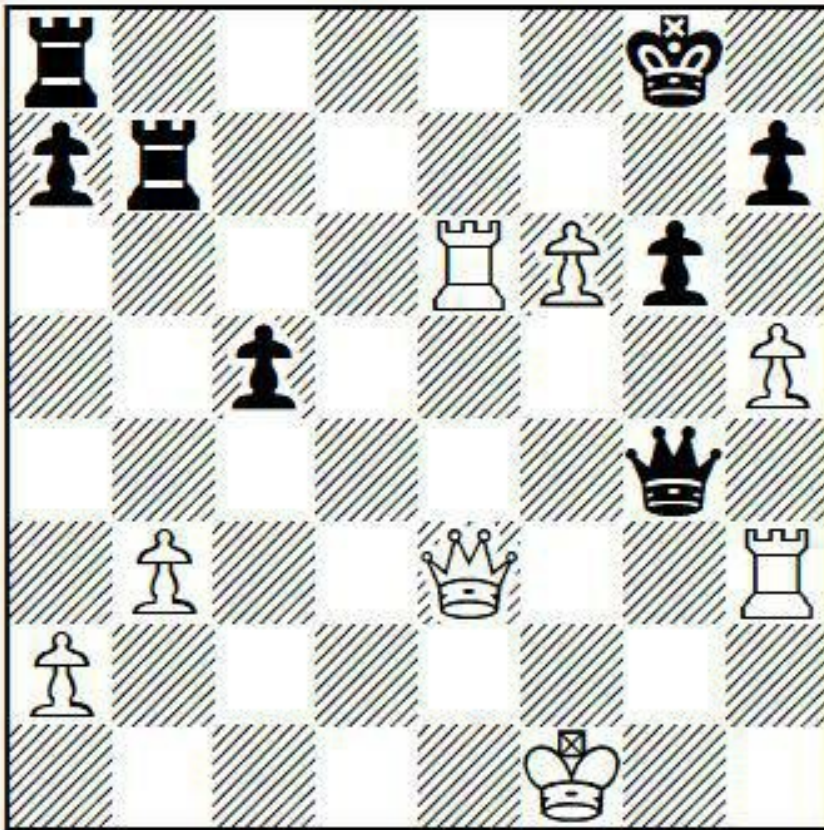
**31 ... d2**

31 ... exf5 32 Rh2 Qc3 33 gxf5 and Black's counterplay is completely under control.

**32 Bxd2 Qxd2 33 fxe6**

The computer points out the following cold-blooded line: 33 hxg6! Qd4+ 34 Ree3 Qd1+ 35 Kf2 Qd2+ 36 Kf1 Qc1+ 37 Ke2 Qc2+ 38 Kf3 Qd1+ 39 Kf4! Qd4+ 40 Kg5 and the king escapes from all of Black's checks.

**33 ... Qd4+ 34 Kf1 Qf4+ 35 Qf2 Nxe6 36 Rxe6 Qxg4 37 Qe3**



**37 ... Qd1+?**

Checking the White king a couple times surprisingly forces it to a safer square on g3.

The immediate 37 ... Rf8! was preferable, while White's king is still on f1.

One important line is 38 hxc6 hxc6 39 Re8 Qxc3+ 40 Qxc3 Rxe8 when White has nothing better than forcing a draw by perpetual check.

### **38 Kg2 Qc2+?**

It was not too late for 38 ... Rf8! because of 39 Re7 (39 Rf3 Rbf7 40 hxc6 Qc2+ 41 Kg3 Qxc6+ should provide a satisfactory defence) 39 ... Qd5+! (exploiting the poor placement of White's king) 40 Kh2 Rxf6 and Black is fine.

### **39 Kg3 Rf8 40 Re7!**

The king is perfectly safe on g3, hidden away from Black's queen.

### **40 ... Rxe7 41 fxe7 Re8 42 Qe6+ Kh8 43 hxc6 Qd3+ 44 Kg4**

The king march decides the game, as the Black queen quickly runs out of viable checks.

### **44 ... Qd4+ 45 Kg5 Qd2+ 46 Qe3 Qg2+ 47 Rg3 Qd5+ 48 Kf6 1-0**

## **Queen's Gambit Declined**

Ding Liren and Grischuk discussed a very topical line of the QGD in the 2020-21 Candidates tournament. The neural network engines have had a major impact on the closed positions that arise from this opening, suggesting new ideas for White and defensive resources for Black. Meanwhile, the older engines greatly underestimate the dangers facing Black in these pawn structures, arguing that the game is balanced after many different moves. In practice, Black must play precisely and construct a strong defence to avoid falling under pressure in the complicated strategic middlegames.

### *Game 51*

## **Ding Liren-A.Grischuk**

FIDE Candidates 2020-21

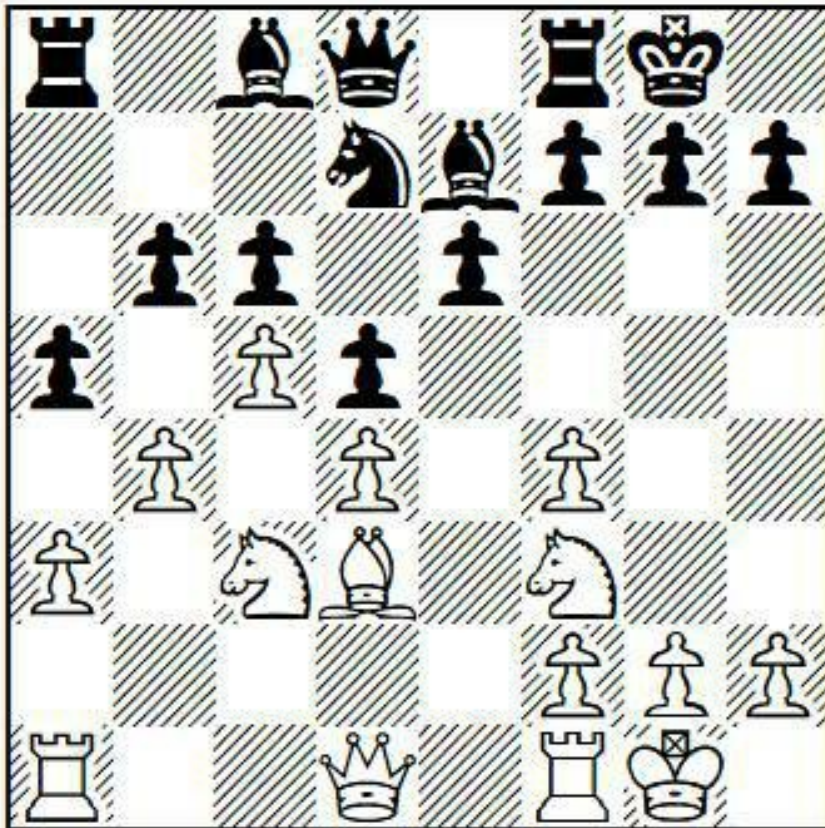
### **1 d4 d5 2 c4 e6 3 Nf3 Nf6 4 Nc3 Be7 5 Bf4 0-0 6 e3 Nbd7 7 c5 Nh5 8 Bd3**

8 years earlier, Grischuk played the White side of this variation in the Candidates and reached an identical pawn structure. That game continued 8 Be2 Nxf4 9 exf4 b6 10 b4 a5 11 a3 c6 12 0-0 Qc7 13 g3 g6 14 Re1 Ba6 15 Qc2 Bxe2 16 Nxe2 Ra7 17 Rab1 axb4 18 axb4 Rfa8 19 Nc1 Ra3 20 Nd3 with a tense middlegame in A.Grischuk-T.Radjabov, London 2013.

**8 ... Nxf4 9 exf4 b6 10 b4 a5**

In a game between Lc0 and Stockfish, Stockfish chose an unusual move order: 10 ... c6 11 a3 Qc7 (Black usually plays 11 ... a5 here or on the previous move) 12 g3 a5 and gave Lc0 the option to play 13 Kf1! instead of castling. The point of this idea was to put the king on g2 while keeping the rook on h1, where it supports the h-pawn advance. Stockfish chose a very concrete continuation with 13 ... axb4 (the natural 13 ... Ba6 14 Kg2 Bxd3 15 Qxd3 Ra7 16 h4 leads to a great version for White because he will quickly gain a lot of space on the kingside) 14 axb4 Rxa1 15 Qxa1 bxc5 16 bxc5 f6 17 Qb1 g6 18 h4! Rf7 19 h5 g5 20 Ne2 and White developed strong kingside pressure in Lc0-Stockfish, TCEC 2020, though Stockfish did put up an excellent defence and held the game.

**11 a3 c6 12 0-0**



**12 ... Ba6!**

This modern move order looks almost identical to 12 ... Qc7 but there is an

important difference after the exchange of bishops.

The old main line runs 12 ... Qc7 13 g3 Ba6 14 Bxa6 Rxa6 15 Qe2 when Black is under pressure, especially because of some ideas that the newer engines show against 15 ... Raa8:

a) 15 ... Rfa8 doubling the rooks on the a-file would be good, if it were not for 16 b5 cxb5 17 c6! Qxc6 18 Nxb5 creating serious problems for Black's major piece coordination. For example, 18 ... Rc8 19 Rac1 Qxc1 (19 ... Qb7 20 f5 Nf8 21 Ne5 Raa8 22 Qf3 also provides dangerous kingside play) 20 Rxc1 Rxc1+ 21 Kg2 Ra8 22 f5! Rc6 23 h4 and despite White's material deficit, he had created tremendous pressure in M.Vachier Lagrave-T.Radjabov, Wijk aan Zee 2015. White can expand on the kingside with g4 next, or he could target one of Black's pawn weaknesses starting with fxe6.

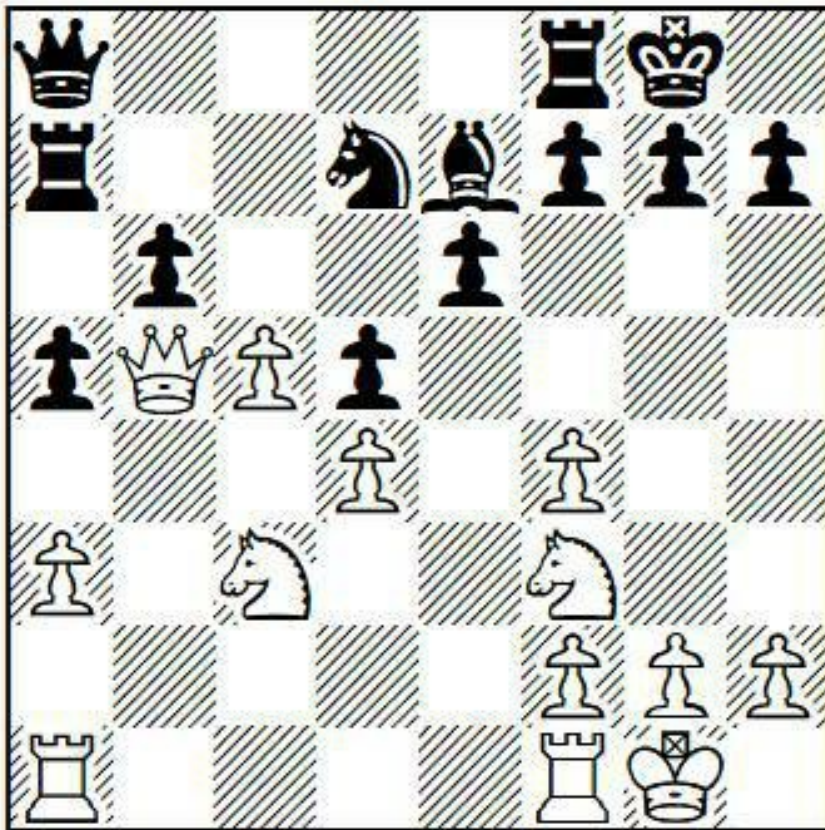
b) 15 ... Ra7 also leads to concrete play after 16 f5! e5 (16 ... bxc5? loses to 17 fxe6 fxe6 18 Qxe6+ Kh8 19 Qxe7 Rxf3 20 Qe2 and the rook must retreat to defend the back rank, and then 20 ... Rf8 21 bxc5 wins a full pawn) 17 cxb6 Qxb6 18 dxe5 axb4 19 axb4 Bxb4 20 Na2! (rerouting the knight to a better square via c1-d3 or c1-b3) 20 ... Bc5 21 Rab1 Qa5 22 Nc1 Qa4 23 Nb3 leads to an unpleasant position for Black to defend.

c) 15 ... Raa8 is the safest square for the rook because Black doesn't have to worry about any immediate f5 or b5 ideas. There are many ways to White to continue but we will just have a look at one instructive correspondence game: 16 Rfb1 (16 f5?! bxc5 17 fxe6 fxe6 18 Qxe6+ Kh8 19 Qxe7 Rae8! 20 Qg5 Rxf3 regaining the material with a comfortable position) 16 ... Bf6 17 Na4 axb4 (or 17 ... Rfb8 18 Kg2 h6 19 h4 Ra7 20 Qd1 leads to a similar unpleasant defence for Black) 18 axb4 Ra7 19 Nb2 Rfa8 20 Qd1 b5 21 Nd3 Ra4 22 Rxa4 (exchanging just one pair of rooks is often a good idea for White in these structures) 22 ... Rxa4 23 Kg2 g6 24 Nde5 Qb7 25 Qe2 h6 26 g4 Bg7 27 h4 Nf8 28 h5 and White developed a crushing kingside initiative in L.Felytin-S.Korshunov, correspondence 2021.

### **13 Ne2!?**

Interestingly, this fresh idea was introduced by Grischuk himself a year prior in a rapid game against Wesley So. Alternatives:

a) 13 Bxa6 Rxa6 14 Qe2 is the most natural way for White to play, and now 14 ... Qa8! is a very important point behind Black's 12 ... Ba6 move order. After 15 b5 cxb5 16 Qxb5 Ra7



The game can become quite concrete, but Black is doing very well theoretically and in practice. Practice has seen:

a1) 17 c6 Nb8 looks terribly passive as Black has three pieces in the queenside corner. However, they quickly untangle after 18 Rfc1 Rc7 19 Ne5 Bd6 20 Na4 Qa6 21 Qxa6 Nxa6 and the endgame was perfectly fine for Black in A.Firouzja-S.Karjakin, internet 2020, 22 Nxb6 is simply met by 22 ... Nb8! and the c6-pawn will be regained soon.

a2) 17 Ne5 Nxe5 18 cxb6 Nc4! is a strong exchange sacrifice. T.Radjabov-A.Grischuk, Bucharest 2021, continued 19 bxa7 Qxa7 20 f5 (20 Ne2 holds on to the d4-pawn but after 20 ... Rb8 21 Qa4 g6 Black has active pieces and a lot of pressure on a3) 20 ... Qxd4 21 Qd7 Nd2 and the complications soon fizzled out to a draw.

b) 13 Qe2 Bxd3 14 Qxd3 and now:

b1) 14...g6 15 Rfc1 Qc7 16 g3 axb4 17 axb4 Qb7 18 Rab1 Ra3 19 Qc2 Rfa8 20 Kg2 Bf6 21 Ne2! Ra2 22 Qd1 bxc5?! was a misjudgement by

Carlsen as the c5-pawn should only be captured if there is a concrete reason to do so. Following 23 bxc5 Qa6 24 Rc2 Rxc2 25 Qxc2 Rb8 26 Rxb8+ Nxb8 27 Nc1 led to a model win for White in H.Nakamura-M.Carlsen, internet 2020.

b2) The following correspondence game shows how Black should approach this position: 14 ... Ra7 15 Rfc1 Qa8! 16 Rab1 axb4 17 axb4 Ra3 18 Qd2 h6 19 g3 Bf6 20 Rc2 and because Black has a very healthy setup and good piece placement, it was possible to play 20 ... bxc5! 21 bxc5 Qa5 targeting the c3-knight and threatening to play ... Nxc5! After 22 Ne5 Bxe5 23 fxe5 Rb8 a draw was agreed in a couple moves.

### **13 ... Qc7**

13 ... Bf6 is often a useful move in these lines to put pressure on the f6-a1 diagonal. One sample line is 14 Rb1 Bc4 15 h4 axb4 16 axb4 b5 17 h5 and White keeps some slight pressure.

### **14 h4**

The game between Grischuk and So saw 14 g3 Bf6 15 Rb1 axb4 16 axb4 Qb7 17 Nc1 Bxd3 18 Nxd3 reaching a position that appears to be a very nice version for White because of the strong knight on d3. However, A.Grischuk-W.So, internet 2020, ended quickly after 18 ... Ra3 19 Qc2 (expanding on the kingside with 19 Kg2 g6 20 h4 might keep some slight pressure, and if Black tries 20 ... h5 then 21 Nde5 Nxe5 22 fxe5 and White can try to prepare g4, perhaps by starting with Qd2-f4) 19 ... Rfa8 20 Rfc1 b5 21 Kg2 Nf8 22 Qd1 Ng6 23 Ra1 and a draw was agreed.

### **14 ... h6**

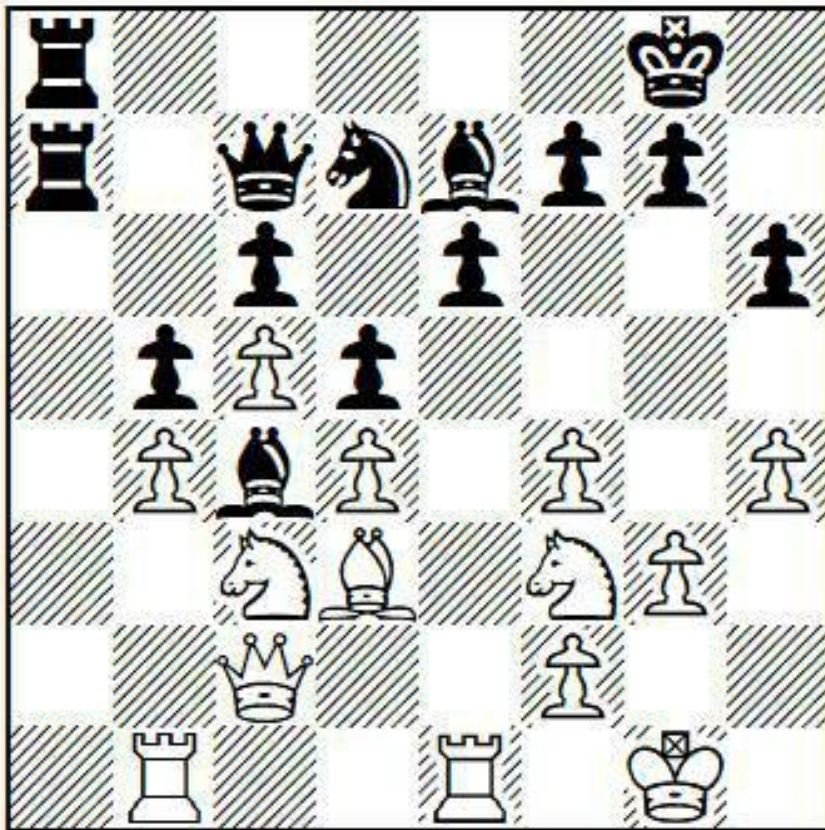
In these types of closed positions, it is very difficult to weigh the pros and cons of every small change in the position, but it may be slightly preferable to retain the option of playing ... h5.

For example, 14 ... Ra7 15 g3 Rfa8 16 Bxa6 Rxa6 17 Rb1 h5 with a very solid setup.

### **15 g3 Bc4 16 Qc2 b5 17 Rfe1**

Ding Liren prefers to move the a1-rook away from the a-file, though it was also possible to play 17 Rfb1 Ra7 18 Nc3 Bxd3 19 Qxd3 Rfa8 20 Na2 again with some small pressure and hopes of gradually creating progress on the kingside.

### **17 ... Ra7 18 Nc3 Rfa8 19 Rab1 axb4 20 axb4**



### 20 ... Bxd3

Ding Liren suggested 20 ... Nf6 after the game, but Grischuk wasn't sure how to continue after 21 Ne5. For example, 21 ... Ra3 22 Kg2 and Black is lacking ideas. Perhaps it is best to wait with 22 ... h5 and ask White how he will make progress. Instead, trying to exchange knights by playing 22 ... Nd7? runs into 23 Bh7+ Kf8 24 Nxf7! as pointed out by Grischuk, leading to a winning position after 24 ... Kxf7 25 Qg6+ Kf8 26 Rxe6 Rxc3 27 Rxe7! Kxe7 28 Qxg7+ Kd8 29 Qg8+ Ke7 30 Re1+.

### 21 Qxd3 Bf6

After seeing White's kingside play develop in the game, 21 ... h5 deserved serious attention. After 22 Ne5 Nf6 23 Kg2 Black still has to wait and be prepared to counter White's ideas. However, it looks like White would have more difficulties making progress here compared to the game.

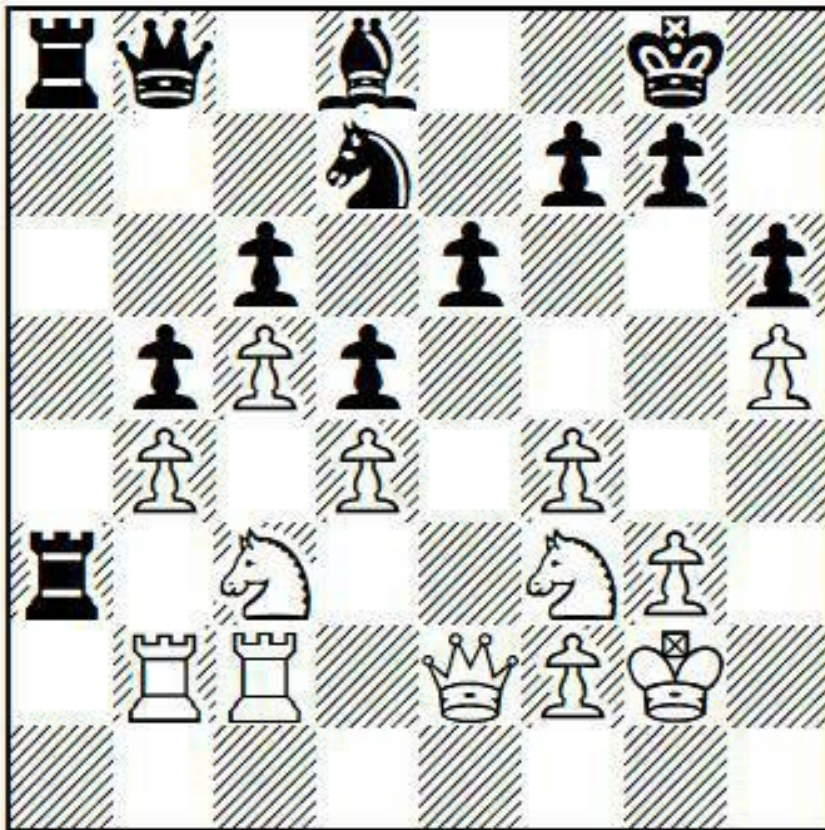
### 22 h5!

The extra space on the kingside will be very useful after some major pieces are exchanged later on.

**22 ... Ra3 23 Qc2 Be7 24 Kg2 Bf6 25 Rec1**

25 Nd1! intending to transfer the knight to g4 was a good way of posing problems for Black. Also, 25 ... Ra2 (25 ... Bd8 prepares to meet Ne3 with ... Nf6, preventing Ng4; however, White can open the position with 26 f5! and soon play Ne3-g4 anyway) 26 Rb2 Ra1 doesn't prevent White's plan because of 27 Re2 followed by Ne3-g4. Instead, Ding Liren takes a slower approach and tries to make some small improvements.

**25 ... Bd8 26 Qe2 Bf6 27 Rc2 Qb8 28 Rbb2 Bd8**



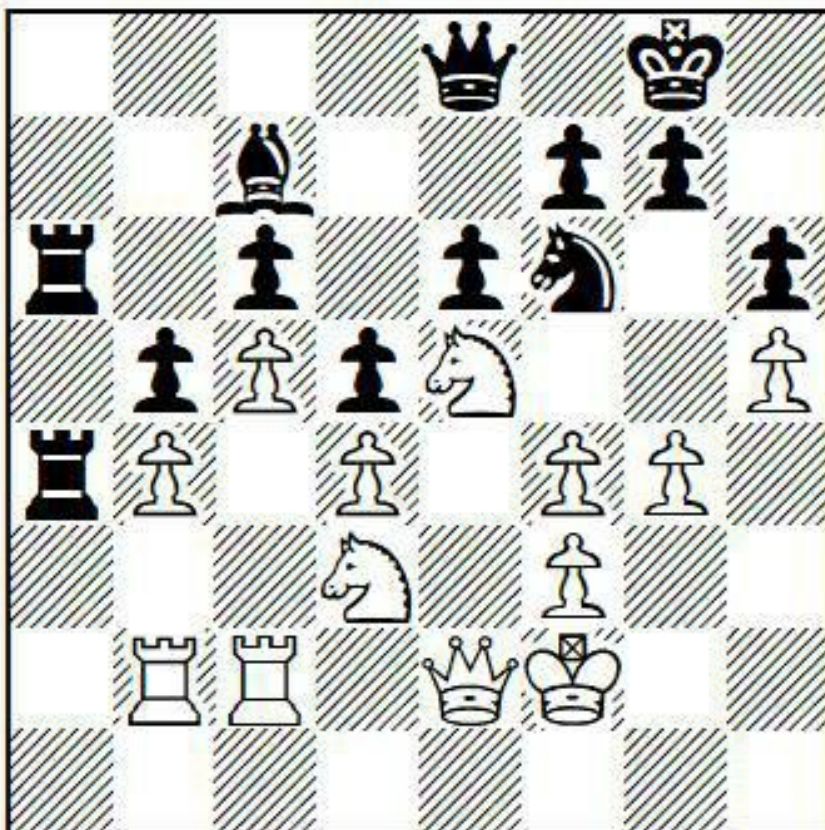
**29 Nb1**

After the game, Ding Liren mentioned that this long plan of transferring the knight to the d3-square was not good.

29 Nd1 activating the knight this way could again be considered. One sample line is 29 ... Bc7 30 Ne3 Nf6 31 Ne5 Qb7 and White should gradually

prepare a kingside advance, but it is not clear if this will bring any serious winning chances.

**29 ... R3a6 30 Ne5 Nf6 31 Nd2 Bc7 32 Nb3 Qe8 33 Nc1 Ra4 34 Ncd3 Ne4 35 g4 R8a6 36 f3 Nf6 37 Kf2**



**37 ... Ra1?!**

Grischuk suggested 37 ... Qa8! when it is very difficult to see how White can make further progress.

**38 Ra2 Qa8 39 Nc1!**

Missed by Grischuk. Suddenly Black is forced to switch from thinking strategically to accurately calculating the arising endgames, many of which are extremely dangerous.

**39 ... R1xa2 40 Rxa2 Ra3?**

The key line runs 40 ... Ra4! 41 Rxa4 bxa4 42 b5 cxb5 43 Qxb5 a3 44 Na2 leading to a difficult defence for Black. The computer however, feels no fear after 44 ... Bxe5 45 fxe5 Ne8 46 Ke3 (46 c6 Qa7 47 Ke3 Nc7 48 Qb7 Qa5

holds things together) 46 ... Nc7 47 Qb4 Kh7 48 Kd2 g6 and Black will always have some counterplay because of his queen, such as 49 Qb6 Qa4! and a perpetual check should occur.

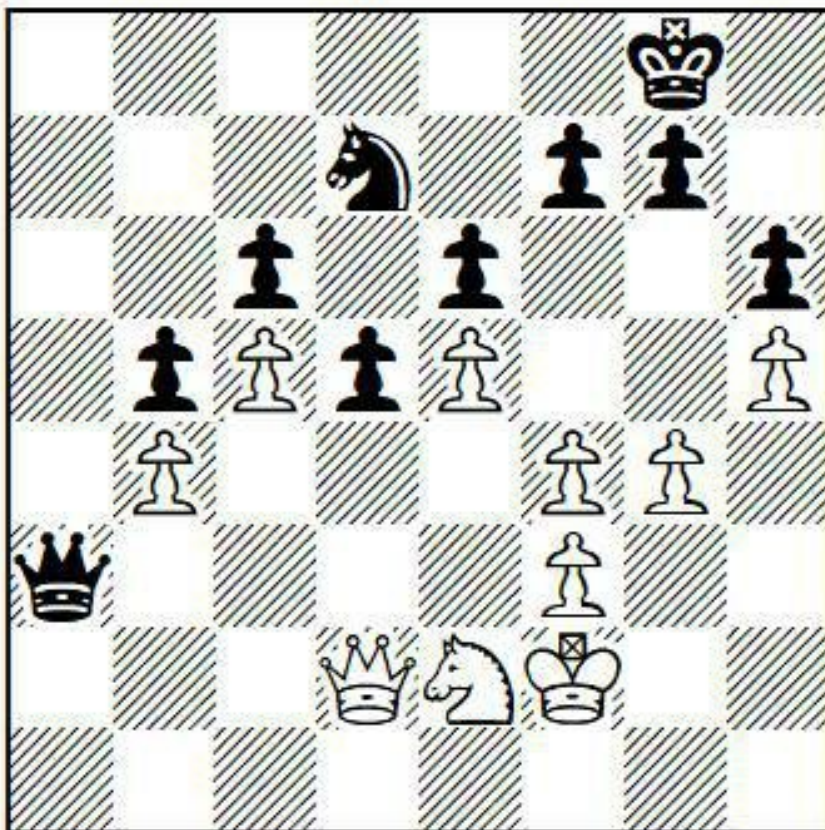
### 41 Rxa3

Grischuk's idea was to meet 41 Qb2 with 41 ... Ra4 when 42 Rxa4 bxa4 43 b5? a3! is with tempo.

### 41 ... Qxa3 42 Qd2 Bxe5

42 ... Qa6 defending passively looks awful for Black. The queen is tied down to the defence of the c6-pawn and White can breakthrough on the kingside with g5 whenever he likes. Still, 43 Ne2 Nh7 44 Qe3 Bd8 may put up a stubborn defence.

### 43 dxe5! Nd7 44 Ne2



The knight intends to occupy the excellent d4-square, so Black must take immediate action.

### 44 ... f6

Other concrete attempts were also considered by both players:

a) 44 ... Qa1 45 Kg2 f6 46 exf6 Qxf6 47 Nd4 and now 47 ... e5 is met by 48 g5!

b) 44 ... Nxc5 may have been the best practical try, although White should win after 45 bxc5 Qxc5+ 46 Qe3 Qe7 47 Qb6! Still, he must remain vigilant because of the Black queen.

**45 exf6 e5 46 fxg7 e4 47 Qc3 1-0**

## **Anti-Moscow Gambit**

The next game is another example of the difference in understanding between the older and newer engines in closed positions. Stockfish becomes overly confident with its extra connected passed pawn and fails to see how AlphaZero can build up its position before eventually breaking through Black's defences.

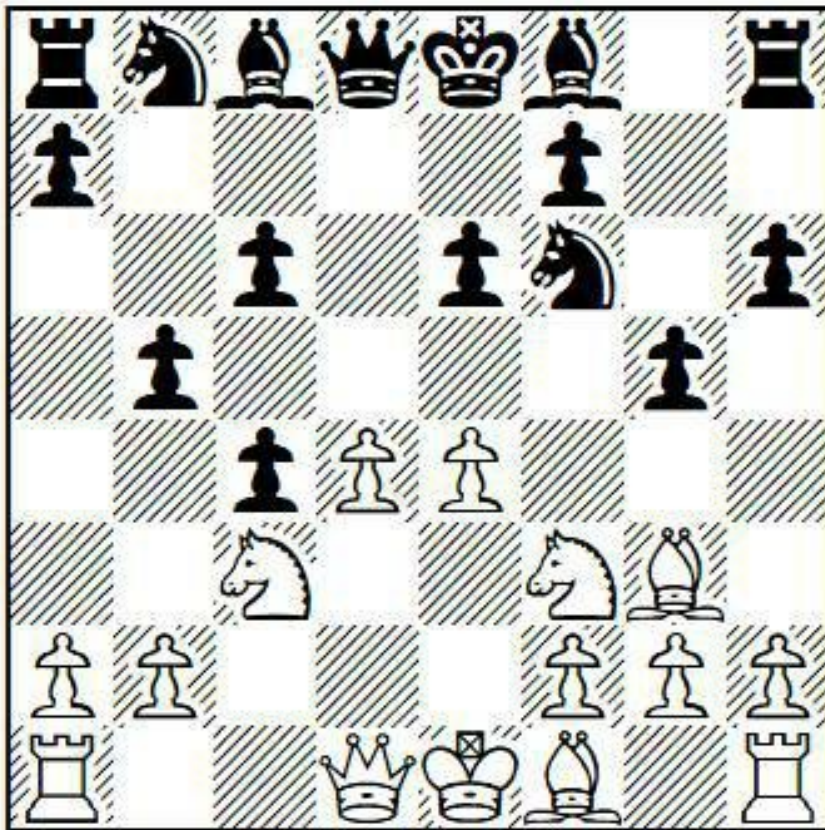
### *Game 52*

## **AlphaZero-Stockfish 8**

Computer Match 2018

**1 Nf3 Nf6 2 d4 d5 3 c4 e6 4 Nc3 c6 5 Bg5 h6 6 Bh4 dxc4 7 e4 g5 8 Bg3 b5**

The Anti-Moscow variation of the Semi-Slav is full of sharp and theoretical lines. White sacrifices a pawn in return for central control and long-term compensation.

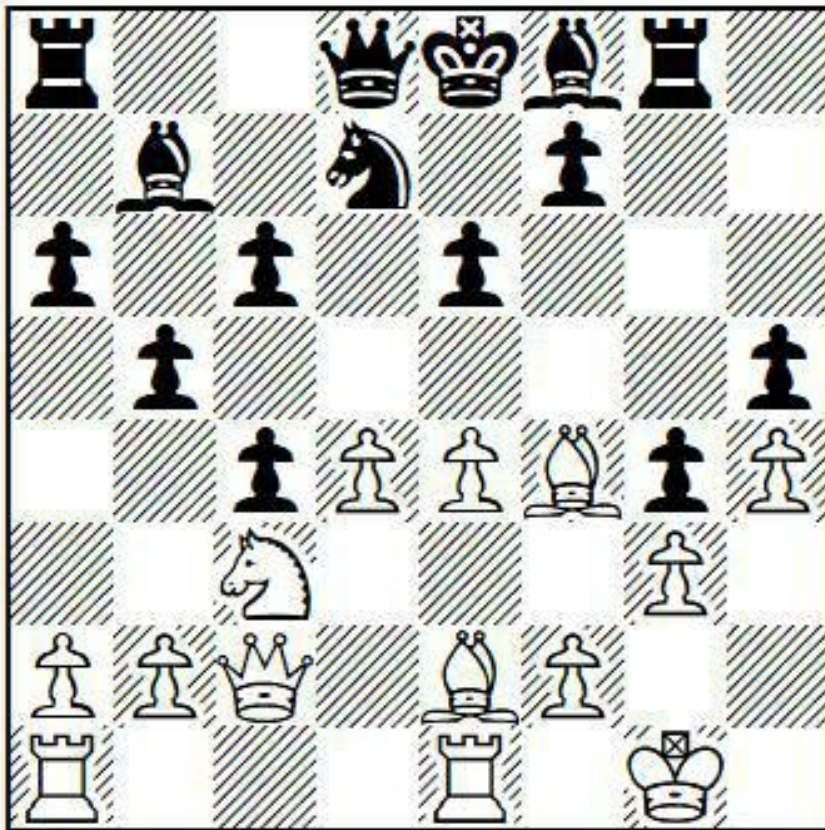


**9 h4 g4 10 Ne5 Nbd7 11 Be2 Nxe5**

Correspondence games and engines suggest that this line is perfectly playable for Black, but the lack of development and piece coordination makes it a poor practical choice. Additionally, many unnatural-looking moves are required in order to reach a satisfactory position.

The main line 11 ... Bb7 was played in the Carlsen-Matlakov game which we will analyze next.

**12 Bxe5 Rg8 13 0-0 Bb7 14 Re1 a6 15 g3 h5 16 Qc2 Nd7 17 Bf4**



White has achieved what looks to be an excellent version of the Anti-Moscow lines. He has full control over the centre and a clear lead in development, while Black is struggling to create any type of active play. Nevertheless, the older engines are very confident in the robustness of Black's position.

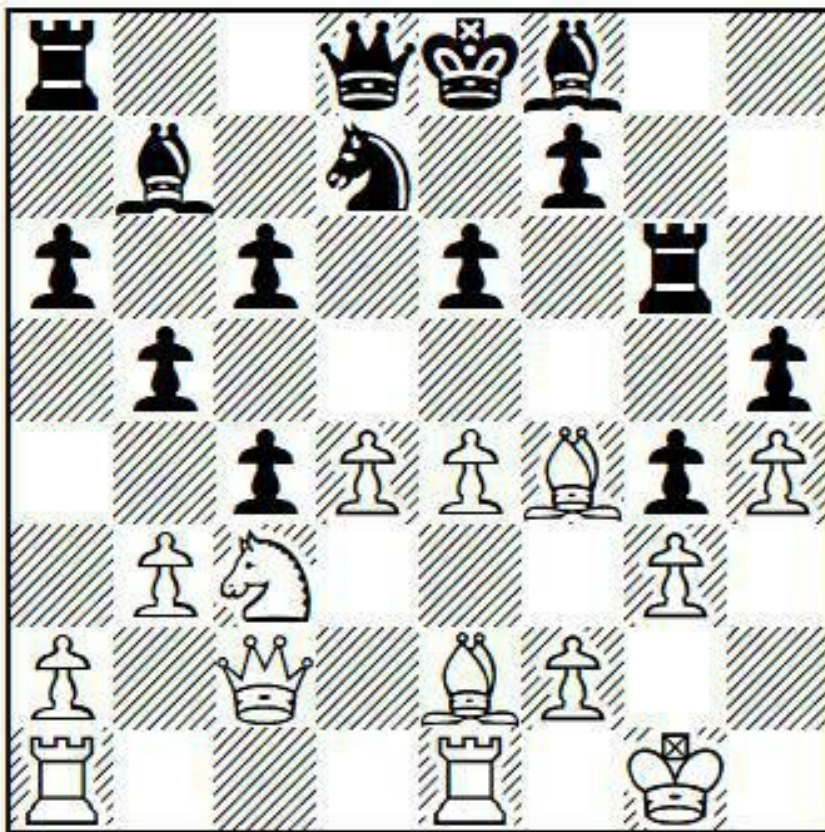
**17 ... Rg6!?**

17 ... Qf6 is another way of preparing ... Bh6. One correspondence game continued 18 a4 Rd8 19 axb5 cxb5 20 Rad1 Bh6 21 Bd6 Bf8 22 Bc7 Rc8 23 Ba5 (finally escaping from Black's dark-squared bishop) 23 ... Be7 24 Bf1 Kf8 25 Bg2 Qh6 26 e5 and White had excellent compensation for the pawn in D.Morozov-I.Firnhaber, correspondence 2019. The e4-square will be occupied by the knight and Black will struggle to coordinate his major pieces.

**18 b3**

AlphaZero seeks to pose Black with long-term strategic problems, rather than initiating direct play in the centre with 18 Rad1.

18 Rad1 is also quite challenging, though Black is holding his own in correspondence games after 18 ... e5! 19 dxe5 Qe7 20 Nd5!? (or 20 Qd2 0-0-0! 21 Bg5 Rxc5 22 hxc5 Qe6 23 Kg2 Be7 and the bishop pair as well as White's weaknesses provided excellent compensation for the exchange in L.Bär-O.Hesse, correspondence 2019) 20 ... cxd5 21 exd5 Bh6 22 e6 Bxf4 23 exd7+ Kd8 led to very sharp play in C.Vila Hernández-A.Pérez López, correspondence 2020.



### 18 ... b4?

A typical mistake of the older engines, overestimating the importance of a static feature (connected passed pawn on c3) and underestimating the incremental improvements that White can make in the arising closed position. AlphaZero patiently and accurately demonstrates the long-term strengths of White's position and gradually makes progress.

The correct path involves sacrificing an exchange and fighting for activity after 18 ... c5! 19 d5 e5 20 Bg5 Rxc5! 21 hxc5 b4 22 Nd1 c3 23 Ne3 Qxc5

reaching a critical position. Black intends to play ... h4 and possibly castle queenside, or if White tries 24 Bc4 then 24 ... Nb6 25 Qd3 h4 26 Rad1 hxg3 27 fxg3 led to a complicated and roughly balanced position in S.Caron-L.Tinture, correspondence 2020. Compared to our main game, Black has a safer place for his king on the queenside and chances to take the initiative due to White's exposed king.

### **19 Na4 c3**

In return for Black's passed pawn on c3, White has gained control over some light-squares (especially d3) which can be occupied by the bishop. Black also doesn't have a safe place for his king because in the event of ... 0-0-0, White will play a3 and axb4. Therefore, the king must remain in the centre, where it disrupts piece coordination.

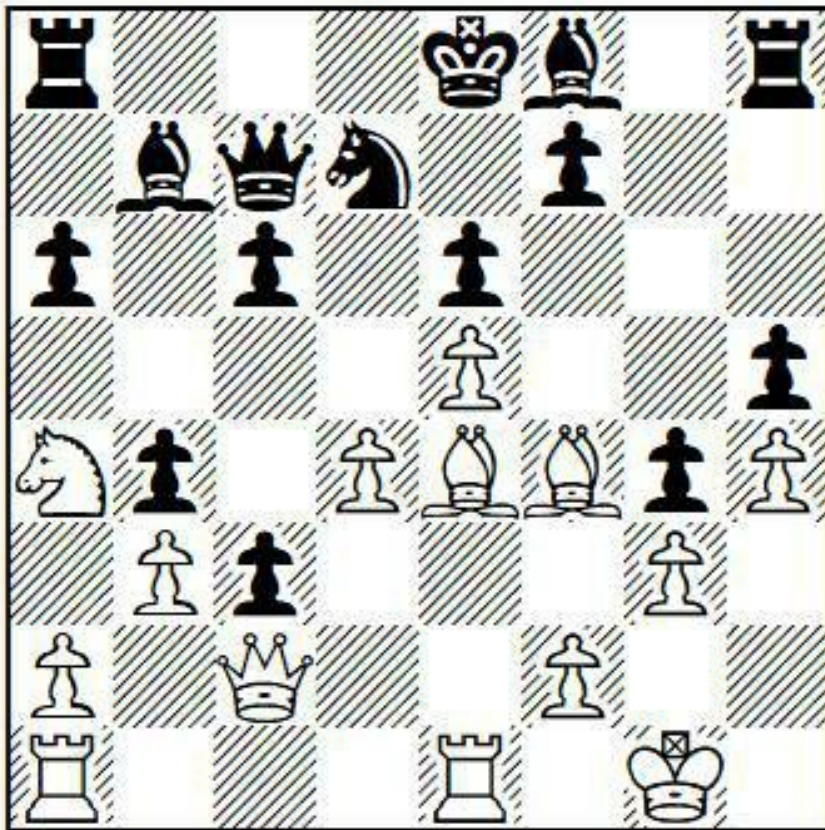
### **20 e5**

20 a3 may have been a slightly more sophisticated move order. Then after 20 ... a5 White plays 21 e5.

### **20 ... Qc7**

20 ... c5? 21 Bd3 Rg8 22 Be4 and soon the d-file will open which is clearly in White's favour because of his much safer king.

### **21 Bd3 Rg8 22 Bh7 Rh8 23 Be4**



### 23 ... a5?!

Immediate action had to be taken with the king on e8, but the older engines aren't fully aware of the long-term issues in Black's position yet.

23 ... Nb6! 24 Nc5 0-0-0 looks dangerous because of 25 a3. However, the bishop on b7 does a good job of holding the queenside together after 25 ... Rxd4 26 axb4 Bxc5 27 bxc5 Nd5 when the direct 28 Bxd5?! (28 Bg5!? keeping the bishop pair is more testing; Black is worse but has better chances of defending than in the game) 28 ... cxd5 29 Qxc3 runs into 29 ... Rxf4 30 gxf4 d4! followed by ... Qc6.

### 24 a3!

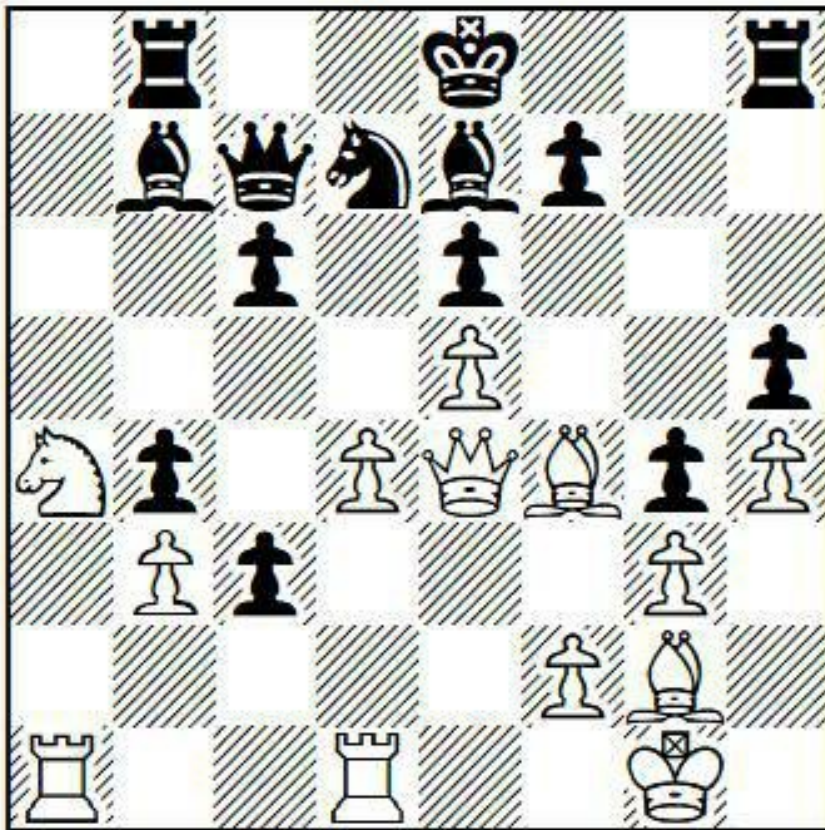
Black's king has an extremely difficult time finding a safe place – both the queenside and kingside are exposed.

### 24 ... Be7?!

I don't think Black's position can be saved after this, and yet the older engines still don't fully understand the danger.

The newer engines point out the last chance for Black to reach a salvageable middlegame with 24 ... Nb6! 25 Nc5 Bxc5 26 dxc5 Nd5 27 Bg5 Kd7! and the king runs to the queenside. The knight on d5 is carrying Black's position by preventing White from breaking through. Eventually White will probably try f3 and attack on the kingside, when it is unclear whether Black has sufficient defensive resources to hold.

**25 Bg2 Rd8 26 axb4 axb4 27 Qe4 Rb8 28 Red1**



**Question:** What happens if Black breaks with 28 ... c5 - ?

**28 ... Rd8**

**Answer:** 28 ... c5 allows White to breakthrough and exploit Black's lack of development with 29 d5! Bxd5 (29 ... exd5 30 Qe2 and e6 is unstoppable) 30 Rxd5 exd5 31 Qxd5 and e6 is coming next.

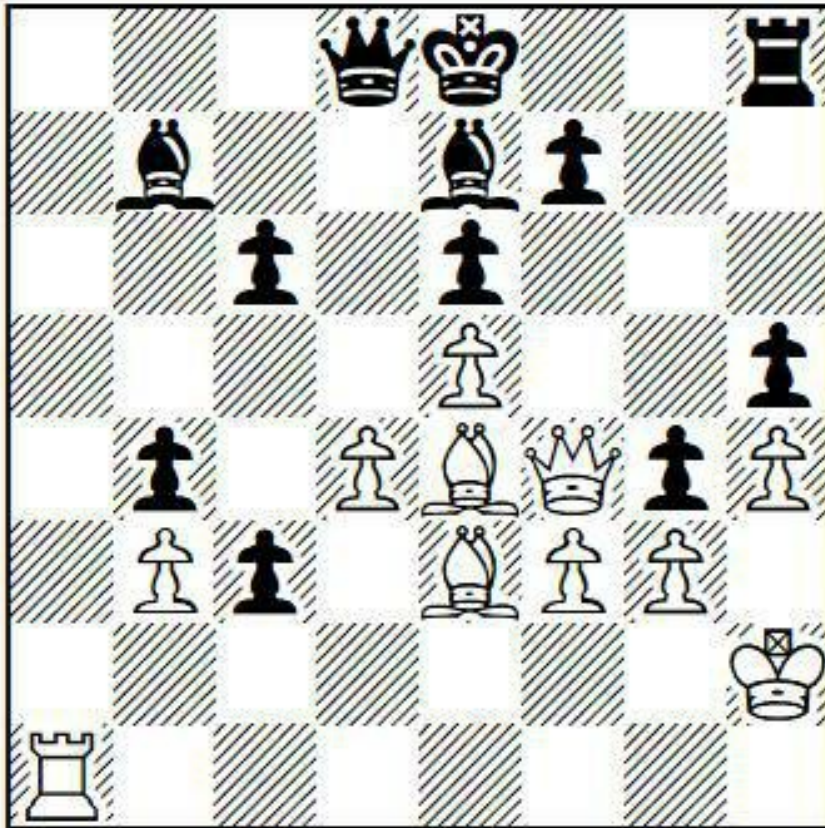
**29 Kh2**

AlphaZero makes some small improvements before opening the kingside,

while Black is left with no ideas whatsoever.

**29 ... Ra8 30 Be3 Nb6 31 Nxb6 Rxa1 32 Rxa1 Qxb6 33 Qf4 Qc7 34 Be4 Qd8 35 f3!**

The decisive breakthrough, after which Black is not able to cover all of his weaknesses (the h5, g4, and c6-pawns).



**35 ... Rg8**

35 ... gxf3 36 Qxf3 and Black's queenside is under fire, for example, 36 ... Qd7 37 Ra7 Kd8 38 Bd3 threatening Ba6.

**36 Qh6 Kd7 37 Qxh5 Qe8 38 Qh6 Qb8 39 Qf4 f5 40 exf6 Qxf4 41 Bxf4 Bxf6 42 fxg4 Kc8 43 Ra4 Bxh4 44 Rxb4**

Black's only advantage is lost: the connected queenside pawns.

**44 ... Bf6 45 Rc4 Kd8 46 Rxc3 Rxc4 47 Rc4 Rg7 48 Bxc6 Ba6 49 Rb4 Bc8 50 Kg2 Ra7 51 Kf3 Ke7 52 Be5 Bxe5 53 dxe5 Rc7 54 Be4 Rc3+ 55 Kf4 Rc1 56 Rc4 Rf1+ 57 Kg5 1-0**

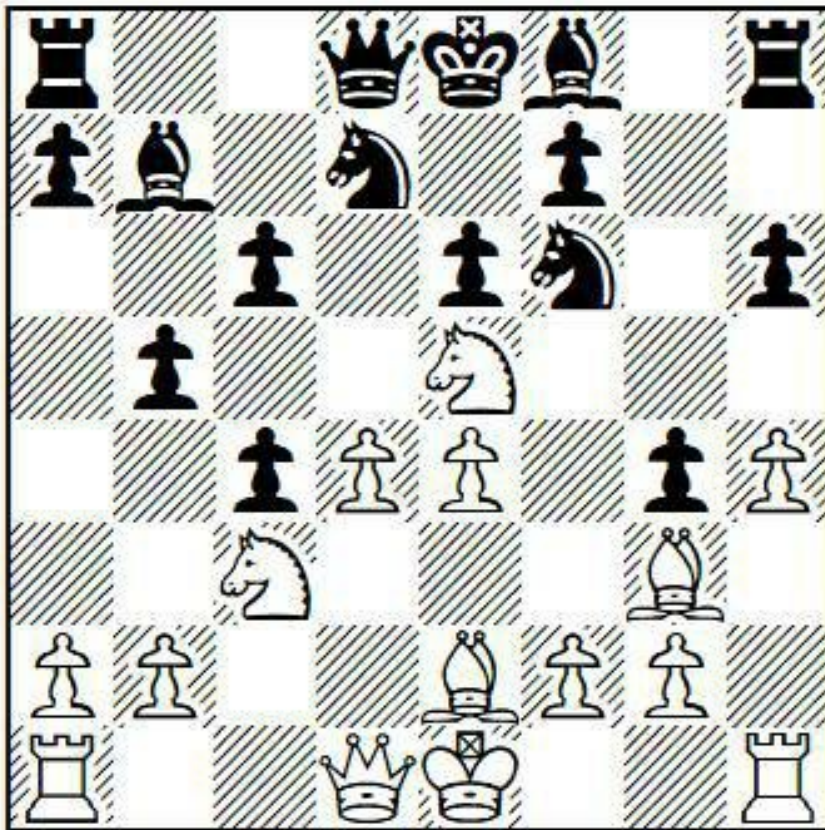
The following game by Carlsen contains some clear similarities to the previous game. Black obtains an extra connected passed pawn on c3 but White gets central control and an initiative in return. One major difference compared to the AlphaZero-Stockfish game is that Black has real chances for kingside counterplay. Still, White's attack is very difficult to play against and Carlsen demonstrates this by posing tremendous practical problems for his opponent.

*Game 53*

**M.Carlsen-M.Matlakov**

FIDE Grand Swiss 2019

**1 Nf3 Nf6 2 d4 d5 3 c4 e6 4 Nc3 c6 5 Bg5 h6 6 Bh4 dxc4 7 e4 g5 8 Bg3 b5  
9 h4 g4 10 Ne5 Nbd7 11 Be2 Bb7**



### 12 Nxd7

Just one round prior, Matlakov had the same position with the White pieces against Boris Gelfand. That game continued 12 0-0 Rg8 (12 ... Nxe5 13 Bxe5 Rg8 would be a transposition to the previous game) 13 Nxc4 b4 14 Na4 Nxe4 15 Bxc4 Qa5?! (the best approach involves castling queenside quickly: 15 ... h5! 16 Ne3 Qf6 17 Qxh5 0-0-0 18 Rad1 Nxc3 19 fxg3 Qh6 provides sufficient counterplay for the pawn, as in J.Ramirez-N.Limanskis, correspondence 2020) 16 Qe2 Qh5 was too slow in M.Matlakov-B.Gelfand, Douglas 2019. White quickly developed a strong initiative after 17 Qxe4 Qxc4 18 Qe3 Bd6 19 Be2 Qg7 20 Nc5 when the Black king lacks a safe shelter.

### 12 ... Qxd7 13 Be5 Qe7

13 ... Qd8 14 0-0 Rg8 transposes to the previous game.

### 14 b3 Rg8

Very dangerous is 14 ... cxb3 opening lines while behind in development.

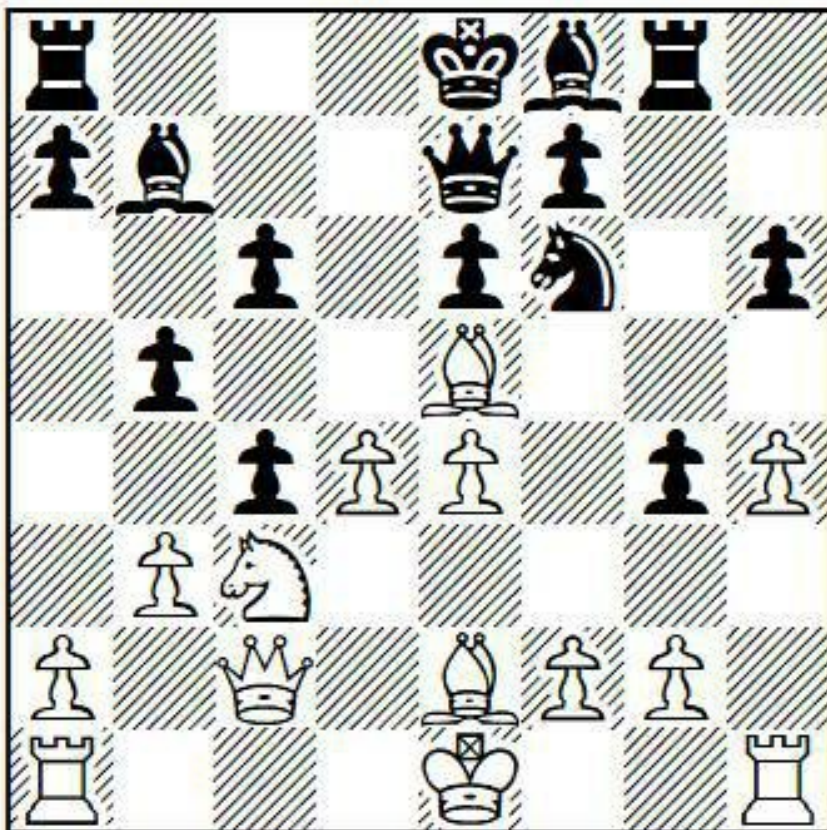
The continuation 15 axb3 a6 16 Qc1! was introduced in H.Nakamura-Ding Liren, Saint Louis 2016. Nakamura developed a crushing initiative after 16 ... Rg8 17 0-0 Nh5 18 d5 Qxh4? (a couple correspondence games have shown that it is possible to defend after 18 ... f6 19 Bh2 cxd5 20 exd5 but Black is under a lot of pressure and must be very precise) 19 g3 Qg5 20 dxc6 Qxe5 21 cxb7 Rb8 22 Nd5! crashing through on the queenside, which led to victory a few moves later.

### 15 Qc2!

Delaying castling in favour of queenside development is the most challenging approach. Others:

a) 15 bxc4?! is met by 15 ... b4 and White has to give up the central e4-pawn.

b) 15 0-0 Bg7 16 Qc2 Nh5! creates some threats on the kingside. Black obtains good play after 17 Bxg7 Rxg7 18 g3 Qd6! threatening the pawn on d4 as well as ... Nxc3!



### **15 ... b4**

As we saw in the previous game, the idea of creating a connected passed pawn on c3 is liked by the older engines a lot. One of the key differences between these two games is that Black has much better chances of creating active play on the kingside here, so it is reasonable to go for this plan.

However, I prefer the alternative 15 ... Nd7 16 Bg3 e5! (16 ... b4 17 Na4 c3 18 a3 transposes to the game) leading to active play after 17 d5 cxd5 18 Nxd5 Qc5 19 bxc4 f5! followed by ... f4 and ... Rc8 with a very sound position. This has been shown in many correspondence games, such as A.Brugger-M.Semrl, correspondence 2017.

### **16 Na4 c3 17 a3 Nd7**

Black wants to play ... a5 but it is best to play a couple intermediate moves first.

17 ... a5? runs into serious trouble after 18 Nb6 Rd8 19 axb4 axb4 20 Ra7.

### **18 Bg3 Bg7**

Forcing White's next move.

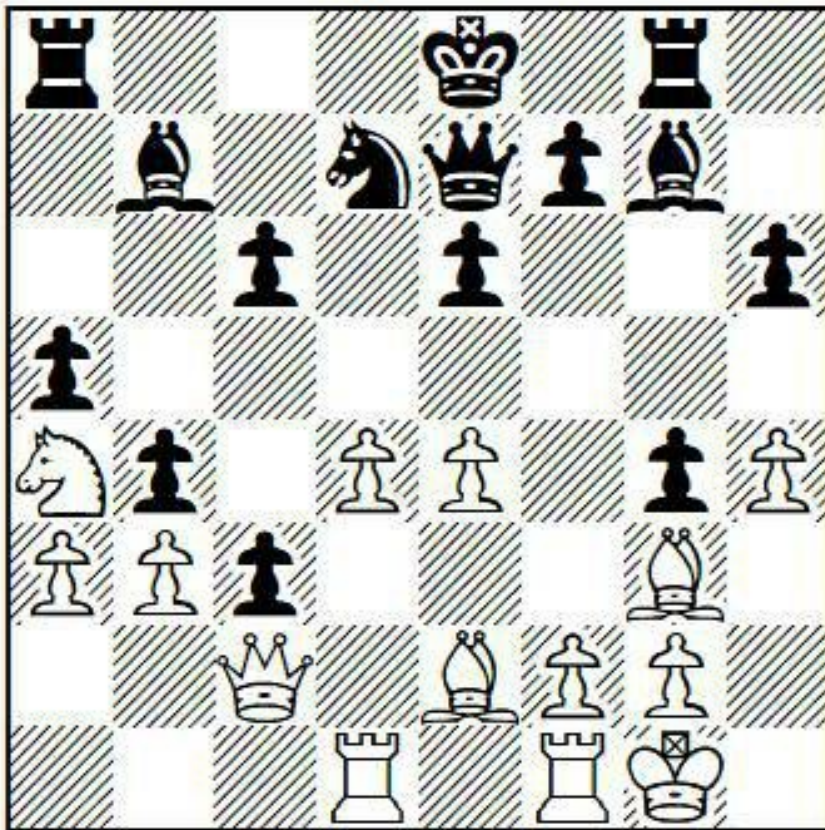
Again, 18 ... a5?! is less accurate because White's a1-rook is not forced to move. Following 19 0-0 h5 20 Rfd1 Bh6 21 Bc4 White is ready to begin action in the centre with d5 or perhaps Nc5 next.

### **19 Rd1**

19 e5?! runs into 19 ... c5 attacking d4 and g2.

### **19 ... a5 20 0-0**

There are some clear similarities between this position and the ones seen in the previous game. One key difference is that White's kingside is less secure, so Matlakov's next move targets the h4-pawn.



### 20 ... Bf6

By far the most natural move, but in view of the practical difficulties that face Black after 21 Bc7! there is an interesting alternative that deserves consideration.

20 ... e5!? sees Black striking first in the centre and sacrificing the g4-pawn. Play continues 21 Bxg4 Rd8 22 Bxd7+ (22 d5 Nf6 23 Bf5 cxd5 24 exd5 Nxd5 with unbalanced play in A.Seric-I.Tkachenko, correspondence 2020) 22 ... Rxd7 23 dxe5 Bxe5 24 Rxd7 Kxd7 25 Qd3+ looks very dangerous for Black due to White's queen and knight eyeing the king. A.Rimsans-T.Ristea, correspondence 2020, continued 25 ... Kc8 26 Bxe5 Qxe5 27 Nb6+ Kc7 28 Nc4 Qf4 29 Rd1 c5 30 Qd7+ Kb8 31 Nd6 Bxe4! created kingside counterplay just in time. White had nothing better than a perpetual after 32 Qb5+ Ka8 33 Qa6+ Kb8.

### 21 Nc5?!

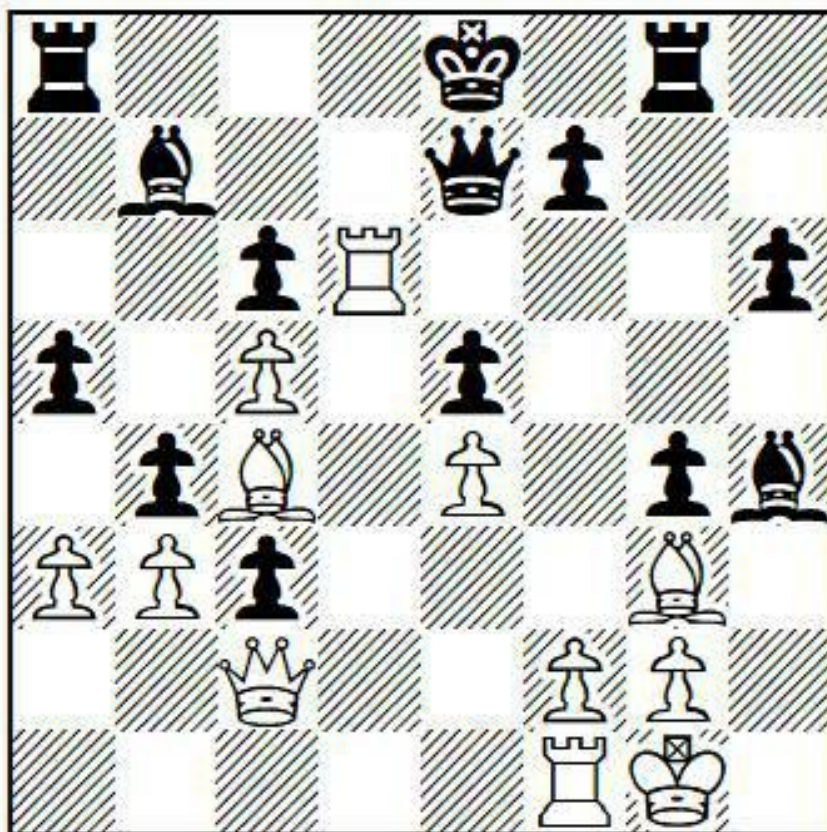
Opening the d-file and going all in for the initiative.

21 Bc7! abandons the h4-pawn in return for a powerful initiative after 21 ... Bxh4 22 e5! intending to play Bd6 and g3. Even though it looks crushing, Black is theoretically holding after 22 ... Qg5! 23 g3 Bxg3 24 fxg3 Qe3+ 25 Kg2 c5+ 26 d5 Rc8 but after 27 Bd6 exd5 28 Rxf7! Black must find several remarkable ideas in order to survive. For example, see S.Klimakovs-M.Höppenstein, correspondence 2019. From these lines (and the ones we saw after 20 ... e5!?), it's clear that Black faces a lot of practical problems in the 15 ... b4 lines and future human games may see 15 ... Nd7 instead.

**21 ... Nxc5 22 dxc5 e5**

22 ... Qxc5 is very risky because of 23 Bd6 Qb6 24 axb4 axb4 25 e5 and the bishop on d6 disrupts Black's play.

**23 Rd6 Bxh4 24 Bc4**



Despite the two extra pawns, Black position is extremely difficult to play because of his poor piece coordination and king in the centre. There were a couple ways for Black to save the game, but these demanded precise

calculation and several fearless moves.

### **24 ... Bg5**

24 ... Rg6 25 Qd3 Rd8! 26 Bxh4 (26 axb4 axb4 27 Bxh4 Rgxd6 28 Qxd6 Qxh4 extinguishes White's play) 26 ... Rgxd6! 27 Qg3 Rf6 28 Qxg4 Kf8 and despite the tangled up major pieces, Black's king is very safe and the c2-pawn will be useful in the near future.

### **25 Qd3**

Carlsen preferred to keep the rook on f-file and play for f4. However, another dangerous approach was 25 Rfd1!? Bd2 (25 ... h5 26 Rd7 Qxd7 27 Rxd7 Kxd7 28 Bxe5 is far too dangerous for Black; the rooks cannot coordinate after 28 ... Ke8 and the king is stuck in the centre) 26 R1xd2 cxd2 27 Qxd2 Qg5 28 Qd1 and Black faces a challenging defensive task.

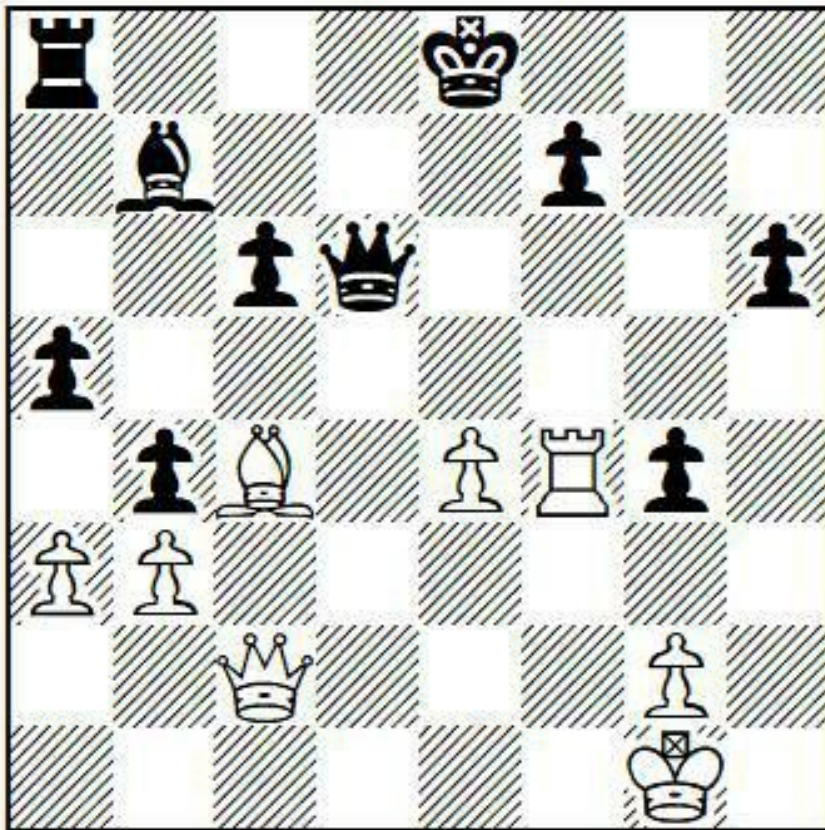
### **25 ... Rg6 26 f4 exf4?**

The narrow path to a defence was 26 ... gxf3 27 Qxf3 Rg7 28 Bxe5 Qxe5 29 Bxf7+ Kf8! 30 Bc4+ Bf4! blocking the discovered check. The passed c3-pawn will become a great asset if the queens are exchanged.

### **27 Bxf4?**

After the game, Carlsen mentioned the crushing 27 e5! and the incoming attack will be decisive. And 27 ... fxg3 loses to 28 Rxf7.

### **27 ... Bxf4 28 Rxf4 c2 29 Qxc2 Rxd6 30 cxd6 Qxd6**



*Exercise:* How should White keep up the initiative?

*Answer:* 31 e5! Opening the diagonal for the queen and forcing Black's queen to an unpleasant square.

31 Bxf7+? Kd8 32 Qf2 Kc7 doesn't lead anywhere.

31 ... Qc5+ 32 Kh1 Qe3 33 Qf5 Kd8 34 Qxf7 Kc8 35 axb4 Qxe5 36 Qf8+ Kc7 37 Rf7+ Kb6 38 bxa5+ Qxa5 39 Qe7 Qh5+ 40 Kg1 Ra1+ 41 Bf1 Qxf7 42 Qxf7 Ba6

Carlsen could have won much more efficiently when the Black king was exposed in the centre. However, the arising endgames are also won for White, as Black is never quite able to set up a fortress.

43 Qf2+ Kb7 44 Qd4 Rxf1+ 45 Kh2 h5 46 Qc5 Rb1 47 Qxh5 Kb6 48 Qxg4 Rxb3 49 Qg8 Rd3 50 g4 Rd5 51 g5 Bd3 52 g6 Bxg6 53 Qxg6 Kc7 54 Qf7+ Kb8 55 Kg3 Rg5+ 56 Kf4 Rd5 57 Qf8+ Kb7 58 Qb4+ Kc7 59 Ke4

**Kc8 60 Qb6 Kd7 61 Qb7+ Kd6 62 Qc8 Kc5 63 Qb8 Rh5 64 Kf4 Rd5 65 Kg4 Kc4 66 Qb6 Rd4+ 67 Kf5 c5 68 Qa5 Rd5+ 69 Ke6 Rd4 70 Qa4+ Kc3 71 Qa3+ Kc4 72 Qa5 Rd3 73 Qa4+ Kc3 74 Qa3+ Kc4 75 Qc1+ Kb4 76 Qb2+ Kc4 77 Qc2+ Kd4 78 Kd6 c4 79 Qf2+ Re3 80 Qd2+ 1-0**

## **An Unbalanced Anti-Berlin**

The next two games serve as a transition between this chapter and Chapter 7 on Material Imbalances. An interesting new idea in the 4 d3 Anti-Berlin has received some attention at the top level. The idea is based on unbalancing the game by sacrificing a piece for two kingside pawns and weakening the safety of White's king. While the older engines enjoy having White's extra material, the newer ones understand that Black's position is extremely robust and find enough resources to keep the game balanced.

Note that the two engines in the following game are modern engines because they both utilize a neural network.

### *Game 54*

#### **Lc0-Stockfish**

TCEC 2021

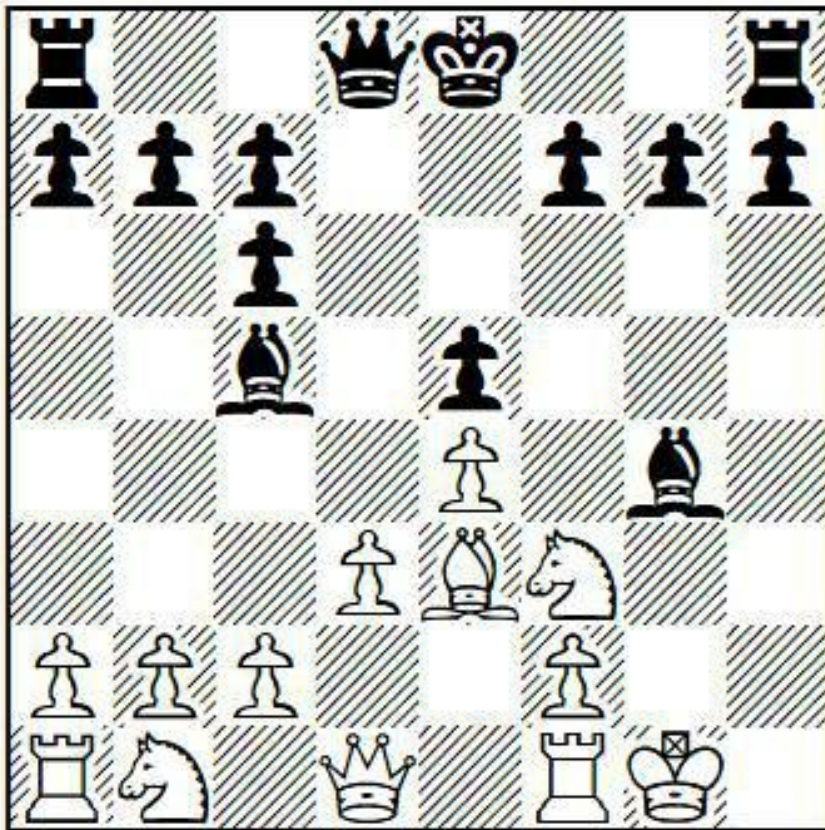
**1 e4 e5 2 Nf3 Nc6 3 Bb5 Nf6 4 d3 Bc5 5 Bxc6 dxc6 6 0-0**

I recommended this system for White against the Berlin in my book, *Opening Repertoire: The Ruy Lopez*. One of the main ideas was to avoid the well-trodden paths of other areas in the Berlin (such as the Berlin Endgame) and reach a slightly more comfortable middlegame. Since then, the concrete 6 ... Bg4 variation has entered theoretical discussions because of the newer engines' liking towards it.

**6 ... Bg4!? 7 h3 Bh5 8 g4 Nxg4 9 hxg4 Bxg4**

The game started from this position.

**10 Be3**



### 10 ... Be7!

The modern approach to the 6 ... Bg4 variation.

10 ... Bd6?! 11 Kh1! is very strong, preparing to meet 11 ... f5 with 12 Rg1 putting pressure on the g4-bishop. P.Leko-D.Navara, Linares 2018, continued 12 ... h5 13 exf5 Qf6 14 Nbd2 Qxf5 15 Rg3 h4 16 Rxc4! Qxc4 17 Nh2 Qd7 18 Qg4 and the two knights were much stronger than the rook and two pawns. White's minor pieces have excellent squares, while there are no open files for the Black rooks to occupy.

### 11 Kg2

Others:

a) 11 Kh1? f5 12 Rg1 h5! looks very similar to the 10 ... Bd6?! variation above but there is a crucial difference: the d-file is open for Black's queen. One game continued 13 Nc3 (13 exf5? e4! is a very important point and a key difference between the two bishop retreats on move 10) 13 ... f4 14 Bd2 g5 15 Nb1 and in H.Nakamura-M.Carlsen, internet 2020, White would be in

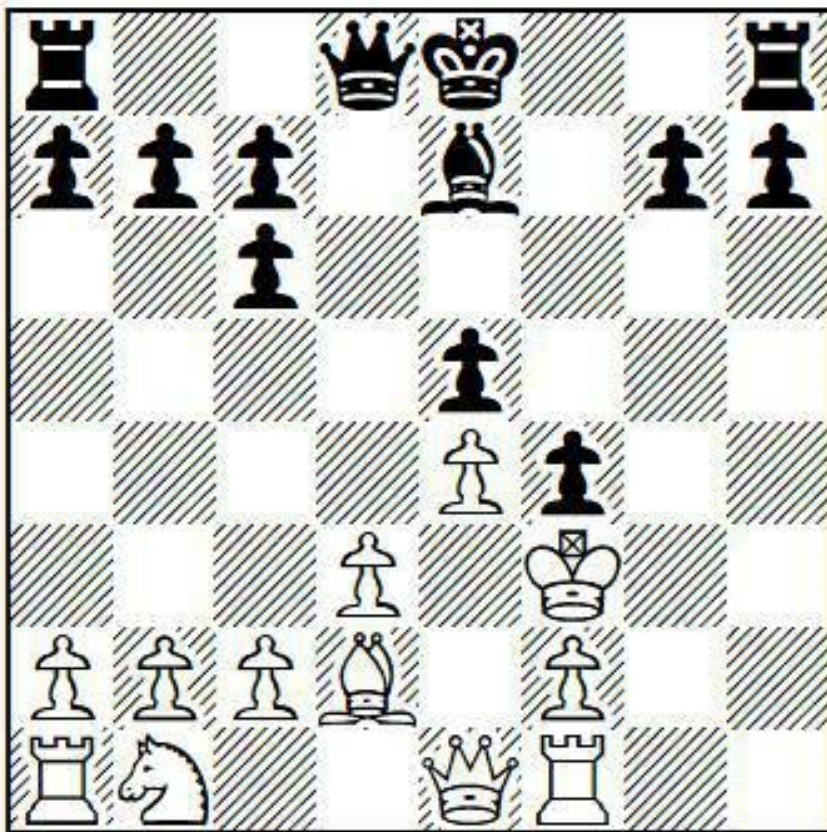
serious trouble after 15 ... Bxf3+ 16 Qxf3 g4. Instead, Carlsen tried a more materialistic approach and later allowed decisive counterplay.

b) 11 Nbd2 Qc8! (preparing ... f5 and the activation of the queen; not 11 ... f5? 12 exf5 and White quickly unpins with Qe1 next) 12 Kh1 f5 13 Qe1 Bxf3+!? (the natural 13 ... f4 14 Nxe5 fxe3 15 Qxe3 Bf6 leads to a middlegame with balanced material and roughly equal chances) 14 Nxf3 f4 15 Bc1 Qh3+ 16 Nh2 0-0-0 17 Rg1 g5 led to a very complicated battle in Stockfish-Lc0, TCEC 2021.

**11 ... f5 12 Qe1!**

This move in conjunction with the previous one is the most effective way of unpinning the queen.

**12 ... Bxf3+ 13 Kxf3 f4 14 Bd2**

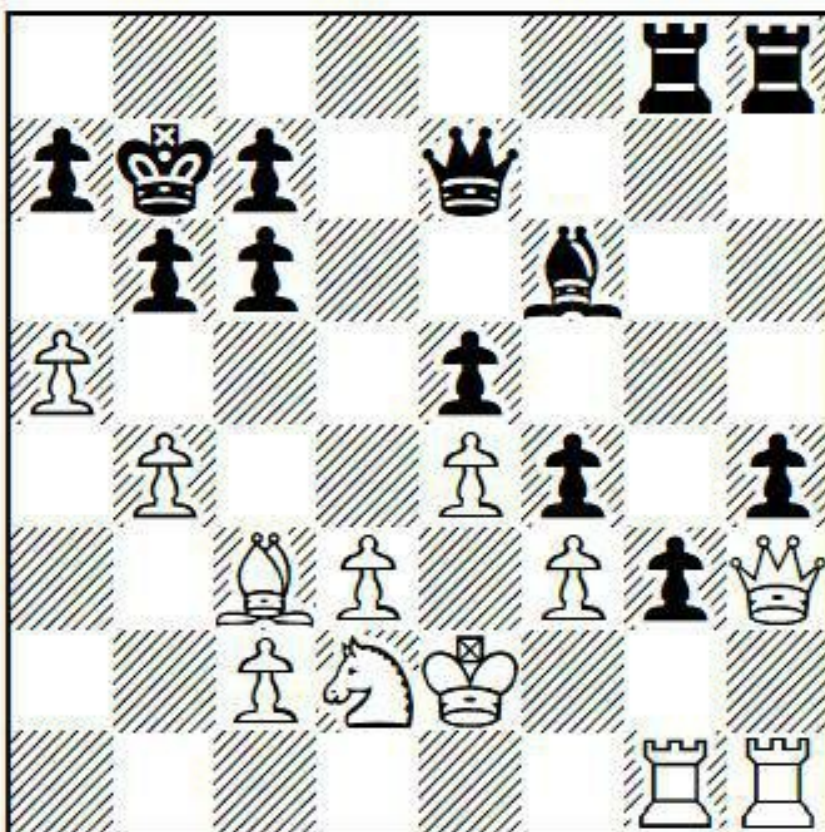


In my Ruy Lopez book, I stopped analyzing on the previous move, which turned out to be too early for a proper conclusion to be drawn. I trusted the older engines assessment of the position (clearly better for White) and

assumed that the lack of games meant that this must be dubious for Black. However, the newer engines prove that this evaluation is incorrect and Black's piece sacrifice is fine as long as he plays accurately on the kingside.

### 14 ... g5

Lc0 demonstrated how things could go wrong for Black in the following computer game: 14 ... h5 15 Bc3 Bf6 16 Rh1 Qd7 17 Ke2 0-0-0 18 Nd2 g5 19 f3 g4 20 Qf2 b6 21 Qg2 Kb7 22 a4 g3?! (I think the simplest plan would be to restrict White's a-pawn advance with 22 ... a5!) 23 b4 h4 24 Qh3 Qe7 25 a5! Rdg8 26 Rag1



26 ... Qe8? (Lc0 suggested 26 ... Rg7 27 Nb3 Rhg8 when it is extremely difficult for White to make further progress; if the g1-rook leaves, then Black is ready to play ... g2) 27 Nb3 Bd8 28 a6+! Kb8 29 Kf1 Rg5 30 Kg2 Be7 31 Rd1 Qf7 32 Rd2 and White reached an objectively winning position in Lc0-Komodo Dragon, TCEC 2021. The king has an excellent defensive purpose on g2, the a6-pawn cramps Black's queenside, and White has a clear plan of

making progress. For example, 32 ... Rgh5 33 Rhd1 Rd8 34 Nc1 Rd6 35 Ne2 and d4 is coming next.

### **15 Bc3 Qd6**

Aryan Tari chose a slightly different setup with 15 ... Bf6 against Anish Giri which we will look at in the next game.

### **16 Nd2 Qe6!**

A good square for the queen, where it supports the e5-pawn and prepares ... g4.

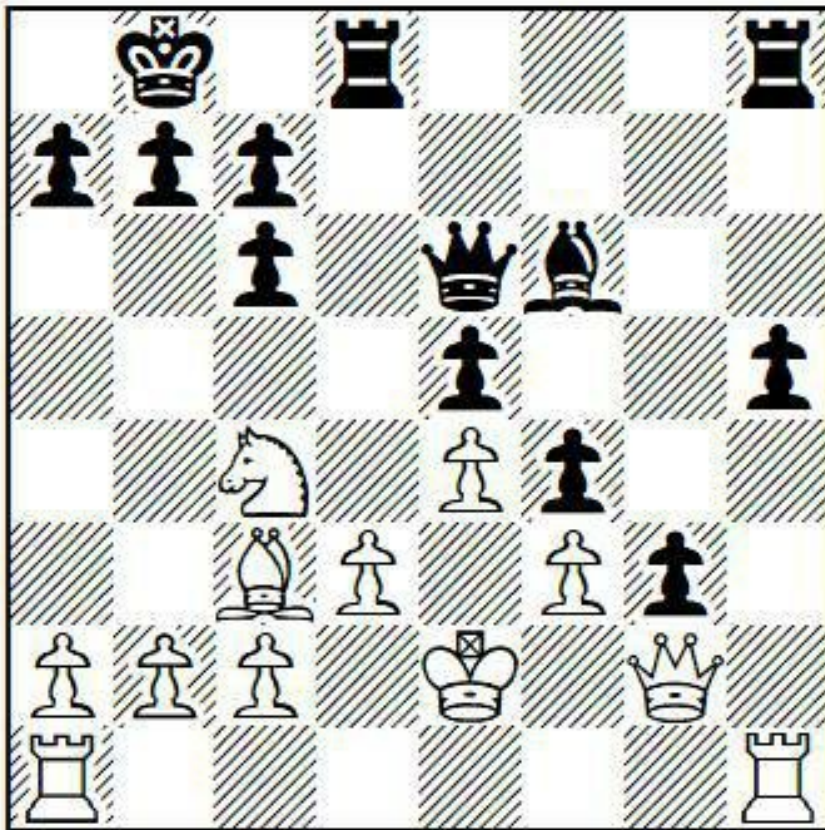
### **17 Ke2 h5 18 f3**

An alternative setup is 18 b4!? g4 19 Qb1 transferring the queen to the queenside. After 19 ... h4 White can try:

a) 20 b5 f3+ 21 Ke1 Rh5 protects the e5-pawn. Black can castle next and support the kingside pawns with the other rook. Meanwhile, White's major piece coordination is awful.

b) 20 Qb3 Kd7 21 Rae1 Rh5 22 Qxe6+ Kxe6 23 Rh1 Rg8 24 Reg1 h3 25 Nf1 c5 with a perfectly fine endgame for Black in Komodo Dragon-Lc0, TCEC 2021.

### **18 ... g4 19 Nc4 Bf6 20 Rh1 0-0-0 21 Qf2 Kb8 22 Qg2 g3**



### 23 Qh3

The queen is tasked with the lowly job of blockading Black's passed pawns.

The ideal setup for White involves a king on g2 and rook on h3 to blockade the Black pawns. Giri managed to achieve this in the next game, due to an inaccurate move order by his opponent. However, in this particular case it is not possible, for example 23 Kf1 Rdg8 and the queen on g2 cannot move because of ... g2.

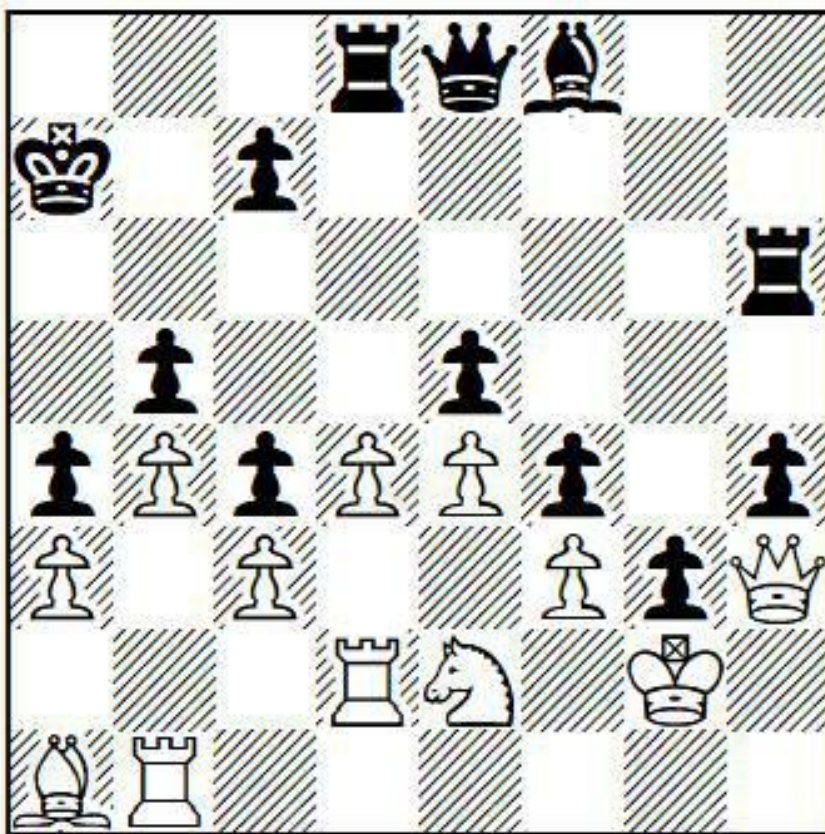
### 23 ... Qe7 24 a3 Rdg8 25 Rag1 h4 26 b4 b6 27 Kf1

The king goes to g2 and acts as a blockader, which is good because the king was previously doing nothing. If White could somehow place the queen on the queenside and use a rook to blockade on h3, then some real progress might be made. Unfortunately, this is not possible because White queen is stuck on the kingside.

27 a4 a6 and Black simply waits. If either side tries to make progress, they

will only damage their own position. For example, 28 Rg2 (the immediate 28 Nd2? runs into 28 ... a5 29 bxa5 Qc5! with a double attack on the bishop and f2-square) 28 ... Kb7 29 Nd2!? prepares Nb3 and a5 to weaken Black's queenside. However, there is 29 ... c5! 30 b5 axb5 31 axb5 Ra8 taking control of the open a-file.

**27 ... a5 28 Kg2 a4 29 Rb1 Rd8 30 Nb2 b5 31 Nd1 Rh6 32 Re1 Qe8 33 Re2 Bg7 34 Ba1 Bf8 35 Rd2 Kb7 36 Nc3 Ka7 37 Ne2 c5 38 c3 c4 39 d4**



White has achieved the d4 break but there is no safe way to make further progress. The queen is tied down on h3 and the minor pieces lack mobility, so it doesn't make sense to try for a win.

**39 ... Qg6 40 Bb2 Bg7 41 Rc1 Kb7 42 Rb1 Rh5 43 Re1 Qb6 44 Red1 Rd6 45 Rg1 ½-½**

And after 90 more moves of shuffling, the game ended in a draw.

The next game shows how things can go wrong for Black. After a natural but inaccurate pawn advance by Aryan Tari, Giri sets up the ideal blockade on the kingside and slowly breaks through his opponent's defences. The key difference compared to the previous game is that White's queen is not tied down on h3.

### *Game 55*

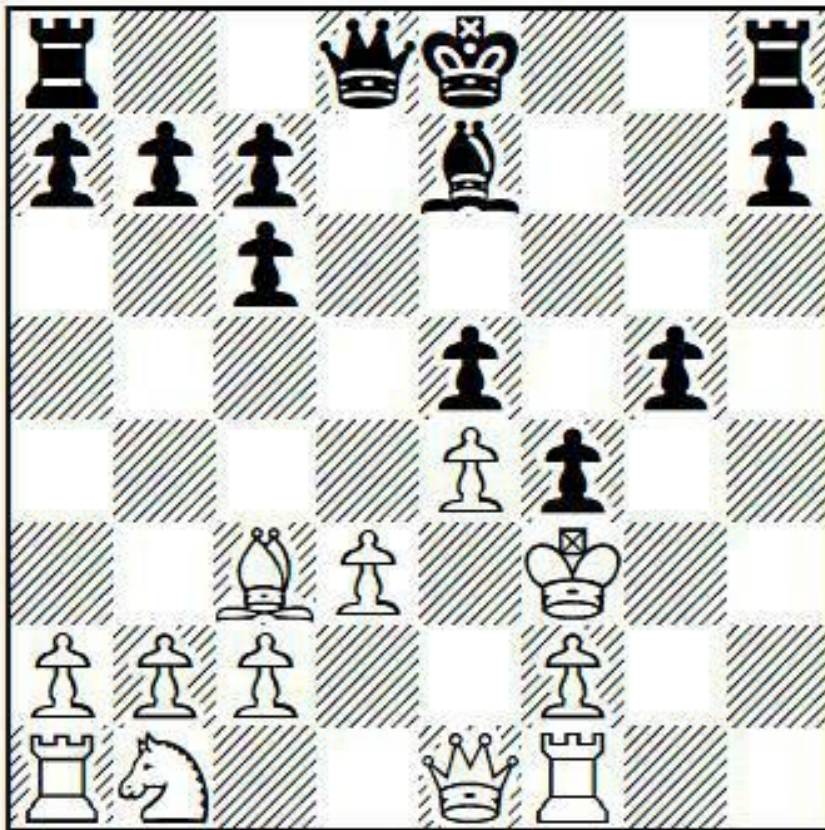
#### **A.Giri-A.Tari**

Tata Steel 2021

**1 e4 e5 2 Nf3 Nc6 3 Bb5 Nf6 4 d3 Bc5 5 Bxc6 dxc6 6 0-0 Bg4**

A few months later, Giri showed some ideas after 6 ... Nd7 7 Nc3!? (in my book, I analyzed 7 c3 fighting for central control) 7 ... 0-0 8 Ne2 Re8 9 Be3 Bd6 10 Nd2! Nf8 11 Ng3 Ng6 12 Qf3 Be6 13 Nf5 Qd7 14 g4 and developed a kingside initiative in A.Giri-T.Radjabov, internet 2021.

**7 h3 Bh5 8 g4 Nxc3 9 hxc3 Bxc3 10 Be3 Be7 11 Kg2 f5 12 Qe1 Bxf3+ 13 Kxf3 f4 14 Bd2 g5 15 Bc3**



**15 ... Bf6**

15 ... Qd6 was discussed in the previous game.

**16 Nd2 Qe7 17 Rh1 h5 18 Ke2**

So far, everything looks quite familiar, except that now it is important for Black to finish developing before playing the ... g4 advance.

**18 ... g4?**

A very natural push, but it is too early.

18 ... 0-0-0! 19 f3 Rdg8 is much more accurate, finishing development before advancing the g-pawn. Of course, it is not possible for White to put his king on g2 now as then ... g4 and ... gxf3 would be crushing. Instead, White will need to set up a defence with his major pieces on the kingside, leading to similar play as the previous game. One sample line is 20 Qf2 b6 21 Rag1 a5 (it is useful to gain space on the queenside in case White was hoping for a4-a5 or a3 and b4) 22 a4 g4 23 Kf1 Qe6! keeping the tension on the kingside

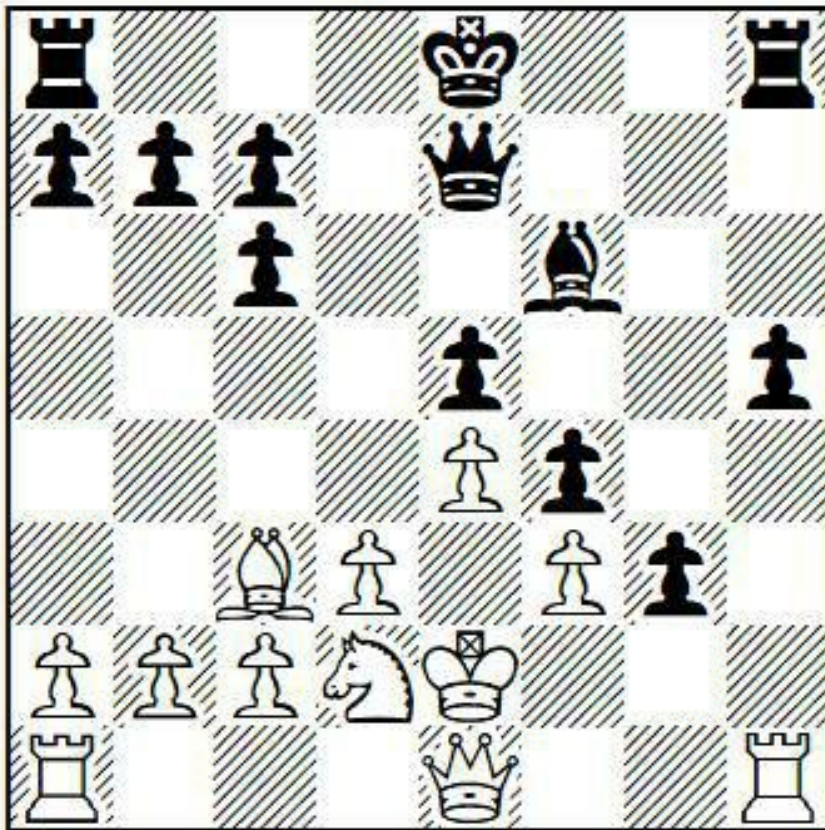
and not allowing White to setup a blockade. Instead, 23 ... g3? 24 Qe1 Qe6 25 Kg2 h4 26 Rh3 would see White creating the ideal blockade on the kingside, similar to our main game.

**19 f3**

Suddenly it is not so clear what Black should do with his g and h-pawns.

**19 ... g3**

19 ... 0-0-0 20 Qg1! creates a double attack on the g4 and a7-pawns.



**Exercise:** How should White deal with Black's advancing passed pawns?

**Answer: 20 Kf1!**

In the previous game, we saw that White's queen was involved in blockading the kingside pawns. As Anish Giri mentioned later on his YouTube channel, White wants to use the least amount of material to blockade the pawns, so that the other pieces can be used in the real fight.

**20 ... h4 21 Rh3 a5 22 a4 b6 23 Kg2**

Giri has achieved a fantastic version of these piece sacrifice lines because he has blockaded Black's kingside passed pawn by using only his rook and king. The queen can move anywhere it likes, such as the b2-square to put pressure on e5, or it may sneak through on the queenside and provoke weaknesses.

**23 ... c5 24 Qb1 Kf7 25 b3 Rad8**

It is extremely challenging to find a satisfactory defensive setup for Black. With perfect play Black might be holding, but the ideas shown by Giri in the remaining part of the game make it a nightmare to defend in practice.

25 ... Ke8 26 Nc4 Kd7 27 Qb2 Rae8 brings the king to the queenside, but 28 Be1 Kc8 29 c3 and a breakthrough with d4 or b4 is coming whenever White wants.

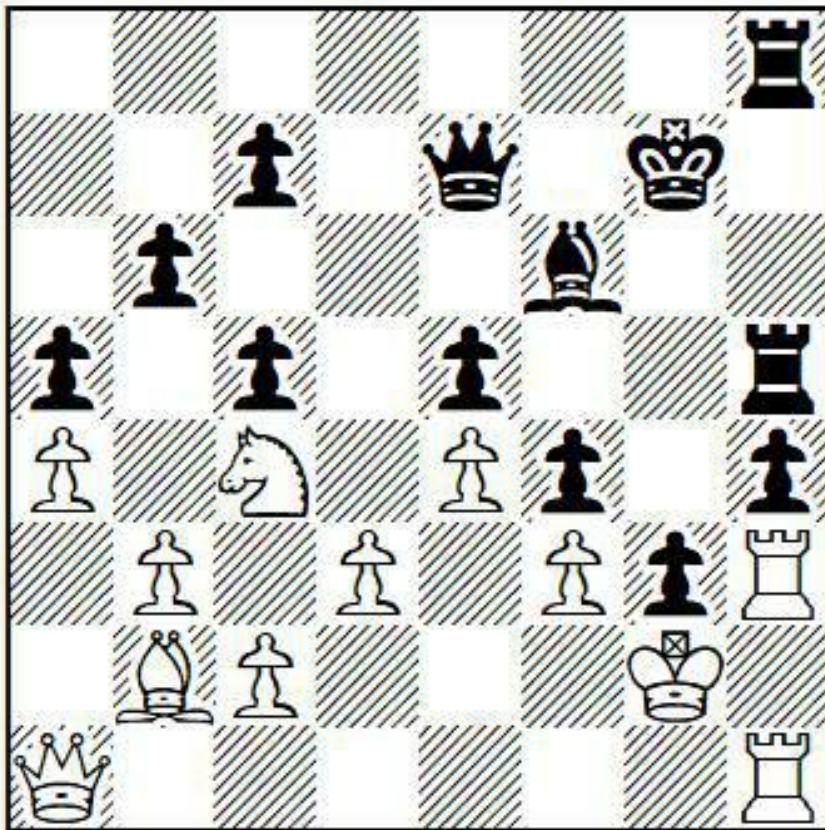
**26 Nc4 Kg6 27 Qb2 Rh5 28 Rah1 Rdh8**

One instructive breakthrough idea is shown after 28 ... Re8 29 Nxe5+! Bxe5 30 Bxe5 Qxe5 31 Qxe5 Rxe5 32 Rxh4 picking up all of Black's queenside pawns.

**29 Qa1 Kg7 30 Bb2 Kg6 31 Qb1 Rd8 32 Qe1**

Black has no active play whatsoever, so White can take as much time as he wants.

**32 ... Kg7 33 Qa1 Rdh8**



**Question:** How does White make progress?

**Answer: 34 Na3!**

The beginning of an excellent knight maneuver to the e2-square. Giri takes the time to improve his position and doesn't rush with a committal pawn move.

34 c3 Rd8 35 Qd1 preparing d4 was another good option. However, the way Giri plays it is much nicer, he improves his position to the maximum and only intends to make a pawn move if it is absolutely necessary. By doing this, he retains more options and flexibility, creating additional problems for Black to worry about.

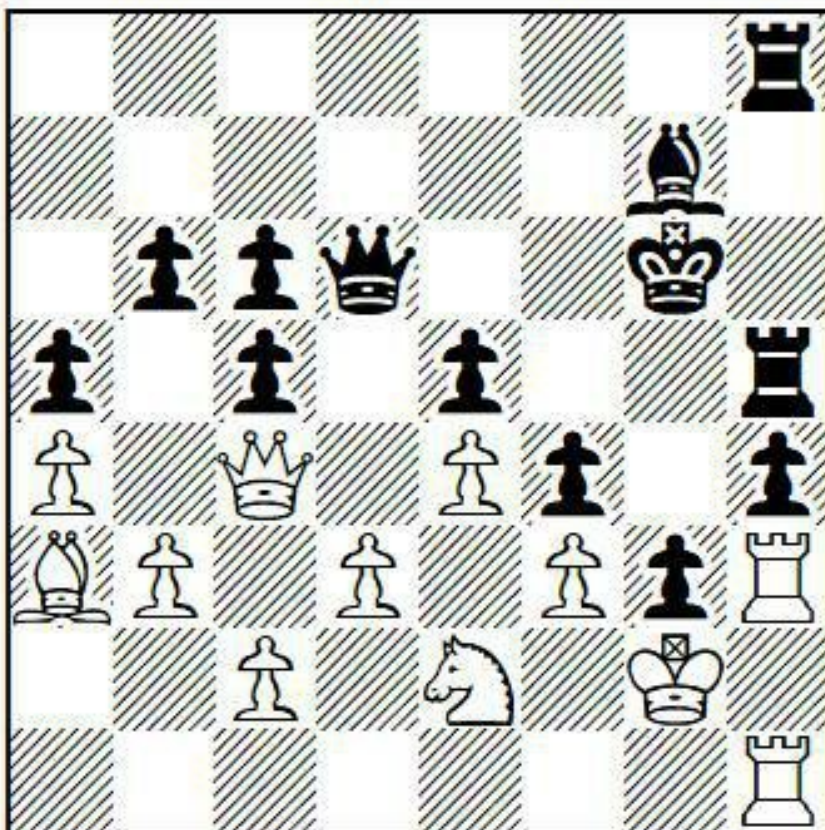
**34 ... Kg6 35 Nb5 Bg7 36 Nc3 Qd8 37 Ne2**

On e2, the knight supports the d4 advance and puts pressure on the f4-pawn.

**37 ... R8h7 38 Qe1!**

The queen begins its decisive invasion on the queenside.

**38 ... Qd6 39 Qc3 c6 40 Qc4 Rh8 41 Ba3**



**41 ... Qf6**

Against 41 ... Bf6 Giri had a nice pawn sacrifice in store with 42 d4 exd4 43 Nc1! bringing the knight to d3, where it fights for the important f4 and e5-squares. Eventually White will breakthrough by targeting the f4-pawn or pushing e5.

**42 Qa6**

Forcing Black to split his defence between the kingside and queenside pawns.

**42 ... Rb8 43 Bc1 Bh6 44 Qa7 Qd8 45 Bb2 Qc8 46 Qe7 Bf8 47 Nxf4+ 1-0**

**Review of Chapter Six**

1. A major difference in understanding between the older and newer engines can be found in closed pawn structures, such as the King's Indian and French Defences. In these structures, long-term strategic ideas are usually much more important than concrete calculations.
2. The older engines often overestimate the importance of a static feature (for example, the connected passed pawn on c3 in Game 52) and underestimate the incremental improvements that the opponent can make in closed positions. In two computer games from this chapter (Game 49 and Game 52), the newer engines patiently and accurately demonstrated the long-term strengths of White's position before preparing a decisive breakthrough.
3. Unlike the older engines, the newer ones are not easily influenced by material advantages. The Anti-Berlin line seen at the end of the chapter provides White with extra material but not necessarily an advantage because it is very difficult to make progress against Black's robust setup.

### **Additional Material**

Surya Shekhar Ganguly-Erwin I'Ami, Tata Steel-B 2020

Yu Yangyi-Wen Yang, Chinese Championship 2020

Vincent Keymer-Rameshbabu Praggnanandhaa, Tata Steel-B 2019

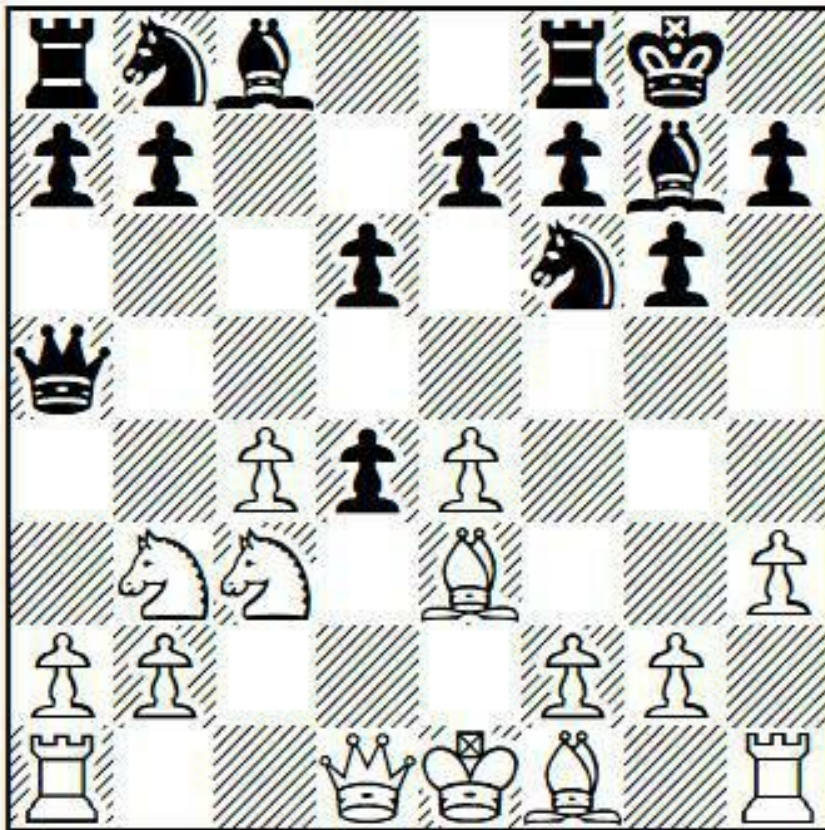
Ding Liren-Hikaru Nakamura, Chessable Masters Final 2020 (9 b4 KID)

# Chapter Seven

## Material Imbalances

Material imbalances are typically quite challenging for older engines to evaluate. Many of them tend to overestimate the heavier pieces (queens and rooks) and fail to see how minor pieces can coordinate well together and create a lot of play in the long run. A couple fashionable opening ideas in the Open Games are analyzed in the first two games of the chapter. Both games see White obtaining two minor pieces in exchange for a rook and two pawns, and these ideas deserve much more attention than the older engines suggest.

Then, we move on to more exciting material imbalances. For example, Murali Karthikeyan found a brilliant queen sacrifice against Alireza Firouzja in the diagram below.



The game is relevant to our topic because the older engines fail to find a reasonable plan for either side in the resulting unbalanced positions. Meanwhile, Karthikeyan and the newer engines had a much better understanding of how Black should play for long-term compensation by activating the minor pieces and targeting the weakened dark squares.

A few more queen sacrifices will be seen in the following games, including a correspondence game where White sacrifices a queen and poses major opening problems for Black in an important line of the Anti-Grünfeld. Finally, the chapter concludes with Lc0 delivering a remarkable showcase of its strategic understanding to win a model game over Stockfish.

### **Material Imbalances in the Open Games**

Two fresh opening ideas involving a material imbalance of two minor pieces for a rook and two pawns are examined below. In the first game, a critical

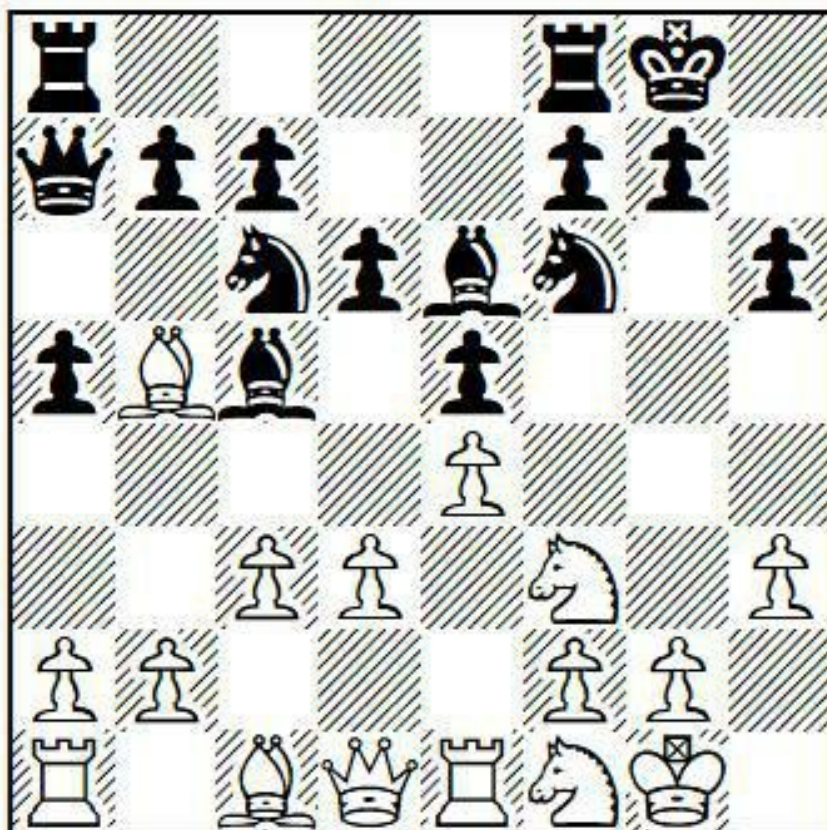
and double-edged line of the Italian Game is discussed where the unbalanced middlegame provides chances for both sides. The newer engines argue that this line is a very serious test of Black's setup and demonstrate that the material imbalance can often favour White.

### *Game 56*

### **L.Aronian-D.Anton Guijarro**

FIDE Grand Swiss 2019

**1 e4 e5 2 Nf3 Nc6 3 Bc4 Bc5 4 c3 Nf6 5 d3 d6 6 0-0 a5 7 Re1 0-0 8 h3 h6 9 Nbd2 Be6 10 Bb5 Qb8 11 Nf1 Qa7**



An unusual-looking queen maneuver, but one that has become mainstream Italian theory in recent years. The idea is to put pressure on the a7-f2

diagonal and make it more difficult for White to play in the centre.

### **12 d4!**

Surprisingly, it is possible to play the move that Black's setup is aimed against. This idea was first seen in 2019 and quickly gained a lot of traction after many top players started trying it.

The alternatives are less testing:

a) Trading off both pairs of bishops by playing 12 Be3 Bxe3 13 Nxe3 Ne7 14 a4 Rad8 15 Bc4 looks fairly innocuous, although there is still a lot of scope to outplay the opponent in the middlegame. For example, White won a great attacking game in M.Vachier Lagrave-S.Mamedyarov, Riga 2019. However, Black should be doing completely fine after a couple accurate moves. One sample line is 15 ... Ng6 16 Qc2 Nf4 17 Rad1 Bxc4 18 Nxc4 Rfe8 leading to roughly balanced play.

b) 12 Re2 a4 13 Ng3 Qa5 14 Bxc6 bxc6 15 Nh4 and in view of White's aggressive ideas on the kingside, a good defensive setup is 15 ... Kh7!? 16 Nhf5 Ng8 17 d4 Bb6 18 Be3 g6 with a very sound position in Y.Bacallao Alonso-F.Pessoa, correspondence 2019.

### **12 ... exd4 13 Bxc6 dxc3**

The alternative 13 ... bxc6 is playable too, but much more passive. After 14 cxd4 Black has:

a) 14 ... Bb6 15 Ng3 Rfe8 (it is necessary to fight for some type of queenside counterplay, such as 15 ... a4 16 Be3 Qa6! 17 Qc1 Qc4 although these positions are still quite unpleasant for Black) 16 Be3 d5? 17 e5 Ne4 18 Nh5! led to a decisive attack in M.Ragger-T.Nyback Batumi 2019, after 18 ... c5 19 Qc1 Kf8 20 Nxg7 crashing through on the kingside.

b) 14 ... Bb4! 15 Re2 a4 (the best approach, fighting for active queenside play) 16 a3 Bb3 17 Qd3 Ba5 18 Bd2 and despite White's strong central control, Black had a reasonably solid setup in D.Marbourg-N.Kolpakov, correspondence 2021.

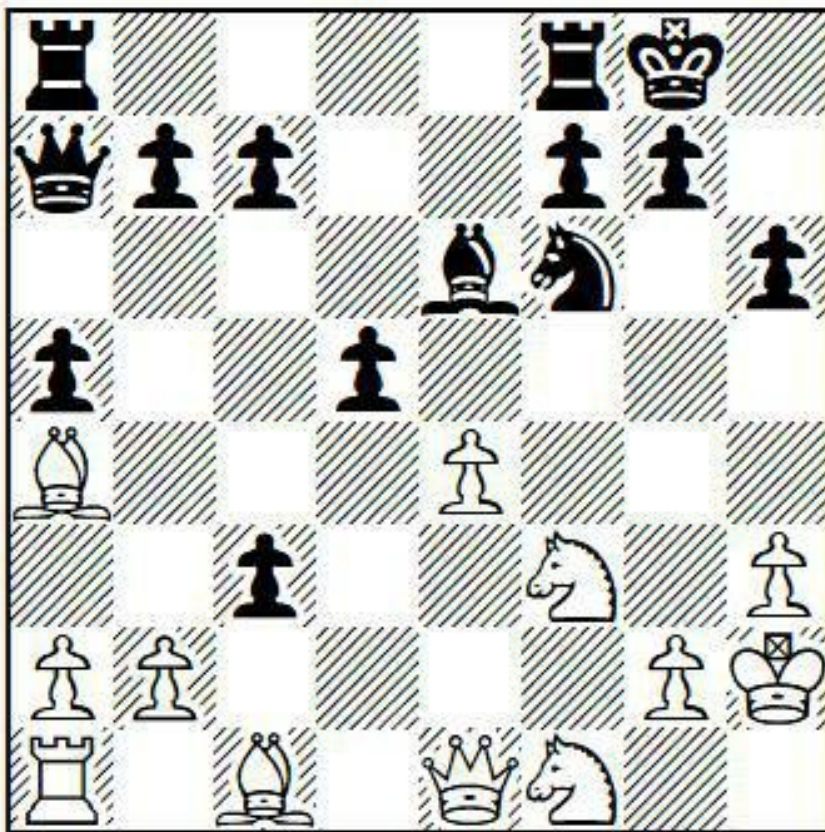
### **14 Ba4 Bxf2+ 15 Kh2**

The king is better place on h2 than on h1. It is not so obvious immediately, but later in some lines the king could be targeted on h1 by Black's knight. For example, 15 Kh1?! Bxe1 16 Qxe1 d5 17 Be3 Qa6 18 e5 Ne4 19 bxc3 Qc4 20 Bb3 Qxc3 21 N1d2 is very similar to the Alekseenko-Ding Liren game (see the note to Black's 17th move), but there is an additional resource with 21 ... a4 22 Rc1 Ng3+! 23 Kh2 Nf1+! ruining White's coordination.

### **15 ... Bxe1**

15 ... d5?! was seen in V.Anand-Ding Liren, Stavanger 2019. However, it is objectively stronger to first take the rook on e1 before playing ... d5. White has an advantage after 16 exd5 Bxd5 (or 16 ... Nxd5 17 Re5 Rad8 18 Qe2 looks quite good because of Black's poor piece coordination) 17 Be3 Bxe3 18 Nxe3 Bxf3 19 Qxf3 cxb2 20 Rab1 when the bishop is more valuable than Black's pawns, though the game remains very unclear.

**16 Qxe1 d5**



**Question:** What is going on here?

**Answer:** We have entered an extremely modern and sharp variation of the Italian Game, where White has two minor pieces for a rook and several pawns. The middlegame is very difficult for both sides to handle due to the material imbalance and sharp nature of the position.

The neural network engines noticed the potential of White's minor pieces and brought this line to the attention of top grandmasters.

### **17 Be3**

The immediate 17 e5 also deserves consideration, as in K.Sasikiran-M.Glatthaar, correspondence 2020.

### **17 ... c5**

The alternative is 17 ... Qa6 activating the queen after 18 e5 Ne4 19 bxc3 Qc4 20 Bb3 Qxc3 21 N1d2 when practice has seen:

a) 21 ... a4? frees the a5-square for the queen, but it turns out to be an unnecessary move because the queen is further out of play on a5. K.Alekseenko-Ding Liren, Khanty-Mansiysk 2019, continued 22 Rc1 Qa5 23 Bc2 Bf5 24 Qh4! (Black's major pieces are falling far behind in development) 24 ... Rfe8 25 Qf4 Bg6 26 Nxe4 dxe4 27 Bxe4 Bxe4 28 Qxe4 saw White obtain a clear advantage.

b) 21 ... Rfe8! 22 Rc1 Qb4 23 Bc2 Bf5 24 Nh4 Bh7 with a sound defensive setup in J.Dijon-A.Lukyanenko, correspondence 2021.

### **18 e5 Ne4**

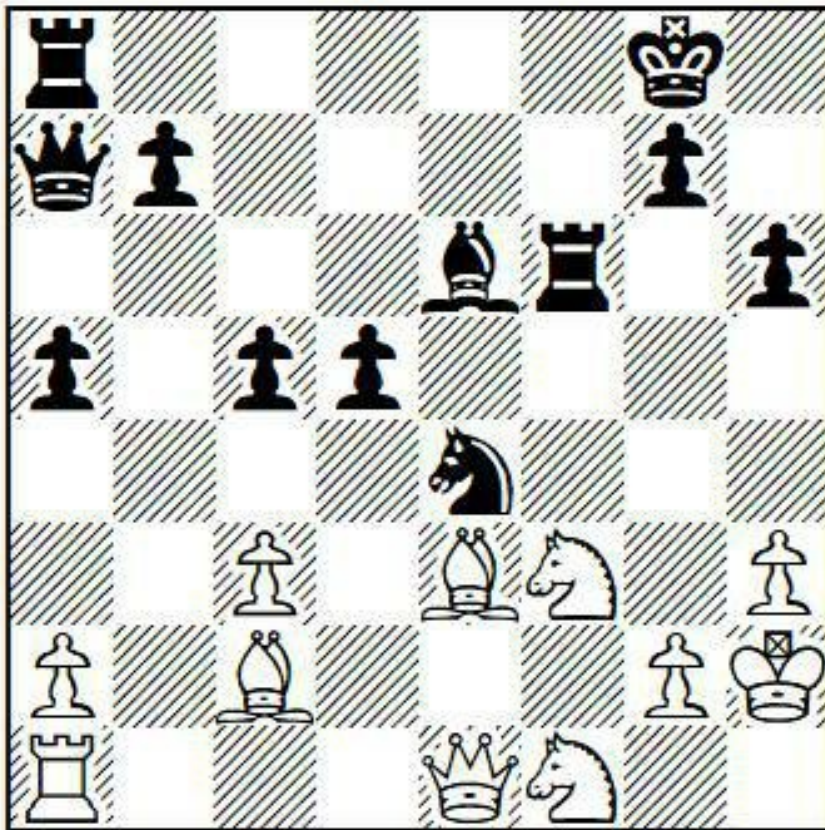
The materialistic 18 ... cxb2? 19 exf6 bxa1Q runs into 20 Qxa1 d4 21 Bxh6! with a winning kingside attack.

### **19 bxc3 f5 20 exf6?!**

Opening the e and f-files favours Black, who will quickly bring his major pieces into the game.

20 Bd2! sidesteps any ideas with ... f4 and protects the c3-pawn. One correspondence game continued 20 ... b6 21 Qe2 Rab8 22 Be1! Qb7 23 Bb5 f4 24 Rd1 with a very tense and complicated middlegame which should be somewhat better for White in D.José Queraltó-J.Potrata, correspondence 2021.

### **20 ... Rxf6 21 Bc2**



An important moment for Black to bring the queenside pieces into the game.

**21 ... Qb8+?!**

First bringing the rook into the game with 21 ... Re8! would have been much more challenging for White to face. Following 22 Bxe4 dxe4 23 N3d2 Qb8+ 24 Kh1 Qe5 centralizes the queen and provides active play.

**22 Kh1 Bxh3**

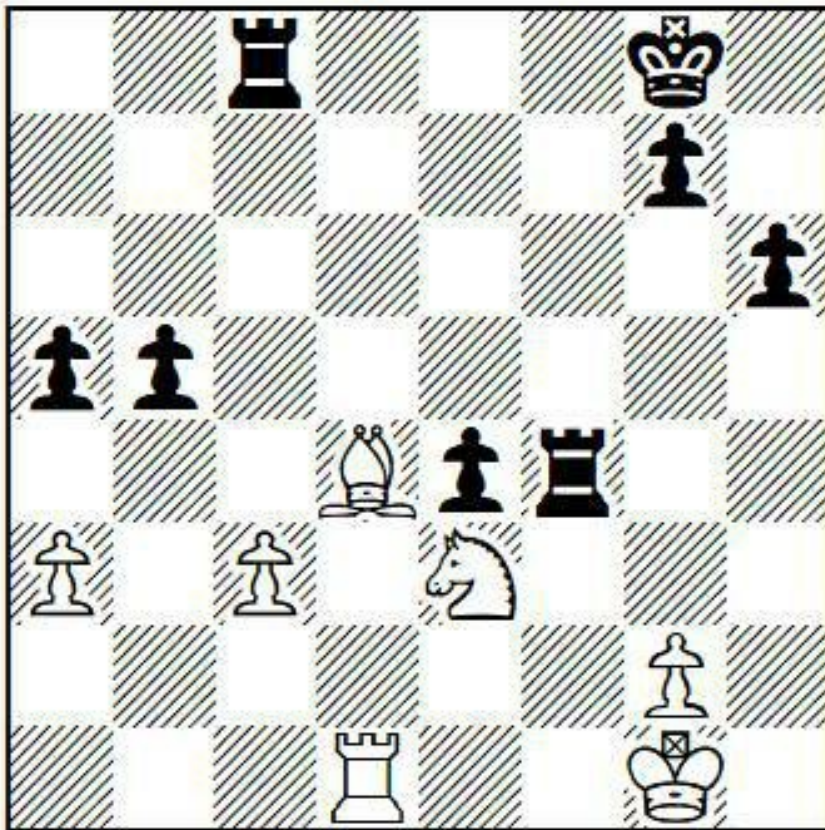
Winning a pawn but after the sequence of moves that occurs in the game, White emerges with a comfortable edge.

Keeping the tension by playing 22 ... Qc7 may have been a better approach. The a8-rook can be activated next.

**23 N3d2 Bf5 24 Nxe4 Bxe4 25 Bxe4 dxe4 26 Bxc5 Qe5 27 Bd4**

The two minor pieces will occupy excellent outposts on d4 and e3.

**27 ... Qh5+ 28 Kg1 Rf4 29 Qd1 Qxd1 30 Rxd1 b5 31 a3 Rc8 32 Ne3**



An endgame that is clearly better for White has been reached. Now a plan must be devised to make progress. Aronian begins by putting his rook on the b-file and targeting the weak b5-pawn.

**32 ... Rf7 33 Rb1 Rb7 34 Kf2 Kh7 35 Nc2?!**

Preparing Ke3. However, the knight is a bit too passive on this square.

35 Ng4! would have been the best winning attempt, bringing the knight to e5 and freeing the e3-square for the king. The critical line runs 35 ... Rc4 36 Ne5 Ra4 37 Rb3 b4 (liquidating the queenside) 38 axb4 axb4 39 Ke3 and Black seems to be in a lot of trouble as the e4-pawn falls.

**35 ... Rc6! 36 Rh1**

The point behind Black's previous move is that 36 Ke3 can be met by 36 ... Rg6 causing White some difficulties on the kingside.

**36 ... Rf7+ 37 Kg1 Rfc7 38 Rh3 g5 39 Re3 Re7 40 Re1 Kg6 41 Rb1 Rb7 42 Kf2**

After shuffling the rook around, White's setup has not changed since move

35. Meanwhile, Black has made some progress on the kingside and comfortably holds the endgame.

**42 ... h5 43 Ke3 Rbc7 44 Kxe4 Rxc3 45 Bxc3 Rxc3 46 Ne3 Rxa3 47 Rxb5 h4 48 Rb8 Ra4+ 49 Ke5 Rb4 50 Rg8+ Kh5 51 Rd8 a4 52 Kf6 Rb6+ 53 Kf5 Rb5+ 54 Nd5 Kh6 55 Kg4 a3 56 Rd6+ Kg7 57 Nc7 Ra5 58 Ne6+ Kf6 59 Nxc5+ Ke5 60 Nf7+ Ke4 61 Rd1 Ra4 ½-½**

The next game examines the same material imbalance arising from a different opening: the Open Spanish. Neural network engines show that White has excellent chances of obtaining an advantage by coordinating properly with the minor pieces and putting pressure on Black's centre. Despite the newer engines' confidence, the middlegames are very unclear and difficult for both sides to handle. Therefore, things can quickly go wrong for either side after a couple inaccurate moves.

### *Game 57*

**M.Vachier Lagrave-A.Heimann**

Bundesliga Final 2020

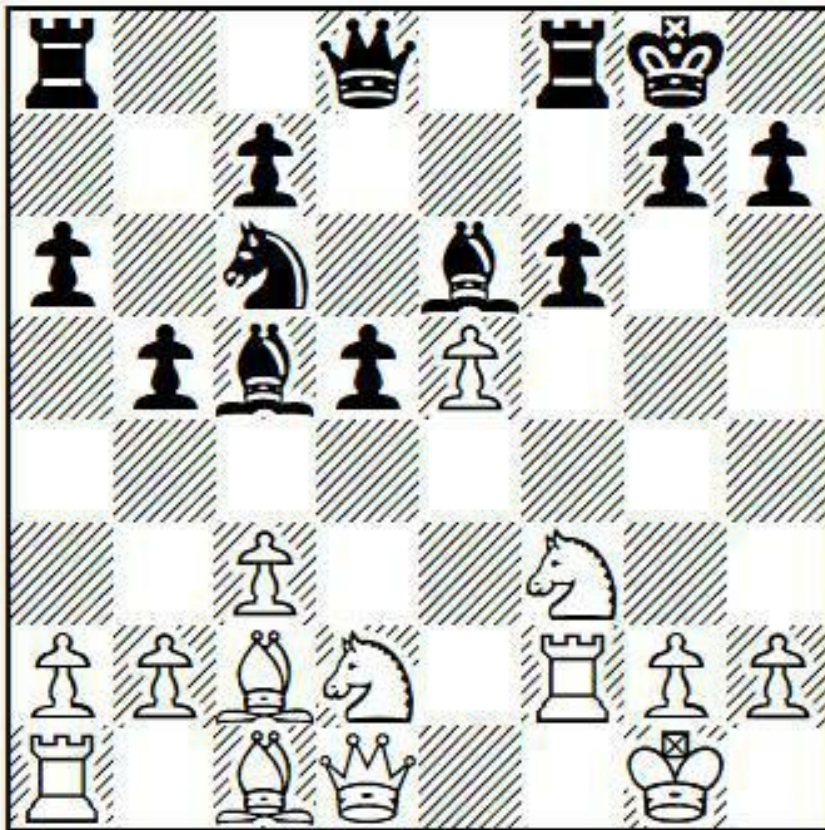
**1 e4 e5 2 Nf3 Nc6 3 Bb5 a6 4 Ba4 Nf6 5 0-0 Nxe4 6 d4 b5 7 Bb3 d5 8 dxe5 Be6 9 c3 Bc5**

A topical line in the Open Spanish.

**10 Nbd2**

I recommended the simpler 10 Qd3 in my Ruy Lopez book with the idea of playing Be3 and fighting for a small advantage. 10 Nbd2 is a more ambitious choice, leading to an interesting material imbalance in the middlegame.

**10 ... 0-0 11 Bc2 Nxf2 12 Rxf2 f6**



### 13 Nf1!

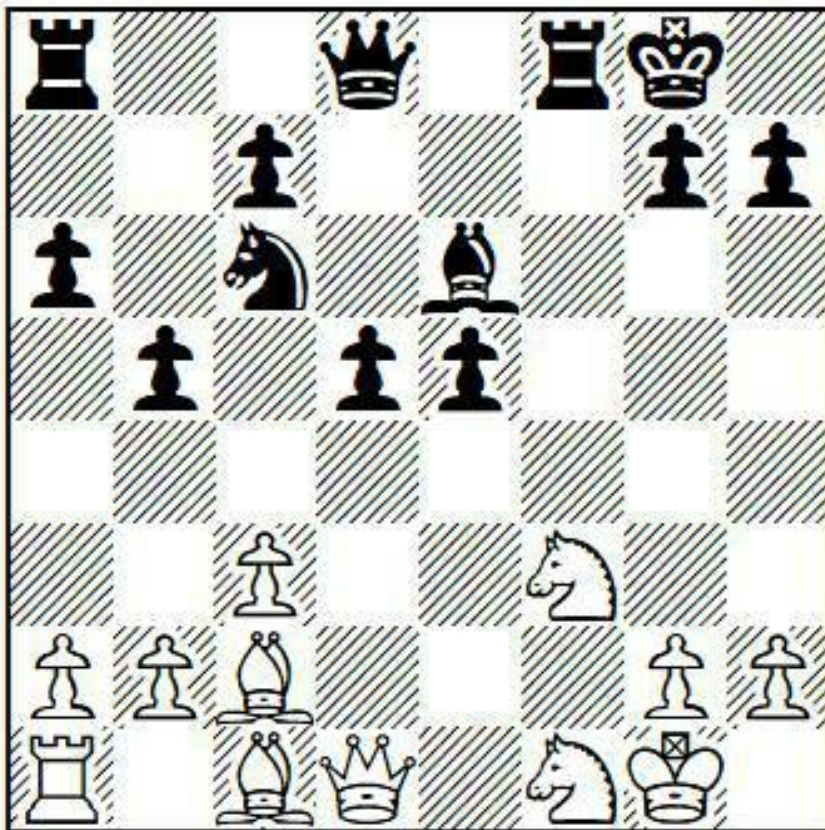
A strong idea that has become very fashionable in recent years. Compared to the more popular 13 exf6, White focusses on king safety and willingly gives Black control over the centre.

The more popular 13 exf6 Bxf2+ 14 Kxf2 Qxf6 poses far fewer problems for Black. Play may continue: 15 Nf1 (the endgame after 15 Kg1 Rae8 16 Nf1 Ne5 17 Be3 Nxf3+ 18 Qxf3 Qxf3 19 gxf3 Rxf3 contains no difficulties for Black) 15 ... Ne5 16 Be3 Rae8 17 Bc5 Nxf3 18 gxf3 Rf7 can be investigated deeper, but Black is doing well here because of the exposed king on f2.

### 13 ... Bxf2+ 14 Kxf2 fxe5 15 Kg1

At first sight, Black's position looks quite attractive. He has a rook and two central pawns for White's two minor pieces, which are currently quite passive. However, Black's strong centre can easily turn into a liability once White puts pressure on the e5 and d5-pawns. Additionally, compared to the

main lines with 13 exf6, White's king is very safe on g1.



The neural network engines show that White has excellent chances of obtaining an objective advantage, but matters are far less clear in practice. We will see more examples on similar issues in Chapter 8: Cautionary Tales.

### 15 ... Qd6

15 ... Bg4 is the critical continuation. Play continues 16 Ne3 (16 Bg5?! Bxf3 17 Qd2 Qd6 18 gxf3 e4! 19 fxe4 Ne5 created some dangerous kingside threats in J.Van Foreest-S.Mamedyarov, Zagreb (rapid) 2021) 16 ... Be6 and now:

a) 17 Bb3 e4 18 Nd4 Nxd4 19 cxd4? (19 Qxd4 is necessary to prevent Black from taking full central control) 19 ... Qf6 20 Bd2 c5 and Black's central pawns provided a large advantage in S.Sevian-D.Paravyan, Jermuk 2021.

b) 17 b3! is very strong, preparing Ba3 to annoy the rook on f8. Now Black should look for counterplay in the centre:

b1) 17 ... e4 giving up control of the d4-square in hopes of obtaining counterplay. Play continues 18 Nd4 Nxd4 19 Qxd4 Qd6 (threatening ... c5) 20 b4 Qf4 21 Bb2 Qf2+ 22 Kh1 Rf6 23 c4! bxc4 24 Qc5 gave White full control over the dark squares in S.Krishnan-P.Schmid, correspondence 2019.

b2) 17 ... d4 was seen in A.Firouzja-S.Vidit, internet 2021. Best was 18 cxd4 exd4 (18 ... Nxd4 19 Nxd4 Qxd4 20 Rb1 with an edge, once the pieces finish developing White will have excellent play) 19 Qd3 g6 20 Bb2 Rf4 21 Re1 Qd6 22 Bd1! Rd8 23 Nf1 is some very sophisticated maneuvering, after which White's minor pieces are working well together and are ready to exploit the weaknesses in Black's position.

### **16 Ng5?!**

Trying to reduce Black's support of the d5-pawn, but it was better to develop the queenside pieces first. Others:

a) 16 Ng3? was MVL's previous choice in M.Vachier Lagrave-S.Mamedyarov, Biel 2018. Instead of pushing ... h6, Black can immediately play 16 ... Bg4! because of 17 Bxh7+ Kh8! followed by ... e4.

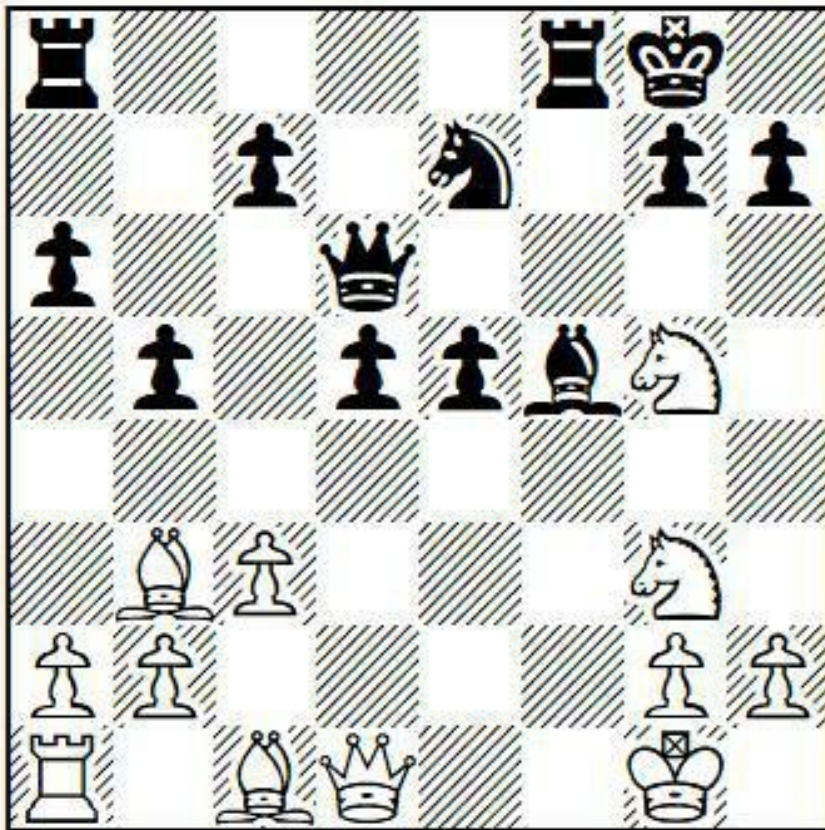
b) It was best to focus on development with 16 Be3! when Black has:

b1) In this case, 16 ... Bg4? can be met by 17 Bxh7+ Kh8 18 Qe1! and Qh4! Next.

b2) 16 ... h6 17 Bf2 Rad8 18 Qe2 as seen in J.Gutiérrez Dopino-M.Ochs, correspondence 2020, provides an edge after 18 ... d4 19 Qe1 and the e4-square is very weak.

b3) 16 ... Rad8 17 Qe1 (17 Ng3? again runs into 17 ... Bg4 18 Bxh7+ Kh8! followed by ... e4) 17 ... Bf5 18 Bb3 Na5 19 Qf2 (fighting for the important c5-square) 19 ... Nb7 20 Re1 and White had a great setup in S.Huzita-V.Destruels Moreno, correspondence 2021.

### **16 ... Bf5 17 Bb3 Ne7 18 Ng3**



A very complicated middlegame has arisen, which is difficult for both sides to navigate.

**18 ... c6?!**

18 ... Kh8 sidesteps the pin. Play may continue 19 Nxf5 Nxf5 20 Qh5 h6 leading to an unbalanced middlegame.

**19 Qe2?!**

White's piece coordination is quite poor after this because the g5-knight is misplaced.

A good opportunity to bring the g5-knight back into the game was 19 N5e4! when some sample lines are:

a) 19 ... Qc7 20 Nc5 a5 21 a4 and the knight occupies a great outpost on c5.

b) 19 ... Bxe4 20 Nxe4 Qc7 21 Be3 a5 22 Ng3 with a slight edge for White because of the well-placed minor pieces and control over the c5-square.

**19 ... Kh8 20 Bd2 h6 21 Re1 e4 22 Qh5 Bg6 23 Qh3 Nf5**

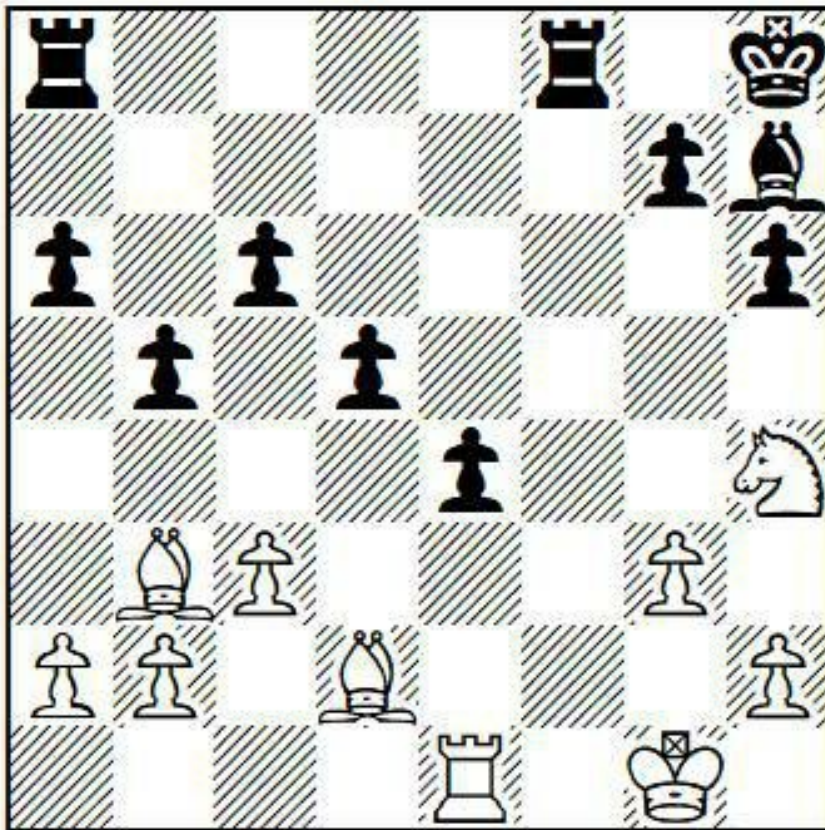
A good alternative was activating the rooks with 23 ... Rf6 24 Be3 c5 followed by ... Raf8.

**24 Nxf5 Bxf5 25 Qh4 Qe7?**

Allowing the g5-knight to reroute to a much better location.

25 ... a5! 26 Nh3 b4 provides a strong initiative on the queenside. Compared to the game, Black's weak dark squares cannot be exploited here.

**26 Nf3 Qxh4 27 Nxh4 Bh7 28 g3**



**28 ... g5?**

Kicking the knight where it wants to go. White quickly activates his minor pieces and takes full control over the dark squares. It was essential to fight for counterplay. For example, 28 ... b4! 29 Ng2 (29 cxb4? d4 allows a lot of counterplay in the centre) 29 ... a5 followed by advancing the queenside pawns, trying to take away squares from White's minor pieces.

**29 Ng2 Kg7 30 Be3 Bf5 31 Bc5**

The bishop occupies the important c5-square and leaves Black without any

counterplay.

**31 ... Rf7 32 Bd1 Kg6 33 h4 Bh3 34 h5+ Kh7 35 Ne3 Bd7 36 Ng4 Re8  
37 Rf1 Rxf1+ 38 Kxf1 Bxg4 39 Bxg4 1-0**

We can conclude from this game that 13 Nf1! provides great chances for an advantage, but there are practical difficulties of playing against Black's strong centre. Therefore, thorough preparation is needed to play this line successfully as White.

### **A Brilliant Strategic Concept**

Murali Karthikeyan won a brilliancy against Alireza Firouzja by finding a powerful queen sacrifice on move 9. The game is very relevant to our topic because the newer engines quickly see the strength of this sacrifice, while the older engines cannot evaluate it properly. In addition to providing an inaccurate assessment, the older engines handle the unbalanced positions very poorly and are unable to find a reasonable plan for either side (see the note to White's 11th move).

*Game 58*

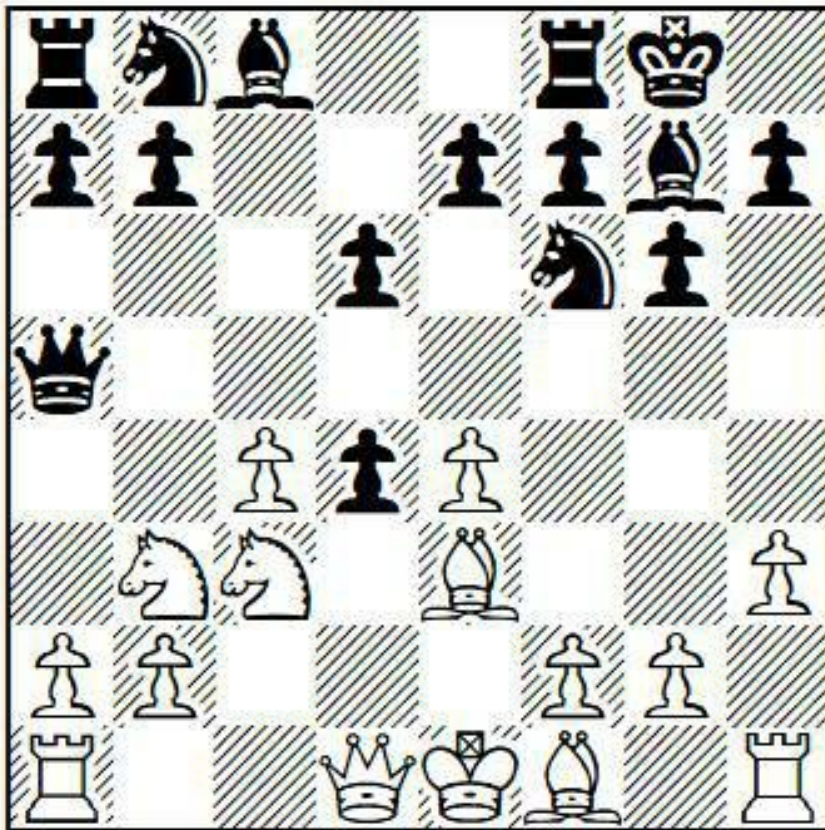
**A.Firouzja-M.Karthikeyan**

Asian Continental 2019

**1 d4 Nf6 2 c4 g6 3 Nc3 Bg7 4 e4 d6 5 h3 0-0 6 Be3 c5 7 Nf3 Qa5 8 Nd2?**

Much stronger is 8 Bd3 cxd4 9 Nxd4 Nc6 10 0-0 Nxd4 11 Bxd4 Be6 12 Re1 Rac8 13 b3 as in N.Studer-J.Degraeve, Cattolica 2020.

**8 ... cxd4 9 Nb3**



### 9 ... Qxc3+!!

A brilliant strategic idea. The queen is sacrificed for two minor pieces, control over the dark squares, and several weaknesses in White's pawn structure.

The older engines prefer 9 ... Qe5 10 Bxd4 (10 Qxd4 Nc6 11 Qxe5 Nxe5 12 c5 leads to a roughly balanced position) 10 ... Qe6 followed by ... Nc6 and ... b6 with a healthy position. There is nothing wrong with this approach, but 9 ... Qxc3+!! is both objectively stronger and far more challenging to meet in a practical game.

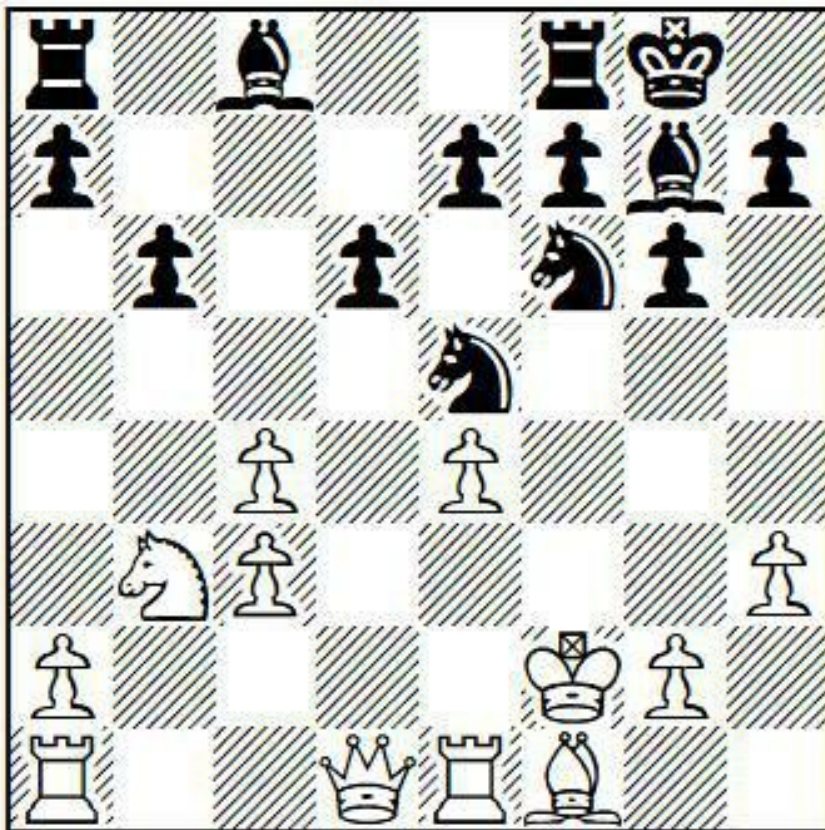
### 10 bxc3 dxe3 11 f3?!

A couple TCEC engine games started after Black's 10th move. In those games, White played 11 Bd3 and now:

a) The old Stockfish played 11 ... Nfd7? 12 f4 Bxc3+ which is a materialistic and terrible way of handling the position. Following 13 Ke2 Bxa1 14 Qxa1 Na6 15 Kxe3 Black has a rook, knight, and pawn for White's

queen, but several important advantages have been lost. For example, the dark-squared bishop was one of Black's biggest assets, now White is the one fighting for control over the dark squares. Lc0 demonstrated this after 15 ... b6 16 Be2 Bb7 17 h4! Rad8 18 h5 e5 19 h6 with a clear advantage in Lc0-Stockfish, TCEC 2020.

b) Lc0 played 11 ... exf2+ 12 Kxf2 Nbd7 13 Re1 Ne5 14 Bf1 b6



This is also the plan that Karthikeyan intended to play.

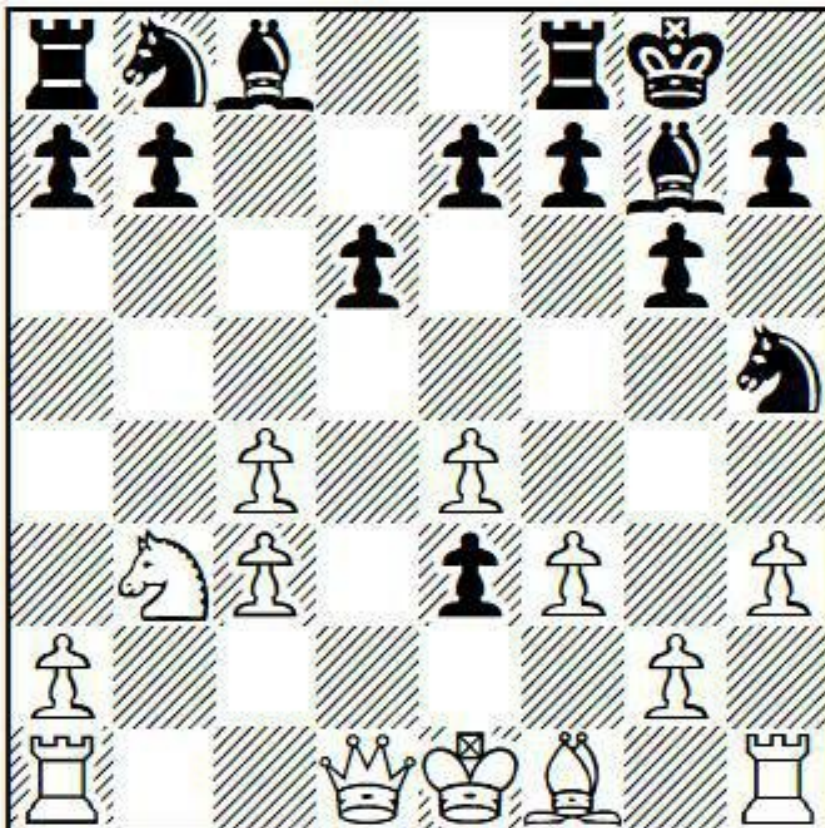
**Question:** What does Black have in return for the sacrificed queen?

**Answer:** Black has two minor pieces, a pawn, and good control over the dark squares. Black's minor pieces occupy great outposts and prevent White from creating any type of dynamic play. Additionally, the lack of open files and weaknesses makes it very difficult for White to utilize his major pieces.

The engine game continued 15 Kg1 Be6 16 Nd4 Nfd7 17 Nxe6 fxe6 18 Be2 Bf6 19 Rf1 h5 20 Qe1 Kg7 21 a3 Rfc8 22 a4 Rc5 23 Bd1 Rac8 and Lc0

gradually built up more and more pressure in Stockfish-Lc0, TCEC 2020. However, Stockfish defended well and eventually held its extremely unpleasant position.

**11 ... Nh5**

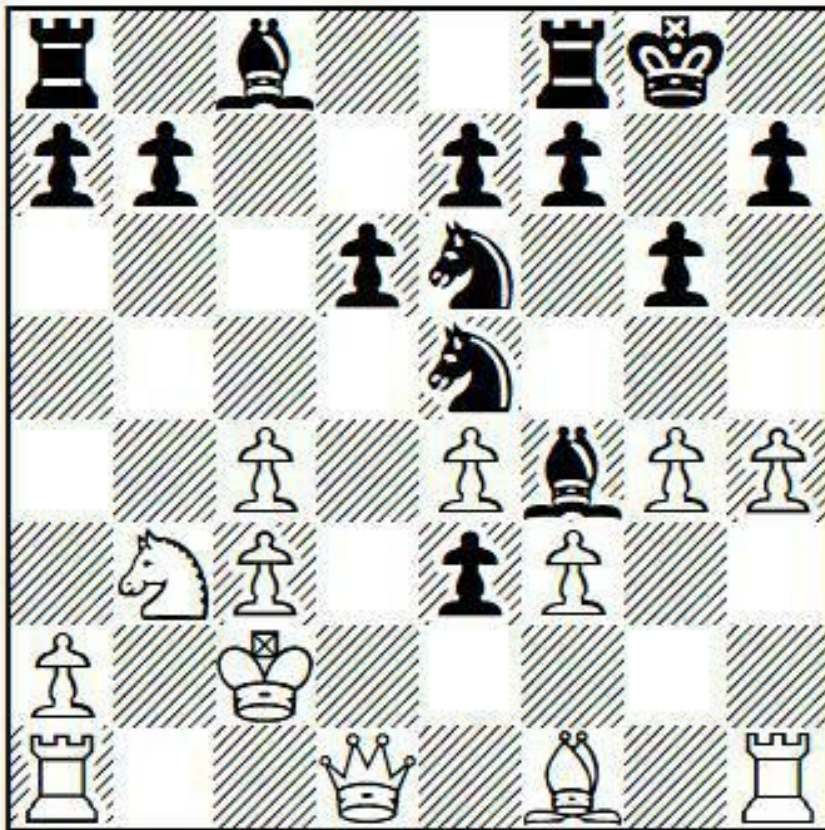


Exploiting the weakened kingside dark squares.

**12 Qc1**

12 Nd4 Ng3 13 Rg1 Nc6 with comfortable development, while White is struggling to coordinate his pieces.

**12 ... Bh6 13 g4 Nf4 14 Kd1 Ne6 15 Kc2 Nc6 16 h4 Bf4 17 Qd1 Ne5**

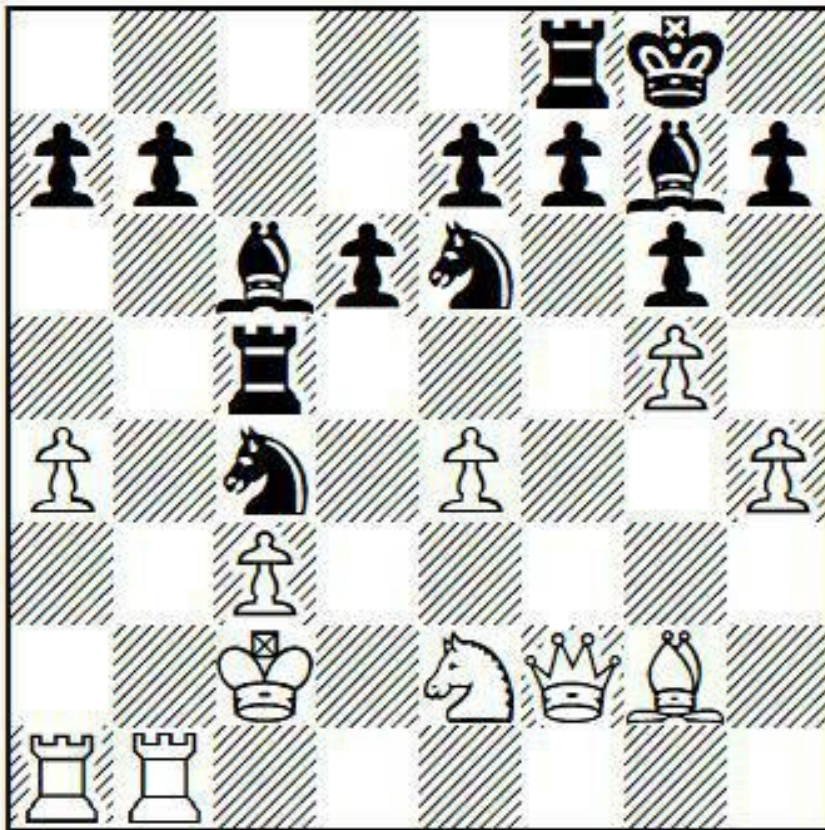


The dark squares are firmly under Black's control, which has provided several strong outposts for his minor pieces.

**18 Nc1**

Karthikeyan thought that a better practical try was 18 Nd4 Bd7 19 a4 Rac8 20 h5 because White has more chances of creating counterplay here. Still, Black has an excellent position after 20 ... Nxd4+ 21 Qxd4 Rc5 followed by building up pressure on the c4-pawn with ... Be6 and ... Rfc8.

**18 ... Bd7 19 a4 Rac8 20 Ne2 Bh6 21 g5 Bg7 22 Bh3 Nxf3 23 Qd3 Ne5 24 Qxe3 Nxc4 25 Qf2 Rc5 26 Rhb1 Bc6 27 Bg2**



*Exercise:* Black has already built up a lot of pressure on the queenside. How can he create play on the other side of the board?

*Answer:* 27 ... f5!

Opening up the f-file and creating more problems for White to deal with.

**28 gxf6 Bxf6 29 Rf1**

29 Qg3 can be met in many ways. One idea is 29 ... Be5 30 Qh3 Rf6 and Black will make progress by playing ... Nf4 soon and targeting the e4-pawn.

**29 ... Bxc3**

Simplifying the game into a winning endgame.

Maintaining the tension with something like 29 ... Ra5 was another good option.

**30 Qxc5 Nxc5 31 Rxf8+ Kxf8 32 Kxc3 Ne5 33 a5 Nxe4+**

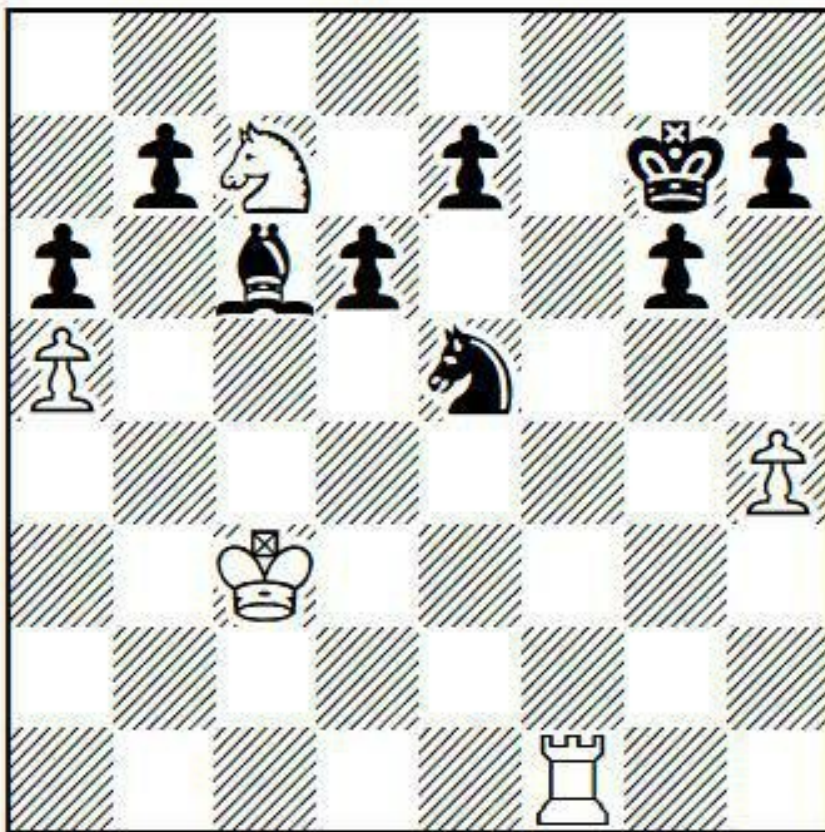
The other recapture 33 ... Bxe4 34 Bxe4 Nxe4+ may have been slightly stronger because the knights occupy great outposts in the centre. For

example, 35 Kb2 a6 36 Nd4 Kg7 37 Kc2 Nc5 and Black's central pawns will gradually move forward. Meanwhile, White is severely lacking active play.

**34 Bxe4 Bxe4 35 Nd4 Bd5 36 Nb5**

Perhaps a better defensive try was 36 a6 when Karthikeyan intended to play 36 ... bxa6 37 Rxa6 Kf7 38 Rxa7 Nc6 39 Nxc6 Bxc6 with three passed pawns and a bishop against White's rook.

**36 ... a6 37 Nc7 Bc6 38 Rf1+ Kg7**



All of the Black pawns are well-defended, so White is left without any real counterplay.

**39 Ne6+ Kh6 40 Rf8 Kh5 41 Rh8 h6 42 Rh7 Kxh4 43 Rxh6+ Kg4 44 Nd4 Kg5 45 Rh2 Bd5 46 Re2 Kf4 47 Rf2+ Nf3 48 Re2 e5 49 Nc2 Be4 50 Ne3 d5 51 Kb4 Nd4 52 Re1 Kf3 0-1**

The topic of our next game is a fascinating material imbalance in the Pirc Defence. In this opening variation, White sacrifices a queen and two central

pawns for three minor pieces. Lc0 convincingly outplays Stockfish in the unbalanced middlegame by slowly improving its position before launching a kingside attack.

*Game 59*

**Lc0-Stockfish**

TCEC 2020

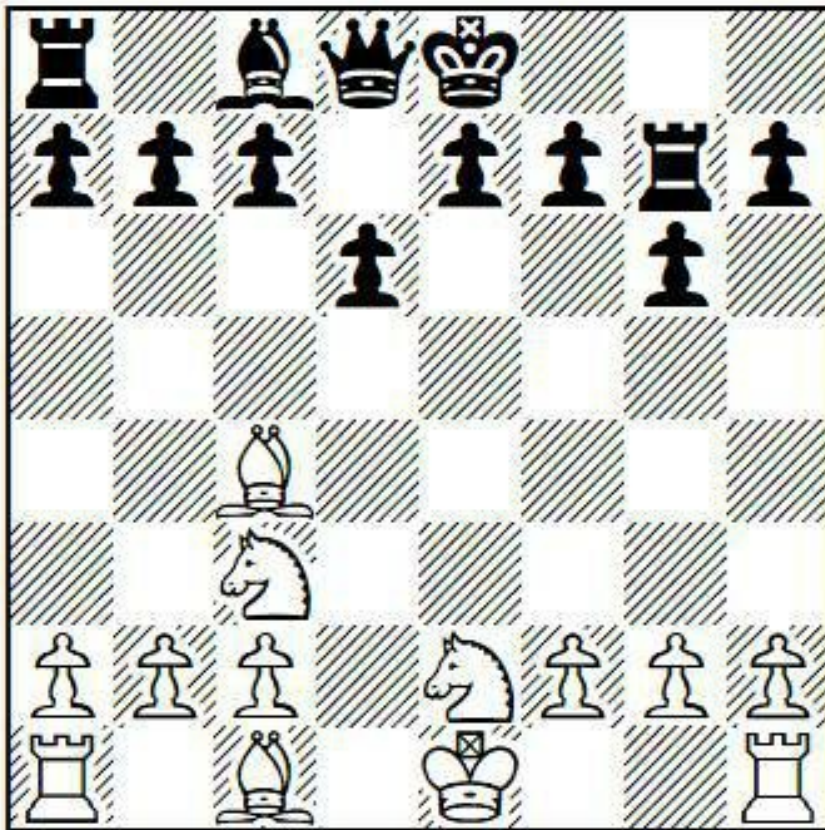
**1 e4 g6 2 d4 Bg7 3 Nc3 d6 4 Bc4 Nf6 5 Qe2 Nc6 6 e5**

The game started from this position.

**6 ... Nxd4**

It is interesting to note that in the following game with reverse colours, Lc0 preferred to not accept the queen sacrifice and play 6 ... Ng4!? 7 Bb5 0-0 8 Bxc6 bxc6 9 h3 Nh6 10 Nf3 Qd7 11 Bxh6 Bxh6 12 0-0 a5 and was fine out of the opening, but later ran into trouble after underestimating Stockfish's attack.

**7 exf6 Nxe2 8 fxg7 Rg8 9 Ngxe2 Rxc7**



White has sacrificed his queen and two central pawns for three minor pieces. Lc0 believes the position is slightly in White's favour, whereas the old Stockfish gives Black a clear advantage.

### **10 Bh6 Kf8?!**

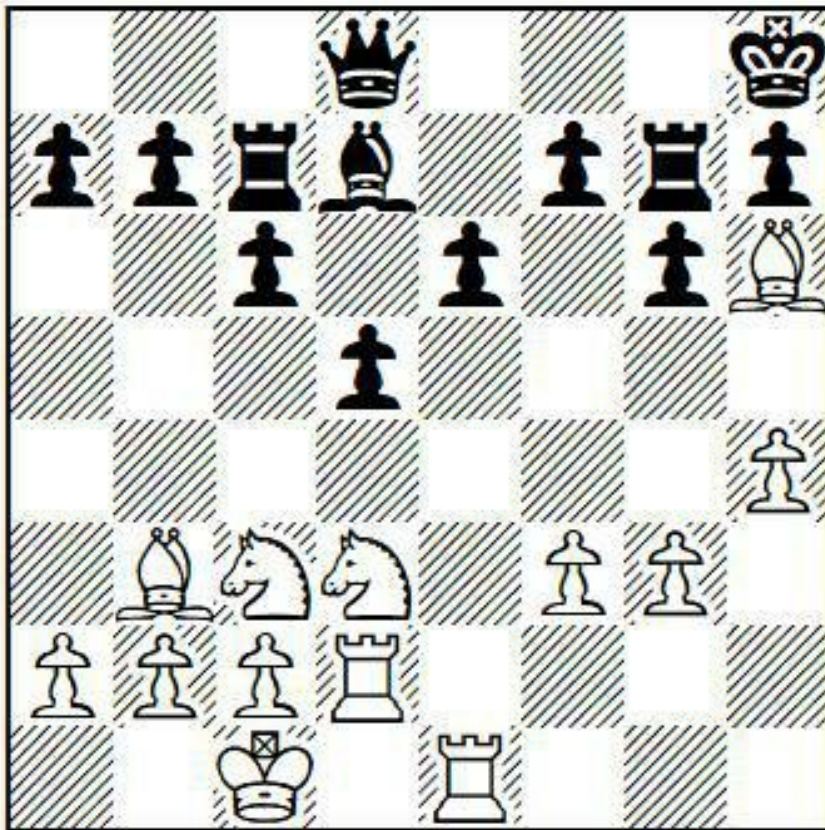
It was stronger to retain the option of castling on the queenside.

10 ... Rg8 11 h4 c6 12 0-0-0 d5 (12 ... b5 13 Bb3 Be6 14 Bxe6 fxe6 is another possible setup) 13 Nf4 e6 14 Bb3 Bd7 was Lc0's preference for Black, keeping the king in the centre for now and later planning to castle on the queenside.

### **11 0-0-0 c6 12 Bb3 Kg8 13 h4 d5 14 Nf4 Kh8 15 f3 Bd7**

Over the next seven moves, Stockfish slowly changes its evaluation from clearly better for Black to equal.

### **16 Rhe1 e6 17 g3 Rc8 18 Rd2 Rc7 19 Nd3**



Around this point, Lc0 still believed that Black should be fine, but it would have been much safer and easier to play if the king was castled on the queenside instead.

**Question:** Why has White not played Bxg7?

**Answer:** The h6-bishop is much stronger than the misplaced g7-rook. Also, Black is missing a dark-squared bishop so retaining the bishop gives White excellent control over the dark squares.

**19 ... Bc8?!**

Black fails to achieve any type of play after this. Alternatives:

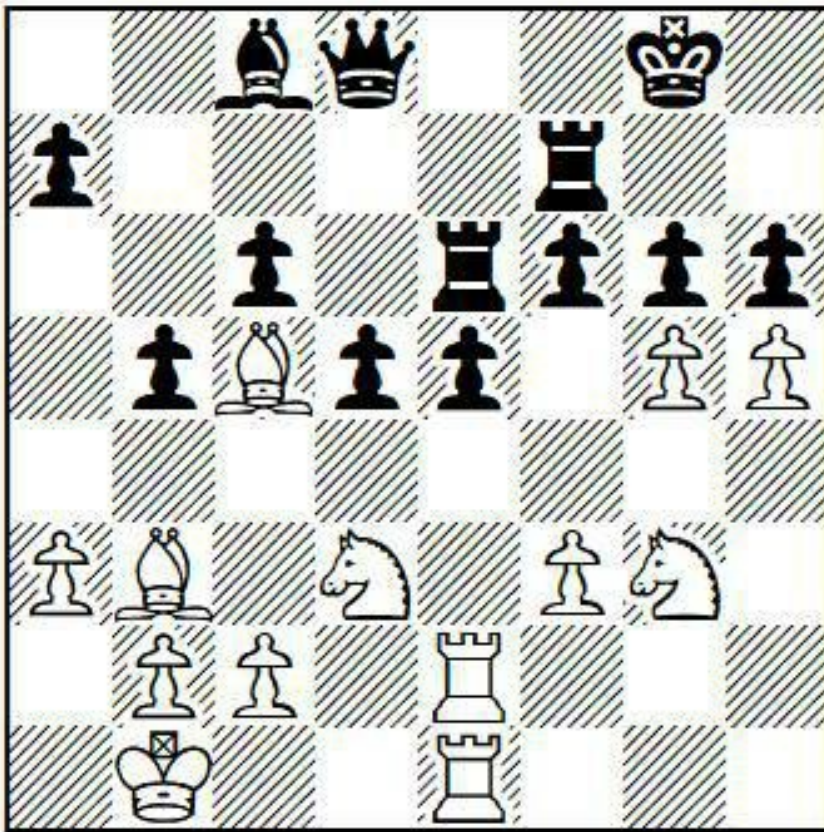
a) The immediate 19 ... c5? runs into a strong piece sacrifice: 20 Bxd5! exd5 21 Nxd5 Rc6 22 Ne5 creating deadly threats around the Black king.

b) Lc0 suggested the bold 19 ... g5!? 20 hxg5 Rxg5 followed by advancing the queenside pawns. In the arising complications, White's chances are still preferable but Black has some counterplay.

**20 a3 f6 21 g4 Rgf7 22 Kb1**

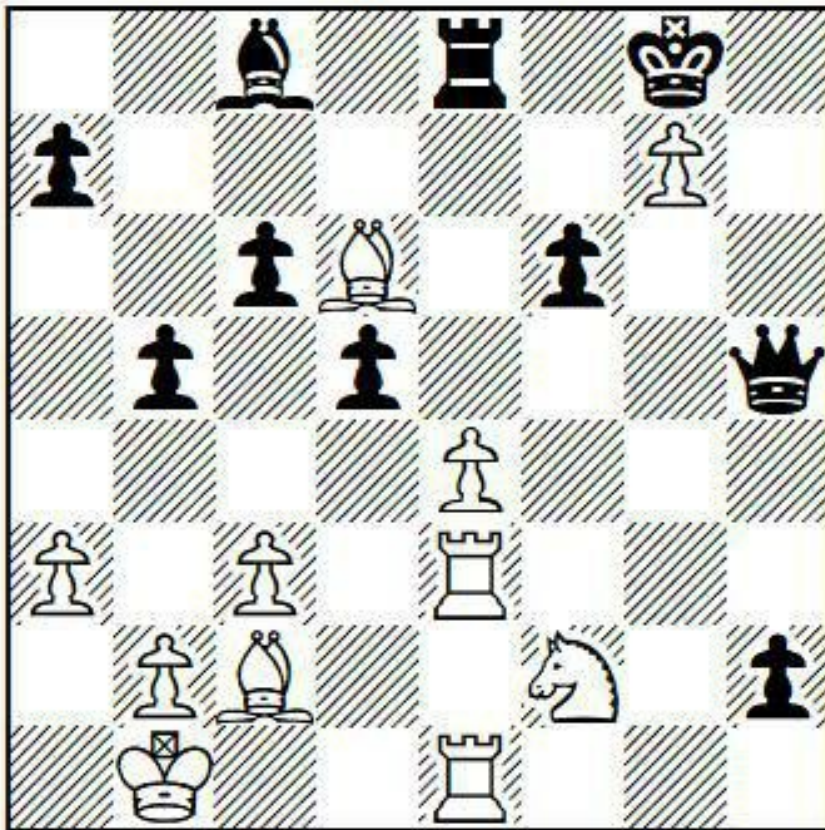
Stockfish believes the position is equal, although Lc0 thinks otherwise and continues to find ways to improve its position. Once against Stockfish's evaluation shifts dramatically over the next seven moves, from equal to winning for White.

**22 ... b6 23 Ne2 b5 24 Be3 e5 25 Ng3 h6 26 Rde2 Kg8 27 Bc5 Rce7 28 g5! Re6 29 h5!**



By this point, Stockfish realizes that Black's position is completely lost. There is a clear difference in king safety and White's minor pieces coordinate much better than Black's major pieces.

**29 ... gxh5 30 gxh6 h4 31 Nf5 h3 32 c3 Qc7 33 Bc2 e4 34 Nf2 Qe5 35 Ng7 Rxc7 36 hxg7 Qh5 37 fxe4 h2 38 Re3 Re8 39 Bd6**



The h2-pawn soon falls and Lc0 wins the endgame easily.

39 ... Qh4 40 Bg3 Qh6 41 R3e2 f5 42 Rh1 Qh5 43 Ree1 Qf3 44 Bxh2 Qxf2 45 Ref1 Qxf1+ 46 Rxf1 fxe4 47 Kc1 Kxg7 48 Bg1 Kg6 49 Bxa7 Bh3 50 Rg1+ Kf5 51 Bd1 Ke6 52 Kd2 Bf5 53 Bd4 Rc8 54 b4 Ra8 55 Ke3 Rxa3 56 Kf4 Ra8 57 Rg7 Ra1 58 Bh5 Rf1+ 59 Kg5 Bh3 60 Rh7 e3 61 Rh6+ Kd7 62 Bxe3 Kc7 63 Rh7+ Kc8 64 Be2 Re1 65 Rxh3 Rxe2 66 Kf5 Kb7 1-0

### The Anti-Grünfeld

The Anti-Grünfeld with 1 Nf3 Nf6 2 c4 is often played to avoid heavy theoretical pathways and take Grünfeld players out of their comfort zone. Our short survey of the Anti-Grünfeld in this chapter will examine two queen maneuvers in the opening, both of which are underestimated by the older engines. The first game examines a creative and dangerous idea by Boris

Gelfand, involving an unusual queen maneuver to the open h-file next to Black's king.

### *Game 60*

#### **B.Gelfand-V.Ivanchuk**

Legends of Chess 2020 (internet)

#### **1 Nf3 Nf6 2 c4 g6**

It should be noted that most of the top Grünfeld players (MVL and Nepomniachtchi among others) generally prefer to meet the Anti-Grünfeld with 2 ... c5 3 Nc3 and now either 3 ... Nc6 or 3 ... d5.

#### **3 Nc3 d5 4 cxd5 Nxd5 5 e4**

A fascinating idea in the 5 h4 variation will be analyzed in the following game.

#### **5 ... Nxc3 6 bxc3 Bg7 7 Rb1**

Tying down Black's c8-bishop to the b7-pawn.

7 d4 c5 would transpose to an Exchange Grünfeld (see Chapter 1).

#### **7 ... 0-0**

In view of the h4-h5 ideas that occur in the game, it makes to consider delaying castling with 7 ... c5 but then Black's development can be disrupted with 8 Bb5+! Bd7 9 0-0 and White obtains a very pleasant middlegame.

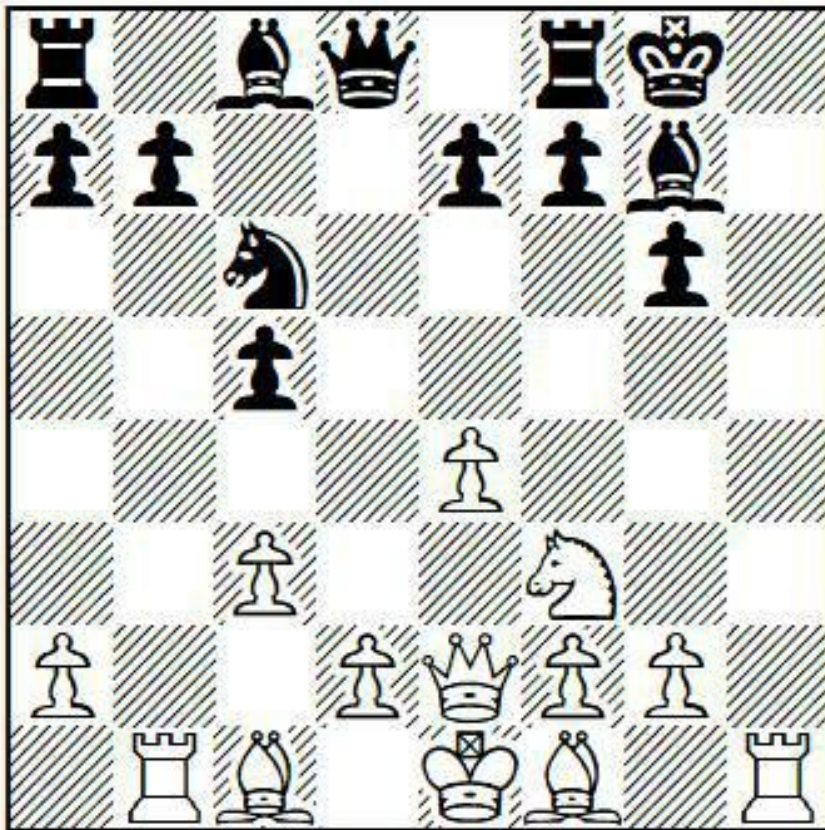
#### **8 h4**

Continuing to delay d4 and not giving Black a target in the centre.

#### **8 ... c5 9 h5 Nc6 10 hxg6**

10 h6? doesn't make sense in this case because White doesn't have a pawn on d4. After 10 ... Bf6 White would like to quickly play d4 and e5 to shut in Black's dark-squared bishop. However, this idea isn't possible so Black will develop comfortably and obtain a good middlegame position.

#### **10 ... hxg6 11 Qe2!**



A very innovative and strong idea which poses Black with serious practical questions.

**Question:** What is the idea behind 11 Qe2?

**Answer:** White is transferring the queen to the kingside via e3-g5-h4. This awkward-looking plan turns out to be very difficult for Black to meet effectively.

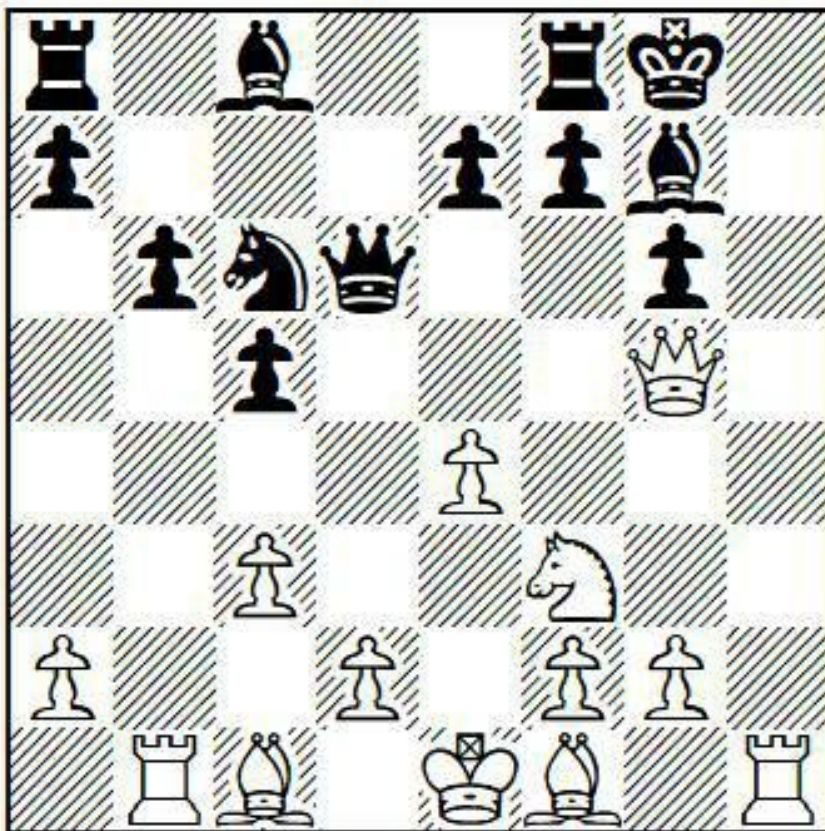
**11 ... b6?!**

Instead, 11 ... Qd6 12 Qe3 and now:

a) 12 ... Rd8 looks like the most logical follow up to the previous move, freeing space for the king. Play may continue 13 Be2 (13 Qg5? doesn't make sense here because of 13 ... Qe6 14 Qh4 Qxa2 and the king on g8 has breathing room) 13 ... Qe6? (13 ... Ne5 should be preferred, with similar play to 12 ... Ne5!) prevents Qg5 but runs into another idea, 14 Ng5! Qxa2 15 Rb2 Qa1 16 0-0 and Black is in serious trouble.

b) 12 ... Ne5! is a very good defensive try, exchanging off one of White's attackers and bringing the queen to e5, where it prevents White's queen from arriving on the h-file. One game continued 13 Nxe5 Qxe5 14 Be2 (14 Bc4!? makes it more difficult for Black to develop the c8-bishop; following 14 ... Rd8 15 f4 Qc7 Black's position feels much more difficult to play, but it should be playable) 14 ... b6 15 Bb2 Qd6 16 d4 cxd4 17 cxd4 Rd8 with a fine position in T.Pranitchi-K.Jensen, correspondence 2020.

**12 Qe3 Qd6 13 Qg5**



These positions are extremely sharp and impossible to play precisely in rapid, but I have included improvements for both sides to demonstrate some of the key ideas.

**13 ... Qe6?!**

The queen targets the e4 and a2-pawns. However, the queen turns out to be misplaced on e6.

13 ... Rd8! 14 Qh4 Kf8 15 d4 cxd4 looks incredibly dangerous for Black,

but he hangs on after 16 Bh6 (or 16 Qh7 g5! 17 Bxg5 Qg6 leads to a satisfactory endgame) 16 ... dxc3 17 Bxg7+ Kxg7 18 Qh6+ Kf6 and White has nothing better than repeating the position.

#### **14 Qh4 Rd8 15 Bb5 Rd6**

Prophylactics against Qh7+ is no longer working. For example, 15 ... Kf8 16 d4! cxd4 17 Bh6 dxc3 18 Bxg7+ Kxg7 19 Qh6+ Kf6 20 Rh4! and the queen on e6 is severely misplaced in this line, preventing the king from escaping.

#### **16 Ng5**

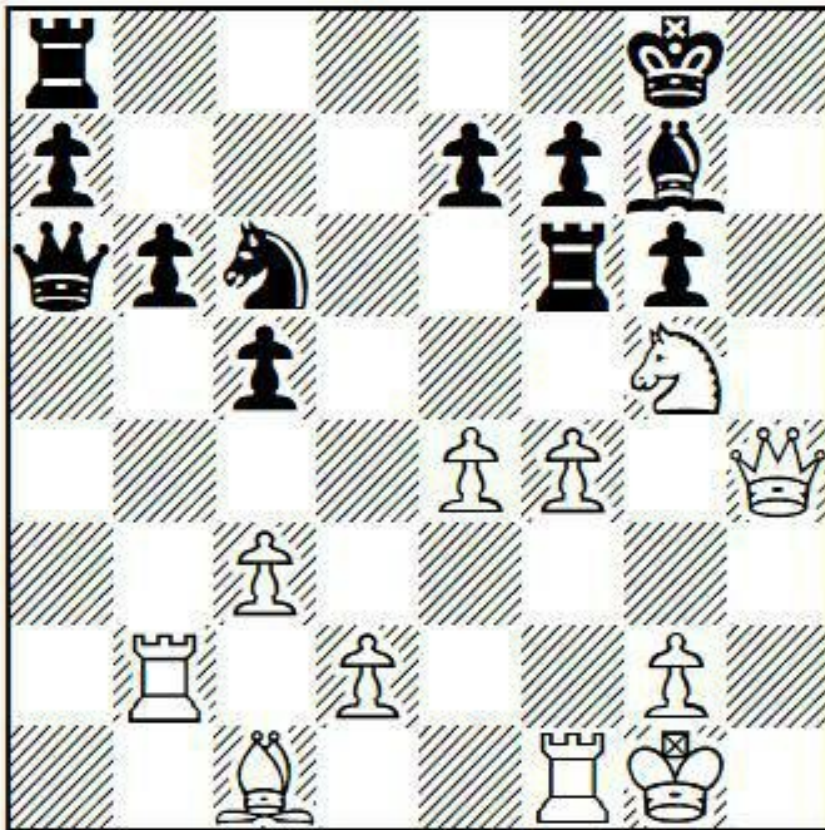
Kicking Black's queen completely out of the game but missing a tactic with 16 d4! (opening the c1-h6 diagonal for the bishop and setting up ideas with Qh7+ and Bh6) 16 ... cxd4 17 Bxc6 Rxc6 18 Nxd4 and it is very important to see that Black's counterplay is neutralized in the following lines: 18 ... Qc4 (or 18 ... Qxa2 19 Qh7+ Kf8 20 0-0! and the crushing Bh6 is threatened next.) 19 Qh7+ Kf8 20 Bh6 Qxc3+ 21 Kf1 Qd3+ 22 Kg1 Qxb1+ 23 Kh2 and Black runs out of ideas.

#### **16 ... Qxa2 17 Rb2 Qa1 18 0-0 Ba6 19 Bxa6**

Starting with 19 f4! was more effective because the a1-queen remains out of the game. Play may continue 19 ... Bxb5 20 Rxb5 Qa6 21 c4! and while Black figures out what to do with his queen, White is ready to play e5-e6 and breakthrough on the kingside.

#### **19 ... Qxa6 20 f4 Rf6?**

The immediate 20 ... Qd3! was much stronger to restrain the development of White's queenside pieces.



*Exercise:* How can White increase the power of his attack?

**21 Nh7?**

*Answer:* 21 d4! Opening the diagonal for the c1-bishop and more importantly, preparing to bring the b2-rook into the game. After 21 ... cxd4 22 Rbf2! creates the threat of e5-e6 and Black's kingside falls apart. For example, 22 ... dxc3 23 Qh7+ Kf8 24 e5! Rf5 25 e6 wins.

Note that 21 e5? would lose to 21 ... Nxe5 because the f1-rook is poorly defended.

**21 ... Qd3!?**

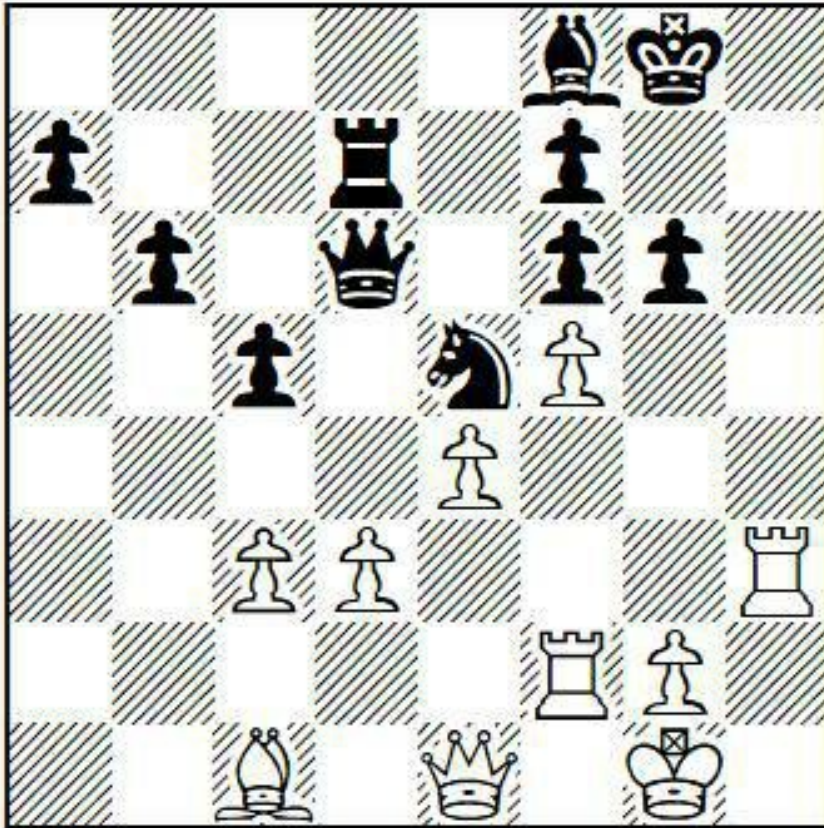
Sacrificing the exchange to slow down White's play and shut in the b2-rook and c1-bishop. However, Gelfand's next few moves free them from their cage.

**22 Nxf6+ exf6 23 Re1 Rd8 24 Re3 Qc4 25 Qe1**

Preparing moves like Qf1 and/or d3 next to finally open lines for the

queenside pieces.

25 ... Qe6 26 d3 Rd7 27 Rf2 Bf8 28 f5 Qd6 29 Rh3 Ne5



**30 Bf4?**

The exchange of minor pieces gives Black counterplay along the dark squares.

There was a very strong idea in 30 Rd2! followed by opening the position with d4.

**30 ... g5 31 Bxe5 Qxe5 32 Rc2 Bd6**

The d6-square looks like the best place for Black's bishop, but it was also possible to use it for defensive purposes and play 32 ... b5!? 33 Qe2 a5 34 Qh5?! Bg7 covering the kingside.

**33 Qe2 Kf8 34 Rh8+ Ke7 35 Qh5 Qg3 36 Rf2 Bf4?**

The queen should have retreated to keep the f6-pawn defended with 36 ... Qe5! 37 Qh6 Rd8 and Black keeps things under control.

**37 Qh6**

Exploiting the undefended f8-square and weak f6-pawn.  
**37 ... Kd6 38 Rc8 Rc7 39 Qxf6+ 1-0**

The following correspondence game sees another queen transfer, but this one along more typical routes: Qa4-h4 instead of Gelfand's Qe2-e3-g5. White unleashes a powerful opening idea which poses major theoretical challenges to the entire Black setup. Notably, the strength of White's new idea is based on the newer engines' understanding of material imbalances. Throughout the game, we will see how the long-term advantages in White's position (dark square control and passed d-pawn) strongly outweigh Black's slight advantage in material.

### *Game 61*

#### **P.Rallabandi-A.Rawlings**

English Championship Final 2021 (correspondence)

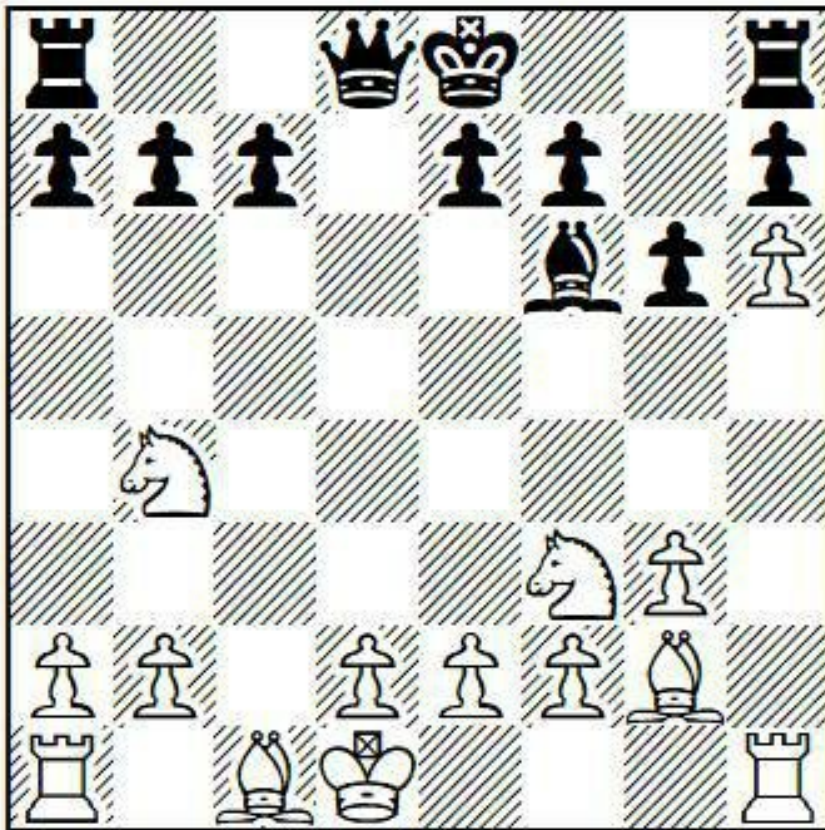
#### **1 c4**

A more common move order is 1 Nf3 Nf6 2 c4 g6 3 Nc3 d5 4 cxd5 Nxd5 5 h4.

#### **1 ... Nf6 2 Nc3 d5 3 cxd5 Nxd5 4 Nf3 g6 5 h4 Nxc3**

The preference among most top players, but 5 ... Bg7 is the main line.

One interesting line is 5 ... Bg7 6 h5 Nc6 (6 ... Nxc3 7 bxc3 transposes to the game) 7 g3 (also possible is 7 h6!? Bf6 8 g3 and the h6-pawn should be a major nuisance in Black's position; however, these positions are quite complicated and an interesting middlegame is sure to arise) 7 ... Bf5 8 Bg2 Ncb4!? leads to an interesting material imbalance following 9 Nxd5! Bc2 (less critical is 9 ... Nc2+ 10 Kf1 Qxd5 11 Ne1 Qc5 12 Nxc2 Bxc2 13 Qe1 and despite the temporary passiveness of White's pieces, Black is in trouble because the b7-pawn is undefended and quick development with d3 followed by Be3 is coming soon) 10 Nxb4 Bxd1 11 h6! Bf6 12 Kxd1



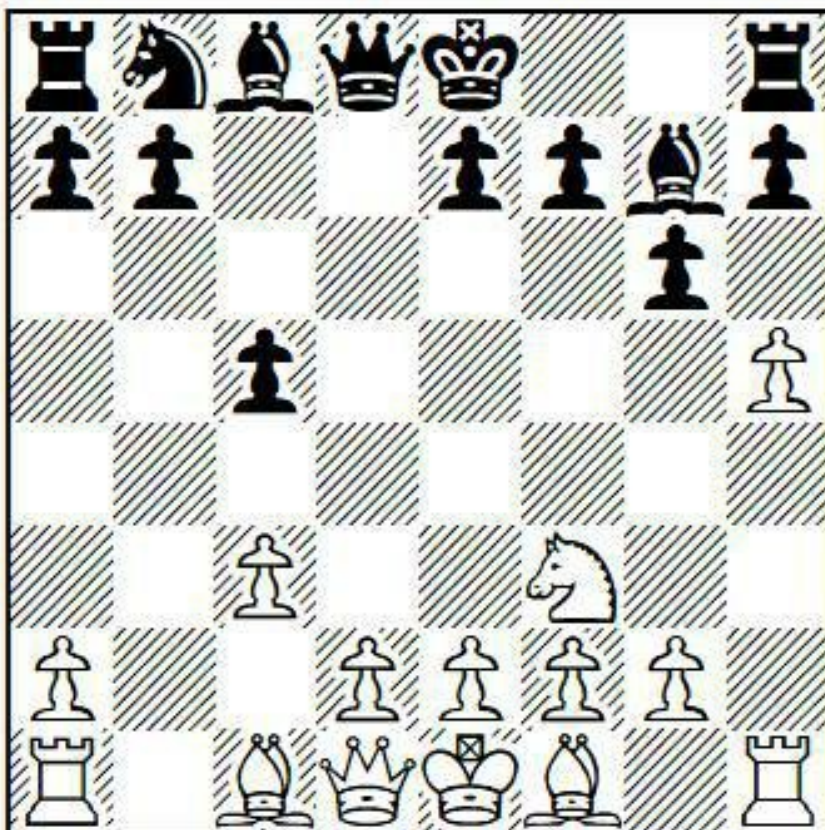
White has three pieces for the queen, but development is lagging behind and the king is misplaced on d1. Despite this, the newer engines have a lot of confidence in White's position and in R.Kazantsev-J.Walton, correspondence 2020, the pieces began to coordinate very well after 12 ... c5 13 Nc2 Rc8 14 Re1 e6 15 e4! 0-0 16 e5 Be7 17 Re4 Qd3 18 Nfe1 when the minor pieces form an excellent defence for the king. The game concluded 18 ... Qa6 19 b3 c4 20 bxc4 b5 21 cxb5 Qxb5 22 a4 Qb6 23 Re3 Rfd8 24 a5 Qb5 25 d4 Bg5 26 Rd3 Bxc1 27 Rxc1 was a surprisingly early resignation by Black in the correspondence game, but it is clear that White's minor pieces work together much better than the queen. White's winning plan would involve ensuring the king's safety (bringing it to the kingside) and activating the minor pieces, trying to exploit the dark-squared weaknesses in Black's position.

### 6 bxc3

The alternative 6 dxc3 is a much quieter approach, leading to a slightly more pleasant endgame for White after 6 ... Qxd1+ 7 Kxd1 f6 8 h5 g5 9 e4 as

in M.Carlsen-M.Vachier Lagrave, internet (rapid) 2021.

**6 ... Bg7 7 h5 c5**



7 ... 0-0 8 hxc6 hxc6 9 Ng5! Creating the threat of Qa4-h4! One sample line is 9 ... e5 10 d3 b6 and now White can choose from a variety of options. The most consistent one with our theme of transferring the queen to the h-file is 11 Qa4 (another way of activating the queen is 11 g3!? Bb7 12 e4 followed by Qg4-h4) 11 ... Nd7 12 Qh4 Re8 with a complicated middlegame, but one that seems quite dangerous for Black.

### **8 Qa4+!**

An incredibly dangerous weapon, which proved too much for Black to handle in this high-level correspondence game.

Carlsen preferred 8 Rb1 b6?! (8 ... Qc7! is more flexible; then in the event of 9 e4 Black can safely play 9 ... Nc6 followed by ... Bg4) 9 e4 0-0 (9 ... Nc6? doesn't work in conjunction with 8 ... b6 due to 10 Bb5 Bd7 11 h6 Bf6 12 d4 and White has achieved an ideal setup, while Black is lacking play of

his own) 10 hxc6! Opening the h-file is the most challenging approach, taking advantage of Black's slow development. Carlsen's game continued 10 ... hxc6 11 d4 Bb7 12 Ng5 cxd4 13 Qg4? (instead, 13 Bc4! Nd7 14 Qb3 looks crushing after 14 ... e6 15 cxd4 Rc8 16 e5 with ideas of Qh3 and Nxe6) 13 ... Nd7 14 Qh3 Nf6 15 e5 Nh5 16 e6 Qd5 led to a mess in M.Carlsen-S.Mamedyarov, Zagreb 2019.

### **8 ... Qd7**

Alternatives:

a) 8 ... Nc6 9 Ba3 and it is awkward to defend the c5-pawn.

b) 8 ... Bd7 9 Qc4! b6 10 Qf4 (provoking ... b6 is very useful because in some lines where White plays d4, Black will not have counterplay with ... Qa5!) 10 ... Nc6 11 Ng5 and the f7-pawn cannot be defended easily, for example, 11 ... Ne5 12 hxc6 fxc6 13 d4 looks extremely unpleasant for Black.

### **9 Qc4 b6 10 Ng5 e6**

Certainly the most natural way of defending the f7-pawn. Alternatively:

a) 10 ... e5 11 Ne4 is extremely strong, based on some nice tactics after 11 ... Ba6 12 h6! (the bishop is shut in on g7 by its own e5-pawn) and now:

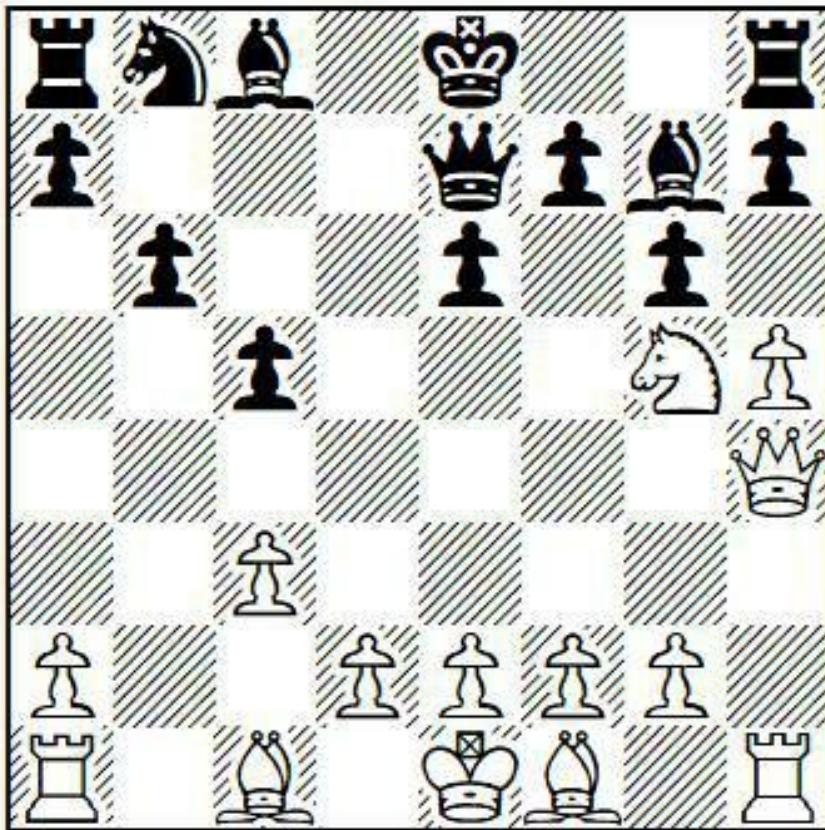
a1) 12 ... 0-0 13 hxc7 Bxc4 14 Nf6+ Kxc7 15 Nxd7 Nxd7 and White picks up material with 16 d3 Bd5 17 Bh6+.

a2) 12 ... Bxc4 13 hxc7 Rg8 14 Nf6+ Kd8 15 d3! is surprisingly much stronger than immediately taking Black's queen. The focus is on opening the diagonal for the c1-bishop and then advancing the g7-pawn. Following 15 ... Be6 16 Rxh7 and Rh8 comes next. Or if the king moves out of the pin with 16 ... Kc7 then 17 Nxc8 Nc6 18 Nf6 Qe7 19 Bg5! and Rh8 will be played next. For example, 19 ... Rg8 20 Rh8! Rxg7 21 Ne8+ wins the queen.

b) 10 ... Qf5 11 h6 Bxh6 12 Nxf7 leads to a clearly favourable position for White due to the weakening of Black's pawn structure.

### **11 Qh4! Qe7**

11 ... Nc6 leads to severe problems on the dark squares after 12 Ne4 Qe7 13 Qxe7+ Kxe7 14 h6 (the immediate 14 d4 is extremely dangerous for Black too) 14 ... Be5 15 d4! cxd4 16 Ba3+ Ke8 17 e3! activating the f1-bishop with tempo. Play may continue 17 ... dxe3 (17 ... dxc3 18 f4 f5 19 fxe5 fxe4 20 Rh4 followed by activating the rooks with Rc1-c3 and Rxe4 while Black's pieces completely lack coordination) 18 f4! Bxf4 19 Bb5 Bb7 20 Rd1 looks crushing – the king on e8 has no squares. Then, 20 ... f5 21 Rf1 fxe4 22 Rxf4 keeps Black's king paralyzed.



*Exercise:* Can you find the idea that White has been preparing?

**Answer:** 12 hxc6!! hxc6 13 Qxh8+ Bxh8 14 Rxh8+ Kd7 15 d4

The queen sacrifice provides White with several long-term advantages in exchange for the slight material deficit. White will obtain a substantial lead in development due to the lack of coordination between Black's pieces and the misplaced king on d7. Furthermore, the dark squares in Black's position have been weakened, as the missing g7-bishop makes it impossible to control the f6-square. These advantages provide White with more than enough compensation for the sacrifice, and yet the older engines continue to underestimate the potential of White's position.

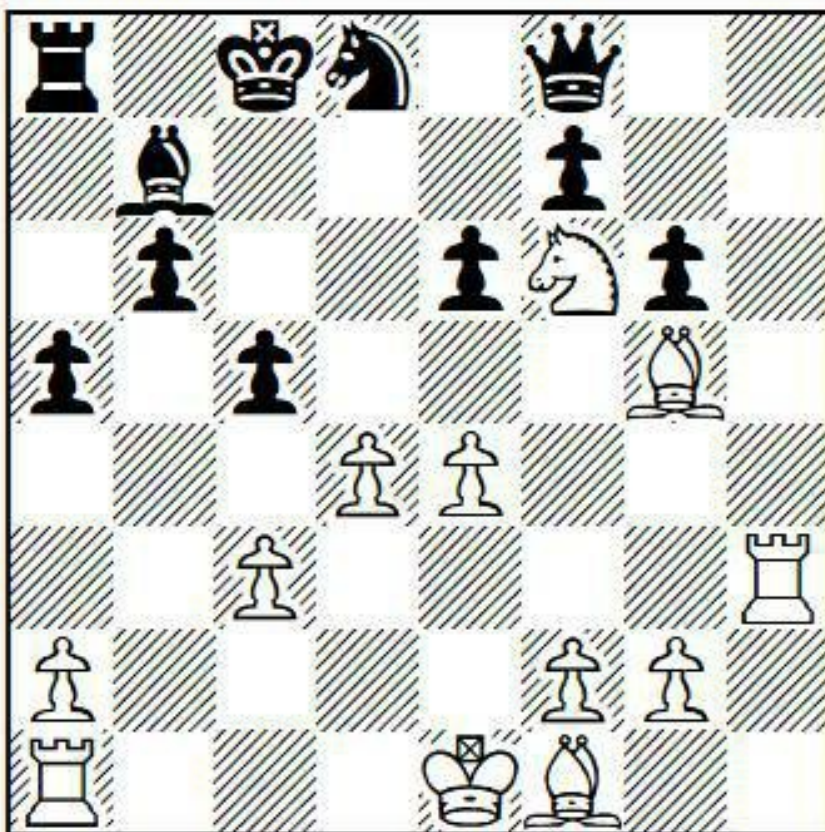
**15 ... Nc6**

15 ... cxd4 16 cxd4 Nc6 17 Rh7 Nd8 18 a3! (a pre-emptive measure against ... Qb4+) 18 ... Bb7 19 e4 a6 20 Nf3 with ideas of Ne5+ and Bg5-f6.

**16 Rh7 Nd8 17 Ne4 Bb7**

17 ... cxd4 18 a4! threatening Ba3 next is a nice way to continue exploiting the weak dark squares. Or if 18 ... e5 then 19 g3! creates additional ideas of activating the f1-bishop. For example, 19 ... Ne6 20 Ba3 Nc5 21 Bg2 and Black's pieces look completely tangled up.

**18 Bg5 Qf8 19 Nf6+ Kc8 20 e4 a5 21 Rh3!**



The rook is not needed on h7 and can instead serve a defensive purpose along the third rank.

**21 ... Ba6 22 Bxa6+ Rxa6 23 e5 cxd4**

Preparing to activate the queen, but White prevents this counterplay with his next move.

**24 Ne4!**

Bringing the knight to d6, where it shuts in the queen and controls some key squares around the king.

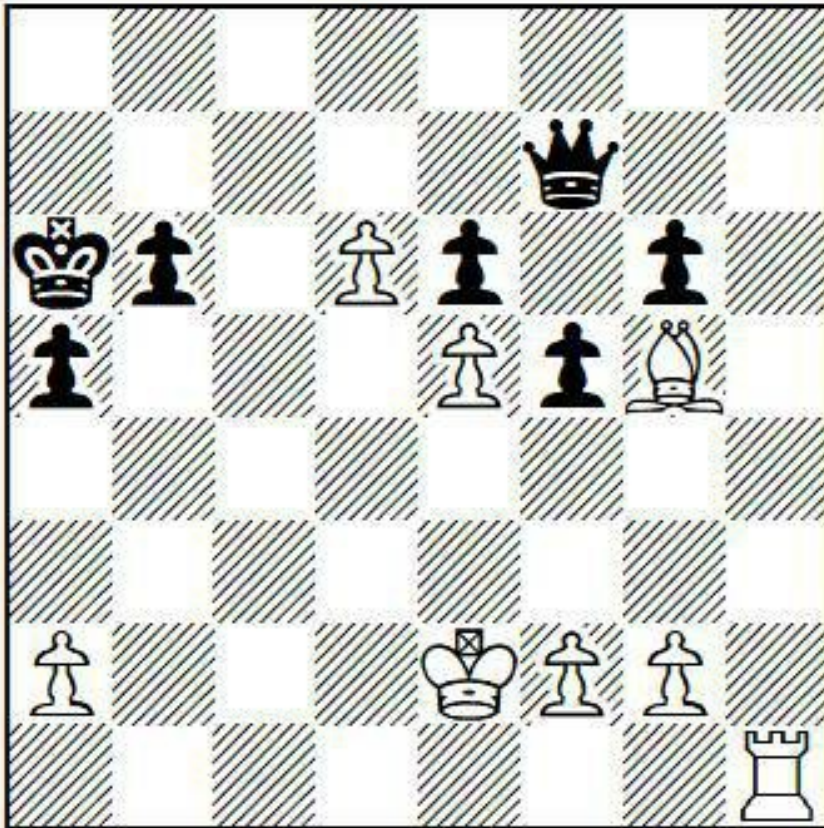
**24 ... f5**

24 ... Nb7 prevents Nd6, although 25 cxd4 Qb4+ 26 Nc3 sees Black's

queenside pieces on unfortunate squares.

**25 Nd6+ Kb8 26 Ke2 Ra7 27 cxd4 Nf7 28 Ra1 Rd7 29 Rh7 Ka7 30 Nxf7 Rxf7 31 d5 Ka6 31 ... exd5 32 e6 Rxh7 33 Rxh7+** and the e-pawn ties down Black's queen.

**32 Rxf7 Qxf7 33 d6**



Older engines have difficulty evaluating this position accurately, especially from afar. The passed d6-pawn is simply too much of a long-term advantage and it decides the game in White's favour.

**33 ... Qd7 34 Rd1 Qb5+**

34 ... b5 was the best try for counterplay.

**Question:** How does White make progress?

**Answer:** 35 Ke3! (not 35 Rc1? b4) Activating the king along the undefended dark squares. This idea is extremely important to the evaluation of the ending, and severely underestimated by some of the older engines. One

sample line is 35 ... b4 36 Kf4! a4 37 Be7 Qc6 38 Kg5 Qc2 39 Rd4! (the rook keeps Black's queenside counterplay under control) 39 ... Qb2 40 Rh4 Qd2+ 41 Kf6 intending Kf7-e8 is decisive.

**35 Ke1 Qb4+**

Picking up the e5-pawn with 35 ... Qxe5+ 36 Be3 Qc3+ 37 Rd2 Qc1+ 38 Ke2 doesn't help Black.

**36 Bd2 Qe4+ 37 Be3 Qb4+ 38 Ke2 Qb5+ 39 Rd3 Qd7**

The queen returns to its passive defence on d7, after which White prepares to invade with his rook along the c-file.

**40 Ke1 a4 41 Kd2 Kb7 42 g3 Ka7 43 Ke1 Ka6 44 a3 Kb7 45 Rd2 Ka6 46 Rb2 b5 47 Rc2 1-0**

## **The Bogo-Indian**

The last section of this chapter examines one of the main lines in the Bogo-Indian, which has become extremely dangerous for Black in recent years. Ding Liren employs the critical setup, playing for a strategic advantage on the kingside rather than a direct attack. This approach is also strongly supported by the newer engines, and we will see a clash of styles in Game 63 between Lc0 and Stockfish.

### *Game 62*

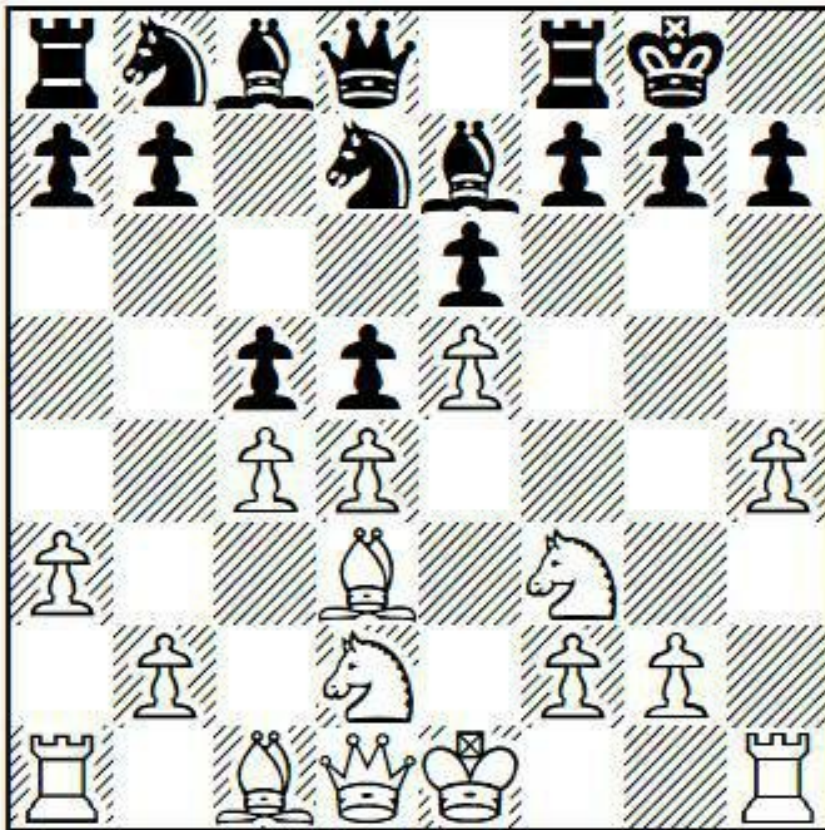
#### **Ding Liren-I.Saric**

Batumi Olympiad 2018

**1 d4 Nf6 2 c4 e6 3 Nf3 Bb4+ 4 Nbd2 0-0 5 a3 Be7 6 e4 d5**

In view of the ideas shown in this game and the next, 6 ... d6 should be preferred.

**7 e5 Nfd7 8 Bd3 c5 9 h4**



The h-pawn push has been the main line for many years. White threatens Bxh7, so Black must respond with either 9 ... h6 or 9 ... g6.

**9 ... g6**

9 ... h6 also weakens Black's kingside. White can play 10 Bb1! cxd4 11 cxd5 exd5 12 Qc2 f5 13 Nb3 with a very unpleasant position for Black, as in M.Rodshtein-E.Andreev, Cappelle la Grande 2013.

**10 0-0!**

This move however is a relatively new idea and the strength of it is immediately appreciated by the newer engines. Instead of playing directly for mate with the most popular move 10 h5, White is happy to have provoked dark-squared weaknesses on Black's kingside and plays for a long-term advantage. Note that it is possible to find powerful ideas like 10 0-0! without using the newer engines, but it would require significantly more creativity and time spent on analysis.

10 h5 was the old main line and the preference of most older engines. This

move is much more direct, but not nearly as promising. After 10 ... cxd4 play may continue:

a) 11 cxd5 exd5 12 Qc2 Qe8! (defending the g6-pawn) 13 0-0 Nc6 14 Re1 Nc5 15 Nb3 Nxd3 16 Qxd3 Bf5 17 Qd1 and Black must respond accurately. Once he does, the position becomes fully playable. Following 17 ... d3! (17 ... Qd7? 18 Nfxd4 gxh5 19 Qxh5 Bg6 20 Qf3 and White was clearly better due to the exposed kingside in E.Tomashevsky-Y.Quesada Perez, Tsaghkadzor 2015) 18 Bh6 gxh5! 19 Bxf8 Qxf8 20 Nfd4 Nxd4 21 Nxd4 Be4 Black reached a sound position in B.Kriksciunas-D.Kuhne, correspondence 2017.

b) 11 Qc2 Nc5 12 cxd5 Nxd3+ 13 Qxd3 Qxd5 14 Ne4 Nd7 and despite the kingside initiative, it is not at all clear if White has anything here. Just to give an example, S.Lakatos-J.Kolarík, ICCF 2018, continued 15 Bh6 Re8 16 Bg5 b6 17 Bxe7 Rxe7 18 Nf6+ Nxf6 19 exf6 Rc7 20 hxg6 fxg6 and Black was fine. In view of these lines where Black seems to be holding, 10 0-0! is a much more challenging continuation.

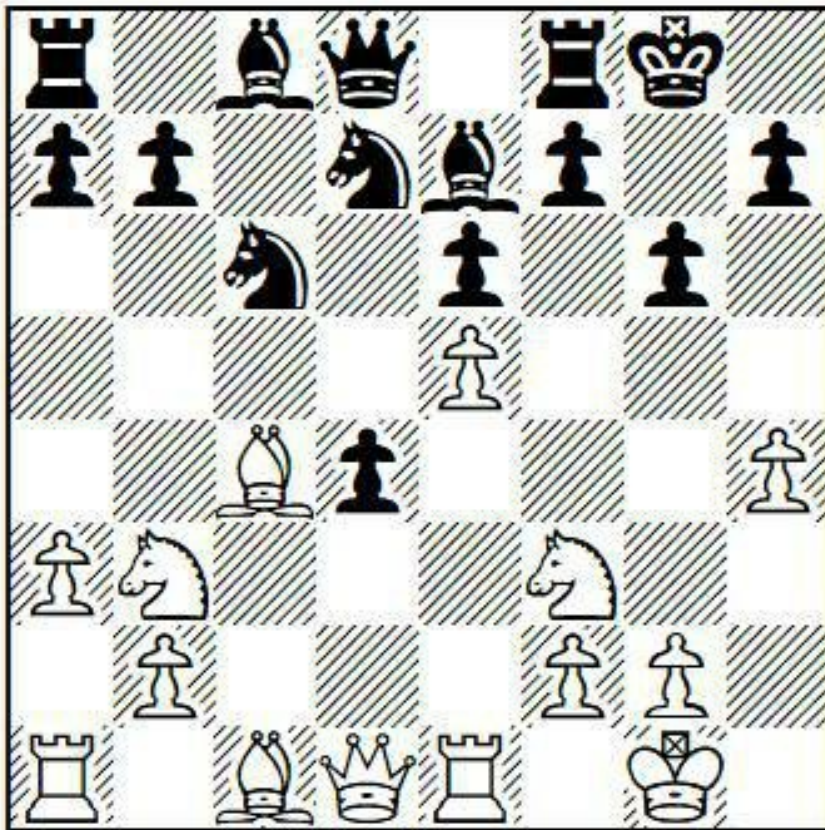
### **10 ... Nc6 11 Nb3 dxc4**

Clarifying the central tension. Alternatives:

a) 11 ... Bxh4 looks greedy, but there doesn't appear to be anything directly wrong with it. We will see how Lc0 handles the position in the next game.

b) 11 ... cxd4 is the other way of exchanging pawns in the centre. One sample line is 12 Re1 Re8 13 h5 dxc4 14 Bxc4 Qc7 15 Bf4 with an incredibly dangerous for Black because White's active pieces provide tremendous compensation for the sacrificed pawn.

### **12 Bxc4 cxd4 13 Re1**



The opening has gone terribly wrong for Black. There are major dark-squared weaknesses on the kingside and it is not clear how the queenside pieces will develop.

**13 ... a5**

Fighting for some type of activity on the queenside.

13 ... Bxh4 14 Bh6 Re8 gives White many ways to continue his attack, for example, 15 Qc1! followed by Qf4 and Ng5.

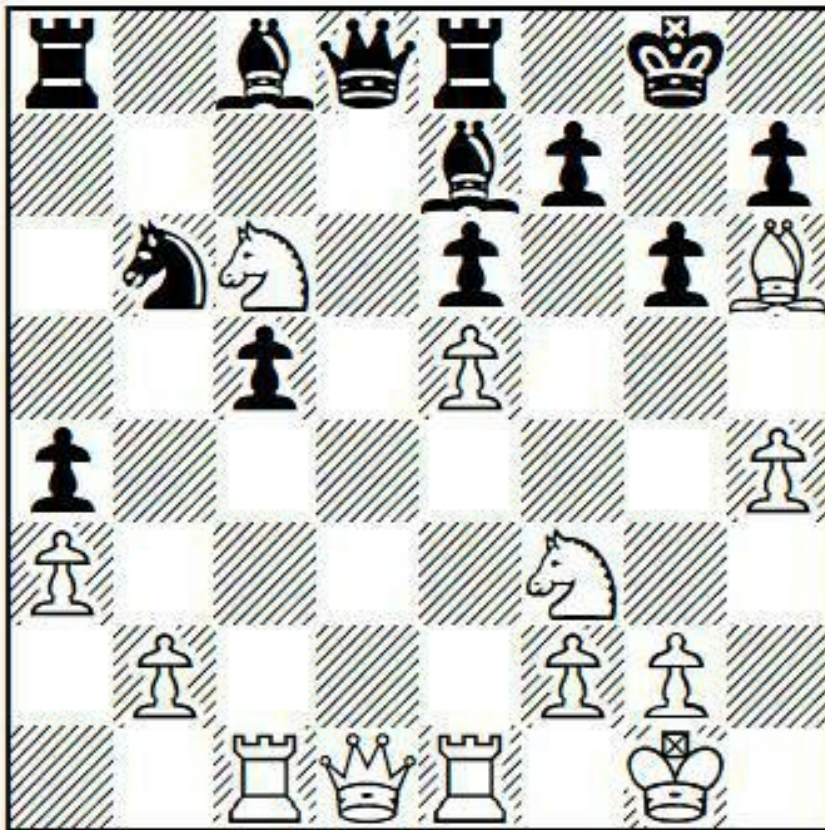
**14 Bh6!**

Taking advantage of the weakened kingside dark squares.

**14 ... Re8 15 Rc1 Nb6**

15 ... Bxh4 16 Qd2 followed by Qf4 and Ng5 looks crushing.

**16 Bb5 a4 17 Bxc6 bxc6 18 Nbx d4 c5 19 Nc6**



Leading to a winning endgame. Black's pawn structure is worse and the weaknesses on the kingside must be constantly defended.

**19 ... Qxd1 20 Nxe7+ Rxe7 21 Rexd1 Rd7 22 Nd2 Rd5 23 Ne4 Nd7 24 Nxc5!**

A small tactic to pick up a pawn and win the game.

**24 ... Nxc5 25 Rxd5 exd5 26 Rxc5 Be6 27 Rc6 Rd8 28 Ra6 d4 29 Rxa4 d3 30 Bd2 h5 31 f3 Rd5 32 Ra6 g5 33 hxg5 Rxe5 34 Rd6 Bc4 35 Rd4 Ba6 36 a4 Re2 37 Bc3 Rc2 38 Rd8+ Kh7 39 Rd6 1-0**

A nice game by Ding Liren, who developed an initiative out of the opening and was able to create many problems for his opponent in the middlegame and endgame due to Black's kingside weaknesses. Now let's take a look at how a modern engine handled the White pieces in the same opening.

## *Game 63*

### **Lc0-Stockfish**

TCEC 2020

**1 d4 Nf6 2 c4 e6 3 Nf3 Bb4+ 4 Nbd2 0-0 5 a3 Be7 6 e4 d5 7 e5 Nfd7 8 Bd3  
c5 9 h4**

The game started from this position.

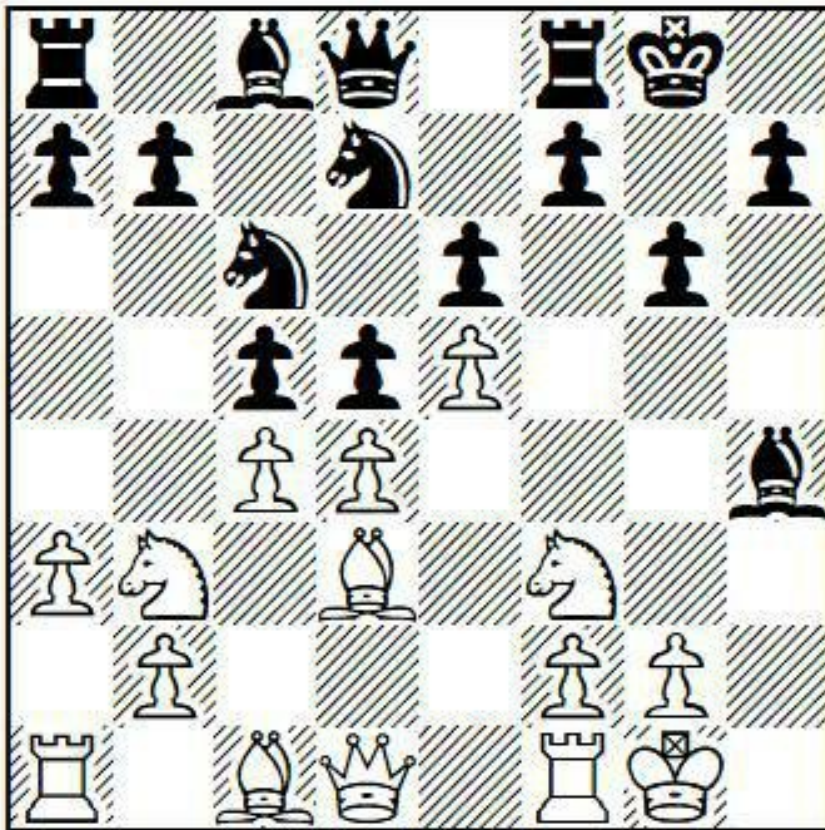
**9 ... g6 10 0-0!**

Similarly to Ding Liren, Lc0 plays for a long-term advantage on the kingside, rather than directly attacking with 10 h5.

**10 ... Nc6 11 Nb3**

So far the same as last game, now Stockfish takes the hanging h4-pawn which gives White more time to develop an initiative.

**11 ... Bxh4**



Risky, but this is the type of play that Stockfish would often get away with against weaker engines by using its impressive calculation abilities to survive a dubious-looking position.

**12 Bh6 Re8 13 Re1 cxd4**

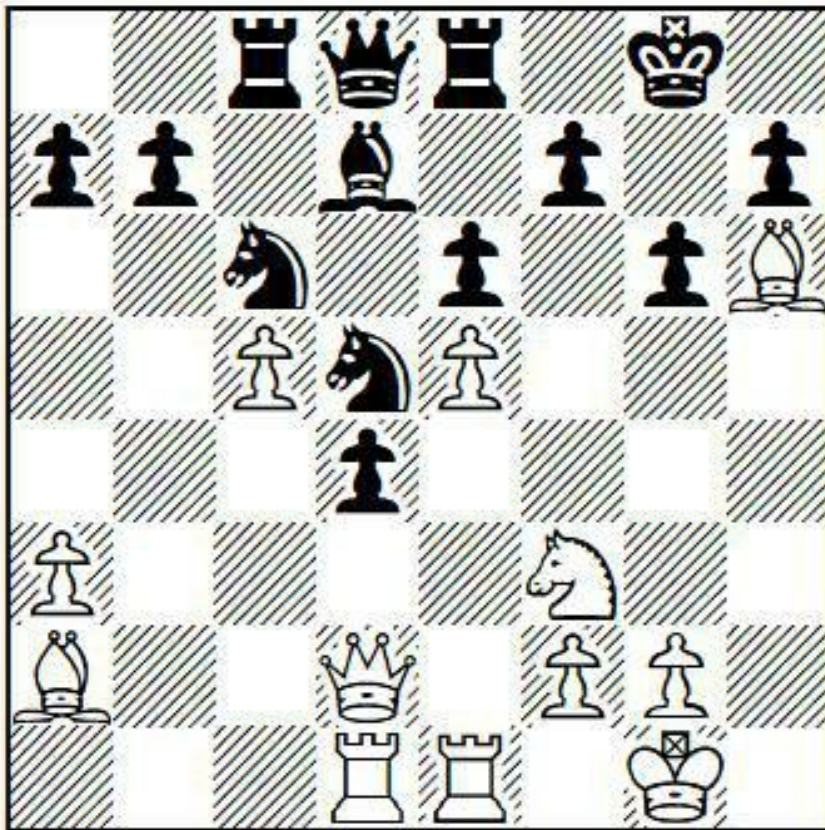
One correspondence game continued 13 ... Be7 14 dxc5 a5 15 a4 Nxc5 16 Nxc5 Bxc5 17 Qc1 and the pressure on the kingside built up very quickly as White brought in more attackers, for example, Nh2-g4 is coming. See P.Klochán-S.Glushenkov, ICCF 2021.

**14 Qc2 dxc4 15 Bxc4 Nb6 16 Rad1 Bd7 17 Nc5 Rc8**

17 ... Be7 18 Ba2 Rc8 19 b4 transposes to 17 ... Rc8 18 b4 Be7.

**18 b4 Nxc4**

18 ... Be7! was a better defensive try. Play continues 19 Ba2 (the materialistic 19 Nxb7? Qc7 20 Nc5 is not at all consistent with what White should be playing for; Black obtains counterplay after 20 ... a5) 19 ... Nd5 20 Qd2 Bxc5 21 bxc5



Reaches another interesting position that the older engines struggle to evaluate. Black's missing dark-squared bishop makes the defensive task on the kingside extremely challenging. Black can try:

a) 21 ... Qa5 22 Qg5 Qd8 23 Qg3 Nc3 24 Ng5! targeting the h7-pawn completely crushes Black's kingside, for example, 24 ... Nxd1 (or 24 ... Nxa2 25 Ne4 followed by Nf6+ and Qh4) 25 Qf4 Rf8 26 Rxd1 followed by Ne4-f6.

b) 21 ... Nc3 22 Ng5! and now some sample lines are:

b1) 22 ... Qc7 23 Qf4 f5 24 Nxh7! Kxh7 25 Bg5 and the kingside is far too vulnerable for Black to defend.

b2) 22 ... Nxd1 23 Qf4 Qe7 24 Ne4 followed by Nf6 and Qh4 when the h7-pawn cannot be properly defended.

b3) 22 ... f6! is the best defensive try, but the position remains highly unpleasant after 23 exf6 Qxf6 24 Ne4 Nxe4 25 Rxe4 and despite the two extra pawns, White's powerful bishops and active pieces provide overwhelming compensation. The pressure will rapidly increase as the major

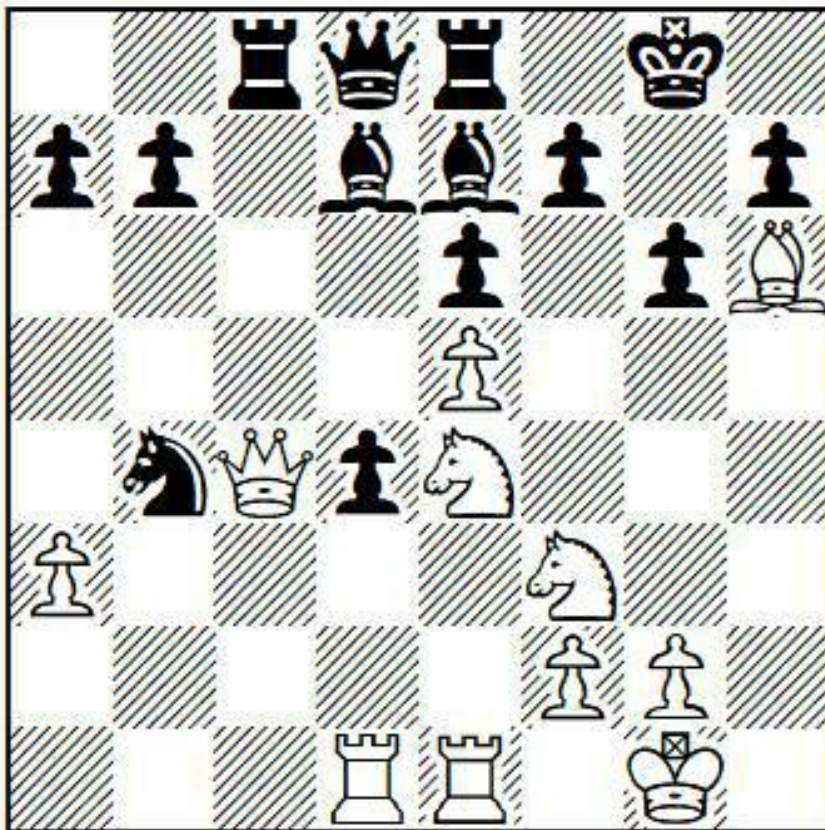
pieces transfer over to the kingside.

**19 Qxc4 Be7 20 Ne4!**

In return for the two sacrificed pawns, White is ready to exploit the weaknesses on Black's kingside. For example, if White is given enough time, he will transfer his queen to f4 and then play Nfg5.

Regaining the sacrificed pawn with 20 Nxb7 Qc7 21 Nc5 provides an advantage but nothing decisive after 21 ... a5 22 Nxd7 Qxd7 23 b5 Nb4 24 Qxd4 Nd5 and Black is holding his position together.

**20 ... Nxb4**



Evaluated by Stockfish as 0 00. This game was played with a long time control (90 minutes + 10 second increment) and Stockfish had analysed to approximately Depth 57 before making this move.

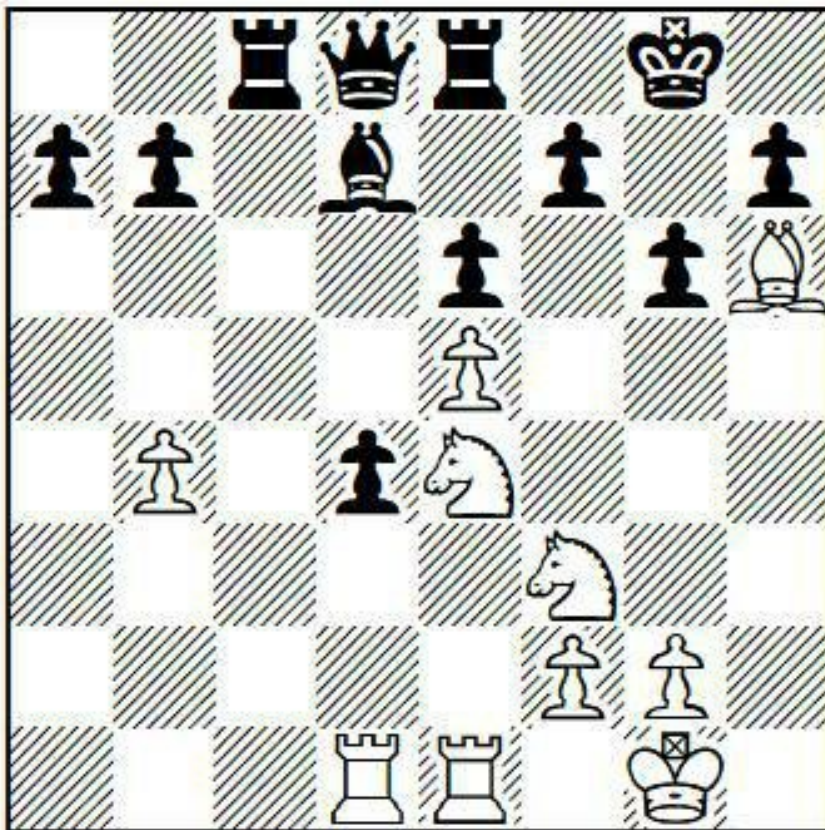
**Question:** Can you spot the concept that Stockfish severely underestimated?

**Answer: 21 Qxb4!!**

Giving up the queen for Black's knight and dark-squared bishop highlights the weaknesses on Black's kingside. The long-term dangers that this move causes for Black were overlooked by Stockfish.

The following computer line shows why Stockfish evaluated the position as 0 00: 21 Qxd4 Nd5 22 Nd6 Qb6 23 Nxc8 Rxc8 24 Qg4 Rc2 25 Rd2 Rxd2 26 Nxd2 Qa5 27 Qd4 Bc5 28 Qh4 Be7 was the main line of Stockfish, with a repetition.

**21 ... Bxb4 22 axb4**



The moves Nf6 and Ng5 are coming when Black's king will be completely boxed in and White will then try to bring one of his rooks to the h-file.

**22 ... f5**

Trying to gain some space, although this doesn't help Black's dire kingside situation. Alternatives:

a) 22 ... Rc4 23 Nf6+ Kh8 24 Ng5 Re7 25 Rd3! Qc7 26 Rh3 Rc1 27 Nxf7+

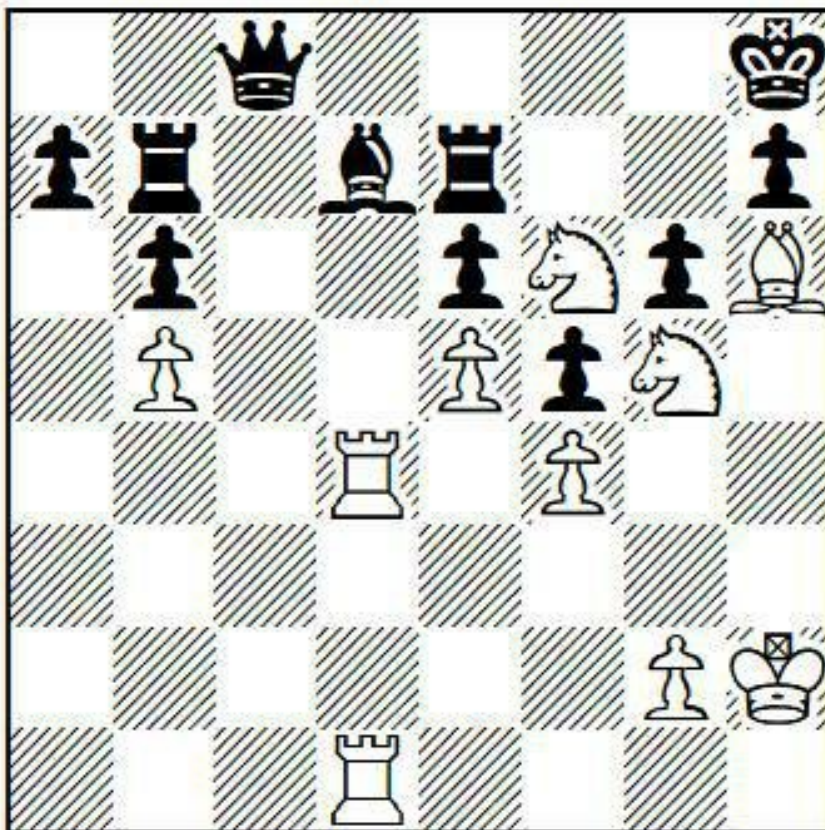
Rxf7 28 Rxc1 and White will bring his rooks to the d-file, obtaining excellent piece coordination while Black's major pieces are paralysed. White also has the important idea of meeting 28 ... Qxe5 with 29 Nxd7 and Rc8, so Black's queen must remain passive.

b) 22 ... Bc6 23 Nf6+ Kh8 24 Rxd4 and White intends Ng5 followed by Rh4 next. Note that the endgame after 24 ... Bxf3 (24 ... Qc7 25 Ng5 Red8 26 Rh4 demolishes the kingside) 25 Rxd8 Rxd8 26 gxf3 is completely lost for Black because of his weak kingside. White can play Kg2, Rh1, and Nxf7 next.

**23 Nf6+ Kh8 24 Rxd4 Rc7 25 Red1 Re7 26 b5 b6 27 Kh2 Rb7 28 Ng5 Qc8 29 R1d2 Rc7**

Black can do nothing but sit passively, so Stockfish moves its rook back and forth to b7 and c7. Meanwhile, Lc0 slowly builds up pressure before breaking through with Nxe6!

**30 Rd6 Rb7 31 R2d4 Rc7 32 Rd1 Rb7 33 R6d4 Rc7 34 f4 Rb7**



**35 Nxe6!**

Finally White breaks through and Black is completely lost.

**35 ... Rxe6 36 Nxd7 Kg8 37 Nf6+ Kf7 38 Rd8 Qc5 39 Nxb7 Re8 40 e6+ Rxe6 41 Ng5+ Kf6 42 Rf8+ Qxf8 43 Bxf8**

Black's king on f6 and rook on e6 are completely tied up.

**43 ... Rc7 44 Rd4 Rb7 45 Kg3 Rc7 46 Rd3 Rb7 47 Kh4 Rc7 48 Kg3 Rc4 49 Rd7 Re3+ 50 Kf2 Rxf4+ 51 Kxe3 Ra4 52 Be7+ Ke5 53 Kf3 1-0**

A remarkable showcase of Lc0's strategic thinking abilities.

## **Review of Chapter Seven**

1. A few new opening ideas involving the material imbalance of two minor pieces for a rook and two pawns have become popular in recent years, as we saw in the first two games of the chapter.
2. One of the biggest differences in understanding between the older and newer engines can be found in material imbalances of a strategic nature. For example, the middlegames arising from Karthikeyan's queen sacrifice against Firouzja (Game 58) are handled significantly better by the neural network engines.
3. Compared to the older engines, neural network engines are less reluctant to accept an unusual material imbalance if they believe it will pay off in the long run. Meanwhile, the older ones are much more set in their ways and usually prefer the side with more material.

## **Additional Material**

Sergey Karjakin-Maxim Matlakov, Russian Championship 2020

Rustam Kasimdzhanov-Dmitrij Kollars, German Grand Prix 2021

Rustam Kasimdzhanov-Jorden Van Foreest, French Team Ch. Top 12 2021

Hikaru Nakamura-Rameshbabu Praggnanandhaa, NIC Classic Preliminaries 2021

Magnus Carlsen-Anish Giri (Game 2), Magnus Carlsen Invitational 2020

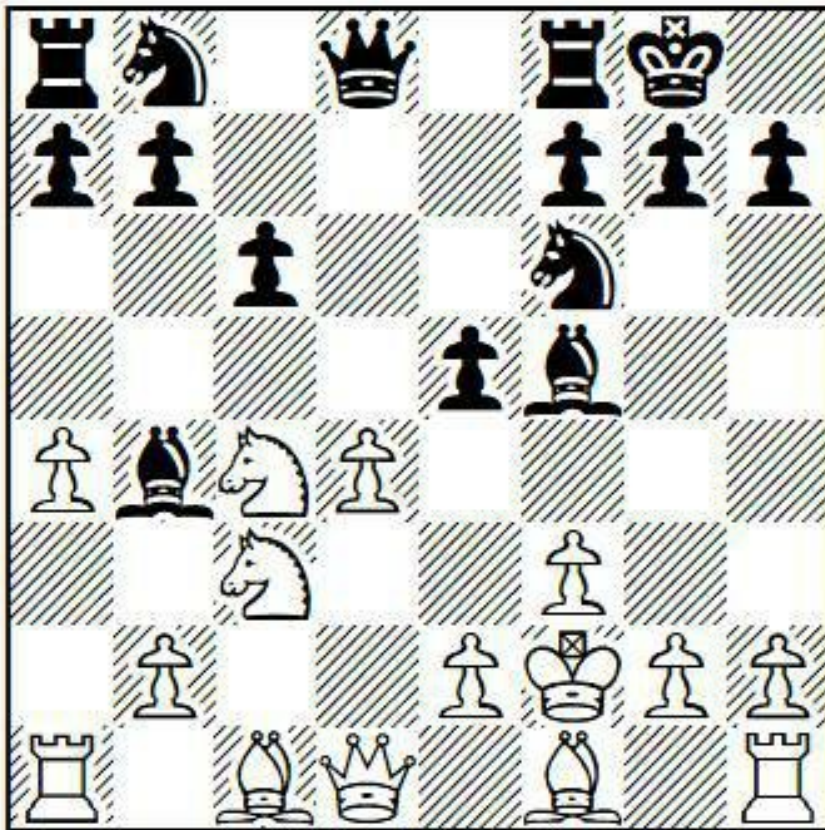
# Chapter Eight

## Cautionary Tales

The first seven chapters focussed on how neural network engines have influenced modern chess with new opening ideas and middlegame concepts. This chapter explores some potential downsides of engine analysis by providing cautionary tales from top level chess. Engines are incredibly powerful tools which must be used carefully to have any practical use. Before working effectively with engines, it is important to be aware of ways that they can misguide us.

The first section highlights the possibility of preparation backfiring in double-edged opening lines. In these types of positions, an engine's objective evaluation often provides a false sense of knowledge and distracts us from the difficulties that will occur over the board. Then, we move on to memory issues. A player's opening analysis may be creative, challenging, and rigorously checked with modern engines, but if they can't remember some important detail in a critical line, the preparation could be wasted. For example, in the 2020 Candidates tournament, Caruana unleashed a remarkable pawn sacrifice with the Black pieces against Ding Liren.

Caruana was able to play his preparation until move 17, when he mixed up the move order and Ding Liren obtained a large advantage. Keeping in mind the limitations of memory is important for players of all levels and must be taken into consideration during opening preparation.



The last game of the chapter focusses on misleading evaluations, which occurs when engines provide an evaluation of the position, but their assessment does not accurately reflect practical difficulties. For example, a position may be objectively equal but clearly preferable for one side in practice because they can press forever and have no risk of losing. Finally, at the very end of the chapter, I provided a few examples from previous chapters that are relevant to this one.

### **Sharp Complications**

Modern engines are fearless and will never backdown from entering razor-sharp complications if they believe it is the most challenging approach. This is great when searching for the objectively best line of play, but it can easily go wrong in practice. The following game sees Giri introduce a fascinating exchange sacrifice, creating a complete mess on the board which is difficult

for both sides to navigate. Despite thorough preparation with the newest engines, Giri ran into trouble after Nepomniachtchi responded accurately and seized the initiative.

The unfortunate result of the game doesn't mean that Giri's opening choice was poor, but instead highlights the fact that deep preparation can backfire, and players must always be aware of the risks they are taking while analyzing with an engine.

### *Game 64*

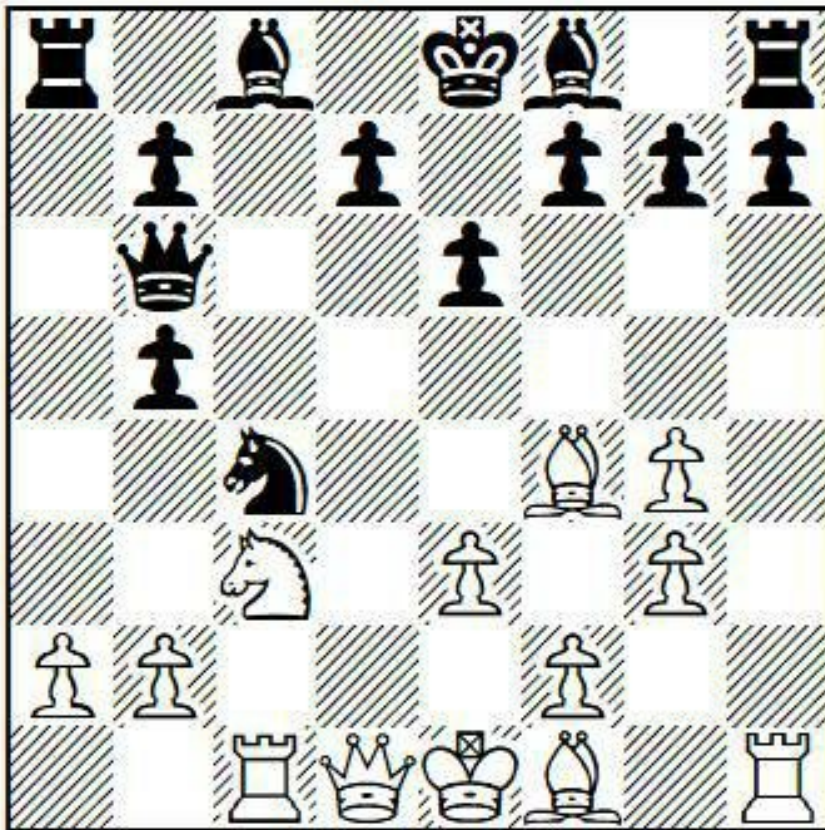
#### **A.Giri-I.Nepomniachtchi**

FIDE Candidates 2020-21

**1 Nf3 Nf6 2 c4 c5 3 Nc3 Nc6 4 d4 cxd4 5 Nxd4 e6 6 g3 Qb6 7 Ndb5**

Entering one of the sharpest and most concrete lines in the English Opening.

**7 ... Ne5 8 Bf4 Nfg4 9 e3 a6 10 h3 axb5 11 hxg4 Nxc4 12 Rc1!**



Giri's novelty and the ideas he brought with it are much more venomous than the equal endgame arising after 12 Qb3.

12 Qb3 d5 13 Bxc4 dxc4 14 Qxb5+ Qxb5 15 Nxb5 leads to a balanced endgame.

### 12 ... d5

There are a couple alternatives that also deserve attention:

a) 12 ... Bb4 13 a3 Bxc3+ (13 ... Nxb2? doesn't work out well after 14 Qb3 Bxa3 15 Nxb5 Qa5+ 16 Ke2 threatening Nc7+) 14 Rxc3 d5 15 Qc2 targets the h7-pawn and threatens to destroy Black's kingside. However, the damage can be kept under control with 15 ... Bd7! 16 Rxh7 Rg8 and Black has a satisfactory position.

b) 12 ... Qa5!? 13 b3 Ba3 leads to a sharp material imbalance. Play continues 14 bxc4 Bxc1 15 Qxc1 b4 16 Nb5 b3+ 17 Kd1 bxa2 18 Qa1 f6 with a very unclear position, but one that is probably more difficult for Black. For example, 19 Bd6 b6 20 Bd3 Bb7 21 e4 followed by g5.

### 13 b3 Bb4!

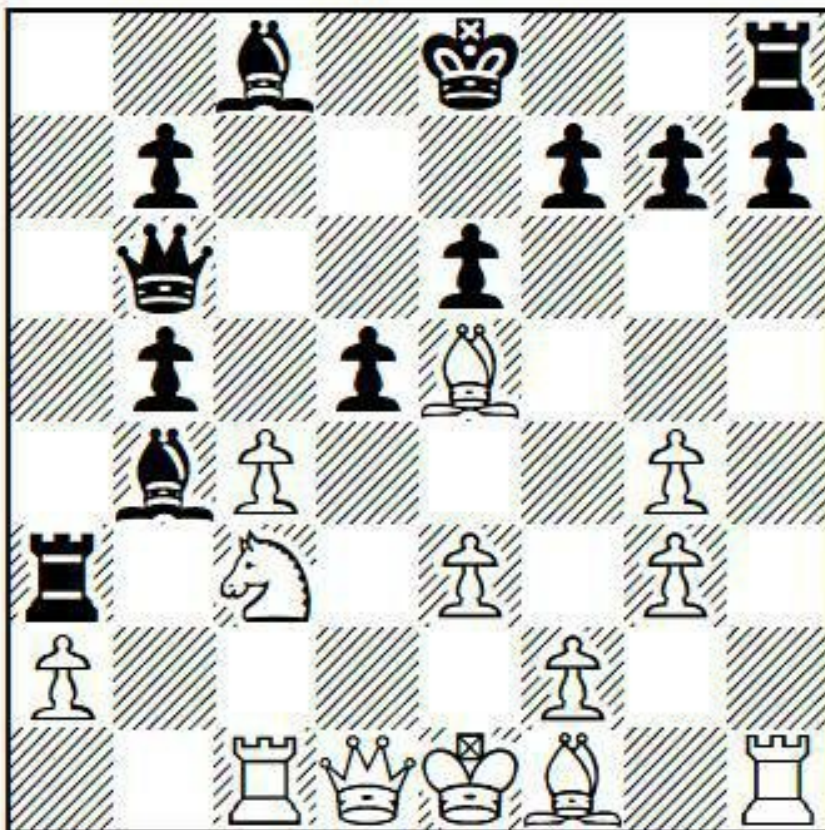
Nepomniachtchi heads straight towards one of the most critical lines in Giri's preparation. There are several alternatives:

a) 13 ... Na3? 14 g5 Bd7 15 Be5 (even stronger is 15 g6! fxg6 16 Bd3 threatening Bxg6+) 15 ... Rc8 16 Bd3 with tremendous queenside pressure in A.Predke-E.Alekseev, Cheboksary 2021.

b) 13 ... Nd6 14 g5! restrains Black's kingside pawns. Then, 14 ... Bd7 15 Bd3 makes it very difficult for Black to develop his kingside.

c) 13 ... e5 14 bxc4 exf4 15 c5! Bxc5 16 Bxb5+ Kf8 17 gxf4 reaches a position that may be playable for Black, but it would be incredibly unpleasant to play with the king on f8. One sample line is 17 ... d4 18 exd4 Bxd4 19 a4! (ignoring the f2-pawn) 19 ... g6 (19 ... Bxf2+? 20 Kf1 followed by Nd5) 20 Kf1 Bxc3 21 Rxc3 and the position is very dangerous for Black in view of the weak kingside dark squares and the three undeveloped pieces.

**14 bxc4 Ra3 15 Be5**



An incredibly complex middlegame has arisen, which is very difficult to make sense of.

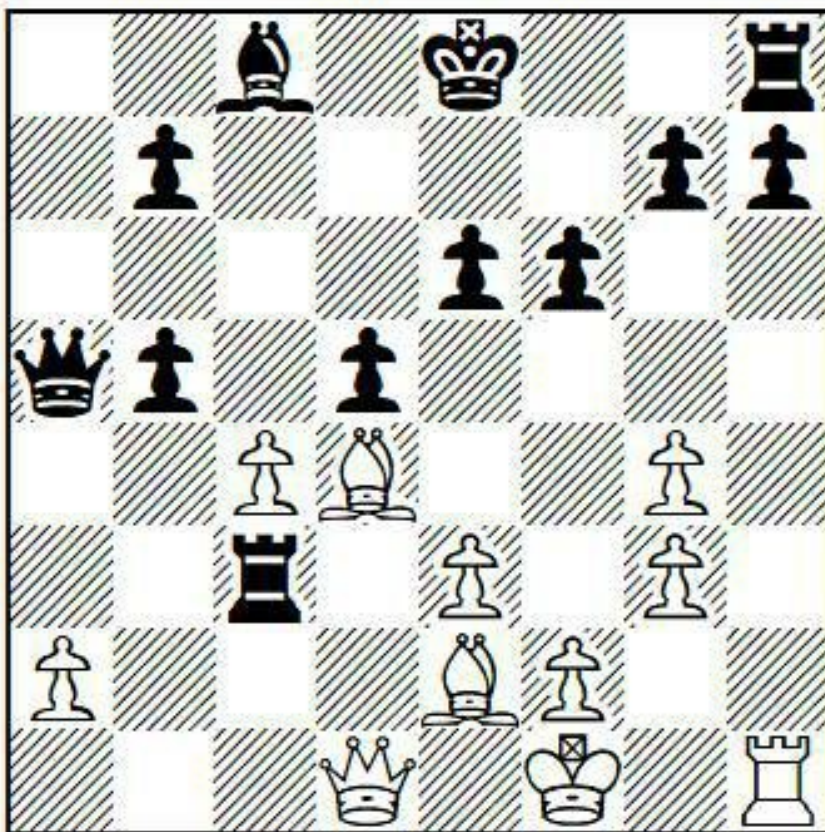
**15 ... f6**

15 ... Qa5 16 Be2 and now:

a) 16 ... Bxc3+ 17 Rxc3 Rxc3 18 Kf1 is the same position that we will see in the game without the inclusion of ... f6 and Bd4.

b) 16 ... Rxc3 may be stronger, rejecting White's exchange sacrifice. After 17 Kf1 Rxc1 18 Qxc1 bxc4 19 Bxg7 Rg8 20 Rxh7 Qxa2 the game is a mess.

**16 Bd4 Qa5 17 Be2 Bxc3+ 18 Rxc3 Rxc3 19 Kf1!**



This is a key point behind Giri's incredibly deep opening idea. The exchange is sacrificed in return for a powerful bishop pair and pressure on the kingside (the open h-file and d4-h8 diagonal).

**19 ... b4!?**

Unexpected by Giri, who believed (in his preparation) that 19 ... bxc4 and 19 ... Rxc4 were much more likely options:

a) 19 ... bxc4 is the most natural option, and one of the two moves Giri was expecting. Indeed, Black's position is incredibly difficult to play here after 20 g5 0-0 21 gxf6 gxf6 (21 ... Rxf6 22 Bxf6 gxf6 23 Rh4! intending to activate the major pieces on the kingside looks very dangerous for Black) 22 Bh5 e5 23 Bxc3 Qxc3 24 Qxd5+ Kg7 25 Be2 followed by taking on c4 with a lot of pressure.

b) 19 ... Rxc4 20 Bxc4 bxc4 21 g5 preparing to break open the kingside is unpleasant to defend against.

**20 g5 e5**

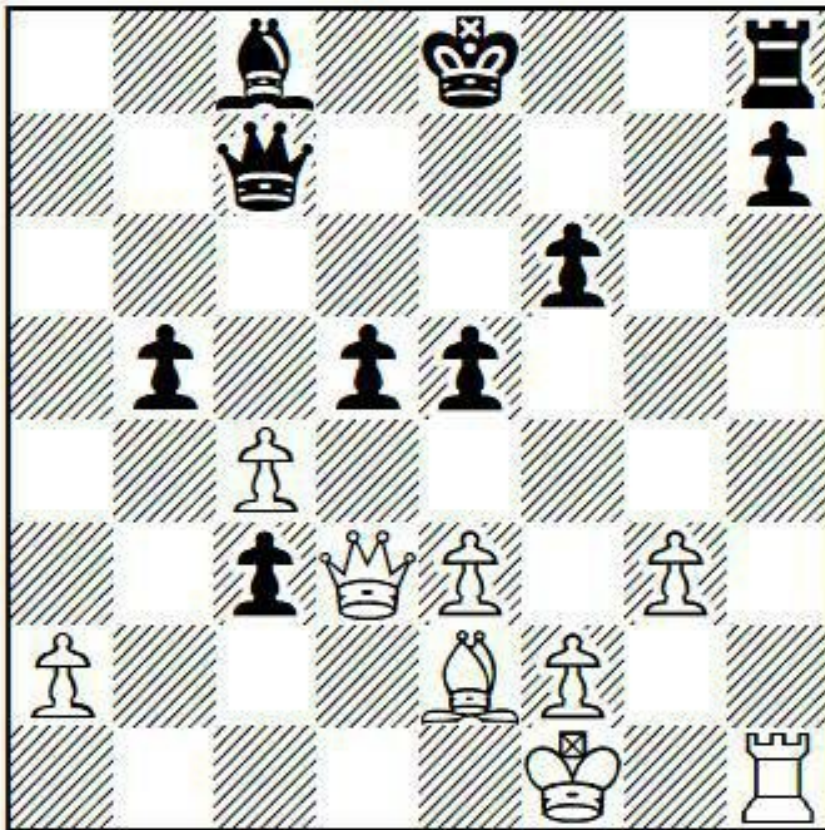
Eliminating White's powerful dark-squared bishop.

**21 Bxc3 bxc3 22 gxf6 gxf6 23 Qb1?!**

Targeting the h7 and b7-pawns, but it was stronger to eliminate Black's d5-pawn.

23 cxd5! could have created some practical difficulties for Black. For example, 23 ... Qc5! 24 Bd3 and Qb3 next, while Black is still struggling with development.

**23 ... Qc7 24 Qd3 b5!**

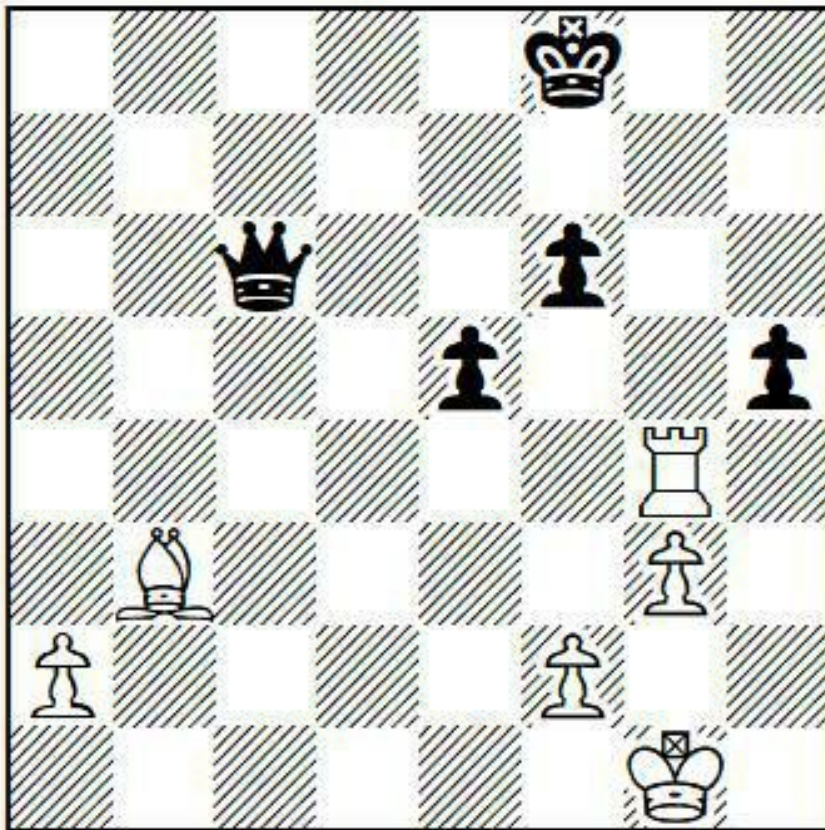


The most challenging move, creating a powerful passed pawn on c4.  
 24 ... Qxc4 25 Rxh7 Rg8 26 Qxc4 dxc4 27 Ke1 b5 28 a4 leads to an equal endgame.

**25 Qxc3 bxc4 26 e4 dxe4 27 Rh4 Be6 28 Rxe4 0-0 29 Bxc4**

Picking up the strong passed pawn, but the pin along the c-file forces White to sacrifice his queen for a bishop and rook.

**29 ... Kg7 30 Qb3 Rb8 31 Bxe6 Rxb3 32 Rg4+ Kf8 33 Bxb3 Qc1+ 34 Kg2 Qc6+ 35 Kg1 h5**



### 36 Rg8+?

As Giri mentioned after the game, 36 Rh4! keeping the rook on the fourth rank and bringing the bishop to the kingside would have provided much better chances of creating a fortress. For example, 36 ... Qf3 37 Bc4! f5 38 Bf1 f4 39 gxf4 exf4 40 Rh3 holds for White.

**36 ... Ke7 37 Rg7+ Kd6 38 Rh7 Qf3 39 Rh8 e4**

White cannot defend against the advance of both the e and h-pawns.

### 40 Rd8+

40 Re8 is met by 40 ... h4! 41 gxh4 Qg4+ 42 Kf1 Qxh4 followed by advancing the central pawns.

**40 ... Ke7 41 Bd1 Qc3 42 Rd5 h4 43 gxh4 f5 44 Rxf5 Qe1+ 45 Kg2 Qxd1 46 Rg5 Qa1 47 Rg4 Qb1 48 Rg3 Qxa2 49 Rh3 Qd5 50 Kf1 Qd1+ 51 Kg2 Qg4+ 52 Rg3 Qh5 53 Ra3 Qd5 54 Kg1 Kf6 55 Rg3 Qd1+ 56 Kg2 Kf5 57 Rg5+ Kf4 58 Rg3 Qd5 59 Kf1 Qd2 60 Kg2 Qd1 61 Re3 Kf5 62 Rg3 Kf6 63 Rh3 Kg6 64 Rg3+ Kh5 65 Rh3 Qb1 66 Re3 Kxh4 67 Rg3 Kh5 68**

**Rh3+ Kg4 69 Rg3+ Kf4 70 Re3 Qd1 71 Ra3 Ke5 72 Rg3 Kd4 73 Re3 Qd3  
0-1**

## **Memory Issues**

The neural network engines have provided new ideas that lead to unique, creative, and rich middlegames. In such positions, classical themes may have little relevance, so it is difficult to remember all the details and work out the complications over the board.

Our next game was also played in the 2020-21 Candidates tournament and it is another example of deep preparation. Caruana employs a brilliant new idea in the Slav Defence to which Ding Liren responds in a principled manner by entering one of the most critical lines. On move 17, Caruana forgets his preparation and plays the most natural move, which turns out to be a serious mistake. Soon after, Ding Liren solves his development problems and comfortably converts his advantage into a full point.

### *Game 65*

## **Ding Liren-F.Caruana**

FIDE Candidates 2020-21

**1 d4 d5 2 c4 c6 3 Nf3 Nf6 4 Nc3 dxc4 5 a4 Bf5 6 Ne5 e6 7 f3 Bb4 8 Nxc4**

Others:

a) The following trap after 8 Kf2? contains some similarities to the game after 8 ... Bc2! 9 Qd2 (9 Qxc2 Qxd4+ picks up the e5-knight) 9 ... Bb3 10 e4 b5 and Black hangs on to the c4-pawn.

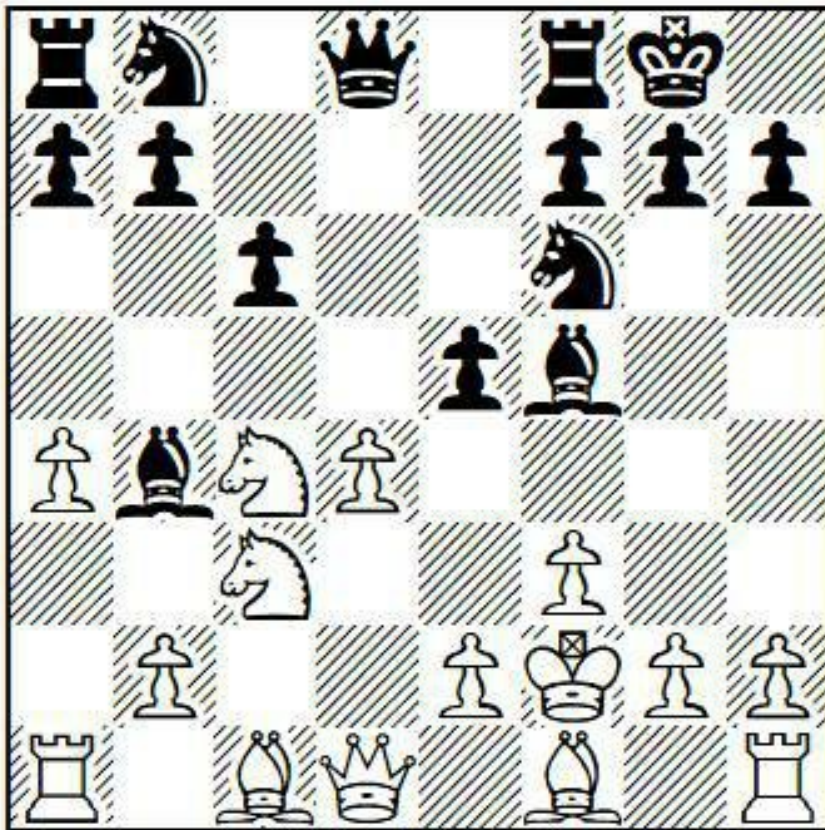
b) The main line runs 8 e4 Bxe4 9 fxe4 Nxe4 10 Bd2 Qxd4 11 Nxe4 Qxe4+ 12 Qe2 Bxd2+ 13 Kxd2 Qd5+. Instead of entering these concrete positions, Ding decides to go for 8 Nxc4, which has slowly replaced 8 e4 as the critical test of the 6 ... e6 Slav.

**8 ... 0-0 9 Kf2!**

The critical test of the 6 ... e6 Slav, preparing e4.

The immediate 9 e4? runs into 9 ... Nxe4 10 fxe4 Qh4+ and White centre falls apart.

**9 ... e5!**



Caruana's shocking novelty is not only an extremely unpleasant surprise to face over the board, but also perhaps the best try at solving Black's opening problems. Before this game was played, 9 Kf2! had put Black under major pressure right from the opening and discouraged many Slav players from playing 6 ... e6.

The main line 9 ... c5 has not been very successful in practice. Play continues 10 e4 Bg6 11 Na2 Nc6 12 Nxb4 Nxb4 13 Qb3 Nxe4+ 14 fxe4 Bxe4 15 Bd2 leading to a position where White has scored excellently in both practical and correspondence chess.

### 10 Nxe5

Played after 17 minutes of thought, Ding Liren decides to pick up the pawn while keeping his pawn structure intact. There are two important alternatives to consider:

a) 10 e4 exd4 11 Na2 b5! leaving both bishops en prise! White has:

a1) 12 exf5 Bc5 13 Na3 d3+ 14 Kg3 Nbd7 and the position is filled with

attacking ideas for Black. One sample line is 15 Qxd3 Nd5! 16 axb5 Ne5 17 Qb1 Qf6 followed by ... Ne7 and ... Nxf5.

a) 12 Nxb4 bxc4 13 exf5 d3 14 Be3 Re8 15 Bxd3 (15 Nxd3?! runs into 15 ... Rxe3! 16 Kxe3 Na6 with a powerful initiative) 15 ... cxd3 16 Re1 Qa5 17 Nxd3 Nbd7 reaches a slightly better middlegame for White, but Black should regain the f5-pawn and obtain a satisfactory position.

b) 10 dxe5!? is awkward to play because it weakens the pawn structure and opens the b6-f2 diagonal. Play may continue 10 ... Nfd7 11 Bf4 (11 e4?! further exposes the king on f2; after 11 ... Be6 Black will develop and probably soon regain the e5-pawn) 11 ... Na6 12 e3 Be6 13 Qc2 Qe7 14 Ne4 (14 Rd1 Nac5 followed by ... a5 and activating the rooks) 14 ... Nac5 15 Ng5 g6 16 Nxe6 Nxe6 17 Bg3 h5! (provoking a weakness on White's kingside) 18 h4 b5 provides sufficient play for the pawn.

### **10 ... Bc2!**

A very similar idea to the one we saw after 8 Kf2? One important difference is that Black is missing his c4 and e6-pawns.

### **11 Qd2**

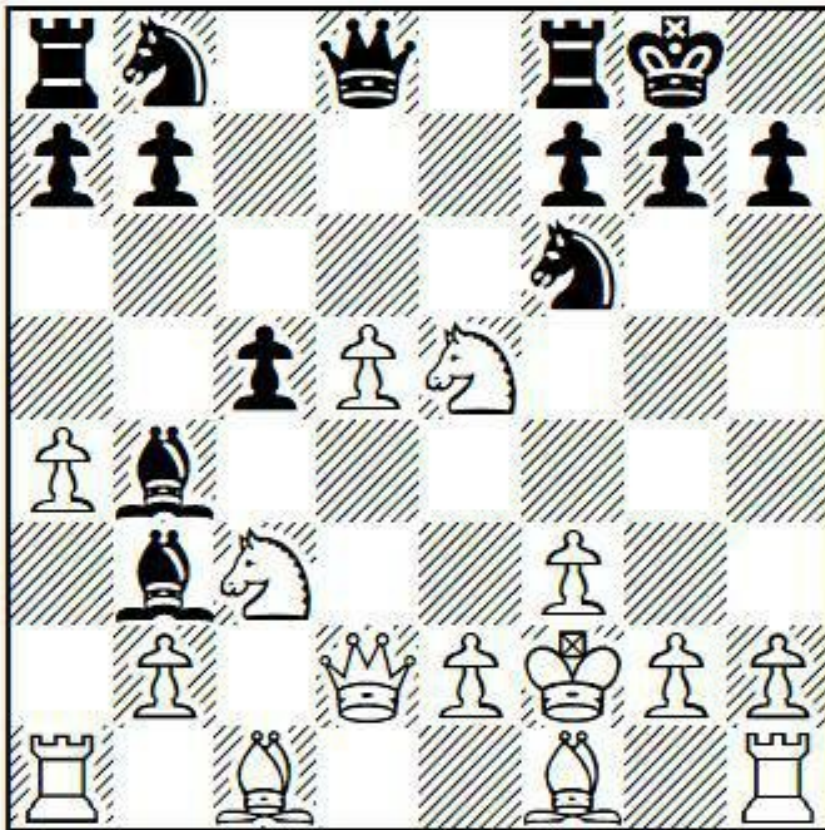
11 Nxf7? looks interesting, taking a pawn before playing Qxc2. Black should fight for the initiative by playing 11 ... Ng4+! 12 Ke1 Rxf7 13 Qxc2 Qxd4 14 fxxg4 Qf2+ 15 Kd1 Rd7+ 16 Bd2 Na6 with tremendous compensation for the sacrificed piece. White's pieces are stuck on the back rank and the king on d1 is in the line of fire.

### **11 ... c5 12 d5**

The most ambitious choice. White's king on f2 is exposed, but the extra space in the centre may prove to be very useful in the future.

Alternatively, 12 e3 provides the king on f2 with more protection along the b6-f2 diagonal. Play continues 12 ... Bg6 13 d5 Nbd7 14 Nxd7 Nxd7 followed by ... Ne5 and ... c4 with active piece play. Meanwhile, White needs to find a way to develop and bring the king to safety.

### **12 ... Bb3!**



Attacking the d5-pawn and preparing a ... c4 advance in the near future.

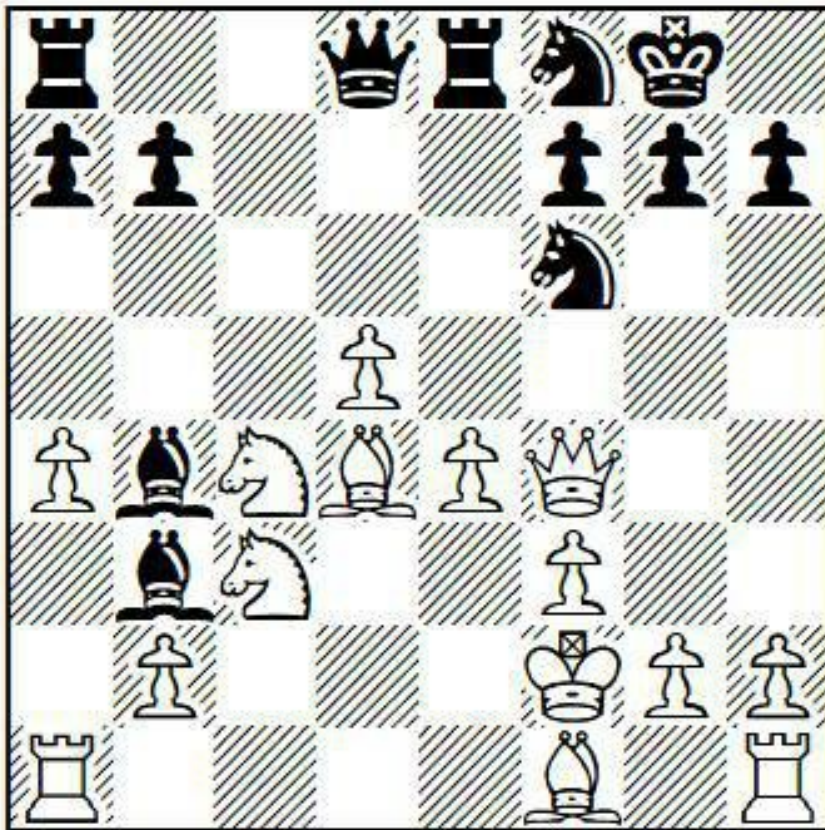
**13 e4 Re8 14 Qf4 c4!**

A second pawn sacrifice to open the b6-f2 diagonal.

**15 Nxc4**

The other capture 15 Bxc4 is met by 15 ... Bd6 16 Qe3 Nbd7! intending ... Bc5.

**15 ... Nbd7 16 Be3 Nf8 17 Bd4**



A very critical moment has arisen.

**Question:** Should Black play 17...Ng6 immediately or start with 17...Rc8 - ?

**17 ... Ng6?**

Played quickly by Caruana, but he mixed up the move order from his preparation.

**Answer:** 17 ... Rc8! encourages White to play Ne3, after which the queen will be severely misplaced on f4.

For example, 18 Ne3 (18 Bxf6?! loses an important defender of the dark squares; following 18 ... gxf6 19 Ne3 Ng6 20 Qh6 Bf8 21 Qh3 Bc5 and ... Qb6 next with major pressure along the b6-f2 diagonal) 18 ... Ng6 19 Qg3 (19 Qf5 Bc5 20 Bxc5 Rxc5 provides great compensation for the two pawns because of White's weak dark squares and the misplaced queen on f5) 19 ... Bxc3 20 bxc3 Rxe4! (exploiting White's misplaced king and queen) 21 Kg1

Rh4 followed by capturing on d5. Or if 22 d6 then 22 ... Rf4 and ... Qxd6 next.

### 18 Qf5?

18 Qc1! was the best square for the queen. Some sample lines are:

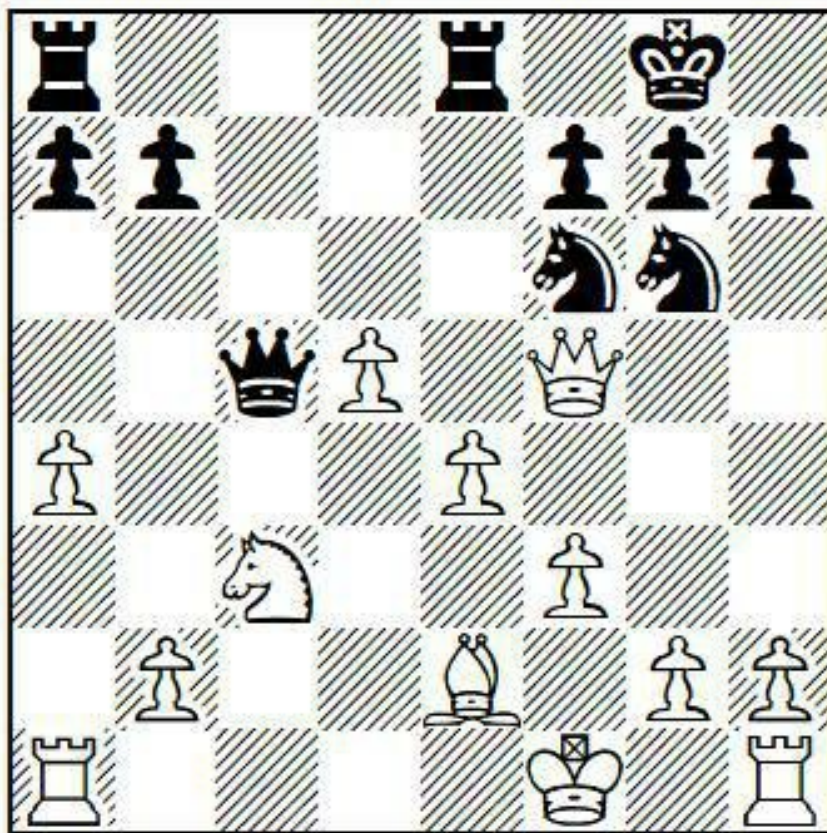
a) 18 ... Rc8 19 Nd2 Nxe4+ 20 fxe4 Bxd5 21 Qd1 Bc6 22 Be3 and Black doesn't have nearly enough play for White's extra piece.

b) 18 ... Bxc4 19 Bxc4 Rc8 20 Bb3 and the critical position arises after the following moves: 20 ... Nxe4+ 21 fxe4 Rxe4 22 Nxe4 Rxc1 23 Rhxc1 Qh4+ 24 Ke3 Qf4+ 25 Kd3 when Black does not have enough play for the sacrificed material. Surprisingly, there is no way to take advantage of White's adventurous king.

### 18 ... Bxc4

18 ... Rc8! 19 Ne3 transposes to 17 ... Rc8!

19 Bxc4 Qc7 20 Be2 Bc5 21 Bxc5 Qxc5+ 22 Kf1



22 ... h6?

There was a nice opportunity for counterplay after 22 ... Re5! 23 Qh3 Qb4 (tying down White's rook to the b2-pawn) 24 Rb1 Nf4 25 Qg3 N6h5 26 Qe1 f5! creating counterplay along the f and e-files. One important line is 27 g3 fxe4! 28 gxf4 Nxf4 29 Nxe4 Rxe4 30 Qxb4 Rxb4 and the endgame is completely fine for Black.

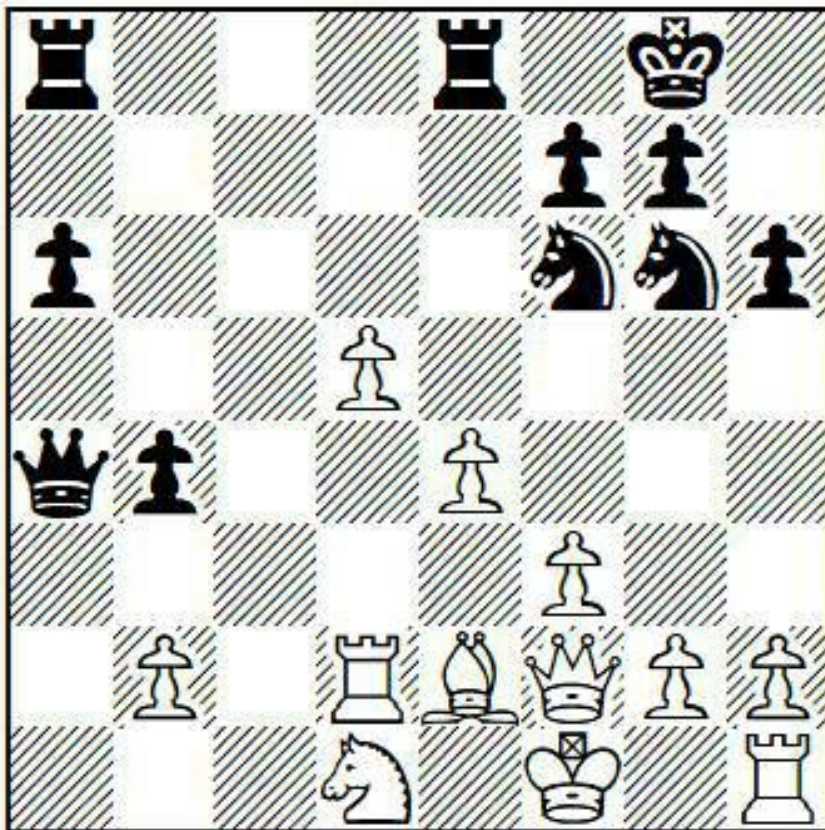
**23 Rd1 Qb6?**

23 ... a6! followed by ... b5 may have been the last chance to exploit the lack of coordination between White's major pieces and the misplaced king on f1.

**24 Rd2 Qe3 25 Rc2 a6**

Trying for counterplay with ... b5, but White has enough time to properly coordinate his pieces.

**26 Qh3 b5 27 Qg3 b4 28 Nd1 Qb3 29 Rd2 Qxa4 30 Qf2**



Ding Liren has constructed an excellent defensive setup and can focus on putting the extra e- and d-pawns to use. He wins the game without any

problems.

**30 ... Qd7 31 g3 Qh3+ 32 Kg1 a5 33 Qd4 Nh5 34 Nf2 Qd7 35 f4 Nhxf4  
36 gxf4 Nxf4 37 Kf1 Qd6 38 Rg1 f6 39 Bb5 Re7 40 b3 Rf8 41 Rc2 Ne6 42  
Qe3 Ng5 43 h4 Nf7 44 Rc6 Qb8 45 Qc5 Qd8 46 Rxf6 Kh8 47 Rf5 Rc7 48  
Bc6 a4 49 bxa4 b3 50 Rg3 b2 51 Rb3 Nd6 52 Rxf8+ Qxf8 53 Rxb2 Qf4 54  
Rb8+ Kh7 55 Qc2 Re7 56 e5+ Nf5 57 Qe4 Qc1+ 58 Kg2 g6 59 Rb3 1-0**

Alexander Donchenko employed a strong AI-influenced pawn sacrifice against Caruana, but he omitted an important detail (Kb1) after which the resulting complications were clearly in Black's favour. The game shows that playing a double-edged piece of computer preparation requires spending a lot of time at home to fully understand the engine's ideas.

*Game 66*

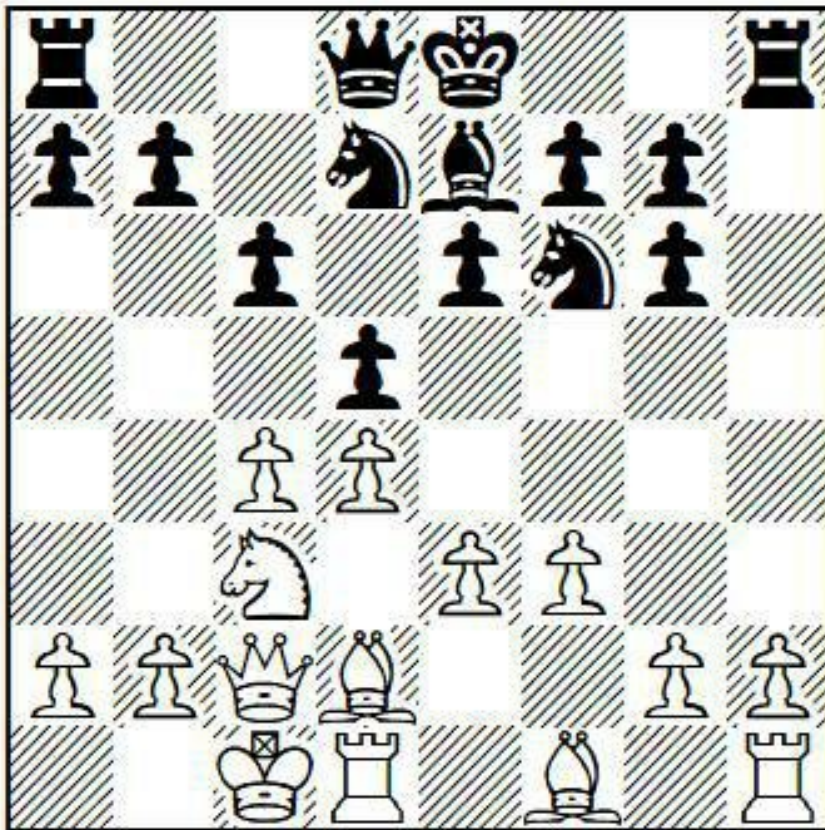
**A.Donchenko-F.Caruana**

Tata Steel 2021

**1 d4 d5 2 c4 c6 3 Nf3 Nf6 4 e3 Bf5 5 Nc3 e6 6 Nh4 Be4 7 f3 Bg6 8 Bd2!?**

Setups involving Qb3 (developing the queen with tempo) are much more popular. The idea of putting the queen on c2 instead started to receive a lot of attention at the top level after a game between Giri and Caruana in the 2020 Candidates.

**8 ... Be7 9 Nxc6 hxg6 10 Qc2 Nbd7 11 0-0-0**



### **11 ... a6!**

The most accurate continuation, which had clearly been deeply prepared by Caruana since his encounter with Giri. Others:

a) The aforementioned game continued 11 ... Nb6?! 12 c5 Nbd7 13 Kb1 Qb8 14 h4 g5 15 Be1 and White obtained a clear advantage in A.Giri-F.Caruaana, Ekaterinburg 2020.

b) 11 ... dxc4 12 Bxc4 b5 13 Be2 a6 is similar to the game but White has an additional option in 14 e4 (14 g4 transposes to the game) 14 ... c5 15 d5. Therefore, Caruana's move is more accurate.

### **12 g4 dxc4 13 Bxc4 b5 14 Be2 c5 15 d5!**

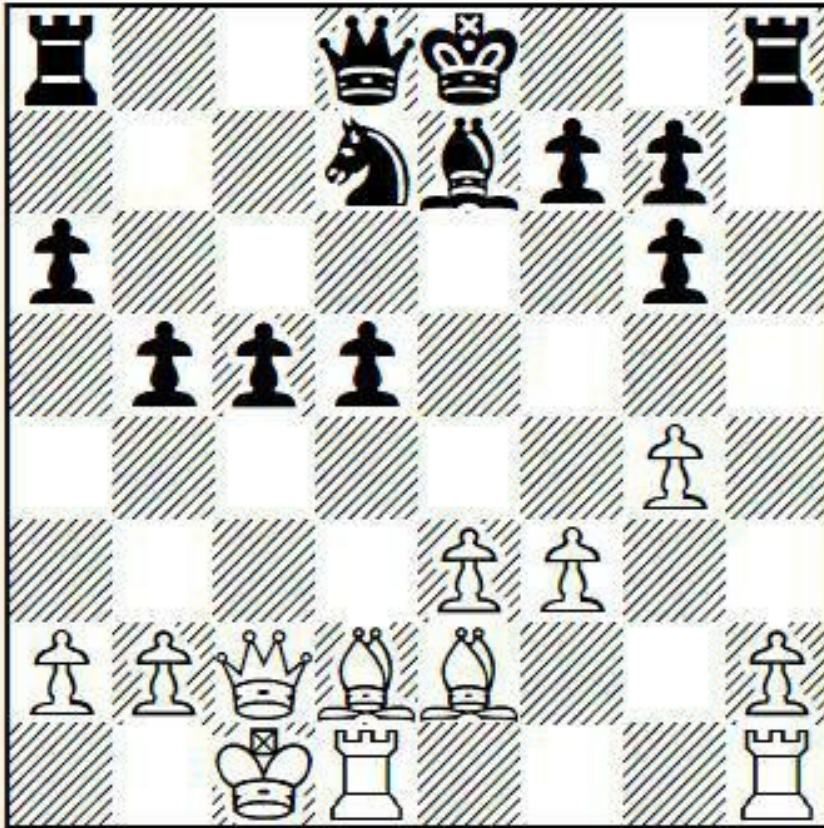
A shocking and fascinating pawn sacrifice. The alternatives are less critical:

a) 15 dxc5 Nxc5 16 Kb1 Rc8 17 h4 Na4 provides good queenside counterplay.

b) 15 Kb1 cxd4 16 exd4 Rc8 17 Qd3 Nb6 18 f4 leads to a very

complicated middlegame.

15 ... Nxd5 16 Nxd5 exd5



**Question:** What has White achieved in return for the sacrificed pawn?

**Answer:** By sacrificing a pawn, White prevented the c-file from opening, which Black would have used to create a queenside attack. Now White can focus on attacking in the centre and on the kingside. Then, the bishop pair may have a strong impact once the game opens up.

The pawn sacrifice is pointed out by the newer engines, who believe that Black must be precise to maintain the balance. However, the double-edged nature of the position means that the complications could also backfire on White.

**17 f4**

17 Kb1! is a very important move to play in these lines, avoiding the dangers on the c-file. Some sample lines are:

a) 17 ... Qb6!? 18 f4 Nf6 19 Bc3 Rd8 20 Bf3 and the bishop pair provides great compensation for the sacrificed pawn.

b) 17 ... b4 18 e4 d4 19 e5! is a powerful second pawn sacrifice. Following 19 ... Nxe5 20 Qe4 Nd7 21 Bg5 White achieves excellent piece play and has the open e-file to attack on.

c) 17 ... Nb6! 18 f4 b4 19 h4 c4 20 e4 d4 21 Be3 dxe3 22 Rxd8+ Rxd8 reaches an unclear material imbalance.

### **17 ... b4 18 e4?!**

Unfortunately, the e-pawn advance is a flawed attacking idea. 18 Kb1 should have been played. The game becomes very double-edged after 18 ... c4 19 e4 c3! with an unclear position.

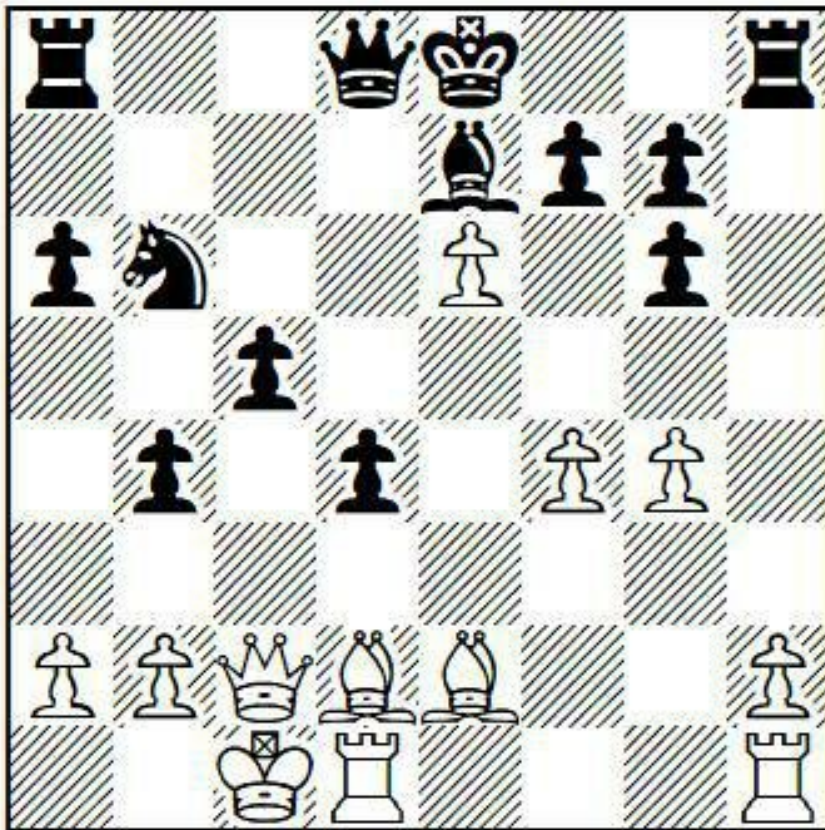
### **18 ... d4 19 e5?**

Once again, 19 Kb1 needed to be played in order to sidestep the dangers on the c-file.

### **19 ... Nb6**

Even stronger was 19 ... c4! opening the c-file while White's king is still on c1. Play may continue 20 Bxc4 Nb6 21 Kb1 Rc8 with crushing play on the c-file. Note that 22 Bxf7+ is easily refuted by 22 ... Kxf7 23 e6+ Kg8 24 Qxg6 Qe8.

### **20 e6**



20 Qe4 was the only way to avoid a lost position. The endgame after 20 ... Qd5 21 Qxd5 Nxd5 is clearly better for Black because of the extra pawn, but maybe White can hope for some kingside counterplay starting with 22 h4.

**20 ... Qd5!**

Centralizing the queen and attacking a2.

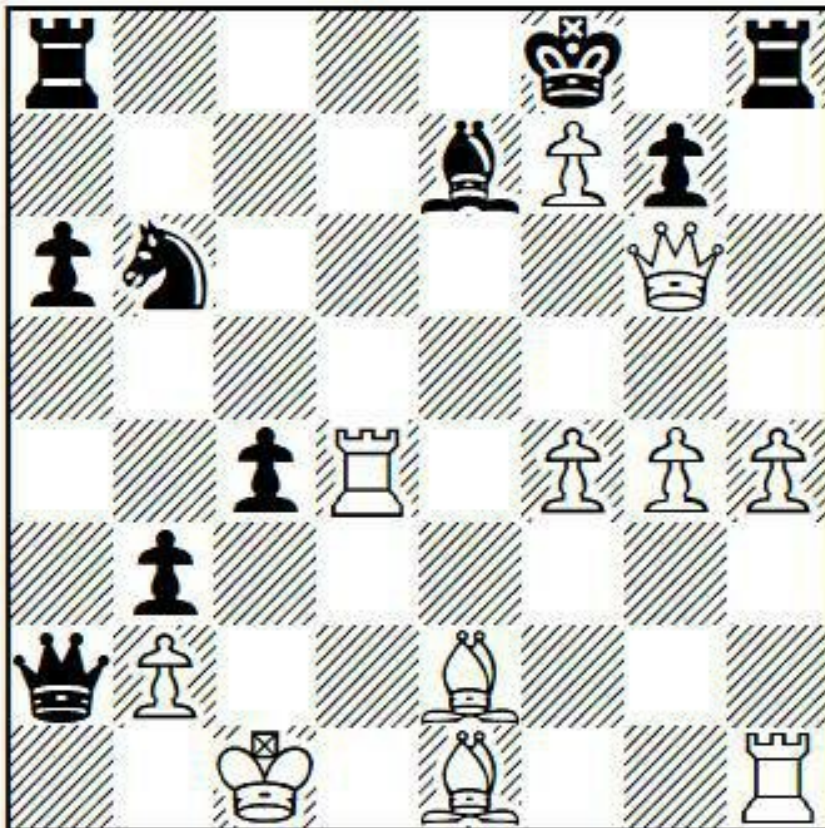
**21 exf7+ Kf8 22 h4**

Other tries do not help White:

a) 22 Qxg6 can be met by 22 ... Rh6! followed by advancing the c and d-pawns.

b) 22 b3 a5 and ... a4 is next, opening the a-file.

**22 ... Qxa2 23 Qxg6 b3 24 Be1 c4 25 Rxd4**



*Exercise:* How does Black continue the queenside attack?

**Answer: 25 ... Na4! 26 Qb1 Ba3!**

The crushing blow. Both of Black's minor pieces are activated and White's queenside collapses.

**27 Qxa2**

27 bxa3 loses to 27 ... b2+ 28 Kc2 Qb3+ 29 Kd2 Qc3+.

**27 ... bxa2 28 Kc2 Rb8**

The immediate 28 ... a1Q? runs into 29 Bb4+.

**29 Rd8+ Rxd8 30 bxa3 c3 31 Bg3 Rd2+ 32 Kb3 Nc5+ 0-1**

## Misleading Evaluation

It is often the case that an engine can be misleading in its evaluation because it fails to consider the difficulties that a human faces over the board. For

example, an objective assessment of equality might have little practical relevance if one side is clearly pressing for a win, while the other must defend passively for the entire game.

The following crucial encounter from the 2021 FIDE World Cup discusses a highly theoretical variation of the Ruy Lopez. Modern engines suggest that the endgame is perfectly fine for Black and there are multiple ways to maintain the balance. However, things are not so simple in practice as Duda demonstrates by creating problems for Vidit with a series of strong ideas.

*Game 67*

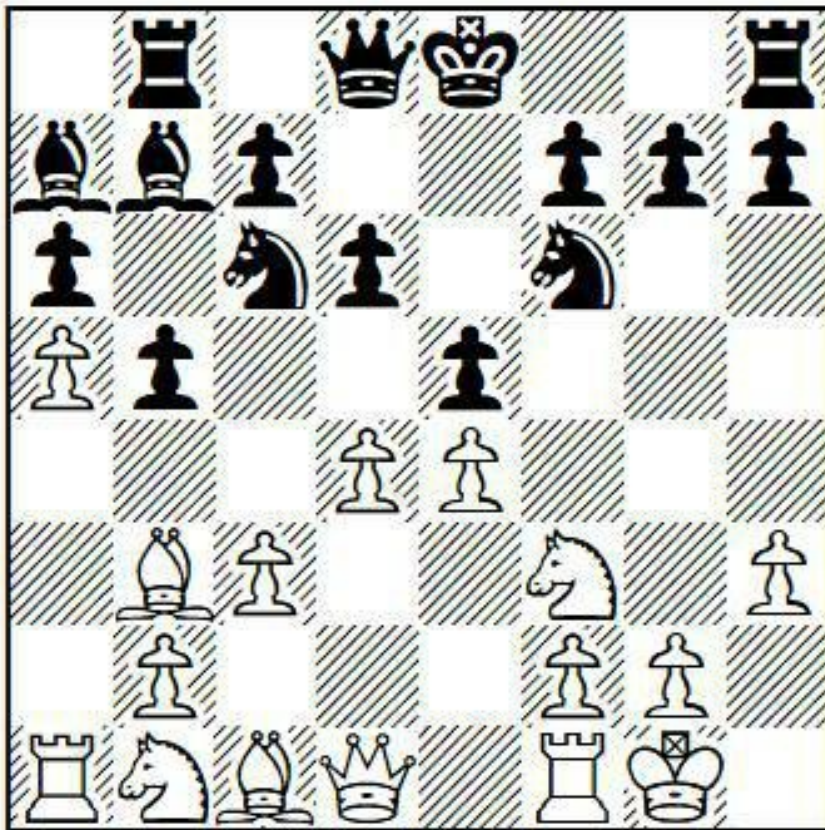
**J.Duda-S.Vidit**

FIDE World Cup 2021

**1 e4 e5 2 Nf3 Nc6 3 Bb5 a6 4 Ba4 Nf6 5 0-0 b5 6 Bb3 Bc5 7 a4 Rb8 8 c3 d6 9 d4 Bb6 10 a5!**

This critical line against the 6 ... Bc5 Ruy Lopez has become a major battleground in recent years.

**10 ... Ba7 11 h3 Bb7!?**



A fashionable line which has been tried by a number of top players in recent years, including Caruana, Grischuk, and Giri.

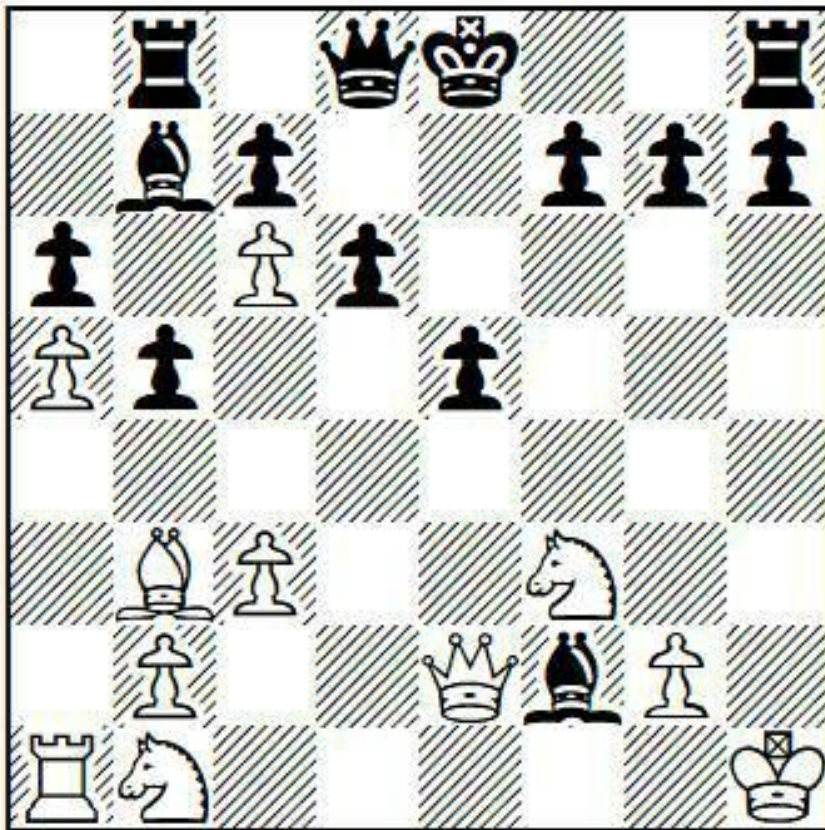
**12 Be3 Nxe4 13 d5**

The most forcing continuation, leading to some interesting material imbalances. Others:

a) The main alternative is 13 Re1.

b) There is also the interesting 13 Nbd2!? as tried in M.Carlsen-A.Firouzja, Norway 2021.

**13 ... Bxe3 14 dxc6 Nxf2 15 Qe2 Nxe3+ 16 Kh1 Nf2+ 17 Rxf2 Bxf2**



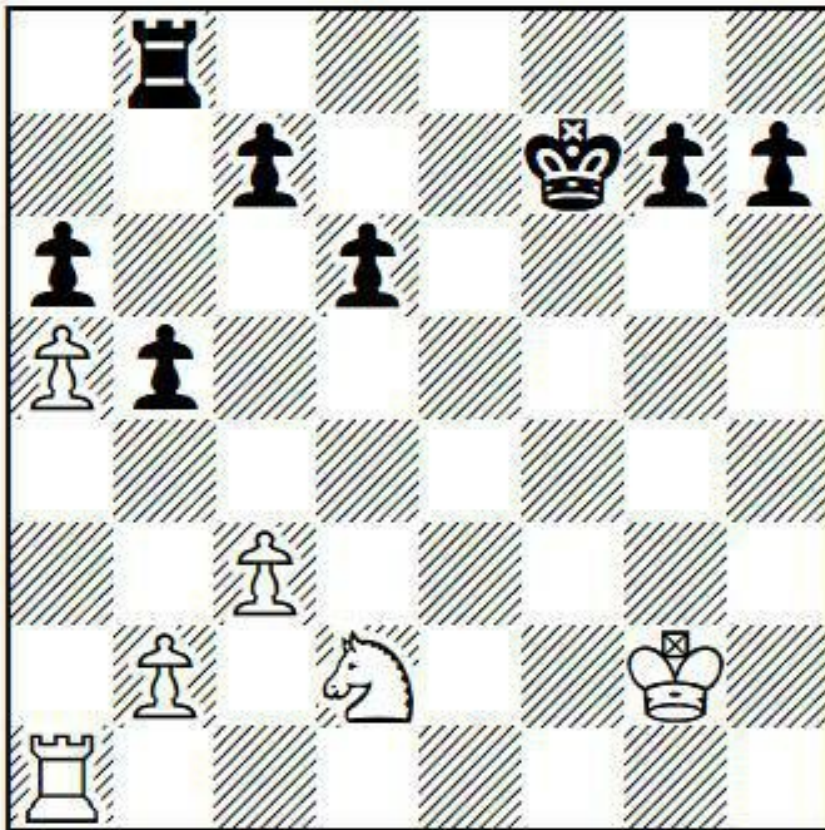
### 18 Qxf2

Another game continued 18 cxb7 Ba7 19 Bd5 Qd7 20 Nd4 Qe7 21 Bc6+ Kf8 22 Nf3 d5! 23 Qxe5 (23 Bxd5? runs into 23 ... c6! 24 Bxc6 Qe6 25 Be4 f5) 23 ... Qxe5 24 Nxe5 Ke7 quickly fizzled out to a draw in A.Grischuk-A.Giri, Zagreb (rapid) 2021.

### 18 ... Bxc6 19 Nxe5 Bxg2+ 20 Kg1 Qf6

Leading by force to an endgame where White has a knight for Black's three pawns.

### 21 Nxf7 Qxf2+ 22 Kxf2 Rf8 23 Kxg2 Rxf7 24 Bxf7+ Kxf7 25 Nd2



This endgame had been prepared by both players. The engines give multiple ways for Black to reach a drawn endgame, but as Duda demonstrates, it isn't at all easy to prove it in practice.

### 25 ... Re8

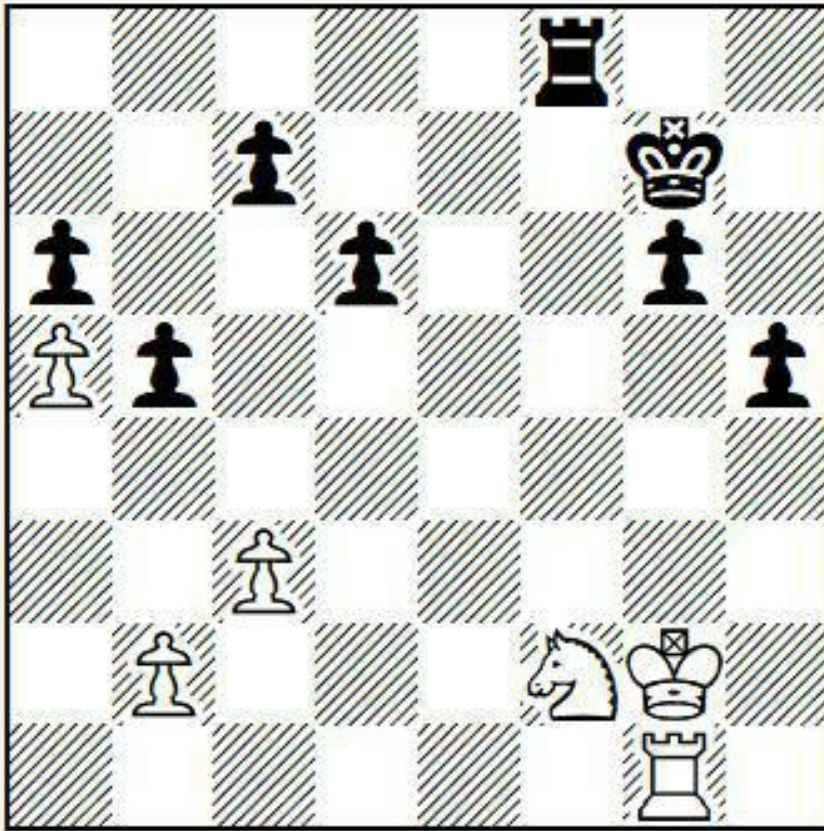
Considering how Duda was able to activate his knight on the queenside, it may have been more accurate to start with a queenside advance. Alternatives:

a) 25 ... g5 26 Nf3 g4 27 Nd4 intending Nc6-b4 is unpleasant to face.

b) 25 ... b4! 26 c4 and the inclusion of ... b4 and c4 is useful for Black because it is much more difficult for White to target the a6-pawn (the knight cannot easily go to b4). Black can play in a similar style to the game with ... Re8 and advance his kingside pawns. One sample line is 26 ... Re8 27 Rf1+ Kg6 28 Kf2 Re5! (White's vulnerable a5-pawn is another advantage of having pushed ... b4) 29 Ra1 h5 followed by ... Kf5 and advancing the kingside pawns.

**26 Rf1+ Kg6 27 Kf2 h5 28 Rg1+ Kf6 29 Kf3 g6 30 Ne4+ Kg7 31 Nf2**

**Rf8+ 32 Kg2**



**Exercise:** How should Black fight for counterplay?

**32 ... Re8?**

Underestimating Duda's plan. The knight quickly activates on the queenside after this.

**Answer:** The active 32 ... Rf4! was much stronger. Following 33 Ra1 (33 Nd3 is met by 33 ... Ra4) 33 ... Rc4 34 Nd3 c5 Black has everything defended on the queenside. If the a1-rook ever moves away, then ... Ra4 would be possible.

**33 Nd3 g5 34 Nb4 Re2+?**

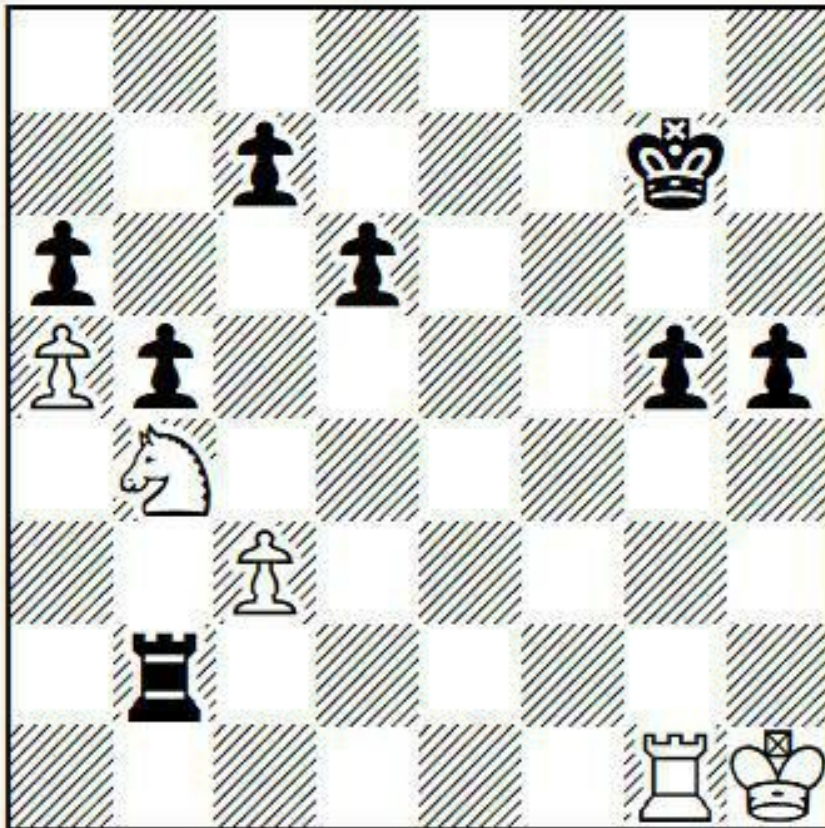
In view of what occurs in the game, the a-pawns should have been exchanged with 34 ... c5 35 Nxa6 Ra8 36 Nc7 Rxa5 leading to an endgame where Black has good chances of holding.

**35 Kh1!**

A brilliant idea by Duda. It was tempting to activate the king on f3, but it is much better placed on h1 sheltered from any checks.

35 Kf3? Rxb2 followed by ... g4+ to exploit White's misplaced king. If 36 Rxd5+ then 36 ... Kh6 37 Rf5 Rb3 should lead to simplifications and a holdable endgame for Black.

**35 ... Rxb2**



**36 Ra1!**

The alternative 36 Nxa6? Ra2 37 Rxd5+ Kf6 38 Rxb5 is less clear after 38 ... c6 39 Rxd5 Kg6 40 Rh3 Rxa5.

**36 ... c5 37 Nxa6 b4 38 Nxb4!**

Leading to a queen and rook versus queen and rook endgame where White is the first one to promote and check the opponent's king.

38 ... cxb4 39 a6 bxc3 40 a7 c2 41 a8Q Rb1+ 42 Kg2 c1Q 43 Ra7+ Kf6 44 Qf8+ Ke5 45 Re7+ Kd5 46 Qf3+ Kc5 47 Rc7+ Kb4 48 Qb7+ Ka5 49 Qa7+ Kb5 50 Qb8+ 1-0

## Review of Chapter Eight

1. An engine's objective assessment does not reflect the practical difficulties that a human faces over the board. It is important for players of all strengths to constantly keep this in mind during opening preparation to avoid being misled.
2. Neural network engines provide extremely deep ideas which can be difficult to fully understand and remember. Especially when these deep ideas lead to double-edged middlegames, there is a very real possibility that opening preparation could backfire.
3. With the increasing number of sharp opening variations (especially at the top level), the possibility of committing a memory error must be carefully considered during opening preparation.

## Examples from Earlier Chapters

Some games from earlier chapters are also relevant to this chapter. These include:

Game 26: Karjakin-Duda. Karjakin prepared a strong pawn sacrifice and asked Duda some serious questions in the opening. Even though the engines argue that Black's position remains satisfactory, the practical difficulties are tremendous because he lacks piece coordination and active play.

Game 29: Grischuk-MVL. MVL responded to Grischuk's 3 h4!? by playing the Benko Gambit, which is not the best approach objectively, but it is somewhat easier for Black to play. Despite the advantage that Grischuk obtained out of the opening, he didn't find a good plan and ran into trouble in the complicated middlegame.

Game 38: Caruana-Carlsen. The opening was completely sound for Black, but it is very dangerous to face White's initiative with an uncastled king. Caruana created a lot of pressure in the middlegame, and Carlsen only managed to hold the game after finding several strong defensive resources.

Game 55: Giri-Tari. Tari employed an AI-approved piece sacrifice in the Berlin but didn't remember the correct plan for Black. Giri understood the

midgame ideas much better, created a kingside blockade, and eventually won by breaking through on the queenside.

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**Xiong.J-Vidit.S, FIDE World Cup 2021**

**Xu Yi-Xu Yinglun, Chinese Championship 2021**

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