

# Best Play

## A New Method For Discovering The Strongest Move

Alexander Shashin



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Alexander SHASHIN

**BEST PLAY:**

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## Foreword

My first acquaintance with A.A. Shashin took place in the spring of 2003, at a very difficult point in my career. The year 2002 had been one of the most unfortunate in my entire 15 years of professional activity. My rating had dropped almost 80 points, to a level (humbling for me) of 2679; my world ranking fell to twenty-something, and I hardly knew what to do next. Fate had it that I should then meet this amazing person, coach, and physicist by training (and perhaps by calling): San Sanych Shashin, as I freely started to call him.

It is difficult to overestimate the amount of support he gave me. Our many hours of kitchen-table conversations brought me back to life as both a chessplayer and a human being.

Thanks to his patience and his extraordinary level of native intelligence, San Sanych succeeded not only in renewing my appetite for chess, but also in showing me those edges of life which until then – as a result of my age and the peculiarities of my character – I had steadfastly ignored.

In a purely chess sense, the question logically arises: could a Soviet master with thirty years' experience as a trainer, and master of his own attitude in the search for a decision-making algorithm, talk about chess as an equal with someone who until recently had ranked in the Top Ten in the world, and still teach him something?

I reply: both yes and no. “No,” because it is difficult to remake an already fully formed player, 26 years old and successful as a result of his own talent and his chess understanding. But “yes,” because any crisis is an opportunity for growth – and I, discovering the conclusions of S.S.’s theory at precisely that moment, significantly enriched and broadened my horizons: while selecting a move, I often successfully employed the ideas he presented to me. The fact that the period from July 2003 to July 2004 was the most successful of my entire career, I owe in great part to our kitchen-table discussions. I returned triumphantly to the Top Five, along the way winning practically every tournament I participated in.

At a grandmaster conference on the “Morozhevich problem,” assembled spontaneously during the 2004 Russian team championship in the bar of a hotel in Dagomys under Alexander Khalifman’s chairmanship (who, at that tournament, declared in an interview that, in terms of playing strength, Morozhevich was now “number one” in the world), various guesses of the most varied degrees of relation to reality were proffered for this. But, as you know, stern realities are always more prosaic than flights of fancy, and the role of the humble master Shashin was noted by no one...

Despite nearly a half-century of work in the field of chess, San Sanych remains unknown to most chess fans, not only around the world, but even in Russia. Remarkably modest by nature, he never sought fame or any increase in his sphere of influence, and he practically never gave interviews. It is not surprising that, for most people who had at least heard of him, he is viewed as a sort of hermit who became somewhat known to the public only thanks to the publication of particular articles on the website “e3-e5” and to previews of this book on the “bs-chess” site. Far from a scientist-wizard who sits at home and feverishly concocts hard-to-understand theory, San Sanych is actually a man with well-defined views on life, able to take a principled stand on many issues and to defend it. Few know that, in the 1970s, it was precisely Shashin who did not fear to give public support to the blackballed Victor Korchnoi, although even then his favorite chessplayer was Karpov. It was simply that the inhuman persecution of the former was stronger than Shashin’s mere chess sympathies. This book sheds light on the entire creative path of Shashin as a chessplayer, as a

trainer, as a physicist and theoretician, and as a very brave man, trying to put together his knowledge into a complete and dynamic system, which (like any conceivable theory) cannot explain the unfathomable and understand the core of the phenomenon of chess. The attempt itself, the acceptance of the challenge, is worthy of admiration. Fewer and fewer are the people who are ready to write and to discuss the “eternal” themes, and fewer still who even think about such questions.

It is no doubt impossible to write in a simple manner about the model of chess as the physicist Shashin sees it. However, the difficulty of taking up and studying it should in no way scare off the reader! In this case, the author’s idea is not to squander his effort in trying to set out, bit by bit, his own knowledge and in acceptable form to bring it to us, but to make us think of the depth and inexhaustibility of chess, of its historical roots; and most of all, that even in our super-advanced computer age the chief secret of chess as it is played – the search for an algorithm for finding the best move – is still unresolved. Many people forget this. And along with that, it is still beyond the scope of the chess-reading public’s interest. Moving from the 6-piece tablebase to the 7-piece one in parallel with the further endless plunge into the opening jungle – practically speaking, that’s all that chessplayers concern themselves with nowadays. I especially wish to recommend this book to young professional chessplayers just starting out: for you it is also necessary to obtain a higher education, as without both a serious chess and general education, individual victories will not make you a true sportsman or human being!

I want to thank A.A. Shashin once more, from the bottom of my heart, for writing this outstanding work, and to remind us that this book is only one stretch of that endless road under the signpost of chess... New heights to You, Master!

*Alexander Morozevich, International Grandmaster*

# Introduction

Dear reader, in your hands you are holding a somewhat unusual chess manual. Let me be more accurate: this manual is completely unusual. How, or why?

Because, by studying it, you will learn an original protocol for identifying the strongest chess move in any position, one which has nothing in common with traditional techniques. I have called this method “universal,” and I have no doubt but that it will help us to find the strongest move in all possible chess positions, without exception – be they positions with all 32 pieces on the board or positions featuring the barest minimum of pieces.

This book is split into two parts; the first is the elements. The most important section of the first part of this book is Chapter 6, where we find all the most important components of the universal method for searching for the strongest move.

The second part of this book develops naturally from the first. There, you will find examples of varying degrees of complexity. In my view, the first two chapters in Part II will be within the limits of the powers of a strong Russian second-category player (in U.S. terms, a Class B player). Chapters 3, 4, and 5 are more complex, but in the end, “if there’s no pain, there’s no gain!” You can do it! You will get through these chapters also.

The first 125 examples were annotated with the help of chess engines. These were various permutations of *Fritz* (particularly *Fritz* 11) and the program *Rybka* 3 (32-bit). My hope is that this will keep the number of gross analytical blunders to a minimum.

For readers who lack access to a computer: Rest assured, in the larger scheme of things, we don’t need a computer! I repeat: It’s not necessary!

## Why?

The reason is simple. Mine is a method for searching for the best move *by a human*, not by any of our silicon friends. Let me add to that: the universal method for identifying the best chess move is, to all intents and purposes, a three-part method derived from the ideas of three extremely gifted players, all of whom lived in the pre-computer era. They were Mikhail Tal, José Raúl Capablanca, and Tigran Petrosian.

This method is the first of its kind. The very best move is a child of the method. Tal, Capablanca, and Petrosian are our teachers. *Fritz* and any flavor of *Rybka* are merely our assistants.

I cannot conclude this introduction without saying, “Thank you.” I am grateful to many people (both chessplayers and non-chessplayers) for their help.

Three especially: Alexander Kentler, Leonid Yudasin, and Vladimir Bazhenov. The first – for the chance to publish, in the magazine *Shakhmatny Peterburg*, a series of articles concerning this method. For the second – we are speaking of international grandmaster Leonid Yudasin, author of the fundamental investigation *The Thousand-Year Myth of Chess* – for the opportunity to put in his book an article on the problems of the foundations of the game of chess that was very important to me.

I want to single out Vladimir Bazhenov for special mention. Most of all, for engaging me in a deep discussion over the number of parameters in a chess position. The result was that I had to increase the number of parameters from four to five.

Really, the game of chess is practically inexhaustible. Chess is limitless...

A.Shashin  
St. Petersburg, January 2013

## Part I

# A Universal Method For Discovering The Strongest Move

## Chapter I

### An Overview of Part I

Our ultimate goal in chess, which we will resolutely pursue throughout Part I, is a universal method for discovering the strongest chess move. More than that, a method that works in all possible chess positions, without exception. In all of them!

Without a doubt, we will achieve this goal. This will happen at the very end of the first part of the book, in its sixth chapter. Chapter 6 is the most important one – why?

Because in that chapter we gather all the elements in one place, we review, summarize, and sort out all the chess wisdom in the preceding chapters. Everything comes together in Chapter 6: without this, we do not have a universal method.

The sum total of all our work is the chart (given at the end of this chapter and also in Chapter 6) showing how the algorithms for discovering the strongest chess move flow, or drift, into and from each other. This “Algorithm Drift Chart” is the meat of the universal method. It is this model which is, in fact, the purpose of our chess efforts.

Our task now – a task which we will work out over the course of Part I – is to “decode” the model and tease out its rich, inner substance.

You may have already come across the relevant page and had your first exposure to the Algorithm Drift Chart... What does it mean? What do you see there?

There, you will see three “zones,” located along the “t” axis. Then too, there are the five parameters – from “m” to  $\Delta(\text{move})$ . Two original “baskets” of information...

We start with a “basket” full of parameters: there are five of them. These are: “m,” “t,” a “hidden” parameter – the third in order – which we shall be naming shortly, and parameters  $\Delta k$  and  $\Delta(\text{move})$ . What is all of this?

**This “Algorithm Drift Chart” is the meat of the universal method. It is this model which is, in fact, the purpose of our chess efforts.**

**Briefly, this is what the parameters signify:**

- 1) The “m” parameter is the material factor of the chess position;
- 2) The “t” parameter is the factor of time (piece mobility) in chess;
- 3) The third parameter is the factor of safety in a chess position;
- 4) Parameter  $\Delta k$  stands for the first of two space factors of a chess position; and
- 5) Parameter  $\Delta(\text{move})$  is the second space factor.

I reply: these are *the parameters of any given chess position*. Five numbers. And these five numbers comprise a value. Every position has its own value, its own stamp consisting of these factors...

In this model, what do these five parameters mean?

Briefly, this is what they signify:

- 1) The “m” parameter is the *material factor* of the chess position;

- 2) The “t” parameter is the factor of *time* (piece mobility) in chess;
- 3) The third parameter is the factor of *safety* in a chess position;
- 4) Parameter  $\Delta k$  stands for the first of two *space* factors of a chess position; and
- 5) Parameter  $\Delta(\text{move})$  is the second *space* factor.

That's enough for now. Suffice it for us to recognize just two simple ideas: 1) there are five parameters in every position (I repeat: *in every single position*, since chess positions exist in time and in space); and 2) five parameters → five numbers → one value → one “zone” or another (see the drift chart).

Furthermore, no longer will a chess position be left to its fate. There shall be no “orphan” positions. All chess positions, without exception, will find their proper “zone.”

The next step is the second “basket” – a bottomless basket filled to the top with trillions upon trillions of chess positions – a countless number... One thing which all of these positions in this bottomless basket, split into three “zones,” have in common is that the search for the strongest move in all of these “zones” follows a specific algorithm.

Positions in the “Tal Zone” correspond to the Tal Algorithm (the algorithm for attacking material chess targets). We'll encounter the Tal Algorithm mainly in Chapter 2. For us, “*Tal*” means the search for the strongest chess move when attacking.

**“Tal” means the search for the strongest chess move when attacking.**

**“Capablanca” means searching for the strongest move in strategic play.**

**“Petrosian” covers the search for the strongest move in defense.**

**Together, the three algorithms (T, C, and P) encompass the whole, undivided spectrum of all chess attacks and defenses.**

Next, the “Capablanca Safety Zone” corresponds to the Capablanca Algorithm (the algorithm for discovering the strongest strategic move). We will learn about the Capablanca Algorithm in Chapter 3. For us, “*Capablanca*” will mean searching for the strongest move in strategic play.

Finally, the “Petrosian Zone” (Chapter 4) covers the search for the strongest move in defense. Together, the three algorithms (T, C, and P) encompass the whole, undivided spectrum of all chess attacks and defenses.

These are fundamental algorithms. The entire wisdom of the game rests upon them. They are what give us hope, drawing us closer to our dream – the dream of identifying the strongest move in any position.

Moving on, we get to Chapter Five. What's there?

There, we find the “mixed” algorithms – the TC, CP, and TCP algorithms for determining the strongest chess move. The TC and CP algorithms occupy the gray areas between neighboring algorithms, while the TCP Algorithm describes complex (and extremely complex) positions. Though not fundamental, these three algorithms are still of exceptional interest, as we'll see!

The five parameters of the chess position, the fundamental and non-fundamental algorithms, the Algorithm Drift Chart for searching for the strongest chess move – all this is our chess environment. We must live in this environment and make it our home.

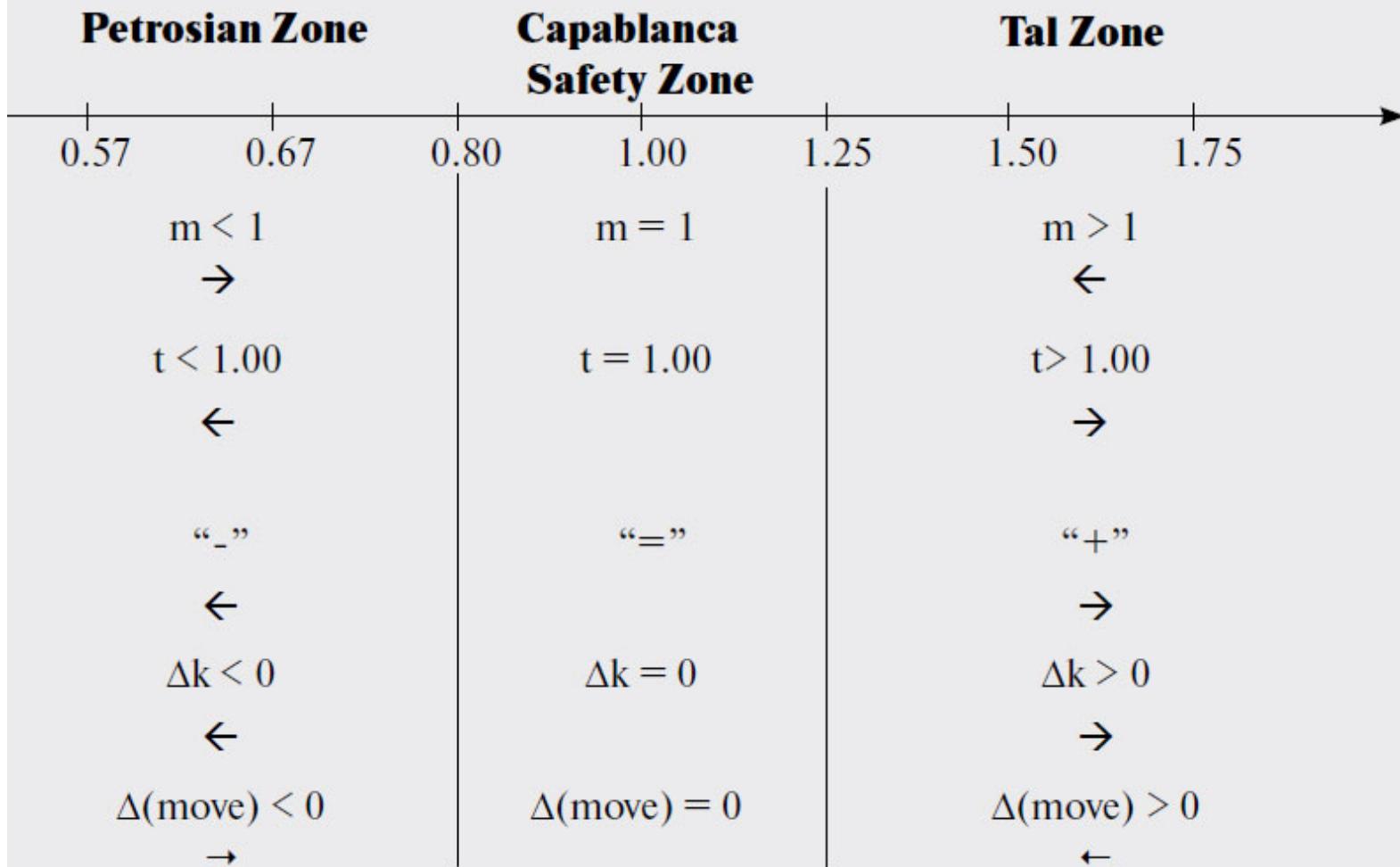
An Eastern saying goes: “A journey of a thousand miles begins with a single step.” We will be taking that step very soon – the first step on the road to our dream, along the endless road of chess...

Leading us will be the strongest of the strong among chessplayers. Our gratitude to them is infinite. If we wish to be their worthy pupils, then we must serve the objective of chess truth unreservedly – truth in chess lies in the strongest move!

Are you ready?

# The Algorithm Drift Chart And the Search for the Strongest Move

**(See Part I, Chapter 6)**



The five factors and the five parameters of any chess position:

- 1) the *material factor* of a chess position: the “m” parameter;
- 2) the factor of chess *time*: the “t” parameter;
- 3) the factor of *safety* in a chess position, and its parameter;
- 4) the  $\Delta k$  parameter: the factor of *compactness* in a chess position;
- 5) the  $\Delta(\text{move})$  parameter: the factor of increased space (*expansion*).

If this chart doesn't make sense right now, that's OK. You will find many references to it in the coming pages, so we include it here so that you can consult it and start figuring things out.

## Chapter 2

### Tal's Algorithm, or The Algorithm for Attacking Material Chess Targets

“The Tal Algorithm” and “the algorithm for attacking material chess targets” are synonyms, two different names for the same concept.

There will be no pedantic discussions in this chapter. Discussions on the theme, “What is the algorithm for attacking material chess targets (the Tal Algorithm)?” are unceremoniously removed. And not just because we don’t need flawless formulations, but because perfect formulations on the whole do not exist – because there are no well-defined lines between the Tal Algorithm and its neighboring Capablanca Algorithm.

Better I should do the following: I shall acquaint you, dear reader, without delay, with the end-product of our investigations and our reasoning. This final product will be the four elements of the algorithm we are focusing on.

These are the four elements of the Tal Algorithm:

- 1) *Open* (one-move) and *direct* (two-move) *attacks* on our opponent’s material chess targets;
- 2) The *optimal arrangement* of our pieces on squares conducive to subsequent open or direct attacks on our opponent’s material chess targets;
- 3) The *sacrifice* of chess material (we sacrifice material in order to increase the tempo of the attack);
- 4) *Winning* chess material.

In short, when attacking in “Tal style” the stronger side must:

- 1) attack (openly or directly),
- 2) place his pieces on their best attacking squares,
- 3) sacrifice, and
- 4) win material.

Without a doubt, the four elements of the algorithm I have just listed demand a detailed explanation. We will do this, not all at once, but little by little, patiently. No one will get in the way of our filling these four elements of the algorithm with the richest chess content. And in this, Tal himself will help us.

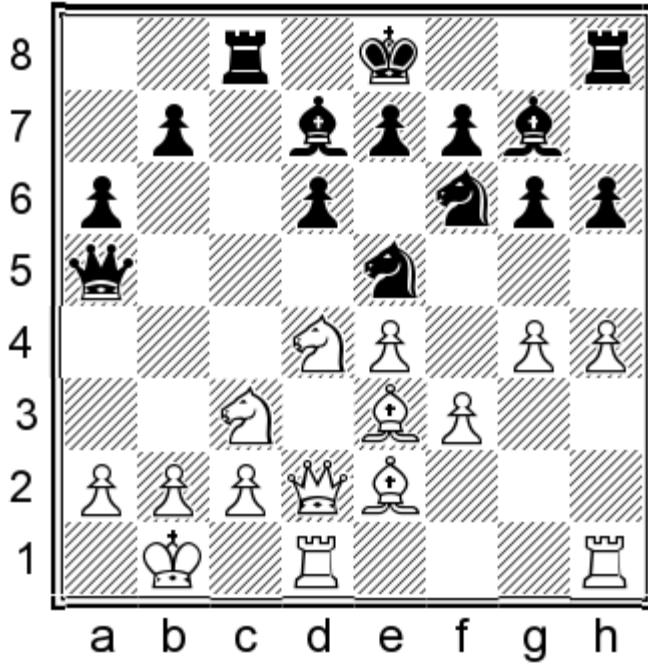
Mikhail Tal will be our good advocate, and we will study his games. Our goal is self-evident: to “decode” Tal, to break down his method into its components. We will try to “believe the algebra” of this method. This we will do humbly, without envy, but respectfully and with the greatest eagerness...

**When attacking in “Tal style” the stronger side must:**

- 1) attack (openly or directly),**
- 2) place his pieces on their best attacking squares,**
- 3) sacrifice, and**
- 4) win material.**

**No. 1: Tal – NN**

Simultaneous exhibition, Stuttgart 1958



*Position after 13...Qe5*

In this position, it is White to move, and we are playing White. What do we have?

We have an *open attack!* And precisely:

#### **14.g5**

With this move, White attacks two material chess targets at the same time – one on f6, and the other on h6. White threatens to win material (threatening 15.gxf6 and 15.gxh6).

An “open attack” is always a *one-move threat*. In terms of time, this is the shortest route to success.

#### **14...hxg5 15.hxg5**

The knight on f6 is hanging – another open attack! In addition to this, White offers his opponent the opportunity to trade rooks.

To trade or not to trade?

#### **15...Rxf1**

I won’t criticize Black’s play. Our theme is not the algorithm of defense, but the algorithm for the attack on material chess targets. Our theme right now is “Tal,” not “Petrosian.”

#### **16.gxf6**

A sacrifice! White ignores the rook in favor of the f6-knight.

#### **16...Rxd1+**

Check! Check is always an open attack on the king, a one-move threat. Its distinctive feature is that it is an assault on a piece that possesses *infinite chess value*.

#### **17.Qxd1**

The white queen joins in the assault – another open attack. The target is the piece on a5. And let's not forget the target on g7!

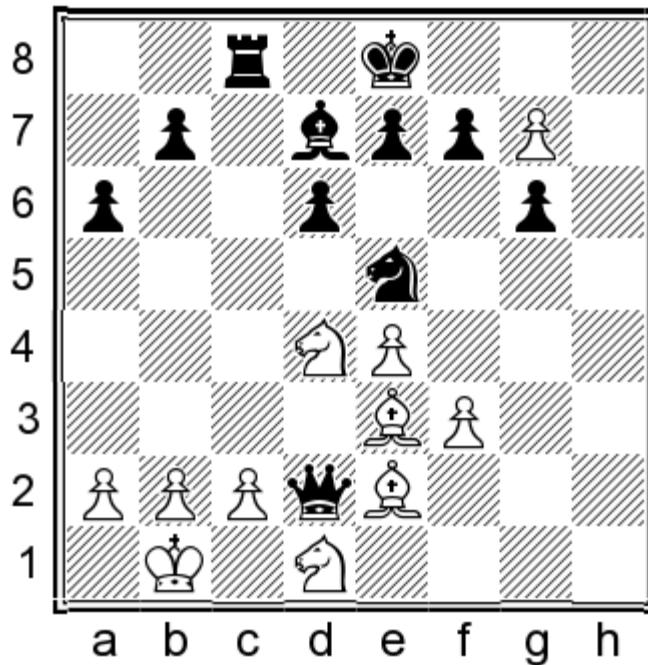
17... ♔xd2

Shall we exchange queens?

No, no, a thousand times no! Tal's reply is overwhelming.

There comes

18.fxg7



As we can see, White has delayed “until further notice” the act of removing the opposing queen. He has come up with a stronger threat – the terminal prospect of  $19.g8\#$ . Checkmate is just a radical type of check. Mate is always a one-move chess action. With mate, the enemy king is guaranteed to be destroyed in one move. The threat of immediate mate is a two-move action and a type of attack on the king that we will label a *direct attack* on it.

Note that, in the final position, the chess value of the empty square g8 is just as great as the chess value of the occupied square e8. As the black king (whose value is infinite) sits on e8, this means that these values are limitless.

1-0

## *Postscript*

An important question for us – what was the basic reason for Black's crushing defeat?

**Short answer:** White's overwhelming advantage in the number of forces participating in the attack!

Now let's answer the question in more detail.

In his offensive, White threw the g-pawn into the battle. One move later, the h-pawn was activated as well. The file came open, and the black rook, standing on h8, went to h1 (White sacrificed the rook). Then, after the rook trade on d1, White's queen entered the fray from the d2 square.

Finally, a queen sacrifice, and... the g7-pawn was unstoppable. Victory!

We readily see that, though brief, this was a bloody chess battle. In the fight there perished: White's g-pawn, two rooks,

and queen; and Black's h-pawn, knight, rook, and dark-squared bishop. They gave up their existence on the squares g5, h1, d1, d2, f6, and g7.

*Question:* for what purpose did Tal arrange such a battle?

The answer is obvious: for the sake of the target on e8! The opposing king is always Target Number One. The king is a target of unlimited chess value...

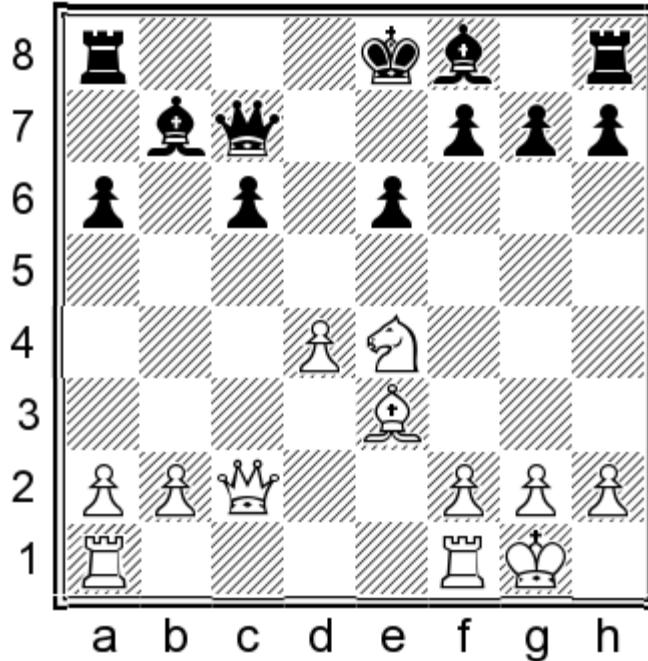
The squares e8, g5, h1, d1, d2, f6, and g7 – these are inner and outer squares of the rectangle d1-d8-h8-h1. The main events take place within this rectangle and on its perimeter. In other words, the rectangle d1-d8-h8-h1 is in fact, the area of attack – the sector where Tal tore apart his hapless opponent.

In this attacking sector, Tal had an extra queen (see the starting diagram). More precisely, White's queen and rook are opposed by king, knight, and pawn. This means that White's superiority was overwhelming.

Another thing: keeping in mind the king's unlimited value, note the squares within the rectangle d1-d8-h8-h1 that are immediately adjacent to the king. These are the squares of the rectangle d7-d8-f8-f7, and it's clear to us that these squares are safely protected. In other words, Black's king is safely "cocooned" – its faithful co-workers occupy the squares d7, e7, and f7. However, it is equally true that, in the rectangle d1-d8-f8-f1, White is up a queen and a rook...

## No. 2: Tal – Milev

Munich Olympiad 1958



This position came up after 1.c4 c5 2.Qc3 Qc6 3.Qf3 Qf6 4.e3 e6 5.d4 d5 6.cxd5 Qxd5 7.Qc4 Qb6 8.Qb5 a6 9.Qxc6+ bxc6 10.0-0 Qb7 11.Qe4 Qd7 12.Wc2 Wb6 13.Qe5 cxd4 14.Qxd7 Qxd7 15.exd4 Qe8 16.Qe3 Wc7.

We see that Black has already lost the right to castle after 14...Qxd7. That can't be good...

In the diagram position, it is White to move – and we're playing White. What have we got?

We clearly have even material, and an obvious advantage in the time factor.

*Question:* Why does White possess this obvious advantage in time?

*Answer:* Because the white king, queen, bishop, and knight are already developed: these pieces are already in action. They are four in all (we will consider castling as only one move; the rook on f1 doesn't count). Therefore, we add 4 to

our right to make the next move (1)!

Meanwhile, what does Black have?

Black only has a bishop and the queen in the battle. Do you think that's too little?

Simple arithmetic:  $4 + 1 - 2 = 3$ . White has three extra tempi. That's a solid advantage, which impels us to active play.

However, we must acknowledge that our arithmetic is quite crude: it doesn't always hit the mark. Our calculation is but a rough approximation of the truth. Tempi are "rough and concrete" (to quote the poet Mayakovsky). Truth lies in the arithmetic of the *mobility* of the chess pieces...

So, how do things stack up in that regard?

We have 44/35 in favor of White, where 44 and 35 are the sums of the mobility of all the white pieces and all of the black pieces (see the postscript to this game). This means that the factor of time in the current position does indeed impel us to take active measures!

In addition, the safety factor also pushes us into action (for this, also see the postscript). It is more than obvious that Black has a "bad" king – he literally "attracts" enemy pieces to himself.

Tal delays for not a single second!

## 17.d5

A pawn sacrifice to pry open the e-file.

**17...exd5 18.♖fe1**

### Truth lies in the arithmetic of the mobility of the chess pieces.

This move is not only fearless, but – I say – also correct. With this move, Tal brings the formerly inactive rook into the field of battle. The second and third points of the attacking algorithm (for attacking material chess targets, the Tal Algorithm) are at work, and we have harmony!

**18...♗d8**

*Fritz* considers this best. 18...dxe4 would be utterly bad: after 19.♕xe4+ ♔e7 20.♕c5 Black is helpless, as he has lost the right to castle.

**19.♕b3**

Threatening 20.♕b6 winning the queen. The queen is Target No. 2 – Target No. 1 being the king. The queen is a piece of great but finite chess value, while the king has infinite value.

**19...c5**

A tactical error that merely hastens the inevitable. 19...♗c8 would have dragged things out a bit. However, here too the computer coolly predicts victory. A sample variation: 20.♕c3 ♕d8 21.♕ac1 ♗b8 22.♕b6 ♕d7 23.♕xd5 – and I'll let you figure out the rest!

**20.♕xc5 ♘xc5 21.♘xc5 ♕xc5 22.♕xb7 1-0**

White's attack was absolutely correct, not simply because he had a clear edge in the factor of chess time, but precisely because (apologies for the repetition):  $44 > 35$ , where  $44 = 1 + 12 + 4 + 4 + 5 + 7 + 11$ , and  $35 = 3 + 12 + 4 + 1 + 1 + 5 + 9$ .

Here the numbers 1, 12, 4... represent the number of squares to which the white king, the white queen, the rook standing on a1, and so forth, can move (their *mobility*), ending with the number of possible moves by the white pawns. Meanwhile, the numbers 3, 12, 4... represent the mobility of the black king, black queen, a8-rook, etc.

The position after 16...  $\mathbb{W}c7$  yields a strong advantage for White.

**The chess value scale: king, queen, rook, minor piece (bishop or knight), pawn.**

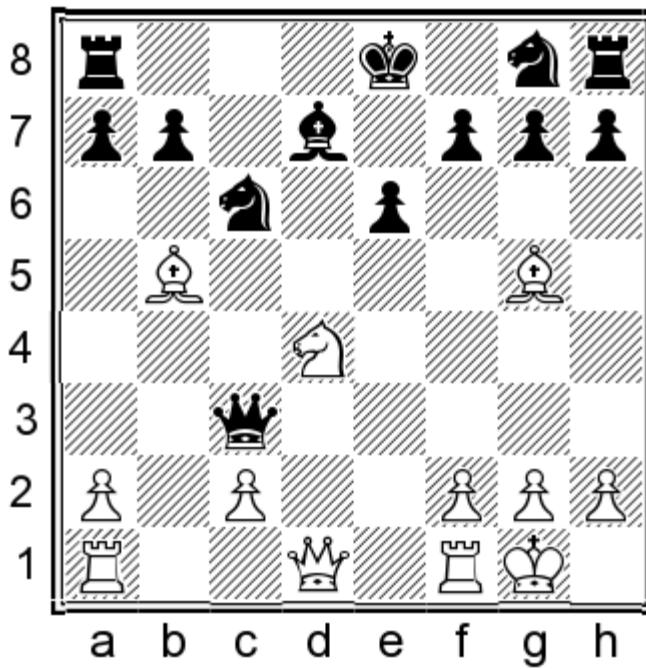
**When attacking our opponent, we strive first to attack the king, then the queen, next the rook, and so on. In other words, we attack our opponent's pieces according to their chess value.**

Why?

First of all, because the “t” parameter in this position is greater than 1 ( $t = 44/35$ , or  $\sim 1.26$ ), meaning that White’s pieces enjoy greater mobility than do Black’s. And secondly, because the black king is in danger. Indeed, the king on e8 is hardly securely placed; and besides, as is not difficult to see, within the d1-d8-f8-f1 rectangle, White has an extra rook and knight.

### No. 3: Tal – Uhlmann

Moscow 1971



Position after 11...  $\mathbb{W}xc3$

In this position, White is to move, and we have White. What is there for us?

We have a pawn less: we are deficient from a material standpoint.

This means that the material factor in the study position impels us to take active measures. It says “No!” to quiet play. Why?

Because quiet play would lead to exchanges and simplification, and the fewer the number of pieces left on the board, the greater the impact of Black’s extra pawn. A material deficit is always a vital element of the Tal Algorithm.

Moving on to the second factor in the position: there is a difference of opinion here. To be precise, we have  $4 + 1 - 3 = 2$  (the number of pieces in play) but  $42:41$  (the pieces’ mobility). The arithmetic of chess tempi urges us on to attack, while the arithmetic of the parameter “t” ( $t = 42/41 = \sim 1.02$ ) calls for quiet play.

So, which computation to rely on? That of parameter “t.” This is because the arithmetic of chess tempi is truly crude...

The value of our “t” parameter approaches 1. In other words, in the position under consideration, we practically have parity in the factor of chess time. That means that, in this position, the time factor is neutral – it is as far from “Tal” as it is from “Petrosian.” It “votes” for the middle, Capablanca Algorithm.

A third factor in the chess position is the element of safety. Here we have a clear edge, since White’s king feels quite comfortable while Black’s monarch feels much less so.

Why does the white king feel so comfortable?

Because it is closely “packed” among friendly pieces and none of the five squares immediately around it (the empty h1 square and the occupied squares f1, f2, g2, and h2) is controlled by the opponent.

*Second question:* Why does the black king feel so uncomfortable?

*Answer:* Because it’s not so closely “packed,” and because it is not fully mobile. The d8 and e7 squares are inaccessible to Black’s king as they are attacked by the opposing dark-squared bishop.

One more difficulty: inside the rectangle d1-d8-f8-f1, White is up a rook and a queen. Simply an overwhelming material advantage!

There is only one conclusion to be drawn: in this position, the third factor (safety) clearly calls for an attack on the king. It impels us to the “Tal”!

What happened in the game?

It continued:

**12.♘f5**

Sacrifice! Tal sacrifices a piece to open the e-file, in order to bring the rook to the e-file with tempo.

*Question:* Is the sacrifice correct?

I’m not going to answer that one. I am decidedly silent. I will say only that Tal’s fearlessness sometimes bordered on recklessness.

Your task is to put this position under computer analysis!

**12...exf5 13.♖e1+**

Check! The king is the most important target in chess.

**13...♕e6 14.♗d6**

The queen – the most powerful piece on the board – is thrust into the attack.

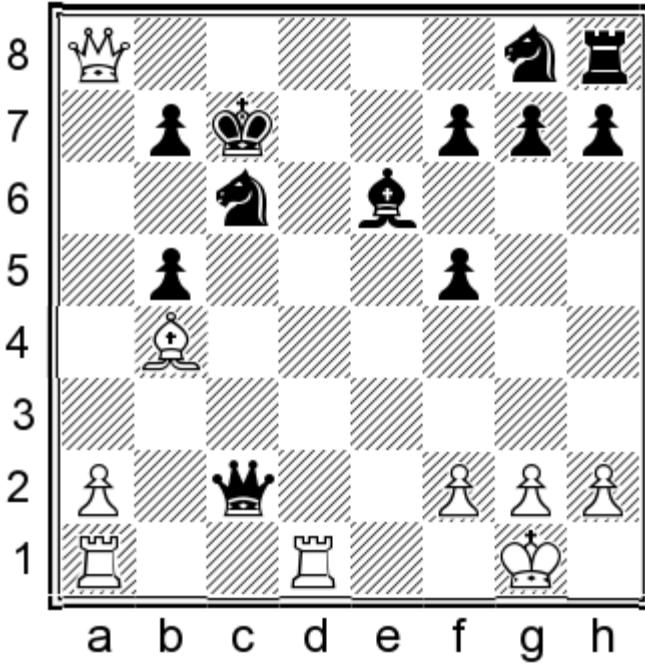
**14...a6 15.♗d2**

By retreating, we attack! The queen is always Target No. 2. The queen has a value smaller only than that of the king. Target No. 3 – that’s the rook. There follow the bishop, the knight, and then the tiniest chessman, the pawn.

**15...♗xc2 16.♗b4**

There is no satisfactory defense against the check on f8. Uhlmann resigned after

**16...axb5 17.♗f8+ ♔d7 18.♗ed1+ ♔c7 19.♗xa8 1-0**



*Question:* wasn't this premature?

As a postscript to the game, understand the *value scale in chess*. Here it is: king, queen, rook, minor piece (bishop or knight), pawn.

When attacking our opponent, we strive first to attack the king, then the queen, next the rook, and so on. In other words, we attack the opponent's pieces according to their chess value. And the chess value of the king is of infinitely great magnitude, while the value of all the other pieces is finite.

By convention, the value of the queen is agreed to be 9 units, the rook 5, the minor pieces 3 apiece (the bishop sometimes 3.5), and the pawn 1.

It is important to recognize that all of these figures are average power values for each of the chessmen.

Let's total up the preliminary results of our first exposure to the Tal Algorithm. We would very much like to distill the most important information from what we have seen thus far. To hone in on the important things and gain some perspective on what's to come.

We already have:

- 1) the four elements of the algorithm;
- 2) a scale of material chess targets;
- 3) the first three factors in a chess position.

All of this is our base – a “staging area,” if you will, from which we can launch the “attack” according to the Tal Algorithm. And this approach promises to be successful!

Later on, we will:

- 1) flesh out the four elements of the algorithm with high-value examples from the Tal vaults;
- 2) extend the scale (shifting smoothly from attacking material targets to attacking empty squares of the chessboard);
- 3) gradually raise the status of the first three factors of the chess position (we assume these three factors to be universal).

Another very important consideration is that the algorithm for the attack on material chess targets (the Tal Algorithm) is a powerful one. It covers all possible attacks on material targets, bar none.

Why?

Because a sequence of simple equations (based on the first two elements of the algorithm) is true. Here it is: the first + the second elements of the Tal Algorithm = open and direct attacks + the best piece deployment = one-move and two-move threats + multiple-move threats (“multiple” meaning three or more).

The full name for the best piece deployment is: *the optimal placement of our own pieces on squares which are good for subsequent open and direct attacks on material targets in our opponent’s camp*. For the sake of simplicity, this best deployment I have made synonymous with multiple-move threats against material targets.

This optimal layout of the pieces portends open and direct attacks. Three is greater than two and therefore much greater than 1 ( $3 > 2 > 1$ ). Hence we call them “multiple-move” threats.

By attacking the opponent’s material targets, “Tal” automatically also attacks the unoccupied squares of the chessboard. Thus the attack begins to spread: “Tal” starts attacking, not just squares of the board that are occupied by enemy pieces (squares containing material targets), but also empty squares. And, due to this positional feature, “Tal” spills over into “Capablanca” territory!

Our definition of the Tal Algorithm is very flexible. The same goes for the Capablanca Algorithm. The Tal Algorithm and the active part of the Capablanca Algorithm necessarily overlap. They are simply fated to intersect. They have a common territory, which does not separate, but rather unites them. “Tal” and “Capablanca” are not opposites; they are similar. Similar in the attack, because when we attack occupied squares, we thereby attack unoccupied squares.

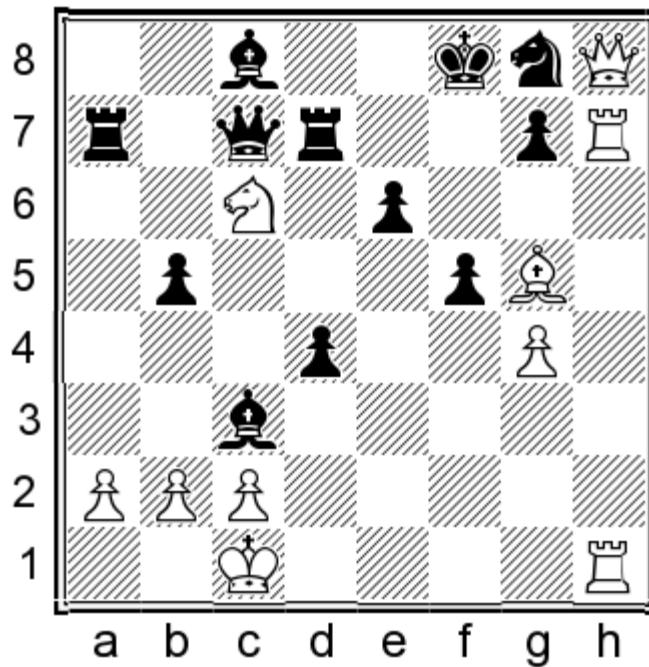
Do you agree that the Tal Algorithm is a powerful one?

I have no doubt what your reply will be.

The next step – or, more accurately, two steps ahead. The next two Tal attacks illustrate the insertion of an inactive rook into the attacking zone. “Tal,” as we already know, is more than just effective sacrifices and open attacks. “Tal” is preparation for the attack. “Tal” knows how to wait...

#### No. 4: Tal – Koblents

Training game, Riga 1957



Position after 32...axb5

In this position, we have White, and it's our move. What do we have?

What we have is a piece and a pawn less! This means that the material factor in the position under study demands active measures. Quiet – that is to say, strategic – play when down a piece is forbidden. We need “Tal.” And the greater the material deficit, the more we need that aggressive algorithm.

Our fearlessness knows no limits. Our psychological mindset is that of a hungry chess wolf. We have nothing to lose!

The second factor in the position, according to our calculations, is the time factor. Always second!

How does that one look?

We have a minimal advantage in both tempi and the “t” parameter. To be exact, White has one tempo more:  $(5 + 1 - 5 = 1)$  and  $t = \sim 1.08$ . For practice, figure this out for yourself.

Here the numerals 5 and 5 represent, respectively, the number of formally developed white and black pieces. These pieces are: the king on c1, the queen on h8, the rook on h7, the bishop on g5, and the knight on c6 for White; and the king on f8, queen on c7, rooks on a7 and d7, and bishop on c3 for Black. The pieces on h1, c8, and g8 are not formally developed, so they are not represented in our arithmetic of chess tempi.

But the number 1 on the left side of the equation represents the fact that it's White's turn to play. This is very important, since the right to move is sometimes of decisive significance, especially in sharp positions.

Without fear of repeating myself, I add that our arithmetic of chess tempi is wretched, and also “crude and concrete.” But it is also simple and very easy, while the arithmetic of the “t” parameter is both complex and exhaustive. On the other hand, it is “absolute”: It gives us complete information.

Our “t” is  $t = 41/38 =$  roughly 1.08. That is,  $p > 1$ .

The greater the value of “t,” the more strongly the time factor draws us to “Tal” – and our “t” (to put it mildly) – is not set against “Tal.”

Going further, the third factor in this chess position is that of safety. Here we must clinically determine the level of safety for each king.

The standard question is: What have we got? Or: which of the two kings in our diagram feels more comfortable?

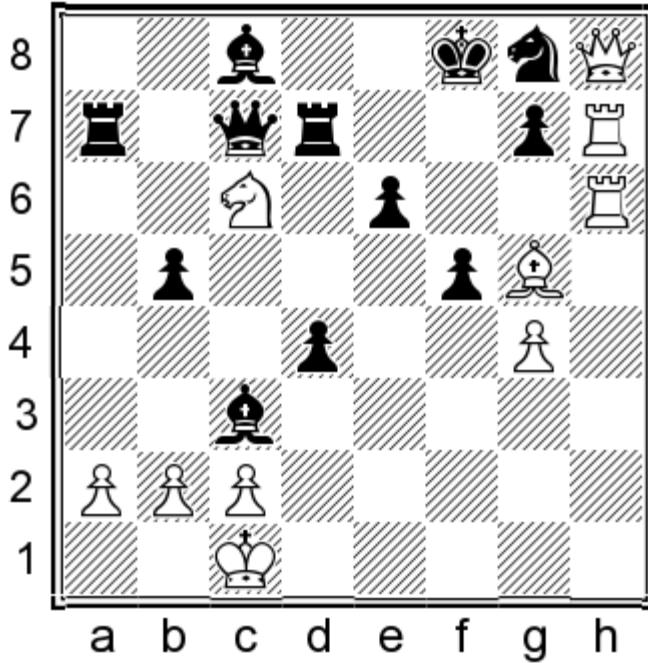
Answer: the white king feels more comfortable! And why?

Because the only thing that threatens him is the dark-squared bishop (it controls the squares b2 and d2, located immediately next to the white king). The black king, in contrast, is under immediate danger from the queen, the rook at h7, the dark-squared bishop, and even the knight which hits e7. Four white pieces and only one black bishop! That's 4:1 in White's favor. In addition, it must be noted that some squares (e7 and g7) around the black king are attacked more than once. On the other hand, it is just as certain that very powerful forces protect the black king. These include three major pieces on the seventh rank.

My advice would be to attack at the first opportunity. And it's there! It is real. The attack has chances for success. In the end (sorry for the repetition), we have nothing to lose!

Tal played:

**33.♘h6**



Tal throws his last reserve into the attacking zone. He threatens the crushing 34.♕f6+ gxf6 35.♔h6+, etc. Can Black hold?

Master Koblents couldn't find a way. He replied

**33...d3**

and lost quickly.

However, strangely enough, Black did have a defense! The cool 33...♝xc6 saves him from mate. As we can see, with this move Black simply ignores the “crushing” check at f6!

Why?

Because there is no mate, only a draw. And this verdict, unpleasant as it may be for White, is supported by our silicon friends. One variation runs 33...♝xc6 34.♕f6+ gxf6 35.♔h6+ ♜g7 36.♗xg7+ ♔e7 37.♗xf6+ ♔d6 38.♗e5+ ♔d5 39.♗xa7 ♘xb2+.

Now 40.♘xb2 and 40.♗b1 lead only to a draw, according to both *Fritz* and *Rybka*. Check it out!

Curiously, it's generally accepted that during the game, even Tal probably did not see this long variation. In other words, Tal gave us a chance... to refute him. Dare to do so, you young geniuses!

Tal's attacks were not always correct. And very often his sacrifices were not sound, either. Tal would frequently bluff, so he was not a classical player. Tal was a genius of irrational play...

After this mistake, Koblents's resistance did not last long.

**34.bxc3**

And thus goes the defender that was covering f6.

**34...d2+ 35.♔d1**

Of course!

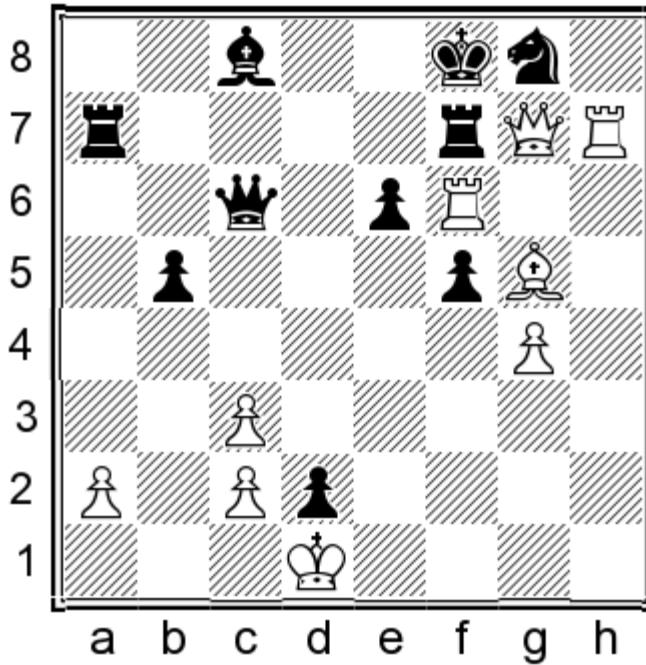
**35...♝xc6**

Too late!

**36.Ef6+ Ef7**

Merely hastening the inevitable.

**37.Wxg7+**



**1-0**

**Chess is a most complex, practically inexhaustible game. Chess science cannot explain everything by breaking it down to little pieces. In chess, there are many exceptions to the rules. It's unpredictable – and fortunately so!**

Chess is a most complex, practically inexhaustible game. Chess science cannot explain everything by breaking it down to little pieces. In chess, there are many exceptions to the rules. It's unpredictable – and fortunately so!

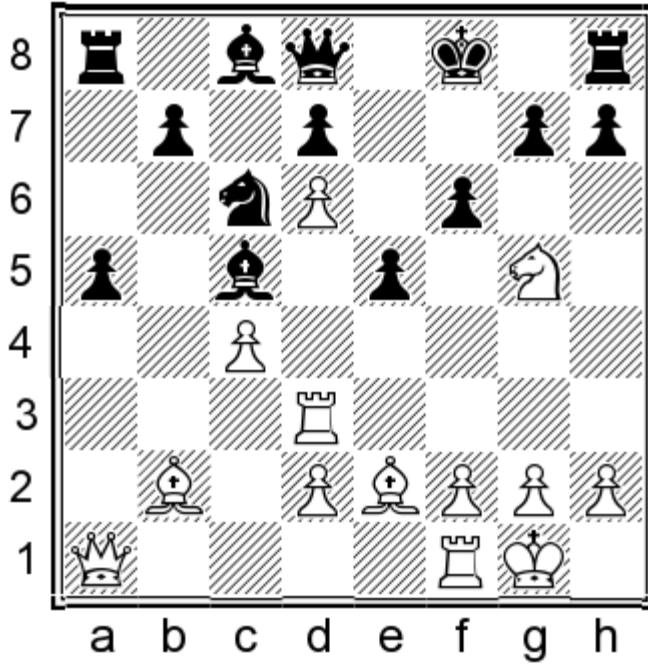
We do have a compass: the Tal Algorithm. This algorithm will help us chart a true course in our future chess ocean.

One more thing: Remember this, reader, for your long chess life: Chess loves a fearless hero!

A second point of the Tal Algorithm is that the pieces are always ideally placed on squares which coordinate with later open and direct attacks on the opponent's material targets. Most often, a rook is thrown into the attacking zone, much as in Tal – Koblents. However, sometimes you can throw the rook... without throwing it!

**No. 5: Tal – Van der Wiel**

Wijk aan Zee 1982



*Position after 17...e5*

In this position, it's White to move, and we have White. What have we got?

We're a pawn down (a deficit in the first chess factor). Therefore, from the psychological angle we are inclined to elevated chess aggressiveness. We are hungry wolves, truly fearless – ready to spill blood.

The second factor of the position is the factor of time, as defined by the “t” parameter. It is defined with total precision. The arithmetic of tempi would be inaccurate. What do we have?

By tempi:  $6 + 1 - 3 = 4$ .

By the “t” parameter:  $t = 41/32 = \sim 1.28$ .

Verify this it for yourself!

Chess practice keeps pointing to the special status of the number  $5/4 = 1.25$ . This number defines the critical significance of the “t” parameter, and we give it the symbol  $t_{cr}$ . This number ( $t_{cr}$ ) sits on the line between the algorithms of Tal and Capablanca – and I, getting far ahead of myself, will risk, for the first time in this chapter, making reference to Chapter 6. Over there, in the Algorithm Drift Chart (p. 14, also given on page 160), you will easily find the scale of parameter “t,” and our “sacred” number 1.25. There also you will see the approximate line between algorithms...

Our present case is borderline. We are on the right side of it. We are in the Tal Zone – we must attack!

Now for the third factor of the position. How does it look?

Everything is simple: the third factor (the safety factor) also requires an attack. It categorically requires it!

Why?

Because the black king is almost naked. And because it is somewhat immobile, as it cannot go to the adjacent e7 or f7 squares. I add that in the rectangle e1-e8-g8-g1, “surrounding” Black’s king, White has an extra rook, bishop, and knight...

So let's add it up. Let's bring order to this position. It's clear: Tal must play according to “Tal.”

Why?

Because the first, second, and third factors in this position militate in favor of the algorithm for the attack on material

targets. That is, for the Tal Algorithm!

What did Tal do?

Tal surprised us with

### 18.♘h1

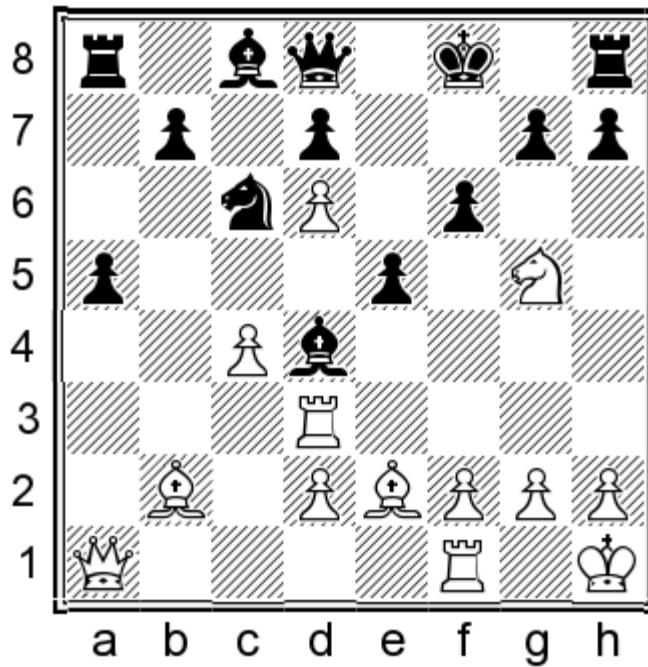
A knight sacrifice, mixed with prophylaxis (was he afraid of the c5-bishop?).

We say “Yes!” to the sacrifice, and “No!” to the prophylaxis.

The game move is not only a sacrifice, but preparation for the act of launching the rook into the attack zone. Tal intends to open a file for the inactive rook by advancing the f-pawn! I am sure that in this position none of my readers would need a telescope to guess the identity of the juicy target on f8.

### 18...♝d4

If 18...fxg5, then, according to Tal’s analysis, White wins with 19.♕f3+ intending 20.♖xe5. Let me add a personal note: still stronger is the immediate 19.♖xe5 (pointed out by *Rybka*).



### 19.f4

Now the rook, though remaining on f1, becomes a full participant in the attack on the king.

### 19...♝b6 20.♝c3

Threatening the decisive 21.fxe5.

### 20...♞xc3 21.♛xc3 ♜g8

Find the win after 21...fxg5. And you are not allowed to use a computer!

### 22.fxe5

The beginning of the end.

22... $\mathbb{Q}xe5$  23. $\mathbb{Q}e4$  h5

Nor does 23... $\mathbb{Q}xd3$  save him.

24. $\mathbb{Q}xf6+$

Check – that is, an open attack on the king. Van der Wiel resigned, as he cannot avoid mate after 24...gxf6 25. $\mathbb{W}xe5$ .

Our ideal goal in chess is error-free play in all possible positions, without exception. An unattainable goal, but the desire to achieve it is eternal.

Our ultimate chess objective is to have a universal method for finding the best move in all possible positions, without exception. The goal is a threefold one, and its facets are the fundamental algorithms of Tal, Capablanca, and Petrosian.

Our chess goal so far is the Tal Algorithm, which we have followed, are following, and will continue to follow in the immediate future. This is why, first of all, in this chapter we are interested in the method (the algorithm) itself. And only secondarily will we be interested in finding the strongest move.

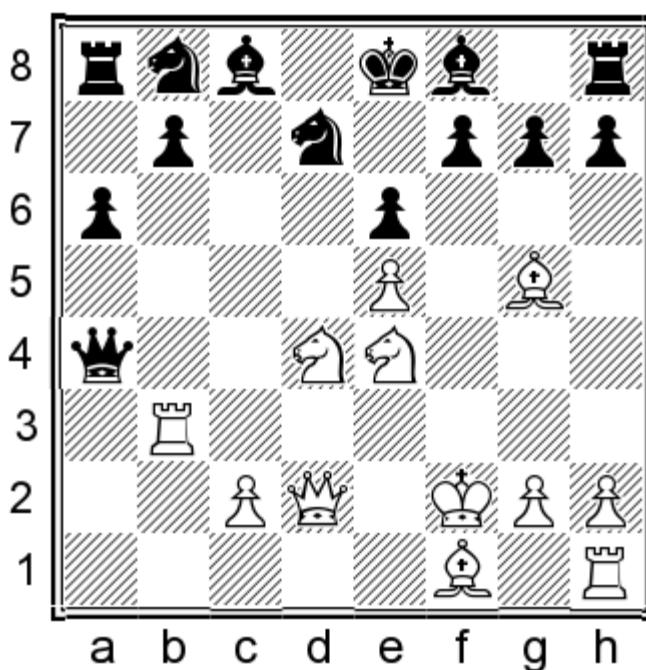
On the other hand, it's crystal clear that the latter goal (finding the strongest move) is nearly impossible to attain without the former (understanding the algorithm for accomplishing that).

Our immediate chess objective – that is, our goal “here and now” – is to break down another Tal game. This will be the game against Tolush, and in our analysis of this game Garry Kasparov himself will help us. The former world champion has analyzed this rather complicated game in great detail (see *My Great Predecessors*, Part II). This game was a mind-bender, an irrational event...

Ready?

#### No. 6: Tal – Tolush

USSR Championship, Leningrad 1956



Position after 14... $\mathbb{W}a4$

In this position, it's White to move, and we're White. What do we have?

Short answer: all the marks of the Tal Algorithm! Why?

Because we have:

- 1) a very large deficit in the first factor of the chess position (White is down two pawns);
- 2) an overwhelming advantage in the second factor, since the "t" parameter in our position is much larger than its critical value ( $t = 59/30 = \sim 1.97 >> t_{cr} = 1.25$  [Ed. note: the ideas of "much larger than" and "much smaller than" are denoted by the double mathematical symbols  $>>$  and  $<<$ , respectively]); and
- 3) a clear superiority in the safety factor (in the diagram position nobody threatens our king, whereas the black king lies in a mating net).

In other words, all three factors of the current position point to the attacking algorithm. More than that, all the factors show a completely radical version of the Tal Algorithm. This is the broader meaning of the "t" parameter and White's clear advantage in the third factor of the position.

The game continued:

### **15. ♜b5**

The text move is an open attack on the queen, which White combines well with the injection of a recently inactive piece into the conflict zone, and sacrificing it. Impressive, no?

Nevertheless, Kasparov disagrees with Tal, and thinks that Tal erred. He writes: "Intuitively feeling that the position demands a sacrifice, Tal immediately sacrifices – at just the right moment, but... the wrong piece and on the wrong square! Soon afterwards they found 15. ♜xe6!! fxe6 16. ♜d6+ ♜xd6 17. ♜xd6 ♜f8+ 18. ♜g3 with a very strong attack..."

I hope that you, dear reader, will not have forgotten the value scale for attacking material chess targets: king, queen, rook... The king is Target No. 1, the queen No. 2, etc.

That means that, when studying the position, we cannot ignore 15. ♜xe6. Why?

Because after 15. ♜xe6 White threatens the fatal 16. ♜c7#.

The question is: which is worth more – a direct (2-move) attack on the king, or an open (immediate) attack on Target No. 2?

Don't answer yet. It's not that easy!

### **15...axb5 16. ♜xb5**

Indeed it is not so easy, since after the text move he also threatens a killer knight move to c7!

With this move, Tal throws one knight into the conflict zone, formally sacrifices the other one (on e4), and informally regains a portion of the sacrificed material.

### **16...f6 17.exf6**

Kasparov: "Also giving up the knight at e4. The standard evaluation of the position has to give way to intuition and calculation. There is no mate, and it would seem that, based on the strict canons of higher chess truth, White must sooner or later lose. But what is the practical significance of this 'higher chess truth,' if the variations confirming it are found only months or years later?!"

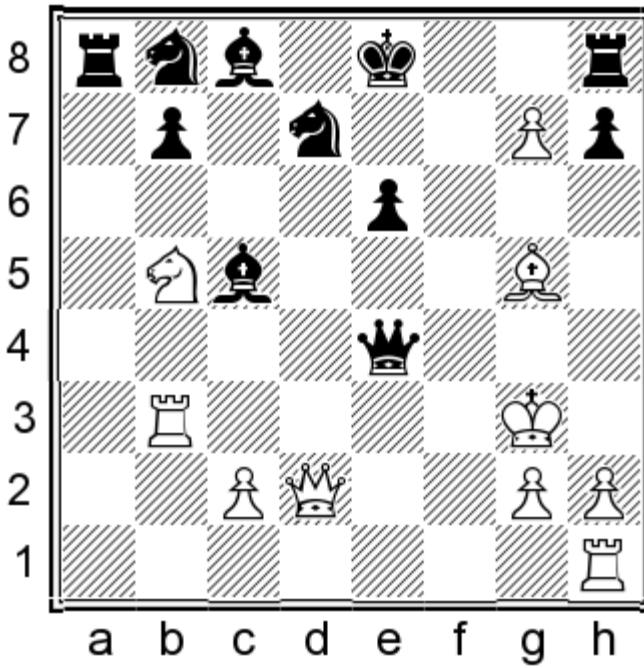
Tal's move is not just a sacrifice. He takes a pawn, as well as openly (or directly?) attacking. Or perhaps White merely threatens an innocent trade on g7? Is Tal playing strategically – yes or no?

Tolush took that pawn on f6. There followed

## 17...gxf6

Kasparov dedicated over two pages in *My Great Predecessors* to analyzing the position after 17.exf6. Chess is truly inexhaustible! His verdict: Black's last move was a mistake.

The “greedy” 17... $\mathbb{W}xe4$  looks stronger. And, strangely enough, after 18.fxg7  $\mathbb{Q}c5+$  19. $\mathbb{Q}g3$  (see diagram), Black manages to hang on:



*Position after 19.  $\mathbb{Q}g3$  (analysis)*

Let me add that, “in this slightly crazy position,” Kasparov was very careful. He examined a small mountain of possible variations, and he even complained some about the fact that the variations “are too complicated for both ‘man’ and ‘machine’ to be able to draw final conclusions.”

For us, too. Better we should peer into the fine variations given us by the thirteenth World Champion (I present only a small portion):

- 19... $\mathbb{W}e5+$  20. $\mathbb{Q}h3$   $\mathbb{W}xg7$  21. $\mathbb{Q}c7+$   $\mathbb{Q}f7$  22. $\mathbb{R}f1+$   $\mathbb{Q}g8$  23. $\mathbb{Q}h6$   $\mathbb{W}g6$  24. $\mathbb{R}g3$   $\mathbb{R}a3$  25.c3  $\mathbb{Q}c6$  26. $\mathbb{Q}d5$   $\mathbb{R}a4$ , with an utterly confusing, perhaps equal position;
- 19... $\mathbb{R}g8$  20. $\mathbb{R}e1$   $\mathbb{Q}f6$ , and it looks like Black is better.

In variation (a), Kasparov examines the subvariations 27. $\mathbb{R}g5$ , 27. $\mathbb{R}xg6+$ , and 27. $\mathbb{Q}f4$ . Let me continue...

In variation (b)... stop!

Let’s remember that our main objective here is what we call the method (or algorithm) for seeking out the strongest chess move according to “Tal.” I repeat: we are interested primarily in the *method*, not in the *move*. In other words, we are examining the innocent question: how? How did Tal, not a soulless machine, carry out his search for the strongest move? How did he get there?

Let’s analyze in detail.

## 18. $\mathbb{R}e1$

With this, Tal develops his formerly inactive rook – the second point of the algorithm. And let’s not forget the piece on

g5, which is to be sacrificed!

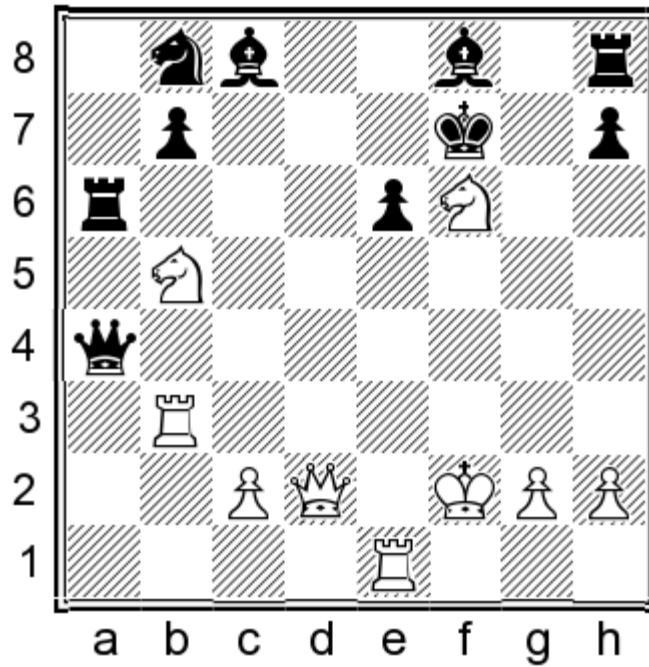
**18...♜a6 19.♝xf6**

An open attack on the rook + gain of material (or trade?!).

**19...♝xf6 20.♝xf6+**

An open attack on the king + the win of material (was it a trade, after all?). The first and second elements of the algorithm intertwine. So, does this make it a trade? Yes or no?

**20...♚f7**



Tal to move. There followed

**21.♜f3**

We've already seen this. Which is to say: White uses a standard method for adding to the attacking zone a piece that is currently doing very little. This rook move may be made (and Tal did make it) instantaneously, automatically – and why not: the threat of discovered check is extremely uncomfortable for Black! I add: I chose this move instantly, also without thinking to analyze the position; so did Kasparov...

However, soon after publication of the second title in the *My Great Predecessors* series, it was shown that the rook move is a mistake. Better is 21.♝e4, as pointed out by Sorokhtin – an expert-level player! After 21...♝e7 22.♜f3+ ♜g6 23.♝f4 or 21...♝d7 22.♝g5+ ♜e7 23.♝h5+ ♜g7 24.♝g3+ ♜f8 25.♝f3+ ♜f6 26.♝g5, etc., White should win.

Is it possible that these two great players missed this possibility?

Of course, I haven't even a single thought of doing anything against the legacies of Tal or Kasparov. They are immortal, and they need no bootlicking. They probably are not gods, but they are demigods, at least... And still, very great chessplayers are known to make mistakes!

I don't work to idealize these great, great players. I work for you, dear reader, and I do have a dream. I dream that someday, some unsung NN – today, a chessplayer of no very great reputation – will read these lines. He will read them and... will become, eventually, the World Chess Champion!

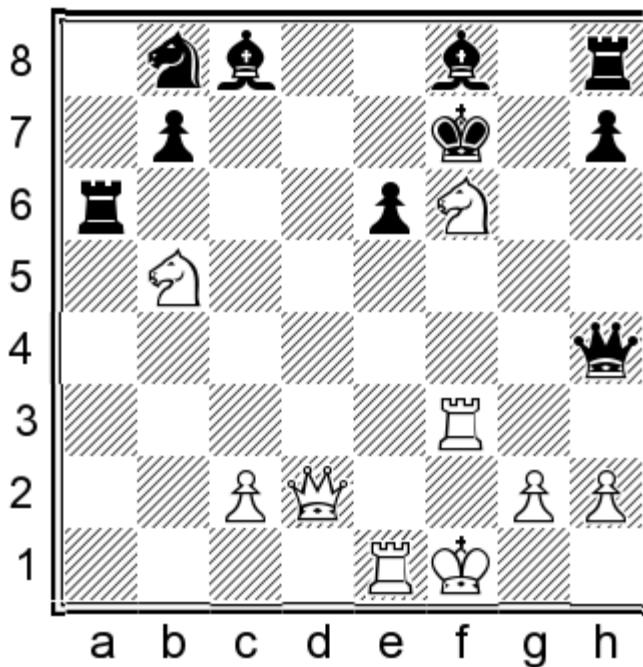
Sorokhtin's move, 21.♘e4, probably wins. Isn't it because it is multifaceted (checks are threatened by the queen *and* the rook *and* the knight)? And one more thing: this move cannot be pigeonholed into one particular category, as it contains elements of both direct attack and optimal placement. On the other hand, we are already used to the fact that in Tal's games, he commingles everything. All four elements are mixed up with one another...

Question: does Tal always play "according to 'Tal'"? Or: does the Tal Algorithm have a chance to become our universal algorithm? Yes or no?

**21...♝h4+ 22.♗f1**

The answer is obvious: No!

The Tal Algorithm is not the universal algorithm for searching for the strongest move. It is but *one part* of that universal algorithm, just one of three pillars on which all chess wisdom rests. The other two pillars are the Capablanca and Petrosian algorithms. 22.♗f1 is a "Petrosian-style" move: elementary prophylaxis, clearly not an attack on the king.



**22...e5**

Kasparov has no quarrel with this move.

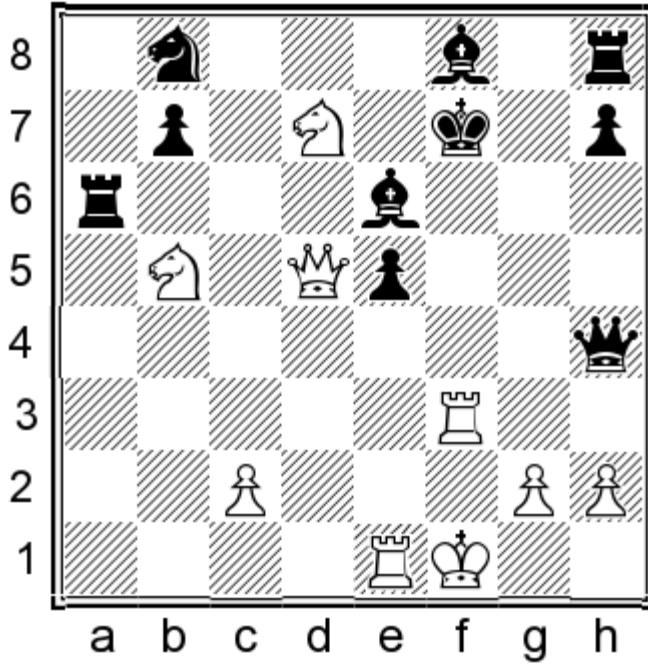
**23.♛d5+**

The queen attacks the king – the most powerful of all assaults in chess.

**23...♝e6**

White wins after 23...♝g6? 24.♞e8!! (Kasparov's exclaims).

**24.♞d7+**



The next open attack on the king. Moreover, I should add, the climax of a grand struggle!

**24...♝g6**

As we say in Russia, “Wrong steppe!” Kasparov: “After 24...♝e7 the wretched king, supported by its subjects, could have hoped to survive the storm. It looks like White has nothing better than 25.♛c5+ ♚e8 26.♜xf8+ (26.♛c8+ ♚e7; although I add: after 27.♝xb8 ♚g7 28.♝xb7 ♛c4+ 29.♝g1 ♛c8 30.♛xc8 ♜xc8 31.♝xe5 ♜c5 32.♜f7+ ♜xf7 the machine says White has the advantage – A.Sh.) 26...♜xf8+ 27.♛xf8+ ♜xd7 28.♜d1+ ♛c6 29.♛d6+ ♜xb5 30.♜b1+ ♛a4 31.♜a1+ ♛b5 32.♜b1+ with perpetual check.”

In other words, according to Kasparov’s analysis, Tolush’s last move was a mistake. More accurately: the last mistake Black made in this game!

**25.♝xe5+**

Open attack + material gain.

**25...♝g7**

Or 25...♝h5 26.♛d1!! and wins (Kasparov’s marks).

**26.♜g3+**

An open attack.

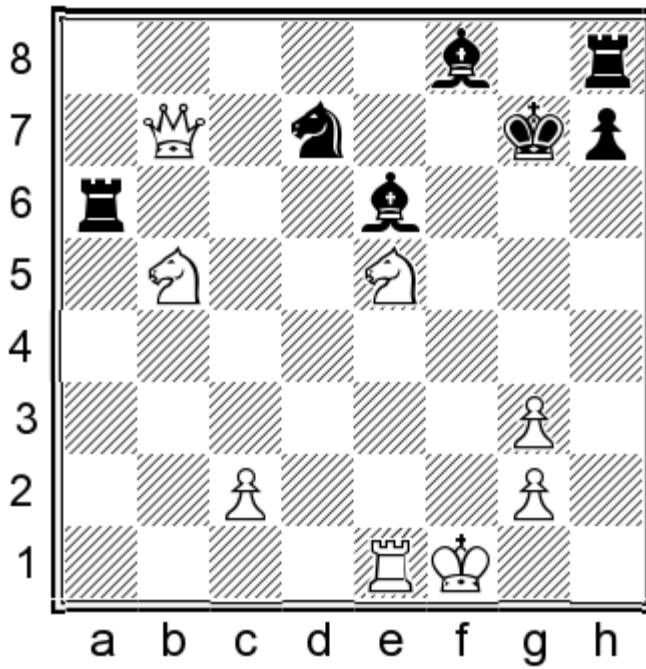
**26...♛xg3**

Your task: find the mate after 26...♝h6. No computer allowed!

**27.♛xb7+**

Open attack + material gain.

**27...♝d7 28.hxg3**



In the aftermath of a chess battle, the field is littered with corpses and mangled equipment.

The elements of the Tal Algorithm:

- 1) open and direct attacks;
- 2) optimal piece placement;
- 3) sacrifice;
- 4) winning material.

The first two elements define the dynamic and the potential (strategic) components of the attack.

The last two are an unequal trade with its mirror image – an exchange.

The game concluded with:

**28...♝b6 29.♛c7 ♜c5 30.♝xd7 ♜c4+ 31.♝e2**

and in this hopeless position, Black's flag fell. **1-0**

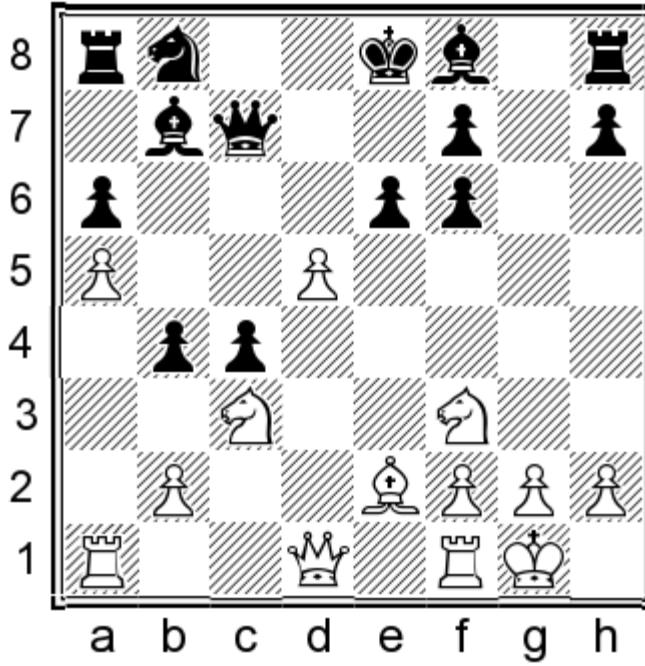
From the game with Tolush, to the game against Keller. Kasparov annotated this game, too (see *My Great Predecessors*, Part II). This is a game of unbelievable complexity – an irrational, chaotic battle...

#### The elements of the Tal Algorithm:

- 1) open and direct attacks;
- 2) optimal piece placement;
- 3) sacrifice;
- 4) winning material.

**No. 7: Tal – Keller**

Zürich 1959



*Position after 13... Wc7*

In this position, it's White to move, and we have White. How do things look?

There is a problem with figuring out the algorithm. The first and third factors of the position contradict the second factor. To be more accurate: the first and third factors draw us to the Tal Algorithm, while the second pushes us toward the Capablanca Algorithm. The first and third factors call to war, and the second – almost to peace negotiations.

Really, we have

- 1) a pawn minus;
- 2) approximate equality, according to the second factor of the chess position ( $t = 36/35 = \sim 1.03$ ).
- 3) a considerable advantage in the safety factor (White has the more tightly “packed” king), and in the d1-d8-f8-f1 rectangle he has an overwhelming advantage in force.

Which is more important: a “bad” king or equality in the second factor of the position? To put it another way: which of the two algorithms for seeking the best move more closely aligns with the position's requirements? Put more succinctly: is it “Tal” or “Capablanca”?

Tal's reply: “Tal”! His move came like a bolt from the blue. There followed the fearless

#### **14.dxe6**

Sacrifice – the third point of the algorithm for attacking material targets.

I add: Kasparov is in complete solidarity with Tal. He considers the text to be strongest and gives it an exclamation point.

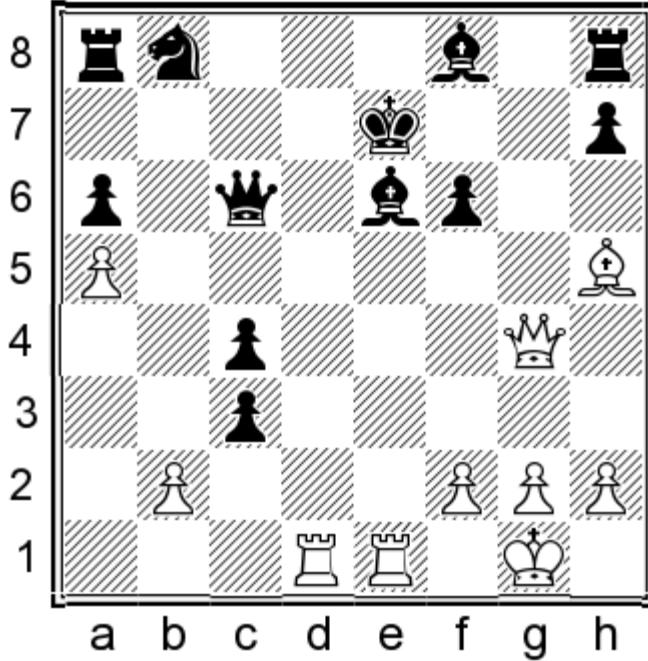
#### **14...bxc3 15.Qd4**

Kasparov: “Apparently the strongest continuation, although White could also have considered 15.bxc3!...” In other words, after 14...bxc3 White has a choice, which means that the second (15.Qd4) and third (15.bxc3) elements of the algorithm are at odds with each other.

#### **15...Bg8**

Kasparov doesn't hide his enthusiasm for this move. In his view, 15...fxe6? and 15... $\mathbb{W}c6$ ? are both bad, although 15... $\mathbb{Q}d5$  is entirely possible. After each of these moves, there are variations piled on variations...

Here's one of them, a truly fantastic one: 15...fxe6? 16. $\mathbb{Q}xe6$   $\mathbb{W}d7$  17. $\mathbb{Q}h5+$   $\mathbb{Q}e7$  18. $\mathbb{W}g4!$   $\mathbb{Q}d5$  19. $\mathbb{Q}fe1!$   $\mathbb{Q}xe6$  20. $\mathbb{Q}ad1$   $\mathbb{W}c6$ :



*Position after 20... $\mathbb{W}c6$  (analysis)*

Now 21. $\mathbb{Q}e8!!$  wins. Effective, no?

You are tasked with steering the position after 21. $\mathbb{Q}e8$  to victory.

The game continued:

**16. $\mathbb{W}a4+$**

An open attack on the most important target in chess. Remember the scale of targets: king, queen, rook, bishop, knight, pawn... The king is Target No. 1; Tal resolutely attacks it.

**16... $\mathbb{Q}d8$  17.g3**

And this move is something indescribable! Hard to believe, but Tal is... defending.

Why?

Because, sadly, the superbly valiant 17. $\mathbb{Q}fd1$  fails to 17... $\mathbb{Q}xg2+$  18. $\mathbb{Q}f1$   $\mathbb{Q}xf2+$ , etc.

**17... $\mathbb{Q}d5$**

Kasparov neither criticizes nor praises this move. Other moves are possible: 17... $\mathbb{Q}c6$ ?, 17... $\mathbb{Q}c5$ !?, 17... $\mathbb{Q}xb2$ , and 17... $\mathbb{Q}g5$ . The first of these four loses, while the rest lead mainly to unclear play. And everywhere variations, sub-variations, sub-sub-variations...

**18. $\mathbb{Q}fd1$**

Adding the rook into the attacking zone, yet a small inaccuracy. Stronger is 18.♖ad1, when after 18...cxb2 the rook doesn't hang, and White gets a very strong move: 19.♕f3! (Kasparov).

My promised computer correction of the former world champion's computer annotations: 19.exf7 was stronger than moving the bishop to f3; if 19...♗xf7, then 20.♕xc4 ♜g5 21.♕xd5 wins (*Fritz* 11).

### 18...♝c8

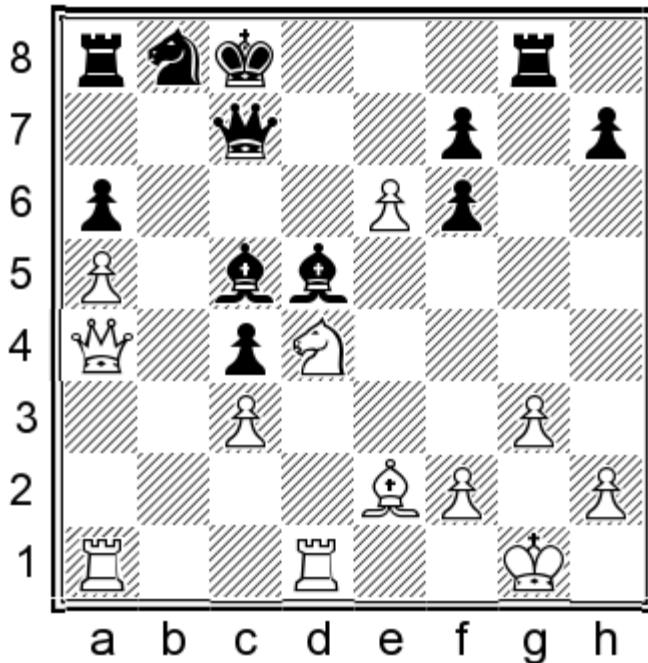
"A serious mistake" (Kasparov). In his opinion, ...18...cxb2 19.♖ab1 c3 is far stronger. Dynamic equality!

### 19.bxc3

Kasparov considers this unsatisfactory and gives it a question mark. White wins not by taking the pawn, but with the check 19.♔e8+! and then 19...♝b7 20.bxc3 ♜c6 21.♖ab1+ ♔a7 22.exf7 ♜g5! 23.♕f3! ♜e7 24.♕xg5 fxg5 25.♕f3!+-.  
"However," writes Kasparov, "it is hard to criticize Tal: this win is not obvious at all, and at any rate it was not found by three generations of analysts, until computers became involved ..."

Let me add that a wide range of illustrious players – including Euwe, Hübner, and Timman among others – have analyzed this game or this position at one time or another.

### 19...♜c5



### 20.e7

Outstanding! White's thrust was not simply a pawn sacrifice to accelerate the attack. It was also a direct attack – the empty square e8 is attacked (21.e8♛+ is threatened). With this move, Tal harmoniously combines the first and third elements of his algorithm.

### 20...♝c6 21.♕g4+

This move Kasparov approves of.

### 21...♝b7 22.♝b5

But this rambunctious invasion he frowns on...

In Kasparov's view, 22.  $\mathbb{Q}xc6$  is bad. 22.  $\mathbb{Q}f5!?$  – openly attacking Black's light-squared bishop – looks much better. But 22.  $\mathbb{Q}b3!?$  is even stronger (all marks are Kasparov's). Putting the knight on b3 is a double attack (an open attack on Black's dark-squared bishop, plus an open attack on the light-squared bishop). In addition, White would be sacrificing this knight. And don't forget the g4-bishop, which is still standing!

**22...  $\mathbb{Q}e5$**

"Keller again finds the best move!" (Kasparov)

**23.  $\mathbb{Q}e1$**

An open attack on the queen. Target No. 1 is out of reach for the time being.

**23...  $\mathbb{Q}e4$**

"Missing 23...  $\mathbb{Q}g5!$ , when Black should win" (Kasparov).

**24.  $\mathbb{Q}ab1$**

Throwing a previously inactive piece into the cauldron.

**24...  $\mathbb{Q}xg4$**

According to Koblents (Tal's trainer and a longtime friend), on 24...  $\mathbb{Q}xb1$  Tal had a miracle move up his sleeve: 25.  $\mathbb{Q}xb1!.$  Kasparov quietly approves of this intuitive inspiration and projects a win for White after 25.  $\mathbb{Q}xb1.$  If only, if only...

**25.  $\mathbb{Q}xe4$**

A sacrifice, or an exchange operation? The boundaries get fuzzy...

**25...  $\mathbb{Q}xe4$**

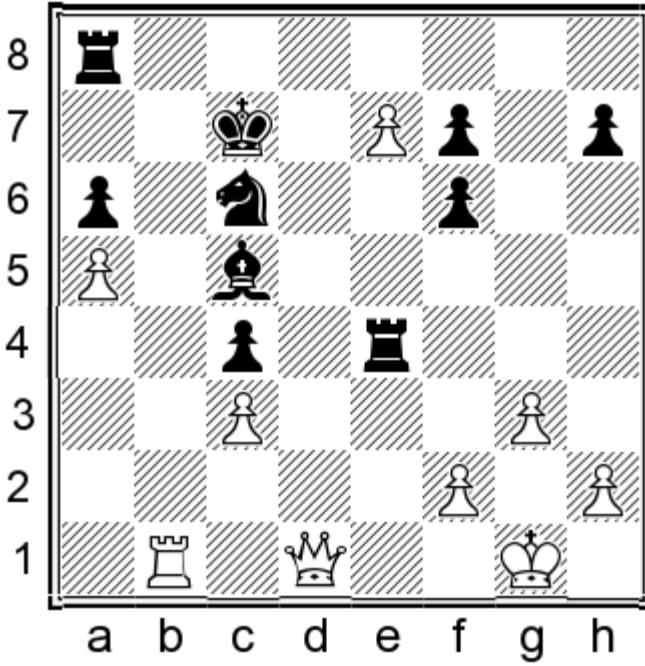
25...  $\mathbb{Q}xe4!?$  looks inferior. After 26.  $\mathbb{Q}d4+ \mathbb{Q}b4 27. \mathbb{Q}d7+,$  White has the upper hand (according to Kasparov).

**26.  $\mathbb{Q}d6+$**

Target No. 1 is attacked. So is Target No. 2!

**26...  $\mathbb{Q}c7 27. \mathbb{Q}xe4 \mathbb{Q}xe4 28. \mathbb{Q}d1$**

"With a time scramble approaching, Tal finds literally the last attacking resource, and the heroic Keller, who has made so many strong moves, is unable to withstand the extreme tension" (Kasparov).



**28...Rxe5**

A tragic mistake. After 28...Qxe7 (strongest!) the struggle continues.

**29.Qb7+**

An open attack on the king + a sacrifice! This is the first of a winning series of checks.

**29...Qxb7 30.Qd7+ Qb8 31.e8Q+ Rxe8 32.Qxe8+ Qb7 33.Qd7+ Qb8 34.Qxc6**, and Keller gave up. **1-0**

Let's proceed to the post-mortem, including a comparative parametric analysis. We will examine the positions after both 13...Qc7 and 28...Rxe5 (see the first and the last diagrams above; in the diagram after 28.Qd1, don't forget to move the black rook from e4 to e5).

We know the parameters of the position after 13...Qc7: a deficit in the material factor, approximate equality in the time factor ( $t = \sim 1.03$ ), and a substantial advantage in the safety factor. Or, briefly:  $m < 1$ ,  $t \approx 1.03$ , “+”.

Here,  $m < 1$  indicates a deficit in the material (or first) factor of the position. (And  $m = 1$  and  $m > 1$  mean, respectively, positions with material equality and positions with material superiority.)

The symbol “+”, it seems to me, speaks for itself and needs no further comment. Its colleagues are the symbols “=” and “\_”.

And now for the parameters of the position after 28...Rxe5:  $m < 1$ ,  $t = 36/38 = \sim 0.95$ , “+”. Work them out!

If my basic arithmetic doesn't deceive me, then, roughly speaking, we have the same “diagnosis.” In both positions, we have the same value of “ $m$ ,” a “ $t$ ” parameter close to 1, and a solid “+” according to the third factor. In other words, we have a serious basis for rewriting our previous diagnosis. “Rewrite” from the position after 13...Qc7 to the position after 28...Rxe5. For us it is transitional (or mixed), since back then we were hesitating. We were choosing between “Tal” and “Capablanca” – look at the preliminary notes for this game.

As a practical player striving for victory, start by searching for a move that lines up with “Tal.”

As we know, Tal preferred the “Tal” in both the first case and the second. There followed, respectively, 14.dxe6 and

29.  $\mathbb{W}b7+$ . Two positions, two moves, and two sacrifices!

Pay attention! I'm about to ask a question of colossal practical significance. Ready?

What do we do in positions that are complicated for us, if after totalling up the algorithm we are not sure whether to go with "Tal" or "Capablanca"?

Answer: Approaching the situation not as a great scholar, but as a practical player striving for victory, start with the search for a move that lines up with "Tal."

Why?

Because otherwise you won't find 29.  $\mathbb{W}b7!$ , missing an instant win! Is that what you want?

In order to become an outstanding chessplayer, it is necessary to be born "with a clot of dried blood in your right hand" [*rumored birth of Genghis Khan – Tr.*]. If you don't, then you must acquire the psychology of a victorious warrior. That's good. And it's absolutely necessary in a struggle where there's no room for fear...

We are nearing the conclusion of this chapter. Serving as a bridge between the Tal and Capablanca algorithms, the last three examples will help to lead us into the next chapter.

As we know, the algorithms of Tal and Capablanca are neighbors (see the Algorithm Drift Chart at the end of Chapter 1 or in Chapter 6). They are friends, not enemies. They have something in common. But there are differences between them, too.

Here the question comes in: what's the *main* difference between these two algorithms?

It's *their attitude toward the safety factor*. To wit: with the "Tal," it's "+", while with the "Capablanca," it's "=".

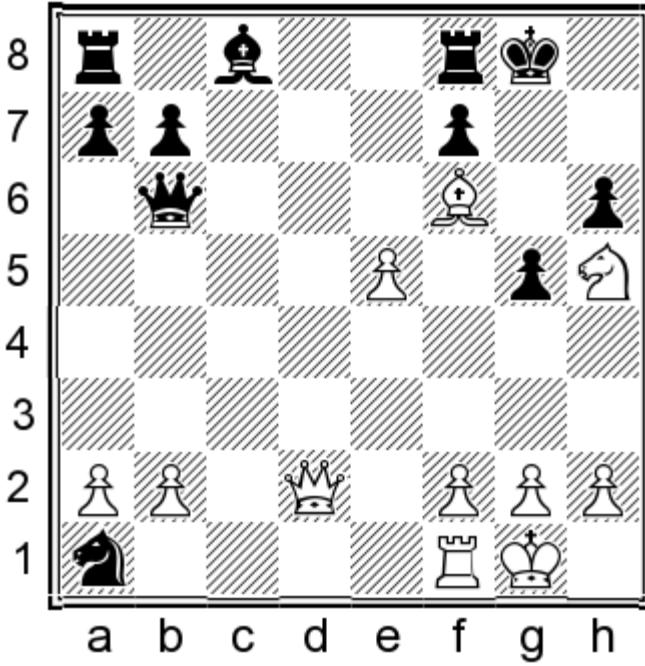
Of course, this answer should not be considered absolutely reliable. It's not that easy. The time will come when we will learn the nuances of the relationship between these two algorithms. But for us, for now, it's important for our answer to be correct in principle. And that's the main thing.

**What's the main difference between these two algorithms?**

**It's their attitude toward the safety factor. To wit: with the "Tal," it's "+", while with the "Capablanca," it's "=".**

**No. 8: Tal – Flesch**

Lvov 1981



*Position after 20...g5*

In this position, it's White to move, and we have White.

We have:

- 1) a rook less (however, White can immediately remove the enemy knight on a1, decreasing Black's advantage in the first factor);
- 2) a solid advantage in the second factor, as our  $t > t_{cr} = 1.25$  ( $t = 40/30 = \sim 1.33$ ).
- 3) an overwhelming advantage in the safety factor (Black's king is not only much more poorly placed, it's also almost immobile; in addition, White has an extra bishop and knight inside the rectangle f1-f8-h8-h1).

As we can see, the first and second factors point in the same direction, calling us to decisive action. Our diagnosis is the Tal Algorithm!

## 21.e6

There's nothing extraordinary or miraculous about this move. Rejecting the possibility of liquidating the a1-knight, Tal instead sacrifices a pawn. White's intention is obvious: to retreat the bishop (to c3, say) and then occupy the vacated square with the knight. After this, Black will hardly be able to hold his position together.

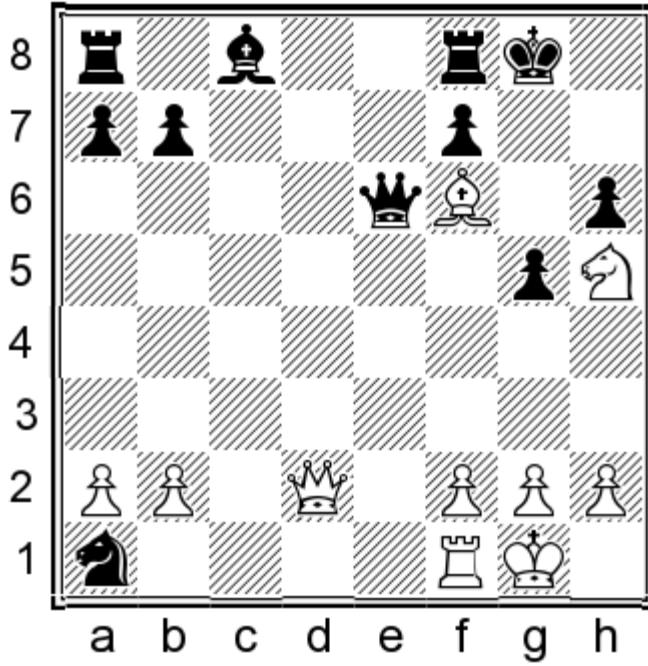
## 21... $\mathbb{W}xe6$

"21...fxe6 22. $\mathbb{W}d3$  (22. $\mathbb{B}xa1?$  e5!) 22... $\mathbb{B}xf6$  was dangerous for Black, but by 21... $\mathbb{Q}xe6$  22. $\mathbb{Q}xg5$   $\mathbb{W}c5!$  23. $\mathbb{Q}f6+$   $\mathbb{Q}h8$  24. $\mathbb{Q}xh6$   $\mathbb{B}fd8$  25. $\mathbb{W}f4$   $\mathbb{W}c4!$  he could have forced the exchange of queens: 26. $\mathbb{B}xa1$  (not 26. $\mathbb{W}g5?$  because of 26... $\mathbb{W}xf1+$  27. $\mathbb{Q}xf1$   $\mathbb{Q}c4+)$  26... $\mathbb{W}xf4$  27. $\mathbb{Q}xf4$   $\mathbb{Q}xa2$  28. $\mathbb{Q}e5$  with a rather unclear ending" (Kasparov).

However, we can improve on Kasparov's analysis. 24. $\mathbb{Q}e3$  (instead of 24. $\mathbb{Q}xh6$ ) leads to an edge for White. Something like 24... $\mathbb{W}f5$  25. $\mathbb{Q}d4$   $\mathbb{W}g6$  26. $\mathbb{B}xa1$   $\mathbb{B}fd8$  27.h4 (*Rybka*).

Black also stands worse after 22... $\mathbb{W}b5$  (instead of 22... $\mathbb{W}c5$ ). *Rybka* rates it  $\pm$  after 23. $\mathbb{Q}f6+$   $\mathbb{Q}g7$  24. $\mathbb{W}c3$   $\mathbb{Q}g6$  25. $\mathbb{Q}h4$  h5 26. $\mathbb{W}g3+$   $\mathbb{Q}h6$  27. $\mathbb{B}xa1$ .

Back to the game:



## 22.h3

This modest pawn move was pure genius. By preventing 22... $\mathbb{W}g4$ , Tal plays – strategically! The pawn advance enhances White's whole position. Believe me, this pawn nudge is not the last of the quiet moves. There will be a g-pawn push, too!

Is Tal ranging outside the algorithm named for him?

Probably not. But, on the other hand, consider this what you will, dear reader. All I know is, Tal was a chess magician!

## 22... $\mathbb{W}f5$

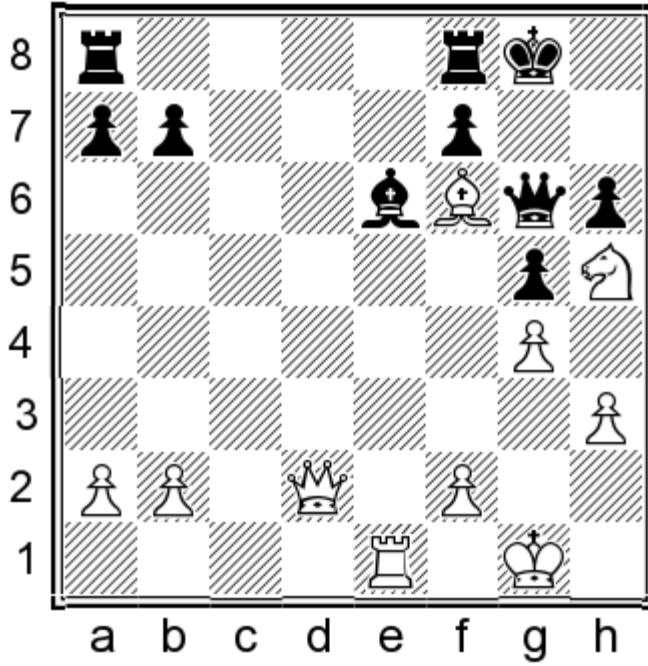
22...b6, with the idea of ... $\mathbb{Q}c8-b7$  and ... $\mathbb{W}e6-d5$ , was stronger (Kasparov).

## 23. $\mathbb{B}xa1$ $\mathbb{Q}e6$ 24. $\mathbb{B}e1$ $\mathbb{W}g6$

Kasparov recommends 24... $\mathbb{B}fc8!$ ? 25. $\mathbb{Q}c3$   $\mathbb{B}d8$ .

## 25.g4

In total compliance with... the second point of the strategic (Capablanca) algorithm. The line between “Tal” and “Capablanca” gets thinner, then disappears. Harmony!



**25...Bac8 26.Qc3**

Optimal deployment of the pieces, primed for the coming open and direct attacks on material targets – Point 2 of the Tal Algorithm. In fact, this is also the first point of the Capablanca Algorithm!

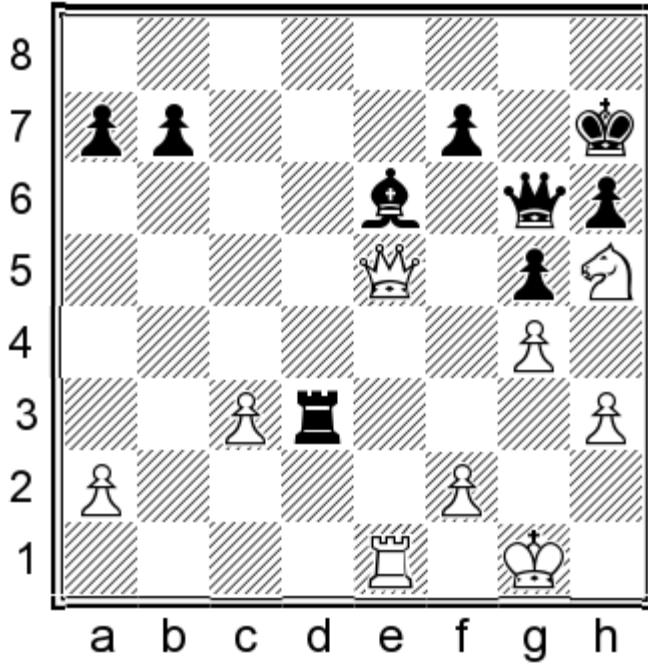
Later on we will see that there are no contradictions between these two algorithms – none at all!

**26...Bfd8 27.We3 Bd3 28.We5 Bxc3 29.bxc3**

Black is worse, but his position still hangs together. After 29...Qc4 or, let's say, 29...Bd8, *Rybka* sees nothing forcing.

**29...Qh7**

But this move loses quickly.



White's setup is complete. The g-pawn stands just where it needs to be. What now?

Answer: look for a forcing variation!

**30.♘f6+ ♘g7 31.♘d5+**

31.♘d7+ ♘g8 32.♗b8+ ♘g7 33.♗f8+ ♘h7 34.♘e5+- is even stronger (Kasparov).

**31...♝h7**

Slightly better was 31...♝f8 (Kasparov).

Your task is to find the win after 32.♗b8+ ♘g7 33.♘e7 ♘h7 34.♗e5+. No, you can't use a computer!

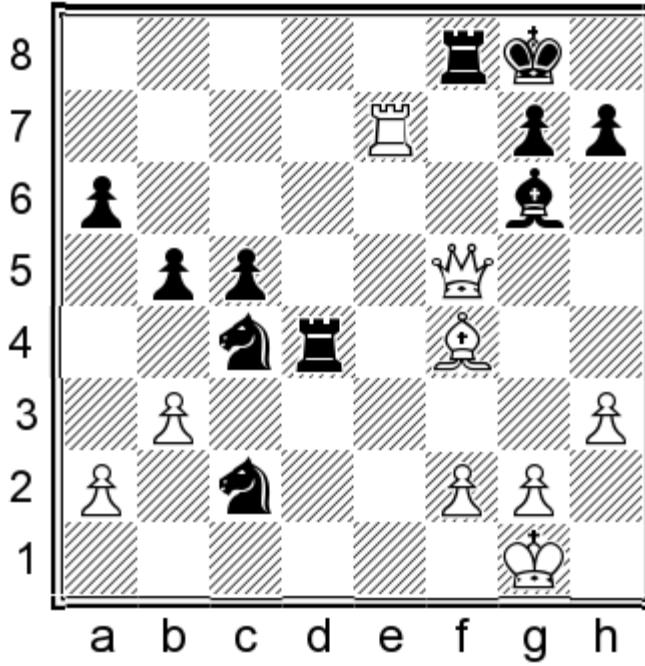
**32.♘e7 1-0**

Black resigned, since after 32...♝g7 33.♗e4+ the rook drops.

The spectrum of chess attacks (and of defenses, too) is unique. It's seamless, without gaps. Which means that our algorithms simply have to be flexible. Flexible, but not spineless!

### No. 9: Tal – Panno

Portorož 1958



*Position after 27...Bg6*

In this position, it's White to move, and we have White. What is there here?

We have:

- 1) a deficit in the material factor, that is,  $m < 1$ ;
- 2)  $t = 51/39$ , which is  $\sim 1.31 > t_{cr} = 1.25$ ;
- 3) a great "+" in the third factor, since the squares f7, f8, and g7, located right next to the black king, are attacked by the white queen and rooks; moreover, White's force superiority in the attacking sector – that is, in the rectangle f1-f8-h8-h1 – is evident.

Or, to put it briefly (translating from spoken language to mathematical language):  $m < 1$ ,  $p \sim 1.31 > t_{cr} = 1.25$ , large "+".

This diagnosis can mean only one thing: the position requires the Tal Algorithm, because the first three parameters all "vote" for this bloody approach.

What happened in the game?

A sacrifice! (Tal turns down a repetition by 28.Qe6+ Qf7 29.Qf5 Qg6 30.Qe6+.) There followed:

**28.Rxg7+**

White sacrifices a rook for a pawn...

**28...Qxg7 29.Qh6+**

...then a bishop...

**29...Qxh6 30.Qxf8+**

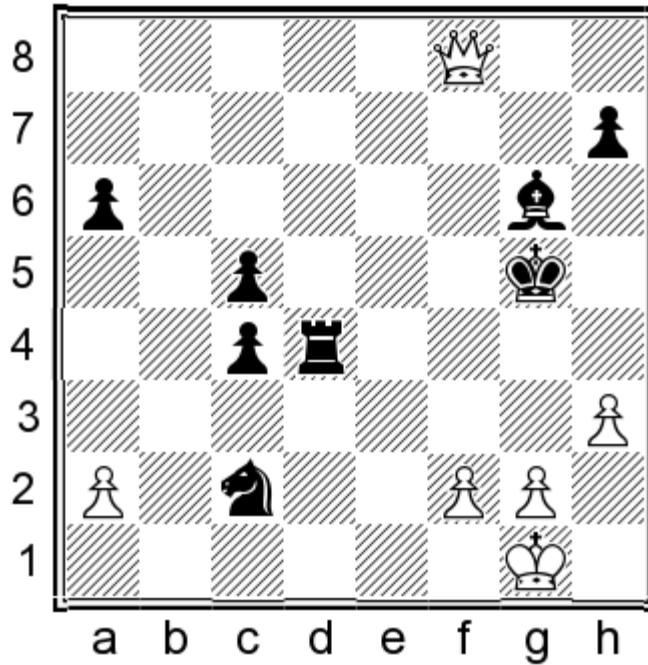
...but now White has won a rook. All the time, check, check, check... Forcing play: the Tal Algorithm at its zenith!

**30...Qg5 31.bxc4**

White nets a knight...

**31...bxc4**

...for a pawn.



Let's do an interim review of this truly uncompromising and gory encounter. The question is: how are we doing in terms of material?

Answer: status quo! It's easy to see that White has succeeded in losing a rook, a bishop, and the b-pawn. In those same four moves, though, he has acquired the black g7-pawn, plus the rook and the c4-knight.

A combination? Yes, yes, yes! Beyond the shadow of a doubt!

A trivial exchange of a bishop for a knight? Yes?! Or yes?! Or...

We will not torture ourselves. We will not swim pointlessly amid the flotsam of inevitably imprecise definitions. We simply say: the combinations in this game are exchange combinations. Combinations with a clear foretaste of the Capablanca Algorithm.

Tal's next move involves a pawn...

**32.g3**

The first in a series of moves to improve the position. For now, he will do it with his g-pawn. A move later – with the h-pawn. And then, with the king himself!

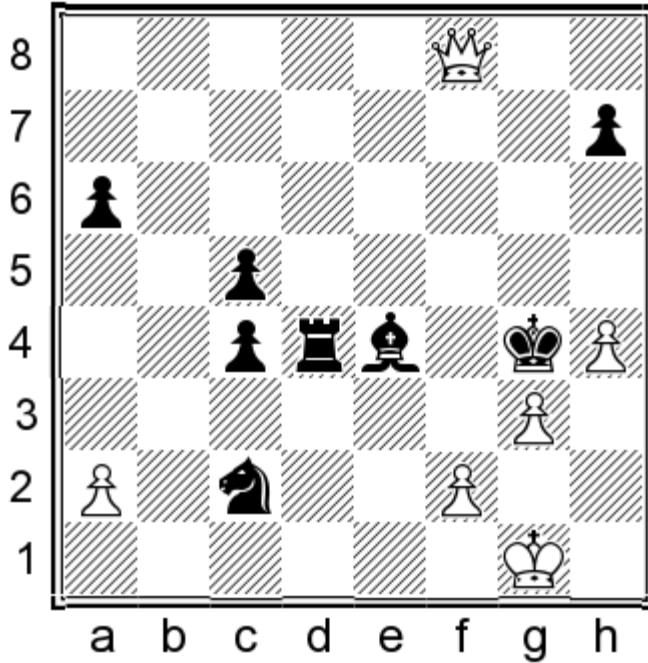
**32...g4 33.h4+**

Check – be it merely the very humblest check from a pawn – is always an open attack on Target No. 1.

“Tal”? Unquestionably, yes.

“Capablanca?” Yes?! Or yes!?

**33...g4**



**34.♔h2**

An exceptionally strong and – just as important – very beautiful move. Tal improves his king’s position. In other words (excuse me: I’m getting too far ahead), Tal clearly is playing strategically. He plays in perfect harmony with the first element of the Capablanca Algorithm.

And that’s not all. Tal, though playing according to “Capablanca,” stays faithful to “Tal”! Indeed, after the game move, White suddenly threatens mate in two with 35.♘f4+ ♔h5 (Black’s king can no longer move to h3!) 36.♗g5#.

Harmony! “Tal” and “Capablanca” are wartime companions, co-workers...

**34...♝f5 35.♗f6**

“Continuing the pursuit of the king. After the greedy 35.f3+?! ♔xf3 36.♗xf5+ ♔e3 37.♗xh7 (37.♗xc2?? ♕d2+) 37...c3 the passed c-pawn would have insured Black against any troubles” (Kasparov).

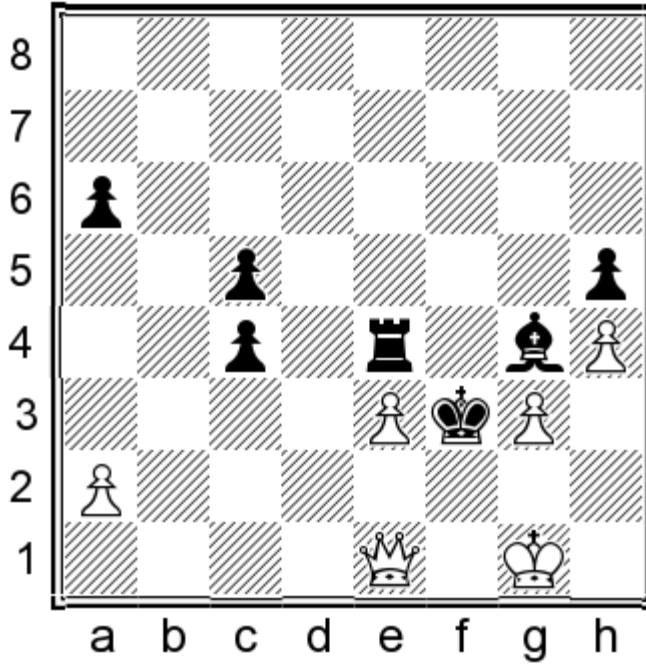
**35...h6 36.♗e5 ♕e4**

“36...♔d3!? 37.♗f6 (necessary, otherwise the black king breaks through to f3) 37...♝f5... would have given an immediate draw” (Kasparov).

**37.♗g7+ ♔f3 38.♗c3+ ♔e3**

Tal recommended 38...♔xf2. After 39.♗xc2+ ♔f3, “White cannot escape perpetual check.”

**39.♔g1 ♘g4 40.fxe3 h5 41.♗e1**



**41... $\mathbb{E}xe3$**

A mistake. “Black gets an easy draw with 41... $\mathbb{E}e6!$  42.e4 c3, building a fortress” (Tal). But now White gets winning chances.

The continuation was –

**42. $\mathbb{W}f1+$   $\mathbb{Q}e4$  43. $\mathbb{W}xc4+$   $\mathbb{Q}f3$  44. $\mathbb{W}f1+$   $\mathbb{Q}e4$  45. $\mathbb{W}xa6$**

– and Tal ultimately won. Panno resigned on move 57.

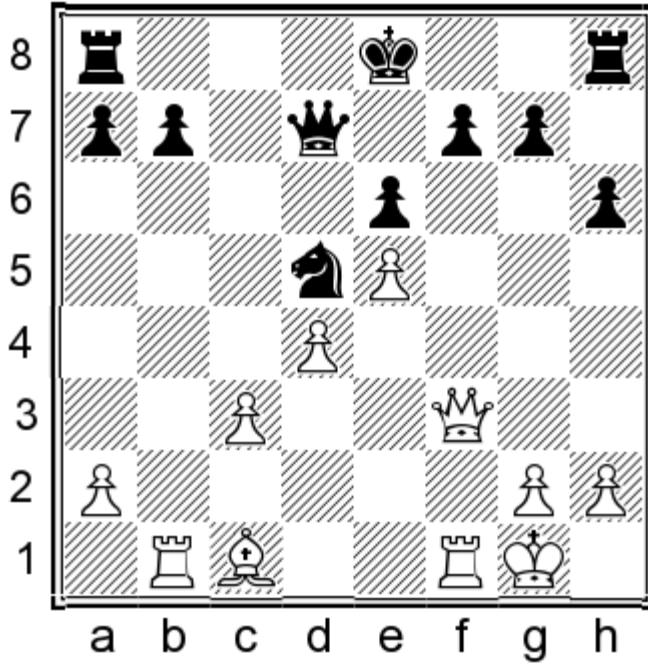
The final game of this chapter is Tal’s game with Podgaets.

In this contest, for the sake of an attack on the king, Tal sacrificed a pawn and then, not rushing, he maneuvered, maneuvered, maneuvered...

It’s possible that Capablanca would not have sacrificed the pawn (an alternative did exist). But most probably, after the sacrifice Capablanca would have proceeded the same way as Tal!

#### No. 10: Tal – Podgaets

Sochi 1970



*Position after 18...Qd5*

In this position, it is White to move, and we have White.

We have:

- 1) even material; that is,  $m = 1$ ;
- 2) an advantage in the second factor, as  $t = 41/36$ , or approximately 1.14;
- 3) a barely noticeable “+” in the safety factor (the pressure on f7 is real).

Or, in the language of the parameters of the position:  $m = 1$ ;  $t = \text{about } 1.14 < t_{cr} = 1.25$ ; a small “+”.

“Diagnosis”: the Tal Algorithm, because even a small “+” quite often has great significance...

So how did things go?

In the game, there was an open attack on the knight! There followed

#### **19.c4**

The alternative was 19.Qg3. Now 19...0-0 is impossible due to 20.Qxh6. There remain only 19...g6 and 19...g5, which are easily seen to weaken his king's wing.

#### **19.c4 Qb4 20.c5**

Another open attack.

#### **20...Qd5**

Of course 20...Qxd4+ is bad, since after 21.Qe3 Black comes out a piece down.

#### **21.c6**

No doubt Tal visualized this sacrifice before making his nineteenth move.

**21...bxc6 22.Qa3**

Preventing kingside castling.

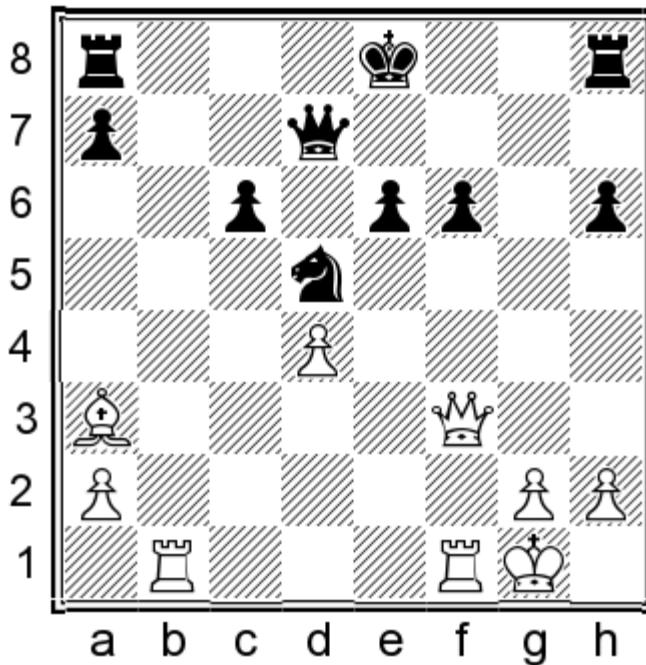
**22...f5**

Hoping to somehow scurry away with 23...Qf7. A vain hope!

**23.exf6**

With this move, White tears apart the opposing king's shelter.

**23...gxf6**



Pay attention: here comes a very important strategic maxim! This is it: following an exchange (a strategic exchange), the attacking side must at once reorganize his pieces optimally. I repeat: at once!

This is a maxim that will sound a thousand times over.

What does Tal do?

Without betraying himself, Tal plays according to "Capablanca." Like this:

**24.Qb3**

Intending 25.Qfb1 and 26.Qb7.

**24...Qd8**

Black's position is probably beyond salvation.

**25.Qfb1 Qh7 26.Qg3**

Winning immediately. Black has no reasonable defense against the checks on b8 and g8.

26... $\mathbb{Q}b6$  27. $\mathbb{B}xb6$   $axb6$  28. $\mathbb{W}g8+$   $\mathbb{W}e8$  29. $\mathbb{W}xh7$   $\mathbb{B}xa3$ ,

and without waiting for Tal's reply, Podgaets resigned. **1-0**

**Following an exchange (a strategic exchange), the attacking side must at once reorganize his pieces optimally.**

We took stock of our first acquaintance with Tal's Algorithm on the "neutral ground" between Games 3 and 4. Remember that it was precisely there that we defined the most important aspects of our further progress:

There, we promised to:

- 1) flesh out all the elements of the Tal Algorithm, insofar as possible, with the richest chess substance;
- 2) extend the scale of material chess targets;
- 3) raise the status of the first three factors of the chess position.

Now, in closing this chapter, we can confidently state that we have "fleshed out," we have "extended," and we have partially "raised the status." We made real progress. In addition, we have genuinely excellent prospects.

The first aspect: We have managed to review the entire right side of the chess spectrum, which is the whole Tal Zone (see the Algorithm Drift Chart). We did this so well that we managed also to enter into "Capablanca" territory.

It's totally obvious that the four elements of the Tal Algorithm have shown their reliability and effectiveness. They work.

I have combined the first two elements of the algorithm, "shooting" through the occupied and unoccupied squares of the chessboard. "Tal" primarily involves attacks on *occupied* squares, whereas "Capablanca" features attacks on *unoccupied* squares. The important thing is that these algorithms intersect.

**"Tal" primarily involves attacks on occupied squares, whereas "Capablanca" features attacks on unoccupied squares.**

**The important thing is that these algorithms intersect.**

In attacking the occupied squares of the chessboard, we also thereby attack its empty squares. In this, the number of empty squares is always greater than the number of occupied ones. And this means that the Tal Algorithm is simply fated to morph, sooner or later, into the Capablanca...

I have also joined in tandem the third and fourth elements of the Tal Algorithm. The name of the union is an "unequal exchange." In such an exchange, pieces of unequal value come off the board. When attacking, we do not simply sacrifice chess material – we sacrifice material in order to recover it later with interest.

With the "Capablanca," the unequal exchange collapses and turns into a strategic trade...

Second aspect: I tied it to the problem of extending the attacking scale (from attacking material targets to attacking empty squares). I will say at the outset: extending the scale is easy. But then we need to be very careful!

Why?

Because the chess values of empty squares vary in their importance from the vanishingly small to the boundlessly great. And so here's why, like it or not, we are forced to share these empty squares between the two algorithms. Part of them goes to "Tal," the rest to "Capablanca."

"Tal" is responsible for attacks on empty squares that feature direct attacks on material targets. "Capablanca" is for the attack on empty squares, conceptually distinct from the attacked non-empty squares. Of course, in practical chess we are dealing with an unimaginably great number of intermediate conditions...

The Capablanca Algorithm will stand for the attack on unoccupied squares whose chess value is less than the chess

value of a pawn (i.e., less than 1). These small values can and do add up to more than the value of a pawn, and even of a piece. I repeat: from here on out, “Capablanca” stands for attacking empty squares of modest chess value. Make it so!

In this way, we formulate a complete priority scale for attacking the occupied and unoccupied squares of the chessboard: king, queen, rook, bishop or knight, pawn, empty square. The chess values to be applied to them are: infinity, 9, 5, 3-3.5, 1, and a number between 0 and 1 (where 1 represents the value of a pawn).

The values of empty squares in the Tal Algorithm are randomly scattered from the infinitely large down to 1. Empty squares in the Capablanca Algorithm are limited to the range from 0 to 1.

**The safety factor cannot be boiled down to a single number. There are positions in which it's impossible to find “a” best move. In such positions there can be two or more “strongest moves;” then you have a choice.**

Third aspect: I linked it with the problem of raising the status of the first three factors of a chess position. I would prefer these factors to be fundamental, which is to say, unobjectionable from a scientific standpoint...

What do we have? Are these first three factors of the chess position fundamental or not?

Only three factors have withstood the test of time: the *material factor*, the factor of *chess time*, and the *space factor*. These three factors – in clear or disguised form – hop from one theory of chess play to another. They have hopped thus for over a hundred years, from Steinitz’s time to the present!

On these three key elements – on these three fundamental factors of the chess position – there rested, rests now, and shall forever rest the whole of chess science. This includes the theory of chess play that I am teaching.

The three aforementioned factors are but a hunger ration. I repeat: a hunger ration for any theory of chess play. It’s the bare minimum – there’s nothing smaller. A larger serving is owned by the great majority of chess authors...

Up to this point, we have made use of only two of the three fundamental factors – material and time. The next factor in our model that we will discuss is the factor of *safety* – which is non-fundamental.

Why?

Because it stands at the juncture of the three fundamental factors – material, time, and space.

The material factor, the time factor, and the space factor have given birth to the safety factor, each delegating to it a part of their legitimate power. Moreover, they have delegated the biggest part. The fundamental factors have given up all of their irrationality to the factor of safety, thereby washing themselves clean and becoming transparent. Now they are defined by numbers, easily and together. A rational number. In any chess position!

But the safety factor cannot be defined by a single number. There are positions in which it's impossible to find “a” best move. In such positions there can be two or more “strongest moves;” then you have a choice. The imagination is engaged. Chess truth slips away. It hides from us in the impenetrable jungle of irrationality.

As we conclude this chapter, I’m not afraid to remind you once again, dear reader, of the three most important aspects of our progress. In our approach to the Tal Algorithm, we have “fleshed out,” we have “extended,” and we have “raised the status.”

First, we have – most importantly – fleshed all four elements of the Tal Algorithm, without exception, with the very richest kind of chess substance.

What comes next?

Later on we will complete the smooth transition from the Tal Algorithm to the Capablanca Algorithm. We will transform the four elements of the Tal Algorithm into the three elements of the Capablanca.

Secondly, we extended the scale of material chess targets to include unoccupied squares, *à la* Capablanca.

Further, we have concentrated our attack on empty squares, *à la* Capablanca.

We – and this is in the third place – have significantly raised the status of the first three factors in any given chess position. The first two are fundamental; the third is a blend.

All of this means that we keep moving. And our next movement is to come to the Capablanca Algorithm.

We are filled with decisiveness, absolutely certain of success. We will triumph. We shall overcome every obstacle!

The door is open. Let's go in!

## Chapter 3

### Capablanca's Algorithm, or The Algorithm for the Strongest Strategic Move

The terms “Capablanca Algorithm” and “algorithm for the strongest strategic move” are synonyms. They’re just two different names for the same process.

In this chapter (as in the preceding one), there will be no discussion. All discussions on the theme of, “What is the strategic algorithm (Capablanca Algorithm)?” are to be postponed. They make no sense, as we do not need airtight formulations, and in any case such airtight formulations do not, in fact, exist.

Why?

Because there is no clear, unambiguous line between the Capablanca Algorithm and its neighbor to the right (see the Algorithm Drift Chart). The boundary between “Tal” and “Capablanca” has been washed out. The border is one of friendship, not hostility. No customs inspection needed when crossing it!

Our border crossing will be smooth, without interruption and (sooner than it might seem) even unnoticed by you. And if you, dear reader, nevertheless do see some sort of “border post,” you will find no armed guards there. You will see nothing but this innocuous sign: “1 equivalent unit.” And the guideposts:  $\leftarrow$  “Capablanca” and  $\rightarrow$  “Tal”.

The Capablanca Algorithm is, if you will allow me to say so, the Tal Algorithm, but in diluted form. For  $t = 1$ , this “Tal” turns completely into the “Capablanca.” Of course, the concentration of “Tal” in “Capablanca” is at a maximum for  $t = t_{cr} = 1.25$ .

Please note: Soon, we shall have dealings only with the “left-hand Tal” and “right-hand Capablanca.” We occupy a sector of the right-hand portion of the unified spectrum of all chess attacks and defenses. I repeat: we are only interested in the right-hand portion of the spectrum!

When attacking in “Capablanca” style, we attack the unoccupied squares of the chessboard, of small chess value. Their value is less than that of a pawn – that is, less than 1 point.

In a strategic attack, the dominant factor is always the optimal deployment of the pieces, carried out over several moves. These setups are almost always enhanced by pawn moves – the pawns “come up”... The struggle takes place on the opponent’s territory.

As a rule, the three elements of the Capablanca Algorithm are applied in the following order:

- 1) optimal placement of our pieces on squares suitable for a strategic attack on vacant squares;
- 2) pawn advances;
- 3) exchanges.

Short version: in order to play “the Capablanca,” we have to:

- 1) put our pieces on their best squares;
- 2) advance our pawns;
- 3) seek exchanges.

The elements we have just listed require us to do some detailed decoding. We need to fill out the elements of the algorithm with rich content. In this task, Capablanca himself will help us!

Our goal is obvious – to dissect Capablanca’s method for searching for the best move. As we investigate the games of

the third World Champion, we will try to generate proofs of the “algebra” of this method. We will perform our task humbly, with reverence and the greatest zeal...

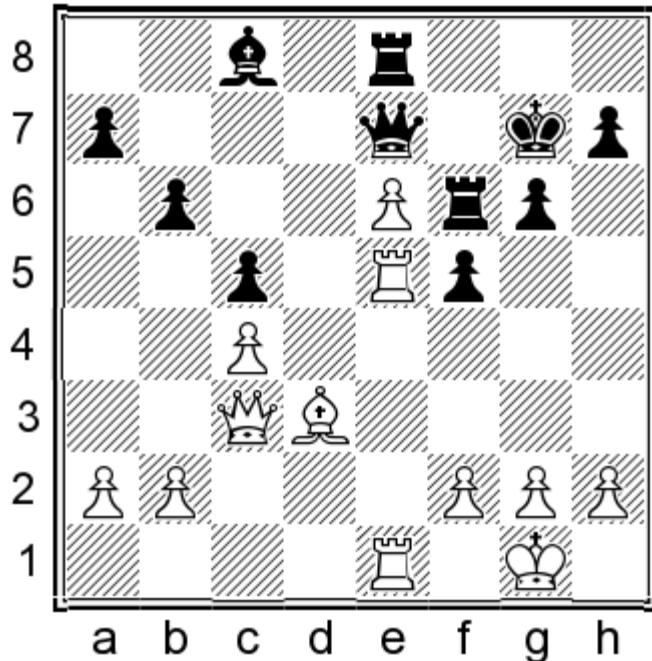
Are you ready?

**In order to play “the Capablanca,” we have to:**

- 1) put our pieces on their best squares;
- 2) advance our pawns;
- 3) seek exchanges.

### No. 11: Capablanca – Blanco

La Habana 1913



Position after 24... ♜c8

White to move: what have we got?

- 1) An extra pawn; that is,  $m > 1$ ;
- 2)  $t = 40/30 = 1.33 > t_{cr} = 1.25$ ;
- 3) approximate equality in safety, as both kings are securely and tightly tucked away, and White’s barely noticeable pressure on the opponent’s kingside (the e6-pawn and the “X-rays” emanating from White’s queen on c3) are fully compensated for by Black’s “extra” rook in the rectangle f1-f7-h7-h1, where both kings are found.

Attention! Two surprises await us in this game. Those are: a)  $m > 1$ ; and b) approximate equality with respect to the third factor of the position. We haven’t had anything like this before (you can check this out). We’ve had examples where  $m < 1$  or  $m = 1$ , and there was (in all the examples) a steady “plus” with respect to king safety.

Since, as we know, when  $m < 1$  the first factor impels us to the “Tal,” then if  $m > 1$  it simply must push us in the opposite direction. It impels us toward the “Petrosian.”

And now, for the third factor. Short and simple: it’s neutral. In this example, it’s equidistant from the algorithms of Tal and Petrosian. It’s neither “plus” nor “minus.” More precisely, its pressure on us to “add up” the algorithm is exactly nonexistent.

Diagnosis: both “Tal” and “Capablanca” at the same time.

Detailed commentary on both the diagnosis and the two aforementioned surprises will come later, in the postscript. I add that a micro-correction to our diagnosis is possible, since at this stage it’s only preliminary.

This multiple diagnosis is the primary reason for our difficulties. These problems are most closely bound up with the choice of attacking targets. As is known, they can be not just the pieces and pawns of our opponent, but also the empty (that is, free of chessmen) squares of the board.

So what can we do? Which objectives do we attack? Empty squares? Material targets?

The answers will come to us from considerations of space!

Say that again?

Yes, from considerations connected to *how closely packed* the white and black pieces are around their respective kings and pawns. In the current position, White’s forces are scattered, sprawling from the a- to the h-files and from the first to the sixth rank. In that  $8 \times 6$  rectangle, there are 48 squares altogether.

Setting aside the white queen, the rooks on e1 and e5, and the light-squared bishop, we are left with the king and seven pawns – eight chessmen in all.

Now let’s do the same thing with the black pieces: set aside the black queen, the rooks on e8 and f6, and the bishop at c8. That leaves king and six pawns, or seven chessmen.

And in what size rectangle? In an  $8 \times 3$  rectangle, bounded by the lines a7-a5-h5-h7, where there are 24 squares.

This means that the density of White’s king-and-pawn position is considerably lower than the density of Black’s:  $8/48 << 7/24$ . Black is more compact.

This means that an immediate attack on material targets is impossible: one cannot break through Black’s defenses with such widely dispersed forces.

White needs patience and time in order to prepare for the inevitable – but, as will be seen later, victorious – tactical battle. He must collect his troops and deploy them optimally. Of course, his pieces stand “poorly.”

How, exactly?

I immediately declare a total mobilization, and then inspect my valiant troops. I call upon the senior and the junior officers of the ivory army. I summon them strictly according to rank.

Of course, I start with the general on g1. He is – as is proper in the order of battle – protected in a secure bunker. In time, I will open an escape hatch to save him from random shots along the first rank.

The queen: No complaints here; she is in the thick of the action. Through the palisade formed by the rooks, the queen gazes steadily at the black king.

Next are the rooks. Unmoving, like glowering bulldogs, they are set to watch the living body at e6. When I give the order for it to perish, at that moment the rooks must show what they’re capable of. They will do their thing along the e-file. No doubt about it: the rooks are well placed.

Now the bishop, the one on d3. The bishop is... an eyesore! He’s not quite a deserter, but in the best of cases an unwilling combatant! He bites on granite at f5. Useless lout! I call out threateningly: “To the front line!”

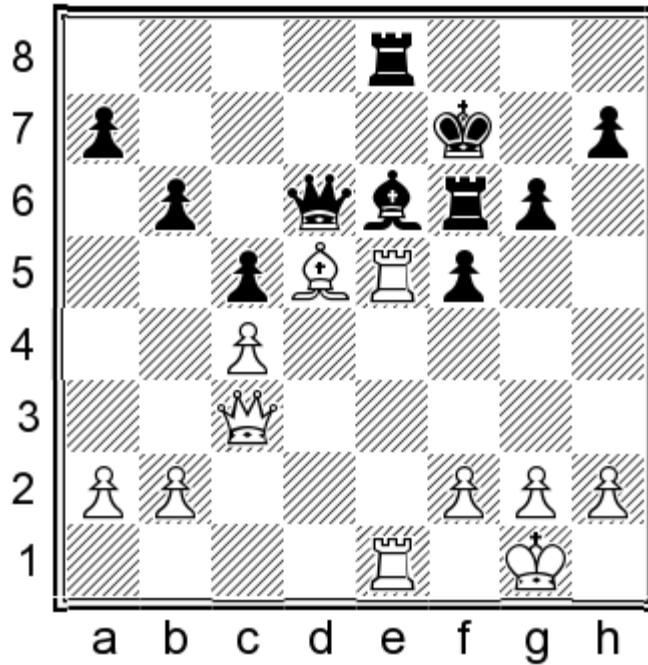
**25.♗e2**

Capablanca redeploys his passive piece so as to aim at d5. However, this was not the only possible decision. 25.♗c2, with the idea of 26.♗a4, doesn’t look bad either.

**25...♝xe6**

Fritz prefers 25... $\mathbb{W}d6$ . But here, too, after 26. $\mathbb{B}d1$   $\mathbb{W}c7$  27. $\mathbb{Q}f3$  it gives a  $\pm$ , that is, a great advantage. One possible line is 27... $\mathbb{B}xe6$  28. $\mathbb{B}ed5$   $\mathbb{B}e8$  29. $\mathbb{B}d6$   $\mathbb{B}ee6$  30. $\mathbb{B}d8 \Delta$  31.g4, with highly dangerous threats.

**26. $\mathbb{Q}f3$   $\mathbb{Q}f7$  27. $\mathbb{Q}d5$   $\mathbb{W}d6$**



In this position, we have  $m = 1$ ,  $t = 44/29 = \sim 1.52 > t_{cr} = 1.25$ , “ $\approx$ ”.

Now let's compare these parameters with those of our starting position.

What do we see? An obvious change in trajectory towards the Tal Algorithm! The changes in “ $m$ ” and “ $t$ ” tilt us that way!

What does Capablanca do?

**28. $\mathbb{W}e3$**

He attacks the newly established target: the enemy bishop. All the more so, in that the black king has vacated the dangerous a1-h8 diagonal.

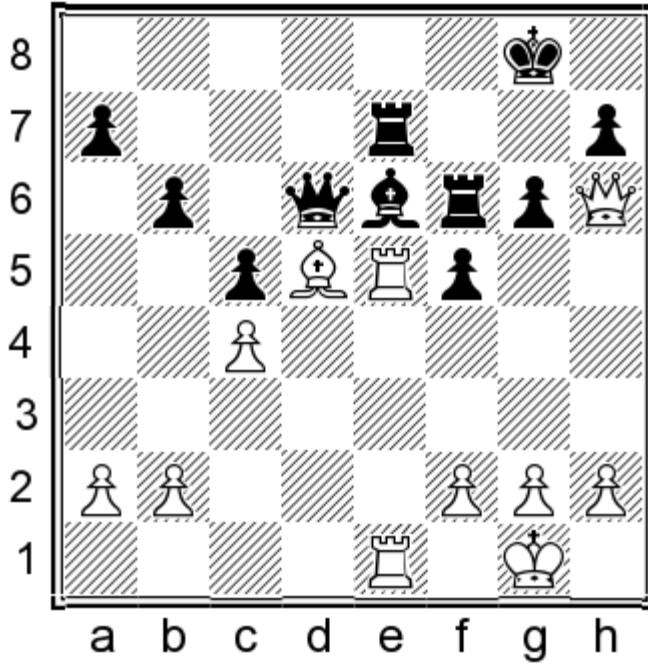
**28... $\mathbb{B}e7$**

What now?

**29. $\mathbb{W}h6$**

Now the target on h7 is under assault!

**29... $\mathbb{Q}g8$**



Here 30.♗g5 or 30.♗e3, hitting the strongest and most accessible targets, would be silly because of 30...♔f7, and because (as the stronger side) we don't want to repeat the position. If White doesn't need a draw, then given that the first part of the strategic algorithm has been accomplished, he must activate the second part!

We coolly establish the fact that, in the position after 29...♔g8, the white king and six pawns stand within the rectangle a1-a4-h4-h1, sized  $8 \times 4 = 32$ . This means that the density of the white position involving king and pawns is  $7/32$ .

What about Black? King and six pawns in the rectangle a5-a8-h8-h5; the area of the rectangle is  $8 \times 4 = 32$  squares. In other words, the density of the black position of king and pawns is  $7/32$ .

$7/32 = 7/32$ .

After 29...♔g8, Black's defense becomes significantly more porous – that is, of limited effectiveness – and the density of the opposing sides is comparable. This means that the aggressor (White) is entitled to a decisive assault.

### 30.h4

In complete accordance with the second part of the strategic algorithm. The whole force of Capablanca's position is aimed at the potential energy of this flank pawn. At the same time (see above), we make an escape square for the king.

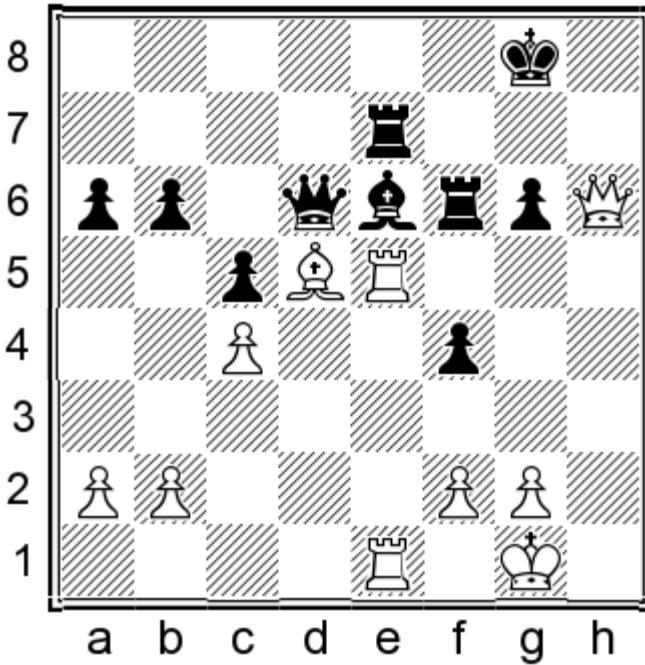
### 30...a6

Black has no defense.

### 31.h5

Is this an open attack on the g6-pawn (the first part of the Tal Algorithm!?), or an “innocent” play for trades (the second and third part of the Capablanca Algorithm)?

### 31...f4 32.hxg6 hxg6



**33.♕xe6**

This dynamic phase of the battle is relatively short. If 33...♕exe6, then 34.♕xe6 ♕xe6 35.♕xg6+, and Black loses a piece.

Black resigned. **1-0**

Note that, in the final position, White's king and five pawns stand within the rectangle a1-a4-g4-g1 ( $7 \times 4 = 28$ ), meaning that the density of White's position, for the king and pawns, is 6/28.

Meanwhile, Black is less compact: his king-and-pawn density is 6/35.

$6/28 > 6/35$ . This is one of the reasons for Black's swift collapse, the reason that flows from "Capablanca."

But there is also a reason based on "Tal." Judge for yourself: in the rectangle f1-f8-h8-h1, where the two kings lie, White enjoys material superiority. Additionally, in the final position the white king is safe, whereas the black king is (pardon the expression) stark naked. And one more problem: of the five vacant squares surrounding the black king, four are controlled by the white queen. Almost total paralysis!

And the last reason before the postscript. Note that in nine moves of the attack, White improved more than just the bishop on d3 to d5. He has also improved the queen, from c3 to h6.

No further comments for now.

**The "Tal" is the opposite of the "Petrosian," and the "Capablanca" is always our golden mean in the spectrum of attack and defense.**

#### *Postscript*

To begin with, our first surprise – the first factor of the position and its parameter, "m." In the starting position, our factor is  $m > 1$ .

*Question:* how does the "m" parameter affect the process for selecting the right search algorithm? I will try to make the answer short and clear.

*Answer:*

- 1) if  $m < 1$ , then we shift to the right – that is, from the Petrosian Algorithm to the Tal Algorithm; in this case, the important thing is for our psychological state to be that of a hungry chess wolf (an elevated level of chess aggressiveness);
- 2) if  $m = 1$ , then we “stand in place,” and our psychological state is neutral (a medium level of aggressiveness);
- 3) if  $m > 1$ , we shift to the left – that is, from the Tal Algorithm to the Petrosian – and our attitude is invariably one of a sated and almost always peaceably inclined guard dog, protecting the home and master (a lowered level of aggressiveness).

Why are we like this?

Short answer: because the “Tal” is the opposite of the “Petrosian,” and because the “Capablanca” is always our golden mean in the spectrum of attack and defense (see the Algorithm Drift Chart).

All these recommendations – even requirements – of the “m” parameter will be considered universal. We will consider that the recommendations and requirements work every time. We will use them in every calculation of the strongest-move algorithm, in every position, *without exception*.

Our second surprise (returning to the starting position above) is the third factor in the position, that of safety. Parity!

Previously, we’d had no cases of parity in this factor. We had ten “Tals” and ten “pluses” in terms of the third factor.

Was this a coincidence?

From here on out, we will operate on the assumption that this was not an accidental, but a logical outcome. In this way, we acknowledge the decisive role of the third factor in the calculation of our algorithm. As of today, a “+” in the safety factor is associated with a strong drift to the right, toward the Tal Algorithm. And the greater the “+”, the stronger the drift!

Of course, if the safety factor is negative, then the situation is reversed. A minus sign (“-”) implies a drift to the left, to the Petrosian Algorithm.

What’s left for the Capablanca Algorithm, then? The answer is pretty obvious – parity in the third factor. “Capablanca” covers situations where neither king is in danger. It is the zero of the safety factor that is encountered between the “+” and the “-”.

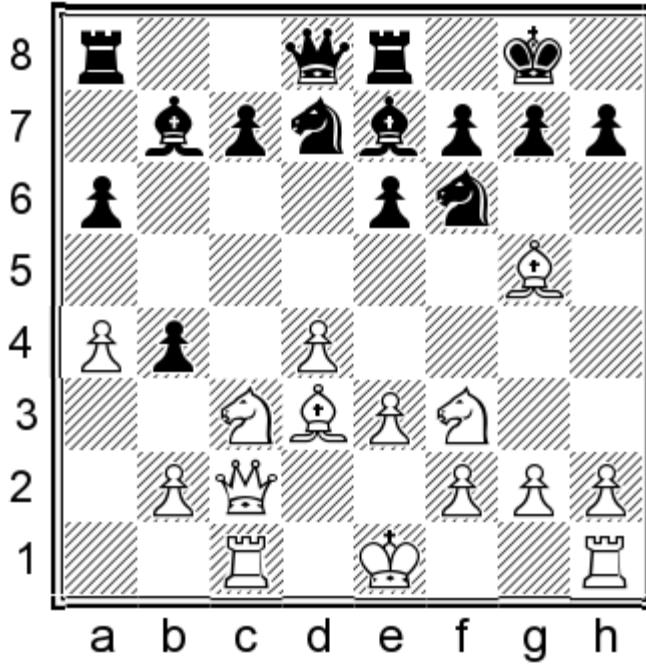
Naturally, all of our assumptions remain just that, for now. But, I have to say, they are very close to the truth.

The safety factor is very fickle. It explodes at the lightest touch, and I ask the reader to treat it delicately.

**A “+” in the safety factor is associated with a strong drift to the right, toward the Tal Algorithm.**

### No. 12: Capablanca – Schroeder

New York 1916



*Position after 12...b4*

We have White. What have we got?

- 1) parity in the first factor of the position, since  $m = 1$ ;
- 2) the Tal Zone, as  $t = 47/34 \approx 1.38$ ;
- 3) approximate parity in the safety factor, since to White ♜'s barely noticeable pressure on the enemy kingside (that pawn on h7!), Black sets up the fact that he has more (albeit inactive) pieces in the d1-d8-f8-f1 rectangle; and besides, the black king, quite obviously, is better protected.

Our diagnosis is “Tal.” The factor of chess time speaks in favor of this, while the material factor is completely neutral and probably so is the third (safety) factor.

We launch our search for the strongest move by immediately involving all four elements of the Tal Algorithm, already known to us. And then, without delay, we start looking for appropriate targets to attack. For this we need an entire chess scale... haven't we gone through that already?

What does Capablanca do?

**13.♘xf6**

Capablanca trades bishop for knight. Why?

In order to launch open and direct attacks on the targets at c7 and h7 (see White's next move).

Let me add that there is also a strategic underpinning to this move. To be more clear: White stands a little more compactly. This means that exchanges will definitely favor him. Why?

Because the fewer pieces on the board, the more difficult it will be for the weaker side (Black here) to protect all of his weaknesses.

How did the game go?

**13...♝xf6 14.♝e4**

Capablanca offers a trade on e4 (the more trades, the better for him). In other words, Capablanca plays “according to

Capablanca.” Strategically flawless play!

On the other hand, Capablanca is also playing “like Tal.” He is playing in a most crude manner, attacking both the c7-pawn (a one-move threat) and the h7-pawn (a two-move threat).

Algorithmic harmony!

**14...♝xe4 15.♝xe4 ♜xe4**

Or 15...b3 16.♝xh7+ ♔h8 17.♝d3 g6 18.♝xg6 fxg6 19.♝xg6, with an attack (see *José Raúl Capablanca*, vol. 1, 1997, edited by S. Solovyov). True, *Rybka* still holds the position together somehow after 19...♜d6 20.♝g5 ♜e7, as well as after 19...♜b4+ 20.♔e2 ♜e7.

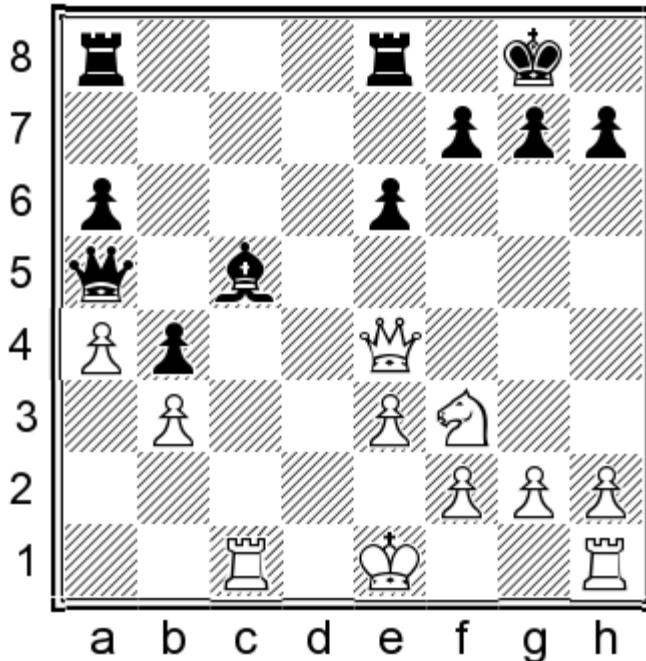
**16.♝xe4**

Now White intends to get a rook to the empty spot c6. Such play is called “playing in the gaps.”

**16...c5**

Practically forced.

**17.dxc5 ♜a5 18.b3 ♜xc5**



Black has avoided any unpleasantness on the c-file, but he’s jumped from the frying pan into the fire!

**19.♞g5**

A typical, or, if you will allow me, a “100% Tal” in Capablanca’s hands. The king’s wing is weakened, and there, following the line of least resistance, is where the stronger side is sending his streams of fresh energy. I add that here we are simply obligated to play “in Tal style,” if we want to play as strongly as possible.

Why?

Because, within the f1-f8-h8-h1 rectangle, the black king faces White’s “extra” knight and rook. Besides, for now, no one has succeeded in removing the white queen’s fundamental pressure against the h7-pawn. And this pawn is located

in the immediate vicinity of the black king!

## 19...h6

An error – which Capablanca fails to exploit. Black had to reply 19...g6, when there is probably no win for White. 20.♘f3, 20.♗f4, and 20.♗h4 are all tempting. Everywhere we get variations, variations, variations...

Analyze the position after 19...g6 on your own. And, this time, do use a computer!

## 20.♗h7+

No objections to this move.

## 20...♝f8 21.♗h8+

But this is a mistake.

A three-jump series by the tireless knight is the way to win (or almost win): 21.♘e4 ♜b6 22.♘d6 ♜eb8 23.♘c8 (pointed out by Solovyov and seconded by *Fritz*). See for yourself! Before doing anything else, test Black's defenses after 22...♜ed8 23.♘b7 ♜d5.

## 21...♝e7 22.♗xg7 hxg5 23.♗xg5+ ♜d6

The forcing play is over, and White must busy himself with the proper positioning of his still inactive pieces. Point 1 of the strategic (?!?) algorithm of the search for the strongest move? Or is it still “Tal”?

Answer: both “Tal” and “Capablanca” at the same time!

## 24.♖e2

Capablanca improves his king. The purpose is clear: White intends also to bring up the rook from h1 to c4.

By improving the king, Capablanca substantially improves the mobility of his pieces (the king and the rooks). But the chief reason it's an improvement has nothing to do with dynamic considerations. It has to do with a static element: with the text move, White sharply increases his *compactness* (how densely packed together the king and pawns are), from 7/32 to 7/24. Check it out!

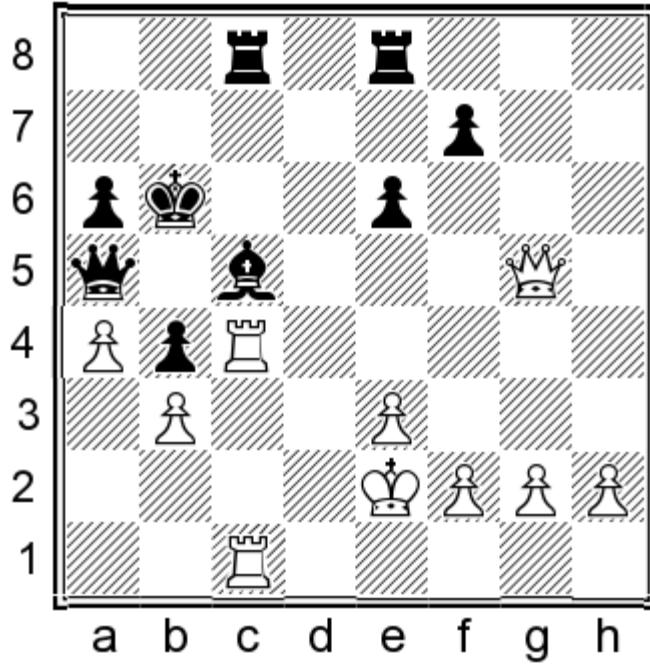
## 24...♜ac8

Computer programs look very favorably on this move. But they are no less favorable to 24...♝c6. A rough variation goes 25.♗f4 ♜a7 26.h4 f5 27.h5, with a clear edge.

## 25.♖c4 ♜c6

But this king move is most likely unfortunate. *Rybka* thinks 25...♜c7 is better, and if 26.h4, then 26...♝d7, skipping off to e8. A rook move, 26.♖hc1, may be even stronger than pushing the h-pawn: White is better in all variations.

## 26.♖hc1 ♜b6



**27.h4**

All of the white pieces are placed ideally. That's "One." "Two" is the pawn advance!

**27...f5**

"I expected the reply 27... $\mathbb{B}c7$  and had readied the following variation: 28.h5  $\mathbb{B}ec8$  29.h6  $\mathbb{Q}d6$  30. $\mathbb{W}xa5+$   $\mathbb{Q}xa5$  31. $\mathbb{B}xc7$   $\mathbb{B}xc7$  (31... $\mathbb{Q}xc7$  32. $\mathbb{B}c6$ ) 32. $\mathbb{B}xc7$   $\mathbb{Q}xc7$  (Black comes out of the fight with a material advantage, but his king is on the queenside, while the outcome must take place on the kingside. And in endgames, when almost no pieces remain on the board, except for the pawns, the king's absence from the focus of the struggle is usually fatal. White must strive to queen his pawn before Black's king can get over.) 33.f4  $\mathbb{Q}d8$  34.g4  $\mathbb{Q}f6$  35.g5  $\mathbb{Q}h8$  36.e4  $\mathbb{Q}b6$  37.f5 exf5 38.exf5  $\mathbb{Q}c5$  39.g6 fxg6 40.fxg6, and Black has no defense against 41.g7" (Capablanca).

Your task is to find the win after 34... $\mathbb{Q}e7$  (which does exist and is not too complicated). This move is stronger than moving the bishop to f6.

One more task: wouldn't it be simpler to play the "Tal-like" 32.h7 (instead of 32. $\mathbb{B}xc7$ )?

**28. $\mathbb{W}g7$**

Headed for the best square for the queen – e5!

**28... $\mathbb{B}e7$  29. $\mathbb{W}e5$   $\mathbb{B}c6$**

A forgivable blunder in a hopeless position.

**30. $\mathbb{B}xc5$**

Black resigned. **1-0**

*Postscript*

*Question:* in the starting position, why was White more compact?

Because  $8/32 > 8/40$ .

Here, 8 and 8 are the number of white and the number of black chessmen (king + pawns). And the numbers 32 and 40 are the sizes of the respective “minimal” rectangles – that is, the smallest rectangles including all the chessmen: a1-a4-h4-h1 and a8-a4-h4-h8.

$\Delta k = (8/32) - (8/40) > 0$ . This is (attention: a definition!) *the fourth parameter of the position* we have under study. More specifically, this is the measure of our superiority over our opponent in the *compactness factor*. And this factor answers to one of the two facets of the space factor.

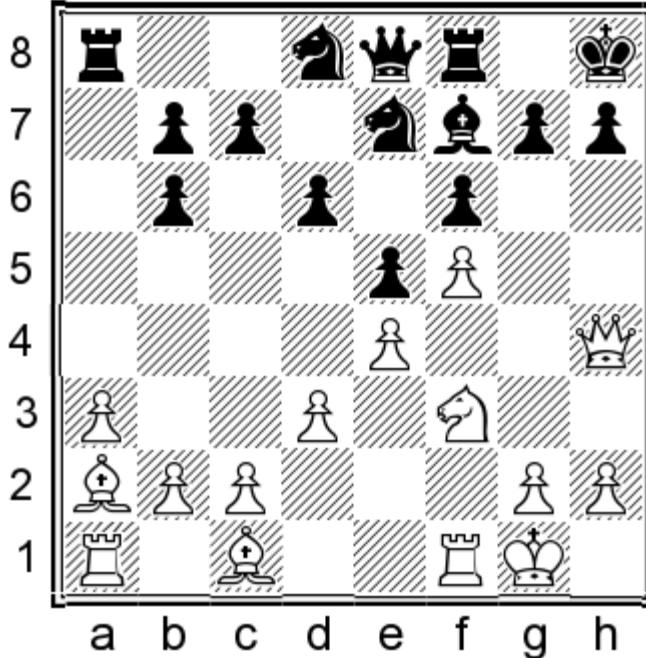
*The Fourth Parameter:* ( $\Delta k$ ), or the measure of one side’s superiority over the other in the factor of *compactness*.

The compactness factor is fundamental and universal. It is one of the most important and fateful factors. It’s especially important wherever “Capablanca” operates!

One more thing: the greater the  $\Delta k$ , the better for us, since a high level of compactness in a position is a true guarantee of its safety. And the reverse is also true...

### No. 13: Capablanca – Molina y Ruiz

Buenos Aires 1914



Position after 16... ♜f7

We’re playing White, and we have:

- 1) material equality – that is, parity in the first factor of the position;
- 2) some advantage in the time factor:  $t = 42/37$  or  $\sim 1.14$ ;
- 3) some superiority in the safety factor – White has an “extra” queen on the kingside, which presses gently on the h7-pawn standing right next to the black king;

Our verdict: the position in the diagram requires the “Tal” and the “Capablanca” simultaneously. Why?

Because the third factor forces us to move it to the right, out of the Capablanca Safety Zone ( $t = 1.14$ ) in the direction of the larger values of the “t” parameter. We have gotten closer to the “Tal”!

Very important: our verdict is not final, but preliminary. It will be refined in the final stage of the postscript. We will refine it and re-examine it in the direction of the Capablanca Algorithm. Why?

Because, in these “preliminary hearings,” we will ignore the opinion of the fourth and (new factor alert) fifth factors in the chess position...

### 17.c4

A paradoxical move which confounds the Cuban genius’s many fans. It overturns false values, it is stunning. This move is possible only because White has a clear space advantage (that pawn on f5!). Black is suffocating: he suffers from a serious lack of suitable squares for his shiftless pieces. This is why it’s good for Capablanca to refrain from trading bishops.

And now, let’s run some numbers. We set this position a single question: what sort of  $\Delta k$  do we have?

#### The Fourth Parameter: ( $\Delta k$ ), or the measure of one side’s superiority over the other in the factor of compactness.

Answer:  $\Delta k < 0$ , because  $9/40 < 9/28$ !

Here, 9 and 9 are the respective numbers of the white and the black pieces (king + pawns), while 40 and 28 refer to the sizes of the rectangles a1-a5-h5-h1 and b8-b5-h5-h8.

Black is more compact. The denseness of packing of his king and pawns is greater than ours. This means that exchanges would favor Black. We have already been over this – see the previous game. There, in his game against Schroeder, Capablanca was the more compact one, and he strove openly for numerous exchanges. Here the opposite is the case.

### 17...c5

Better is 17...b5 (Capablanca).

### 18.g4

White exploits his opponent’s hesitation (failing to play 17...b5) at once and in exemplary fashion. A target – the f6-pawn (see move 20) – is attacked.

### 18... $\mathbb{Q}g8$ 19. $\mathbb{Q}d2$ b5 20.g5

One pawn move is answered by another. Symmetry! Among other things, he threatens the crushing 21.g6+. Capablanca playing in “Tal” style? Yes!

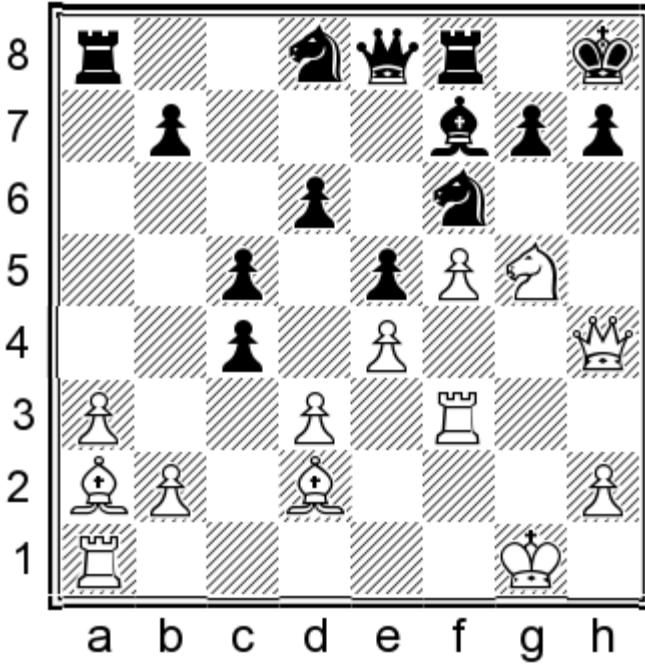
Why? Calculate the mobility of the white and black pieces following 19...b5. White has moved into the Tal Zone on the proper basis. Woe unto him who is weak!

### 20...fxg5 21. $\mathbb{Q}xg5$ $\mathbb{Q}f6$ 22. $\mathbb{Q}f3$

As we know, the sources of excess energy of a chess attack spread themselves according to value:  $\mathbb{Q}$ ,  $\mathbb{W}$ ,  $\mathbb{B}$ ,  $\mathbb{N}$  or  $\mathbb{K}$ ,  $\mathbb{A}$ , and empty square (or squares). Next in the order of attack is the h7-pawn, which covers the black king.

### 22...bxc4

If 22... $\mathbb{Q}h5$  (Fritz’s first line), then 23. $\mathbb{Q}g3$  h6 24.cxb5, with advantage to White, is very possible – the g5-knight is “poisoned.” Prove it!



**23.♘xh7**

Sacrifice is one of the elements of the “Tal”-style attack.

**23...♗xh7 24.♖h3 ♗g8 25.♗xc4**

We attack the bishop, thereby attacking the king: White threatens 26.♗xg8 and 27.♔xh7#.

**25...♗f7**

“Incontrovertibly, the move 25...♗f7 looks better. Nevertheless, White could continue with either 26.♔h1 and then 27.♕g1, or 26.f6! g5 27.♔h5 ♗d8 28.♔h6! ♘f7 29.♗xg5 ♘f8 30.♔h1! ♔xh6 31.♗xh6 ♘xf6 (31...♗xf6 32.♕g1) 32.♕g1, winning by a rapid assault” (Capablanca).

The computer brings a correction to this analysis. It goes more or less like this: 25...♗f7 26.f6 g5 27.♔h5 ♗d8 28.♗xg5 (instead of Capablanca’s line) 28...♗f7 29.♗xf7 ♘xf7 30.♗f1 ♗e6 31.♔h4 (Δ ♔h6, ♘g3+-) 31...♗d8 32.♔h6 ♘d7 33.♔h1+- (*Fritz*).

The task now is to check *Fritz*. And if necessary, to extend its analysis!

**26.♔h1**

Preparing to move the inactive rook into the attack.

**26...b5**

If 26...d5 27.♗xd5 ♘d7 (pointed out by *Fritz*), then 28.♗c4 and White must win.

**27.♗d5**

27.♗xf7 is even stronger. After 27...♗xf7 (27...♗xf7 28.f6 g5 29.♗xg5+-) 28.♗g5 ♗c6 29.f6, Black is helpless.

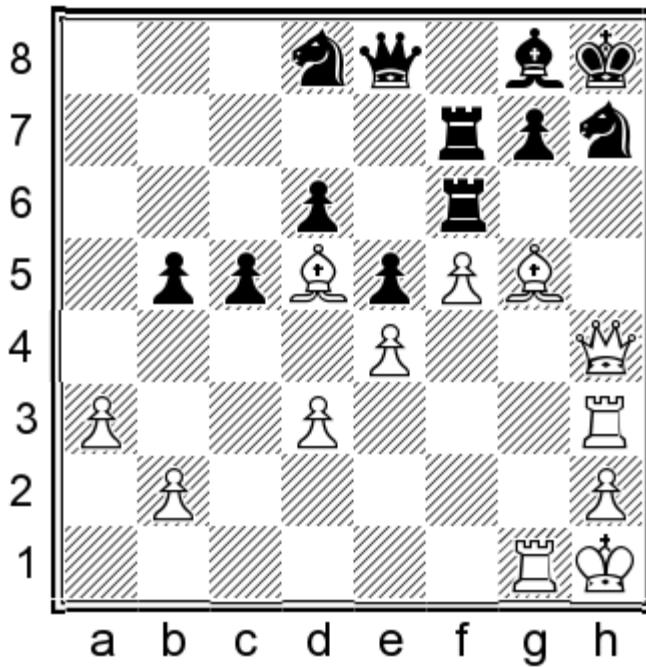
**27...♘aa7 28.♖g1 ♘f6**

A bad move in a most difficult position – now White has many roads to victory. As a basic analysis shows, on 28... $\mathbb{E}fd7$  too, 29. $\mathbb{E}g4$  (threatening 30. $\mathbb{W}xh7+!$ ) wins. However, after 28... $\mathbb{Q}c6$  29. $\mathbb{E}g5$   $\mathbb{Q}d4$  30.f6 g6, Black at least isn't losing right away. 28... $\mathbb{Q}c6$  may be Black's only chance (this was pointed out by *Fritz 11*).

## 29. $\mathbb{E}g5$

White's last piece has occupied an ideal attacking stance. This means that Capablanca, while attacking in "Tal" style, still heeds the strategic algorithm. Capablanca plays in the style of "Capablanca"!

## 29... $\mathbb{E}af7$



## 30.b3

Point 2 of the strategic algorithm in action. Capa advances this pawn in order to secure the a-pawn's march to the queening square. In other words, playing strategically, Capablanca first of all considers how to improve his position. He doesn't look for concrete, forcing solutions till his position has been improved to the utmost.

What is allowed to the gods is denied to mere mortals. But we are permitted a method which has already worked quite well.

In the diagram position,  $m < 1$ ;  $t = 39/21 = \sim 1.86$ , which is  $>> t_{cr} = 1.25$ ; a large "+" in the safety factor; and unquestionably "Tal," "Tal," and again, "Tal"!

The first three lines on the *Fritz* screen are 30. $\mathbb{Q}xf6$ , 30. $\mathbb{E}hg3$ , and 30. $\mathbb{Q}xf7$  – all three are rated "+-".

One absolutely crushing variation: 30. $\mathbb{Q}xf6$   $\mathbb{E}xf6$  31. $\mathbb{E}hg3$   $\mathbb{W}f8$  32. $\mathbb{E}xg7$   $\mathbb{W}xg7$  33. $\mathbb{E}xg6$ , etc. Examine it on your own.

It's truly surprising (isn't it miraculous?) that, while improving his position, Capablanca doesn't let the win slip even for a minute. Clearly he is in no rush, and Caissa (the goddess of chess) will bless him for it!

## 30... $\mathbb{W}f8$ 31.a4

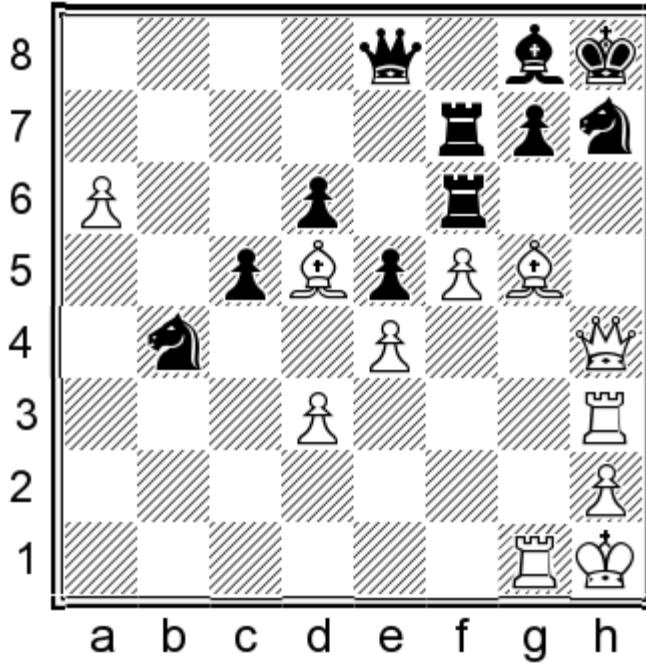
Point 2 and point 3 of the strategic algorithm. In a single move!

31...bxa4 32.bxa4 ♜e8 33.a5 ♛c6 34.a6

This is the limit.

34...♝b4

Capablanca first of all considers how to improve his position. He doesn't look for concrete, forcing solutions till his position has been improved to the utmost.



We set the dynamics in motion.

35.♝xf6

The fourth element of the Tal Algorithm.

35...♝xd5 36.♝xg7+

And this check – open attack on the king – is the first element.

36...♜xg7 37.♜xg7 ♔xg7 38.♚h6+ (open attack) 38...♝h8 39.♛xd6

and **Black resigned** soon thereafter. A curious finish would be 39...♝f4 40.♛f6#.

This afterward to the game I begin with a very important definition. We must define the fifth and last of our factors of the chess position. This is the *factor of spatial expansion*. This factor and its corresponding parameter define the degree of “enhancement” or improvement in the position.

*The Fifth Parameter:  $\Delta$ (move), or the factor of spatial expansion.*

We will assign each of the opponent’s pieces (see the diagram above after 34...♝b4) a whole number, equal to the number of the rank on which the given piece stands.

For example, we assign the white king the number 1, since it stands on the first rank. The same number, 1, is assigned to the white rook on g1. The h2-pawn gets a 2, and so on, right up to the “elevated” pawn at a6, which gets a 6.

We add these together ( $1 + 1 + 2 + \dots + 6$ ) and then count the number of white chessmen. We get 39 and 11. The number 39/11 will establish for us the white position's center of gravity. An important preliminary result!

And what about Black? Let's tally it up: 1 (starting from the eighth rank) + 1 + 1 + ... + 5, and then we calculate the total number of chessmen. That comes to 28 and 11, meaning that the black position's center of gravity corresponds to 28/11. An equally important preliminary result!

Now we calculate the arithmetical difference between the numbers that define the center of gravity of the white and black armies. We denote this value as follows:  $\Delta(34\diamond b4)$ . Important: subtract the opponent's number from the number for the player whose turn it is to move. In this case, this works out to  $39/11 - 28/11 = 11/11 = 1.00$ .

Or, in short,  $\Delta(34\diamond b4) = 1.00$ .

We calculate this parameter precisely to two decimal places; the parameter itself will be indicated by the symbol “ $\Delta(\text{move})$ ”.

The parameter  $\Delta(\text{move})$  is the fifth and last of the parameters of a chess position. It represents the amount of “improvement” in the position in terms of space. It is an objective measurement of this expansion – of increased chess space.

### The Fifth Parameter: $\Delta(\text{move})$ , or the expansion factor.

The factors of expansion and of compactness are the two aspects of the dual-natured space factor;  $\Delta k$  and  $\Delta(\text{move})$  complement each other.

Now for a few words about how these two parameters influence the process of selecting the search algorithm (see the Algorithm Drift Chart in Chapter 6):

- a) when  $\Delta k > 0$ , we drift to the right;
- b) when  $\Delta k < 0$ , we drift to the left;
- c) when  $\Delta(\text{move}) > 0$ , we drift to the left;
- d) when  $\Delta(\text{move}) < 0$ , we drift to the right.

Naturally, if  $\Delta k = 0$  or  $\Delta(\text{move}) = 0$ , then we stay put.

*Question:* if  $\Delta k > 0$ , why do we drift to the right – that is, from the Petrosian Algorithm towards the Tal Algorithm? To put it another way: if  $\Delta k > 0$  (if we are more compact), why should it be good for us to play more aggressively?

I have already answered these questions – at least in part – in the notes to Capablanca's moves 13 and 14 in the Schroeder game. Now I elaborate on those considerations and make a general observation.

The more  $\Delta k > 0$  (that is, the more compact we are), the more our position resembles a coiled spring. Set it loose, and it will jump open with great force! This “spring” is ready to hit the enemy hard at any moment. It is clearly working in “Tal” style!

Nature abhors a vacuum. The spring will keep uncoiling until it meets sufficient resistance. Or: space expansion in chess stops only when the compactness of White's position equals that of Black's. Expansion is halted when the force of action is equal to the strength of the reaction: Newton's Third Law!

This is all true, but under one obligatory condition: when parity exists in all of the other four parameters of the chess position!

Naturally, when  $\Delta k < 0$  our reasoning works in the opposite direction. In other words, in this case the parameter  $\Delta k$  impels us, not toward “Tal,” but toward “Petrosian.” Symmetry!

Next step: the fifth parameter. Why, if  $\Delta(\text{move}) > 0$ , do we drift leftward – that is, from the Tal Algorithm to the Petrosian Algorithm?

The answer must be sought in the peculiarities of the very nature of the pawns. These genuinely most amazing chessmen can, in the course of the game, turn into other pieces – of greater value.

As they improve their position, pawns get uniformly “heavier” – their potential energy increases. They rise in accordance with their interaction with the approaching promotion squares on the eighth (or first) rank. And of course, the further the pawn is “improved,” the greater the  $\Delta(\text{move})$  of the position – that is, the more  $\Delta(\text{move})$ , the “heavier” the position grows. The parameter  $\Delta(\text{move})$  is, to some extent, equivalent to the “m” parameter!

This is why, if  $\Delta(\text{move}) > 0$ , we drift towards the Petrosian Algorithm. In fact, we have something to lose here. Which means that we also have something to defend.

Of course, looking at it from the highest considerations of symmetry, we may confidently observe that, when  $\Delta(\text{move}) < 0$ , the parameter  $\Delta(\text{move})$  works in the direction, not of “Petrosian,” but of “Tal.” We drift rightward, we attack. Naturally, we only attack where the other parameters of the position allow it...

Concluding the afterword to this remarkable game, we return to its “sources” – see the starting position. We refine our “verdict”...

What do we have?  $\Delta k < 0$  and  $\Delta(16 \dots \mathbb{Q}f7) = 0.40 > 0$ . Verify this!

Have you verified it?

The fourth and fifth parameters of our position make us re-examine our preliminary verdict. We must soften it somewhat: not “Tal” and “Petrosian” simultaneously, but the right-sided “Capablanca,” standing off to the side, as the fourth and fifth parameters nudge it leftward.

This is why Capablanca was obliged to play the “Capablanca.” And why he pushed the c-pawn...

As we saw, Capablanca, on the attack in the game with Molina, kept “elevating” his position. The idea of space expansion is perhaps one of the dominant elements of his genius, the other one being the idea of compactness.

We strive for error-free play in all possible chess positions, without exception. Our goal is unattainable, yet there is an eternal desire to reach it.

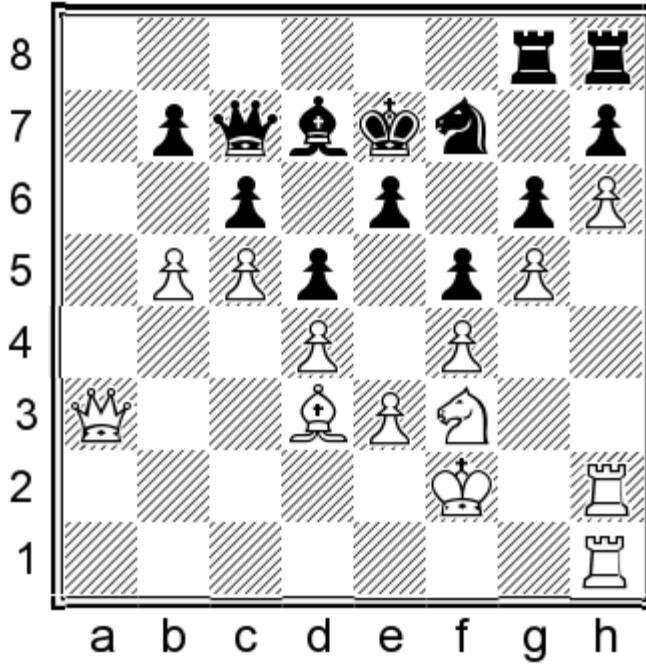
Our ultimate objective is to have a universal method for seeking the strongest chess move in all possible positions. The goal is unique – more accurately, triply unique, its facets being the fundamental algorithms of Tal, Capablanca, and Petrosian.

In the here and now, our concrete goal is the next game by Capablanca.

Ready?

#### No. 14: Capablanca – Treybal

Karlsbad 1929



*Position after 38... ♔e7*

We have White, and we have:

- 1) parity in the first factor of the position, which is:  $m = 1$ ;
- 2) a considerable advantage in the factor of chess time:  $t = 44/28 = \sim 1.57 > t_{cr} = 1.25$ ;
- 3) a small but stable “plus” in the third factor of the position, as every single one of the enemy pieces is paralyzed either partially or completely (including the poor king on e7).

Our diagnosis is unanimous: “Tal.”

However, in our “Tal” we cannot fail but to notice one very uncomfortable peculiarity of the position: we are very much behind our opponent in terms of compactness. This means that there is no chance to break immediately into Black’s camp. The attack must be prepared carefully.

### 39.b6

One alternative to the text is 39.♕a1  $\Delta$  ♜hh1, ♜hb1, ♜a7, bxc6+- . And if 39...♜a8, then 40.♝xa8 ♜xa8 41.♝xa8 ( $\Delta$  42.b6+-) 41...cxb5 42.♝g8  $\Delta$  ♜g7, ♜xh7+- (see *José Raúl Capablanca*, vol. 2, 1997, ed. by S. Solovyov).

39.b6 is a “Tal” move: open attack on the queen!

39.♕a1 would also be a “Tal” move. But at the same time it’s also a “Capablanca” move! How?

Because the second point of the Tal Algorithm corresponds to the first point of the Capablanca Algorithm.

Either one wins. Capablanca chose the more beautiful solution!

### 39... ♜b8 40.♕a1

Going after the target on b7!

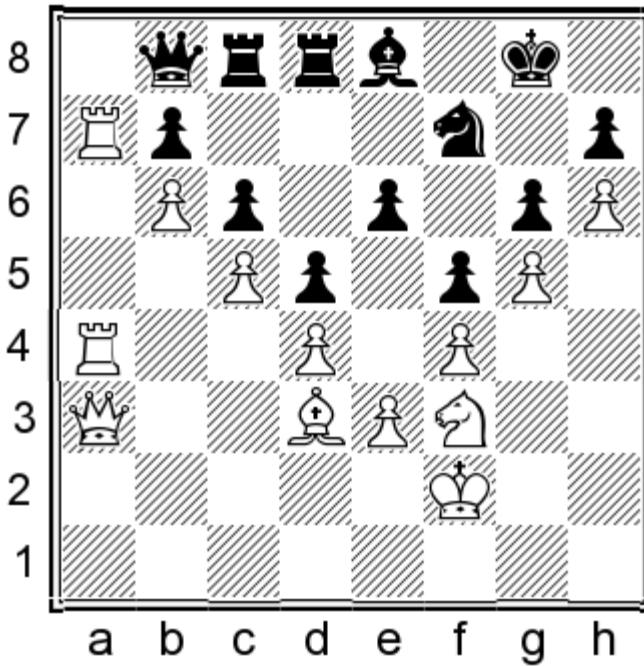
### 40... ♜c8 41.♕b4 ♜hd8

All Black can do now is to sit and wait.

**42.♖a7 ♖f8 43.♖h1**

White intends to post a rook on a4 and the queen behind it, completely paralyzing all of the black pieces and threatening ♖a8.

**43...♗e8 44.♖ha1 ♖g8 45.♖1a4 ♖f8 46.♖a3 ♖g8**



**47.♘g3**

Before bringing his knight to a5 (via ♘f3-d2-b3-a5), Capablanca gives his king a good post. The place for the king is on c3 or g2, as necessary prophylaxis against ...♗f7xg5 and ...♗b8-h2. But why rush?

Capablanca is enjoying his position. In his fascination, he temporarily “forgets” about winning the game by maneuvering his knight to a5. It is notable that, having set the “autopilot,” Capablanca automatically sends his king in the direction of his pawn promotion and increases his Δ(move).

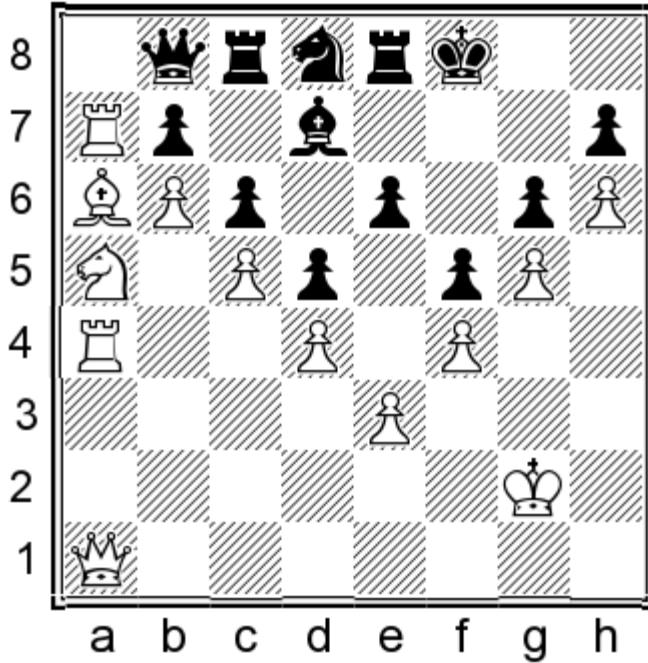
**47...♗d7 48.♘h4 ♗h8 49.♖a1 ♖g8 50.♘g3 ♖f8 51.♘g2 ♗e8**

Or 51...♗e7 52.♘d2, etc. A possible variation: 52...♖g8 53.♘b3 ♖cf8 54.♘a5 ♖d8 55.♖f1 ♖h8 56.♘a6 bxa6 57.♖xa6 Δ58.♖a8+- (noted by Rybka).

**52.♘d2**

The decisive maneuver.

**52...♗d7 53.♘b3 ♖e8 54.♘a5 ♖d8 55.♘a6**



There followed

**55...bxa6 56.Qxd7 Qe7 57.Qxd8+ Qxd8 58.Qxc6**

and Black capitulated. **1-0**

Now for an afterword. The parameters of the position after 55.Qa6 (see diagram):  $m = 1$ ,  $t = 36/13 = \sim 2.77$ , “=”,  $\Delta k < 0$ ,  $\Delta(55.Qa6) = 58/13 - 28/13 = 30/13 = \sim 2.31$ .

The diagram position was a pre-Zugzwang position. The mobility of the black pieces was 13.

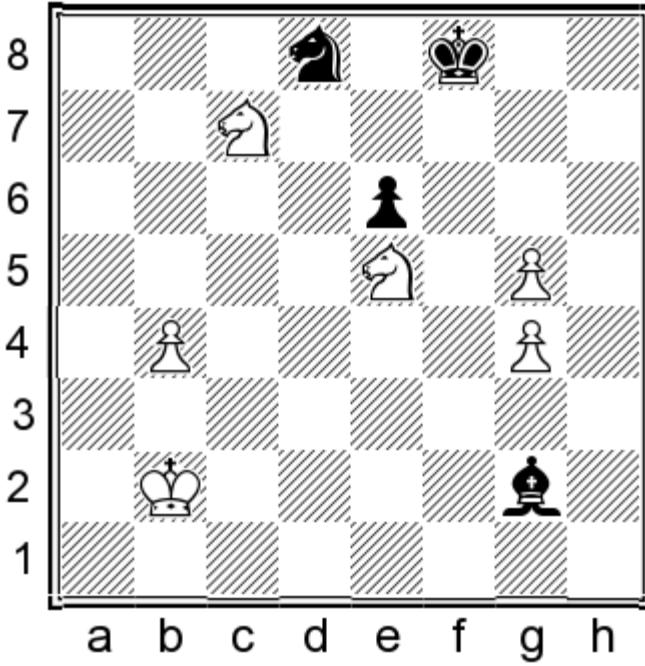
Clear signs of impending catastrophe were the huge values of the parameters “t” and  $\Delta(\text{move})$ .

And lastly – personal and highly subjective – I’d prefer the king to be, not on g2, but on, say, f3 or d3. Why?

If, after 55.Qa6 in the Treybal game,  $\Delta(55.Qa6)$  reached the gigantic size of 2.31, then what would you say to  $\Delta(\text{move})$  in the final position of the following game?

### No. 15: Capablanca – Yates

New York 1924



*Position after 69... ♔xd8*

It's our move, and we have:

- 1) two extra pawns – that is,  $m > 1$ ;
- 2) it's in the Tal Zone, since  $t = 23/15 = \sim 1.53 > t_{cr} = 1.25$ ;
- 3) a micro-advantage in the safety factor: the black king is somewhat immobile, but we have a very hard time exploiting his predicament – we're deep into the endgame.

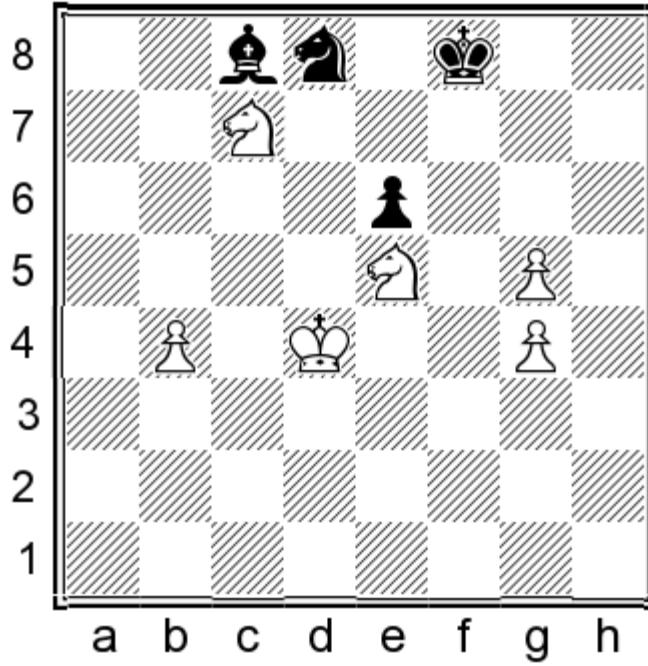
The verdict is unanimous: this position requires the Tal Algorithm.

It is obvious, however, that this “Tal” is not a “100% Tal”: there won't be any genuine fireworks, because there's little material left on the board. And we are still behind our opponent in compactness:  $4/24 \ll 2/6$ . Check it out!

Because our  $\Delta k \ll 0$ , the fourth factor of this position impels us to the “Capablanca.” The same happens with the first factor ( $m > 1$ ). And finally, we are drawn away from the Tal Algorithm to the Capablanca Algorithm by the position itself: our  $\Delta(69... ♔d8) > 0$ .

What does Capablanca do? He increases his already large  $\Delta(\text{move})$ .

**70.♔c3 ♕b7 71.♔d4 ♕c8**



Now we have  $m > 1$ ,  $t = 21/9 = \sim 2.33$ , a “micro-plus” in the third factor,  $\Delta k = 4/12 - 2/6 = 0$ ,  $\Delta(7\dots \ddot{\text{Q}}c8) = 29/6 - 6/4 = \sim 3.33$ .

Compare these parameters with those of the position after 69... ♜d8. Clear progress in the second, fourth, and fifth factors!

Our final diagnosis of the position after 71... ♜c8: the Tal Algorithm.

Note that White has achieved parity in the fourth factor. By “elevating” the king, located at the very rear of his battle column, White has changed his formerly porous position to an esthetically more attractive one.

## 72.g6

Signaling an attack on the king. I add that an attack on Material Target No. 1 is combined, for Capablanca, with his space expansion, which doesn’t let up for a second. And here the expansion is dominant, it is a goal. The mating attack is merely a sideshow to the expansion!

**72... ♜b7 73. ♜e8**

Preparing to check with the g-pawn and restricting the enemy knight’s mobility; now the d6 square is *verboten*.

**73... ♜d8 74.b5**

Depriving Black of c6 for the knight and a6 for the bishop. Capablanca plays for restriction?! Yes or no?

Interpret this, dear reader, any way you wish! What we see here is no struggle. It’s agony for Black. He is choking, two or three steps from total paralysis.

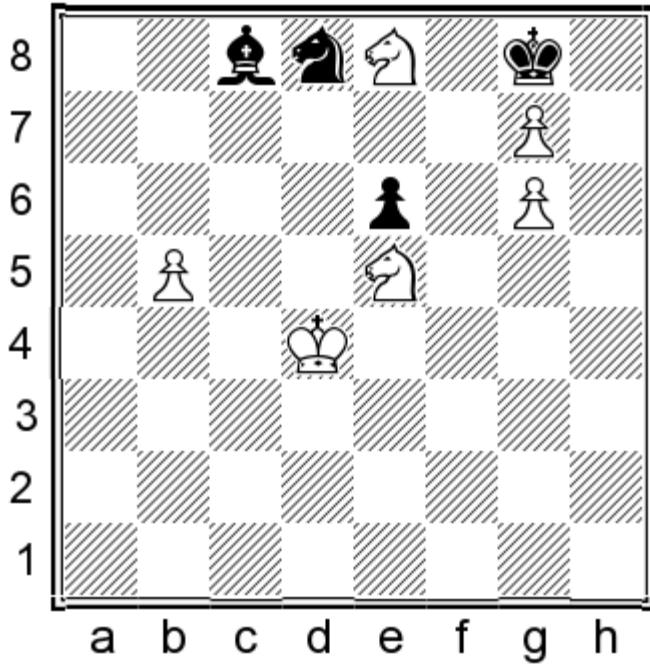
**74... ♜g8 75.g5**

Capablanca is in no rush.

**75... ♜f8 76.g7+**

Check to the king is an open attack on the most valuable target.

76... $\mathbb{Q}g8$  77.g6



Black resigned. 1-0

On any bishop move, there follow 78. $\mathbb{Q}d7$  and (after the spite check 78...e5+) 79. $\mathbb{Q}c3$  or 79. $\mathbb{Q}e3$ , concluding with 80. $\mathbb{Q}df6\#$ . On any knight move, White mates with 79. $\mathbb{Q}c6$  (for example). Total collapse!

The parameters of the final position are interesting:  $m > 1$ ,  $t = 17/6 \approx 2.83$ , the black king is caught in a mating net and mate is unavoidable,  $\Delta k = 4/24 - 2/9 < 0$ , and (note!)  $\Delta(77.g6) = 35/6 - 6/4 \approx 4.33!!$

I draw your attention to the fact that, starting with 70. $\mathbb{Q}c3$ , every one of White's moves is a forward move. Totally forward. Total expansion!

It is possible that, in the final position, it would have been more perfect, esthetically speaking, had the white king been on d6 instead of d4. The reason is understandable: compactness!

On to a review of our initial exposure to the Capablanca Algorithm. We must give an accounting of our preliminary work through the three directions of "advance" in this algorithm.

These three directions I indicated at the end of the previous chapter. Back then we promised:

- 1) to complete a gentle transition from the Tal Algorithm to the Capablanca Algorithm – converting the four elements of the Tal Algorithm into the three elements of the Capablanca Algorithm;
- 2) to concentrate on the attack on empty squares in the "Capablanca" – that is, on the attack on squares with a chess value less than that of a pawn;
- 3) to supplement the first three factors of the chess position with a fourth and a fifth one.

I can state with confidence that we have fully "completed," "concentrated," and then "supplemented" the model. We have made our acquaintance of the fourth and the fifth factors of a chess position. Without them, the Capablanca Algorithm would simply not have come into being. These two factors are fundamental!

*The first direction.* We have gently, almost without realizing it, sailed from the Tal Zone into the Capablanca Safety Zone. We have confidently entered the right-hand part of this zone.

Three elements of the strategic, Capablanca Algorithm have manifestly shown their security and effectiveness: they work.

*The second direction.* I would tightly combine this one with the attack on empty squares of small chess value. When attacking our opponent, we hit these empty squares not out of habit, but out of a lack of more suitable targets. Material targets come within our reach only when we securely occupy the empty squares in front of them.

The Capablanca method is not the Tal method, and the Capablanca attack is not the Tal attack. “Capablanca” is a less intense “Tal.” This is a “Tal” with a dormant (or at least a resting) factor of positional safety. With “Capablanca,” the fourth and fifth factors of the position are activated. In “Tal,” these factors were simply not heard from.

“Tal” is the algorithm that gives the shivers to those with weak nerves. “Capablanca,” on the other hand, is quiet, stealthy. And if “Tal” shoots straight from the hip, then “Capablanca” strangles the opponent with its coils.

*The third direction* is the main one in our strategic algorithm. The result of this direction is the fourth and fifth factors of the chess position. A fundamental result!

The fourth factor of the position is the factor of compactness. This is what speaks to the framework of a position, to its skeleton. The king and the pawns are the slowest-moving, least active of chessmen. They are the foundation of a position, its supporting pillars.

The greater the compactness – that is, the greater the degree of packing in the position with respect to the king and pawns – the more solid and resistant the position is.

If the fourth factor of the position speaks to its capacity for resistance, then the fifth factor represents its tendency to unbridled expansion in space. The stronger (attacking) side has improved his position to the maximum. Therefore, it's attracted to material targets and to the promotion squares of “elevated” pawns.

The more our position is “elevated” – that is, the larger the parameter  $\Delta(\text{move})$ , the greater the chess value of our position. The  $\Delta(\text{move})$  parameter is an analog of the “m” parameter. When we “elevate” our position, it is as if we were winning material!

Of course, spatial expansion is promising only when the weaker side lacks the slightest possibility of counterplay. And the counterplay against our expansion consists of playing in the gaps. When attacking, we have no right to decrease our compactness. We have no right to attack with a lower density of packing in our own position. This is fatally dangerous!

To complete our inventory of the three most important directions of approach to the Capablanca Algorithm (a preliminary inventory, of Games 11-15), I would like to collect into one the most important thing, which would be in this first half of Chapter 3. And I would like to compress this “most important thing.” I need (we need!) the essence (see sidebar)...

In the second half of this chapter, we will delve deeper into the Capablanca Algorithm, but no longer in all three directions, rather only in the two most important ones. Specifically, in the short term we intend to:

- 1) gently go from our securely occupied right-hand Safety Zone of the Capablanca into its left-hand zone – that is, to go from the strategic attack to the strategic defense;
- 2) concentrate on the interaction between the fourth and fifth factors.

We begin our instructive – though not too exhausting – journey through the right half of the Safety Zone to its left half with the following victory over Nimzowitsch. And we close with a draw against Vidmar, where Capablanca played the weaker side! Along the way, we will have a few brief stops (Games 17-19).

Ready?

I have no doubt about your reply!

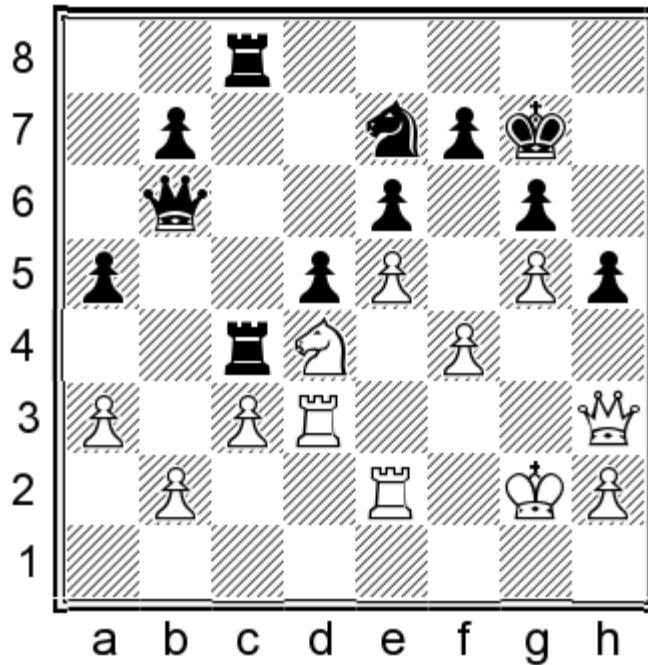
#### Three Maxims for Applying the Capablanca Algorithm:

- 1) the right half of the Safety Zone refers to the strategic attack on empty squares in the “Capablanca” – that is, the interval between  $t = 1.00$  and  $t = t_{cr} = 1.25$
- 2) the formula for a faultless strategic attack is: increase the  $\Delta(\text{move})$  when  $\Delta k \geq 0$

### 3) develop the deepest respect for the fourth and fifth factors of the chess position!

#### No. 16: Nimzowitsch – Capablanca

New York 1927



Position after 30. Qe2

This time we are playing Black. What we have is:

- 1) material equality – that is,  $m = 1$ ;
- 2) a slight superiority in the second factor of the position:  $t = 40/36$ , or  $\sim 1.11$ ;
- 3) rough parity in the third factor, as the opposing kings are not in danger (yes, the black king is restricted, and White has an “extra” queen in the rectangle marked by f2-f7-h7-h2, but Black’s position is completely impregnable!).

Our preliminary diagnosis, therefore, leaves room for no doubt whatsoever: the Capablanca Algorithm.

As usual, the fourth and fifth factors provide additional information:  $\Delta k > 0$  ( $8/24 > 8/32$ ) and  $\Delta(30. Qe2) = 35/12 - 38/12 = -3/12 = -0.25 < 0$ . This means that both factors impel us toward the “Tal.”

Our final assessment: both the “Tal” and the “Capablanca” simultaneously. In other words, we have landed to the right of the “t” axis. We have dropped anchor near the point  $t_{cr} = 1.25$ .

**30... Qf5**

Black has the right to this exchange “out of order,” that is, before completing the first two phases (putting the pieces on their best squares and then advancing the pawns). Why?

Because his position is the more compact! If your position is more compact than your opponent’s, then under the Capablanca Algorithm it’s OK to trade off some pieces before improving the rest or advancing the pawns.

The fewer the pieces left on the board, the more chances Black has to jump into the “gaps” and establish himself there.

**If your position is more compact than your opponent’s, then under the Capablanca Algorithm it’s OK to trade off some pieces before improving the rest or advancing the pawns.**

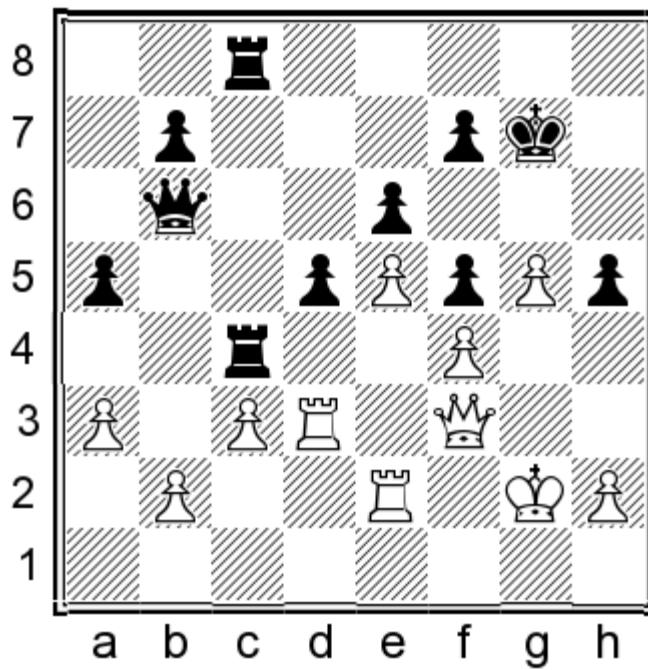
**31.♕xf5+**

If 31.♖ed2, then 31...♗xd4 32.♖xd4 ♖xd4 33.cxd4 ♜b5 34.♘f3 ♖c1 (“+”; see *José Raúl Capablanca*, vol. 2).

Rybka prefers 32.♗e3 (instead of 32.♖xd4), but here too, it awards Black a clear advantage after 32...♗b3 33.♖xd4 ♖xd4 34.♗xd4 b5.

**31...gxf5 32.♘f3**

32.♗xh5 is bad: Black wins after 32...♗h8 33.♘f3 ♗h4.



**32...♝g6**

Just in case. Black protects the h-pawn and... “elevates” his position. There is no doubt that Capablanca made this move automatically, instinctively.

We already know that faultless strategic play in superior positions is practically always linked to increasing our Δ(move). While not decreasing (and preferably increasing) our compactness.

**33.♖ed2 ♘e4**

The c4 square is freed for the other rook.

**34.♖d4 ♘c4 35.♗f2 ♜b5**

Even the queen is “elevated.”

**36.♝g3**

If 36.♖xc4 ♜xc4 37.♖d4, then simplest is 37...♖xd4. Black is more compact, and trades favor him.

Sample variations:

a) 38.♗xd4 ♜e2+ 39.♗f2 ♜g4+ 40.♔f1 (40.♗g3 h4++) 40...h4 41.a4 ♜d1+ 42.♗e1 (42.♔g2 h3++) 42...♜f3+ 43.♗f2

$\mathbb{W}d3+$  44.  $\mathbb{W}e2$   $\mathbb{W}e4$ , and Black must win. Find the win after 45.  $\mathbb{W}xe4$   $fxe4$  – without the computer!

b) 38.  $cxd4$   $\mathbb{W}d3$  39.  $h3$   $a4$  40.  $\mathbb{Q}h2$  (White is in a pre-Zugzwang state) 40...  $\mathbb{Q}g7$ , and so forth on the queenside – Black should win!

### 36... $\mathbb{B}cxd4$

I repeat: Black is entitled to make this exchange out of turn – he is more compact.

### 37. $cxd4$

If 37.  $\mathbb{B}xd4$ , then 37...  $\mathbb{B}e2$  wins out of hand.

### 37... $\mathbb{W}c4$

Black is better, but first – as expected in a strategic attack – he improves his pieces ...

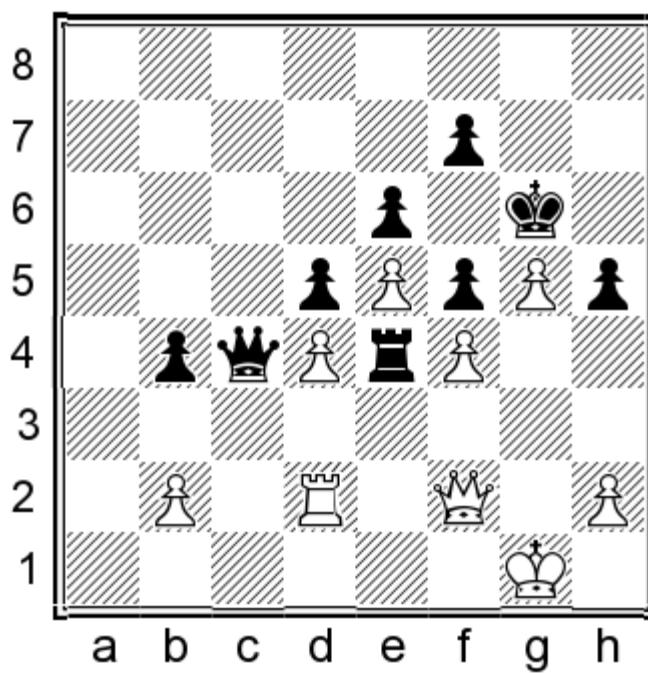
### 38. $\mathbb{Q}g2$

...and only then advances the pawn:

### 38... $b5$ 39. $\mathbb{Q}g1$ $b4$

This is actually an exchange – the third element in the strategic algorithm.

### 40. $axb4$ $axb4$



Over the last four moves, Black has transformed one compact position into another compact position – with a greater  $\Delta(\text{move})$ . In the words of Alekhine, “pawn moves have the goal of removing possible objects of enemy counterplay...”

### 41. $\mathbb{Q}g2$ $\mathbb{W}c1$

After Point 3 of the strategic algorithm there comes Point 1 – continuing on to the gain of material or (what is practically the same thing) to Zugzwang.

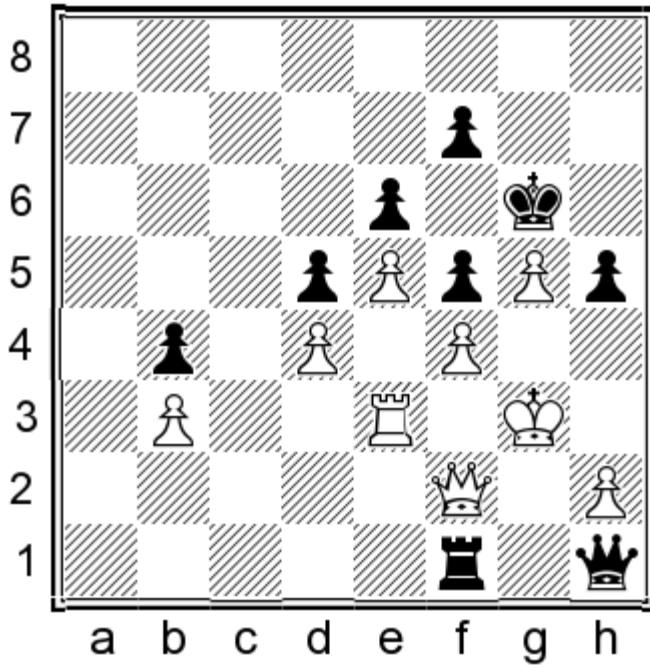
**42.†g3 ♘h1 43.♘d3 ♙e1**

Straightforward increase in the  $\Delta$ (move).

**44.♗f3 ♘d1 45.b3 ♘c1 46.♗e3**

I prefer 46.h3 ♘g1+ 47.†h4 ♘g4#.

**46...♗f1**



Now on 47.♗e2, 47...♘g1+ 48.†h3 ♘e1 decides; or on 47.♗g2, the prosaic 47...♘g1.

White resigned. **0-1**

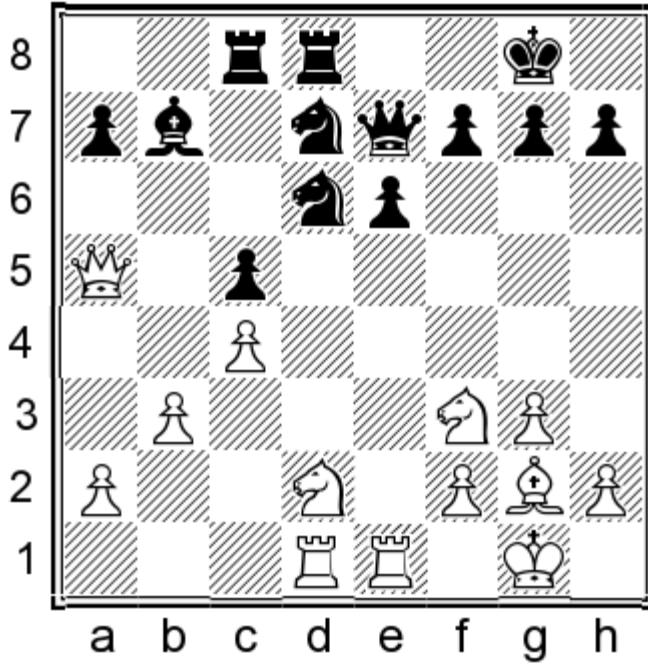
As a postscript to this game, here are the technical parameters of the position after 30.♗e2, 32.♗f3, 40...axb4, and 46...♗f1 (see the corresponding diagrams). We are interested only in the fourth and fifth parameters:

- after 30.♗e2:  $\Delta k > 0$  and  $\Delta(30.♗e2) = -0.25$ ;
- after 32.♗f3:  $\Delta k > 0$  and  $\Delta(32.♗f3) = 0$ ;
- after 40...axb4:  $\Delta k > 0$  and  $\Delta(40...axb4) \sim 0.89$ ;
- after 46...♗f1:  $\Delta k > 0$  and  $\Delta(46...♗f1) \sim 1.11$ .

Please verify my simple arithmetic. One more thing – I ask you to finish this sentence: “faultless strategic play in superior positions is practically always connected with an increase in \_\_\_\_.”

**No. 17: Capablanca – Thomas**

Margate 1935



Position after 17...Qac8

It is White to move. What do we have?

One hundred percent “Capablanca”! Because we have:

- 1) material equality;
- 2) rough equality in the time factor:  $t = 38/37 = \sim 1.03$ ;

3) perhaps full equality in the third factor, since the opposing kings are out of danger (White’s “extra” bishop and knight inside the f1-f8-h8-h1 rectangle are completely neutralized by Black’s “extra” queen in the neighboring d1-d8-e8-e1 rectangle).

Of course, our verdict of “100% Capablanca” is preliminary. For a final verdict, we need additional information – that is, the fourth and fifth factors of our position.

We have  $\Delta k = 0$  and  $\Delta(17\dots Qac8) = 31/13 - 27/13 = \sim 0.31$ . Verify this!

And if everything checks out just so, then, starting from a point on the coordinate  $t = \sim 1.03$ , we must somehow drift over a little to the left. At the end, we stop somewhere near the point where  $t = 1.00$ , most likely somewhere just to the left. The reason for the drift is  $\Delta(17\dots Qac8) > 0$ .

Our final verdict is the Capablanca Algorithm. I add that the position under study demands “Capablanca” without any sort of glances in the direction of “Tal” or “Petrosian.” Our final “t” is 1.0 (the drift from the starting point is minimal).

I remind you that the fifth factor of the position is a low-power one. It does not scream. It whispers to us...

## 18.Qf1

The first point of the strategic algorithm in action – the knight is repositioned on e3. However, 18.Qb1  $\Delta Qc3-a4$  doesn’t look bad, either. Significantly, our knight on the rim is not dim. Why?

Because from a4 it attacks the poorly guarded c5-pawn. This pawn is not held by any other pawn, so it is “bad”...

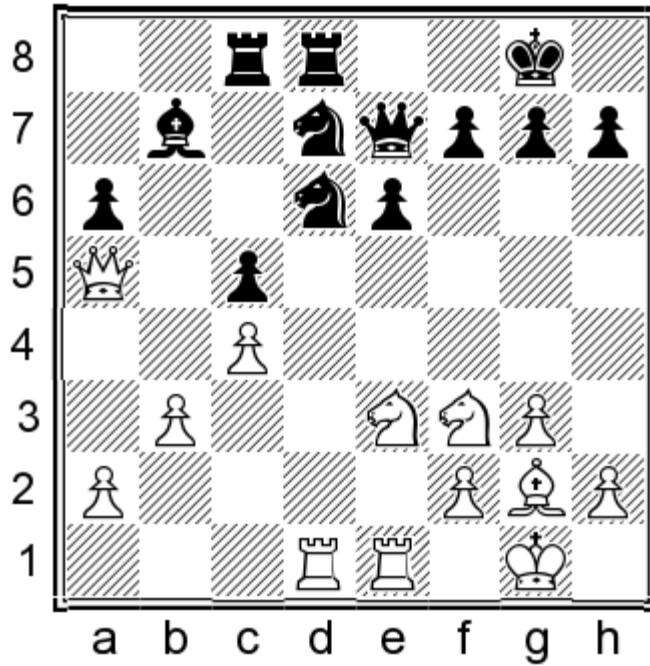
## 18...a6

The chess engines *Rybka* and *Fritz 11* prefer many other moves: 18...Qc6, 18...f5, 18...Qf6, 18...Wf8. Everywhere Black

is a little worse, but nothing more than that.

On the other hand, 18...a6 is more than likely just a little error.

**19.♘e3**



Improving (“elevating”) the knight and increasing his total mobility. Capablanca has improved his whole position – even if only by a little.

**19...♞b8**

But this knight maneuver cannot be called good. Better to play 19...♞e4 or 19...♞f6 (*Fritz*).

**20.♞d5**

White has reasons to play according to “Tal” principles. Why?

Calculate the “t” parameter!

**20...♝f8**

What now? Open attacks!

**21.♞b6 ♜c7 22.♞a4 ♜dc8 23.♞e5**

Inching ever closer to the c5 target. Exchanges hold no terrors for White, since the opponent has the same packing density.

**23...♝xg2 24.♝xg2**

Still another achievement: White surpasses his opponent in Δk.

Little by little, White increases his advantage. He has made good progress in the second, fourth, and fifth parameters.

**24...♝f5 25.♞d3 ♜d6**

This pawn sacrifice is pure speculation, since Black is in no position to play in “Tal” fashion. His purview is “Petrosian”: 25... $\mathbb{E}c6$  Δ 26... $\mathbb{Q}d7$ , going into deep defense.

## 26. $\mathbb{Q}dxc5$

26. $\mathbb{Q}axc5$  was just as good. Please confirm!

## 26... $\mathbb{W}c6+$ 27. $\mathbb{Q}g1$ h5

Black’s “attack” (26...h5 Δ ...h5-h4-h3) will be beaten back easily enough. Why?

Because White is superior in the first, second, fourth, and fifth factors of the position.

## 28. $\mathbb{Q}d3$

Or 28. $\mathbb{E}d3$  h4 29. $\mathbb{W}d2$  h3 30.f3+- (*Fritz*), or 28. $\mathbb{Q}e4!?$  h4 29.g4+- (see *José Raúl Capablanca*, vol. 2), or...

## 28...h4 29. $\mathbb{Q}e5$ $\mathbb{W}b7$ 30. $\mathbb{W}b6$

Trades can only favor White.

## 30...hxg3 31.hxg3 $\mathbb{W}a8$ 32. $\mathbb{E}d8+$

This is not just an exchange, it’s also a check – that is, an attack on the most important target. This is “Tal,” pure and simple! Why?

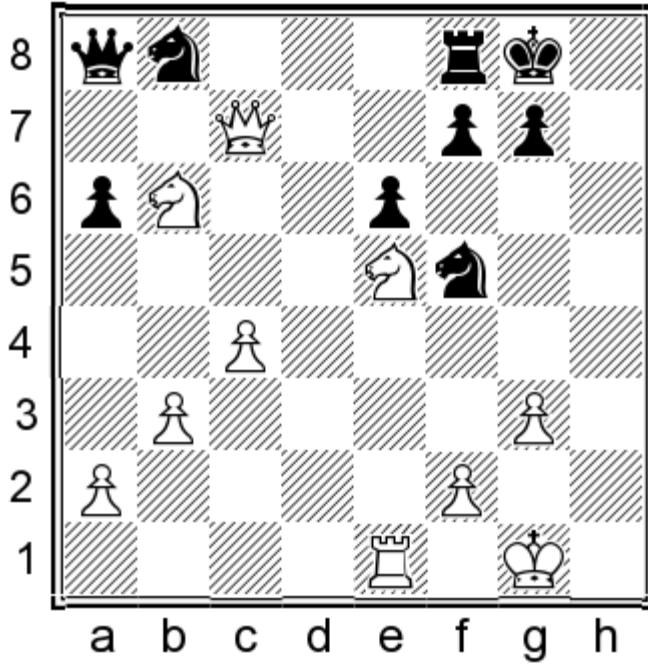
Because, in the position after 31... $\mathbb{W}a8$ ,  $t = 46/34 = \sim 1.35 > t_{cr} = 1.25$ .

## 32... $\mathbb{E}xd8$ 33. $\mathbb{W}xc7$

Open attack on the rook.

## 33... $\mathbb{E}f8$ 34. $\mathbb{Q}b6$

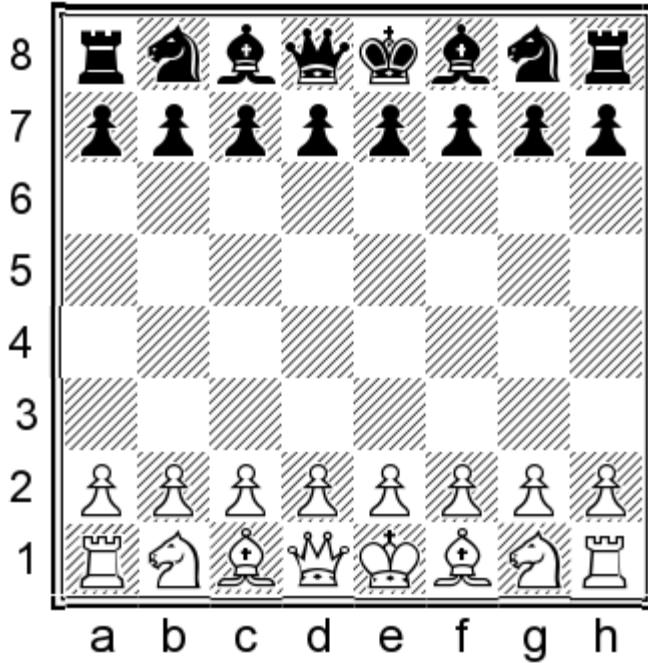
Open attack on the queen...



Black resigned. **1-0**

In this afterward, first of all I want to focus on comparing the parameters of our starting position (after 17... $\mathbb{B}ac8$ ) to the parameters of the true starting position, with sixteen white and sixteen black pieces.

After 17... $\mathbb{B}ac8$  we have:  $m = 1$ ,  $t = \sim 1.03$ , roughly “=”,  $\Delta(17\dots\mathbb{B}ac8) = \sim 0.31$ .



In this position,  $m = 1$ ,  $t = 1.00$ , “=”,  $\Delta k = 0$  and  $\Delta(\text{before the first move}) = 0.00$ .

Next, we make a “projection” of the position after 17... $\mathbb{B}ac8$  on the “t” axis (which way do we move along the “t” axis?).

We know the answer (see above):  $t = \sim 1.0$ . This means that our “t” practically coincides with our “projected” opening chess position on this axis!

What am I driving at?

At the fact that the psychological state of the great majority of practical players (or maybe all of them), before making the first move of the game, cannot help but align itself with the psychological state of a chessplayer located within the “hundred percent” Capablanca Algorithm! That’s what!

Your psychological state preceding the first move of a tournament game is one which belongs to you alone. It’s unique. It is real, but it cannot be expressed in words. It is your *baseline psychological state*. It is the one we engage before making our first move in the position after 17... $\mathbb{Q}ac8$ .

And now for the second point: we will make a very important generalization, once again, in the game position following 17... $\mathbb{Q}ac8$ .

Here, Capablanca first takes one step back (18. $\mathbb{Q}f1$ ) before taking two steps forward (19. $\mathbb{Q}e3-d5$ ).

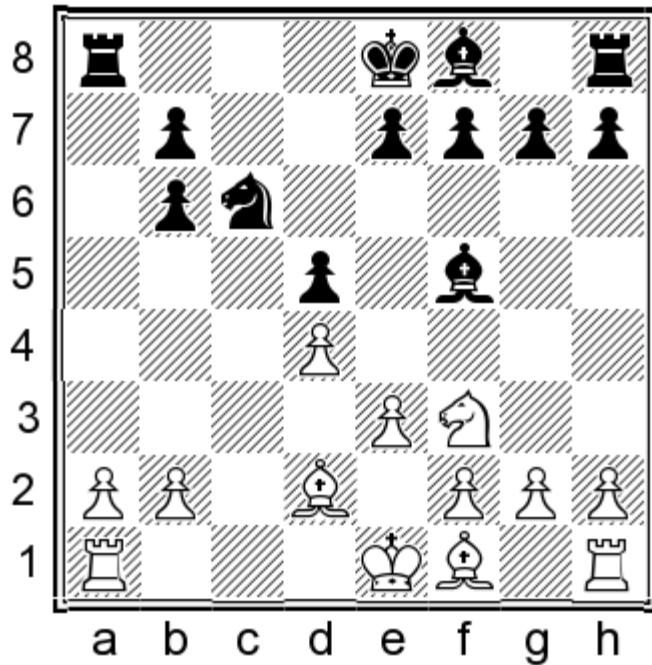
What’s this – a strategic defense (18. $\mathbb{Q}f1$ ) or a strategic advance (19. $\mathbb{Q}e3-d5$ )?

The answer is: both at the same time! More accurately, in the “100% Capablanca” the strategic attack is indistinguishable from the strategic defense. The border vanishes; attack flows into defense. This becomes a two-sided whole, an unbreakable bond which we shall henceforth refer to very simply as, *strategic play*!

The “formula” for strategic play is this: strategic play = attack/defense of vacant squares “as per Capablanca” – that is, attack and defense of squares whose strategic value is less than that of pawns.

### No. 18: Janowski – Capablanca

New York 1916



*Position after 10.  $\mathbb{Q}d2$*

We are playing Black, and we have:

- 1) material equality – that is, parity in the first factor of the chess position;
- 2) the Tal Zone, because  $t = 38/29 = \sim 1.31 > t_{cr} = 1.25$ ;
- 3) complete equality in the third factor of the position (there is an endgame on the board, with nothing threatening either king).

Our preliminary diagnosis: the Tal Algorithm, with clear signs of the Capablanca Algorithm.

The algorithm in which “Tal” and “Capablanca” are present together is called the TC Algorithm. We’ll learn more about it in Chapter 5. Suffice it for now to know that this is not some major new algorithm, but simply a hybrid of two fundamental algorithms. The TC Algorithm has its own space, located in the neighborhood of a point on the “t” axis with coordinates  $t = t_{cr} = 1.25$ .

If the study position shows even minimal signs of a strategic algorithm, then we will always be aided by the fourth and fifth factors of the position. They will make their contribution and provide a slight correction to our preliminary diagnosis.

Our  $\Delta k > 0$ :  $8/28 > 8/32$  (Black’s king and seven pawns stand within the b8-b5-h5-h8 rectangle, while the white king and seven pawns are found inside the larger a1-a4-h4-h1 rectangle). The parameter  $\Delta k$  impels us to the right, to the area of genuinely Tal-like values of the “t” parameter (see the Algorithm Drift Chart).

Our  $\Delta(10.\mathbb{Q}d2) = 28/13 - 26/13 = 2.13 = \sim 0.15 > 0$ . Consequently, the fifth parameter of this position drives us, not to the right, but to the left, toward the Capablanca Safety Zone.

The final diagnosis: both “Tal” and “Capablanca” simultaneously – in complete agreement with the preceding diagnosis. Why?

Because in this position the fourth and fifth factors cancel each other out.

The game continued:

### **10... $\mathbb{Q}d7$**

Capablanca advances while retreating!

An alternative to the text move was 10...e6, followed by ... $\mathbb{Q}d6$  and ... $\mathbb{Q}e7$ . After 10...e6 11. $\mathbb{Q}b5$   $\Delta \mathbb{Q}e2$  and  $\mathbb{Q}hc1$ , we would have a rather dull and approximately equal position, where Black would have not one trace of his former glory in the “t” parameter.

### **11. $\mathbb{Q}e2$**

A better-looking line is 11. $\mathbb{Q}b5$   $\Delta \mathbb{Q}e2$  and  $\mathbb{Q}hc1$ , when White is no worse.

### **11...e6 12.0-0**

What for? The king’s place is not on g1, but on e2 – 12. $\mathbb{Q}b5$   $\Delta \mathbb{Q}e2$ ,  $\mathbb{Q}hc1$ ...

### **12... $\mathbb{Q}d6$ 13. $\mathbb{Q}fc1$ $\mathbb{Q}e7$ 14. $\mathbb{Q}c3$**

Planning to counterattack in the center with 15. $\mathbb{Q}d2$   $\Delta$  e3-e4.

### **14... $\mathbb{Q}hc8$ 15.a3**

Better was 15. $\mathbb{Q}d2$  right away, and if 15...f5 then 16.f4  $\Delta$   $\mathbb{Q}f3-e5$ , with chances to equalize.

### **15... $\mathbb{Q}a5$ 16. $\mathbb{Q}d2$ f5 17.g3**

Another tiny inaccuracy. The immediate 17.f4 looks stronger, when if 17... $\mathbb{Q}c7$  then 18. $\mathbb{Q}xa5$   $\mathbb{Q}xa5$  19. $\mathbb{Q}xc7$   $\mathbb{Q}xc7$  20. $\mathbb{Q}b3$   $\Delta$   $\mathbb{Q}e2-d3$ ,  $\mathbb{Q}f2-d2$ , and White has every prospect of drawing.

### **17...b5**

Too straightforward. 17...g5, delaying the b-pawn push until later, was more flexible. Black holds the strategic initiative,

but does it amount to anything real?

## 18.f3

Consistent (White strives for e3-e4), and bad! Janowski misses the chance to erect a fortress after 18... $\mathbb{Q}xa5$   $\mathbb{Q}xc1+$  (18.... $\mathbb{Q}xa5$  19. $\mathbb{Q}xc8$   $\mathbb{Q}xc8$  20. $\mathbb{Q}b3\pm$ ) 19. $\mathbb{Q}xc1$   $\mathbb{Q}xa5$  20. $\mathbb{Q}b3$   $\mathbb{Q}a8$  21. $\mathbb{Q}c5$   $\mathbb{Q}c8$  ( $\Delta$  22...b6 23. $\mathbb{Q}d3$   $\mathbb{Q}xc1+$  24. $\mathbb{Q}xc1$  b4 $\mp$ ; 21... $\mathbb{Q}c6$  22. $\mathbb{Q}d3=$ ) 22.b4. Now...

## 18... $\mathbb{Q}c4$

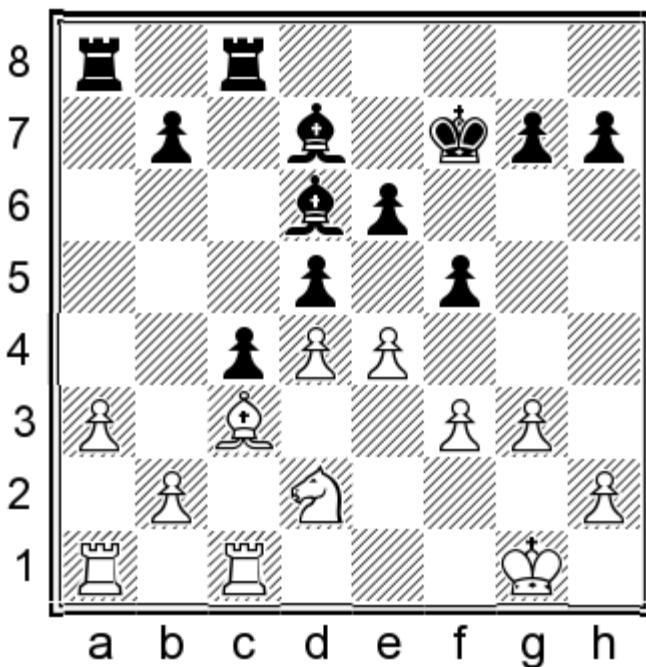
Now Black has a great advantage.

## 19. $\mathbb{Q}xc4$

The knight capture 19. $\mathbb{Q}xc4$  is hardly better. After 19... $bxc4$  20. $\mathbb{Q}e1$  ( $\Delta$  e3-e4) 20... $\mathbb{Q}a4$  21.e4  $\mathbb{Q}f7$   $\Delta$  ... $\mathbb{Q}b3$ , b6-b5, ... $\mathbb{Q}a4$ , b5-b4, Black holds all the cards.

The best move may have been 19. $\mathbb{Q}f2$ .

## 19... $bxc4$ 20.e4 $\mathbb{Q}f7$



By way of exception, let us examine the diagram position from the opponent's viewpoint – that is, from White's side. This will help us to subject Janowski's move 21 to strong (but fair) criticism.

What does White have? His  $m = 1$ ,  $t = 27/45 = 0.60 < t_{cr} = 0.80$ . Complete parity in the safety factor,  $\Delta k < 0$ , and  $\Delta(20... \mathbb{Q}f7) = 29/12 - 31/12 = -2/12 = \sim -0.17$ .

The final conclusion: in the diagram position, White must play "like Petrosian." He must defend. Why?

Because Black must attack, as he is not in the Petrosian Zone but in the Tal Zone. His "t" parameter is equal to  $t = 1/t = 1/0.60 = \sim 1.67$ . "Petrosian" is the antithesis of "Tal"!

And if all that is true, then the game move –

## 21.e5

– is nothing but a gross strategic blunder, since White has no right to attack. None! By elevating the e-pawn, Janowski has bound himself forever to  $\Delta k < 0$ . This means that now Black is assured play in the “gaps” of White’s position. White cannot hold the game.

He had to trade on d5 with 21.exd5. After 21...exd5 22.f4  $\Delta \mathbb{Q}f3$  and  $\mathbb{Q}f2$ , White’s  $\Delta k > 0$ . The greater the  $\Delta k$ , the safer and more secure the position. After 21.exd5, Janowski would have had real drawing chances.

But after 21.e5, White no longer has any hope of saving the draw.

### 21... $\mathbb{Q}e7$ 22.f4 b5

By combining play on the queenside (...b5-b4) with kingside action (...g7-g5, ...g5xf4, and placing the rooks on the g-file), Black won on move 46.

Let me note that, in commenting on this game, I have more than once made use of earlier published commentaries. I am speaking of the book edited by IM S. Solovyov.

In the afterword to this instructive fragment from Capablanca – Janowski, I want to say something important: we have crossed the demarcation line that sets off the strategic attack on vacant squares from the strategic defense of vacant squares.

More concretely: with 10... $\mathbb{Q}d7$ , Capablanca gave up control of the squares b1, c2, d3, and e4. He preferred the vacant square b5 to these – a square in his own territory. In other words, Capablanca opted for defense over attack. Why?

Because the value of b5 was at least equal to the combined value of those four vacant squares in enemy territory!

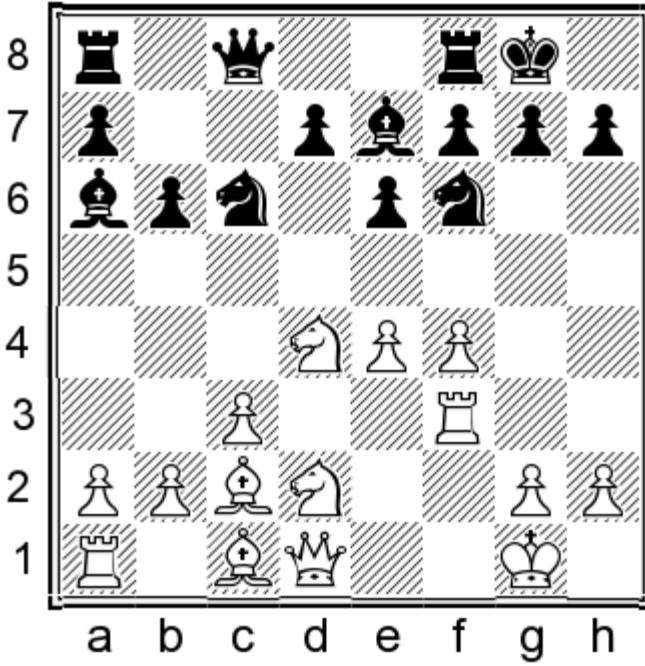
My answer to that question was abstract. It is removed from concrete chess practice. So, what about practice? What does a strong player think about when faced with a position requiring a strategic solution?

During the game, a strong player mentally reformats the position on the board into a more esthetically attractive one. He paints a new picture in his mind. And then he turns it into reality.

In Capablanca’s head there spontaneously arise countless images. They flow together energetically. The final picture (after 18... $\mathbb{Q}c4$ ) doesn’t win right away, but it does win! It removes everything nonessential, everything twisted and less than valuable – and therefore it’s truly beautiful!

### No. 19: Colle – Capablanca

Karlsbad 1929



Position after 14.  $\mathbb{B}f3$

We are playing Black. We have:

- 1) parity in the first factor of the position – that is,  $m = 1$ ;
- 2) approximate equality in the factor of chess time:  $t = 39/37 = \sim 1.05$ ;
- 3) a little bit less in the third factor: White threatens  $15. e5 \mathbb{Q}d5 16. \mathbb{Q}xh7+ \Delta \mathbb{B}f3-h3+$  and  $\mathbb{W}d1-h5$ .

Our preliminary diagnosis: “Capablanca” + “Petrosian.” Without fear of repeating myself, I add: it’s not wise to take the safety factor lightly!

Naturally, we would never be contemptible cowards. However, our enormous chess courage by no means replaces a natural feeling of danger, it does not replace our natural instinct for self-preservation. We are not suicidal, we absolutely may not dismiss existential danger!

In the “sacred” matter of defending the king from a clever foe’s attacks, it wouldn’t hurt to gather some more information about our position...

The fourth factor of the chess position is the compactness factor. Our  $\Delta k > 0$ , as we are compressed into three ranks and our opponent into four. Therefore the compactness factor impels us rightward along the “t” axis – that is, to “Tal.”

The fifth factor is spatial expansion, defined by the parameter  $\Delta(\text{move})$  and signifying the level of “elevation” in the position. We have  $\Delta(14. \mathbb{B}f3) = 31/15 - 34/15 = -3.15 = -0.20$ . And this factor, as we see, pushes us rightward:  $\Delta(14. \mathbb{B}f3) < 0$ . In other words, the fifth factor of our position stands in solidarity with the fourth parameter.

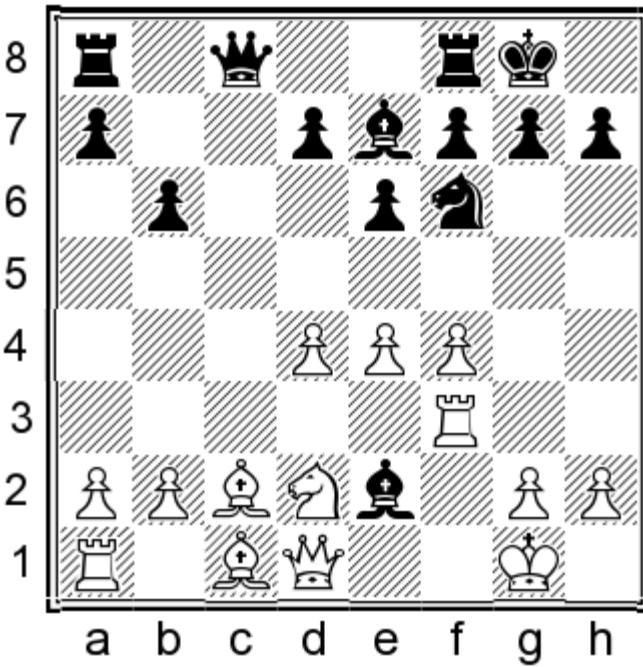
I reiterate: the fourth and fifth factors possess little power or intensity. But their intensity is not zero! It does exist, and it does have an effect.

Our final diagnosis: “Capablanca,” with barely perceptible signs of the Petrosian Algorithm, and we – playing according to all the requirements of the position – are obligated (repeat: obligated!) to seek exchanges. They are absolutely required, since our  $\Delta k > 0$ . “Capablanca” would not scorn exchanges, while “Petrosian” requires them!

In our game, Black played

**14...g6**

An error! More than likely, Capablanca did not see 14... $\mathbb{Q}xd4$  15.cxd4  $\mathbb{Q}e2!$ :



Position after 15... $\mathbb{Q}e2!$  (analysis)

**15. $\mathbb{Q}2b3$**

15. $\mathbb{Q}4b3$   $\Delta \mathbb{Q}d2-f1-g3$  deserves the most serious consideration. Why?

Because Black is more compact, and all exchanges favor him.

**15... $\mathbb{Q}xd4$  16. $\mathbb{Q}xd4$   $\mathbb{Q}b7$**

After the exchange, Point 1 of the strategic algorithm: Capablanca transfers his light-squared bishop to its best post.

**17. $\mathbb{Q}e2$   $\mathbb{Q}c5$  18. $\mathbb{Q}h3$**

Or 18. $\mathbb{Q}d3$   $\mathbb{Q}c6$  19.e5  $\mathbb{Q}xd4+$  (19.... $\mathbb{Q}d5$  20. $\mathbb{Q}e3$   $\mathbb{Q}c7\infty$ ) 20.cxd4  $\mathbb{Q}e4!?$  21. $\mathbb{Q}xe4$   $\mathbb{Q}xe4$  22. $\mathbb{Q}xe4$   $\mathbb{Q}xe4$  23. $\mathbb{Q}c3$  f6 $\infty$  (Solovyov).

**18... $\mathbb{Q}c6$  19.e5**

Very dangerous play! For White, that is, not Black. By “improving” the e-pawn – the advance guard of his position – White condemns himself to permanent suffering along the a8-h1 diagonal. 19. $\mathbb{Q}e3$  is stronger, as this move corresponds better to the Tal Algorithm (having played 18. $\mathbb{Q}h3$  instead of 18. $\mathbb{Q}d3$ , White has set course for “Tal” and not for “Capablanca”). The bishop move attacks the queen, throws a previously inactive piece into the cauldron of attack, and offers a pawn!

A sample variation: 19. $\mathbb{Q}e3$   $\mathbb{Q}xd4$  20. $\mathbb{Q}xd4$   $\mathbb{Q}xe4$  21. $\mathbb{Q}g4$  f5 22. $\mathbb{Q}h4$   $\mathbb{Q}f7$  23. $\mathbb{Q}xe4$   $\mathbb{Q}xe4$  24. $\mathbb{Q}g3$   $\mathbb{Q}f8$ . *Fritz* even rates this position in White’s favor. Is it right? See for yourself!

**19... $\mathbb{Q}d5$  20. $\mathbb{Q}f2$**

Played for attack on the black king. White wishes to deliver mate on h7 – a dangerous, fateful delusion!

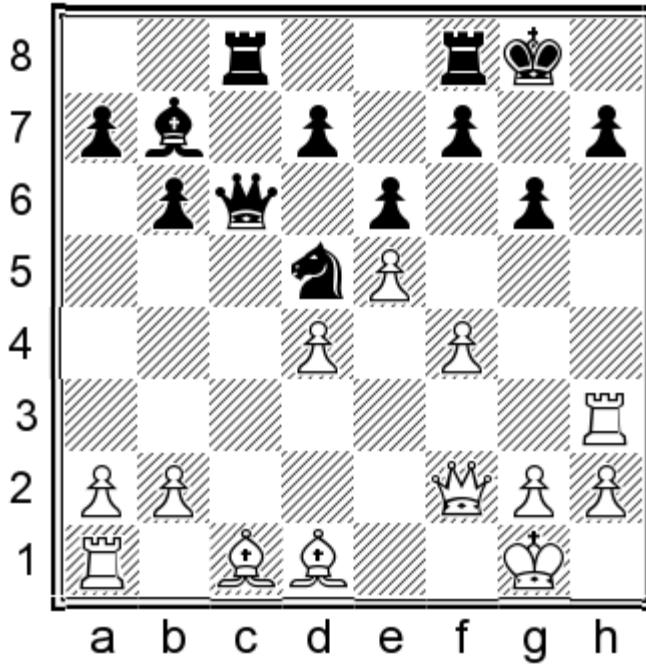
It was necessary to play instead 20. $\mathbb{Q}d3$   $\Delta \mathbb{Q}d2$ , with more modest intentions.

**20...♝xd4 21.cxd4**

If 21.♛xd4, then 21...♝xf4 wins.

**21...♜ac8 22.♝d1**

Or 22.♛h4 ♜f6-+; 22.♝d3 ♜xc1-+-.



**22...f6**

Simple and very strong. Black not only defends (f7 is freed for the rook), he also attacks (the threat is 23...fxe5 24.dxe5 ♜xf4).

**23.♛h4**

An amazing disregard for self-preservation! 23.♝d2 Δ ♜c1 was necessary in order to rid himself, at whatever cost, of the pressure along the a8-h1 diagonal. After that, there could follow 23...fxe5 24.♜c1 ♜xc1 25.♝xc1 ♜xc1 26.♝d2 ♜a1 27.fxe5 ♜f4, with advantage for Black (Solovyov).

Besides 23.♝d2, the alternative 23.♝f3, going into deep defense, merits attention. But here too, obviously, Black is free to choose.

**23...♜f7**

Threatening both 24...♝xf4-+ and 24...♝c4-+.

**24.♝f3**

Some saving chances were offered by 24.♝f3 (*Rybka*). But there too, after 24...b5 Δ 25...♝b6 White's situation is very grim.

**24...♝c4**

An open attack on the d4-pawn.

**25.♕e3**

Or 25.♗f2 ♘xc1+--.

**25...♝xe3 26.♝xb7 ♜f5**

Already an open attack on the queen. The attack is in full swing! An attack on lawful chess targets. The “Tal” of Black is retribution for White’s thoughtless play.

**27.♛e1**

Or 27.♗f2 ♘c1+... extend this variation!

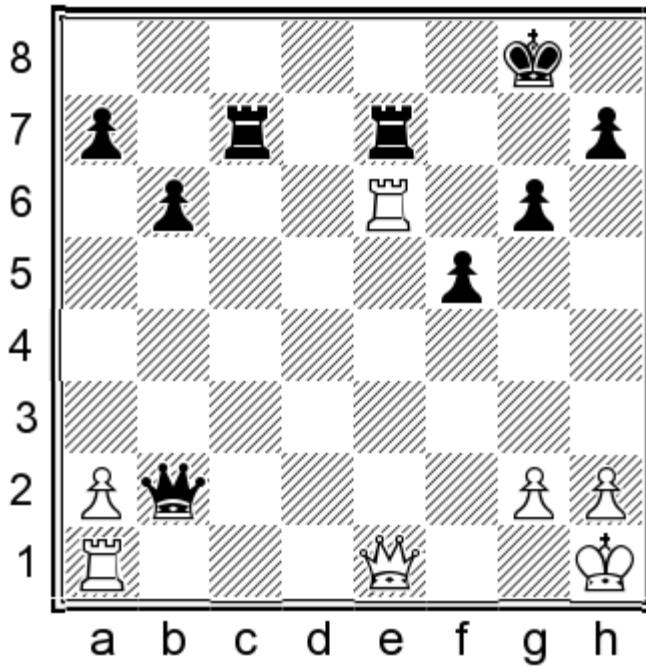
**27...♜c7 28.♝e4 ♘xd4+ 29.♚h1**

White can already resign.

**29...fxe5 30.♝xf5 exf5 31.fxe5**

Just as hopeless is 31.♘xe5 ♘xe5 32.fxe5 ♜e7, etc.

**31...♜e7 32.♝e3 ♘xb2 33.e6 dxe6 34.♜xe6**



**34...♝f7**

Very elegant, and completely solid. By bringing up his king, Black sharply increases the packing of his king and pawns, from 6/32 to 6/24.

The parameters of the final position:  $m > 1$ ,  $t = 42/36 = \sim 1.17$ , “roughly =”,  $\Delta k = 6/24 - 4/16 = 0$ ,  $\Delta(34\dots \dot{\square}f7) \sim 3.00 - 2.14 = \sim 0.86$ .

White resigned. **0-1**

At some imperceptible point, we crossed the line between “Tal” and “Capablanca.” That was at the point on the “t” axis with the coordinate  $t_{cr} = 1.25$ . Remember that we saw no armed border guards, only a solitary marker bearing a sign with the inscription, “1 unit” (the chess value of a pawn).

We understood that “Tal” and “Capablanca” are not enemies, but good neighbors.

Now, in this game, we have begun our journey along the “t” axis somewhere near the border between “Capablanca” and “Petrosian.” What awaits us?

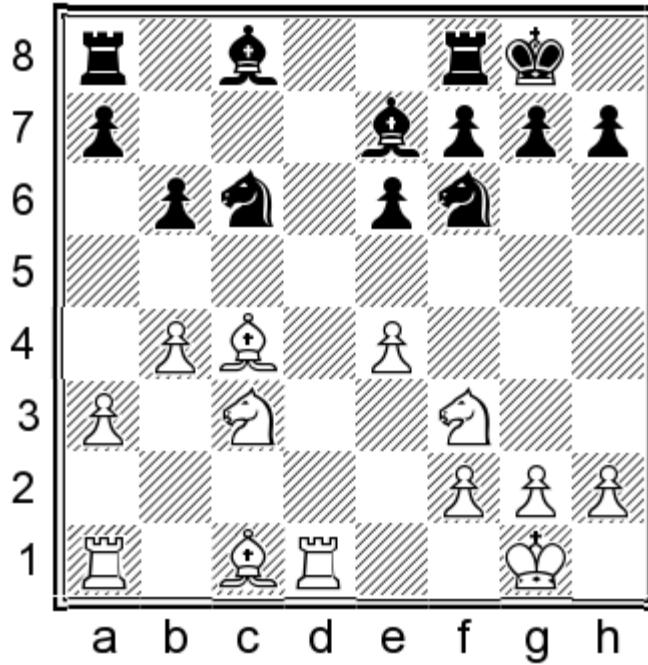
We are awaited by a border marker and sign with an inscription: “1 unit.” No border guards there, either!

The final example in this chapter will focus on the theme of strategic defense – that is, on the theme of the Petrosian Algorithm.

In the following position, Black stands much worse in the time factor. On the other hand, he is much better in the compactness factor.

#### No. 20: Vidmar – Capablanca

San Sebastián 1911



*Position after 13.e4*

We are playing Black, and we have:

- 1) material equality – that is, parity in the first factor of the position;
- 2) considerable inferiority in the time factor:  $t = 31/47 = \sim 0.66 < t_{cr} = 0.80$  (see the Algorithm Drift Chart);
- 3) parity in the safety factor – neither king is threatened.

Our preliminary verdict: “Petrosian.” Why?

Because  $t = \sim 0.66$ ! Our “point of departure” is to the left of the point  $t_{cr} = 0.80$ , so it lies within the Petrosian Zone.

We need the fourth and fifth factors of the position! Our  $\Delta k > 0$  and  $\Delta(13.e4) = 26/13 - 31/13 = -5/13 = \sim -0.38$ . Which means that both the compactness factor and the expansion factor push us in the direction of the Tal Algorithm.

Our final verdict is: both the “Capablanca” and the “Petrosian” at the same time.

The fourth and fifth factors made us drift away to a point on the “t” axis with the coordinate  $t_{cr} = 0.80$ . We are somewhere beyond it, on the border between the two algorithms...

### **13...♝d8**

A natural reaction, given that exchanges favor Black. They are doubly favorable: because of compactness, and because of “Petrosian.”

Curiously Black apparently has another solution besides the text: 13...♝b7 (pointed out by Solovyov). Play might continue 14.e5 ♜fc8 15.exf6 ♜xf6. I ask you to extend it. At first without computer assistance!

### **14.♝f4 ♜b7 15.e5**

Vidmar attacks – the white pawn crosses the demarcation line. Open attack on the knight!

White’s attack is quite legitimate: before the pawn shot, his  $t = 54/40 = 1.35 > t_{cr} = 1.25$ . Confirm this!

*Question:* Is there a downside to such an aggressive strategy by White?

*Answer:* There is! White has weakened his position still further. Now, after 15.e5, his compactness becomes still lower (his position is looser). Now Black will definitely have counterplay.

### **15...♞e8**

Covering the c7 and d6 squares. However, other, more aggressive, moves by the knight were also possible.

### **16.♝d3**

16.♝e2 (Solovyov) is also worth a look.

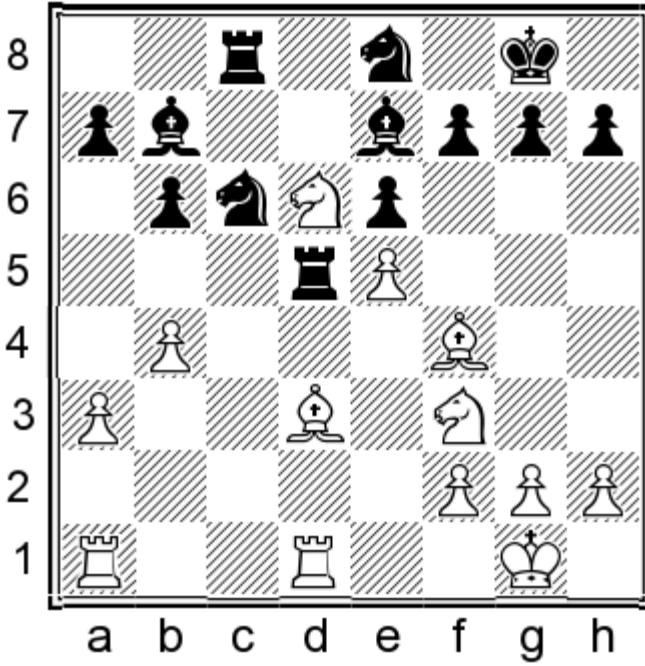
### **16...♜ac8**

Threatening 16...♞xb4. Who’s attacking whom?

### **17.♛b5 ♜d5**

Preparing an enchanting little combination.

### **18.♛d6**



The pinnacle of the attack.

**18...Qxd6 19.exd6 Qxd6**

And, simultaneously, the pinnacle of the defense!

**20.Qxd6 Qd8**

Winning the piece back and restoring material equality. The players soon agreed to a draw. A pretty finish!

Earlier, we summarized the preliminary results of our first acquaintance with the Capablanca Algorithm; it took place in the no-man's land between Games 15 and 16. There, we also outlined the most important instructions for studying this algorithm.

I had promised you that:

- 1) we would go smoothly from the right-hand (advancing) part of the Safety Zone of the Capablanca to its left-hand (defensive) side;
- 2) we would concentrate on the interaction between the fourth and fifth factors.

Now, in completing this chapter, we may state with satisfaction that we have both "gone smoothly" and "concentrated." Our forward advance was real, and we have evident successes in both the first and second directions of "advance."

The transition from strategic attack to strategic defense has occurred almost painlessly. We crossed the boundary between attack and defense at the point where  $t = 1.00$ , the point of symmetry. It cuts the Capablanca Safety Zone in two. It also cuts into two parts the entire spectrum of chess attacks and defenses. This is a special point...

Attack and defense of vacant squares are tightly interwoven. They are two sides of the same phenomenon, two parts of an organic whole which we will label strategic play, or play in the style of Capablanca...

From here on, the final formulation of the Capablanca Algorithm will look like this:

- 1) optimal placement of our pieces on squares suitable for a strategic attack or defense with respect to vacant squares;
- 2) advancing the pawns;
- 3) exchange.

This formulation is final, and it brooks no appeal!

**The final formulation of the Capablanca Algorithm looks like this:**

- 1) optimal placement of our pieces on squares suitable for a strategic attack or defense with respect to vacant squares;**
- 2) advancing the pawns;**
- 3) exchange.**

A second direction is provided by the fourth and fifth factors of the chess position – that is, the factors of compactness and space expansion. It is important to us that these two factors have little power, little intensity. Their intensity is clearly less than that of the third factor.

The fourth factor is about the safety of the position. A compact position is a nearly impregnable one.

The fifth factor has to do with the tendency of a chess system (or chess position) toward limitless outward expansion. As we “elevate” our position (the goal being to reach a queening square), we inescapably come into contact with our opponent.

Expansion is effective only when

$\Delta k \geq 0$ . I repeat: only if  $\Delta k \geq 0$ !

The simplest way to increase your  $\Delta k$  is by improving the king. Also by improving the pawns from the rear areas of the position. In this manner the pawns are “enhanced” only to the level of the vanguard pawns. A fantastically powerful method of strategic play! Why?

Because with this, we kill two birds with one stone. We not only increase our  $\Delta k$ , but also our  $\Delta(\text{move})$ .

We start our “advance” on the Petrosian Algorithm fully armed, as we have already acquired the attacking methods known to all in the unified theory of chess play. These methods are the dynamic (“Tal”) and the strategic (the right-hand “Capablanca”). Moreover, already we have not only acquired the left-hand “Capablanca,” but we have also even succeeded in occupying a starting point for the Petrosian Zone. And all this, taken together, is our main achievement.

As we approach the Petrosian Zone, we need to understand well one simple thing: we stand “on the other side” of the attack. For us, this means that the psychology of the chess struggle itself unquestionably must change: now we are *defending*, not attacking.

Are you prepared, dear reader, to take the next important step?

The answer is obvious. Forward!

# Chapter 4

## Petrosian's Algorithm, or The Defensive Algorithm

The terms “Petrosian Algorithm” and “Defensive Algorithm” are synonymous, two different names for the same chess phenomenon.

This chapter, too, features no pointless discussions about flawless formulations. Such discussions we don't need, especially because flawless formulations defining the fundamental algorithms don't exist at all.

Why?

Because, between the fundamental algorithms of the search for the strongest move, there do not exist and cannot exist any precisely drawn borders – chess is both inexact and very complex!

As we already know, the line between “Tal” and “Petrosian” is not sharp, it's fuzzy. Nor, of course, is there any sort of clear-cut line between the Petrosian and Capablanca algorithms.

The Petrosian Algorithm is in the left half of the unified spectrum of chess attacks and defenses (see the Algorithm Drift Chart). It is the antipode of the Tal Algorithm – that is, “Tal” with a minus sign. The Petrosian Algorithm is a Tal Algorithm in which the terms “attack” and “assault,” so familiar to us, are replaced by the terms “defense” and “holds.” In other words, if “Tal” attacks, then “Petrosian” defends. Or, let's say, if “Tal” prepares to attack, then “Petrosian” prepares to defend against it. Finally, if “Tal” sacrifices material for the sake of increasing the tempo of his attack, then “Petrosian” accepts the sacrifices (or even declines them – chess is not checkers!).

The approximate line between the Capablanca and Petrosian algorithms is the point on the “t” axis with the coordinate  $t_{cr} = 0.80$ . “Petrosian” is to the left, “Capablanca” to the right. Entering the Petrosian Zone, we (forgive the repetition) are on the “other side” of the chess attack (both dynamically and strategically speaking). Furthermore, the psychology of the chess struggle is altered for us. We become more careful. We become wiser, since we learn not to burn bridges pointlessly or recklessly.

One more thing: “Petrosian” teaches us to endure the pain of chess. Pain is what Caissa calls the proper retribution for error. Or – in the best scenario for us – retribution for an excess of chess material in a position of dynamic equality.

We adhere to the classic chess ideal: our goal is the strongest move in all the positions we study. We spare no effort in its pursuit... yet we don't always find it. The reason for this is the limitless complexity of chess play. Chess is complicated, even for world champions! Even for Petrosian and Capablanca!

Petrosian and Capablanca were classical chessplayers. They were totally dedicated to looking for the best move. But they looked for it in different ways. And these different ways would come out in positions where there is a choice – difficult even for them. Such positions illuminate the peculiarities of their character. Faced with a choice between two moves, Petrosian would take the more cautious route: for him it was “safety first!”

And Capablanca? For him – he had no preferences! He was equally open to either attacking or defending. Sometimes he would take his rival candidate moves and pick one at random!

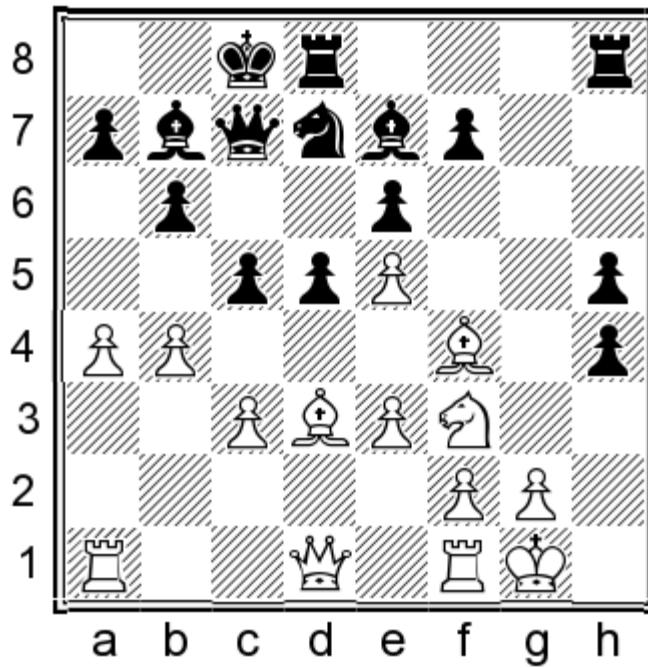
This shift from the left half of the Capablanca Safety Zone into the Petrosian Zone, predicted in the previous chapter, needed to occur. I risk preceding the “genuine Petrosian” with two or three not wholly typical examples out of his (Petrosian's) treasure chest. In them you will see only the shadow of defense, but not the defense itself. And you, dear reader, will – I hope – recognize the true nature of those impulses which proceed from the depths of the personality of a gifted chessplayer...

For example, in the following game with Spassky, Petrosian – for the sake of his king's complete safety – goes in for a

simply “unthinkable” weakening of his position... An amazing case!

## No. 21: Spassky – Petrosian

World Championship (7), Moscow 1966



Position after 17.a4

In this position, it is Black's move, and we have Black. What have we got?

- 1) An extra pawn – that is,  $m > 1$ ;
- 2)  $t = 33/41 = \sim 0.80 = t_{cr}$  (the “starting point” is right on the line between the Capablanca Algorithm and the Petrosian);
- 3) a shaky parity in the safety factor, since the current happiness of both kings is temporary and insecure. The white a- and b-pawns are prepared to break up Black's queenside citadel at any time; on the other hand, Black has real chances for a successful assault down the g-file.

So is our preliminary diagnosis “Petrosian”? Or is it still “Capablanca”? Or perhaps even “Tal”?

We have very serious problems, and alas, even the fourth and fifth factors are hardly in a position to help – not least because these factors lack force and intensity. There's also the simple reason that, here, the value of the parameters  $\Delta k$  and  $\Delta(\text{move})$  is close to nil. Verify this for yourself.

What to do?

The answer, dear reader, you will not get fully here or now. And not even in this chapter, but in the next one, where we investigate the mixed algorithms – the TC, CP, and TCP algorithms.

Now for the diagnosis, without commentary. It's a complex matter!

Our final diagnosis: the diagram position requires the TCP Algorithm. In other words, here it is possible for “Tal,” “Capablanca,” and “Petrosian” to all show up together. For the chessplayer, the possibility of *choice* makes its grand entrance!

Petrosian's selection is one of the candidates, and it is genuinely surprising. There followed

17...c4

Petrosian: “After the game, I learned that this move surprised the onlookers. Indeed, its shortcomings are plain: the square d4 becomes the property of White’s pieces. But only in theory, I say, because White can’t make anything of the fact that the queen (or possibly the rook) will stand on d4. Whereas the knight, placed most favorably on this kind of blockading square, is here deprived of the possibility of arriving at d4, as it is preoccupied with defending the e5-pawn. Thus, Black’s hands are free to operate along the g-file. As we look at the rest of the game, we should not forget that the threat of moving the bishop to g7 constantly hangs in the air, winning what is no longer the pride of White’s position, but its weakness – the e5-pawn.”

I would add that the point of Black’s idea lies not in this aggressive and “anti-positional” move, but in the following modest move by the a-pawn...

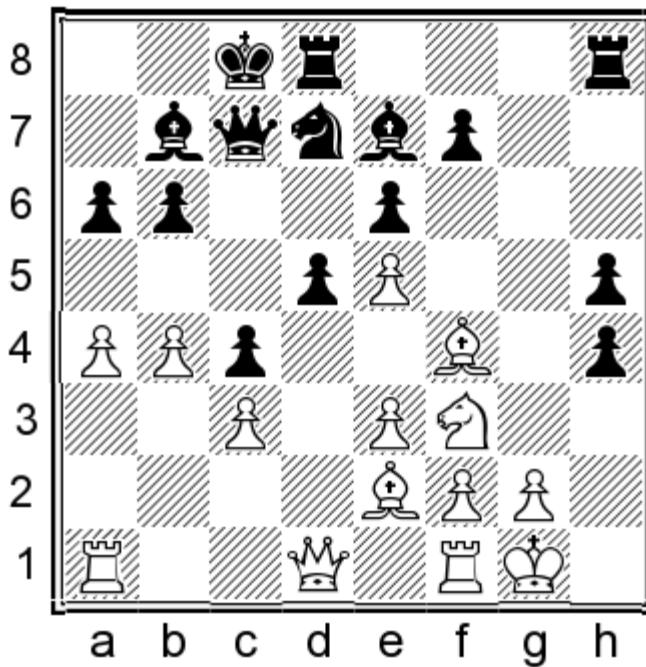
In the game, Spassky pulled the bishop back:

**18.♗e2**

A mistake! 18.♗f5! (Petrosian’s mark) was stronger. The idea is to post the bishop on h3 and thus defend the g2-pawn. After 18...exf5 19.e6 ♘d6 20.♗xd6 ♗xd6 21.exd7+ ♖xd7 22.♘d4, White has some compensation for his two sacrificed pawns.

Petrosian responded with

**18...a6**



Wonderful!

Now Petrosian’s plan becomes clear to us mere mortals: 19.a5 meets with 19...b5, and 19.b5 with 19...a5. In either case, Black’s queenside suddenly becomes totally impregnable! Which means that after 18...a6 White is powerless to do anything on the queenside.

Strictly speaking, we could close the curtain here – the theme of this chapter (the theme of defense) is exhausted for this game. But we won’t rush; there’s still something to be learned from Petrosian: Petrosian the attacker, Petrosian the virtuoso of strategic play.

**19.♕h1**

What does Black have?  $m > 1$ ,  $t = 33/35 = \sim 0.94$ , a small “+” in the safety factor,  $\Delta k > 0$ , and  $\Delta(19.\mathbb{Q}h1) = \sim 0.10$ .

Diagnosis: “Capablanca”? TC Algorithm?

Note how the position has changed radically in just two moves. Black’s progress in the second, third, fourth, and fifth factors is obvious (in the position after 17.a4,  $\Delta k = \sim 0.00$  and  $\Delta(17.a4) = \sim 0.11$ ).

Need we comment on these irrefutable facts? I don’t think so...

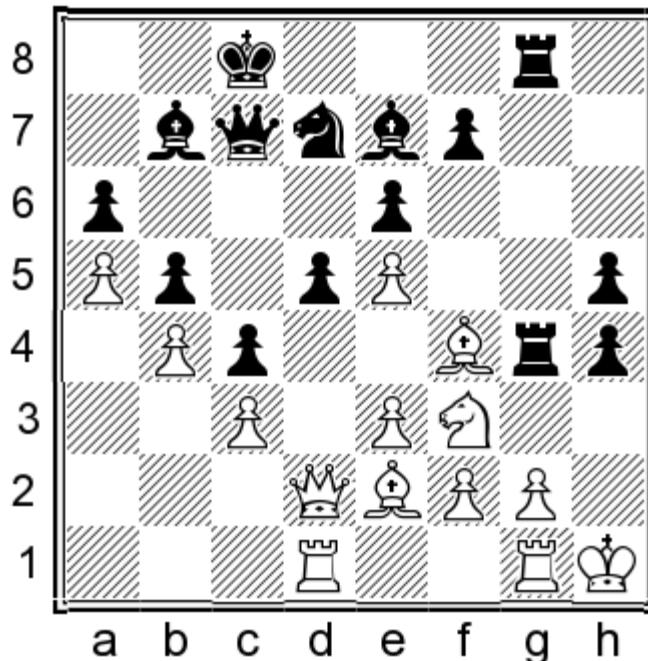
After Spassky’s move, 19. $\mathbb{Q}h1$ , Petrosian begins to play, not in “Petrosian” style, but in “Capablanca” style. The position requires it, and Petrosian complies quietly with these requirements.

What is the core requirement for a strategic attack in the Capablanca Algorithm? We know the answer: when attacking, the stronger side must increase the  $\Delta(\text{move})$  of his position. With  $\Delta k \geq 0$ !

Why does “Capablanca” require  $\Delta k \geq 0$  (let me add that “Petrosian” accepts this requirement with delight)?

Answer: because, when  $\Delta k \geq 0$ , our opponent’s counterplay is practically nil. It is smothered at birth – prophylaxis!

**19... $\mathbb{B}dg8$  20. $\mathbb{B}g1$   $\mathbb{B}g4$  21. $\mathbb{W}d2$   $\mathbb{B}hg8$  22.a5 b5 23. $\mathbb{B}ad1$**



What do we have now?  $m > 1$ ,  $t = 42/30 = 1.40$ , a small “+” in the third factor of the position,  $\Delta k > 0$ , and  $\Delta(23.\mathbb{B}ad1) = \sim 0.29$ . We note that  $\Delta(23.\mathbb{B}ad1) > \Delta(19.\mathbb{Q}h1) = \sim 0.10$ .

Our diagnosis after 23. $\mathbb{B}ad1$ : “Tal”!

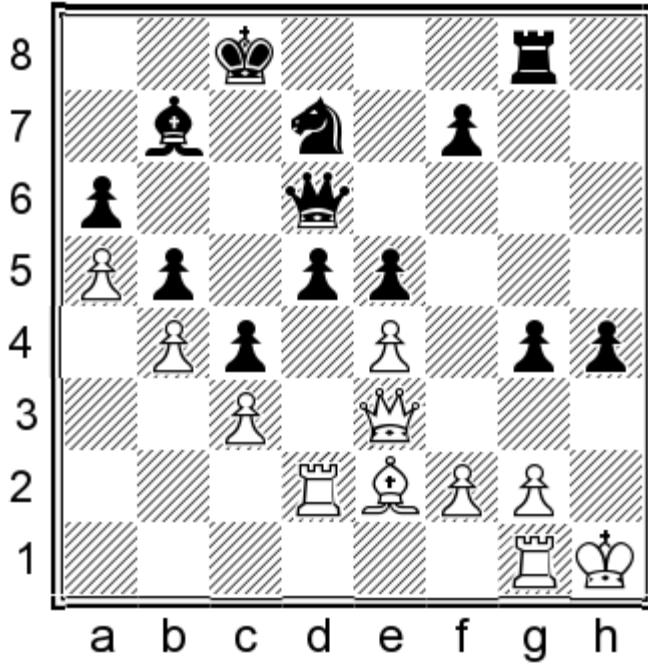
What does Petrosian do?

He doesn’t shrink away from sacrifices! There followed:

**23... $\mathbb{Q}f8$  24. $\mathbb{Q}h2$   $\mathbb{Q}xe5$  25. $\mathbb{Q}xg4$   $hxg4$  26.e4  $\mathbb{Q}d6$**

The variation 26...dxe4 27. $\mathbb{Q}xe5$   $\mathbb{W}xe5$  28. $\mathbb{W}d8\#$  would, of course, not be to Black’s liking.

**27. $\mathbb{W}e3$   $\mathbb{Q}d7$  28. $\mathbb{Q}xd6$   $\mathbb{W}xd6$  29. $\mathbb{B}d4$  e5 30. $\mathbb{B}d2$**



The situation:  $m = \sim 1$ ,  $t = 35/35 = 1.00$ , a significant “+” in the factor of safety,  $\Delta k > 0$ , and  $\Delta(30.\mathbb{Q}d2) = \sim 0.51$ . Compare  $\Delta(30.\mathbb{Q}d2)$  and  $\Delta(23.\mathbb{Q}ad1)!$

Diagnosis of the position after 30. $\mathbb{Q}d2$ : “Tal.” What now?

I reply: an attack on the king, which Petrosian skillfully combines with the acquisition of space.

### 30...f5

Pawns are the soul of chess, right?

### 31.exd5 f4 32. $\mathbb{W}e4$

Or 32. $\mathbb{W}a7$  g3 (Kasparov).

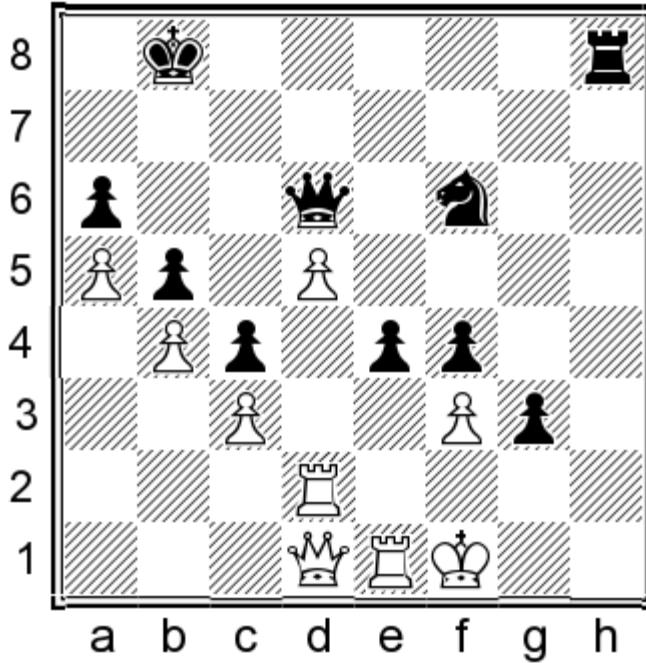
### 32... $\mathbb{Q}f6$ 33. $\mathbb{W}f5+$ $\mathbb{Q}b8$ 34.f3

If 34. $\mathbb{W}e6$ , then 34... $\mathbb{W}xe6$  35.dxe6  $\mathbb{Q}e4$  wins.

### 34... $\mathbb{Q}c8$ 35. $\mathbb{W}b1$ g3 36. $\mathbb{Q}e1$ h3 37. $\mathbb{Q}f1$ $\mathbb{Q}h8$ 38.gxh3 $\mathbb{Q}xh3$ 39. $\mathbb{Q}g1$

Or 39. $\mathbb{Q}xh3$   $\mathbb{W}d7-$ .

### 39... $\mathbb{Q}xf1$ 40. $\mathbb{Q}xf1$ e4 41. $\mathbb{W}d1$



What do we have? A raging, most terrible “Tal”! We have:  $m < 1$ ,  $t = 39/23 = \sim 1.70$  and a simply gigantic “+” in the safety factor (the white king being practically naked!)

With “Tal” – and especially with a furious “Tal” like this one – we are not obligated to consider the fourth and fifth factors. But it would not be a sin before Caissa to tally them up, either. In brief: what about these factors?

My reply:  $\Delta k < 0$  and  $\Delta(41.\mathbb{Q}d1) = \sim 0.82$ . Compare this with  $\Delta(30.\mathbb{Q}d2)$ !

$0.82 > 0.52$ : what does this mean?

It means that Petrosian, playing in “Tal” style the whole time, nevertheless did not, for one second, forget to “elevate,” “elevate,” and once more “elevate” his position.

A complete and crushing success.

#### 41... $\mathbb{Q}g4$

A forward jump. Sacrifice. “Tal”!

#### 42. $f \times g4$ f3

Petrosian continues to increase the  $\Delta(\text{move})$  of his already “elevated” position. Incidentally, he also threatens mate on h1.

“Capablanca” at the service of “Tal”? Or is it “Tal” at the service of “Capablanca”? No need to answer – these are rhetorical questions...

#### 43. $\mathbb{Q}g2$ $f \times g2+$

Spassky resigned. **0-1**

“Tal” and “Capablanca” are neighborly algorithms. Not enemies, but friends.

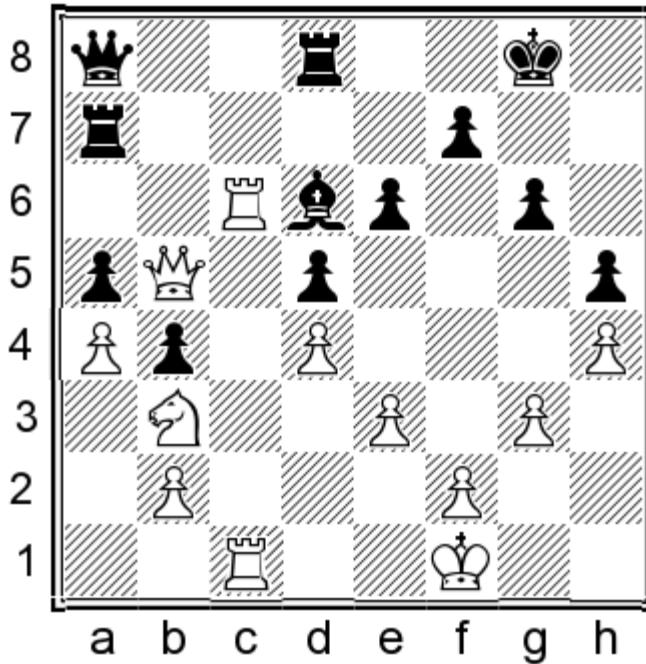
By the same token, “Capablanca” is no enemy of “Petrosian.” Thus, “Capablanca” is the bridge linking the Tal and Petrosian algorithms.

I believe in the unified and indivisible nature of chess play. Do you?

If, in the game with Boris Spassky, Petrosian was a “Petrosian” for only two moves, then what do you have to say about this game with Wolfgang Unzicker?

### No. 22: Petrosian – Unzicker

West Germany – USSR Match, Hamburg 1960



Position after 30...h5

We are playing White, and we have:

- 1) material equality – that is, parity according to the first factor of the position;
- 2)  $t = 40/30 = \sim 1.33$  (the Tal Zone);
- 3) a “micro-minus” in the safety factor, as the pressure of the black dark-squared bishop against our kingside is not equal to nothing.

Our preliminary diagnosis: Is it “Tal”? Or a TC Algorithm?

Let's follow this line to the final assessment: Of interest are the fourth and fifth factors of this position. We have  $\Delta k > 0$  ( $8/32 > 8/40$ ) and  $\Delta(30\dots h5) = \sim 0.42$ . Verify this!

We're not wrong. This means that the fourth and fifth factors have explained nothing to us. Why?

Because here  $\Delta k$  impels us to “Tal,” but  $\Delta(\text{move})$  to “Petrosian.” And the forces standing behind it are about equal. They neutralize each other. Equilibrium!

What to do then? Trust in your intuition! More exactly: from among two or more possible moves, choose the one that appeals to you the most. I repeat yet again: chess is a very complex game, impossible to exhaust...

Rybka prefers 31.♗g1 or 31.♗g2. After, say, 31.♗g2 ♗g7, it continues with 32.♘c5. Rybka rushes...

And what did Petrosian do?

Petrosian chose a rook move:

**31.♖1c2**

To what end?

In order to march his king from f1 to b1! Petrosian is in no hurry...

**31...♝h7 32.♝e1 ♝g8**

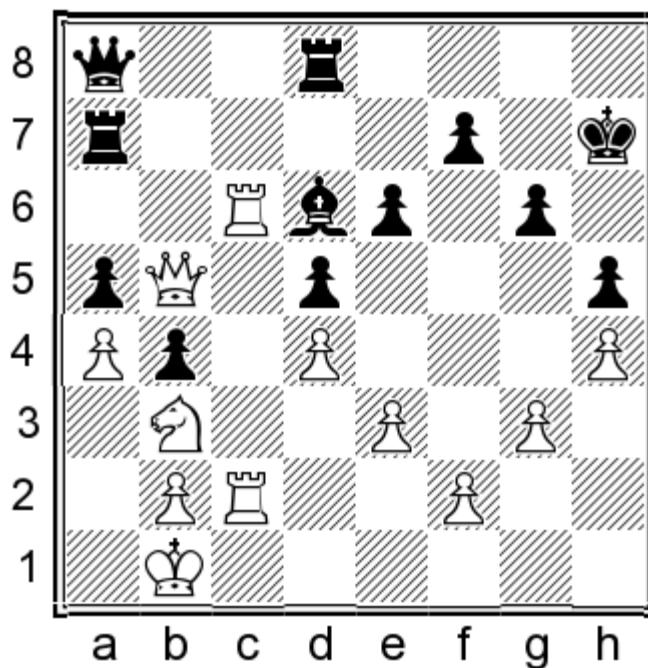
Black's situation is grim: he has no counterplay to speak of and stands half-paralyzed. He must sit and wait.

I say at once: I have serious doubts about Black's play. The g8 and h7 squares are not the best ones for the king. The best square for it is g7. Why?

Because on g7 the king stands more compactly!

One more thing: the bishop may stand better on e7, closer to the king, than on d6.

**33.♝d1 ♝h7 34.♝c1 ♝g8 35.♝b1 ♝h7**



How is the king better placed on b1?

Above all, because it is completely safe. A side effect is that now White's hands are left completely free for active operations on the kingside.

Petrosian's motto is: safety first! And then "Tal"!

And on this note, we might close our commentary – the theme of defense in this game is totally exhausted. But we won't abandon Petrosian just like that – there's something to learn from him. Learning from Petrosian, as he attacks the enemy king...

**36.♛e2**

Preparing g3-g4.

**36...♝b7 37.♝c1**

The immediate 37.g4 looks stronger. One possible variation, according to *Rybka*, goes 37...hxg4 38.♝xg4 ♜e7 (38...♜a6 39.♜xa6 ♜xa6 40.h5±) 39.h5 g5 40.f4 ♜g8 41.f5 e5 42.♝g2 e4 43.♜b6±. The threat is 44.♜b5 – the target on d5 is

added to the one on a5. Plus, there are other threats...

### 37... $\mathbb{Q}g7$

Unfortunately for Unzicker, Black can't play 37...f5. Why? Because, after invading on b5, followed by  $\mathbb{E}c6-b6$  and  $\mathbb{E}c1-c6$ , Black's e-pawn drops.

### 38. $\mathbb{W}b5$

Petrosian would not be Petrosian if he were in a rush to strike. Petrosian doesn't rush – why?

Because the situation is psychologically very difficult for the opponent, who is relegated to conducting a deep and hopeless defense. The probability that he will make a mistake grows with every move.

### 38... $\mathbb{W}a8$

38... $\mathbb{W}xb5$  also loses. After 39.axb5 a4 40.b6  $\mathbb{E}ad7$  41. $\mathbb{Q}a5$   $\mathbb{E}a8$  42. $\mathbb{E}xd6$   $\mathbb{E}xd6$  43.b7  $\mathbb{E}f8$  44. $\mathbb{Q}c6$   $\mathbb{E}xc6$  45. $\mathbb{E}xc6$   $\mathbb{E}b8$  46. $\mathbb{E}b6$  b3 47. $\mathbb{Q}c1 \Delta$   $\mathbb{Q}d2-c3-b4$ , Black can resign with a clear conscience. Bravo, *Rybka!*

### 39.f4

A debatable decision. Most likely, Petrosian played this so as to prevent a probable ...g6-g5 in reply to h4-h5 – see the note to 37. $\mathbb{E}c1$ .

The downside of this move is that now yawning cracks appear in White's kingside...

### 39... $\mathbb{Q}h7$

Wrong! This is a fatal error. The king stood ideally on g7, and there was no need for it to move from there.

*Rybka* recommends 39... $\mathbb{E}b8$ , when if 40. $\mathbb{W}e2$  ( $\Delta$  41.g4), then 40... $\mathbb{Q}e7$  and it turns out that 41.g4 is bad, since after 41...hxg4 42. $\mathbb{W}xg4$   $\mathbb{E}h8$  White's attack dries up – and *Black* seizes the initiative!

Therefore Petrosian would have had to refrain from g3-g4 and play e3-e4 instead, and perhaps even seek to bring the knight to e5 without hurting himself – he must not allow the ...b4-b3 wedge!

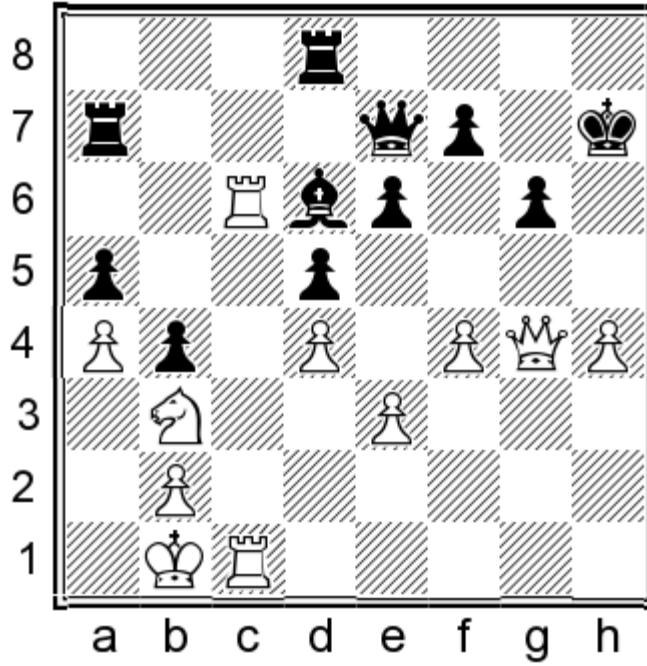
Everywhere White is better, but does he have real winning chances?

Whereas now...

### 40. $\mathbb{W}e2$

...now g3-g4 cannot be prevented! Black's kingside must be blown up!

### 40... $\mathbb{W}b7$ 41.g4 hxg4 42. $\mathbb{W}xg4$ $\mathbb{W}e7$



**43.h5**

The beginning of the end.

**43...wf6 44.Qa2**

Elementary prophylaxis – Petrosian refrains from the queen trade.

**44...Qg7**

Too late!

**45.hxg6 wf6 46.Wh4**

An open attack on the rook.

**46...Qe7 47.Wf2**

Target: the queen. He threatens the decisive 48.Wg1.

**47...Qf8 48.Qd2**

Scaring his opponent with shadows. White wants to bring the knight to e5?! Yes or no?

**48...Qb7 49.Qb3**

No, no, and again, no! Petrosian is in no rush...

**49...Ra7 50.Wh2**

The square h8... Must I continue?

Or, even more fearsome (and this is no phantom), 51.f5!.

**50...♝f6 51.♝c8**

Utterly smashing the enemy defenses.

By itself, the attack on the enemy king is not too terrible. And Black would probably have fended it off, were it not for the target on the queenside. Unzicker simply lacks the forces both to protect his king and to defend the a5-pawn. The vultures are circling above.

**51...♝ad7**

Your task is to find the win after 51...♝xc8 52.♝xc8+ ♔e7. Without the aid of *Fritz*, *Rybka*, and their cohorts.

**52.♝c5**

Awesome!

**52...b3+**

After 52...♝xc8 53.♝xd7+ ♔e7... extend this variation, please!

**53.♔xb3 ♜d6 54.f5**

A double blow!

**54...♝b6+**

Typical death rattle.

**55.♔a2**

and Unzicker resigned. **1-0**

In both this game and the previous one, Petrosian had the stronger side. He attacked, very successfully. When on the attack, Petrosian acted in complete accordance with the requirements of the aggressive algorithms for the search for the strongest move.

Why then, you ask, didn't Petrosian the whole time? Why did his play show clear signs of the defensive algorithm?

I reply: because the prophylactic measures connected with the king's safety were also the measures connected with the preparations for the coming attack!

By increasing the safety of the king, the stronger side thereby automatically increases his own position's potential. With this, the stronger side plays fully in line with the second point of the Tal Algorithm (the first point of the Capablanca Algorithm). The king's place is in a secure bunker!

Petrosian, attacking with an eye to the king natural to the careful chessplayer, either consciously or subconsciously becomes a well-ordered agent of defense. He understands well that attack and defense are two sides of the same coin, indivisible...

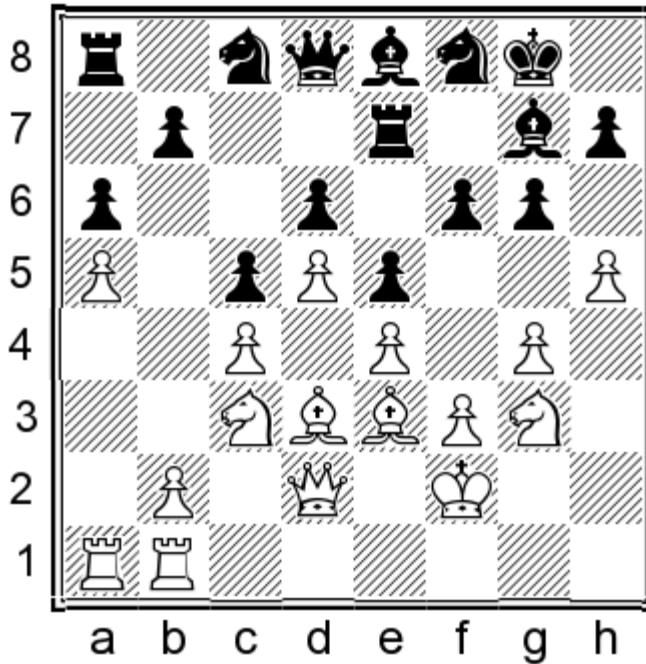
The Petrosian Algorithm may be viewed as a Capablanca Algorithm brought down to serve the self-preserving king. "Petrosian" is "Capablanca" on guard for His Majesty. True, the king is worth it...

"Petrosian" is not bloodthirsty. It is not a hungry chess wolf, it does not tear its victim to pieces in anger. It suffocates it with its embrace. "Petrosian" slowly, very slowly "elevates" its position. It "elevates," and "elevates" again. And so forth – until the agony, until the point of *Zugzwang* is reached.

The following game is one of the most notable by the ninth World Champion. An example of the most elegant strategic play, it illustrates in full measure the individual, inimitable hallmark of our hero.

### No. 23: Petrosian – Bertók

Bled 1961



Position after 18...♝e8

We are playing White. What do we have?

- 1) Material equality – that is, parity in the first factor of the position;
- 2) The Tal Zone:  $t = 42/29 = \sim 1.45 > t_{cr} = 1.25$ ;
- 3) A minimal advantage in the third factor (White's h5-pawn presses a little on Black's castled position).

The immediate final verdict: the Tal Algorithm. Formally, our situation is simple, because White stands better in the second and third factors. But... there is a subtle detail.

The subtlety is that, in our position,  $\Delta(18...♝e8) = 1.00$ . Check it out!

This value for  $\Delta(\text{move})$  is a great rarity in a middlegame with numerous pieces still on the board. Here we have thirty-two of them...

### 19.h6

A non-standard decision! For Petrosian, the great significance of  $\Delta(\text{move})$  is more important than any attack on the king. Truly, a bird in hand is worth more than two in the bush!

Most players would prefer 19.hxg6, followed by doubling rooks on the h-file, ♜e3-h6, trading dark-squared bishops, and then attacking the enemy king relentlessly. “Tal” is “Tal,” and the king is always (always?) the primary target in the attack.

### 19...♝h8

Petrosian’s essence is not an attack on the king, but defense. He defends based on accepted chess principles – here, the

enormous significance of  $\Delta(\text{move})$  in White's position after 19... $\mathbb{Q}h8$ .

A most pleasant side effect of the perilous invasion of h6 is that Black's dark-squared bishop is forced into a remote corner. Now, after 19... $\mathbb{Q}h8$ , White in effect has an extra piece!

Returning to the game now. The standard question: what now?

The standard reply: always, everywhere, and under all circumstances we must act in total compliance with the requirements of the position. Always and everywhere!

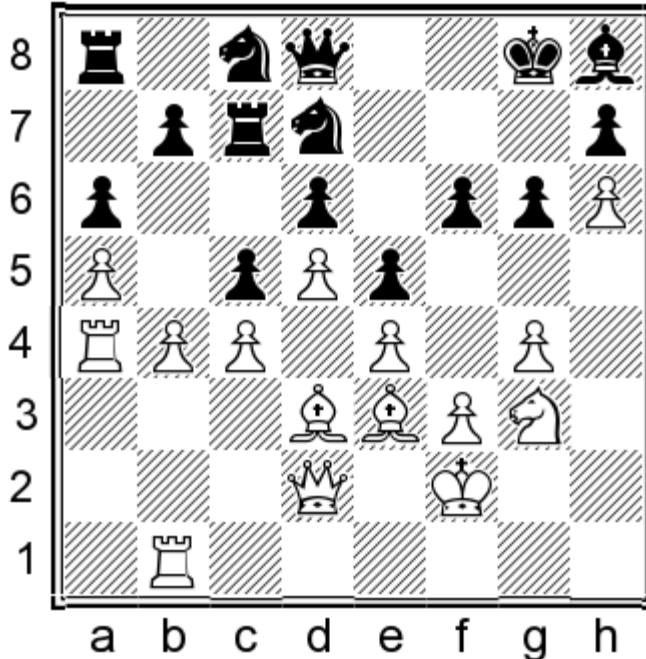
*Question:* what does the position require after 19... $\mathbb{Q}h8$ ?

*Answer:* in a word, "Tal." But this "Tal" will no longer be the "Tal" of the kingside attack. It will attack queenside targets, where White has an extra piece.

## 20. $\mathbb{Q}a4$

In order, after 21.b4 cxb4, to take on b4 with the queen – followed by c4-c5 with a crush!

20... $\mathbb{E}c7$  21.b4  $\mathbb{Q}xa4$  22. $\mathbb{E}xa4$   $\mathbb{Q}d7$



Now our  $m = 1$ ,  $t = 41/20 = 2.05!$ , a small "+" in the third factor of the position,  $\Delta k < 0$ , and  $\Delta(22... \mathbb{Q}d7) = \sim 1.33!$

Our progress is obvious: in the space of four moves, White has added to the second and fifth factors. The price of progress is a "permanent"  $\Delta k < 0$ . And this "poor"  $\Delta k$  will now become a constant headache. This parameter will always keep us in shape – we cannot flag in our efforts...

## 23.b5

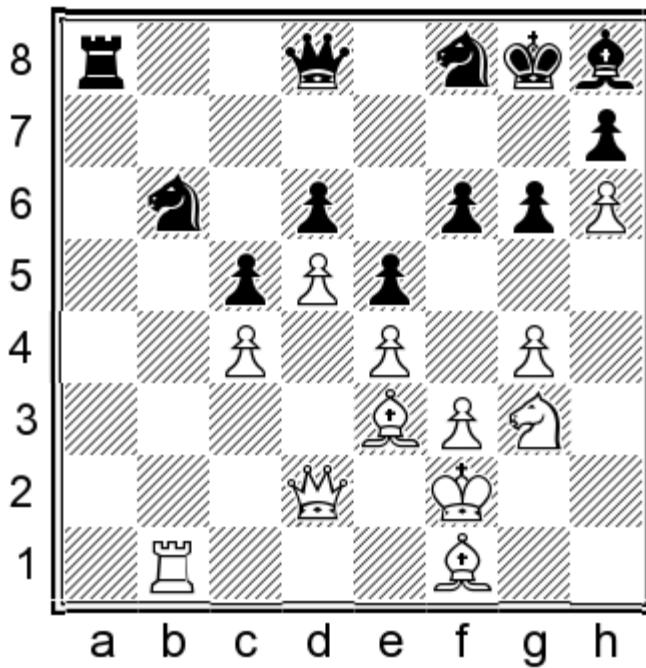
The opponent's position along the c-file cannot be cracked. So we open the next file!

23... $\mathbb{Q}f8$  24. $\mathbb{E}a2$   $\mathbb{E}f7$  25. $\mathbb{E}ab2$   $\mathbf{axb5}$  26. $\mathbb{E}xb5$   $b6$

Exchanges are a double-edged sword for Black. On the one hand, exchanges are favorable – Black has the more compact position. On the other hand, White has an "extra" bishop...

Black's position is strategically hopeless!

27.axb6 ♜b7 28.♗f1 ♜xb6 29.♗xb6 ♜xb6



The parameters of this position are:  $m = 1$ ,  $t = 39/26 = 1.50$ , a small “+”,  $\Delta k < 0$ , and  $\Delta(29\dots \square x b 6) = \sim 0.92$ .

Our diagnosis: the Tal Algorithm.

30.♗b2

Attacking the target at b6.

30...♝a4 31.♗c1 ♘d7 32.♗a1 ♘ab6

If 32...♝db6, then 33.♗e2  $\Delta$  34.♗d1 and... exchanges, exchanges, exchanges. The horizon of White's dreams, hardly fantastic ones, is a four-piece ending. Black has a king and the bishop on h8, while White has... need I continue?

Trades are also a double-edged sword for White (see the note to 26...b6). On the one hand, they favor Black, since he has the more compact position. On the other hand, White does have that extra bishop...

White's position is strategically winning!

33.♗xa8 ♚xa8 34.♗c2

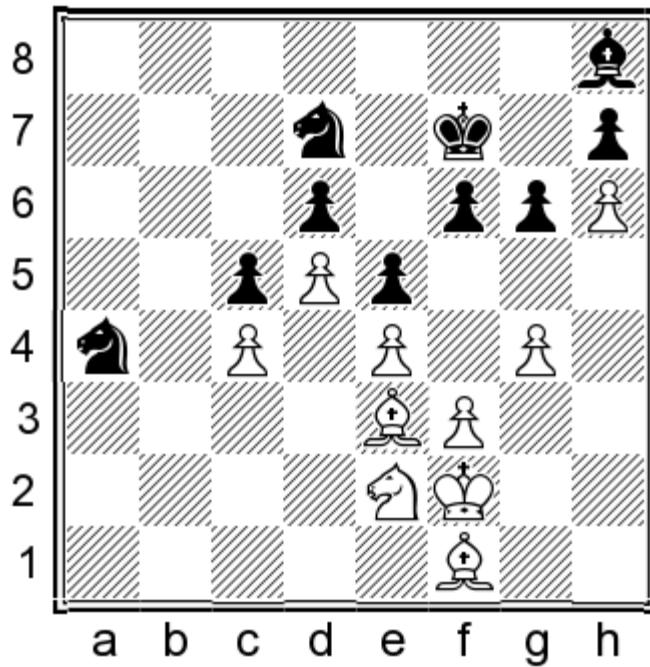
Intending the following setup: ♘g3-e2-c2 with ♘d3 and ♘d2 (if the black queen goes from a8 to a3), and then ♗c2-a2 with a queen check that would be very unpleasant for Black.

Attention! The bishop is needed on d3 in order to hold the f5 square one more time. We cannot relax – we must always bear in mind the possibility of ...f6-f5. On f5 (after a sacrifice) there must not appear an awkward and helpless white pawn, but rather a proud piece – be it the queen at c2, the d3-bishop, or the g3-knight!

34...♝f7 35.♗e2 ♚a4

Thank you!

**36. ♜xa4 ♔xa4**



A minor-piece ending!

We have:  $m = 1$ ,  $t = 20/13 = \sim 1.54$ , rough equality in the safety factor (attacking the king in the endgame is a fantasy),  $\Delta k \ll 0$  (danger!), and  $\Delta(36... \text{Qxa4}) = 0.50$ . Calculate these numbers for yourself.

Looking at the position, I am convinced of a sad fact: we have gone down. More exactly: our position has deteriorated seriously in the fourth and fifth factors – compare the parameters of this position with the corresponding parameters of the previous positions. Moreover, we have allowed the enemy to invade our territory – we are under attack! The threat is  $37... \text{Qdb6}$  and  $38... \text{Qb2}$ , winning a pawn.

And nevertheless, we are... two steps (two exchanges) away from victory! An inevitable and crushing victory. Why?

Answer: because there are so few pieces left on the board!

We must take a minimal amount of prophylactic measures, and Black's attack (or "attack") will peter out.

**37. ♜g3**

White not only puts the kibosh on a possible ...f6-f5, but also holds the c4-pawn.

Incidentally, all of our fears concerning ...f6-f5 were clearly overblown, since the f-pawn's advance would meet with g4-g5, leaving the h8-bishop in an unenviable position. A sad situation!

War is hell...

**37... ♜db6**

Threatening, as I said already, the "crushing"  $38... \text{Qb2}$ . But...

**38. ♜c1**

Necessary, and sufficient to beat back the attack irretrievably. Black has no forces left with which to continue the struggle... the bishop on h8... hopeless despair... the beginning of the end?

Reader! I call upon you, I require of you: broaden your horizons! Expand the "Tal" with the "Petrosian," and let

“Capablanca” help you! Believe and know: chess is One...

There followed:

**38...♝c3**

Why? I don't understand this!

More than likely, Bertók simply got confused. Or could it be that Black intended to create an “impregnable” fortress with ...♝c3-a2-b4 and ...♝b6-a4?

**39.♔e1 ♔e7**

Alas! If 39...♝a2 40.♗d2 ♘b4 ( $\Delta$  41...♝a4), then the simplest win is 41.♔d1 ♘a4 42.♔c1 followed by ♘f1-e2, ♘g3-f1-e3, ♘c1-b1 (useful prophylaxis against a possible check at d3), and ♘e2-d1. And then the “impregnable” Black fortress falls to pieces!

**40.♔d2**

Who's attacking whom?

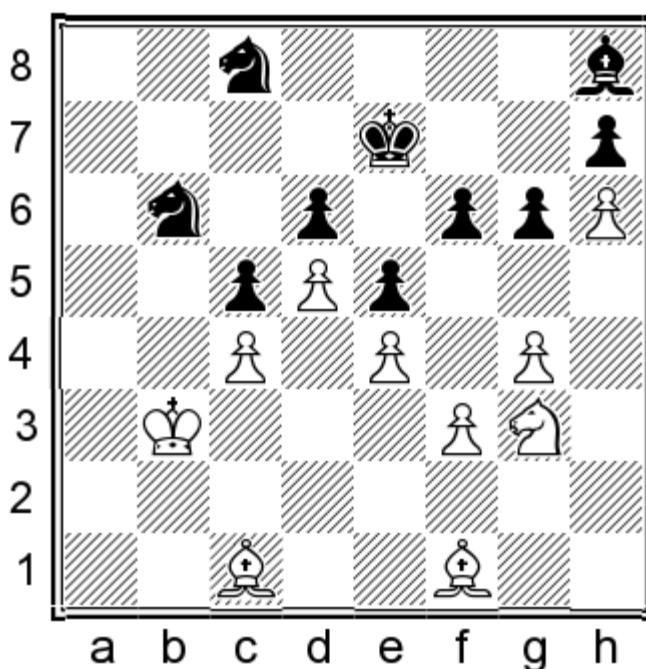
**40...♝ca4 41.♔c2**

Threatening 42.♔b3  $\Delta$  ♘d3, ♘f1-e3, ♘d2, ♘a3, and ♘c2, winning.

**41...♝c8**

The only defense. Black is retreating all along the line.

**42.♔b3 ♘ab6**



A fortress – a real one, not a toy.

In this position, our  $m = 1$ ,  $t = 21/14 = 1.50$ , roughly “=”,  $\Delta k < 0$ ,  $\Delta(42...♝ab6) = 0.80$ , “Tal.”

We have every chance to break down this fortress. But how?

With  $\mathbb{Q}c1-d2-a5$  (in order to hobble and fix Black's "light-squared" knight on c8),  $\mathbb{Q}f1-d3-c2$  (preparing the leap to a4), then  $\mathbb{B}b3-c3-d3$  and  $\mathbb{Q}g2-e2-c3$ . Finally,  $\mathbb{Q}c2-a4-b5-a6$  and  $\mathbb{Q}xc8$ .

After the trade on c8, White invades the enemy camp with the king via b5 and uncorks the champagne. The final position will feature the following pieces: king on c6, bishop on c7, and knight on b5. The d6-pawn will fall, and along with it Black's last hopes ...

However, things are not that easy! If he doesn't want to perish without a fight, Black has some small hope of mounting a defense: 42... $\mathbb{Q}ab6$  (the game move) 43. $\mathbb{Q}d2$  (the first move of the "winning" plan) 43... $\mathbb{Q}d7$  44. $\mathbb{Q}a5$   $\mathbb{Q}c7$  45. $\mathbb{Q}d3$  (all according to plan) 45... $\mathbb{Q}e7$  Δ 46... $\mathbb{Q}g8$ , and suddenly Black has counterplay!

A win? A draw? I don't know!

Then, it could be that we should wait with the "unfortunate" move 45. $\mathbb{Q}d3$ ? Perhaps. In my soul, doubts have gathered...

My path to victory (or to "victory") is not the only way. There is another, more convincing, and – why hide it? – more decisive, narrow route to the full point.

Petrosian played

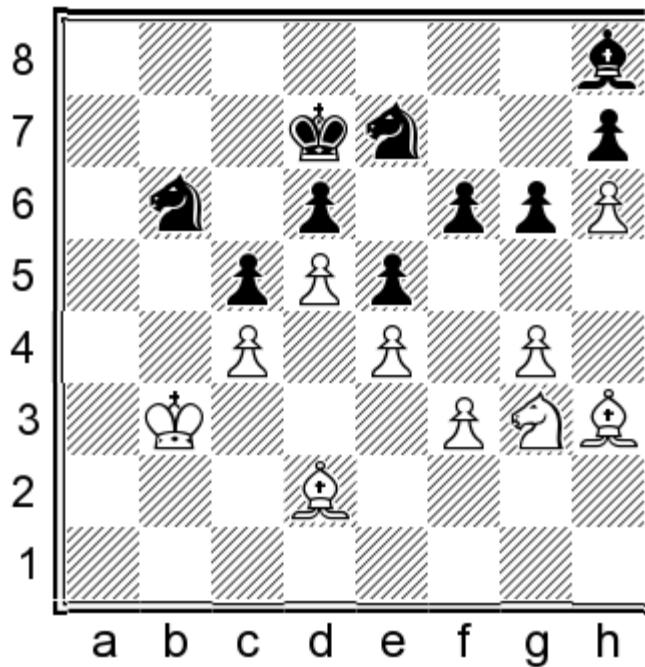
**43. $\mathbb{Q}h3$**

A move that's difficult to understand. Unless...

**43... $\mathbb{Q}d7$  44. $\mathbb{Q}d2$**

From this square the bishop eyes, not only a5, but also g5!

**44... $\mathbb{Q}e7$**



**45.g5+**

In the position just before this check (see diagram), White has:  $m = 1$ ,  $t = 22/17 = \sim 1.29$ , roughly " $=$ ",  $\Delta k < 0$ , and  $\Delta(44... $\mathbb{Q}e7)$  = 1.00. Our diagnosis: the TC Algorithm – that is, "Tal" and "Capablanca" at the same time.$

As computer analysis shows, Petrosian's move is correct. With this move, White forces the win, and there can be no doubt that Petrosian calculated everything to the end. The final position at the moment of Black's capitulation was not a pleasant surprise for him: he foresaw it, more or less accurately...

Why then, you ask, does Petrosian's radical and "anti-positional" decision (that bishop on h8!) have a right to exist?

I will answer that without commentary, for now (that'll come in the afterword to this game): "Tal" was more important! More important than all our blessed undertakings connected with the bishop isolated on h8. "Tal" is not forbidden!

45... $\hat{\text{e}}8$  46. $\hat{\text{Q}}\text{a}5$

## An open attack.

46...♞ec8 47.♞h1

A temporary sacrifice, but still a sacrifice of a pawn. Why?

Because  $t(46...8) = 24/14 = \sim 1.71$ !

47...fxg5 48.♘f2 ♕f6 49.♔g4

Clearing h3 for the knight and preventing the bishop's activation with ...g5-g4.

49...d8

If 49... $\mathbb{Q}d7$  (Fritz 11's recommendation), then after 50. $\mathbb{Q}a4$   $\mathbb{Q}d8$  51. $\mathbb{Q}h3$   $\mathbb{Q}e7$  (... $\mathbb{Q}e7-g8xh6$  – that's why Black allowed the white king into his camp without a fight) 52. $\mathbb{Q}xg5$   $\mathbb{Q}g8$  53. $\mathbb{Q}xh7$   $\mathbb{Q}xh6$  54. $\mathbb{Q}e6$ , White has all the winning chances.

Your task is to find the win. Here's a hint: the value of the empty square b6 is, for the king, not less than the value of the pawn at g6, to put it mildly. Enjoy!

As we have seen, with the text move (49... $\mathbb{Q}d8$ ), Bertók chose the path of war over the path of non-violent resistance...

**50.♘h3 ♜f6 51.♔d2 ♘e7 52.♘xg5**

Now the target on h7 is under attack.

52... $\mathbb{Q}xg5$  53. $\mathbb{Q}xg5$   $\mathbb{Q}f7$  54. $\mathbb{Q}d2$   $\mathbb{N}ec8$  55. $\mathbb{Q}xc8$

Strategic exchange, or a concrete “Talian” action?

No answer yet... I coolly point out:  $t(54\dots\text{dec}8) = 20/13 \approx 1.54$ . We are in the Tal Zone.

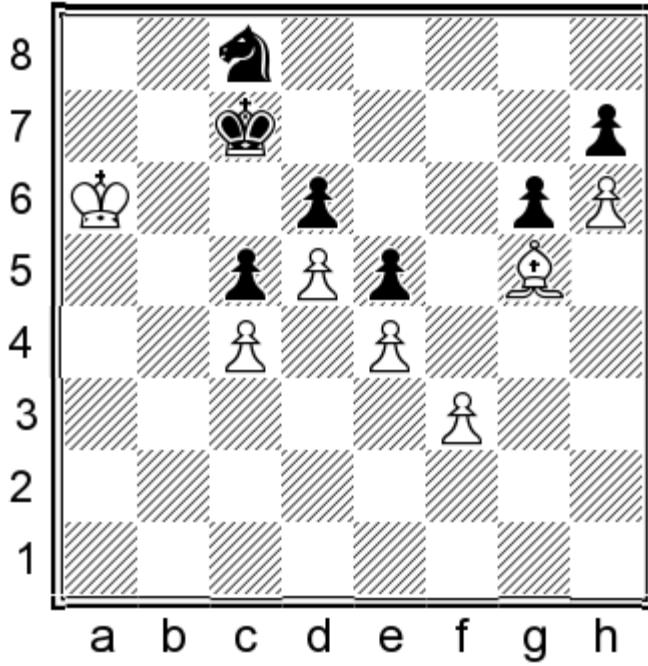
55...♞xc8 56.♕g5

Petrosian is not in a hurry.

56... $\text{N}b6$  57. $\text{Qd8}$   $\text{Nc8}$  58. $\text{Qa4}$

At last!

**58... $\mathbb{Q}$ e8 59. $\mathbb{Q}$ g5  $\mathbb{Q}$ d7 60. $\mathbb{Q}$ b5  $\mathbb{Q}$ c7 61. $\mathbb{Q}$ a6**



If 61... $\hat{Q}d7$  now, then 62. $\hat{Q}b7$  wins immediately.

61... $\hat{Q}b8$  holds out the longest, but this too fails to save him: after 62. $\hat{Q}d8 \hat{Q}a8$  (62... $\hat{Q}a7$  63. $\hat{Q}c7+$ ), 63. $\hat{Q}c7$  is Zugzwang! On 63...g5 (the only move), there follows 64. $\hat{Q}d8 \hat{Q}b8$  65. $\hat{Q}xg5 \hat{Q}c7$  66. $\hat{Q}f6 \hat{Q}b8$  (66... $\hat{Q}d7$  67. $\hat{Q}b7+-$ ) 67. $\hat{Q}d8 \hat{Q}a8$  68. $\hat{Q}c7$ .

In the position after 68. $\hat{Q}c7$ , we have  $m > 1$ ,  $t = 8/3 = \sim 2.67$ , a great “+” in the safety factor as the black king is totally paralyzed (in fairness we note, however, that White is unable to give mate to the “light-squared” black king even with cooperative play),  $\Delta k > 0$ , and  $\Delta(68.\hat{Q}c7) = 2.50$ .

Collapse in all five parameters!

**61... $\hat{Q}b6$  62. $\hat{Q}d8+$**

Bertók resigned. **1-0**

*Postscript*

Questions and answers, questions and answers... In short, an interview... of oneself. I wrote down the text of the interview while it was still fresh, right after Black capitulated.

**Q.** Remember, in the position after 18... $\hat{Q}e8$ , in your commentary to the game, you pointed out two possible moves – 19.hxg6 with an attack on the opposing king, and the text move, 19.h6. Which of these two definitely very good moves would you recommend for, let's say, a young and capable first- or second-category player?

**A.** I would not recommend, I would demand: the strongest move! More exactly: that move which you consider to be strongest.

**Q.** And what if both moves seem to be equally good to the player?

**A.** Then you must choose the move that appeals to you more.

**Q.** And if you like both of them the same?

**A.** Then I would advise you to... roll the dice! In other words, waste no time and choose one of the two moves at random. Show some backbone!

**Q.** I understand, I understand completely. Well then, dear author, allow me to pose you a very pointed question...

A. Please.

Q. The question of “‘Tal,’ ‘Tal,’ and again ‘Tal.’” According to your method (which you consider universal), Petrosian was obligated to attack all the time, all the time, all the time. And this for every move in this decidedly not brief contest. And for what? Exchanges, exchanges, and more exchanges. Where’s the “‘Tal’”? Where did White manage to win even one little pawn? Where is the “immortal Tal” in this game? What do you say about that?

A. First of all, I say – thank you! Thanks for your tough question, the answer to which will allow us, I hope, if not to dot every “i,” then at least to broaden our chess horizons.

And now, to the meat of your question. I begin with the fact that “‘Tal’” is a four-element algorithm. The first element says (or cries out, if you prefer): open attacks on the material targets in our opponent’s camp! Or, in short – attack! And Petrosian – one of the greatest of strategic chessplayers – attacks, attacks, and attacks... But for him, as we saw, nothing real (the win of material) came of it, nor indeed ever could!

Q. And why not?

A. Because, throughout the whole game, White experienced a deficit – sometimes large – in compactness. White’s forces were spread out over the whole board, whereas Black’s were concentrated, compressed like a spring. You might say that Petrosian beat like waves against a cliff. The potential in his position was just enough to disorganize only part of the enemy’s army, the pieces most capable of resistance. Petrosian simply did not have enough forces left to win material. A non-equivalent, “Talian” exchange (the third + the fourth points of the Tal Algorithm = sacrifice + winning material) were turned, in this game, into an equivalent type of exchange – that is, into a strategic exchange in the style of “Capablanca.” By now we know that the right-hand side of “Capablanca” (see the Algorithm Drift Chart) is but a low-intensity “‘Tal.’” And now we will know that there is no gulf between, let us say, “Talian” combinations and quiet, modest trades somewhere deep in the endgame...

Q. You mean to say...

A. I want to say again, that chess is one. “‘Tal,’” and “Capablanca,” and the as-yet little-known to us “Petrosian” – these are not some sort of independent chess entities. They are three branches of the same tree, three facets of chess play.

Q. And we...

A. And we, in the depths of our ignorance – or, I should say, somewhat more delicately, in the depths of the unbelievable complexity of the game of chess, split them up into little pieces. For our own comfort, we classify, and...

Q. And thereby we lose some of the information about the position! Do I have it right?

A. You do.

Q. Thank you. One more question, may I?

A. Yes, go ahead.

Q. Starting from general, meta-chess considerations, can you comment on move 45, which shakes me to my foundations?

A. I will answer that question with another question. What do you think – why do I need “m,” “t,” “pluses,” “minuses,” and those abstruse  $\Delta k$  and  $\Delta(\text{move})$  symbols?

Q. I’m guessing that it’s to make the game a science...

A. Let me put it more precisely so as to give chess a sound scientific base. In calculating the strongest move, I generally filter the position through the five parameters. And then, through the grindstones of three or four elements of the corresponding algorithms for the search for the strongest move. By this point, I’m down to two or three moves remaining in the “sediment.” Sometimes more – my “filter” is pretty crude...

Q. And how did it yield the result of 45.g5+, anyway?

A. You’re interrupting – you’re not letting me to give the basis for the genius move 45.g5+.

**Q.** Sorry.

**A.** Thus, the long-term particularities of the position after 19.h6 were the “unchanging” values of the parameters “ $t$ ”,  $\Delta k$ , and  $\Delta(\text{move})$ . More exactly, we had the “permanent”  $t > t_{\text{cr}} = 1.25$ , the “permanent”  $\Delta k < 0$ , and the large value of  $\Delta(\text{move})$  between  $\Delta(36... \mathbb{Q}a4) = 0.50$  and  $\Delta(\text{move}) \gg 1.00$ . Verify these figures for yourself!

**Q.** I did. It's true – for example,  $\Delta(22... \mathbb{Q}d7) = \sim 1.33$ .

**A.** This is a high value. It's the equivalent of one or two extra pawns, other things being equal. Such a value for  $\Delta(\text{move})$  is a sure sign of impending victory. If, naturally, the stronger side can keep at least half of his treasure all the way to the end of the game...

A greater “ $t$ ” requires “Tal”...

**Q.** Once again, excuse me... I have established that  $t(22... \mathbb{Q}d7) = 2.05!!$  Sorry for so much...

**A.** Exactly! What's strange is not that Petrosian plays “Tal,” but that – giving Bertók his due – but the fact that he did not lose right away. He didn't lose right away because his  $\Delta k$  was greater than 0. He of course leaped over a canyon, but he survived – he had enough  $\Delta k > 0$ . By the way, when was the  $\Delta k$  of Black's position at its peak?

**Q.** After 36...  $\mathbb{Q}xa4$ . Then Bertók was on three ranks, and Petrosian on five.

**A.** One more question. Yes, yes – don't get confused, the real question is just to you, my unbelieving reporter...

**Q.** You're wrong. I... doubt it.

**A.** This is the question: recall the value of  $\Delta(\text{move})$  that we had around White's move 36?

**Q.** I show  $\Delta(36... \mathbb{Q}xa4) = 0.50$  – the lowest value throughout the whole sequence.

**A.** There it is: my approach would predict “Tal” and only “Tal” in the position after 36...  $\mathbb{Q}xa4$ . Why?

Because  $t(36... \mathbb{Q}xa4) = \sim 1.54$  with the safety factor at parity. And no “poor”  $\Delta k \ll 0$  ( $3 \ll 5$ ) forces us strongly to drift toward “Petrosian.” At most, we would end up near the border of “Tal” with the right-hand “Capablanca.” And the “poor” pro-Petrosian move 48.  $\mathbb{Q}c1$  is our natural reaction to... the sting of a mosquito in the hunt for material targets.

We played 38.  $\mathbb{Q}c1$ , and the crisis passed. This was just a happenstance. In the final analysis, we say the following: Black's “attack” (36...  $\mathbb{Q}xa4$  and 37...  $\mathbb{Q}db6$ ) is a pale imitation of a death-rattle check.

After 38.  $\mathbb{Q}c1$ , the value of  $\Delta(\text{move})$  has gone up. This means that we have started to climb out of our hole (though not a very deep one). The whole time we have been in the right half of the spectrum, and our apprehension regarding Black's “attack” was groundless. We were afraid of ghosts. And we got rid of those childish fears by expanding “Tal” to “Capablanca” and even to “Petrosian.” The spectrum was unique, and we made our way through it...

**Q.** Excuse me, dear author, but I am still interested in 45.g5+. Why?

**A.** You are impatient... And I am very close to answering your question. Let me continue.

After the crisis (or is it “crisis”?), we have begun to rise out of the hole onto the mountain. Few pieces are left on the board, which means that now we have a chance to calculate all the variations to the end. And Petrosian did this! Back around move 42, he already accurately envisioned the contours of the final position, and playing like “Tal” (or “Capablanca”), he improved his bishops (44.  $\mathbb{Q}h3$  and 44.  $\mathbb{Q}d2$ ) and then gave Black a crushing blow with his g-pawn.

**Q.** So there was no miracle?

**A.** Understand it however you like, but in my considerations I will proceed from reality. As follows (sorry for the repetition):  $m = 1$ ,  $t > t_{\text{cr}} = 1.25$ , the third parameter drifts from a small “+” to approximate parity,  $\Delta k < 0$  ( $\Delta k \ll 0$  at the moment of “crisis”) from 1.33 to 0.50. From this, our stable diagnosis is: the Tal Algorithm.

Of course, these parameters are not fixed: they “float” within the boundaries I mentioned. And behind them there drifts the algorithm. “Tal” floats too – within the boundaries of the “Tal.” And friendly relations with “Capablanca” are not

foreign to “Tal.” Moreover, our “Tal” is not afraid of moves like 38.♗c1. This move is a natural reaction to our opponent’s attack, to an attack born of desperation.

**Q.** *Can you say that the contradiction between “Tal” and “Petrosian” is smoothed over by “Capablanca”?*

**A.** Yes, I can. “Capablanca” is the golden mean in the spectrum of strategies. It is equally close to “Tal” and “Petrosian.”

**Q.** *So it seems that White’s playing to restrict the mobility of the h8-bishop – it’s not the main thing? Do I understand that correctly?*

**A.** Yes! You understand correctly. Play against the h8-bishop is a sideshow, an indication of a great  $\Delta(\text{move})$ . The main thing is White’s big “t.” It is located in the Tal Zone at all times. And “Tal” was commanding, while “Petrosian” stayed respectfully in the background. This is why White broke out of jail unceremoniously, where the prisoner held by “Petrosian” was being tormented. And my overly delicate hundred-move maneuver by the light-squared bishop to c8 (see the note preceding 43.♗h3) was a consequence of narrow thinking. I was astonished by his play for restriction and went blind. I forgot about “Tal”!

**Q.** *How do you want to finish this interview?*

**A.** With daring! Always play according to the requirements of the position. No complaining!

In order to become a strong player, you need to master all the known methods of battle. You must expand your chess horizons. Alas, you have to first lay out everything “in pieces” and only then, by putting them together, see the position in all its indivisible magnificence.

As we saw in his encounters with Spassky, Unzicker, and Bertók, Petrosian basically did not defend – he attacked. Why?

Because, in all these games, Petrosian stood better. He had the stronger side and had to attack. However, as we saw, these attacks were unusual, to say the least. They were attacks with obvious signs of chess prophylaxis. In other words, the “Tal” of these attacks was not that different from their “Petrosian.”

The question is: where did “Tal” and “Petrosian” find their common ground?

Answer: in the third factor of the chess position – that is, in the factor indicating the level of safety of the white and black kings.

Specifically, in the Spassky game, with 17...c4+ and 18...a6 Black was guaranteed a permanent edge in the safety factor.

By the same token, in the game with Unzicker, 31.♔c2 and then bringing the king from f1 to b1 yielded the same permanent plus in the third factor.

What next?

Next, “Tal,” in all of its magnificence! Both with Spassky and with Unzicker.

The game against Bertók is somewhat of a separate entity. There, Petrosian – enjoying good prospects for a successful attack on the king – declined to carry it out. For the sake of what?

For the sake of a stable space advantage. If you like, Petrosian simply converted the unstable dynamics of the position into its long-lasting and resilient static elements; and then, without betraying his “Tal,” he implemented a bloody offensive on the queenside (not the kingside). The outcome – sixteen corpses and victory, deep in the endgame. Victory by Zugzwang!

Impulses by no means accidental, proceeding from deep within the true character of Petrosian, decorated by alarm. Within his work, safety considerations are pre-eminent. He sees danger a long way off and takes the corresponding prophylactic countermeasures. To an outside observer (that’s you and me), Petrosian was a player who preferred the Capablanca Algorithm to the Tal Algorithm, and the Petrosian Algorithm to that of Capablanca...

I hope that these first three games by the ninth World Champion have expanded your chess horizons considerably. Now

the thought of a deep inner unity of all the methods of struggle known to us will not seem paradoxical to you.

Petrosian was a classic chessplayer. But he did not play like most classic players. Petrosian would restrict not only his own possibilities, but also (very importantly) his opponent's possibilities! This way, Petrosian would make his own position worse, yet inflict even greater damage on his opponent's position, draining all force from the weaker side's position!

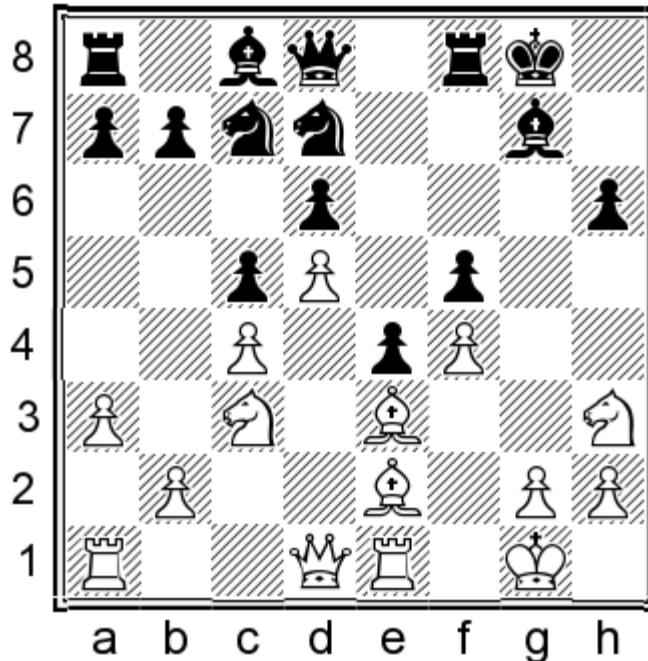
If in the previous games Petrosian mainly did not defend, but attacked, in the following game with Bronstein he finally showed himself to be a "genuine Petrosian." Isn't it because the position in the diagram featured dynamic equality?

I offer you to take the next – and very important – step forward. Are you ready?

**To an outside observer (that's you and me), Petrosian was a player who preferred the Capablanca Algorithm to the Tal Algorithm, and the Petrosian Algorithm to that of Capablanca.**

#### No. 24: Bronstein – Petrosian

Candidates' Tournament, Amsterdam 1956



Position after 17. ♜h3

What is there for Black?

- 1) Material equality – that is, parity in the first factor of the position;
- 2)  $t = 31/37 \approx 0.84$ . We are in the Capablanca Safety Zone, not far from the border with the "Petrosian";
- 3) rough equality in the safety factor.

Our preliminary diagnosis: "Capablanca." More exactly: the Capablanca Algorithm with barely noticeable signs of the Petrosian Algorithm. Why?

Because we are on the borderline...

The fourth and fifth factors:  $\Delta k = 0$  and  $\Delta(17. ♜h3) = -0.20$ . The fourth factor is neutral and the fifth draws us slightly to the left, to the "100% Capablanca."

Our final diagnosis: the Capablanca Algorithm.

The game continued:

**17...♝xc3**

Remarkable! Why?

First and foremost, because now Black is freed forever from some very serious unpleasantness in the case of b2-b4. But that's not all. The main thing is that Black has traded off a useless bishop for White's very good knight! The bishop is useless because it fires only at the dark squares, whereas the g4 square is a light one. Petrosian feared a possible break along the g-file, and not without reason. Almost certainly, he was right!

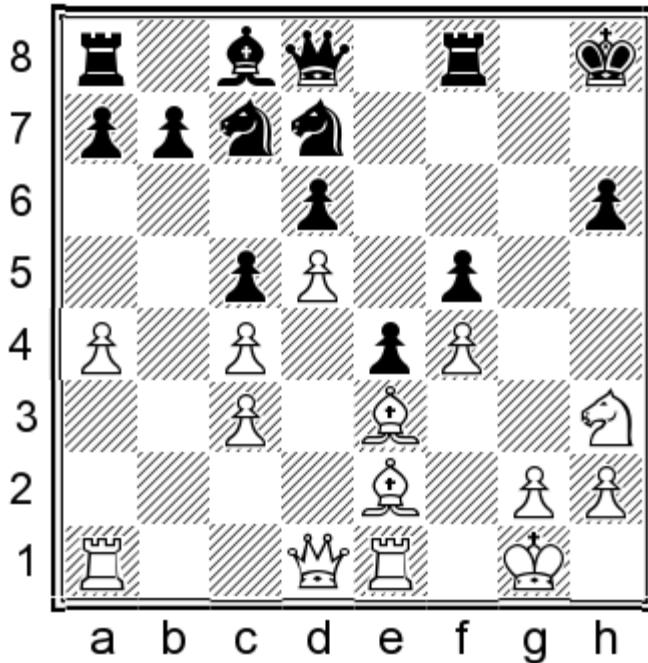
The uncompromising *Fritz* requires 17...b5, with 18.cxb5 ♜b6 etc., to follow. *Rybka* treats the position more carefully: 17...♜h7, 17...♝e7... Petrosian won't go that way!

**18.bxc3 ♜f6**

White has two pieces controlling g4, Black has three. And that's not all.

**19.a4 ♜h8**

“The following moves by Black are aimed at preventing the dangerous break g2-g4. Petrosian comes up with the following plan: to set up his pieces on the g-file and at the right time play ...h6-h5. Black has enough space to carry out the necessary regrouping on the kingside. The important thing is that he does not have to worry about queenside threats, where the possible threat of a breakthrough has been liquidated” (Sokolsky).



**20.♝f2 ♜g8**

The g4 square is now controlled by four pieces ( $4 > 3$ ).

**21.♚h1 ♜e8 22.♝g1 ♜g6**

$5 > 4$ .

**23.♗d2**

White intends to advance his pawn to g3 and then double rooks on the g-file. Perhaps it was stronger to play 23.♖b1, preventing the free advance of the rook from a8 to the “precious” g-file.

**23...♝d7 24.g3**

Too straightforward.

**24...♜ae8**

The rook arrives!

**25.a5 ♜e7 26.♖ab1 ♜c8**

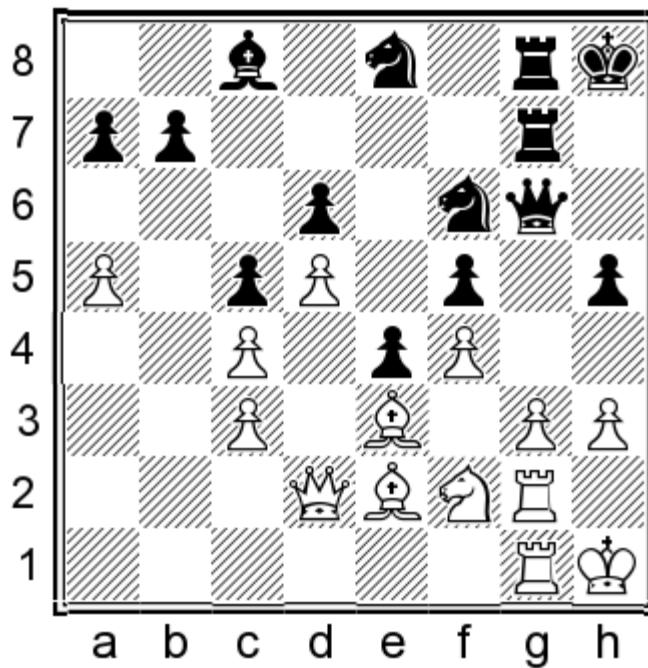
Simple and good.

**27.♗g2 ♜eg7**

Six black pieces control g4!

**28.♖bg1 ♜ce8 29.h3 h5**

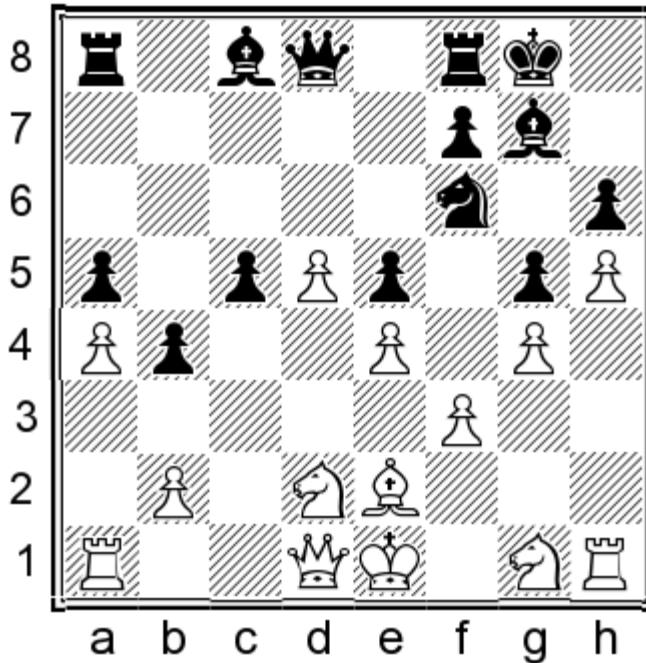
7 > 5. Overprotection!



In the final position,  $m = 1$ ,  $t = 24/31 = \sim 0.77$ , “rough equality”,  $\Delta k = 0$ , and  $\Delta(29\dots h5) = -0.29$ . These parameters are close to those of the position after 17.♘h3.

Black is out of danger, as is White. Parity! The players agreed to a draw.  $\frac{1}{2}-\frac{1}{2}$

The following game between Petrosian and the master Schweber is in fact only an extension of the central theme of the preceding game: hunting down the opponent’s good knights. For Bronstein, that was his c3-knight, while for Schweber it became his f6-knight.



Position after 17...dxc5

In this position, White has:

- 1) material equality – that is,  $m = 1$ ;
- 2)  $t = 26/29 \approx 0.90$ . We are in the Capablanca Safety Zone;
- 3) approximate equality in the safety factor.

Our preliminary diagnosis is that this position requires the Capablanca Algorithm.

The fourth factor is  $\Delta k = 0$ , since 8 white and 8 black pieces (king and pawns) stand within equal-sized rectangles a1-a5-h5-h1 and a8-a4-h4-h8.

The fifth factor of the position:  $\Delta(17\dots dxc5) = 36/14 - 36/14 = 0$ . Calculate this.

And if our boring arithmetic is accurate ( $\Delta k = 0$  and  $\Delta(17\dots dxc5) = 0$ ), then our final assessment plainly must agree with our preliminary one: “Capablanca.”

The game continued with the bishop move:

**18.♗b5**

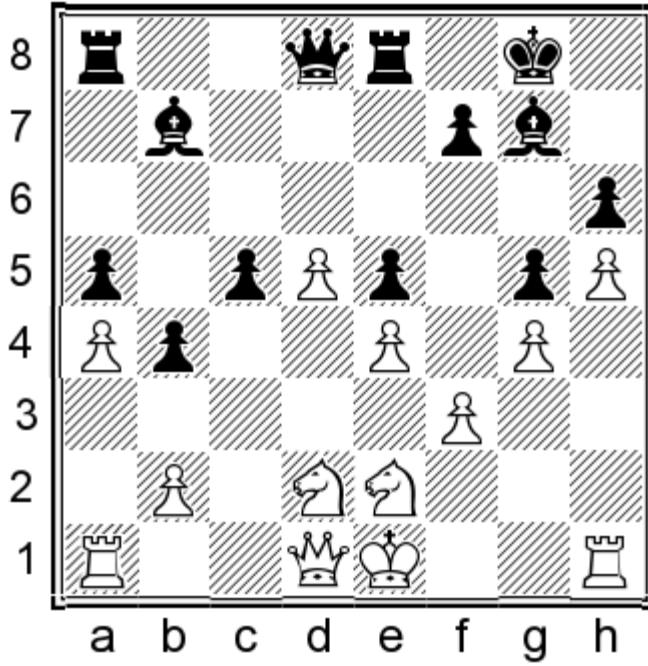
Question: what for?

**18...♗b7 19.♕e2 ♔e8 20.♗xe8**

And here's the answer to that not especially difficult question: the knight White has liquidated can no longer come to its best square – d6.

Prophylaxis above all, no?

**20...♜xe8**



After the exchange, as we stated in “Capablanca,” Petrosian embarks on a new setup for his pieces. The first point of the strategic algorithm in action!

**21.♗c4 ♜a6 22.♘b3 ♜f6 23.♖c1**

In order, on 23...♜xc4, to have the proper reply 24.♖xc4, when the f3-pawn is safe.

**23...♝f8 24.♝g3**

On to f5!

**24...♝c8**

“The poor bishop wanders without knowing what to protect first – c4 or f5” (Goldberg).

**25.0-0 ♞d8 26.♝g2**

Of course! With this move Petrosian considerably increases the density of packing of his king and pawns.

**26...♞a7 27.♞f2**

On to c2!

**27...♝h7 28.♞fc2 ♜a6**

It was simpler to resign.

**29.♝xe5**

and White won easily. Schweber resigned on move 43.

Five games from the chess treasure of Tigran Vartanovich Petrosian, the virtuoso of defense. What ties them together? That in not one of these games did Petrosian stand worse. Further: in four of the five games he was better, and Petrosian

was attacking. And in only one game – against Bronstein – the starting position in that example was one of dynamic equality and there appeared before us a “real Petrosian”!

The worse the position, the more it bears the signs of the Petrosian Algorithm. Why?

Because the Petrosian Algorithm is always the Algorithm of Defense.

In defense, the weaker side defends his king first and foremost. The second piece in the scale is the queen, the third is the rook, etc. At the bottom of the heap – the pawns and vacant squares with little chess value. In other words, we defend according to our familiar scale. This scale works in both attack and defense.

Therefore, when in defense we give up empty squares first. We give our opponent space in order to preserve our army. In giving up space, we automatically compress our position, thus increasing the concentration of our forces. We increase the density of packing of our king and pawns, and of our other pieces generally.

The key to success is compactness around the king. The larger this factor, the easier it is for the weaker side to hold the position and the more difficult it is for the opponent to get to his material targets.

Our ideal chess objective is error-free play in all possible positions. The ideal is unattainable, but the desire to reach it never flags.

Our ultimate chess goal is the universal method for searching for the strongest move. This goal is threefold. Its three facets are the fundamental algorithms of Tal, Capablanca, and Petrosian, and we have gone through two of them.

Our current, interim goal is the Petrosian Algorithm (the Algorithm of Defense), and we have already made it halfway to this goal. Our “advance” on the Petrosian Algorithm continues – ahead of us there lie the final five examples of this chapter. All of them (with the amusing exception of the game with Fischer) are on the theme of the “genuine Petrosian.” In them, we shall see the ninth World Champion in all his magnificence!

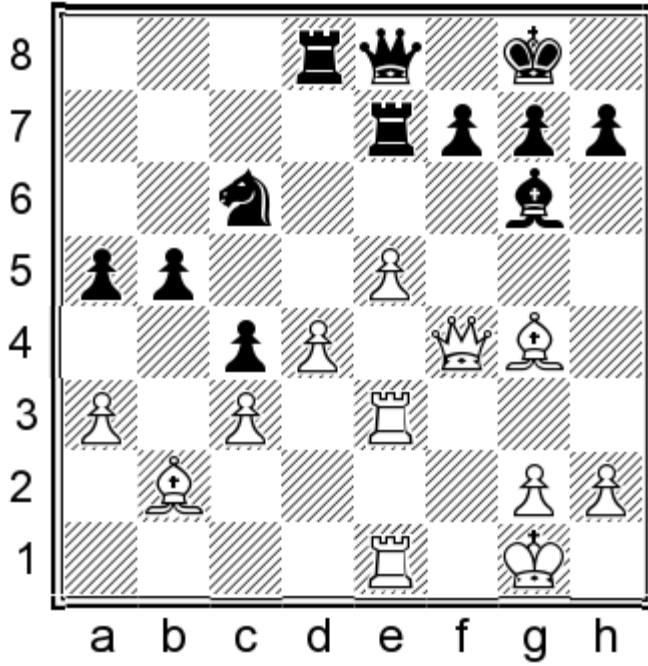
As I promised you in the previous chapter, we have made a smooth transition from the Capablanca Safety Zone over into the Petrosian Zone. Just as smoothly, in the chapter’s conclusion we will go from defending empty squares to defending occupied ones.

Empty and occupied squares are different from one another only in a visual sense. What unites them is that all of them are of non-zero value. It often happens that the value of an empty square exceeds that of a piece. In such cases, it makes sense to sacrifice the piece in order to gain that square. To make progress, we must always be ready for this kind of sacrifice.

Our immediate goal is the next Petrosian game. In the game with the American grandmaster Samuel Reshevsky, Petrosian, in order to hold the position, was forced to...

**The key to success is compactness around the king. The larger this factor, the easier it is for the weaker side to hold the position and the more difficult it is for the opponent to get to his material targets.**

**No. 26: Reshevsky – Petrosian**  
Candidates’ Tournament, Zürich 1953



Position after 25. ♕fe1

What does Black have?

- 1) parity in the first factor of the position – that is,  $m = 1$ ;
- 2)  $t = 34/42 = \sim 0.81$ . We are on the edge of the Capablanca Safety Zone and the Petrosian Zone;
- 3) considerable inferiority in the third factor of the position, since with respect to the two kings, White is a queen ahead in the rectangle f1-f8-h8-h1; in addition, we also have problems in the center – the white center pawns will start rolling if we're not careful.

Our final diagnosis: the Petrosian Algorithm.

And right away, the fourth and fifth factors of the position – maybe they can help us. Let's see:  $\Delta k = 0$  and  $\Delta(25. ♕fe1) = \sim -0.33$ .

We lack superiority in the parameter  $\Delta k (= 0)$ , since we are threatened with an attack. I add: it's a "Tal"-style attack, which is an attack on material targets, and White has a proper basis for doing so. He has no "gaps"!

What do we do?

I admit, Petrosian's reply is stunning:

**25... ♜e6**

Tal: "This purely positional sacrifice (a quiet move, with no checks or apparent threats!) had an indelible effect on me."

Kasparov continued (quoting from *My Great Predecessors*, Part III): "... For the sake of what?! In order to block the advance of the e-pawn, and also to open the way for the knight to d5."

The dangers looming over Black were truly great. For example, here's what would have happened were it White's turn in the diagram (variations by Rybka):

26. ♔f3 ♜a7 27. d5 ♜e7 28. d6±;

26. ♔f3 ♜a7 27. d5 ♜d7 28. d6 ♜ee8 29. ♔d5±.

Now let's return to the position after 25... ♜e6. After the text move, it will be Black, not White, who enjoys hegemony in

the center!

## 26.a4

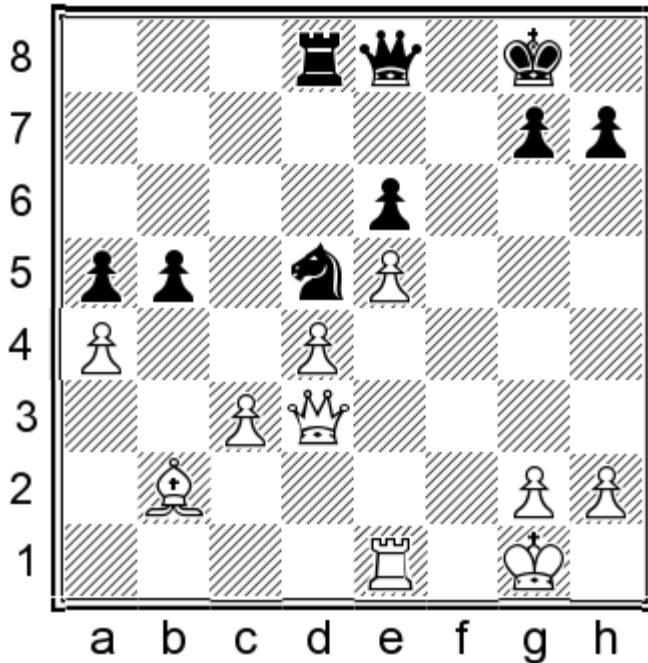
Probably the immediate 26.♗xe6 was stronger, and if 26...fxe6, then 27.♗g3! (Kasparov). Next White moves his bishop to d2 and prepares to attack the king. White stands better.

Therefore, after 26.♗xe6, instead 26...♗xe6 is stronger (Kasparov). Kasparov continues: “After the possible 27.♗g3 ♜e7 28.h4 ♜d5 29.♗g5 ♜d7 30.h5 h6 31.♗h4 ♜d3 the problem of the b2-bishop cannot be resolved immediately, but White retains some advantage...”

## 26...♜e7 27.♗xe6 fxe6 28.♗f1

White might have greater prospects after 28.♗g3 b4 29.♗g5 (*Rybka*'s recommendation).

## 28...♜d5 29.♗f3 ♜d3 30.♗xd3 cxd3 31.♗xd3



## 31...b4

“Reshevsky’s clever play combined with Petrosian’s iron logic make this game one of the tournament’s jewels... [N]ow it is White who must solve a difficult psychological problem: should he exchange on b4, which practically guarantees the draw, or advance the pawn, driving out the knight and obtaining winning chances, as well as losing ones?” (Bronstein)

Curiously, here he could also have played the non-human move 31...bxa4 (*Rybka*). Check to see if this is the case.

One thing is clear: Petrosian succeeded in equalizing (or almost equalizing) the position. Credit for this goes to 25...♗e6!.

## 32.cxb4 axb4 33.a5 ♜a8 34.♗a1 ♜c6 35.♗c1 ♜c7 36.a6 ♜b6 37.♗d2 b3 38.♗c4 h6 39.h3 b2 40.♗b1 ♜h8 41.♗e1

and the players split the point. ½-½

**“Tal” sacrifices in superior positions are in order to speed up the attack.**

This is a non-equivalent exchange.

**The ultimate goal is to mate the enemy king.**

**“Petrosian” sacrifices material in inferior positions in order to slow down the attack. The goal here is to convert material chess values into strategic ones.**

**The ultimate goal is to defend the king.**

In the afterword, we will try to answer one question: just how paradoxical was Petrosian’s move 25?

25... $\mathbb{E}e6$  enabled Black to make a draw. It could be that this was the strongest move. But... but chess is truly inexhaustible!

Let me reformulate the question and put it to you this way: did Petrosian’s move fit the logic of our preceding considerations? Yes or no?

After giving it some thought, we answer, “Yes,” because nobody can forbid us to sacrifice! When sacrificing material, the weaker side doesn’t give it up in return for nothing – he does it in order to achieve some other (non-material) benefit. By sacrificing rook for bishop, Petrosian gained control of d5. To him, the chess value of that empty square was comparable to the value of the sacrificed material.

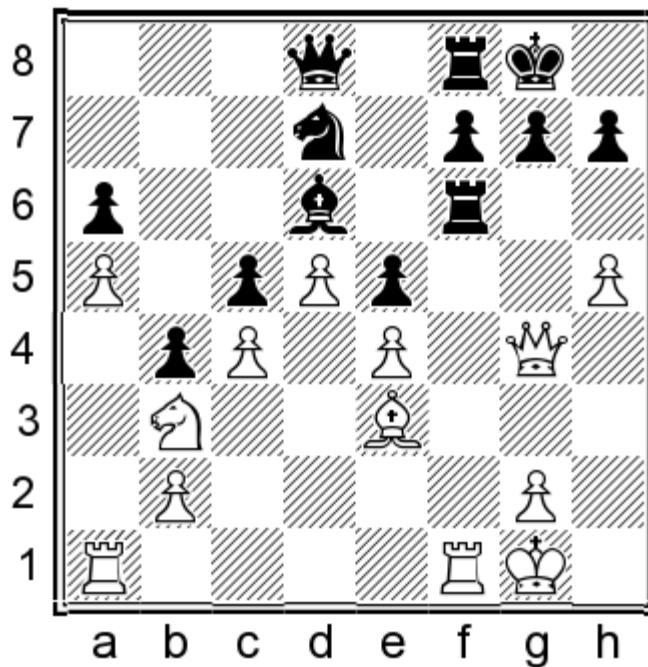
We don’t need to worship chess material. The material element in a position is not the position itself, but only one aspect of it, a part of the whole. And this part is not capable of outstripping the whole...

“Tal” sacrifices in superior positions are offered for the purpose of *increasing the tempo of the attack*. This is a non-equivalent exchange. The ultimate goal is to mate the enemy king.

“Petrosian” sacrifices material in inferior positions in order to *slow down the attack*. The goal here is to convert material chess values into strategic ones. The ultimate goal is to defend the king.

### No. 27: Tal – Petrosian

USSR Championship, Riga 1958



Position after 31.  $\mathbb{W}g4$

The parameters of the position are (we have Black):

1) material equality – that is,

$m = 1$ ;

2)  $t = 26/45 = \sim 0.58 < t_{cr} = 0.80$  – the Petrosian Zone;

3) approximate equality or even a slight inferiority in the safety factor (within the rectangle f1-f8-h8-h1, White has an extra queen; on the other hand, the black king is more tightly “bundled”).

Our preliminary diagnosis (which, as we'll soon explain, will become final): the Petrosian Algorithm. And our “Petrosian” will above all be strategic, rather than dynamic. Why?

Because our king is tucked away very solidly!

The fourth parameter:  $\Delta k = 0$ .

The fifth is:  $\Delta(31.\mathbb{W}g4) = \sim -0.55$ . This factor nudges us slightly to the right along the “t” axis – that is, moving from the Petrosian Algorithm to the CP Algorithm. This small drift to the right, of course, cannot set us beyond the boundaries of the Petrosian Zone. We have dug deeply into it – our starting point is over to the left of  $t_{cr} = 0.80$ .

So, what do we do?

There are two solutions, the standard and the radical: 31...h6 (*Rybka*'s recommendation) and 31... $\mathbb{E}f4$  (the game move).

After 31...h6, the computer gets lost in a mess of variations, all within a narrow range of “±” evaluations (0.60). Here are some of them:

a) 32. $\mathbb{E}ae1 \mathbb{W}c8$  33. $\mathbb{E}f5 \mathbb{Q}h7$  34. $\mathbb{E}ef1$ ;

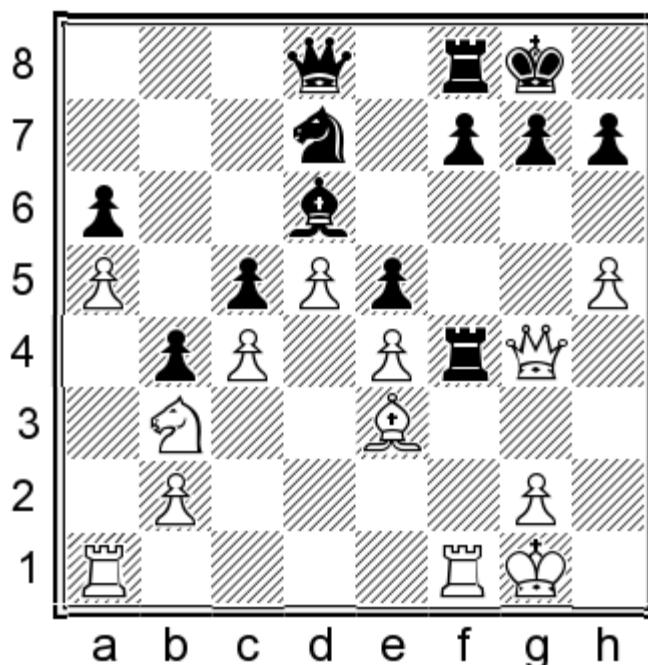
b) 32. $\mathbb{Q}d2 \mathbb{Q}e7$  33. $\mathbb{E}f3 \mathbb{Q}h8$  34. $\mathbb{E}g3 \mathbb{E}g8$ ;

c) 32. $\mathbb{E}fe1 \mathbb{E}f4$ .

As we can see, variation (c), offered by that soulless machine, yields a radical solution to the position!

There followed:

**31... $\mathbb{E}f4$**



A sacrifice! To what end?

To free himself from bothersome strategic chains and to control the strategically important point e5.

What's more important: a rook for a bishop, or an available center square?

A very difficult question. So difficult, in fact, that Tal himself did not find the answer!

### **32.♗xf4**

“Of course, if Tal had understood all the way what taking the exchange would lead to, he would have contented himself with a pawn: 32.♗xf4! exf4 33.♗xf4. I believed this situation was better for Black than playing on with material equality but a very cramped position” (Petrosian).

It is quite possible that then (after 33.♗xf4) there would have followed 33...♝f6 34.♗xd6 ♛xd6 35.♗f1 ♜e5 36.♗f4 h6 – Rybka’s variation. After this White would have  $m > 1$ ,  $t = 32/28 = \sim 1.14$ , approximate equality in the safety factor.

Diagnosis: the Capablanca Algorithm. I add that White would have good winning chances...

But now the battle turns considerably sharper – now Black has counterplay!

### **32...exf4 33.♗d2**

If 33.h6, then 33...g5 is very possible (and 33...g6 looks good, too), i.e. 34.♗ae1 ♜e5 35.♗f5 f6 36.♗d2 ♜f7. Who’s attacking whom?

On the other hand, Black’s position is nevertheless inferior: 37.♗f3 ♜xh6 38.♗e6+ ♜g7 39.e5± (Rybka).

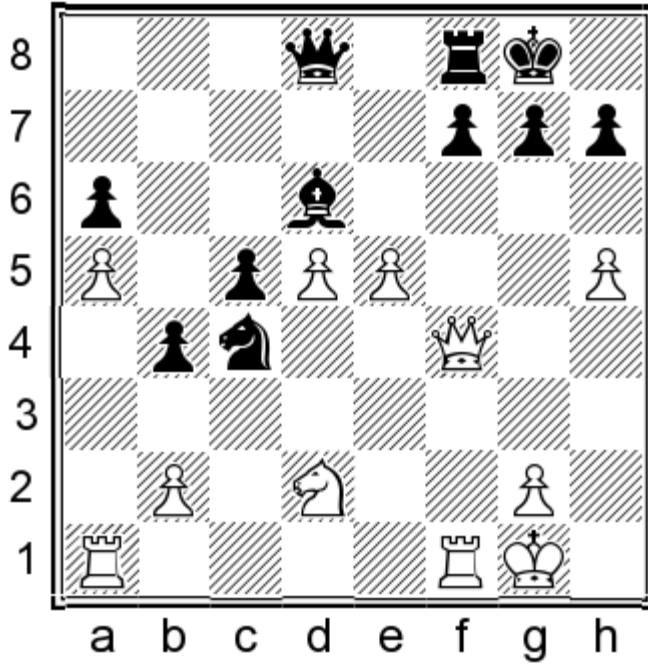
### **33...♜e5**

Our silicon friend prefers 33...♜e5.

### **34.♛xf4**

Wrong! Tal evidently was blinded by the beauty of his aggressive idea – see his next move. Either of two other queen moves was stronger: 34.♛f5, or even 34.♛h3 (suggested by Kasparov).

### **34...♝xc4 35.e5**



*Question:* Is Tal entitled to play like “Tal”?

**35...Qxe5**

*Answer:* No! Why?

Try to figure this one out yourself: put the position after 35...Qxe5 under parametric analysis.

Here's what Kasparov writes in *My Great Predecessors*: “Without hesitation retaining an ultrapowerful position in the center. Possibly Tal was hoping for 35...Qxd2?! 36.exd6 Qxf1 37.Qxf1 h6 (37...Qxa5 38.h6) 38.Qe1 – the d-pawns are only nominally doubled, but they are in fact passed!”

**36.Qe4 h6 37.Qae1**

“After 37.Qxd6 Qxd6 Black would have supported his knight by ...f7-f6 and would have had an impregnable fortress plus counterplay with ...c5-c4. But, of course, White should not have allowed that which occurred in the game. 37.b3! came into consideration”

(Kasparov).

**37...Qb8**

A powerful move! The silly little threat of 38.Qd6+- is warded off; and that's not all...

**38.Qd1 c4**

A cold shower in retribution for unjustifiably raising his sword. Now it's Black who's on the march – he threatens ...Qa7+ and ...Qd3. Unexpectedly for him (not for us, though), Tal has become the weaker side...

Here I end my commentary: the theme of defense in this game has been exhausted. The game, not without mutual errors, eventually ended in a draw on move 73.

The Petrosian Algorithm is the contrary of the Tal Algorithm. Later on we will defend difficult positions, teetering on the edge between draw and defeat. But we will not engage in post-mortems, the theme of defending hopeless positions

– this is not our focus.

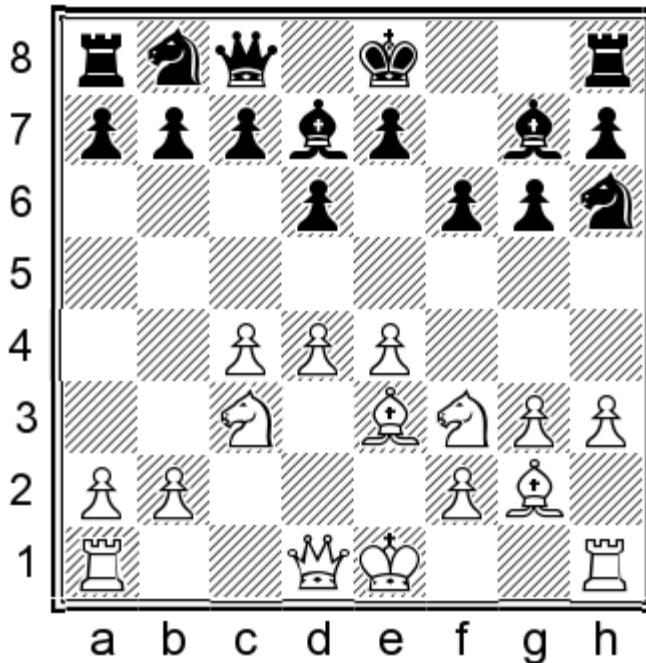
If we are the weaker side and our opponent attacks us for legitimate chess reasons, then we are obligated to humbly surrender to him what he deserves for being the stronger side. Without a struggle and almost with a feeling of deep gratitude, we surrender sacred space to our opponent. This way we concentrate our forces. Compactness is our aim!

If the opponent is very strong and if he has enough forces to achieve a material advantage, we may have to clench our teeth and consent to this terrible situation.

What do we have to defend at all costs? You know the answer: the king! Because the king is a piece of limitless value...

### No. 28: Pomar – Petrosian

Siegen Olympiad 1970



*Position after 9. ♜e3*

Once again, we have Black. The parameters of the position are:

- 1)  $m = 1$  – that is, material parity;
- 2)  $t = 32/43 \approx 0.74$  – the Petrosian Zone;
- 3) rough equality in the factor of safety.

Our preliminary diagnosis: the Petrosian Zone.

The fourth factor of the position (compactness):  $\Delta k > 0$ , as  $9/24 > 9/32$ .

The fifth factor (spatial expansion):  $\Delta(9. ♜e3) = 31/16 - 39/16 = -9/16 \approx -0.58$ .

Our final diagnosis: the CP Algorithm – that is, we are somewhere on the border between the algorithms of Capablanca and Petrosian. We were taken there by the fourth and fifth factors of the position, because  $\Delta k > 0$  and  $\Delta(9. ♜e3) < 0$ .

*Question:* what's Black going to do?

*Answer:*

**9... ♛f7**

He retreats. Of his own accord! Pressing on the spring, Black yields to his opponent some of his space. In other words, Petrosian increases the localized density of his own pieces right around the black king. The king is at the center of this little village!

## 10.♘d2

Petrosian: "It was probably time to play d4-d5, which would have made the drawbacks of Black's position stand out more clearly."

I suspect that Petrosian, if he had White here, would have played 10.d5, and if 10...♝e5, then 11.♝d2 – White doesn't need trades! The check 11...♝d3+ is not a problem – see for yourself!

## 10...c5 11.dxc5

"And here 11.d5 was possible. White plays very consequentially. Having an edge in development, he attempts to open up the game, figuring to make use of the better mobilization of his pieces.

"From the viewpoint of chess commandments, it all looks quite reasonable, but in Black's camp there are no vulnerable points..." (Petrosian).

## 11...dxc5 12.0-0-0 ♘c6

Petrosian continues: "Castling seems more natural, in order to bring at least one rook into play and put the king away in a safer place. But after this it would be difficult to get in ...♝b8-c6. The natural knight sortie to d5 (with tempo!) would gain in strength, and if the king remains in the center, he simultaneously protects the pawn at e7 and the bishop at d7."

I would add: the bold sacrifice of the c5-pawn also has great psychological significance: it is difficult to make the mental shift from attack to defense. It might seem that after 13.♗xc5 ♘a5 (or 13...♝ce5), Black regains the initiative.

Here's a question for White: what is he to do?

I reply: He must jump, without looking back, into the complications Black has provoked, since the pawn sacrifice has no "right" to be 100% correct – Black is worse in the "t" parameter, and therefore there is no justification for playing "like Tal." By sacrificing this pawn, Black hopes only to get his material back. He wants to avoid a catastrophe in the "t" parameter, at least for a while. At the cost of a pawn, in order to save the king from the looming threat of assault!

## 13.♔b1

Deplorable indecision. The position demands 13.♗xc5.

Now 13...♝a5 14.b3 ♘xc5 15.♗xd7+ ♔f8 would be bad. In his annotations, Petrosian mistakenly supposed that in this position Black would have compensation for the pawn. But after 16.♗d4 White has all the winning chances. Check it out!

13...♝ce5 is a little better. After 14.♗xe5 ♘xe5, while still at the board, during the game Petrosian calculated a variation which *Rybka* ran up only with difficulty: 15.♗d4 b6 16.♗xe7 ♔xe7 17.♗d6+ ♔f7 (17...♔e8 18.♗d5±) 18.f4 ♔f8 19.♗d4 (19.♗d2 ♔h6) 19...♝c5 20.♗d2 "with a clear advantage for White." *Rybka* prefers 18...♗d8 (instead of 18...♔f8), but here too, after 19.fxe5 ♔e6 20.♗xd8 ♘xd8 21.♗xd8 ♘xd8 22.♗d5, White is clearly better.

If 16...♝c6 (after 16.♗xe7), then 17.♗xd7+ is very possible, with a great advantage in the ending. 17.♗xd7+ was Petrosian's move; however, even stronger is 17.♗d6. One variation is 17...♝xe7 18.e5 ♘f5 19.♗d5 ♘b8 20.exf6, and White should win (*Rybka*).

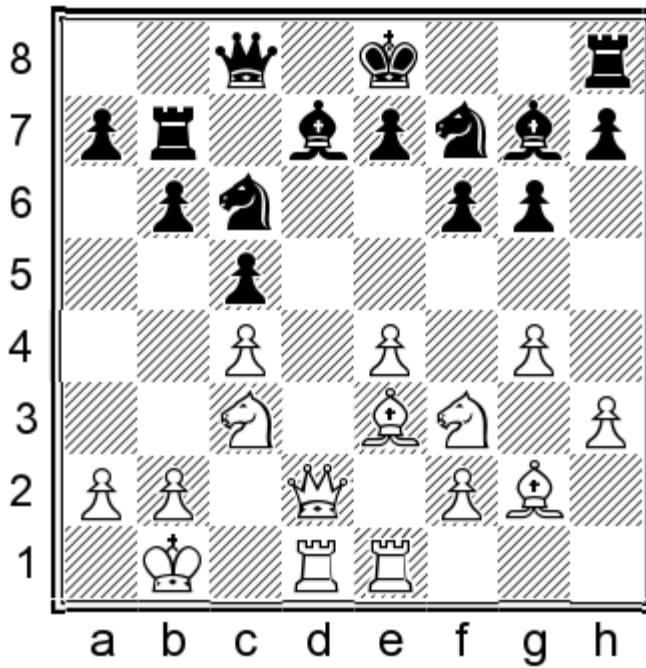
## 13...b6 14.g4

What for? 14.♗d5± is better.

## 14... $\mathbb{B}b8$

In order to defend the target on d7 again (certainly not overprotecting!). *Rybka*'s recommendation of 14... $\mathbb{W}b7 \Delta$  15... $\mathbb{E}d8$  doesn't look bad, either.

## 15. $\mathbb{E}he1 \mathbb{B}b7$



## 16.e5

More than likely, this pawn sacrifice is entirely correct. Why?

Because in the diagram position,  $m = 1$ ,  $t = 40/36 = \sim 1.11$ , "micro-plus"... Diagnosis: TC Algorithm, and it is, as we know, nothing but a low-intensity "Tal." The TC Algorithm has to do with occupied and vacant squares, the chess value of which averages out to 1 unit.

An alternative to the text move is 16. $\mathbb{Q}d5$ . On the other hand, 16. $\mathbb{Q}h4$  is possible too, or even 16. $\mathbb{E}g1$  (*Rybka*). White stands a little better.

## 16...fxe5 17. $\mathbb{Q}g5$ 0-0

*Rybka* recommends 17... $\mathbb{Q}xg5$  18. $\mathbb{Q}xg5$   $\mathbb{Q}e6$  19. $\mathbb{Q}d5$  0-0 with approximate equality.

## 18. $\mathbb{Q}d5$

Petrosian gives this move a question mark. Moreover (he writes), "I would have played 18. $\mathbb{Q}d5$  e6 19. $\mathbb{Q}xf7$   $\mathbb{Q}xf7$  20. $\mathbb{Q}e4$ , with a further advance of the h-pawn and the threat of  $\mathbb{Q}c3$ -b5-d6."

## 18... $\mathbb{Q}xg5$ 19. $\mathbb{Q}xg5$ $\mathbb{Q}e8$ 20. $\mathbb{Q}h6$ e6

Very strong! Although Petrosian considers that he could also defend after 20... $\mathbb{Q}xh6$  21. $\mathbb{W}xh6$   $\mathbb{Q}xf2$  22. $\mathbb{Q}f1$   $\mathbb{Q}f7$ . See for yourself! Use a computer for assistance.

## 21. $\mathbb{Q}xg7$ $\mathbb{Q}xg7$ 22. $\mathbb{Q}c3$ $\mathbb{Q}d4$

Petrosian: “In one move, Black effectively protects both central files, on which White established his major pieces with such high hopes. Needless to say, re-establishing material equality will not serve as great consolation to White.”

**23.  $\mathbb{E}xe5 \mathbb{E}gf7$  24.  $\mathbb{Q}e4$**

The decisive error. However, to give him his due, we note that after 24.  $\mathbb{E}f1 \mathbb{Q}c6$  (or 24.  $f3 \mathbb{Q}c6$ ), Black retains his positional edge.

**24...  $\mathbb{W}c7$**

The rook is trapped!

**25.  $\mathbb{E}g5$**

Or 25.  $\mathbb{W}g5 \mathbb{E}f4 \Delta$  26...  $h6+-$ .

**25...  $\mathbb{E}f4$**

25...  $\mathbb{W}h2$  (*Rybka*) is also very strong. After 26.  $f3 \mathbb{Q}c6$ , White is helpless.

**26.  $\mathbb{W}d3$**

It is simpler to resign.

**26...  $h6$  27.  $\mathbb{Q}d6 h \times g5$  28.  $\mathbb{Q}xe8 \mathbb{E}xe8$  29.  $\mathbb{W}xg6+ \mathbb{Q}f8$  30.  $\mathbb{W}xg5 \mathbb{W}h7+$**

Who's mating whom? Mate by the knight on c2 – is it a myth, or reality?

The answer is obvious!

As we have seen in this chapter, there is no sharp line separating the Capablanca and Petrosian algorithms. As the algorithms drift, “Capablanca” flows smoothly into “Petrosian” and vice versa. Therefore it is better to talk , not of some imaginary border, but of a real zone joining the algorithms. This zone has its own share of the unified spectrum of all attacks and defenses. Its boundaries are not clearly marked, but the zone does exist, and we label it the “CP Algorithm.”

The CP Algorithm mirrors the TC Algorithm. The center of symmetry is the point  $t = 1.00$ .

An important question for us is: what is it that joins the TC and CP algorithms?

Their immediate unifier is the Capablanca Algorithm itself. And we can look at the TC and CP algorithms basically as natural extensions of the Capablanca Algorithm.

Moving rightward from the starting point  $t = 1.00$ , we broaden the “Capablanca” to the CP Algorithm, and from here, to the “100% Tal.”

Moving to the left from the point  $t = 1.00$ , we broaden the “Capablanca” to the CP Algorithm, and from there, to the “100% Petrosian.”

In fact, the Capablanca Algorithm is the golden mean of the unified spectrum of all chess attacks and defenses!

The question (for which there is as yet no answer) is: can we expand the Capablanca Algorithm without limit to the right and left along the “ $t$ ” axis, penetrating the unified spectrum of attacks and defenses? Yes or no?

### When to Use Each of the Algorithms

“Capablanca” applies when attacking and defending empty squares with a chess value less than that of one

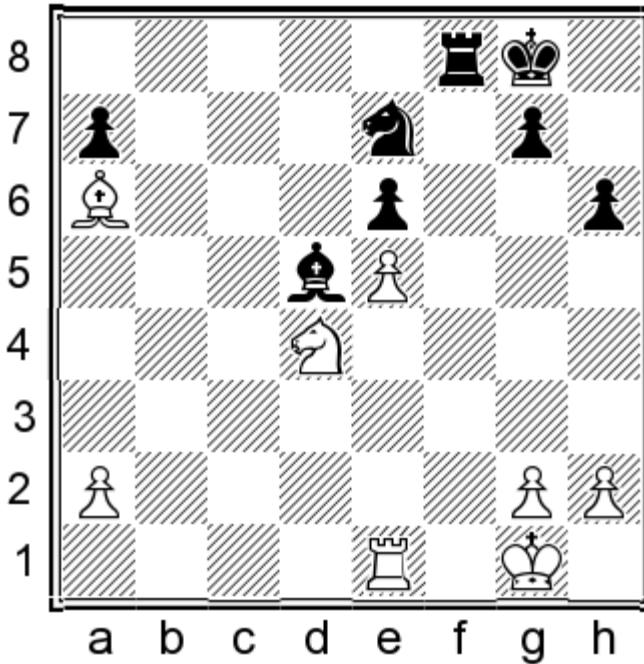
pawn.

The TC and CP algorithms are for, respectively, attacking and defending empty or occupied squares with a chess value comparable to that of a pawn.

“Tal” and “Petrosian,” respectively, are for attacking and defending empty or occupied squares with a chess value greater than that of a pawn.

### No. 29: Fischer – Petrosian

Candidates’ Tournament, Curaçao 1962



Position after 26...♝d5

It’s White’s – that is, Fischer’s – move, and we have White! Why have we “betrayed” Petrosian?

Because Petrosian himself, analyzing the position after 26...♝d5, suggested a totally unusual solution, one not immune to counter-arguments...

And so, the standard question: what do we (White) have?

1) material equality – that is, parity in the first factor;

2)  $t = 30/31 = \sim 0.97$ : the Capablanca Safety Zone;

3) a bit of a deficit in the third factor of the position. White’s king is somewhat restricted: the pressure of Black’s light-squared bishop against g2 is real. However, here we have an ending with few pieces, and therefore we won’t overestimate the danger to our king.

Our preliminary diagnosis: Capablanca? CP Algorithm?

Compactness:  $\Delta k \ll 0$ .

Spatial expansion:  $\Delta(26...♝d5) = 23/8 - 18/8 = 5/8 = \sim 0.62$ .

Our final diagnosis: the CP Algorithm. The leftward shift was ensured for us by the fourth and fifth factors.

What to do?

The answers given by the *Rybka* engine and Tigran Petrosian:

a) 27.♝b5 (*Rybka*, first line);

- b) 27.a3 (*Rybka*, second line);
- c) 27. $\mathbb{Q}f1$  (Petrosian).

Now we patiently wend our way through all three lines. Our objective is to demonstrate that Petrosian's move – the one move that is truly “100% Petrosian” – is no weaker than either of *Rybka*'s moves.

## 27.a4

a) 27. $\mathbb{Q}b5$  is the most aggressive choice. White hits the target on a7 – being worse, he plays for an exchange. The fewer targets, the easier the defense!

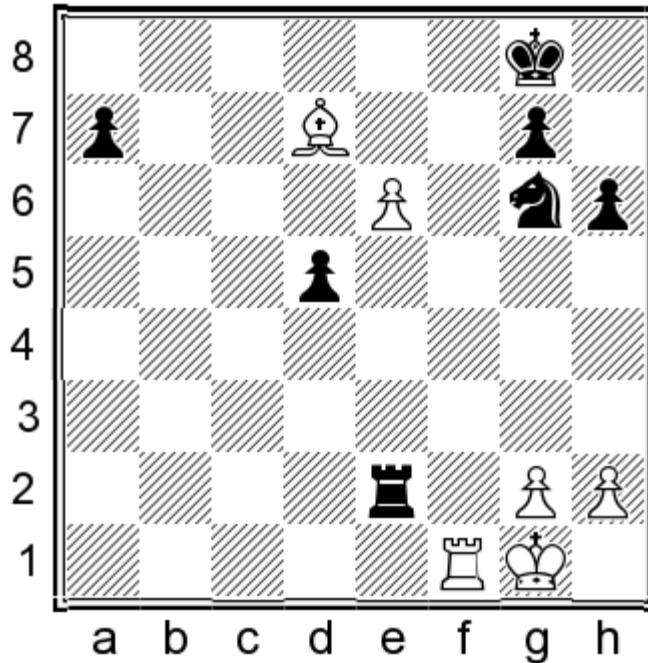
At first, I admit, the knight's leap out to b5 looks crazy: 27... $\mathbb{Q}xa2$  28. $\mathbb{Q}xa7 \mathbb{E}a8$ . After 29. $\mathbb{E}a1 \mathbb{Q}d5$ , White stands clearly worse: see for yourself! But then 29. $\mathbb{Q}c6$  (bravo, *Rybka*!) – draw!

However, Black has better moves than the primitive 27... $\mathbb{Q}xa2$ . One such is 27... $\mathbb{E}f4$ . Now 28. $\mathbb{Q}xa7$  is bad, because after 28... $\mathbb{E}a4$  29. $\mathbb{Q}c8$  (the only move) 29... $\mathbb{Q}xc8$  30. $\mathbb{Q}xc8 \mathbb{E}xa2$ , Black is almost winning. So taking on a7 is out. Much better is 28. $\mathbb{Q}c3$ , when it looks like White has every hope of holding the position: 28... $\mathbb{Q}c6$  29.g3  $\mathbb{E}d4$  30. $\mathbb{E}e2$ .

White also has excellent drawing chances after 27... $\mathbb{E}b8$ . Both 28.a4 and 28. $\mathbb{Q}c3$  are possible. Sample variations:

a1) 28.a4  $\mathbb{E}b6$  29. $\mathbb{Q}c7 \mathbb{Q}xg2$  (*Rybka* is amazing) 30. $\mathbb{Q}xg2 \mathbb{E}c6$  31. $\mathbb{Q}xe6 \mathbb{E}xa6$  32. $\mathbb{Q}c5 \mathbb{E}c6$ , and now either 33. $\mathbb{Q}b7$  or 33. $\mathbb{Q}d3$  should lead to a draw;

a2) 28. $\mathbb{Q}c3 \mathbb{E}b2$  29. $\mathbb{Q}xd5 exd5$  30. $\mathbb{E}f1 \mathbb{E}xa2$  31. $\mathbb{Q}b5 \mathbb{E}b2$  32. $\mathbb{Q}d7$  ( $\Delta e5-e6, \mathbb{E}f1-f7$  etc. with strong counterplay for the sacrificed pawn) 32... $\mathbb{E}e2$  33.e6  $\mathbb{Q}g6$ :



*Position after 33... $\mathbb{Q}g6$  (analysis)*

34. $\mathbb{E}a1$ . White has every prospect of drawing.

b) Moving on to 27.a3. This humble pawn move is the most natural reaction to the act of aggression. Black attacks the pawn, so White moves it away.

Question for Black: what to do now?

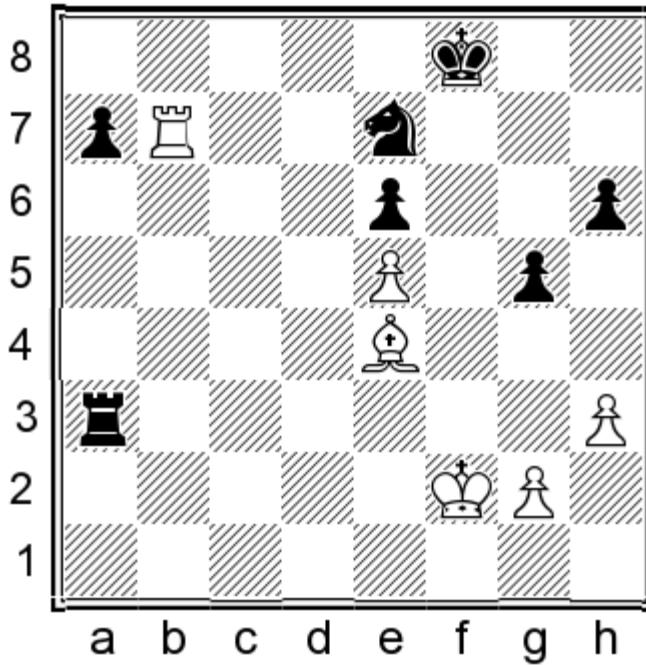
Clearly, he gets nothing from 27... $\mathbb{E}b8$  28. $\mathbb{Q}d3 \mathbb{E}b2$  29. $\mathbb{E}e2 \mathbb{Q}xe2$  30. $\mathbb{Q}xe2 \mathbb{Q}g6$ , because it's a draw after 31. $\mathbb{Q}g4$ .

Therefore 27... $\mathbb{B}f4$  is better. A possible continuation is 28. $\mathbb{Q}c2$   $\mathbb{B}a4$  29. $\mathbb{Q}d3$  g5 ( $\Delta 30...\mathbb{Q}g7$  – no need to rush the attack on the knight with the bishop) 30.h3  $\mathbb{Q}g7$  31. $\mathbb{Q}f2$   $\mathbb{Q}b3$  (now is the right time!).

Next we put the same question to White: what to do now?

He must throw himself into the counterattack at once. For this, he can and must give up a pawn!

Here's a variation from *Rybka*: 32. $\mathbb{B}b1$   $\mathbb{Q}xc2$  33. $\mathbb{Q}xc2$   $\mathbb{B}xa3$  34. $\mathbb{B}b7$   $\mathbb{Q}f8$  35. $\mathbb{Q}e4$ :



*Position after 35.Qe4 (analysis)*

This position is literally stuffed with dozens (maybe hundreds) of possible rook endings, because it would be good for Black to trade off his knight, which is not doing very much, for the beautiful white bishop (say, after 35... $\mathbb{Q}f5$  36. $\mathbb{Q}xf5$   $\mathbb{Q}xf5$ ).

It's very important for White that the overwhelming majority of these endings are drawish. Try to check them out. Get deeper into the position. Believe in it!

This position has good parameters:  $m < 1$ ,  $t = 27/26 = \sim 1.04$ ,  $\Delta k = 4/16 - 5/32 = 3/32 > 0$ ,  $\Delta(35.\mathbb{Q}e4) = \sim 0.83$ . Here  $\Delta(\text{move}) > 0$  is not a minus, but a plus for White. Why?

Because  $\Delta k > 0$ . I add: considerably more than null. This means that White has no “gaps,” while Black has plenty of them.

Summary: White's superiority in the fourth and fifth factors compensates (if only partially) for the deficit in the first factor. Draw (with correct defense).

c) The third and final line: 27. $\mathbb{Q}f1$ . What makes this move, suggested by Petrosian, remarkable?

That it's *principled!* With this move, White significantly increases the compactness of his pieces right around the king. This, first of all.

Secondly, with the very longest of all possible moves (we are interested in backwards moves), White has, in the most radical fashion, freed himself from his excess value in  $\Delta(\text{move})$ . After the bishop move, now  $\Delta(27.\mathbb{Q}f1) = 0.00$ . In other words, White, without delay and almost gratefully, gives up on his strongest sector that which belongs to him by right.

The tactical justification for this is 27... $\mathbb{Q}xa2$  28. $\mathbb{B}a1$  and 29. $\mathbb{B}xa7$ . Exchanges favor White, since this reduces the number of targets for his opponent to attack.

A thorny question: how to combine “Petrosian-style” play for the exchange with the “Capablanca” requirement to refrain from exchanges when  $\Delta k < 0$ ?

The answer to this very complex matter must be sought in the asymmetry of the opponents’ goals, to wit: Black is playing to win, and White only to draw.

After 27.♘f1 we can have:

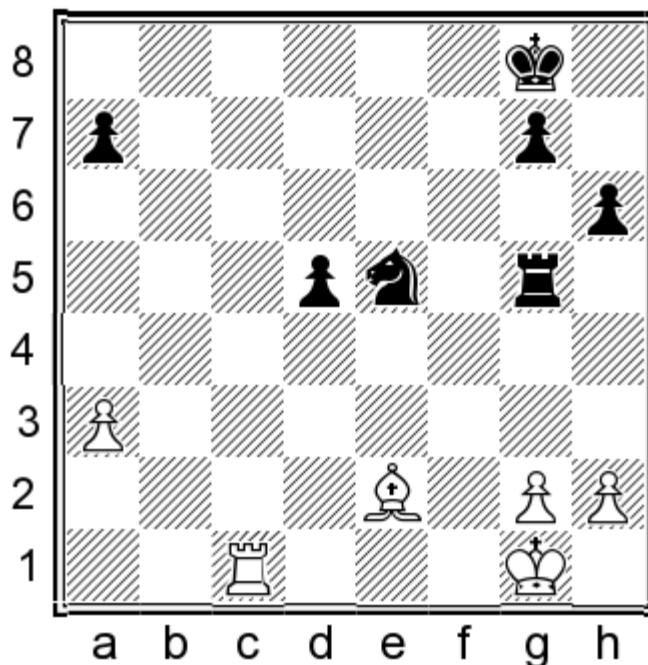
c1) 27...♝f4 (*Rybka’s first line*);

c2) 27...♞xa2 (*Rybka’s second line*);

We begin, without delay, with line (c1). What’s on our monitor?

27...♝f4 28.♗b5 ♞c6 29.a3 ♜f5, with 30.♖c1 to follow – the engine embarks on a counterattack!

After 30...♜g5 (in order to take the e-pawn comfortably, not with the rook, but with the knight; if 30...♜xe5 31.♗c7 Δ 32.♗xd5, White has enough counterplay to draw) 31.♗c3 (or 31.♗c7) 31...♞xe5 32.♗xd5 exd5 33.♔e2:



*Position after 33.♔e2 (analysis)*

White has excellent drawing chances.

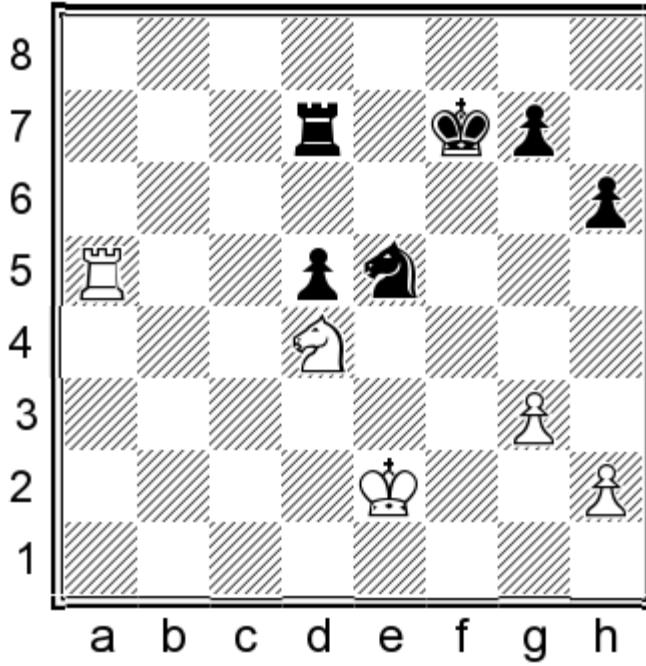
One possible variation: 33...♞f7 34.♖c7+ ♔f6 35.♖f6 35.♗xa7 d4 36.♗a4 d3 37.♗d1, with sharp and roughly equal play. White is not worse! Is this true?

Now on to (c2). The second line by *Rybka* is 27...♞xa2, after which White has a rich choice of promising moves: 28.♖a1, 28.g3, and even 28.♔e2.

From among these treasures (the choice is almost a subjective one) I choose 28.♖a1, and now on 28...♗d5 not 29.♗xa7, but 29.g3. The line continues 29...♗g6 30.♗g2.

Why does this trade favor White? If only because, after the unavoidable exchange of White’s e-pawn for Black’s a7-pawn, White stands more compactly!

Let’s proceed: 30...♗xe5 31.♗xd5 exd5 32.♗xa7 ♜f7 33.♗a5 ♜d7 34.♗f1 ♜f7 35.♔e2:



Position after 35.  $\hat{Q}e2$  (analysis)

White has  $m < 1$ ,  $t = 26/21 \approx 1.24$ , “=”,  $\Delta k > 0$ , and  $\Delta(35. \hat{Q}e2) = 16/5 - 17/6 \approx 0.37$ . Diagnosis: the TC Algorithm...  
White has every chance to draw!

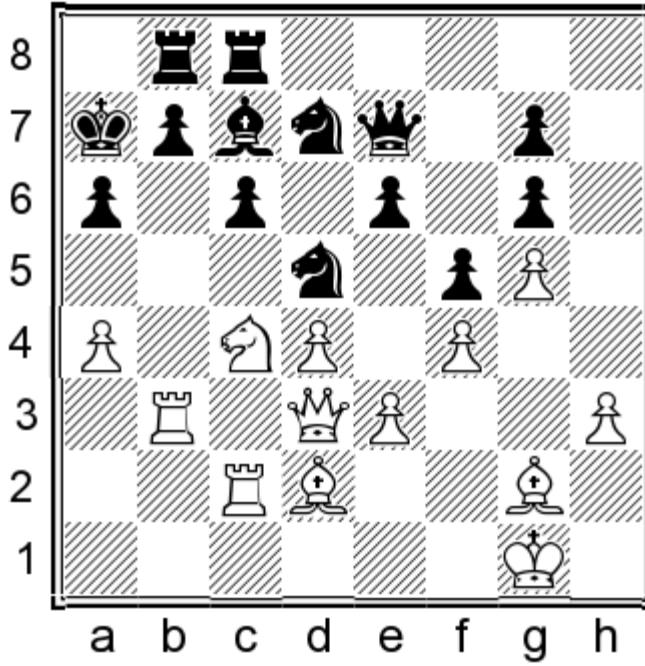
To conclude our analysis of the current example, we can state with confidence that Petrosian's 27.  $\hat{Q}f1$  is indeed plausible. Petrosian offered to let Fischer play in “Petrosian style,” and intuition did not betray “Iron Tigran.”

Here's the balance of the game without commentary, since the theme of this chapter – defense – is now completely exhausted. I will say only that Fischer's play in this phase was imperfect, while Petrosian's was practically flawless. Play it out!

27...  $\hat{Q}f4$  28.  $\hat{Q}d1$   $\hat{Q}g6$  29.  $\hat{Q}c8$   $\hat{Q}f7$  30. a5  $\hat{Q}xe5$  31. a6  $\hat{Q}g4$  32.  $\hat{Q}d2$   $\hat{Q}c4$  33.  $\hat{Q}f2+$   $\hat{Q}e7$  34.  $\hat{Q}b5$   $\hat{Q}d6$  35.  $\hat{Q}xd6$   $\hat{Q}xd6$   
36.  $\hat{Q}b7$   $\hat{Q}xb7$  37. axb7  $\hat{Q}c7$  38. h3  $\hat{Q}g5$  39.  $\hat{Q}b2$   $\hat{Q}b8$  40.  $\hat{Q}f2$   $\hat{Q}d5$  41.  $\hat{Q}e3$   $\hat{Q}d7$  42.  $\hat{Q}e4$   $\hat{Q}xb7$  43.  $\hat{Q}f2$  a5 0-1

### No. 30: Kasparov – Petrosian

Tilburg 1981



*Position after 30.a4*

We are playing Black, and we have:

- 1) an extra pawn, so  $m > 1$ ;
- 2)  $t = 39/40 = \sim 0.98$ , rough equality in the factor of chess time;
- 3) a deficit (how big?) in the third factor, since the white king is not in danger while the black king can hardly move and faces strong pressure from the enemy pieces; however (and this is a great plus for us!), the black king is very tightly “packed.”

Our preliminary diagnosis: “Petrosian”? CP Algorithm?

To decide, we need the fourth and fifth factors of the position!

Compactness:  $\Delta k \gg 0$  ( $8/21 \gg 7/40$ ). This means that our position is very solid. Can it be broken into?

Spatial expansion:  $\Delta(30.a4) = \sim -0.65$ . Isn’t it time to get back at least some of that space?

The fourth and fifth factors push us from “Petrosian” to “Capablanca.” But they are weak, alas. I reiterate: the third factor doesn’t appreciate being trifled with! The king is always a piece of limitless value...

Our final diagnosis: something between a “clean” Petrosian Algorithm and a CP Algorithm. In other words, our diagnosis features a lack of clarity that we can’t resolve...

It’s not easy for Black. Kasparov, in *My Great Predecessors* (Part III), writes about this position: “Here I was already anticipating placing my pawn on a5, then playing  $\mathbb{E}cb2$  and  $\mathbb{W}b1$ , and... gaining convincing revenge for my vexing defeat in Moscow [1981 – A.Sh.J]. And indeed it is not clear what Black can do.”

There followed the stunning

### 30...b5

We can only marvel at Petrosian’s courage! And then we ask: hasn’t the Armenian GM overestimated the defensive resources of his position?

I answer: more “yes” than “no.” Here’s why:

Contrary to Kasparov, after 30... $\mathbb{Q}d6$  *Rybka* confidently holds the position! For example, 31.a5  $\mathbb{E}c7$  (safely protecting b7) 32. $\mathbb{Q}b6$   $\mathbb{W}e8$  (taking on b6 is dangerous – check it out!) 33. $\mathbb{E}cb2$   $\mathbb{W}f7$ .

What next? I don't see anything. In the search for a decisive blow, *Rybka* bobs and weaves: 34. $\mathbb{Q}f3$   $\mathbb{Q}d8$  35. $\mathbb{E}b1$   $\mathbb{Q}e7$  36. $\mathbb{E}3b2$   $\mathbb{Q}d6$  37. $\mathbb{Q}e2$ .

Look at this! Do you see the shots on d5, b7, and a6?

37... $\mathbb{Q}b8$ ! Everything's in order!

Conclusion: after 30... $\mathbb{Q}d6$ , Black need not lose – while, after the text move (30...b5), Black's position falls apart.

### 31.axb5 cxb5

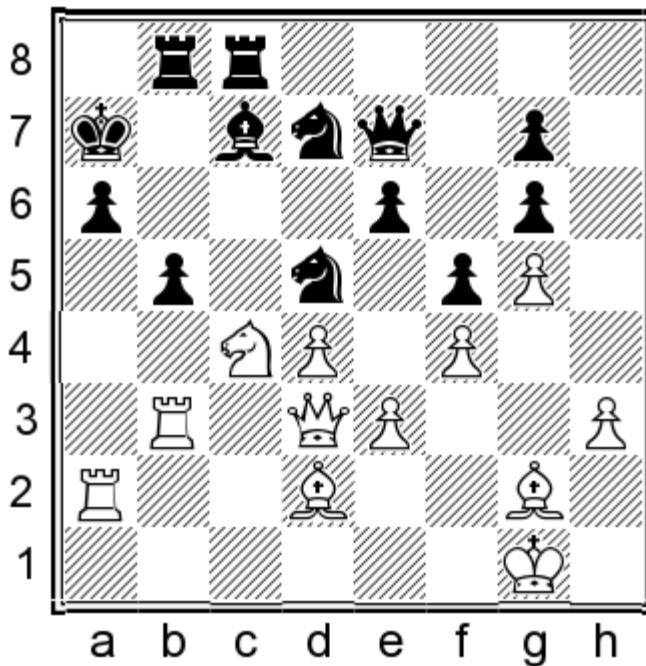
If 31...axb5, then more than likely there would follow 32. $\mathbb{E}a2+$   $\mathbb{Q}b7$  33. $\mathbb{W}b1$ , when *Rybka* continues 33... $\mathbb{W}e8$  34. $\mathbb{Q}a5+$   $\mathbb{Q}xa5$  35. $\mathbb{Q}xa5$   $\mathbb{Q}c8$  36. $\mathbb{Q}b4$  with decisive threats. Thus, for example, 36... $\mathbb{Q}xb4$  37. $\mathbb{Q}xb4$   $\mathbb{E}b6$  is bad as 38. $\mathbb{Q}xc6$  decides. Nor does 36... $\mathbb{W}d8$  save him – after 37. $\mathbb{Q}d6$ , it looks like Black can't avoid losing material. Verify this!

### 32. $\mathbb{E}a2$

A powerful move – the top line from the powerful chess engine. Now 32... $\mathbb{B}xc4$  is bad, as 33. $\mathbb{Q}xa6+$  mates. What to do?

The standard reply is: determine the parameters of the position, “calculate” the algorithm, and then find the strongest move, if you can – that is, the one which satisfies the needs of the position.

And one more thing: be fearless. Like Petrosian! Like Kasparov! Like any great chessplayer...



Black to move – and I am sure, dear reader, you know what to do!

We have:  $m > 1$ ,  $t = 41/42 = \sim 0.98$ , a very large “minus”,  $\Delta k = 7/21 = \sim 6/25 > 0$ ,  $\Delta(32.\mathbb{E}a2) = \sim -0.46$ . The diagnosis: “Petrosian,” “Petrosian” being concrete in nature: the black king is in great danger! Why?

Because the packing density of the black pieces immediately around their king has decreased significantly...

What to do, then?

Petrosian gives the answer, and it is a king move.

## 32... $\mathbb{Q}b7$

Pursued by his enemies, the king runs for cover. In some variations (let's say, after 33... $\mathbb{W}e8$ ) he has chances to hide on the c8 square or still further away on d8. Obviously, the fate of the king and the game hangs for the moment on the thinnest of threads. We must calculate, calculate, and calculate again a multitude of variations. Playing by general considerations takes a vacation for both White and Black!

Here are some variations, which I have borrowed from *My Great Predecessors* and fleshed out with *Rybka*'s help:

a) 33. $\mathbb{Q}a3$ ,

a1) 33... $\mathbb{Q}b6$  34. $\mathbb{Q}c2$   $\mathbb{E}a8$  35. $\mathbb{Q}b4$   $\mathbb{W}d6$  36. $\mathbb{E}b1$  (if 36.e4, then 36... $\mathbb{Q}c5$  – Timman's move – 37.dxc5  $\mathbb{W}xc5+$  38. $\mathbb{Q}h2$   $\mathbb{W}g1+$  39. $\mathbb{Q}g3$   $\mathbb{W}f2+$  40. $\mathbb{Q}h2$   $\mathbb{W}g1+$  with perpetual check) 36... $\mathbb{Q}b8$  37. $\mathbb{W}b3$   $\mathbb{E}c4$  38. $\mathbb{E}c1$   $\mathbb{E}xc1+$  39. $\mathbb{Q}xc1$ , “with an overwhelming advantage for White.”

a2) 33... $\mathbb{Q}b6$  34. $\mathbb{Q}xb5$  axb5 35. $\mathbb{W}xb5$   $\mathbb{E}h8$  36. $\mathbb{Q}b4$   $\mathbb{W}d8$  37. $\mathbb{W}a6+$   $\mathbb{Q}c6$  38. $\mathbb{Q}c5$   $\mathbb{Q}d7$  39. $\mathbb{W}b5+$   $\mathbb{Q}c8$  40. $\mathbb{E}a7$ , with unstoppable threats, for example 40... $\mathbb{W}e8$  41. $\mathbb{W}a6+$   $\mathbb{Q}d8$  42. $\mathbb{E}xc7$   $\mathbb{Q}xc7$  43. $\mathbb{Q}xd5$  exd5 44. $\mathbb{Q}xb6+$   $\mathbb{Q}d7$  45. $\mathbb{W}a7+$   $\mathbb{Q}e6$  46. $\mathbb{W}xg7+$ .

But!... But Black has a miracle move that Kasparov missed:

a3) 33... $\mathbb{W}e8$  – deep prophylaxis! And moreover – if we can believe *Rybka* – Black has every chance to draw. He is no worse; a sample variation runs 34. $\mathbb{Q}xb5$  axb5 35. $\mathbb{W}xb5+$   $\mathbb{Q}b6$  36. $\mathbb{Q}xd5+$  exd5 37. $\mathbb{W}xd5+$   $\mathbb{Q}c7=$ . Or if 34. $\mathbb{Q}c2$  ( $\Delta$  35. $\mathbb{Q}b4$ ), then 34... $\mathbb{Q}d6$ , and again White has no prospect of crashing past the opponent's defenses. Approximate equality! Or are you doubtful?...

b) 33. $\mathbb{Q}b4$  – the game move, which we will investigate a little later.

c) 33. $\mathbb{W}b1$  – the last of three moves worth looking at, which is also in the first line by *Rybka*.

c1) 33... $\mathbb{E}g8$  34. $\mathbb{Q}a5+$   $\mathbb{Q}xa5$  35. $\mathbb{E}xb5+$   $\mathbb{Q}a7$  (35...axb5 36. $\mathbb{Q}xa5$  [ $\Delta$  37. $\mathbb{W}xb5++-$ ] 36... $\mathbb{b}4$  37. $\mathbb{Q}xb4$  [37. $\mathbb{W}d3\pm/-$ ] 37... $\mathbb{W}d8$  [37... $\mathbb{W}f7$  38. $\mathbb{Q}a5+$   $\mathbb{Q}c6$  39. $\mathbb{W}c1+$   $\mathbb{Q}d6$  40. $\mathbb{W}a3++-$ ] 38. $\mathbb{Q}e7+$   $\mathbb{W}b6$  39. $\mathbb{E}b2+-$ ; 35... $\mathbb{Q}b6$  36. $\mathbb{E}xd5$  exd5 37. $\mathbb{Q}xd5+$   $\mathbb{Q}c7$  38. $\mathbb{W}c1+$   $\mathbb{Q}d8$  39. $\mathbb{Q}xg8+-$ ) 36. $\mathbb{E}xa5\pm$ ;

c2) 33... $\mathbb{E}e8$  34. $\mathbb{Q}a5+$   $\mathbb{Q}xa5$  35. $\mathbb{Q}xa5$   $\mathbb{W}d6$  (35... $\mathbb{Q}a7$   $\Delta$  36. $\mathbb{Q}f1$  37. $\mathbb{Q}xb5+-$ ) 36. $\mathbb{E}xb5+$   $\mathbb{Q}a7$  (36...axb5 37. $\mathbb{W}xb5+$   $\mathbb{Q}c8$  38. $\mathbb{E}c2+$   $\mathbb{Q}c7$  39. $\mathbb{E}xc7+$   $\mathbb{W}xc7$  40. $\mathbb{W}a6+$   $\mathbb{Q}d8$  41. $\mathbb{Q}xc7++-$ ) 37. $\mathbb{Q}d2\pm$ .

As we can see, White enjoys a clear advantage in variations (c1) and (c2). He has an attack on the king, with material equality to boot – and White has managed to eliminate that daring pawn at b5...

I repeat my question: when playing 30...b5, didn't Petrosian overestimate the defensive resources of his position?

Kasparov attacked the queen:

## 33. $\mathbb{Q}b4$

Petrosian retreated:

## 33... $\mathbb{W}e8$

“From here the queen indirectly defends the b5-pawn. 33... $\mathbb{W}d8?$  was much weaker in view of 34.e4! fxe4 35. $\mathbb{W}xe4$  with irresistible threats: 35... $\mathbb{W}e8$  36. $\mathbb{W}xd5+!$  exd5 37. $\mathbb{Q}xd5+$   $\mathbb{Q}a7$  38. $\mathbb{Q}xa6+!$   $\mathbb{Q}xa6$  39. $\mathbb{E}a3+$   $\mathbb{Q}a5$  40. $\mathbb{E}xa5\#$ , or 35... $\mathbb{B}xc4$  36. $\mathbb{W}xe6$   $\mathbb{Q}7b6$  37. $\mathbb{E}b1$   $\mathbb{W}d7$  38. $\mathbb{W}xd7$   $\mathbb{Q}xd7$  39. $\mathbb{Q}xd5+$   $\mathbb{Q}a7$  40. $\mathbb{E}ba1$   $\mathbb{E}b6$  41. $\mathbb{Q}xc5$  and wins” (Kasparov).

I would add: along with 33... $\mathbb{W}e8$ , 33... $\mathbb{W}f7$  also doesn't look bad; *Rybka* recommends it. Black can be confident about holding the position.

## 34. $\mathbb{Q}d6$

If 34... $\mathbb{Q}a3$ , then at least 34... $\mathbb{E}a8 \Delta$  ... $\mathbb{Q}a7$  and ... $\mathbb{Q}a8$ , tucking the king away safely, is possible.

Nor is the check on d6 dangerous: 34. $\mathbb{Q}d6+$  (Petrosian's recommendation); after 34... $\mathbb{Q}xd6$  35. $\mathbb{Q}xd6$   $\mathbb{E}a8$  36.e4  $\mathbb{E}c1+$  37. $\mathbb{Q}h2$  fxe4 38. $\mathbb{Q}xe4$   $\mathbb{Q}7b6$ , Black is no worse (*Rybka*).

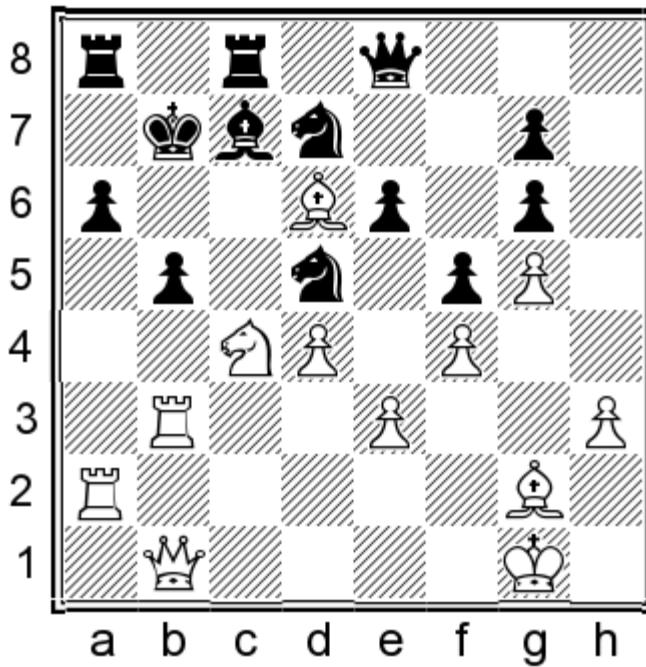
### 34... $\mathbb{E}a8$

Probably the strongest move!

### 35. $\mathbb{W}b1$

"White again plays on general grounds, hoping that an opportunity for him to land some combinative blow will present itself. After the 'concrete' 35.e4 fxe4 36. $\mathbb{W}xe4$   $\mathbb{W}f7$  Black could have felt quite calm with his powerful knight at d5. But 35. $\mathbb{E}b1!$   $\mathbb{Q}b6!$  (35... $\mathbb{Q}c6$  36. $\mathbb{Q}a3!$ , and if 36... $\mathbb{Q}b6$ , then 37. $\mathbb{Q}a5+$   $\mathbb{Q}d7$  38. $\mathbb{E}xb5!$ ) 36. $\mathbb{Q}e5$  would still have retained adequate compensation for the pawn" (Kasparov).

While, after the text move, there came something unique, something extraordinary...



### 35... $\mathbb{Q}c6$

Kasparov's commentary on this move (and first of all from a psychological viewpoint) is interesting: "A fantastic defense! This move, which Petrosian made instantly, threw me into complete confusion: how is it possible to move the king with a board full of pieces? After Steinitz, who had done such a thing? The psychological effect of the 30... $b5$ ! thrust and the king march ... $\mathbb{Q}a7-b7-c6$  was so strong, that I was unable to gather my thoughts and I quickly lost."

### 36. $\mathbb{E}ba3$

After this, White loses in all variations! He has to take the bishop: 36. $\mathbb{Q}xc7$ . Then it would be quite possible to reply 36... $bxcc4$  37. $\mathbb{E}b7$   $\mathbb{E}xc7$  38. $\mathbb{E}xa6+$   $\mathbb{E}xa6$  39. $\mathbb{W}b5+$   $\mathbb{Q}d6$  40. $\mathbb{W}xa6+$   $\mathbb{Q}e7$  41. $\mathbb{Q}xd5$   $\mathbb{E}xb7$  42. $\mathbb{Q}xb7$   $\mathbb{W}b8$  43. $\mathbb{Q}f2$  (following Kasparov's line of thinking) – since the king is inside the square of the c-pawn! The position would be approximately equal, with the most likely outcome being a draw. But now...

### 36... $bxcc4$

Now White has absolutely no compensation for the sacrificed piece.

**37.  $\mathbb{E}xa6+$   $\mathbb{E}xa6$  38.  $\mathbb{E}xa6+$   $\mathbb{Q}b6$**

The underpowered attack is easily warded off...

**39.  $\mathbb{Q}c5$   $\mathbb{W}d8$  40.  $\mathbb{W}a1$   $\mathbb{Q}xc5$  41.  $dxc5$   $\mathbb{Q}xc5$  42.  $\mathbb{E}a4$**

and White resigned. 0-1

A most instructive example! Petrosian triumphed over one of the greatest masters of attack. Truly, Petrosian was one of the greats!

For us, the Petrosian Algorithm grew out of the Capablanca Algorithm. More exactly, it sprang from the “Capablanca” much as in turn the “Capablanca” grew out of the “Tal.” And “Tal” we simply began with as the first among equals. We did this for the sake of convenience.

Why is “Tal” exactly, the first among equals? Because “Tal” is simpler than “Capablanca,” and “Capablanca” is simpler than “Petrosian.” From the simple to the complex!

Of course, we could name not “Tal,” but “Petrosian” first among equals, and go through the entire path through the whole spectrum of all chess attacks and defenses not from right to left, but from left to right. We could, but it’s complicated!

It’s a little simpler to name as the “father” all of the Capablanca Algorithms starting from  $t = 1.00$ . For this we would have to begin with “meta-chess” considerations, relying on the concept of symmetry that we have discussed...

“Petrosian” follows “Capablanca,” from which it takes the first, the second, and even the third elements of this algorithm.

But “Petrosian” also has elements of Tal – the “father” (in our version) of the Capablanca Algorithm. It’s the sacrifice of material, the third element of the Tal Algorithm! “Tal’s” monopoly over material sacrifices goes out the window!

For us practical chessplayers, it is extremely important that “Petrosian” inherited from “Capablanca” an enhanced attraction to exchanges (“Petrosian” sometimes plays for trades even when  $\Delta k < 0$ ). Why?

Because in those positions where our king is threatened, even the worst (strategically speaking) exchange is better than the “best” checkmate for our king. To put it another way, when defending, “Petrosian” might be willing to give up space and create strategic problems in order to avoid bigger problems. It’s better to give up space but maintain our army!

Only in extreme cases, when a powerful opponent forces us into it, does “Petrosian” give up material. Only when forced – and then, I add, most reluctantly. But in this case “Petrosian” must get something in return in the second, third, or fourth factors of the position. “Petrosian” is not the least bit generous, it is shamelessly cheap.

Three elements of the Petrosian Algorithm:

- 1) optimal placement of our pieces and pawns on squares suitable for defending occupied and unoccupied squares from open and direct attacks;
- 2) exchange;
- 3) sacrifice of material (we sacrifice material in order to slow down our opponent’s attack on our material and non-material targets).

Or, more briefly: when playing in “Petrosian” style, we need to:

- 1) place our pieces and pawns on their best squares;
- 2) look for exchanges; and

3) be ready to sacrifice material.

Or, briefest of all: “Petrosian” is the opposite of “Tal.” This is what I opened this chapter with...

### The three elements of the Petrosian Algorithm:

- 1) optimal placement of our pieces and pawns on squares suitable for defending occupied and unoccupied squares from open and direct attacks;
- 2) exchange;
- 3) sacrifice of material (we sacrifice material in order to slow down our opponent’s attack on our material and non-material targets).

When defending, we defend our material and non-material chess values against our opponent’s aggression. We defend them according to our known value scale – from the king all the way down to vacant squares.

I remind you that the value of a vacant square is a very fickle thing. It can change without warning – from move to move, from the tiniest little value to the infinitely great, and then back!

Naturally, the greater these fluctuations, the harder it is to tally up the strongest move. Sometimes this becomes so difficult that we give up – we acknowledge our helplessness and, almost triumphantly, declare that in the position there are two (and sometimes more) moves of equal strength!

Most often, such cases are encountered in positions calling for the TC, CP, or TCP algorithms. (See Chapter 5.)

As we conclude this chapter, I could hardly go wrong in saying that we succeeded in filling out all the aforementioned elements of the defense algorithm with rich chess content. I would add that the Petrosian Algorithm is one of the three fundamental algorithms. The two others are the Tal Algorithm and the Capablanca Algorithm. And this means that, having passed through the “Petrosian,” we have finally completed our difficult journey through the spectrum of all chess attacks and defenses. We began with the game Tal – NN, which lay almost entirely in the extreme right part of the spectrum. And we finished...

Need I continue?

In Chapter 5, we will focus on the so-called “mixed” algorithms. These are the TC, CP, and TCP algorithms for searching for the strongest move. The first two of these start out, respectively, from the two well-known (to us) points on the “t” axis of  $t_{cr} = 1.25$  and  $t_{cr} = 0.80$ .

The TC and CP algorithms occupy, respectively, the right and left portions of the spectrum. The borders are flexible, insubstantial...

Meanwhile, the TCP Algorithm generally has no borders! It’s open, both for attack and for defense. It is irrational, and it originates at the point where  $t = 1.00$  – that is, at the center of the unified spectrum...

A rhetorical question: Isn’t it time for us to get into Chapter 5 territory? Are you ready?

## Chapter 5

# Mixed Algorithms, or The TC, CP, and TCP Algorithms For Discovering the Strongest Move

We have already been introduced to these algorithms, although only superficially to the TCP, more in depth to the TC and CP. In this chapter, we will deepen our acquaintance with them.

The TC, CP, and TCP algorithms are mixed – or, if you like, *derivative* – algorithms. They proceed from the fundamental Tal, Capablanca, and Petrosian algorithms.

That said, the TC Algorithm is not the narrow line of the spectrum close to the point  $t_{cr} = 1.25$ . It's something wider – to be precise, the part of the spectrum ranging from  $t = 1.00$  to  $t = 1.50$ . The borders are unclear; they are defined very, very inexactly.

The main thing about the definition of the TC Algorithm is not its borders, but that the intensity of the attack on occupied squares is comparable to the intensity of the attack on vacant squares. In other words, when attacking according to the requirements of the TC Algorithm, we make no distinction between material targets and empty squares. Why?

Because the chess value of the pieces and pawns that we attack is comparable to the chess value of the vacant squares being attacked. As a rule, the value of a square occupied by a piece or a pawn is greater than the value of an empty square. But then, the number of empty squares is almost always greater than the number of material targets!

The CP Algorithm, on the other hand, is the child of the Capablanca and Petrosian algorithms. This antithesis of the TC Algorithm occupies the area of the spectrum from  $t = 1.00$  to  $t = 1.00/1.50$ . A mirror image!

Of course, the edges of the CP Algorithm are also blurry and very inexact. And the main thing is not the edges themselves, but the fact that, with the CP Algorithm, the intensity of the defense of the empty squares is comparable to the intensity of the defense of the occupied squares. In other words, when defending according to the requirements of the CP Algorithm, we make no distinction between vacant squares and squares that are occupied by our pawns and pieces. Why?

You know the answer!

The TC and CP algorithms meet at the point  $t = 1.00$ , and then go off in different directions.

A simple question: is there any great difference between vacant squares in attack or defense?

No.

A more complex question: is there a major difference between occupied squares? Or: is there in general any sort of major distinction among all the interacting white and black pieces?

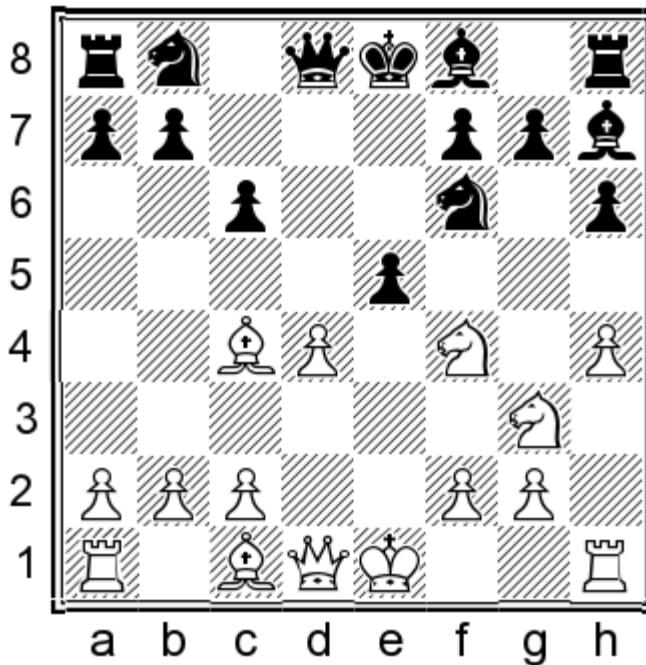
Rather than responding directly to this, but with a sufficiently clear hint: I believe in the unified and indivisible nature of the game of chess.

By definition, the TCP Algorithm is the “sum” of the fundamental algorithms – that is, “Tal” + “Capablanca” + “Petrosian.” Or the TC Algorithm + the CP Algorithm (which amounts to the same thing). I add that the TCP Algorithm is the most complex of all the algorithms. In it, the concepts of attack, defense, and strategic play are knit together into one. We close this chapter with four games on the theme of the TCP Algorithm.

And now for the first of three games on the TC Algorithm. Ready?

## No. 31: Spassky – Foguelman

Mar del Plata 1960



Position after 9...e5

In this position, it is White to move; and we have White. What do we have?

- 1) material equality – that is,  $m = 1$ ;
- 2)  $t = 47/42 \approx 1.12$  (our starting point lies within the Capablanca Safety Zone);
- 3) a slight superiority in the safety factor, as the pressure from White's light-squared bishop on the f7-pawn (right next to the black king) is a very uncomfortable reality for Black, one which he cannot just wave away...

Our preliminary diagnosis: is it the TC Algorithm, or "Tal"?

Clearly, we cannot do without assistance from the fourth and fifth factors. Let's calculate them:  $\Delta k = 0$  and  $\Delta(9\dots e5) \approx 0.33$ . Verify this.

Our final diagnosis: the TC Algorithm. To which we were gently nudged by the fifth factor of the position...

**10.♗e2**

This move looks more like "contrary to" – White gives up a center pawn. A move according to "Tal," and not the TC Algorithm. Or is it?

Honestly, nobody knows the exact boundary between these two brother algorithms...

We won't quibble. And we won't nitpick over "perfect" definitions and "exact" borderlines. Better that we give our position, and ourselves as well, one simple question: is the sacrifice correct?

The answer to that question can only be found in a dozen difficult variations...

An alternative to the text move was the quiet and more natural 10.dxe5, and if 10...♝a5+, then 11.c3 ♛xe5+ 12.♕fe2 Δ13.♗f4 (according to Spassky). In this case, "...White, thanks to his better development, has the better prospects."

Spassky's variation is endorsed by *Rybka*. But that powerful program does not disapprove of 11.♗f1, either; nor of the distinctly non-human 11.♗d2, which proposes to meet 11...♛xe5+ with 12.♗d1 Δ 13.♗e1. Bravo, *Rybka*!

Sample variations:

a) 11.c3  $\mathbb{W}xe5+$  12. $\mathbb{Q}fe2$   $\mathbb{Q}bd7$  13.0-0  $\mathbb{Q}g6$  14. $\mathbb{E}e1$  0-0-0 15. $\mathbb{Q}f4\pm$ ;

b) 11. $\mathbb{Q}f1$   $\mathbb{W}xe5$  12. $\mathbb{Q}d3$   $\mathbb{W}d4$  13. $\mathbb{Q}b3$   $\mathbb{Q}bd7$  14. $\mathbb{W}e2+\pm$ ;

c) 11. $\mathbb{W}d2$   $\mathbb{W}xe5+$  12. $\mathbb{Q}d1$   $\mathbb{Q}e7$  13. $\mathbb{E}e1$   $\mathbb{W}c7$  14. $\mathbb{W}e2\pm=$ .

The plethora of variations is an indirect sign of a position with prospects.

Spassky continues: "It's interesting that on 10.dxe5, my opponent, as he said after the game, intended to reply 10... $\mathbb{W}xd1+$  11. $\mathbb{Q}xd1$   $\mathbb{Q}g4$ . However, in that case, White, by continuing with 12. $\mathbb{E}e1$ , would have an advantage. For instance, 12... $\mathbb{Q}xf2+$  13. $\mathbb{Q}e2$   $\mathbb{Q}e4$  14. $\mathbb{Q}xe4$   $\mathbb{Q}xe4$  15.e6. Or 12... $\mathbb{Q}c5$  13. $\mathbb{E}e2$   $\mathbb{Q}xf2+$  14. $\mathbb{Q}e1$   $\mathbb{Q}g4$  15. $\mathbb{Q}gh5$ , and if 15...0-0, then 16.e6."

Rybka adds: 12... $\mathbb{Q}xf2+$  13. $\mathbb{Q}e2$   $\mathbb{Q}g4$  14.e6 f6 15. $\mathbb{Q}d3$   $\mathbb{Q}e5$  16. $\mathbb{Q}xh7$   $\mathbb{Q}xh7$  17.h5±.

Rybka also adds: 12... $\mathbb{Q}c5$  13.e6 f6 14. $\mathbb{Q}fh5$  g6 15. $\mathbb{Q}g7+$   $\mathbb{Q}e7$  16.h5±; or 13.f3  $\mathbb{Q}f2$  14.fxg4  $\mathbb{Q}xg3$  15.e6 f6 16. $\mathbb{Q}f1$   $\mathbb{Q}xh4$  17. $\mathbb{Q}h5\pm$ .

We present our preliminary results: the computer indicates an advantage for White after the quiet move 10.dxe5. I repeat: an advantage!

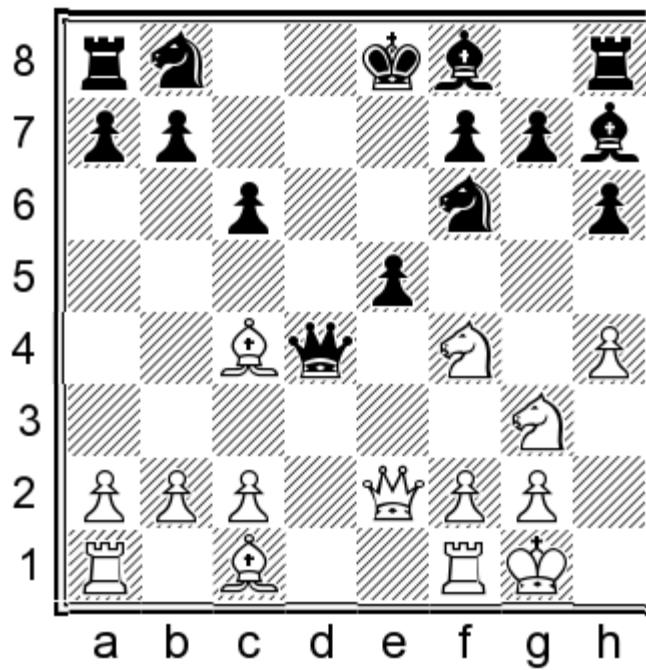
After the text move (10. $\mathbb{W}e2$ ), Rybka claims Spassky only has compensation for his sacrificed pawn (see below). I repeat: only compensation – which means, approximate equality!

## 10... $\mathbb{W}xd4$

Of course!

## 11.0-0

The first line of the all-powerful *Rybka*. Spassky found the strongest move.



## 11...b5

And here is what you should never play! This b-pawn push is clearly wrong, since in the diagram position Black must

defend, not attack. He had to coil himself up at once into a spring, retreating and gathering all (or nearly all) of his pieces near the king. The king is in danger, and you shouldn't take that lightly!

The tenth World Champion, criticizing Fogelman for his last move, writes: "Instead of 11...b5 Black should have played 11... $\mathbb{Q}bd7$ , when White intended to continue 12. $\mathbb{Q}d1 \mathbb{W}c5$  13. $\mathbb{Q}e3 \mathbb{W}e7$  14. $\mathbb{Q}fh5$  with decent play for his sacrificed pawn, as it would be far from easy for Black to complete his development."

Instead of 12... $\mathbb{W}c5$ , *Fritz* and *Rybka* prefer 12... $\mathbb{W}b6$ , continuing, after 13. $\mathbb{Q}fh5$  (*Spassky's move!*) with, respectively, 13... $\mathbb{W}c7$  (*Fritz*) or 13... $\mathbb{Q}d5$  (*Rybka*). In other words, *Fritz* is prepared to suffer for a pawn, while *Rybka* prefers absolute happiness as far as safety is concerned. Happiness, with material equality!

Among other things, after 13... $\mathbb{Q}d5$  14. $\mathbb{Q}xd5$  cxd5 15. $\mathbb{Q}xd5$  0-0-0, Black is not one bit worse. In fact, he may actually be a little better.

As an alternative to this last variation, *Rybka* gives a draw after 14. $\mathbb{Q}f4 \mathbb{Q}5f6$  15. $\mathbb{Q}fh5 \mathbb{Q}d5$  16. $\mathbb{Q}f4$ . So there!

What does all of this mean?

Answer (in reply to the question posed in the notes to 10. $\mathbb{W}e2$ ): Spassky's pawn sacrifice was not completely correct. 10.dxe5! was stronger.

After 11...b5 Black's position slowly, but surely, goes downhill. The b5-pawn is a juicy target for attack. Now queenside castling is simply unthinkable!

## 12. $\mathbb{Q}b3 \mathbb{Q}c5$

And this move is also not right. 12... $\mathbb{Q}bd7$  was better, as at least Black would not be losing by force.

## 13. $\mathbb{Q}e3 \mathbb{W}d6$ 14. $\mathbb{Q}ad1 \mathbb{W}e7$

If 14... $\mathbb{W}f8$ , then 15. $\mathbb{Q}d3$  is very strong (*Rybka's recommendation*). Continue the analysis on your own.

## 15. $\mathbb{Q}xc5$

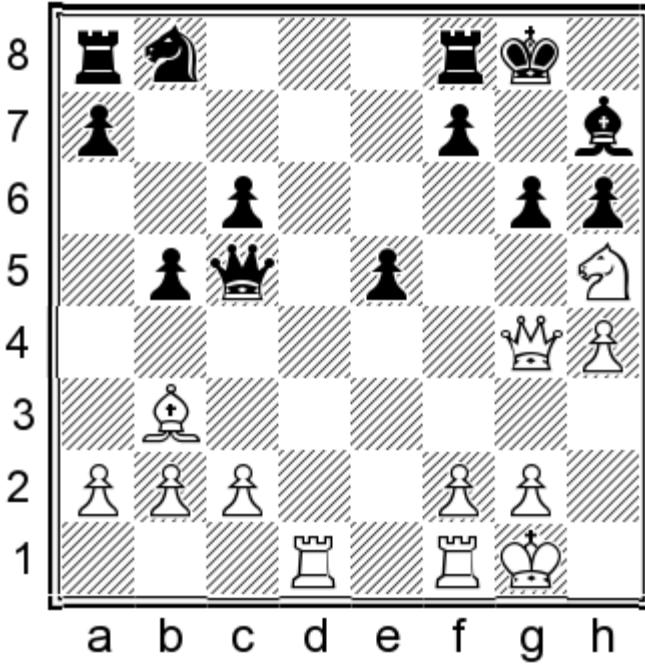
15. $\mathbb{Q}fh5$  is stronger still, when 15... $\mathbb{Q}xh5$  16. $\mathbb{Q}xh5 \mathbb{Q}xe3$  loses quickly. After 17. $\mathbb{Q}xg7+$   $\mathbb{Q}f8$  18.fxe3  $\mathbb{Q}xg7$  19. $\mathbb{W}g4+$   $\mathbb{Q}g6$  20. $\mathbb{Q}xf7+$   $\mathbb{W}xf7$  21. $\mathbb{Q}xf7$   $\mathbb{Q}xf7$  22. $\mathbb{Q}d6$ , Black is beyond salvation. 15... $\mathbb{Q}g8$  is stronger, but here too, after 16. $\mathbb{Q}xc5$   $\mathbb{W}xc5$  17. $\mathbb{Q}xf6+$  gxf6 18. $\mathbb{W}h5 \mathbb{W}f8$  19. $\mathbb{Q}fe1$ , the computer predicts a win for White.

15. $\mathbb{Q}gh5$  doesn't look bad either: if 15...exf4 (Black falls into a trap), then 16. $\mathbb{Q}xc5 \mathbb{W}xe2$  17. $\mathbb{Q}xg7#!$ . Pretty, isn't it?

## 15... $\mathbb{W}xc5$ 16. $\mathbb{Q}fh5$

16. $\mathbb{Q}gh5$  is good, too. Now 16... $\mathbb{Q}xh5$  17. $\mathbb{W}xh5$  0-0 loses instantly, as 18. $\mathbb{Q}xf7+!$  is decisive. I'd like you to extend this! *Rybka* holds the position somehow after 16... $\mathbb{Q}bd7$  17. $\mathbb{Q}xg7+$   $\mathbb{Q}e7\pm$ . There's apparently no forced win for White – but everywhere it's  $\pm$ ,  $\pm$ ,  $\pm$ ...

## 16... $\mathbb{Q}xh5$ 17. $\mathbb{Q}xh5$ 0-0 18. $\mathbb{W}g4$ g6



In this position, White has  $m < 1$ ,  $t = 44/23 \approx 1.91$ , and a significant “plus” in the safety factor. The verdict is obvious: the Tal Algorithm!

What should we do?

This simple question meets with the standard response: play in full accordance with all of the requirements of the position – that is, the algorithm. And only that way!

### **19.♖d3**

The second point of the Tal Algorithm (and it’s the first point of the Capablanca Algorithm) – White intends to transfer the rook on the f-file to the d-file. However, the straightforward 19.♖fe1 also looks plausible, for instance 19...♔h8 20.♕f6 ( $\Delta$  21.h5++) 20...♗g7 21.♗g3. Now on 21...♗xf6 White wins with the effective 22.♖d5. Extend this line!

### **19...a5**

Black has no satisfactory defense. What kills him are his poor king and the impossibility of bringing the undeveloped queenside pieces into the game.

### **20.♖fd1**

Spassky’s play was exceedingly instructive. Watch and learn!

When attacking, Spassky would sometimes simply “forget” about the opponent’s king. And he “forgot” about all the other material targets. Spassky simply arranged his major pieces in proper fashion!

Does Spassky play “like Capablanca”? You could say that...

Does Spassky play “like Tal”? No question! After the text move, White intends to thrust his rook into the attacking zone: 21.♖d6  $\Delta$  22.♖xg6++. We can also see that Spassky is poised to give up a piece at once (Black does have 20...a4).

Spassky, playing “like Tal” and “like Capablanca” at the same time, proceeds in complete accordance with every requirement... of the expanded version of the TC Algorithm. We have expanded the narrow band of the TC Algorithm that we first laid down from just to the left to just to the right of the point  $t = t_{cr} = 1.25$ , to the whole right half of the

spectrum of all chess attacks and defenses.

Attention, reader! I call upon you: fire up your imagination and try, from the bird's-eye view of the expanded TC Algorithm, to take in with one gaze the whole of "Tal" and the whole of the right-side "Capablanca." Expand your horizons!

## 20... $\mathbb{E}a7$

"The threat to win the bishop after 20...a4 was illusory, since White would continue 21. $\mathbb{Q}xf7+\mathbb{Q}xf7$  (or 21... $\mathbb{E}xf7$  22. $\mathbb{E}d8+\mathbb{E}f8$  23. $\mathbb{W}e6+$ , and mate in two moves) 22. $\mathbb{E}f3+\mathbb{Q}e7$  (22... $\mathbb{Q}g8$  23. $\mathbb{W}e6+\mathbb{Q}h8$  24. $\mathbb{E}d8!$ ) 23. $\mathbb{E}xf8\mathbb{Q}xf8$  24. $\mathbb{W}f3+$  with  $\mathbb{W}f6$  to follow" (Spassky).

## 21. $\mathbb{E}d6\mathbb{Q}h8$

The threat was 22. $\mathbb{E}xg6+$ .

## 22. $\mathbb{Q}f6$

"Now Black has no satisfactory defense to 23. $\mathbb{Q}xh7$  followed by 24. $\mathbb{E}xf7$ . For example, 22... $\mathbb{Q}g8$  23.h5  $\mathbb{W}b4$  24.c4, or 22... $\mathbb{W}b4$  23. $\mathbb{W}xb4$  axb4 24. $\mathbb{E}d8\mathbb{Q}g7$  25. $\mathbb{Q}e8+$ , winning" (Spassky).

## 22...a4 23. $\mathbb{Q}xh7$ axb3 24. $\mathbb{Q}xf8$ bxc2

Or 24...bxa2 25. $\mathbb{Q}xg6+$  fxg6 26. $\mathbb{W}xg6$  (*Rybka's line*). After 26... $\mathbb{W}xd6$  27. $\mathbb{E}xd6$  a1 $\mathbb{W}+$  28. $\mathbb{Q}h2$ , there is no defense against mate.

## 25. $\mathbb{Q}xg6+$ fxg6 26. $\mathbb{E}d8+\mathbb{Q}g7$

If 26... $\mathbb{Q}h7$ , then 27. $\mathbb{E}c1$  wins quickly.

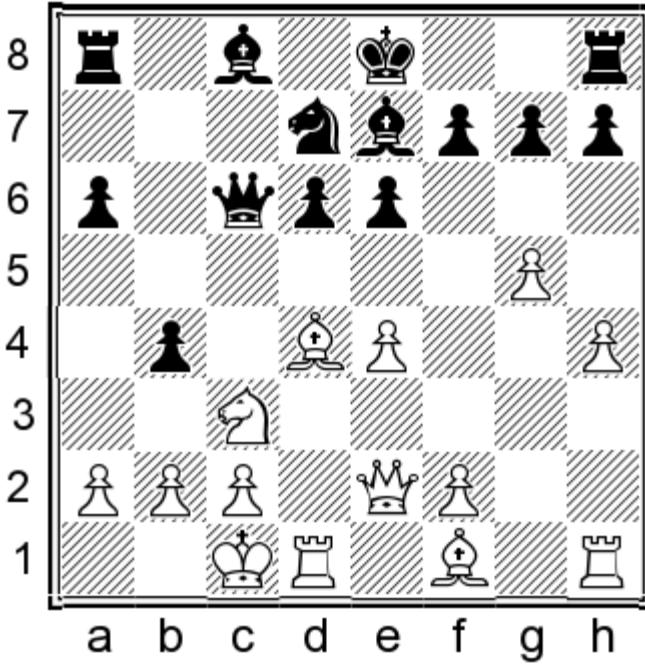
## 27. $\mathbb{E}g8+\mathbb{Q}xg8$ 28. $\mathbb{W}xg6+\mathbb{E}g7$

Or 28... $\mathbb{Q}f8$  29. $\mathbb{W}f6+$ , with mate in a few moves.

## 29. $\mathbb{E}d8+\mathbb{W}f8$ 30. $\mathbb{E}xf8+\mathbb{Q}xf8$ 31. $\mathbb{W}xc2\mathbb{Q}g8$ 32. $\mathbb{W}c5$ 1-0

No. 32: Karpov – Dorfman

USSR Championship, Moscow 1976



*Position after 13...b4*

We're playing White, and we have:

- 1) equality in the first factor of the position – that is,  $m = 1$ ;
- 2) near-equality in the factor of chess time:  $t = 39/38 = \sim 1.03$ ;
- 3) superiority (but by how much?) in the safety factor (White has an “extra” queen and rook in the rectangle d1-d8-f8-f1, but our c3-knight is under attack...).

Our preliminary conclusion: “Tal”? The TC Algorithm?

In the compactness factor: parity.

In the spatial expansion factor:  $\Delta(13...b4) = 34/14 - 31/14 = \sim 0.21$ . This factor moves us only slightly to the left, from “Tal” to the TC Algorithm.

Our final conclusion agrees with the preliminary one: “Tal” or TC Algorithm? The pressure of the fifth factor is terribly small; it is swallowed up whole by the important lack of clarity in the third factor.

#### 14. $\mathbb{Q}d5$

This move is clearly in “Tal” style, and it's probably the strongest.

After 14.  $\mathbb{Q}b1$ , Black has a comfortable game:

- a) 14...e5 15.  $\mathbb{Q}e3$   $\mathbb{Q}c5$  16.  $\mathbb{Q}d2$  0-0;
- b) 14...0-0 15.  $\mathbb{Q}d2$  a5  $\Delta$  16... $\mathbb{Q}a6$ .

Black does not stand worse in either variation.

#### 14...exd5 15. $\mathbb{Q}xg7$

“Here it would be a serious mistake to play 15.exd5???: 15... $\mathbb{W}xd5$  16.  $\mathbb{Q}xg7$   $\mathbb{W}xh1$  17.  $\mathbb{Q}e1$   $\mathbb{Q}e5$  18.  $\mathbb{Q}xe5$  dxе5 19.  $\mathbb{W}xe5$ . It looks like White is winning, since he threatens 20.  $\mathbb{W}xe7\#$  and 20.  $\mathbb{Q}b5+$  and  $\mathbb{W}xh8+$ , but... Black has not yet used his right to castle, and he unexpectedly wins – 19...0-0!” (Karpov).

## **15...Bg8 16.exd5 Wc7 17.Qf6**

A “Tal”-style move – an open attack on the enemy bishop and, at the same time, a direct attack on the king.

However, White also had another move available – 17.Qd4 (*Rybka*). This move is clearly in “Capablanca” style. And it may not be one bit inferior to the game move!

## **17...Qe5**

“The only move, since 17...Qb6 loses after 18.Qe1 Qxd5 19.Qg2, and on 17...Qc5 – then 18.Qe1 Wa7 19.Qh3 Qxh3 20.Qxh3, and White ties the black bishop up already with a ‘triple knot’ (by playing Qh3-e3). The last variation features an amusing helpmate: 19...Qf8 20.Qxc8 Qxf6 21.We8+ Qg7 22.gxf6+ Qh8 23.Wxg8+ Qxg8 24.Qe8#” (*Karpov*).

*Rybka* extends the then-World Champion’s analysis: in the variation 17...Qc5 18.Qe1 Wa7, instead of 19.Qh3 the bishop capture looks to be just as good: 19.Qxe7, and then 19...Wxe7 20.Qd2 Qe6 21.f4. As we can easily see, Black loses in all variations.

We get the distinct impression that Karpov’s attack (an attack on material targets!) is close to its climax.

## **18.Qxe5 dxe5 19.f4**

With this move – the next move, the sixth consecutive move in “Tal” style – White attacks the enemy pawn with his own pawn.

## **19...Qf5**

Impressive – Black begins a counterattack (19...Qf5 Δ 20...Qc8 and 21...Wxc2++). One could also say (without exaggeration) that Dorfman confronts the white “Tal” of Karpov with his black “Tal”!

The tension grows... The position we are studying – after 19.f4, 19...Qf5, and the overwhelming number of those that follow – begins to spiral out of control. We teeter unsteadily on the edge of a precipice – chaos grows and presses on us...

What’s to be done?

Before revealing the twelfth World Champion’s astonishing reply, I note that after 19...Qf5 Black has significantly increased the total mobility of his pieces, jumping from 43 possible moves to 49 – count them! And that fact, of course, is most gratifying to Black. But...

But it is equally true that Dorfman, by putting his bishop on f5, has sharply “elevated” his position. The jump in the third parameter was +3/11, and for Black this comes with a minus sign, since he (the defender) cannot increase his Δ(move) without doing harm to himself.

The “plus” and the “minus” have joined together! How to weigh them against each other? Was Dorfman correct? Was the bishop move a brilliant inspiration, or the purest kind of adventurism?

In chaotic positions like this, sometimes it is very, very hard to find the one and only strongest move. In such super-complex positions I advise you, dear reader, not to trust too much even in powerful chess engines. Even they can find it very difficult...

*Question:* So what shall we, ordinary flesh-and-blood chessplayers, do?

*Answer:* We immediately and fearlessly “turn on” our fantasy and select, from the multitude of appealing moves, that “one and only” move that we like more than any other. Believe in your intuition and in your passion for chess. There is ecstasy in battle!

After making this choice, you must cold-bloodedly calculate the variations. Don’t calculate them too deeply – two or three moves deep, at the most, only so as not to blunder and overlook some tactical blow. There!

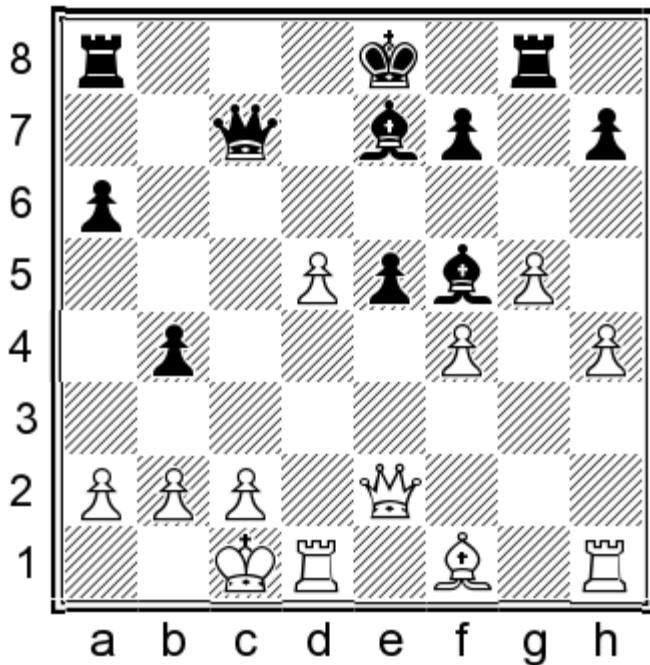
What does *Rybka* have to say?

It, too, plays a bishop move, but a different one, 19... $\mathbb{B}b7$ . Our silicon assistant advises us to play more modestly – in “Petrosian” style, not in “Tal.” Is *Rybka* correct?

Answers to this and other questions richly scattered about by me, will not be forthcoming. There will only be hints, recommendations. And amazing delight at the way both sides played.

Chess is truly inexhaustible...

**In chaotic positions, sometimes it is very hard to find the one strongest move. In such super-complex positions, turn on your fantasy and select, from the multitude of appealing moves, the single move that you like more than any other. Believe in your intuition and in your passion for chess!**



In this position (after 19... $\mathbb{B}f5$ ), we have:  $m < 1$ ,  $t = 35/49 \approx 0.71$ , a bit of superiority (how much?) in the safety factor,  $\Delta k > 0$ , and approximate parity in the fifth factor.

Diagnosis: “Capablanca”? Or perhaps even the TC Algorithm?

The ambiguity in our diagnosis is due not just to its third, but alas, also to its first factor. Why?

Because White can immediately remove the enemy pawn on e5. With that, obviously, not only the first, but also the fourth and fifth parameters of the position are set in motion.

The game continued

**20. $\mathbb{B}h3$**

and, as Karpov annotates, “...this move gave rise to various arguments.” Arguments? But not for us! Why?

Because in this position there are signs of the Capablanca Algorithm. And “Capablanca,” as we know, is not opposed to additional exchanges – if  $\Delta k > 0$ !

An alternative to the text was the natural 20.fxe5. Good move! However, the World Champion rejected it, as he was afraid of 20... $\mathbb{B}c8$  21. $\mathbb{B}h2$   $\mathbb{W}a5$ . Karpov, as he wrote in his annotations, “did not want to play an ending of the sort that would arise after 22. $\mathbb{W}xa6$   $\mathbb{W}xa6$  23. $\mathbb{B}xa6$   $\mathbb{B}c5$ .” And further: “I foresee the retort: you say, it’s not necessary to go in

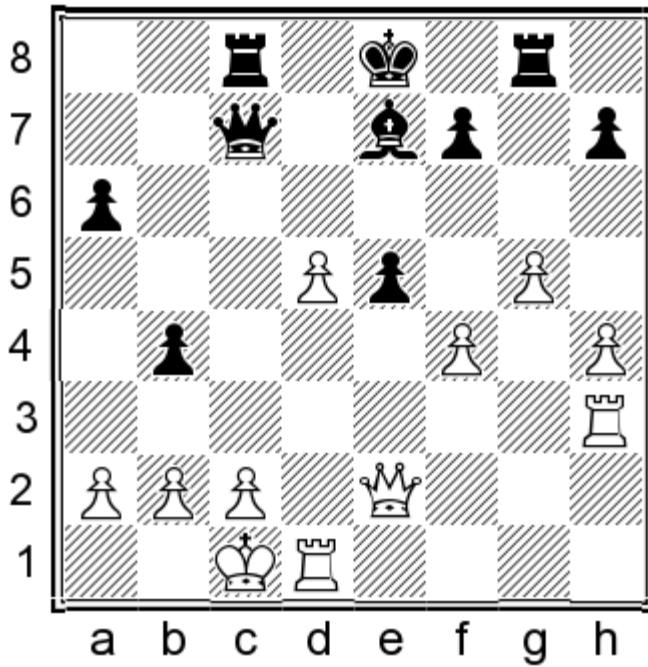
for an ending, for there is the move 22.  $\mathbb{W}f3$  (on 21...  $\mathbb{W}a5$ ), attacking the bishop on f5 and winning a valuable tempo. But then the struggle flares up again with renewed force: 22... b3! 23.  $\mathbb{W}xb3$  (forced, since 23.  $\mathbb{W}xf5$  even loses: 23... bxa2 24.  $\mathbb{W}xc8+$   $\mathbb{Q}d8$ ) 23...  $\mathbb{B}g6$ ."

But this is where there is a clear blind spot in Karpov's pre-computer age analysis: after 24.  $\mathbb{W}f3$   $\mathbb{Q}d7$  25.  $\mathbb{E}f2$  (indicated by *Rybka*), the struggle is over – because White wins! I ask you: continue this variation!

If we can believe *Rybka*, then stronger than the “awesome” 21...  $\mathbb{W}a5$  is the other queen move, 21...  $\mathbb{W}d7$ . True, then also, after the likely 22.  $\mathbb{W}xa6$   $\mathbb{E}c5$  23.  $\mathbb{E}f2$   $\mathbb{B}g6$  24. d6, White stands much better, but there is no forced win.

It's good that, while defending, *Rybka* “presses” the queen close to the king – 21...  $\mathbb{W}d7$ . In connection with this, the rook move (20...  $\mathbb{E}c8$ ) may also be considered, not a “Tal” move, but a “Petrosian” move. Black instinctively increases the local density of his pieces around his king – “Petrosian” is “Petrosian”!

**20...  $\mathbb{E}xh3$  21.  $\mathbb{E}xh3$   $\mathbb{E}c8$**



**22. fxe5**

Stop! Why? Has White lost his nerve?

An alternative to this “anti-positional move” is 22.b3. Curiously, Karpov saw it! “By playing 22.b3,” he writes, “I could have taken the c4 square, a trampoline for his pieces, away from my opponent.”

I repeat the question: why did Karpov reject “Capablanca” for “Tal”? A standard reply is: the position required it! In the diagram position, White has  $m < 1$ ,  $t = 44/38 = \sim 1.16$ , stands somewhat better (by how much?) in the safety factor,  $\Delta k > 0$ , and  $\Delta(21... \mathbb{E}c8) = \sim 0.52$ .

Diagnosis: The TC Algorithm? The Tal Algorithm?

Great changes have taken place over the last two moves (compare the parameters of the position after 21...  $\mathbb{E}c8$  and 19...  $\mathbb{E}f5$ ): White has added significantly to his second and third parameters. Thus the drift from “Capablanca” over to “Tal.” And as a result of the rapid drift of algorithms – 22. fxe5, a move totally in accordance with the fourth element of the Tal Algorithm... Karpov was right!

Which was stronger, 22. fxe5 or 22. b3? Or, to put it another way, which of the two fundamental algorithms, “Tal” or

“Capablanca,” came closer to the truth?

I don’t think that there’s any right answer...

What does *Rybka* think about all this?

The analysis runs 16 moves deep, and on the monitor, the two main lines are:

1) 22.fxe5  $\mathbb{Q}c4$  23. $\mathbb{Q}f2$   $\mathbb{Q}xa2$  24.d6;

2) 22.b3 e4 23. $\mathbb{Q}xe4$   $\mathbb{Q}f8$  24. $\mathbb{Q}b1$ .

White is better in both variations. The evaluations run from  $\pm$  to  $\pm$ . Moreover, the queen moves to f2 in the first variation. It’s easy to see that this clearly runs counter to Karpov’s idea in the game...

There followed:

**22... $\mathbb{Q}c4$  23. $\mathbb{Q}dd3$**

Karpov offers no comment here, probably because he simply overlooked White’s truly non-human move 26 in the variation 23. $\mathbb{Q}f2$   $\mathbb{Q}xa2$  24.d6  $\mathbb{Q}a1+$  25. $\mathbb{Q}d2$   $\mathbb{Q}xb2$ ...

And now: 26. $\mathbb{Q}e1$ . Bravo, metal monster! Bravo, *Rybka*!

Now the “crushing” 26... $\mathbb{Q}xc2$  is very bad: after 27.d7+ (a surprise check) Black cannot avoid mate within a few moves. So he must content himself with 26... $\mathbb{Q}c6$ , covering the b6 square, but then White plays 27.dxe7 with advantage.

Chess is an infinitely complex game, don’t you agree?

**23... $\mathbb{Q}f4+$**

In his commentary, Karpov does not hide his admiration for his opponent’s play. The World Champion thinks that the maneuver ... $\mathbb{Q}c7$ -c4-f4, followed by putting the rook on c4 (see Black’s next move) “does honor to the resourcefulness of I. Dorfman.” And further (we are quoting the twelfth World Champion from his *One Hundred Victories*): “Besides this check, it was necessary to examine at least two other possibilities:

1. 23... $\mathbb{Q}xg5$  24.hxg5  $\mathbb{Q}xa2$  25.d6 [*and so on, with – to put it mildly – not all error-free pre-computer variations – A.Sh.*];

2. 23... $\mathbb{Q}xa2$  24.d6, and the black rook on the c-file cannot escape the white queen’s pursuit.”

And now, we extend the two lines given by Karpov, with *Rybka*’s help:

1. 25... $\mathbb{Q}xg5+$  26. $\mathbb{Q}he3$   $\mathbb{Q}c5$  (26... $\mathbb{Q}c4$  27.d7+  $\mathbb{Q}d8$  28. $\mathbb{Q}f3+-$ ) 27.d7+  $\mathbb{Q}d8$  28. $\mathbb{Q}f3$   $\mathbb{Q}xe3+$  29. $\mathbb{Q}xe3+-$ ;

2. a) 24... $\mathbb{Q}c4$  25. $\mathbb{Q}f3$  (25.dxe7  $\mathbb{Q}xe7$  26.e6 also wins, as does 25.e6) 25...b3 26.d7+  $\mathbb{Q}d8$  27. $\mathbb{Q}a8+$   $\mathbb{Q}c7$  28. $\mathbb{Q}a7+$   $\mathbb{Q}c6$  29. $\mathbb{Q}xb3$   $\mathbb{Q}a1+$  30. $\mathbb{Q}d2$   $\mathbb{Q}a5+$  31.c3+-;

b) 24... $\mathbb{Q}c5$  25. $\mathbb{Q}e3$   $\mathbb{Q}a1+$  (25... $\mathbb{Q}c4$  26. $\mathbb{Q}f2$   $\mathbb{Q}d8$  27.d7+  $\mathbb{Q}f8$  28.b3  $\mathbb{Q}b5$  29. $\mathbb{Q}hf3+-$ ) 26. $\mathbb{Q}d2$   $\mathbb{Q}a5$  27.e6  $\mathbb{Q}xd6$  28.exf7+  $\mathbb{Q}xf7$  29. $\mathbb{Q}f3+$   $\mathbb{Q}g7$  30. $\mathbb{Q}e6+-$ ;

c) 24... $\mathbb{Q}c6$  25.e6+-.

The patient reader, I hope, will take these variations to the end by himself without assistance from a computer. They were all sweated out by *Rybka* after long hours of analysis – and, to be honest, I’m not totally sure how solid they are...

Chess is a very complex game, for computers and even more so for flesh-and-blood chessplayers...

**24. $\mathbb{Q}b1$   $\mathbb{Q}c4$**

Brilliant!

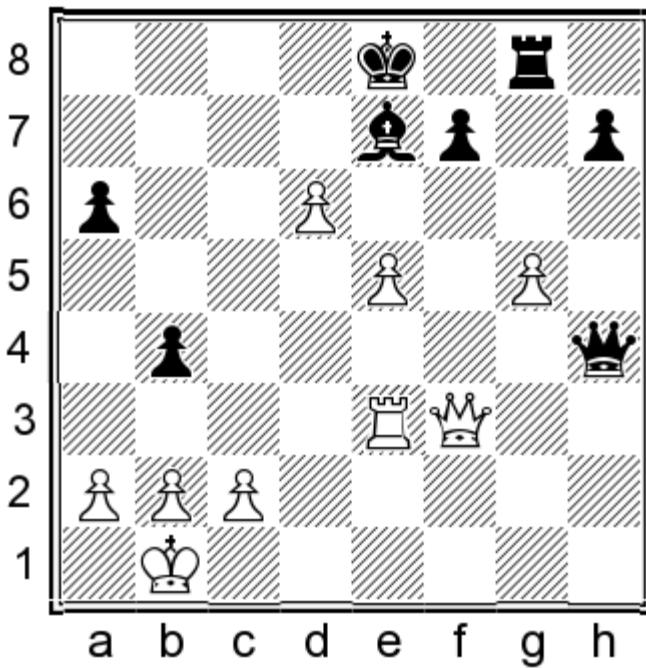
## 25.d6

A few more chances were offered by 25.e6.

25... $\mathbb{E}e4$  26. $\mathbb{E}he3$   $\mathbb{E}xe3$  27. $\mathbb{E}xe3$   $\mathbb{W}xh4$

Good move.

28. $\mathbb{W}f3$



28... $\mathbb{W}xg5$

But here this move – in “Tal” style, not “Petrosian” – cannot stand up to criticism.

In the diagram position, Black (the side we are playing) has  $m > 1$ ,  $t = 33/37 \approx 0.89$ , a clear “minus” in the safety factor, and... “Petrosian.” The diagnosis is simple! And with “Petrosian” we are obligated, roughly speaking, to quietly retreat and pack ourselves in.

It’s hard to believe, but Rybka confidently holds the position after the seemingly crazy 28... $\mathbb{W}d8$ . The machine fears neither 29.e6, nor 29.d7+. Possible variations:

a) 29.e6  $fxe6$  30.d7+  $\mathbb{W}xd7$  31. $\mathbb{W}b7+$   $\mathbb{W}e8$  32. $\mathbb{W}c6+$   $\mathbb{W}f8$  33. $\mathbb{W}d6+$   $\mathbb{W}g7$  34. $\mathbb{W}e5+$   $\mathbb{W}g6$  35. $\mathbb{W}xe6+$   $\mathbb{W}g7$  36. $\mathbb{W}e5+$   $\mathbb{W}g6$  37. $\mathbb{W}e6+$ , with perpetual check;

b) 29.d7+  $\mathbb{W}xd7$  30. $\mathbb{W}d3+$   $\mathbb{W}c8$  31. $\mathbb{W}a8+$   $\mathbb{W}c7$  32. $\mathbb{W}a7+$   $\mathbb{W}c8$  33. $\mathbb{W}a8+$ , with a draw.

Can this be right?

29. $\mathbb{E}e1$

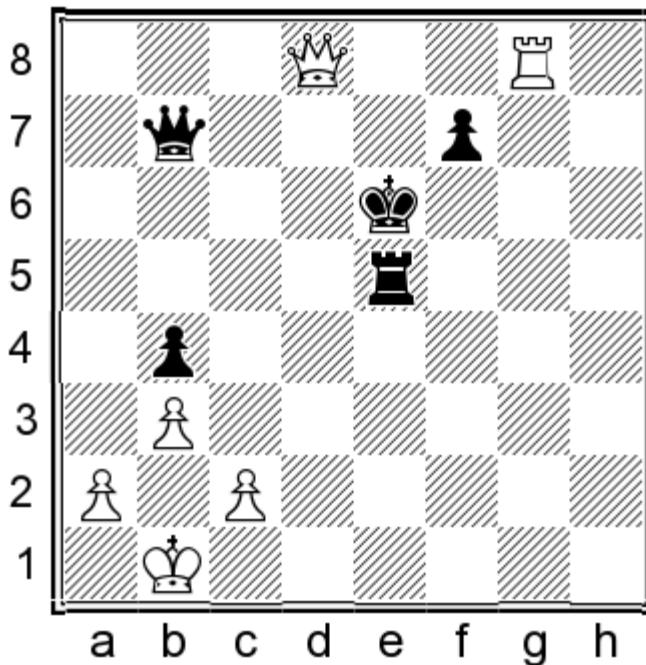
“White would retain a solid advantage after 29. $\mathbb{W}c6+$   $\mathbb{W}f8$  30. $dxe7+$   $\mathbb{W}xe7$  31. $\mathbb{W}h6+$   $\mathbb{W}g7$ , but I wanted more, so I was satisfied with a quiet (and at the same time, adventurous) move” (Karpov).

## 29... $\mathbb{W}g2$

"This wild game affected my opponent, too, when he had at his disposal a move which definitely was worth considering – 29... $\mathbb{W}g4!?$ . 'Frightened,' White could have fled to a drawn harbor with 30. $\mathbb{W}c6+$   $\mathbb{W}d7$  31. $\mathbb{W}xd7+$   $\mathbb{Q}xd7$  32.dxe7, when developing his initiative would have required entering into either of two variations (Karpov)..." And he goes on to give those two lines –

We do not need to see those variations. They sidetrack us from our objective. Our goal, I remind you, is the TC Algorithm. And to this end, I will henceforth unceremoniously cast off everything that might interfere with its attainment. Therefore, later – both in this game and in the one that follows it – we will significantly reduce the collection of concrete and super-convincing variations. The truth – and it is always tied closely to the strongest move in the position under study – is hardly suffering here!

I will not mince words: here before you, dear reader, is the position that arose after 46 moves:



*Position after 46... $\mathbb{Q}e6$*

We have skipped seventeen moves from this thrilling encounter. The board features a major-piece ending!

In the diagram position (we have White),  $m > 1$ ,  $t = 36/30 = 1.20$ , "+",  $\Delta k \gg 0$ , and  $\Delta(46... $\mathbb{Q}e6) = 1.80$ . "Tal"? TC Algorithm?$

The first and fifth parameters impel us toward the "Capablanca." Meanwhile, the third and fourth parameters push us rightward – that is, over to the "Tal."

As we know, "Tal" is, above all, about open and direct attacks on material targets, chief among these being the king. Thus: 47. $\mathbb{Q}h8$  ( $\Delta 48.\mathbb{Q}h6++-$ ) 47...f6 48. $\mathbb{Q}f8$  (a new target: the f6-pawn) 48... $\mathbb{Q}f5$  49. $\mathbb{W}e8+$  (attacking the king!) 49... $\mathbb{Q}d6$  50. $\mathbb{Q}f7$  (the queen is attacked; and *Fritz* argues with *Rybka*: 50. $\mathbb{W}e3+-$  or even 50. $\mathbb{W}e1+-$ ), etc. White has all the winning chances.

But there's also another solution:

## 47. $\mathbb{Q}b2$

How is this move notable? Because it's multifaceted!

It may be treated as a “Tal” move – the second point of that threatening algorithm. And at the same time it may be treated as a “Capablanca”-type move – the first point of the strategic algorithm. Yet the same move may even also be a “Petrosian”-type move. Why?

Because Karpov, by improving his king, at the same time significantly increased his position’s  $\Delta k$ , but just as significantly increased the density of his pieces immediately around his king. “If the mountain will not come to Muhammad, then Muhammad must go to the mountain.”... Here, the “mountain” is the pawns at a2, b3, and c2.

**47...f6**

There is no apparent salvation.

**48.♘f8**

We attack the pawn.

**48...♗g7**

48...♗f5 (*Rybka*) holds out longer.

**49.♕c8+**

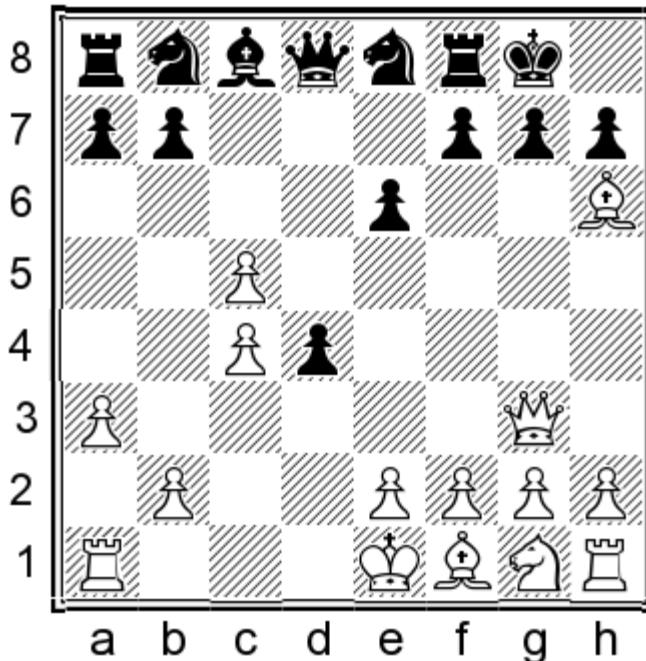
And now the king himself is under attack!

**49...♔d5 50.♕c4+ 1-0**

Black is down a piece after 50...♔d6 51.♕d8+ ♔e7 52.♕c7+.

### No. 33: Morozevich – Akopian

European Team Championship, Heraklion 2007



*Position after 9...♝e8*

In this position, White has:

- 1) An extra pawn. That is,  $m > 1$ ;
- 2)  $t = 41/28 = \sim 1.46$  – that is, we are in the Tal Zone;
- 3) maybe worse (if so, then by how much?) in the safety factor – admittedly, White's king is, to put it mildly, not very solidly “packed”...

Our preliminary diagnosis: that sector of the spectrum from  $t = \sim 1.0$  to  $t = \sim 1.4$  – that's what, “Capablanca”? the TC Algorithm?... More or less!

The fourth and fifth parameters:  $\Delta k > 0$  and  $\Delta(9\dots\Delta e8) = \sim 0.61$ . Calculate this.

The final diagnosis: a segment of the spectrum from  $t = \sim 1.0$  to  $t = \sim 1.3-1.4$ .

## **10.h4**

This h-pawn advance is but one of a number of good moves. “It is hard to say which of White’s moves is the strongest, but it is clear that my choice does not pretend to rise to it.” And a little later: “... I began to experiment.” (Morozevich, 64, No. 1, 2008).

Morozevich’s move is in “Tal style.” But there are also “Capablanca”-style moves: 10.  $\Delta f3 \Delta 0-0-0$ , or 10.  $0-0-0 \Delta \Delta f3$  – playing in the center instead of the kingside.

## **10... $\Delta d7$**

“A strange move, by which Black, of his own volition, corks up his pieces; but whether he will munch on the c5-pawn is still an open question. I mainly considered 10...  $\Delta c6$  11.  $h5$ , while all my engines with one voice insisted on 10...  $e5$  11.  $h5$   $f6$  12.  $\Delta xg7 \Delta xg7$  13.  $h6 \Delta f7$ , and it’s hard to say who’s better” (Morozevich).

I add: one of those engines doesn’t object to 12.  $\Delta d2$ .

So is the “dissident” program right? After all, with 12.  $\Delta d2$ , White refrains from making trades. When you’re attacking the king, they are pointless!

So how is 12.  $\Delta xg7$  good? After the h- and g-pawns disappear, White has significantly increased his superiority in  $\Delta k$ . Confirm this!

Which is right – the “dissident” program or the “overwhelming majority”? I don’t know!

## **11.h5**

An alternative is 11.  $b4$ , and if 11...  $a5$ , then 12.  $\Delta d1$  (Morozevich) when White packs himself in.

## **11... $\Delta c7$**

A good reply, as after the queen trade Black is completely freed from the hazards of an attack on his king. However, as Morozevich points out, the “anti-Petrosian” move 11...  $\Delta xc5$  is also quite possible. Play might continue 12.  $\Delta xg7 \Delta xg7$  13.  $h6 \Delta f6$  14.  $hxg7 \Delta e8$  15.  $f4!?$   $d3!?$  16.  $0-0-0 \Delta a4$  17.  $\Delta d2$ , leading to “complicated, irrational positions” (according to Morozevich).

## **12. $\Delta h3 f5$**

Morozevich awards this move an exclamation mark.

## **13. $\Delta xc7$**

While this move, the Muscovite grandmaster labels a “proper choice.” Why?

Could it be because, up till 12...f5, the players had already drifted into the Capablanca Safety Zone? Yes or no?

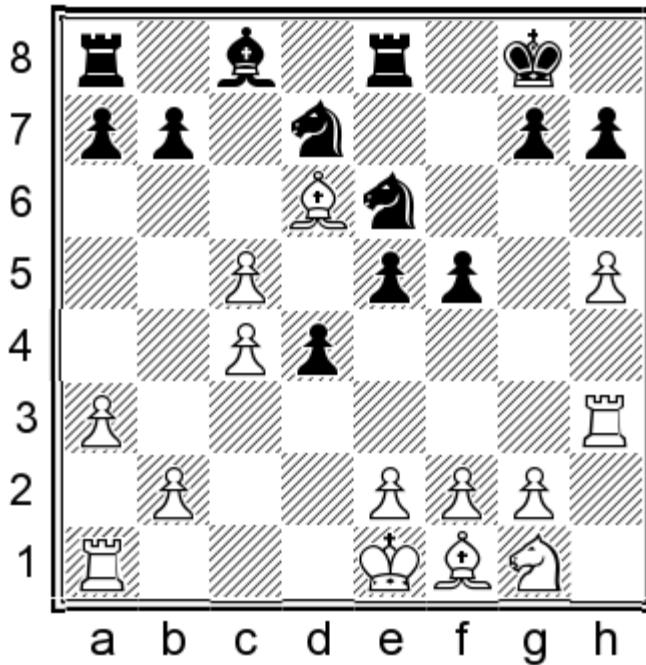
Diagnose the position after 12...f5. Note the drift in the “t” parameter!

**13...♝xc7 14.♝g5 e5**

“A serious, and perhaps better, alternative was 14...♝e8, not allowing the transfer of the bishop to d6. The position is hard to exhaust with variations, but at first sight the bishop on g5 will be difficult for White to put in a good spot: 15.h6 e5 16.hxg7 ♜e6 17.♜h6 ♜f6 and, despite White’s two extra pawns, I suspect it will be easier to play the position as Black – his clear central strategy is against the scattered state of the white pieces all over the board ” (Morozevich).

A very important testimonial! Both because it falls from the lips of a participant in the process, and because it is supported by high-quality computer analysis. Check it out!

**15.♝e7 ♜e8 16.♝d6 ♜e6**



**17.♝d1**

“The critical moment. Even now, after home analysis, it is difficult enough to say what is really going on. The decision I made was not based on calculation, but was purely intuitive. I rejected the most obvious line, 17.b4, on account of 17...a5 18.♝d1 axb4 19.axb4 e4! (taking away the f3 square from the knight), when after, for example, 20.♜b3 ♜a2, it is easier to play Black, and I constantly have to keep in mind ...d4-d3 and ...♝d4 – although, understandably, objectively speaking the position would be quite playable. On 17.e3 or 17.♝f3 ♜exc5, also, there is nothing clear” (Morozevich).

**17...♝exc5**

Nor does 17...a5!? (Morozevich’s marks) look any worse, and if 18.e3, only then 18...♝exc5, etc., a paean to the chess engine *Rybka*. What would we do without it? Morozevich writes: “At a depth of 28 half-moves, my *Rybka* gives this top line (because I don’t understand half of them, I give the moves without commentary): 19.♝e2 dxe3 20.♜xe3 f4 21.♜c3 ♜a6 22.♜c2 a4 23.♜cd2, with an evaluation of 0.00.”

Commentary to the commentaries: the position after 23.♜cd2 is compact and very pretty. And it undoubtedly fulfills all the requirements of the Capablanca Algorithm. Could *Rybka* have learned to play strategically?

## 18.f4

Why does this aggressive move have a full right to exist?

Because  $t > 1$ , because the white king is very densely packed, and because  $\Delta k = 0$ !

## 18...exf4 19.Qf3 d3

Nor is 19...Qa4 inferior. Here is one of the dozens (maybe hundreds) of possible variations: 20.b3 Qc3 21.Qxd4 Qe4 22.Qxf4 Qdc5 23.Qd2 Qe6 24.Qxe4 Qxd4 25.Qd6 with full compensation (maybe more) for the sacrificed exchange.

## 20.h6

This move Morozhevich termed a “provocation.” Psychological warfare!

More natural seems the simple 20.Qxf4. Then, quite possibly, there might come 20...Qa4 21.Qd2 Qf6 (21...Qdc5!) 22.b3... And everywhere variations, variations, variations... Chess chaos!

## 20...g6

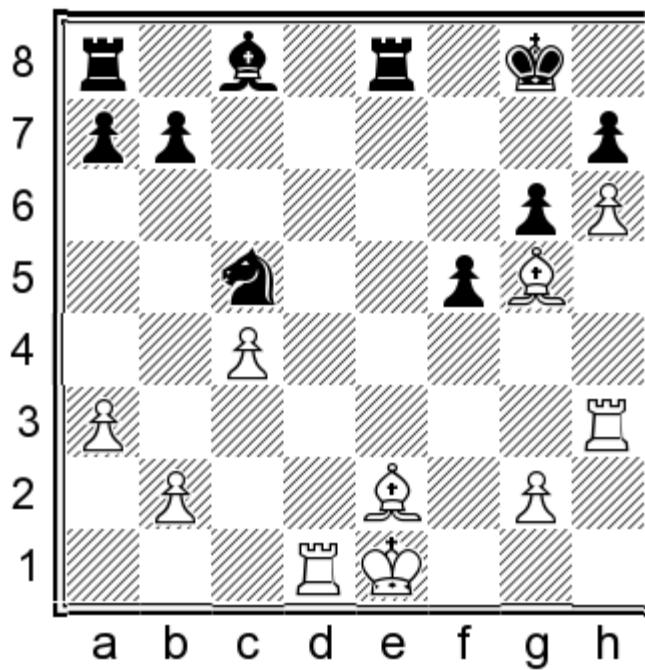
The provocation succeeds!

In Morozhevich’s opinion, 20...b6 was stronger, with more variations, variations, variations...

The position under study is clearly out of control! In such situations, what matters is not the calculation of an endless string of variations, but intuition and imagination. You need to calculate two or three moves ahead – nothing more!

## 21.Qg5 Qe4 22.Qxf4 dxe2 23.Qxe2 Qxg5 24.Qxg5 Qc5

I’m deliberately refraining from offering variations. The struggle around moves 21-24 is like a pistol duel in a darkened room...



The smoke has cleared. Here’s what we have:  $m = 1$ ,  $t = 36/26 = \sim 1.38$ , and a “micro-plus” in the safety factor. The diagnosis is simple: “Tal,” just “Tal”!

## 25. $\mathbb{E}e3$

This is no exchange – more exactly, it is not *just* an exchange, as on 25... $\mathbb{E}xe3$  there comes 26. $\mathbb{E}d8+$  (open attack on Target No. 1) 26... $\mathbb{Q}f7$  27. $\mathbb{E}xe3+-$ .

## 25... $\mathbb{Q}e4$ 26. $\mathbb{Q}f3$

Hitting the target on e4.

## 26... $\mathbb{Q}f7$ 27. $\mathbb{Q}h4$ $\mathbb{Q}e6$ 28. $\mathbb{E}d4$

“White strengthens his position as much as he possibly can before taking on e4” (Morozevich). Does the grandmaster explain himself to us in the pure language of “Capablanca”? Yes or no? Answer, please!

Our answer is: yes, yes, yes!

I add that: from “Tal” to “Capablanca” there is but a single step...

## 28... $\mathbb{E}ac8$ 29. $b3$ $a5$

A final word by Morozevich: “Out of practical considerations, he should have ‘pulled out’ 29... $b5$ , so as not to later suffer grievously, although objectively this sacrifice is insufficient.”

## 30. $\mathbb{Q}xe4$ $fxe4$ 31. $a4$

Increasing his  $\Delta$ (move).

## 31... $\mathbb{Q}f5$ 32. $\mathbb{E}d5$ $b6$ 33. $\mathbb{E}d6$

White successfully combines open attacks on material targets with the steady improvement of his own position.

## 33... $\mathbb{E}b8$ 34. $\mathbb{Q}d2$ $\mathbb{E}b7$ 35. $\mathbb{Q}c3$

Increasing the  $\Delta$ (move).

## 35... $\mathbb{E}e6$ 36. $\mathbb{E}d8$

Further increasing the  $\Delta$ (move), and also uncovering a threat to the target on h7: 37.  $\mathbb{E}h8$ .

## 36... $g5$

Agony.

## 37. $\mathbb{Q}xg5$ $\mathbb{E}g6$ 38. $\mathbb{E}g3$ $e3$ 39. $\mathbb{E}d5$ $\mathbb{Q}e6$ 40. $\mathbb{E}f3+$ 1-0

The TC Algorithm is no doubt an aggressive one. It’s the child of the Tal Algorithm and the right (attacking) branch of the Capablanca Algorithm. So it would be good for us to strictly define its left edge as the point on the “t” axis with the coordinate  $t = 1.00$ .

With  $t < 1.00$ , the “attacking Capablanca” turns into the “defensive Capablanca.”

There is no border on the right! And if there is, then it’s a very, very fuzzy one; and recall that at the very beginning of this chapter we defined it as the point where  $t = 1.50$ . Why there, precisely?

I reply: coming from the considerations of symmetry – the numbers 1.00 and 1.50 are equidistant from the “sacred” number 1.25, signifying the actual demarcation between “Tal” and “Capablanca.”

In practice, the TC diagnosis is always a consequence of our limited, human abilities. Even world champions sometimes can't select the strongest move from several candidates – chess was, is, and will be a very complex game! Thus there arise the mixed algorithms and unclear diagnoses.

My advice to the practical chessplayer: if your position requires the TC Algorithm, then attack vacant and occupied squares equally. In other words, when attacking in these situations you have no right to be just "Tal" or just "Capablanca."

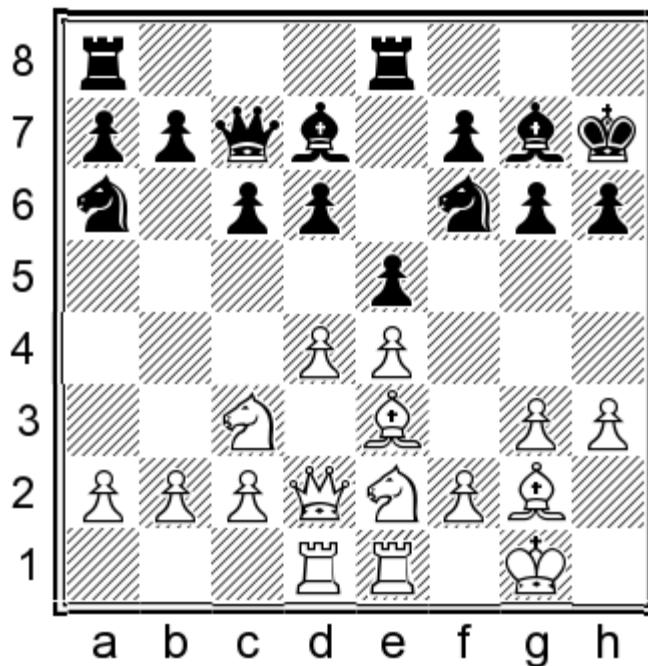
And what do you do if the position requires the CP Algorithm?

Instant answer: defend vacant and occupied squares equally. Defense is the opposite of attack...

With the TC Algorithm now behind us, the CP Algorithm awaits. Forward!

### No. 34: Karpov – Timman

Montréal 1979



*Position after 13...Qd7*

In this position, we (White) have:

- 1) material equality – parity in the first factor of the position;
- 2)  $t = 31/40 = \sim 0.78$ , so we are close to the critical point  $t_{cr} = 0.80$ ;

3) rough equality in the safety factor, since White's great kingside pressure against his opponent ( $\mathbb{W}d2 + \mathbb{B}e3$ ) is balanced, not only by the black light-squared bishop's pressure on the h3-pawn, but also by Black's "extra" piece in the f1-f7-h7-h1 rectangle, plus the greater local piece density around his king, relative to that of his opponent.

The preliminary verdict: the position demands the CP Algorithm.

The fourth factor:  $\Delta k < 0$ .

The fifth factor:  $\Delta(13...Qd7) = 37/16 - 38/16 = -1/16 = \sim -0.06$ .

Our final verdict: the CP Algorithm, where in any case the "Petrosian" slightly predominates over "Capablanca." The reason for this barely perceptible drift from the almost "100%" CP Algorithm over to the Petrosian Algorithm is

obvious:  $\Delta k < 0$ . Our opponent is more compact!

What to do? The answer is given by the World Champion:

#### 14.g4

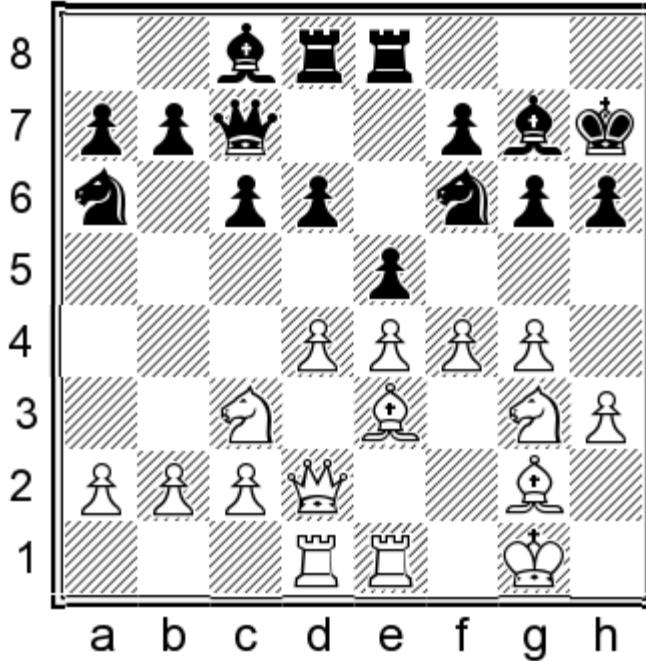
Why?

Because, "...I didn't want to play the immediate 14.f4" (Karpov). And further, "It would be illogical to increase the tension right away – you would have to play g3-g4 eventually anyway... and ♜e2-g3." And now for perhaps the most important part of Karpov's verdict: "At the same time [after g3-g4 and ♜e2-g3 – A.Sh.J, White also completes an important strategic task: he shores up the e4-pawn."

While shoring up his central pawn – that is, protecting it – Karpov also increases his  $\Delta(\text{move})$ . But he accomplishes this with no loss in compactness. How does he do it?

I reply: Karpov does not "elevate" all of his pieces and pawns randomly, but only those that are located in the middle of his battle formation. And those are: 14.g4, 15.♗g3, and 16.f4 (forgive me, I'm getting a bit ahead of myself – see below). What matters to us is that the advance guard of the position (the d4- and e4-pawns) is kept in place. Karpov plays carefully and doesn't rush to cross the border...

14...♝ad8 15.♗g3 ♛c8 16.f4



A quick analysis of the diagram position gives us:  $m = 1$ ,  $t = 37/35 = \sim 1.06$ , approximate parity (or maybe a "micro-minus") in the factor of safety,  $\Delta k < 0$ ,  $\Delta(16.\text{f}4) = 41/16 - 37/16 = 4/16 = 0.25$ .

Diagnosis: "Capablanca"? CP Algorithm? Or: a CP Algorithm where "Capablanca" predominates slightly over "Petrosian"?

We see that, compared to the position after 13...♝d7, White has drifted slightly to the right over the last three moves (14.g4, 15.♗g3, 16.f4).

Success? Unquestionably!

16...b5

A move of dubious merit. It might have been better to play 16...exf4 17.Qxf4 ♕b6 (*Rybka*'s recommendation), for instance 18.b3 ♕b4 19.Qf1 ♕f8 20.Qe3 Δ Qf2, ♕df1±.

### 17.a3

Karpov is in no hurry and institutes a policy of prophylaxis against his opponent's intended counterplay on that wing, where the opponent has superior forces.

The computer at first prefers 17.f5 to the game move. But then, after thinking a bit, it agrees with the World Champion. Hand-to-hand combat ensues after 17.f5 b4 18.Qce2 d5. One possible continuation would be 19.g5 ♕xe4 20.Qxe4 dxe4 21.fxg6+ fxg6 22.gxh6 exd4 23.hxg7 dxe3 24.Qxe3, and here, if White is better, then it's only by the tiniest amount.

I repeat: Karpov is in no hurry! But Timman is:

### 17...b4

and, true, he does so at his own expense! Why?

Because, after the pawn trade –

### 18.axb4 ♕xb4

– the white a-pawn disappears and, with it, White becomes more compact, if only by a little. Black, on the other hand, has diminished compactness with respect to the king and pawns.

Thus Black has played poorly, and he deserves an exemplary punishment! How?

Through an “endless” series of prophylactic undertakings!

### 19.Qce2

To enable c2-c3, cementing White's position.

### 19...exd4

Now the white c-pawn will never get to d4. But... out of the frying pan, and into the fire!

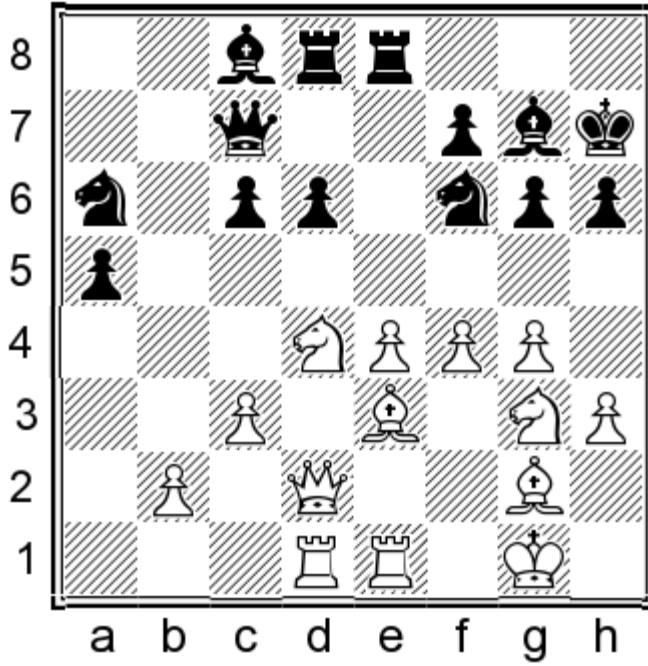
### 20.Qxd4 a5

Were it Black to move in this position, he would have no problems at all after 21...Qa6, when 22.c3 is not possible because of 22...Qd3. However...

### 21.c3

An open attack on the opposing knight, which White combines with prophylaxis!

### 21...Qa6



**22.  $\mathbb{W}c2$**

“A subtle move which, first of all, does not allow the black knight to jump to c5 (in view of the reply b2-b4!); and secondly it continues the previous strategic line – shoring up the e4-pawn” (Karpov).

The impatient *Rybka* suggests 22.  $\mathbb{Q}xc6$ , followed by 22...  $\mathbb{W}xc6$  23.e5 d5 24.exf6, with an evident advantage.

**22...  $\mathbb{Q}d7$**

“Still intending to carry out the advance ...  $\mathbb{Q}a6-c5$ , for which it is necessary to defend the c6-pawn ahead of time (23...  $\mathbb{Q}c5$  24.b4 axb4 25.cxb4  $\mathbb{Q}e6$ )” (Karpov).

**23.  $\mathbb{Q}f3 \mathbb{E}e7$**

“23...  $\mathbb{Q}c5$  no longer works, because of 24.e5” (Karpov).

**24.  $\mathbb{Q}f2$**

Splendid!

The author of this monumental piece of chess art writes: “One of the last prophylactic moves. Before his decisive aggressive operations White lays out his pieces in the most harmonious manner and... once again shores up the central outpost at e4! 24.  $\mathbb{W}d3$  would be premature in view of 24...  $\mathbb{Q}c8...$ ”

No rush!

**24...  $\mathbb{Q}e8$**

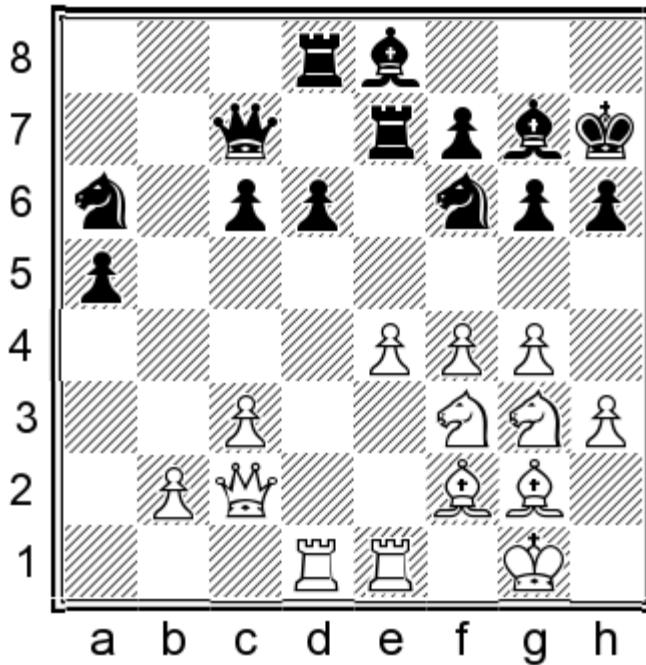
A tactical blunder, dropping a pawn for no compensation. More stubborn resistance was offered by 24...  $\mathbb{E}e8$ , defending the target on a6 (*Rybka*'s recommendation).

After 24...  $\mathbb{Q}e8$  White has many tempting continuations. There's 25.  $\mathbb{Q}h5$ , 25.e5, and the stealthy 25.f5. One of the lines, and I am not sure that this one is best, is 25.f5  $\mathbb{Q}d7$  26.g5  $\mathbb{E}ee8$  27.fxg6+ fxg6 28.  $\mathbb{Q}f5\pm$ . I ask that you extend this line, and without using a computer, as far as you can!

“Tal”? Yes, because  $t(24 \dots \mathbb{Q}c8) = 46/39 = \sim 1.18$ . With a small “plus” in the safety factor!

The game move ( $24 \dots \mathbb{Q}e8$ ) is bad not only because it abandons the piece on a6 to its fate, but also because after it, the mobility of the black pieces decreases significantly – from 39 to 33 moves.

All this means that White is guaranteed a successful attack!



We have  $m = 1$ ,  $t = 46/33 = \sim 1.39$  (!), a small “+”...The simple conclusion: “Tal.”

And now compare  $t(13 \dots \mathbb{Q}d7)$  and  $t(24 \dots \mathbb{Q}e8)$ . Isn’t it true that 1.39 is significantly greater than 0.78 (see the parametric analysis at the starting position)?

White’s obvious progress in the “t” parameter is a consequence of his flawless strategy and, to put it mildly, Black’s less than flawless strategy and tactics...

Let’s activate the Tal Algorithm!

**25.  $\mathbb{W}d3$**

An open attack on the knight.

**25...  $\mathbb{W}b7$**

If 25...  $\mathbb{Q}c5$ , then 26.  $\mathbb{Q}xc5+-$ . 25...  $\mathbb{Q}b8$  is bad, too: White wins with 26.e5+-.

**26.  $\mathbb{E}a1$**

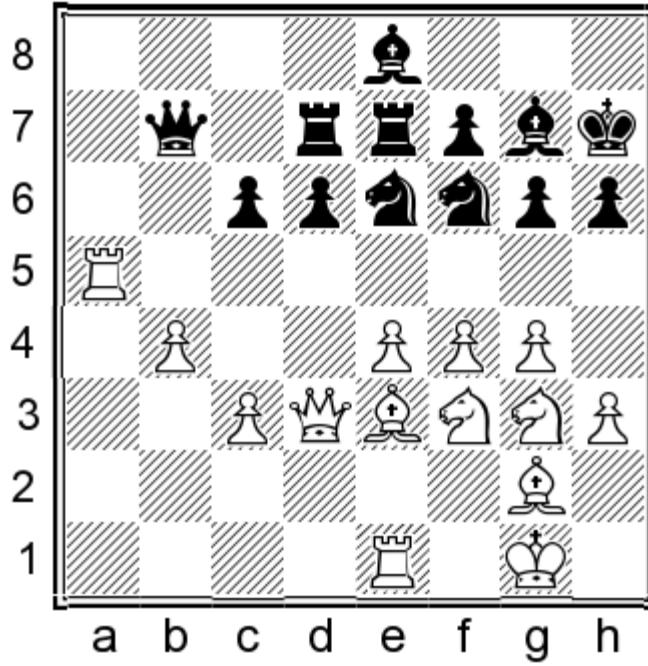
The pawn is defenseless.

**26...  $\mathbb{Q}c7$  27.  $\mathbb{E}xa5$   $\mathbb{E}dd7$**

After 27...  $\mathbb{W}xb2$  28.  $\mathbb{E}b1$ , Black loses his queen.

**28.  $b4$   $\mathbb{Q}e6$  29.  $\mathbb{Q}e3$**

The final preparations...



**29...c5 30.f5 ♜d8 31.b5**

“For ‘total happiness’ White has only to play c3-c4, to gain complete domination over the entire board” (Karpov).

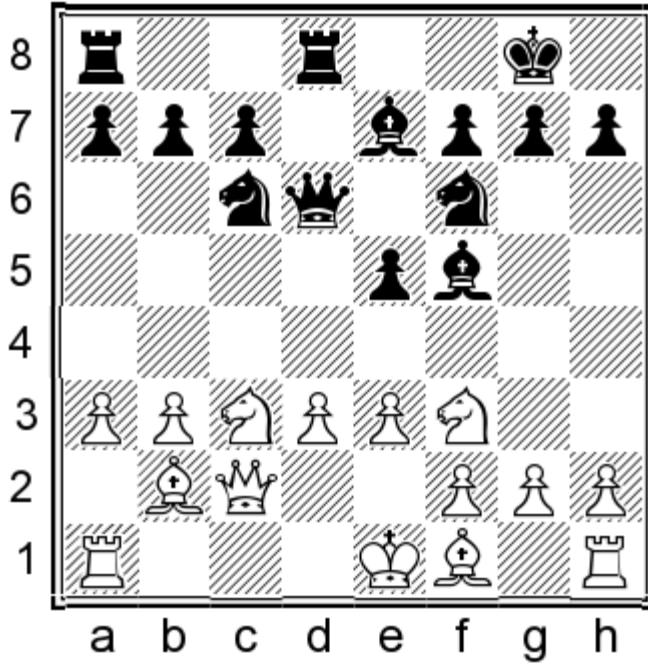
**31...♝h8 32.♜f2 ♛c7 33.♝a4 ♛b8 34.c4**

That's it!

**34...♝a7 35.♝xa7 ♛xa7 36.e5 dxе5 37.♝xе5 ♛a2 38.♝xc5 1-0**

**No. 35: Fischer – Tukmakov**

Buenos Aires 1970



Position after 10... ♕fd8

In this position, White has:

- 1) material equality – that is,  $m = 1$ ;
- 2)  $t = 38/45 = \sim 0.84$  – we are fairly close to the border separating the algorithms of Capablanca and Petrosian;
- 3) a little inferior (by how much?) in the safety factor: our king is not very well tucked away, and in the d1-d8-f8-f1 rectangle Black has a huge advantage in forces.

Our preliminary diagnosis: “Petrosian”? The CP Algorithm?

The compactness factor:  $\Delta k > 0$ .

The spatial expansion factor:  $\Delta(10... ♕fd8) = 32/15 - 34/15 = -2/15 = \sim -0.13$ .

Our final diagnosis: The CP Algorithm. Our rightward movement is induced by the fourth and fifth factors of the position.

## 11. ♔d1

The most natural move, and most likely the strongest – White not only defends the attacked pawn, but also increases the density of the pieces around the king. The king is a piece of infinite chess value!

An alternative is 11. ♔e4.

## 11...h6 12.h3

“White plays the opening without extending beyond the third rank, but in passing he frightens Black with the ephemeral threat of g2-g4 (the studying of which must have cost Tukmakov more than just the odd minute)” (Kasparov, *My Great Predecessors*, Part IV).

12. ♔e2 (Rybka’s recommendation) looks a little better.

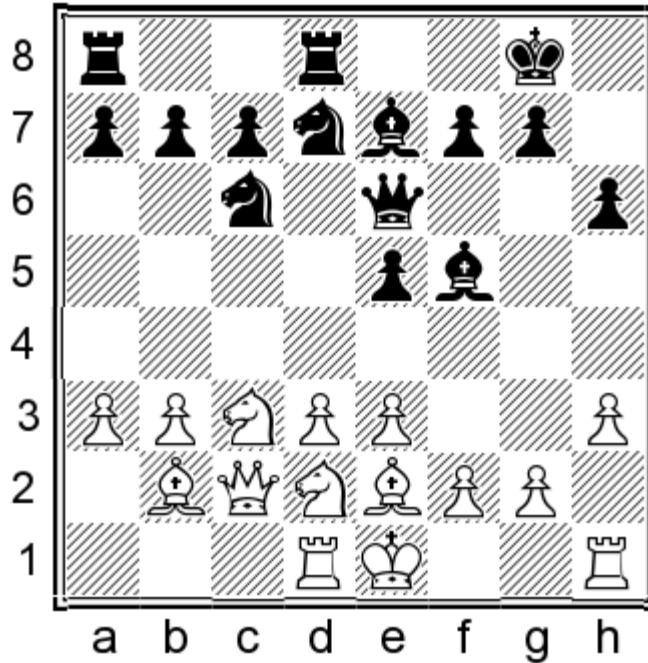
## 12... ♕e6 13. ♔d2

Preventing 13...e4.

**13...♝d7**

“The standard 13...♝d7 14.♝e2 ♜ad8 15.♞ce4 ♜d5... wasn’t bad” (Kasparov). After 16.0-0 ♜g6 17.♝h1 the position is about equal.

**14.♝e2**



Not the slightest trace remains of Black’s former superiority in the safety factor. White’s king, as we can easily see, is now more than safely bundled. However, this parity has been purchased at the price of some of the “t” parameter.

**14...♝h8**

A careful move – and a hard one to understand. But he didn’t need to make it. Black must play actively, since after 14.♝e2 the diagnosis is either “Tal” or the TC Algorithm. Figure it out on your own!

The strongest move here is 14...♜g6, as indicated by both Kasparov and Tukmakov himself (in *Bobby Fischer*, vol. 3, 1993, edited by S. Solovyov), as well as Rybka. A sample variation: 15.♞d5 ♜d6 16.g4 ♜e6 17.♝f3 ♜c5 18.♝c4 a5, when Black is slightly better.

**15.0-0 ♜g6**

“Again a non-concrete move. 15...♜g6 16.♝h2 ♜b6 came into consideration” (Kasparov).

**16.b4**

The trampoline starts to bounce back up...

**16...a6 17.♜c1**

Clearing d1 for the king’s rook – the first point of the strategic algorithm. White already stands no worse.

**17...♜ac8**

Stronger is 17... $\mathbb{Q}b6$ , not allowing the knight on a4 and preventing 18. $\mathbb{Q}b3$  because of 18... $\mathbb{Q}c4$ .

### 18. $\mathbb{E}fd1 f5$

A pseudo-active move. The bishop should be on f5 instead.

### 19. $\mathbb{Q}a4$

With this move, White starts an attack on the side of the board where he has an “extra” queen. It is obvious that Fischer has seized the initiative, and he is truly fearsome when attacking...

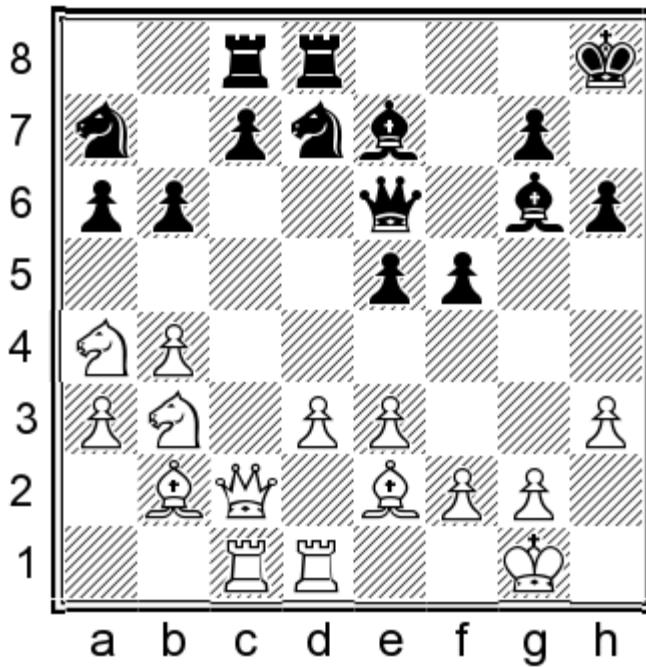
### 19... $\mathbb{Q}a7$

Kasparov gives this move a question mark, with the comment: “Ugly moves are rarely good. 19...f4?! 20.exf4 (20. $\mathbb{Q}f3$  fxe3 21.fxe3  $\mathbb{Q}b6$  22. $\mathbb{Q}xc6$ ! is also possible) 20...exf4 21. $\mathbb{E}e1!$   $\mathbb{W}f7$  22. $\mathbb{Q}f3$   $\mathbb{Q}db8$  23. $\mathbb{W}b3$ ! was dangerous for Black, but 19... $\mathbb{Q}b6$  20. $\mathbb{Q}c5$   $\mathbb{Q}xc5$  21.bxc5  $\mathbb{Q}d5$  would have retained a more or less sound position.”

Kasparov’s maxim is important: “Ugly moves are rarely good.” In other words, we rely on esthetics when the position becomes too complex for us. In such positions, fantasy and intuition begin to take over for logic and accurate calculation...

### 20. $\mathbb{Q}b3 b6$

Covering c5, but...



### 21.d4

A very modest-looking move, but it soon delivers very proud fruit.

By the way, in the diagram position,  $m = 1$ ,  $t = 39/39 = 1.00$ , we have rough equality in the third factor,  $\Delta k = 0$ , and  $\Delta(20...b6) = 0.00$ . Perform your own calculations for these values.

The parameters of the starting position in a chess game, no?

One thing is clear: the diagram position categorically requires only strategic solutions. Fischer's move meets all of the requirements of the strategic algorithm. Fischer plays humbly, on his own territory.

And Tukmakov? Tukmakov is playing according to "Tal":

## 21...f4

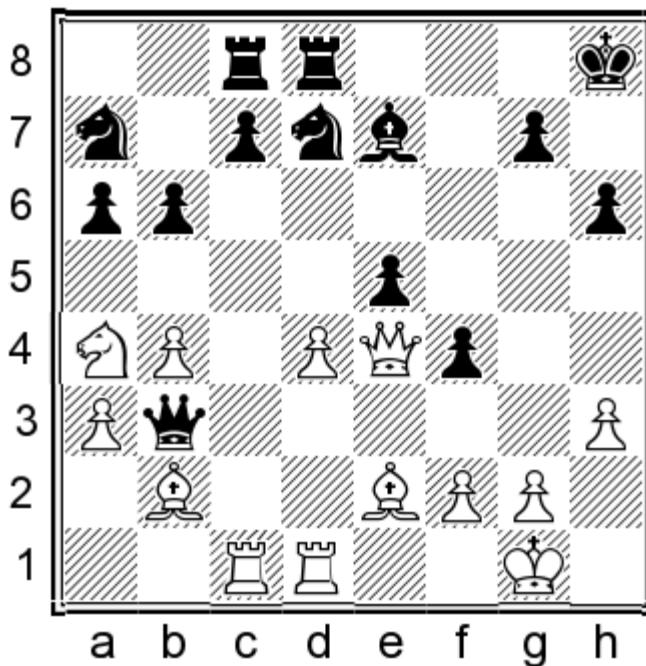
Open attack on the queen! And more: the pawn has crossed the border – a declaration of war!

What to do?

Answer the opponent's illegitimate "Tal" with a real "Tal"! Taking into account the complete parity in all the parameters of the position, Black has no basis at all for mounting a dynamic attack, and should be punished. The coming, rapid "Tal" by Fischer is a full-strength "Tal." Tukmakov has raised his sword, and by the sword he shall fall...

## 22.e4

A pawn sacrifice – 22... $\mathbb{Q}xe4$  23. $\mathbb{W}xe4$   $\mathbb{W}xb3$  – "Tal" is "Tal"!



*Position after 23...Wxb3 (analysis)*

Now imagine that the diagram position (after 23... $\mathbb{W}xb3$ ) had occurred, dear reader, in one of your own games. What would you do? Answer quickly!

Comfortably sitting in your armchair, you must, hesitating not even for a second, wind up all four elements of the Tal Algorithm at the same time. And don't forget about the attacking value scale!

What is Target No. 1? You know that answer – it's the king! We offer:

- 1) 24. $\mathbb{Q}d3$  ( $\Delta$  25. $\mathbb{W}h7\#$ ) and, if you don't like something here, then
- 2) 24. $\mathbb{Q}xa6$  (target: rook).

After 24. $\mathbb{Q}d3$   $\mathbb{Q}f6$ , we come to a fork in the road:

- 1a) 25. $\mathbb{W}b7$  and
- 1b) 25. $\mathbb{W}g6$   $\Delta$  26.dxe5.

Both of these moves are in “Tal” style, and you need not doubt their eventual success. All that’s left is for you to calculate the variations accurately...

1a) 25.  $\mathbb{W}b7$   $\mathbb{W}xa4$  26.  $dxe5$   $\mathbb{Q}g8$ , and perhaps you will find the powerful move 27.  $\mathbb{Q}d2$  (26.  $\mathbb{W}xa7$   $\mathbb{W}b3$  is not good for White) 27...  $f3$  28.  $\mathbb{W}xa7$   $\mathbb{Q}g5$  29.  $\mathbb{Q}xc7$   $\mathbb{Q}xd2$  30.  $\mathbb{Q}xg7+-$ ;

1b) 25.  $\mathbb{W}g6$   $\mathbb{W}xa4$  26.  $dxe5$   $\mathbb{Q}xd3$  27.  $\mathbb{Q}xd3\pm$ .

No need to calculate any deeper!

And now to line 2. We can see right away that White’s advantage is indisputable after 24.  $\mathbb{Q}xa6$   $\mathbb{W}xa4$  25.  $\mathbb{Q}xc8$ , with 26.  $dxe5$  to follow...

Choose! Between 1 and 2, between 1a and 1b... And be decisive! Do not endlessly sift countless masses of variations, but find a stopping point...

Let us return to the game – more accurately, to what’s left of it, since the next move

**22...  $\mathbb{Q}b5$**

was a gross tactical blunder.

Pity! It would have been better to plunge into the irrational complications of 22...  $\mathbb{Q}xe4$  23.  $\mathbb{W}xe4$ .

**23.  $\mathbb{Q}g4$**

Of course! The king is unapproachable, so therefore White attacks the second big target in the value scale.

**23...  $\mathbb{W}f6$  24.  $dxe5$**

It’s all over.

**24...  $\mathbb{Q}xe5$  25.  $\mathbb{Q}xc8$   $\mathbb{Q}xc8$  26.  $\mathbb{Q}d5$  1-0**

We know that when playing according to the requirements of the TC Algorithm, when in the attack we assault both the occupied and the unoccupied squares in our opponent’s territory at the same time. The zone of the TC Algorithm (in its broadest application) is the whole right half of the unified spectrum of all attacks and defenses.

By the same token, when playing according to the requirements of the CP Algorithm, when in defense we defend both the occupied and the unoccupied squares in our own territory at the same time. The area of the CP Algorithm (in its broadest treatment) is the whole left half of the unified spectrum of all attacks and defenses.

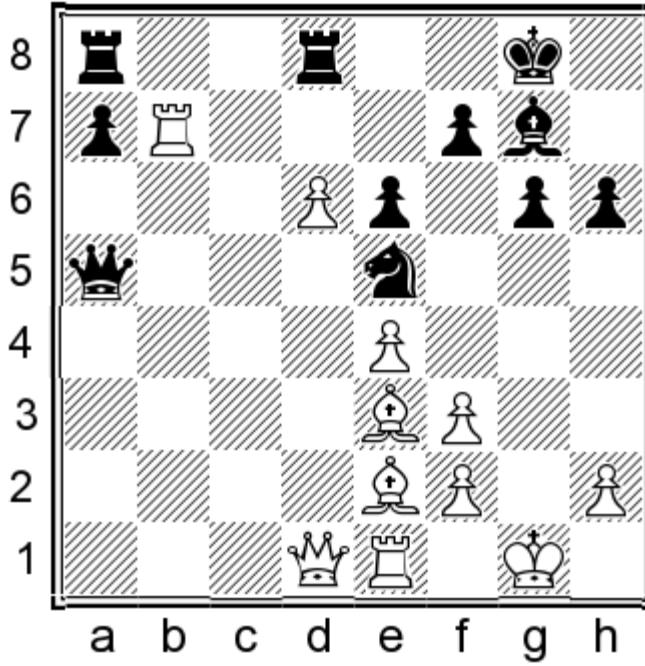
We conclude our introduction to the CP Algorithm with a game by Khalifman against Lékó; this algorithm is the mirror image of the TC Algorithm. These two algorithms have a common point on the “t” axis:  $t = 1.00$ . This point splits the spectrum in half, but at the same time, it brings them together!

**When playing according to the requirements of the TC Algorithm, when in the attack we assault both the occupied and the unoccupied squares in our opponent’s territory at the same time. The zone of the TC Algorithm is the whole right half of the unified spectrum of all attacks and defenses.**

**By the same token, when playing according to the requirements of the CP Algorithm, when in defense we defend both the occupied and the unoccupied squares in our own territory at the same time. The area of the CP Algorithm is the whole left half of the unified spectrum of all attacks and defenses.**

**No. 36: Khalifman – Lékó**

Linares 2000



Position after 19...  $\mathbb{W}a5$

The parameters of this position (we have White) are:

- 1) material equality – that is,  $m = 1$ ;
- 2)  $t = 44/39 = \sim 1.13$ , or the right half of the Capablanca Safety Zone;
- 3) inferiority (but by how much?) in the safety factor; evidently the white king is considerably less well packed, while the pressure of the white pieces (the b7-rook and the e3-bishop) on the f7- and h6-pawns is about balanced by Black's pressure on our not very well protected targets at e1 and f3 (the queen at a5 and the knight on e5 attack them).

The preliminary diagnosis: a left-hand “Capablanca”? The CP Algorithm? “Petrosian”?

The compactness factor:  $\Delta k < 0$  ( $6/30 < 6/24$ ).

The fifth factor:  $\Delta(19\dots \mathbb{W}a5) = 32/11 - 26/11 = 6/11 = \sim 0.55$ .

The fourth and fifth factors of this position remove all illusions of a possible sunny life in the Safety Zone. We must stay on guard!

The game witnessed a rook move –

**20.  $\mathbb{R}f1$**

White frees the rook from the opposing queen's stare, and more importantly attaches it to the king. Clearly a “Petrosian”-style move.

Unfortunately, the equivalently “packing” king move 20.  $\mathbb{Q}f1$  offers nothing real. After 20...  $\mathbb{Q}xf3$  21.  $\mathbb{Q}xf3$   $\mathbb{W}a6+$  22.  $\mathbb{Q}g1$   $\mathbb{W}xb7$  23.  $e5$   $\mathbb{W}b4$  24.  $\mathbb{Q}xa8$   $\mathbb{Q}xa8$ , Black is more than likely not one bit inferior. With this variation, Khalifman began his extensive commentary on this game, published in the magazine *Shakhmatny Peterburg*, No. 2 (16), 2000 – six densely formatted pages in small type. Hundreds of variations, thousands of moves... And, may I add, annotations of the very highest caliber!

We will not drown in that sea of variations, since I toss aside all extraneous material. I leave in only a few alternatives to some of the game moves.

My advice to you is: when playing over a game, turn on your chess intuition, but while doing so don't go beyond the

bounds of the diagnoses of the positions we study. And don't let yourself get sidetracked by the analysis of long variations, since your intuition is dominant. Remember: you can't encompass the infinite!

We are searching for the next move. We are at the same time both fearless and cautious. We work by a scheme proven by many generations of chessplayers: we choose a move (the move we like more than the rest), we test it (is there an immediate tactical refutation?), and then we make our move, not fearing the consequences!

## 20... $\mathbb{Q}f8$

The alternative was 20... $\mathbb{E}d7$ , with the continuation 21. $\mathbb{E}xd7$   $\mathbb{Q}xd7$  22.f4. Variations are 22... $\mathbb{E}b8$ , 22... $\mathbb{W}b4$ , 22...g5, 22... $\mathbb{E}c8$ , and 22...e5, with evaluations ranging from  $\pm$  to  $\pm$ .

## 21.d7 $\mathbb{W}a2$

Or 21... $\mathbb{E}db8$  22. $\mathbb{E}xb8$   $\mathbb{E}xb8$  23.f4  $\mathbb{Q}c6$  24. $\mathbb{W}c2\pm$ .

## 22. $\mathbb{Q}b5$

22. $\mathbb{E}e1$   $\mathbb{W}a5$  23. $\mathbb{E}f1$   $\mathbb{W}a2$  24. $\mathbb{Q}b5$  a6 25. $\mathbb{Q}d4$   $\mathbb{Q}g7$  26. $\mathbb{Q}xe5$   $\frac{1}{2}-\frac{1}{2}$  (Kramnik – Kasparov, Linares 1998).

## 22...a6

After 22... $\mathbb{Q}g7$ , possible are both A) 23. $\mathbb{W}a4$ , with unclear play, and B) 23.f4.

Then Khalifman breaks B) down into subvariations B1), B2), B2a), etc. All the variations favor White!

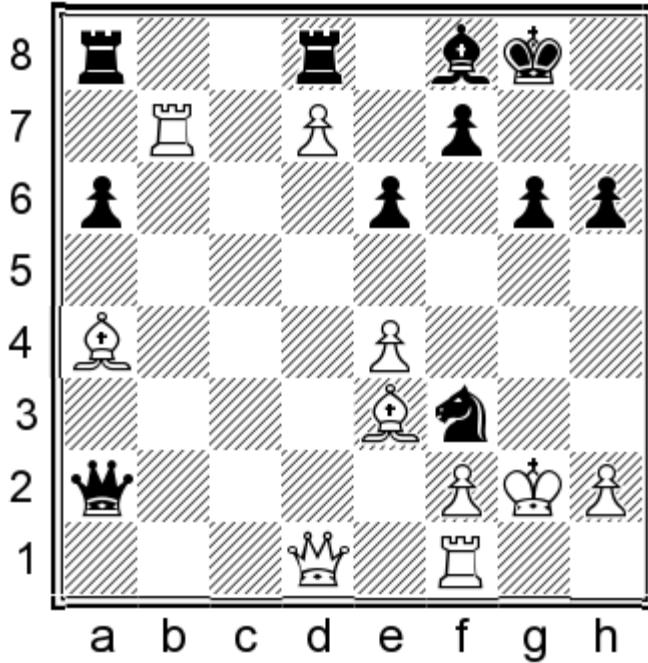
## 23. $\mathbb{Q}a4!$

Exclamation point by Khalifman, who continues: "This pawn sacrifice was the only chance if White wanted to keep playing for the win. 23.f4 axb5 24.fxe5  $\mathbb{W}a6$  25. $\mathbb{E}c7$   $\mathbb{W}a5$  (25...b4∞) 26. $\mathbb{E}b7$   $\mathbb{W}a6=$ ."

## 23... $\mathbb{Q}xf3+$

23... $\mathbb{Q}c4$  and 23... $\mathbb{W}a3$  are also subjected to analysis. In the latter variation, Khalifman examines three lines: A) 24.f4; B) 24. $\mathbb{Q}b6$ ; and C) 24. $\mathbb{Q}g2$ , and then (this was becoming habitual) split the variations into subvariations... all the way down to C4d22.

## 24. $\mathbb{Q}g2$



It's Black to move, and we'll examine this position from his perspective (which is OK for us – we can invert the board any time we like).

And so, we have  $m > 1$ ,  $t = 42/45 = \sim 0.93$ , and... total confusion in the safety factor! Against the “poor” white king we must balance the “poor,” nearly hopeless rook on d8 – it is doomed, since we can see no defense against  $\mathbb{Q}e3-b6$  (here we have made a second-pass evaluation toward a genuine diagnosis of the position – see Part II, Chapter 4).

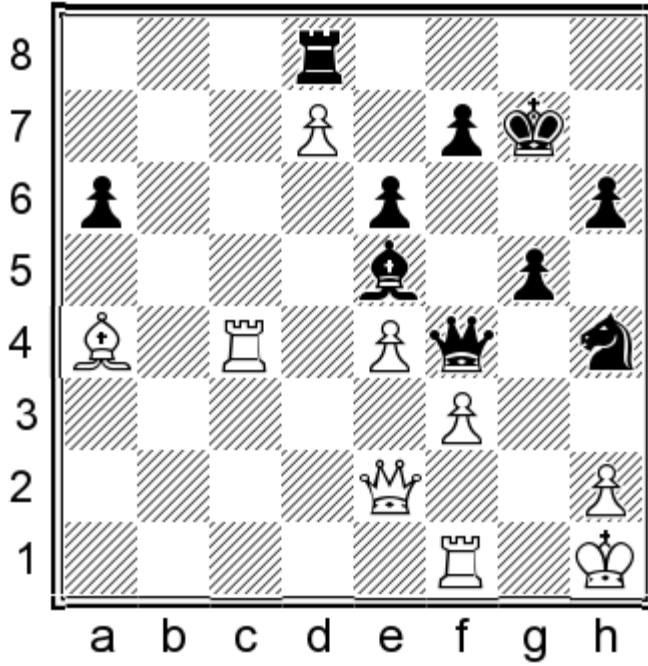
Which is more important – the “bad” white king, or the “very bad” black rook? Do you have an exact answer?

The final diagnosis: the TCP Algorithm. That is, the TCP Algorithm for Black and the same for White. The position has gone out of control!

Lékó played:

**24... $\mathbb{Q}e5$**

The alternative was to check with the knight: 24... $\mathbb{Q}h4+$ . This move was subjected to the most careful analysis, astonishing in its scope. Judge for yourself: before you is one of an enormous number of variations Khalifman published. We are talking about a variation numbered B4b22322 (phew!): 25. $\mathbb{Q}h1$   $\mathbb{W}c4$  26.f3 g5 27. $\mathbb{Q}b6$   $\mathbb{Q}d6$  28. $\mathbb{Q}f2$   $\mathbb{Q}e5$  29. $\mathbb{W}c2$   $\mathbb{W}b4$  30. $\mathbb{Q}f1$   $\mathbb{W}e7$  31. $\mathbb{Q}xd8$   $\mathbb{Q}xd8$  32. $\mathbb{Q}b3$   $\mathbb{W}f6$  33. $\mathbb{W}e2$   $\mathbb{W}f4$  34. $\mathbb{Q}b4$   $\mathbb{Q}g7$  35. $\mathbb{Q}c4\pm$ :



*Position after 35.  $\mathbb{Q}c4$  (analysis)*

Playing according to the requirements of the position, you – ensconced in the branches of the TCP Algorithm – attain freedom of choice. You choose between (at least!) two full-valued variations. You will become a creator, an artist. You will become the co-creator of an artistic production of the chess art. In playing this game, you will create here and now...

I prefer, not the text move 24...  $\mathbb{Q}e5$ , but the check 24...  $\mathbb{Q}h4+$  followed by 25...  $\mathbb{W}e4$ . Why?

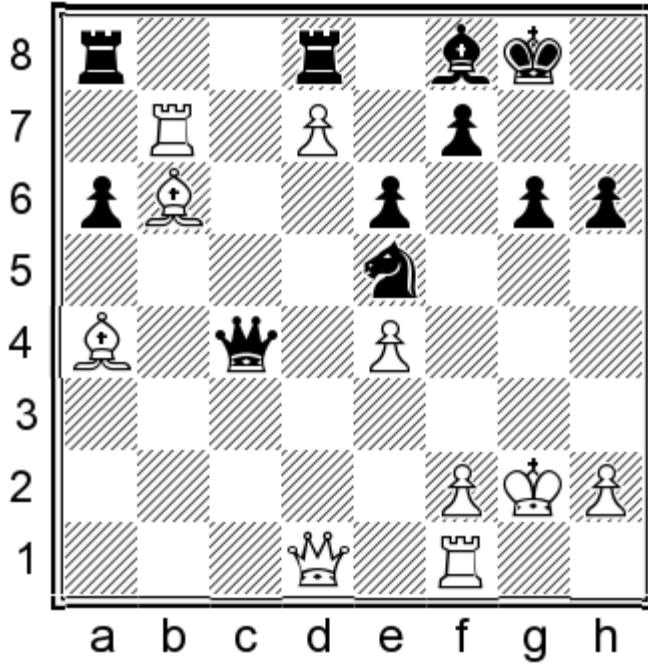
Because I prefer aggressive chess. How about you?

**25.  $\mathbb{Q}b6$**

Open attack on the enemy rook.

**25...  $\mathbb{W}c4?!$**

Khalifman's marks. Other possible moves are 25...  $\mathbb{W}a3$ , 25...  $\mathbb{Q}e7$ , 25...  $\mathbb{Q}g7$ ... A veritable mountain of possibilities. Chaos!



**26.  $\mathbb{W}d4!$**

Why is it better for White to trade queens?

You know the answer: the safety factor!

**26...  $\mathbb{W}xd4$**

If 26...  $\mathbb{W}e2$ , then White wins with 27.  $\mathbb{W}xe5$   $\mathbb{W}g4+$  28.  $\mathbb{W}g3$   $\mathbb{W}xe4+$  29.  $\mathbb{W}f3$   $\mathbb{W}xa4$  30.  $\mathbb{E}c1$  ( $\Delta$  31.  $\mathbb{E}c8$ ) 30...  $\mathbb{Q}e7$  31.  $\mathbb{E}c8$   $\mathbb{E}axc8$  32.  $dxc8\mathbb{W}$   $\mathbb{E}xc8$  33.  $\mathbb{E}xe7$   $\mathbb{E}f8$  34.  $\mathbb{Q}e3$  (Rybka) or 34.  $\mathbb{E}c7$   $\Delta$  35.  $\mathbb{Q}c5$  (Khalifman). Extend this!

**27.  $\mathbb{Q}xd4 \mathbb{Q}d3$**

Threatening 28...  $\mathbb{Q}c5$ .

**28.  $\mathbb{Q}c6!$**

A very accurate move.

**28...  $\mathbb{Q}c5$**

All of the following lose: 28...e5, 28...  $\mathbb{Q}b4?!$ , 28...  $\mathbb{Q}g7$ , 28...  $\mathbb{Q}d6$ , 28...  $\mathbb{Q}c5$ . And everywhere variations, variations, and more variations...

**29.  $\mathbb{E}c7$   $\mathbb{Q}d6$  30.  $\mathbb{Q}xc5$   $\mathbb{Q}xc7$  31.  $\mathbb{Q}xa8$   $\mathbb{E}xa8$  32.  $\mathbb{Q}e7$**

Threatening 33.  $\mathbb{E}c1+-$ .

**32...  $\mathbb{E}d8!$  33.  $\mathbb{E}d1!$**

Khalifman's marks. Here, in this (not easily) winning position for White, we say goodbye to the author of this treasure – Khalifman was truly outstanding in this game! The winner continued playing flawlessly right up to move 47.

The remaining moves are given without comment – it's not our theme anymore. The CP and TCP algorithms are long past, the board holds a practically prosaic “Capablanca.”

**33...f5 34.♕xd8 ♕xd8 35.exf5 gxf5 36.♕d6 ♕f7 37.♕xa6 ♕e7 38.♕g3 ♕c7+ 39.♕h4 ♕xd7 40.♕a7 ♕c6 41.♕xc7+ ♕xc7 42.♕h5 e5 43.♕xh6 ♕d6 44.♕g5 ♕e6 45.h4 f4 46.h5 f3 47.♕g4 1-0**

Our ideal chess goal is error-free play in all possible positions. The goal is unattainable. Eternal is the desire to attain it. Our ultimate objective is to have a universal method for finding the strongest move in all possible positions. It's a threefold goal, and its three facets are the fundamental algorithms: Tal, Capablanca, and Petrosian. We have made our way through them in the preceding chapters.

Our present goal is the mixed algorithms, based on filling the “spaces” between the fundamental algorithms. The TC, CP, and TCP algorithms bring concepts together rather than separating them. They whittle down the difference between the empty and occupied squares in attack and defense. All that remains is for us to make our way through the TCP Algorithm and thereby complete the unification process...

Our immediate goal is a head-scratching game by the great Russian player, Alexander Alekhine.

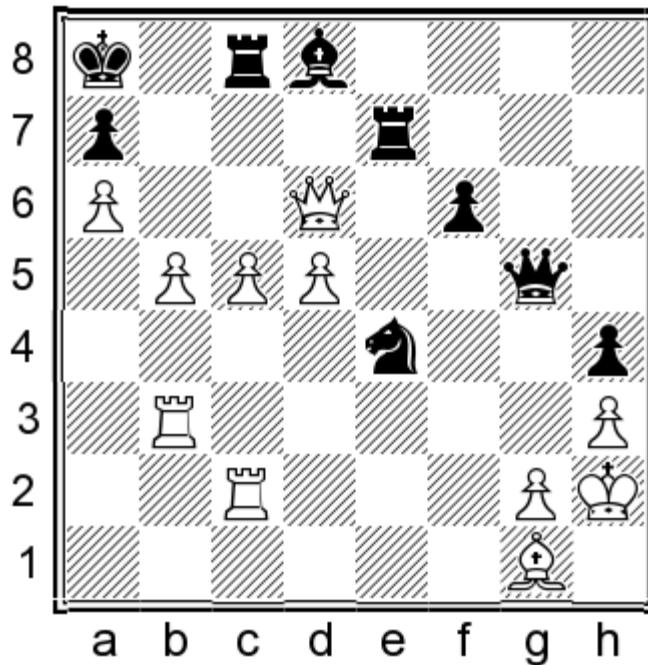
Attention: we are entering TCP territory!

I am sure that you will be prepared for both attack and defense, as the TCP Algorithm is unpredictable. You must be prepared to play across the whole board. Hard work!

All the empty and occupied squares of the chessboard make up a unified and indivisible whole – the chess position. And the TCP Algorithm covers everything that happens on these squares...

### No. 37: Alekhine – Hofmeister

Petrograd 1917



White to move. The parameters of the position are:

- 1) approximate equality in the first factor of the chess position – White has three pawns for a piece;
- 2) approximate equality in the second factor:  $t = 37/38 = \sim 0.97$ ;
- 3) lack of clarity in the safety factor (the main feature of the position is the desperate positions of the white queen and

the black king).

Additionally, in our position  $\Delta k >> 0$  and  $\Delta(\text{move}) > 0$ . On the other hand, the fourth and fifth factors aren't all that critical to us. The reason is the safety factor!

Our final “verdict”: the TCP Algorithm.

What to do? My gentle advice is to start out with the “Tal”!

## 1.b6

Necessary and sufficient! White threatens immediate mate with 2.b7.

### 1... $\mathbb{Q}xd6$ 2.cxd6

A remarkable position where Black has many possibilities, none of which save him.

If 2... $\mathbb{W}g3+$ , then 3. $\mathbb{Q}h1$ .

Other variations (according to Kotov): 2... $\mathbb{R}b8$  3.b7+, or 2... $\mathbb{R}xc2$  3.b7+  $\mathbb{R}xb7$  4.axb7+  $\mathbb{Q}b8$  5. $\mathbb{Q}xa7+$ , with mate coming soon.

Nor is 2...axb6 much better: White wins after 3. $\mathbb{R}xc8+$   $\mathbb{Q}a7$  4.dxe7, for example 4... $\mathbb{Q}xe7$  (checking with the queen changes nothing) 5. $\mathbb{R}xb6+$   $\mathbb{Q}xa6$  6. $\mathbb{R}a8+$   $\mathbb{Q}b7$  7. $\mathbb{R}e3+$ , etc. And 5. $\mathbb{R}xb6$  is possible, too – recommended by *Rybka*. Guaranteed victory!

2... $\mathbb{Q}c7$  looks stronger, but here too, Black is not to be envied. After 3.b7+  $\mathbb{Q}b8$  4.dxc7+ (or 4.bxc8 $\mathbb{W}+$   $\mathbb{Q}xc8$  5. $\mathbb{Q}h1$ , winning – *Rybka*) 4... $\mathbb{R}exc7$  (4... $\mathbb{R}cxc7$  5. $\mathbb{Q}xa7++$ ), there is 5. $\mathbb{R}xc7$  “...creating a curious position. As before, the White rook cannot be taken, either by the rook, because of 6. $\mathbb{Q}xa7+$ , nor by the king, in view of 6. $\mathbb{R}c3+$ ; the attempt to take away the c3 square from the white rook by 5... $\mathbb{W}e5+$  6. $\mathbb{Q}h1$  also leads nowhere; in that case taking the rook with either the king or the queen leads, after 7. $\mathbb{Q}h2$ , to a winning ending” (Kotov).

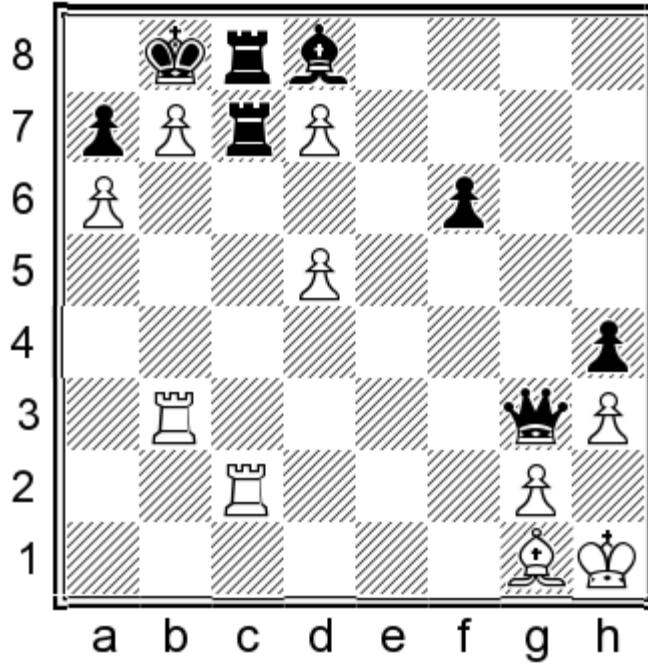
I would add that 5... $\mathbb{W}g3+$  (after 5. $\mathbb{R}xc7$ ) also loses, as then there follows 6. $\mathbb{R}xg3$   $hxg3+$  7. $\mathbb{Q}xg3$   $\mathbb{R}xc7$  8. $\mathbb{Q}h2$  and Black is helpless.

In the game, Black played

### 2... $\mathbb{R}ec7$

and lost quickly after

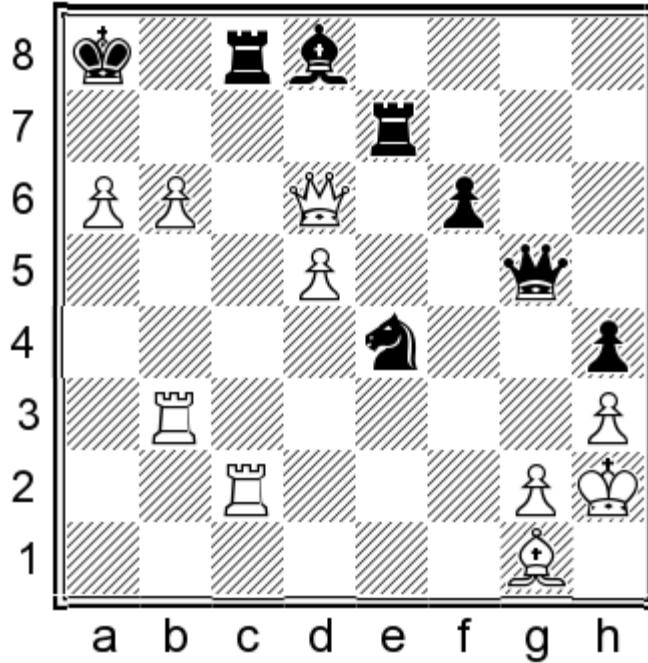
### 3.b7+ $\mathbb{Q}b8$ 4.d7 $\mathbb{W}g3+$ 5. $\mathbb{Q}h1$



In this position, Hofmeister resigned. **1-0**

An effective finish, no?

However, things did not have to go so smoothly. After 1.b6 (the game move) 1...axb6 2.cxb6, there was an alternative, the kind of resource that just knocks you off your feet:



*Position after 2.cxb6 (analysis)*

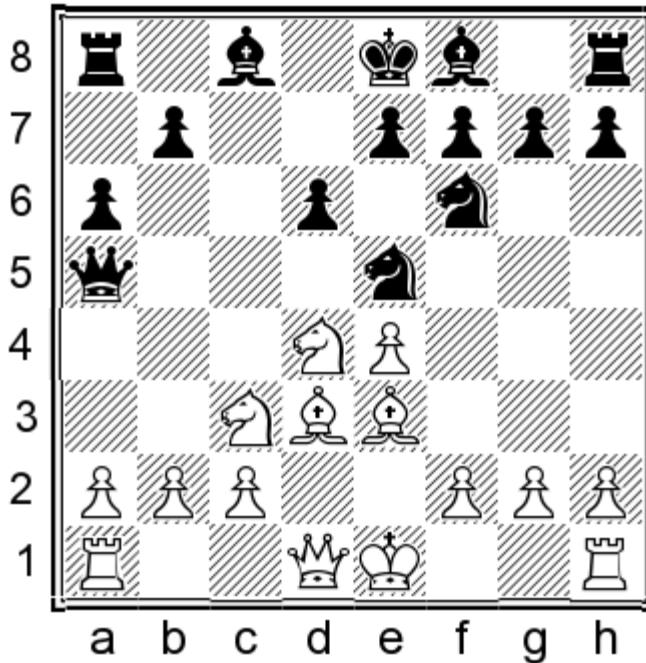
2... $\mathbb{W}xg2+$ . And further, with reference to an unnamed German player, Kotov suggests 3. $\mathbb{B}xg2$   $\mathbb{Q}xd6$  4.b7+  $\mathbb{Q}xb7$  5.axb7+  $\mathbb{Q}xb7$  6. $\mathbb{B}a2+$   $\mathbb{Q}b8$  7. $\mathbb{Q}a7+$   $\mathbb{Q}a8$  8. $\mathbb{B}ba3$ , and “the threats are difficult to parry.”

I will say more accurately: these threats *cannot be parried!* A sample variation: 8... $\mathbb{Q}c7+$  9. $\mathbb{Q}h1$  ( $\Delta$  10. $\mathbb{Q}c5++-$ ) 9... $\mathbb{B}b1+$  10. $\mathbb{Q}g1++-$ .

The sensation did not happen, Alekhine's conception was not refuted. A well-deserved victory!

### No. 38: Topalov – Kramnik

Belgrade 1995



Position after 10.  $\mathbb{Q}d3$

We are playing Black. What do we have?

- 1) material equality – that is,  $m = 1$ ;
- 2) a rare case of absolute parity in the time factor:  $t = 42/42 = 1.00$ ;
- 3) rough equality in the safety factor, since, in the rectangle  $d1-d8-f8-f1$ , for both the black and the white king, White's "extra" queen has no effect – it is neutralized by the denser packing of the black pieces; and besides, no one is threatening the kings, and as we can easily see, at the moment they are absolutely free to move.

Our preliminary conclusion is: the Capablanca Algorithm.

The fourth factor of the position:

$$\Delta k > 0.$$

The fifth factor:  $\Delta(10. \mathbb{Q}d3) = 32/15 - 33/15 = -1/15 = \sim -0.07$ .

Our final conclusion: the Capablanca Algorithm, and no TCP Algorithm!

The TCP Algorithm will apply a little later on, when the players have managed to shake this more or less quiet position.

**10... $\mathbb{Q}eg4$**

Commenting on the game, Kramnik gave this move two exclamation points and one question mark! This is what he wrote: "Sailing into severe complications. This sally appears illogical – yes, maybe it is, in fact. In principle, the normal move is 10...e6, but I didn't like the potential, or even the immediate 11.f4  $\mathbb{Q}xd3+$  12.cxd3; and in the Scheveningen, they usually don't hurry to make the exchange on d3, which shores up White's center."

From the viewpoint of the unified theory of chess, the text move has every right to exist. Why?

Because, located within the scope of the Capablanca Algorithm, Black is entitled to an additional trade (knight for

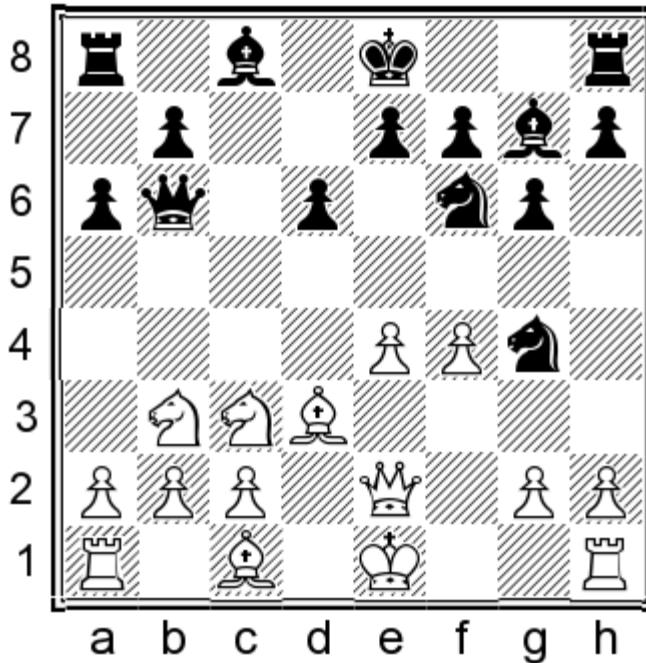
bishop on e3), as his position is the more compact.

**11.♘c1 g6 12.♗b3**

White intends f2-f4 and then h2-h3, shutting out the enemy knight on h6.

**12...♝b6 13.♝e2 ♘g7 14.f4**

It's starting...



As Black, we must play in “Tal” style! Why?

Because  $m = 1$  and  $t = 43/34 = \sim 1.26$ , with a small “plus” in the factor of safety.

**14...♞h5**

“There’s nothing else!” (Kramnik)

**15.♞d5**

“An amusing situation: neither 15.h3? ♞g3! nor 15.♝f3? ♞xh2! will work. But it is possible that 15.♞d2!? was stronger: 15...♞xc3 (15...0-0? 16.♞d5 ♛d8 17.♞a5, and White wins) 16.bxc3 0-0 17.c4, with a position with good prospects for White” (Kramnik).

**15...♛d8 16.♞d2**

White seems to have taken the initiative: he threatens the killing 17.♞a5. But...

**16...e6**

A worthy riposte! Powerful counterplay cannot help but pop up for Black – he hasn’t made a single clear error, playing in faithful compliance with the requirements of the position.

**17.♞a5**

Open attack on the queen. Counterattack? Or “Tal” versus “Tal”?

**17... $\mathbb{W}h4+$**

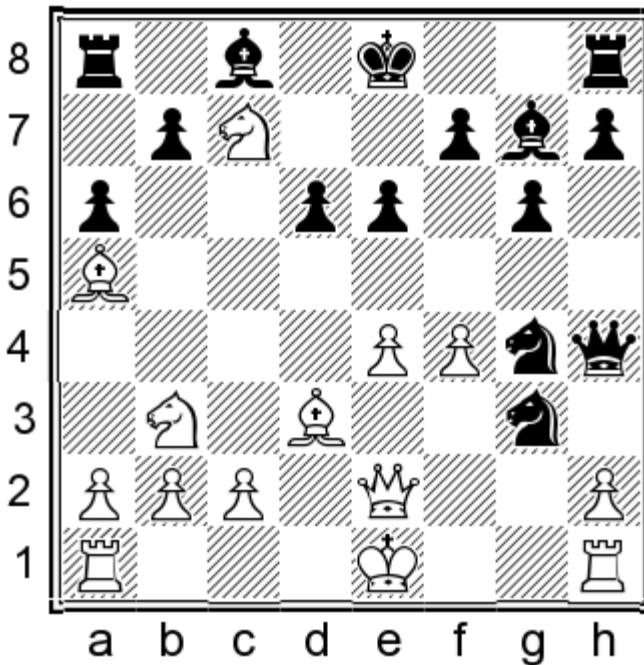
A check – an open attack on the king.

**18.g3  $\mathbb{Q}xg3$**

A sacrifice + an open attack on the opponent’s queen and rook...

**19. $\mathbb{Q}c7+$**

A counterblow! The king is assaulted!



In the midst of this hand-to-hand combat (the TCP Algorithm!), we must make the right choice...

The move chosen by Kramnik, who was then “merely” a candidate for the world championship:

**19... $\mathbb{Q}e7$**

A flawless move – from the pre-computer age esthetic! However, it is not one bit better than the retreat to d7. And not only is it not better, it is *worse*, which I’ll now try to demonstrate.

With 19... $\mathbb{Q}d7$  ( $\Delta \dots \mathbb{E}a8-b8, \dots b7-b6$ ), Black targets the wandering knight. Here’s the variation serving that idea:  
20.hxg3  $\mathbb{W}xg3+$  (20... $\mathbb{W}xh1+$  21. $\mathbb{Q}d2 \Delta 22.\mathbb{Q}xa8\pm$ ) 21. $\mathbb{Q}d1 \mathbb{Q}f2+ 22.\mathbb{Q}c1 \mathbb{E}b8 23.\mathbb{E}f1 \mathbb{Q}xd3+ 24.cxd3 b6 25. $\mathbb{Q}e1 \mathbb{W}h3 26.\mathbb{E}f2$  ( $\Delta 27.\mathbb{E}h2+-$ ) 26...h5, and Black stands better.$

Instead of 21. $\mathbb{Q}d1$ , 21. $\mathbb{Q}d2$  (playing for the draw) is likely stronger: 21... $\mathbb{W}xf4+$  22. $\mathbb{Q}e1 \mathbb{W}g3+ 23.\mathbb{Q}d2 \mathbb{W}f4+$ , etc. However, Black can steer away from the repetition with no particular risk by playing 22... $\mathbb{E}b8$  – and then it’s White who has problems, after either 23. $\mathbb{E}f1 \mathbb{W}g3+$  24. $\mathbb{Q}d2 \mathbb{E}f8 25.\mathbb{Q}c1 \mathbb{W}e3+$  or 25. $\mathbb{Q}b6 \mathbb{Q}c6$ .

In the position following 25. $\mathbb{Q}c1$ , the queen trade after 25... $\mathbb{W}e3+$  is good for Black. Why?

Because the white king is safe, while the black king is not.

On the other hand, after 25. $\mathbb{Q}b6$  he could also take a chance with 25... $\mathbb{Q}c6$ , since both kings, obviously, are insecure...

Then could it be that, instead of the direct 23.♘f1, 23.♗h3 is stronger? What does *Rybka* have to say?

I am going out on a limb, complementing the engine's answer with two or three provocative questions: 23.♗h3 ♔e5 (the threat was 24.♗f3+-) 24.♗g2 ♕f6 ( $\Delta$  25...♗d8; 24...b6 25.♗d2) 25.♗d1 ♗d8 26.♔e2 (why?) 26...h5 (why?)... And another bit of scare tactics: do you fear the check on c5 – 27.♗c5+? Our silicon friend does not: 27...dxc5 28.♗b5+ ♔e7 29.♗b6 f5. Extend this! *Rybka* evaluates this position in Black's favor. How about you?

Not ruling out the possibility that the best drawing chances exist for White after the very clever move 23.♗g2. In support of this, a long and not wholly convincing variation – I can't hide this. One of many dozens – nay, hundreds – of worthy lines: 23...h5 24.♗h3 ♘f8 25.♗b1 b5 26.♗d2 ♗f6 27.♗a5 ♗b7 28.♗g1 ♘fc8 29.♗a7 ♘xc7 30.♗xb8 ♗f2+ 31.♗d1 ♗g1+, with perpetual check.

A somewhat unpersuasive variation makes for a not wholly convincing verdict on the king's move to d7: after 19...♔d7, Black is, to put it mildly, not worse!

Am I right?

But in the game, as we know, Kramnik retreated the king to e7. The game continued:

**20.hxg3 ♗xg3+ 21.♗d1**

Topalov thinks that he has winning chances, so he rejects variations like 21.♗d2 ♗xf4+ 22.♗e1 ♗g3+, with perpetual check.

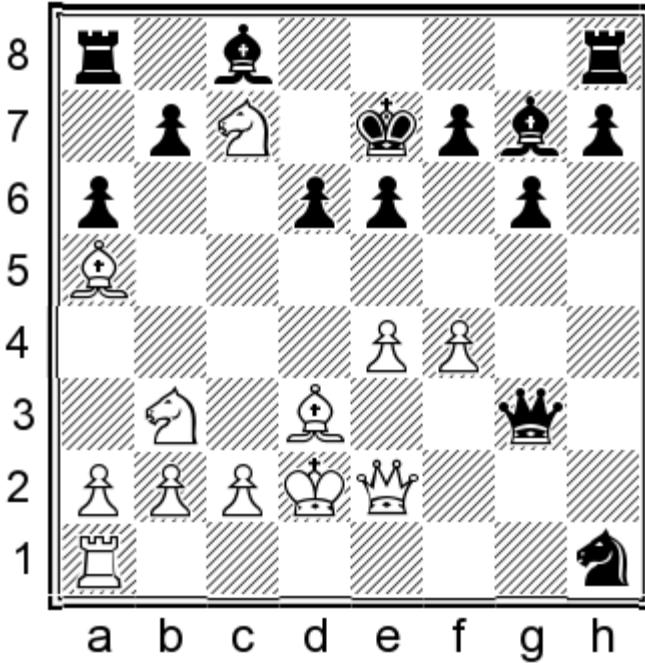
**21...♗f2+ 22.♗d2**

"On 22.♗c1 ♗xh1 23.♗xa8 ♗xf4+ 24.♗d2 ♗e5 25.♗c3 ♗g5+ 26.♗d2 ♗g1+ 27.♗e1 ♗xe1+ 28.♗xe1 h5, Black's position, with three pawns for the piece, is preferable" (Kramnik).

*Rybka* offers necessary improvements: 25.c3±, 25.♗g2 ♗g3 26.♗b1±, and 24...♗f2∞. Trading queens favors Black, since with approximate parity in the safety factor (am I correct?) he – Black! – is more compact. We have slid over into the Capablanca Safety Zone!

**22...♗xh1**

If 22...♗xf4+, then after 23.♗e3 ♗xe3+ 24.♔xe3 ♗xh1 25.♗xa8 ♗g3 26.♗g1 ♗h5 (26...♗e5 27.♗b6  $\Delta$  ♗c4±) 27.♗b6 White stands better, as the knight is badly placed on h5 – compare this with the position after 28...h5 in Kramnik's variation. However, Black should have probably gone in for this line, because after the game move (see the following diagram), White has good chances... to mate the opposing king! How?



The first step on this difficult path is 23... $\mathbb{Q}xh1$ , and it continues (this variation is approximate): 23... $\mathbb{W}xf4+$  (23... $\mathbb{B}b8$  24. $\mathbb{W}f1 \Delta$  25. $\mathbb{Q}h3 \mathbb{W}g4$  26. $\mathbb{Q}e2+-$ ) 24. $\mathbb{Q}d1 \mathbb{B}b8$  25. $\mathbb{Q}d2 \mathbb{W}g3$  (25... $\mathbb{W}e5$  26. $\mathbb{Q}c3+-$ ) 26. $\mathbb{Q}e1 \mathbb{W}f4$  (26... $\mathbb{W}g5$  27. $\mathbb{Q}h4+-$ ) and here, not 27. $\mathbb{Q}d2$  with a draw (Kramnik), but 27. $\mathbb{Q}f1$ , as given by *Rybka*. The engine continues 27... $\mathbb{W}g5$  28. $\mathbb{W}f2 f5$  29. $\mathbb{Q}d2 \mathbb{W}h5+$  30. $\mathbb{Q}e2 \mathbb{W}h3$  31. $\mathbb{W}b6$ , with a terrific attack. And Topalov didn't see it...

And so, as the computer analysis shows, after the check on c7 Kramnik's 19... $\mathbb{Q}e7$  leads to an inferior position for Black. Is 19... $\mathbb{Q}e7$  worse than 19... $\mathbb{Q}d7$  – yes or no?

At least during the game, it is not possible to answer this question with absolute certainty – chess being so vast...

So what should be done?

Trust your intuition! In complicated positions, this must predominate over the calculation of variations!

In the game, Topalov preferred the rook move over the knight move. He shouldn't have...

### 23. $\mathbb{Q}xa8$

Now it's Black who's better, and the computer confirms Kramnik's assessment.

23... $\mathbb{W}xf4+$  24. $\mathbb{W}e3 \mathbb{W}h2+$  25. $\mathbb{W}e2 \mathbb{W}f4+$  26. $\mathbb{W}e3 \mathbb{W}h2+$  27. $\mathbb{W}e2 \mathbb{Q}h6+$

Black risks nothing with this – a pleasant endgame awaits.

### 28. $\mathbb{Q}c3$

The strongest move! After 28. $\mathbb{Q}d1 \mathbb{Q}f2+$  29. $\mathbb{Q}e1 \mathbb{Q}f4$  30. $\mathbb{Q}b6 \mathbb{W}g1+$  31. $\mathbb{W}f1 \mathbb{Q}xd3+$  32.cxd3  $\mathbb{W}xf1+$  33. $\mathbb{Q}xf1 \mathbb{Q}d7$  34. $\mathbb{Q}c7 \mathbb{B}c8$ , Black is clearly better (*Rybka*).

### 28... $\mathbb{W}e5+$

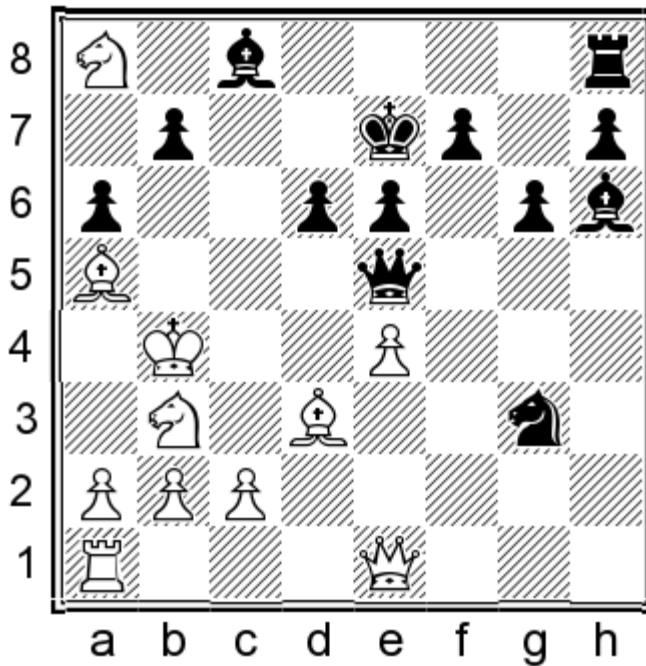
Admirable thirst for battle! Kramnik seeks the whirlwind – and finds it!

Back home, in the peace of one's study, one can (must!) indicate "...the quiet 28... $\mathbb{W}xe2$  29. $\mathbb{Q}xe2 \mathbb{Q}g3$  with some advantage" (Kramnik). But during the game, sometimes emotions take over!

I add: Kramnik is no chess aggressor in the mold of the young Tal or the young Kasparov. Kramnik has an instinct for self-preservation. Rejecting a favorable ending, he crosses no invisible boundaries. He controls his emotions (if only in part). Kramnik does not offend the position by overplaying it...

**29.♗b4 ♗g3 30.♔e1**

Perhaps 30.♔f2 (recommended by *Rybka*) was stronger. Perhaps...



This absolutely crazy position probably cannot be plumbed to its full depth. It's so complicated that even world champions could drown in it. Even *Rybka* [which means "fish" – Tr.] – along with all other silicon creatures...

What to do?

You know the answer. Out of two or three equivalent moves, you must select the one that you like more than the others. And be fearless!

Mistakes are unavoidable. But if you're afraid of wolves, then don't go into the woods.

**30...♝g7**

Other possibilities are 30...♝d7 and 30...♛xb2.

**31.♝b6**

"White loses spectacularly after 31.♝b6? ♛xb2! 32.♝xg3 (or 32.♝b1 ♛xa2 33.♝xg3 ♜d7) 32...♝c3+! 33.♝c4 ♜d7 34.♝c7 ♜d2!! with irresistible threats: on 35.♝xd2 there follows 35...♝b5+ 36.♝xb5 axb5# (indicated by *Fritz 3*)" (Kramnik).

**31...d5**

"Increasing the tension even more" (Kramnik). Incidentally, *Rybka* considers this to be the only acceptable move – that happens sometimes. But then, after 31...d5 the machine gives a lot of options – the wealth of good moves is overwhelming. There are (and this list is incomplete) 32.♛f2, 32.♛e3, 32.♝d1, 32.c3...

*Fritz 3*'s move, 32.exd5, is inferior: after 32...♜d6+ 33.♝c5 ♜d4 34.♝ba4 ♜xc5+ 35.♝xc5 b6, Black obtains realistic

winning chances. Whereas the “non-human move 33.♔c4!” (as punctuated by *Fritz* and supported by Kramnik) probably loses: 33...♕f4+ 34.♔c5 ♕d8... Ah, that *Rybka*!

Does Black win in all variations? Most likely so. Check it out! But if that’s not the case, then I add, seconding Kramnik: we are truly witnessing non-human play. The superiority of the electronic chessplayer over the flesh-and-blood player has become overwhelming!

Here’s one of the many very good, possible variations: 35.♗b1 ♔e5 36.♗a8 ♕xd5+ 37.♔b6 ♔d7 38.c3 ♔c7+ 39.♗xc7 ♕xc7+ 40.♔a7 b6+ 41.♔a8 ♕b7#. Impressive, huh?

### 32.♔a4

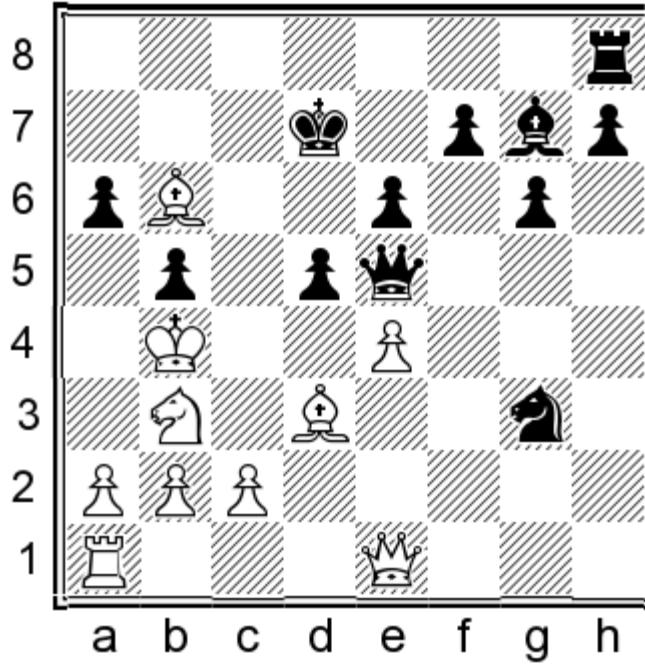
A mistake. After

### 32...♗d7+ 33.♗xd7 b5+ 34.♔b4 ♕xd7

Black’s threats can hardly be defended against. The dark-squared bishop suddenly joins the attack on the white king. So then, perhaps, was it stronger to play, not 33.♗xd7, but 33.♔b4 (a recommendation by *Fritz* 11)?

### 35.♗b6

“Opening the way for the king. And 35.♗c5+ ♔c6 36.exd5+ ♕xd5 37.♔e4 (37.♕xg3 ♕d4+) 37...♗xe4 38.♕xe4 ♔f8! 39.♕xd5+ exd5 and 40...♔xc5+ is no cure-all, either” (Kramnik).



### 35...♕xb2

Kramnik gives this move a question mark and then writes: “Time pressure – too bad! It would have been much cleaner to play 35...♗xe4!! 36.♗xe4 ♕xb2! (36...♕xe4+ 37.♗xe4 dxe4 leaves Black with the advantage – five (!) passed pawns, but there’s still a lot of fight ahead), with this example of a fantastic finish: 37.♗b1 (if 37.c4, then 37...bxc4! 38.♗b1 ♔f8+ 39.♔c5 ♕xc5+ 40.♔xc5 ♕c8+ 41.♔b6 – mate follows 41.♔b4 ♕b8+ 42.♔c5 ♕b5# – 41...♕a3, and the white king is doomed) 37...♗c8!! 38.♔c5 (38.♗xb2 ♕c4+ and 39...♔a4#!) 38...♔c3+! 39.♕xc3 a5+.”

I will not tweak this analysis, which was published long ago. I turned off *Rybka*, and the latest version of *Fritz* as well –

they will not help us. They don't help us at the board.

What to do?

I reply:

- 1) overcome your gut-level fear of uncertainty;
- 2) search for the strongest move, relying on the universal search method;
- 3) believe in good fortune...

Caissa loves the strong in spirit, and she sometimes blesses them – the fearless fighters! – with her gifts. She blesses through a feel for the beautiful. Chess beauty will aid us in our searches...

#### What to do in crazy positions?

- 1) overcome your gut-level fear of uncertainty;
- 2) search for the strongest move, relying on the universal search method;
- 3) believe in good fortune.

Caissa loves the strong in spirit, and she sometimes blesses them – the fearless fighters! – with her gifts.

**36.exd5 ♜c8 37.dxe6+ ♔e8**

Four ply (or half-moves) – the first line by the most powerful chess engine.

**38.♕c5**

The decisive error.

The unemotional *Rybka* easily finds 38.♕xb5+ axb5 39.♗xg3 ♗c3+ 40.♗xc3 ♕xc3+, etc., when Black has good chances to win the ending. But now...

**38...♕c3+**

Simple and elegant.

**39.♗xc3 a5+ 40.♔xb5 ♗xc3 0-1**

The TCP Algorithm is the most complicated of all the algorithms we know in the search for the strongest chess move. It is a puzzle, even for the strongest chessplayers, and that's a good thing!

The TCP Algorithm is not a mechanical blend of the algorithms of Tal, Petrosian, and Capablanca. It is something more, unified and indivisible. With the aid of the TCP Algorithm, we stare into chess infinity.

We see chaos, and attempt to reorder it. Sometimes we succeed, more often we do not. We try again. With hope, with faith...

Intuition reins in accurate calculation. It reins it in, but not entirely. Imagination scoffs at logic – be it linear or even two-dimensional. The chess universe has at least three dimensions – and, truly, it's impossible to encompass the infinite...

Chess is too vast!

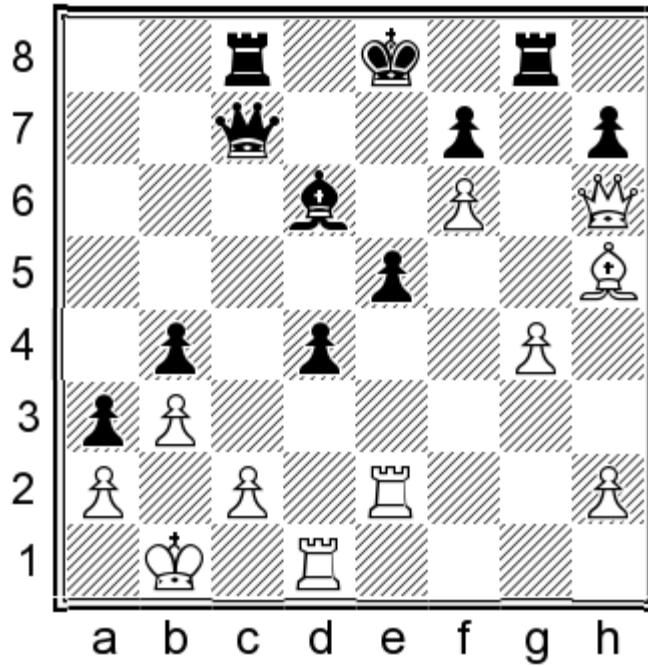
The following instructive example comes from one of the most notable games by Peter Lékó, the gifted Hungarian player and world championship challenger. In this example, you will witness unhurried strategic play, combined with a straightforward increase in the  $\Delta(\text{move})$  of White's position.

A "Capablanca"-themed game? And if so, then where is our TC Algorithm?

The TCP Algorithm lies in the first move, a move of fantastic power and indescribable beauty. And afterward – movement by inertia, more or less quiet play, dominating over the primeval chaos...

### No. 39: Lékó – Am. Rodríguez

Yopal 1997



Position after 27... ♕e8

We have:

- 1) parity in the first factor in the position,  $m = 1$ ;
- 2)  $t = 33/29 = \sim 1.14$ , so our point of departure is in the right half of the Capablanca Safety Zone;
- 3) a lack of clarity in the safety factor: two white rooks, supporting each other in the bombardment of the very weak line of Black's defenses – with the opponent's "extra" queen and rook over on the queenside; the densely packed white king (which is at the same time in a mating net: Black threatens 28... ♜c3) and the exposed black king.

Our final diagnosis (dispensing with the adjective "preliminary" – this is how the third factor of the position works out): the TCP Algorithm. Moreover, both kings are in serious danger. Watch out!

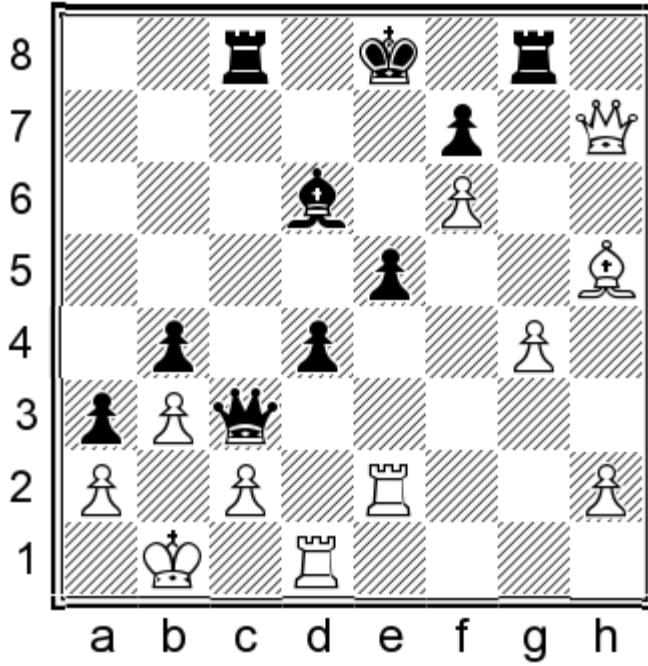
The fourth and fifth factors are  $\Delta k = 0$  and  $\Delta(27... ♕e8) = 34/11 - 32/11 = 2/11 = \sim 0.18$ . We don't need them – for the time being...

The game saw the knock-'em-down

#### 28.c4

"Tal" doesn't work here! And the threatening 28. ♜xh7, and the no less terrible 28. ♜xd4, don't win either! Here's why...

On 28. ♜xh7 Black has the remarkable 28... ♜c3:



Position after 28...  $\mathbb{W}c3$  (analysis)

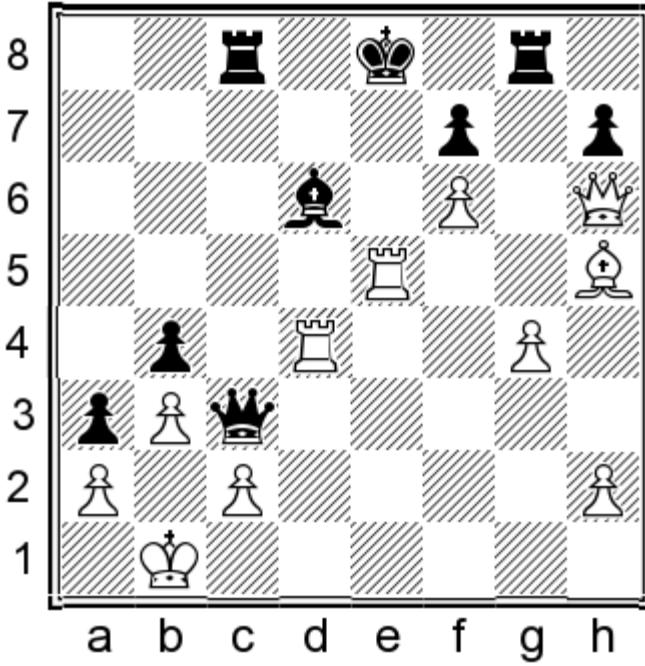
Hard to believe, but true – it's a draw! Sample variations:

- 1) 29.  $\mathbb{W}xg8+$   $\mathbb{Q}d7$  30.  $\mathbb{W}xf7+$   $\mathbb{Q}d8$  (30...  $\mathbb{Q}c6$  31.  $\mathbb{W}c4++-$ ) 31.  $\mathbb{W}g8+$   $\mathbb{Q}d7$  32.  $\mathbb{W}f7+$ , with perpetual check;
- 2) 29.  $\mathbb{W}xf7+$   $\mathbb{Q}d8$  30.  $\mathbb{W}xg8+$   $\mathbb{Q}d7$  and so on, as in variation 1;
- 3) 29.  $\mathbb{Q}xf7+$   $\mathbb{Q}d8$  (29...  $\mathbb{Q}d7$  30.  $\mathbb{Q}e8++-$ ), and now 30.  $\mathbb{W}xg8+$   $\mathbb{Q}c7$  is bad, but 30.  $\mathbb{Q}c1$  (*Rybka*) saves Black. It's a draw after 30...  $\mathbb{Q}xg4$  31.  $\mathbb{Q}e6$ : 31...  $\mathbb{W}a1+$  32.  $\mathbb{Q}d2$   $\mathbb{W}c3+$ , etc.
- 4) 29.  $\mathbb{Q}xe5+$   $\mathbb{Q}d7$  (test 29...  $\mathbb{Q}d8$ ) 30.  $\mathbb{W}xf7+$   $\mathbb{Q}c6$  31.  $\mathbb{W}d5+$   $\mathbb{Q}c7$  32.  $\mathbb{W}a5+$ , etc. Draw!

The idea of 28...  $\mathbb{W}c3$  belongs to GM Amador Rodríguez, and all of the variations presented are his, with the exception of the sidelines, which are *Rybka*'s.

But the analysis of 28.  $\mathbb{Q}xd4!?$  (Rodríguez's mark) is questionable.

After 28.  $\mathbb{Q}xd4$   $\mathbb{W}c3$  (the standard reply) 29.  $\mathbb{Q}xe5+$  we get the following position:



*Position after 29.  $\mathbb{Q}xe5+$  (analysis)*

Here Black is better! Don't believe it? I'll prove it to you!

29... $\mathbb{Q}d8$  (29... $\mathbb{Q}xe5$  30. $\mathbb{Q}xf7++$ ; 29... $\mathbb{Q}d7$  30. $\mathbb{Q}e7+$   $\mathbb{Q}c6$  31. $\mathbb{Q}c4++$ ) 30. $\mathbb{Q}xd6+$   $\mathbb{Q}c7$  31. $\mathbb{Q}e7+$   $\mathbb{Q}xd6$ , and it is clear that White's attack has run out of steam – there's not even a perpetual check! After 32. $\mathbb{Q}f4+$   $\mathbb{Q}c6$  (32... $\mathbb{Q}c5$  33. $\mathbb{Q}c7+=$ ) 33. $\mathbb{Q}e4+$   $\mathbb{Q}c5$ , the “good” checks are over, and White must settle for an inferior ending after 34. $\mathbb{Q}e5+$ .

Rodríguez looks only at 33... $\mathbb{Q}d6$  and assesses the position as “unclear.” *Rybka* improves on this: 34. $\mathbb{Q}c1$  with a long variation and a general evaluation of (0.00).

One more variation: 33. $\mathbb{Q}c1$ . What to do? I say: 33... $\mathbb{Q}cd8$  or 33... $\mathbb{Q}gd8$ , either way with the threat of 34... $\mathbb{Q}d1$ . White is in very bad shape. See for yourself!

So if we retreat, dreaming of a draw, then isn't it better to retreat the queen to c1 a move earlier – 32. $\mathbb{Q}c1?$  The threat is 33. $\mathbb{Q}d1+$  and so forth: checks on g1, h1... Draw?

Alas! After the powerful 32... $\mathbb{Q}c5$  (all hail our silicon friends!) Black's advantage is unquestionable: 33. $\mathbb{Q}e1$   $\mathbb{Q}e5$  34. $\mathbb{Q}d1+$   $\mathbb{Q}e6$ . White's king is in a mating net, while Black's stands in relative safety. Who's attacking whom?

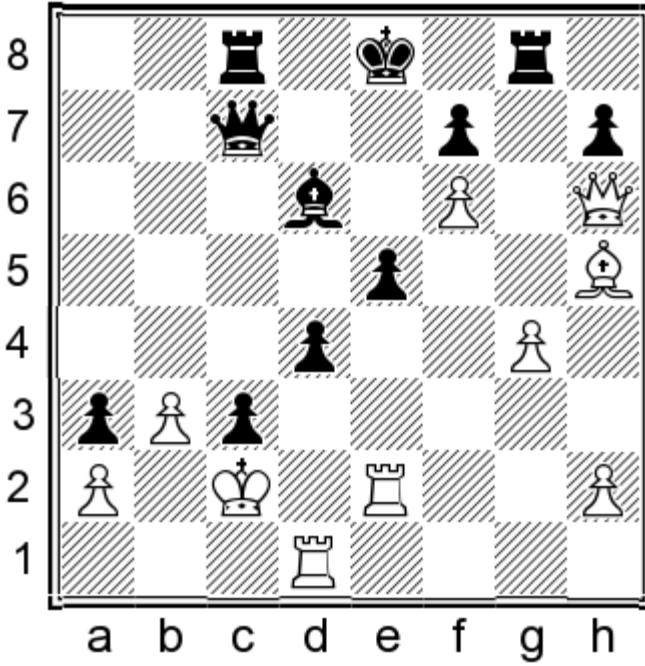
The overall conclusion: neither 28. $\mathbb{Q}xh7$  nor 28. $\mathbb{Q}xd4$  gives White any advantage.

*Rybka* advises 28. $\mathbb{Q}d3$  (first line). Evaluation:  $\pm$  after 18 ply. Lékó's move, 28.c4, is evaluated lower by the machine: = (0.22) after 18 ply. Who's right?

Lékó was right, since after

**28.c4 bxc3 29. $\mathbb{Q}c2$**

White's position is strategically winning!



Machines are lousy strategists, and in this field the best chessplayers in the world sometimes (but for how long?) surpass all of the computer programs known to us.

In what sense are they better?

In predicting the future. In their skill at finding the optimal arrangement for their pieces. In knowing how to think in chess images. In well-honed intuition and knowing how to be astonished. In reaching out and touching Greatness...

**29...♝d8**

The threat was 30.♜xd4.

**30.♛xh7 ♜f8**

In this position our  $m = 1$ ,  $t = 35/22 = \sim 1.59$ , a small “+”,  $\Delta k < 0$  ( $6.40 < 6/36$ ), and  $\Delta(30...♜f8) = 0.30$ .

The diagnosis is unequivocal: “Tal,” and no TCP algorithm! Why?

Because the white king is safe. It is securely shielded by the b3-pawn... and by the enemy pawns on c3 and d4. It is critically important for these pawns, harmful to their own side, to be securely blockaded. The opponent has no constructive way to get rid of them. Black is doomed!

Because Black is more compact, and because his king is sufficiently well protected, a frontal assault (the first point of the Tal Algorithm) has little chance of success. The second point of the algorithm for the attack on material targets (which is analogous to the first point of the Capablanca Algorithm) applies here. Concretely, Lékó transfers his bishop to g4.

**31.g5 ♜b8 32.♝g4**

Rybka prefers leaving the bishop on f3 and the queen on e4. What can I say? All roads lead to Rome!

**32...♛c6 33.h4**

Point 2 of the algorithm... of Capablanca?!

Why “Capablanca” and not “Tal”? Isn’t it because  $t(32...♛c6) < t_{cr} = 1.25$  with approximate equality in the safety

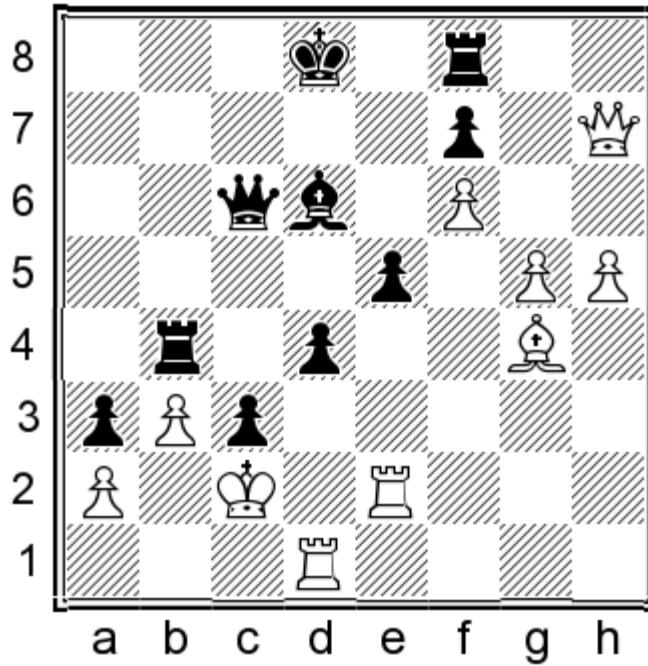
factor?

“Tal” and the right-side “Capablanca” are not antagonists, but good neighbors. “Capablanca” has relieved “Tal,” as Black has achieved parity in the third factor of the position – a completely natural process.

**33...♝b4**

Black’s position is grim.

**34.h5**



**34...d3+**

Lashing out forlornly.

**35.♛xd3 ♜d4**

Or 35...♝xg4 36.♛xd6+ ♜xd6 37.♝xd6+ ♔c7 38.♝d5, with an easily winning four-rook ending.

**36.♛f5 ♜d2+**

A series of spite checks...

**37.♝exd2 cxd2+ 38.♔xd2 ♔c7 39.♝f3 ♜b4+ 40.♔e2 e4 41.♝xe4**

Black resigned. **1-0**

*Postscript*

Note the astonishing instability of the first four factors. Judge for yourself:

First factor:  $m(27\dots\ddot{\text{Q}}e8) = 1$ ,

$m(28\dots\text{bx}c3) < 1$ , and  $m(30\dots\ddot{\text{W}}xh7) = 1$ .

Second factor:  $t(27\dots\ddot{\text{Q}}e8) = \sim 1.14$ ,  $t(30\dots\ddot{\text{Q}}f8) = \sim 1.59$ , and  $t(32\dots\ddot{\text{W}}c6) = \sim 1.23$ .

Third factor: utter uncertainty after 27... $\hat{\Delta}e8$ , a small “+” after 30... $\hat{\Delta}f8$ , and rough equality after 32... $\hat{\Delta}c6$ . I shall return again to this third factor – in the postscript to the postscript!

The fourth factor:  $\Delta k(27... \hat{\Delta}e8) = 0$ ,  $\Delta k(29. \hat{\Delta}c2) > 0$ , and  $\Delta k(30... \hat{\Delta}f8) < 0$ ...

This torrent of parameters is a clear sign of chess chaos.

Postscript to the postscript. The third factor of the chess position – that is, the safety factor. The position after 30... $\hat{\Delta}f8$ . The pawns “harmful” to Black – safely blockaded...

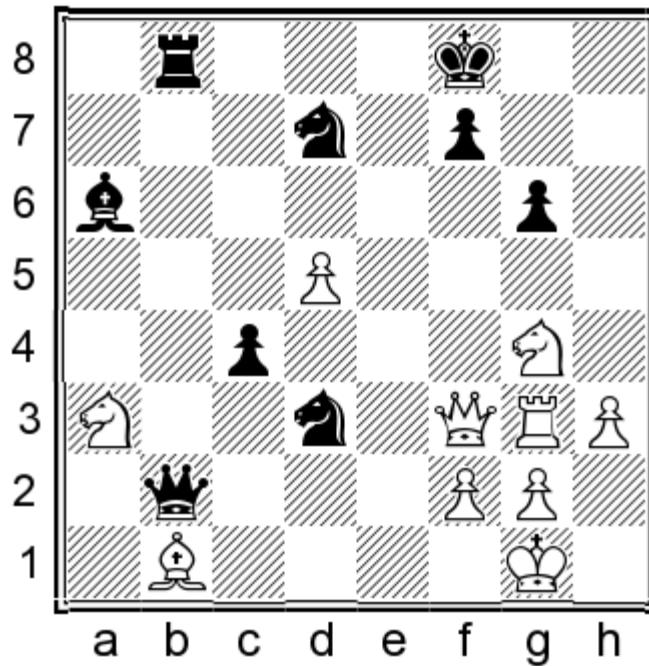
These “harmful” pawns are something new for us when calculating the safety level of the white and black kings. This new thing doesn’t show up in the normal attributes of the safety factor (the packing of the pieces immediately around their king, the “extra” pieces in their corresponding rectangles, etc.). This is not a primary evaluation, but a supplementary method to it – what we might call a “second-pass” evaluation.

At the end of Chapter 1, we described the safety factor as non-fundamental. It is the offspring of the material factor, of the factor of chess time, and of the space factor (this last one I split into two pieces). The fundamental factors of the chess position give the safety factor all of their irrationality.

My task, as the author of the unified theory of the game of chess, is to minimize the number of parameters in the chess system and, as far as possible, to limit the number of passes...

#### No. 40: Kasparov – Karpov

World Championship (16), Leningrad 1986



Position after 30... $\hat{\Delta}xf8$

White has:

- 1) a pawn more – that is,  $m > 1$ ;
- 2) a sharp deficit in the factor of chess time:  $t = 25/51 \approx 0.49 \ll t_{cr} = 0.80$ ;
- 3) he stands better (by how much?) in the third factor, and that “better” is a combination of two vaguely defined components: a large “+” (how great?), thanks to a very high level of safety for the white king, and a much smaller (but by how much?) “-”, signifying the safety situation for the hanging knight at a3.

Our preliminary diagnosis: TCP Algorithm!? Yes or no?!

The third factor of the current position forces us to move to the right along the “t” axis, but where to, exactly? Perhaps to some point on the line between the Petrosian Algorithm and the Capablanca? Into the Capablanca Safety Zone? Or even into the Tal Zone?

The fourth factor:  $\Delta k > 0$ , because  $5/25 > 4/25$ .

The fifth factor:  $\Delta(30... \mathbb{Q}xf8) = \sim 2.70 - 3.33 = \sim -0.63$ .

We are more compact, and also less “elevated.” This means that thanks to the fourth and fifth factors of the position, we have drifted to the right – maybe just a little. We are closer to “Tal”!

Our final diagnosis: the TCP Algorithm. No question about it!

The left edge of our TCP Zone is some point on the approximate border between the Petrosian and Capablanca algorithms. The right edge, undoubtedly, is right in the Tal Zone. From “Petrosian” all the way to “Tal.” It’s hard work...

In this very difficult and fantastically interesting position, the thirteenth World Champion found a very strong move:

### **31. $\mathbb{Q}h2$**

With this move, Kasparov:

- a) sacrifices the a3-knight (on the other hand, there seems to be no way to save this piece);
- b) by “elevating” the king, increases both his  $\Delta k$  and his  $\Delta(\text{move})$  very significantly;
- c) anticipating his other knight’s jump to h6, protects against the extremely unpleasant check from c1 (prophylaxis – that is, defense!)

In other words, Kasparov: a) attacks, b) plays strategically, and c) defends – that is, he plays like “Petrosian.” Truly, Kasparov knows what divine harmony is. He is magnificent!

### **31... $\mathbb{B}b3$**

A worthy response! In Kasparov’s opinion, this is the strongest move, a view confirmed by the soulless computer.

Karpov based his choice on his overwhelming advantage in the time factor. Black is required to attack!

It would not be out of place to note other moves analyzed by Kasparov in those days before computers: 31...  $\mathbb{W}xa3$ ?, 31...  $\mathbb{Q}g7$ ?!?, and 31...  $\mathbb{W}c1$ ?!?. Kasparov awards an exclamation point to Karpov’s 31...  $\mathbb{B}b3$ .

### **32. $\mathbb{Q}xd3$ cxd3**

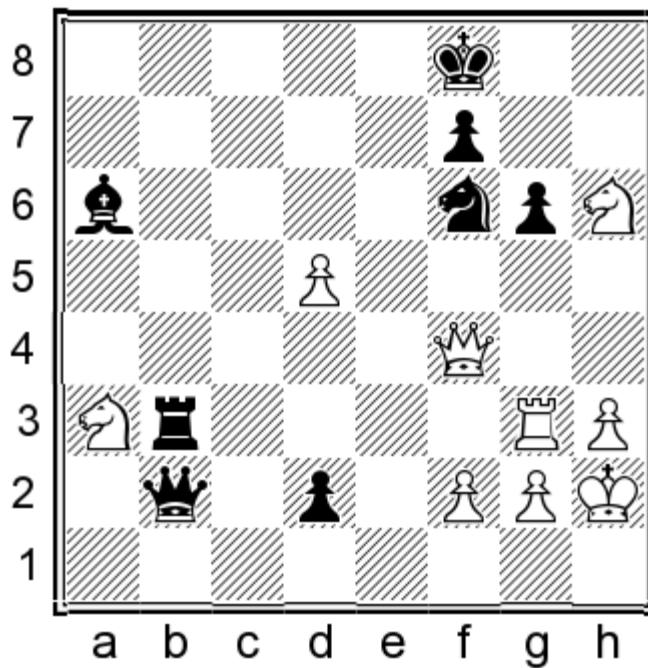
“Objectively this move is no weaker than the others, but now Black is faced with problems which are practically impossible to solve at the board, especially in time trouble. The obvious 32...  $\mathbb{B}xd3$  would have led by force to an endgame a pawn down – 33.  $\mathbb{W}f4$   $\mathbb{W}xa3$  34.  $\mathbb{Q}h6$   $\mathbb{W}e7$  35.  $\mathbb{B}xg6$   $\mathbb{W}e5$  36.  $\mathbb{W}xe5$  37.  $\mathbb{B}xa6$   $\mathbb{B}xd5$ , but where White’s chances of success would be very limited: 38.  $\mathbb{B}xa8+$  (38.  $\mathbb{Q}f5$   $\mathbb{Q}f3+!$ ) 38...  $\mathbb{Q}e7$  39.  $\mathbb{Q}f5+$   $\mathbb{Q}e6$  40.  $\mathbb{Q}e3$   $\mathbb{B}c5$ ... But such a metamorphosis obviously could not satisfy Karpov. How could it: to be effectively a piece up, and to go into an endgame a pawn down?!” (Kasparov)

The former world champion goes on to analyze 32...  $\mathbb{B}xa3$  33.  $\mathbb{W}f4$  as “dangerous” for Black and concludes the analysis with the following verdict, most unpleasant for Karpov: “Black will have to twist and turn in his search for equality.”

We will (largely) pass over Kasparov’s analysis – you cannot take in the infinite. Better we should, with Kasparov, make the text move –

### **33. $\mathbb{W}f4$**

– and then let ourselves be tempted. Beckoned by Garry, we shall make three ply, three steps to the edge of the precipice: 33...d2 (in the game, Karpov played a different move) 34.♕h6 ♜f6:



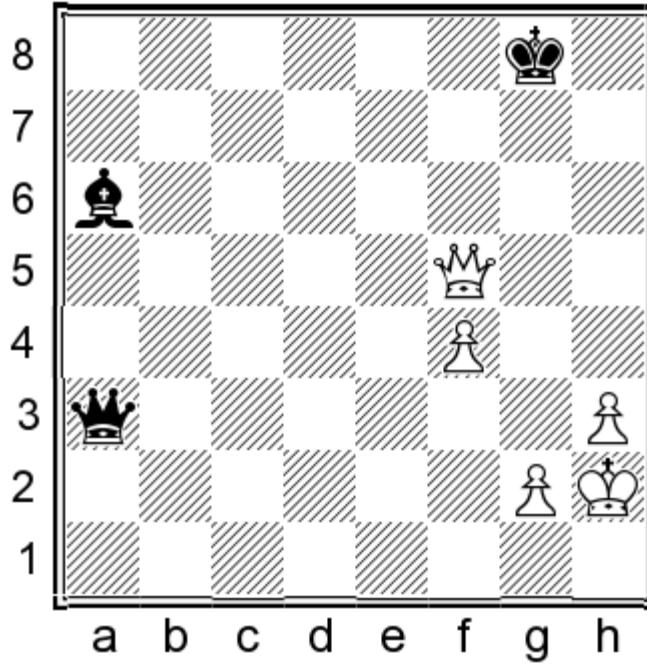
*Position after 34... ♜f6 (analysis)*

Kasparov painstakingly researched this position (see G. Kasparov, *Two Matches*, Moscow, Fizkul'tura i Sport, 1987). Pre-computer analysis of the highest quality on two and one-half pages of the book!

And now a few – just the smallest bit – of a multitude of variations (interjections by *Rybka* are kept to a minimum). I put them in two “baskets”: 35.♖xb3 and 35.♗d6+.

Two moves – two trajectories, free-falling into the abyss... Go fearlessly!

a) 35.♖xb3 ♗xb3 36.♗xf6 ♗xd5 37.♗xf7 (or 37.♗h8+ ♔e7 38.♗g8+ ♔d6 39.♗f6 ♗e5+ 40.g3 ♗e2 41.♗d8+ ♔e6 42.♗b6+ ♔e7 43.♗d5+ ♔f8 44.♗b1 d1♗ 45.♗bc3±) 37...d1♗ (if 37...♔e8, White wins with 38.♗b1 d1♗ 39.♗c3) 38.♗d6+ ♔g8 39.♗xg6+ ♔f8 40.♗f6+ ♔g8 41.♗f5 ♗xf5 (after 41...♗xg2+ 42.♗xg2 ♕b7+ there is no perpetual check: 43.♔h2 ♗h1+ 44.♔g3 ♗f3+ 45.♔h4 ♗xf2+ 46.♔h5 ♗f3+ 47.♔g5 ♗d2+ 48.♔g6 ♗g2+ 49.♔g5+-) 42.♗xf5 ♗d6+ 43.f4 ♗xa3:

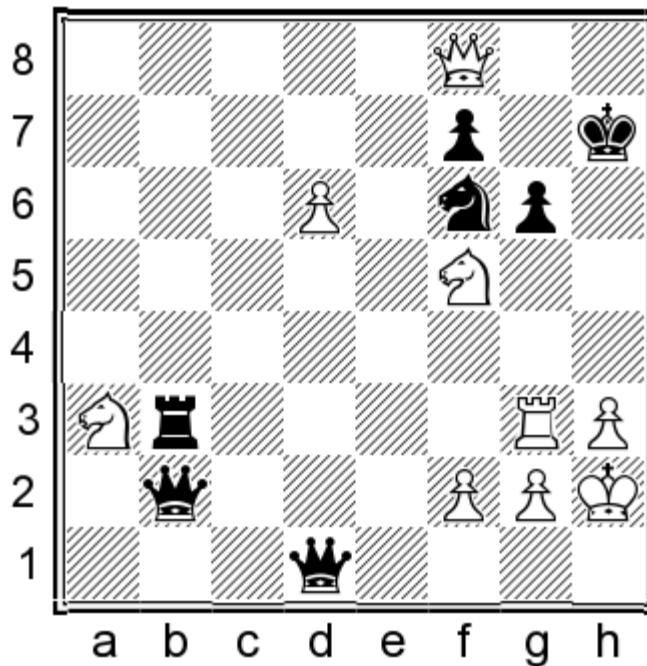


Position after 43...  $\mathbb{W}xa3$  (analysis)

“and here the three pawns for the piece give White no more than a moral advantage” (Kasparov). Draw!

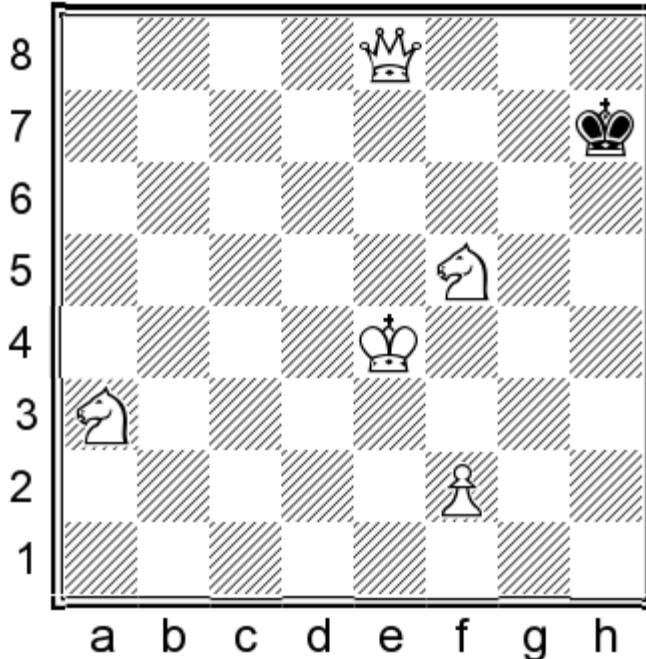
Moving on to the second variation:

b) 35.  $\mathbb{W}d6+$   $\mathbb{Q}e8$  36.  $\mathbb{W}c6+$   $\mathbb{Q}f8$  (if 36...  $\mathbb{Q}d7$ , White wins with 37.  $\mathbb{W}xa6$  d1 $\mathbb{W}$  38.  $\mathbb{W}c8+$   $\mathbb{Q}e7$  39.  $\mathbb{Q}g8+$   $\mathbb{Q}d6$  40.  $\mathbb{Q}c4+$ ) 37.  $\mathbb{W}d6+$   $\mathbb{Q}e8$  38.  $\mathbb{W}xa6$  (38.  $\mathbb{Q}g5!?$  – doesn’t White have better here?) 38... d1 $\mathbb{W}$  39.  $\mathbb{W}c8+$   $\mathbb{Q}e7$  40.  $\mathbb{W}c5+$  (*Rybka* offers a miraculous variation here : 40.  $\mathbb{Q}c4$   $\mathbb{W}xf2$  41.  $\mathbb{Q}e3(!)$  41...  $\mathbb{Q}xe3$  42.  $\mathbb{W}c5+$   $\mathbb{Q}e8$  43.  $\mathbb{W}c8+$ , draw!? Verify this!) 40...  $\mathbb{Q}d7$  41.  $\mathbb{W}c6+$   $\mathbb{Q}e7$  42.  $d6+$   $\mathbb{Q}f8$  (42...  $\mathbb{Q}e6$  probably leads to a draw. Here is one of dozens, possibly hundreds, of possible variations [one indicated by *Rybka*]: 43.  $\mathbb{W}c8+$   $\mathbb{Q}d7$  44.  $\mathbb{W}e8+$   $\mathbb{Q}d5$  45.  $\mathbb{W}xf7+$   $\mathbb{Q}c6$  46.  $\mathbb{Q}c4$   $\mathbb{W}f6$  47.  $\mathbb{Q}xb3$   $\mathbb{W}dd4$ . A position of dynamic balance?! See for yourself, if you have the desire and the stamina...) 43.  $\mathbb{W}e8+$   $\mathbb{Q}g7$  44.  $\mathbb{Q}f5+$   $\mathbb{Q}h7$  45.  $\mathbb{W}f8$ :



### Position after 45. $\mathbb{W}f8$ (analysis)

(This is not the end. It's the beginning of the opponent's counterplay, fantastic in its beauty and ferocity!) 45...  $\mathbb{Q}g4+$  46.  $\mathbb{B}xg4$   $\mathbb{W}xh3+$  (after 46...  $\mathbb{W}e5+$  47.  $\mathbb{Q}g3$  g5 [47...  $\mathbb{W}f6$  48.  $\mathbb{Q}e4+-$ ] 48.  $\mathbb{W}xf7+$   $\mathbb{W}g7$  49.  $\mathbb{W}e6$ , Black should lose, as 50.  $\mathbb{Q}e4$  is threatened) 47.  $\mathbb{Q}xh3$   $\mathbb{W}h1+$  (if 47...  $\mathbb{W}c3+$ , then 48.  $\mathbb{Q}h2+-$ . Let's continue: 48...  $\mathbb{W}xg4$  49.  $\mathbb{W}h6+$   $\mathbb{Q}g8$  50.  $\mathbb{Q}e7\#$ . A neat mate, no?) 48.  $\mathbb{Q}g3$   $\mathbb{W}e5+$  49.  $\mathbb{B}f4$  g5 50.  $\mathbb{W}xf7+$   $\mathbb{Q}h8$  51.  $\mathbb{W}f8+$   $\mathbb{Q}h7$  52.  $\mathbb{W}e7+$  (the last shot!) 52...  $\mathbb{W}xe7$  53.  $dxe7$   $gxf4+$  54.  $\mathbb{Q}xf4$   $\mathbb{W}xg2$  (simple and good) 55.  $e8\mathbb{W}$   $\mathbb{W}g4+$  (the apotheosis!) 56.  $\mathbb{Q}e5$   $\mathbb{W}e4+$  57.  $\mathbb{Q}xe4$  – stalemate!



### Position after 57. $\mathbb{Q}xe4$ (analysis)

Three aspects of excellence – simplicity, symmetry, and paradox. Paradox in chess is most closely associated with the sacrifice. Black sacrificed knight, rook and queen – and miraculously survived!

But Karpov didn't play 33...d2. He played a different move and lost:

**33...  $\mathbb{W}xa3$**

Now White wins in all variations.

**34.  $\mathbb{Q}h6$**

With the crude threat of checkmate on f7.

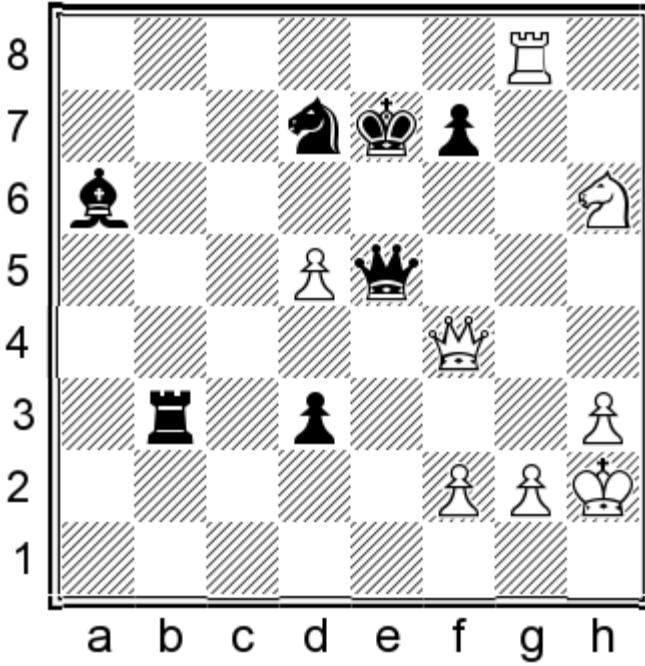
**34...  $\mathbb{W}e7$  35.  $\mathbb{B}xg6$**

Threatening mate on g8.

**35...  $\mathbb{W}e5$**

"For an instant Black has everything in order – White's strongest piece is crippled" (Kasparov).

**36.  $\mathbb{B}g8+$   $\mathbb{Q}e7$**



**37.d6+**

“By sacrificing itself, this weak little pawn not only saves its own queen, but also wins the opponent’s! As if at the waving of a magic wand, the scattered white pieces achieve amazing harmony” (Kasparov).

Karpov resigned after

**37...♝e6 38.♜e8+ ♛d5 39.♝xe5+ ♛xe5 40.d7 ♜b8 41.♝xf7 1-0**

To conclude this chapter dedicated to the TC, CP, and TCP algorithms, I would like to mention their great complexity. These algorithms are mixed, but they do not divide, rather they unite. They force us to think broadly, and push us on to generalizations.

We met the TC Algorithm back in Chapter 2, when “Tal” occupied part of the Safety Zone. Our original TC Algorithm was the narrow little part of the spectrum at the point where  $t = t_{cr} = 1.25$ .

And then (in the current chapter) we expanded this part. We literally made the TC Algorithm choke down the entire “Tal” and the whole right-hand portion of the Capablanca Algorithm. I note also the indisputable (for us) fact that behind this act of intellectual expansion there stands our unconscious striving for the Unified...

The fruit of these efforts on the TC is a grasp of the overall meaning of all the occupied and unoccupied squares of the chessboard *in the attack*. Now, thanks to the expanded version of the TC Algorithm, we make distinctions among these squares only by their chess value.

We got acquainted with the CP Algorithm in Chapter 3, when we left the Capablanca Safety Zone for the “Petrosian Zone.” Our original CP Algorithm was the narrow band of the spectrum with its center on the point  $t = t_{cr} = 0.80$ .

Striving to generalize, we expanded this narrow segment. We literally forced the CP Algorithm to choke down the entire “Petrosian” and the whole left half of the Capablanca Algorithm. Once again (and recalling the expansion of the TC Algorithm), this illustrates our unconscious striving toward the Unified...

The fruit of these efforts on the CP is a grasp of the overall meaning of all occupied and unoccupied squares of the chessboard *in defense*. Now, thanks to the expanded version of the CP Algorithm, we make distinctions among these squares only by their chess value.

The following (and for us the final) step is in the direction of the TCP Algorithm. This algorithm, it's easy to see, binds the TC and CP algorithms together in a single whole. Put another way, the TCP Algorithm brings to a common denominator *all the vacant and occupied squares in both attack and defense*. This version – let's call it “expanded” – of the TCP Algorithm aims to seek the strongest move in all possible chess positions.

A lofty ambition! It's impossible to control the TCP Algorithm without making an intense effort of will. We must break down the TCP Algorithm into three categories – “Tal,” “Capablanca,” and “Petrosian.” And more – four elements of the Tal, three elements of... Can I stop now?

**The TCP Algorithm binds the TC and CP algorithms together in a single whole.  
It brings to a common denominator all the vacant and occupied squares in both attack and defense.**

If, working out of the highest esthetic considerations, we were to refrain completely from carrying out acts of analytical violence on a chess position, then we would be instantly transformed into sterile contemplatives. On the other hand, if – in the attempt to get to the bottom of chess – we try to lay everything out one piece at a time, what we get then are useless masses of seemingly unrelated, disparate moves. Millions and billions of possibilities.

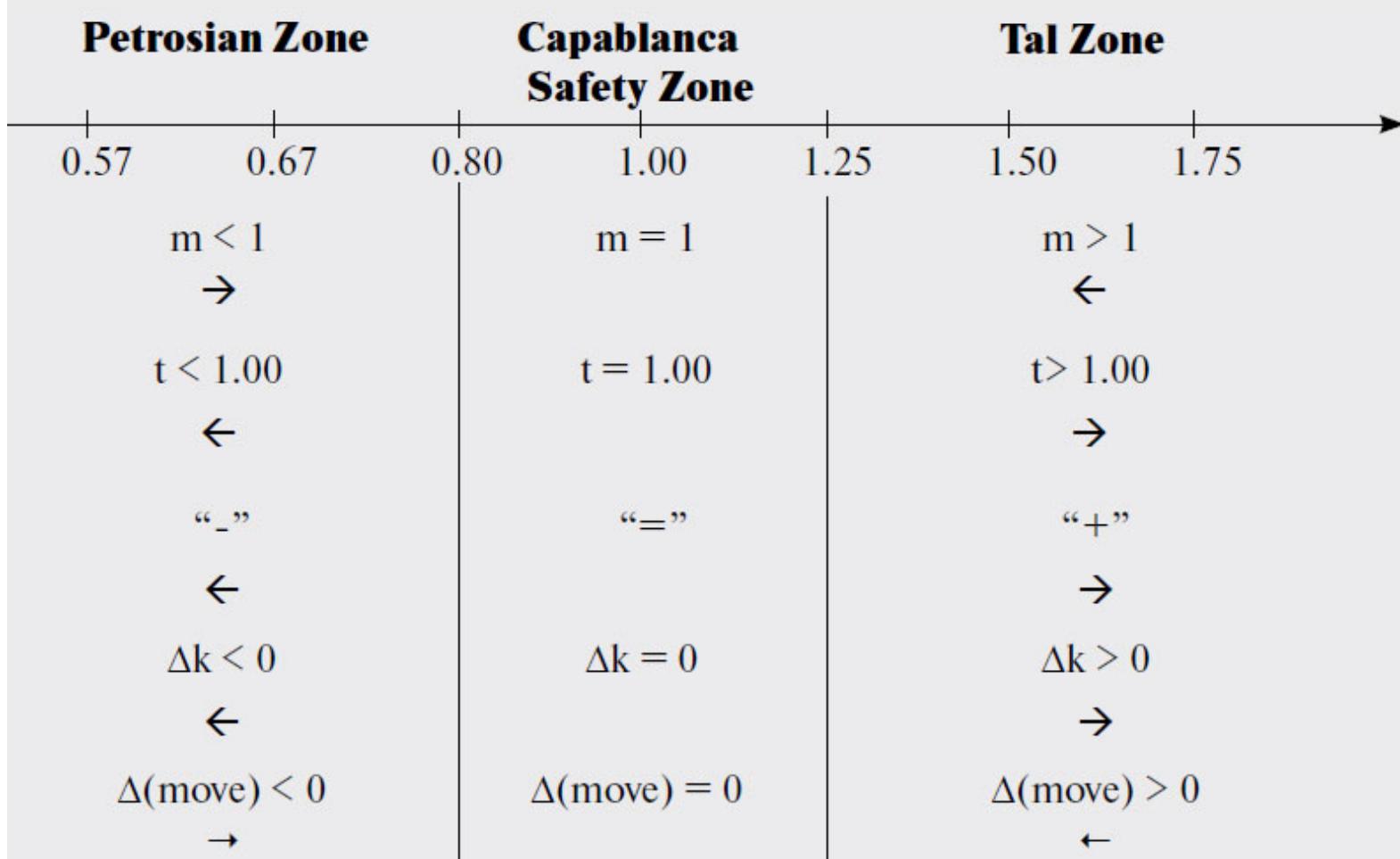
It is not possible to be a “100% contemplative” – that is, a pure intuitive. Geniuses of Capablanca’s sort still need to calculate variations. Nor does chess know any “100% calculators.” Geniuses of Tal’s sort still have to evaluate the position based on fundamental considerations. The elusive truth – which always correlates to the strongest move – lies somewhere in the middle, between the two extremes. And this truth is filled with inspiring beauty and harmony.

## Chapter 6

### The Algorithm Drift Chart and the Search For the Strongest Move

In this chapter, we summarize. The summary of all summaries: a universal method for discovering the strongest move, and its integral complement – the Algorithm Drift Chart.

### **The Algorithm Drift Chart And the Search for the Strongest Move**



I'll start by gathering together the most valuable lessons from the preceding chapters, which I will then put into two categories, conditionally labeled "Parameters" and "Algorithms." Of course, these will contain not just the parameters of our study positions and the algorithms that serve those positions. There will be something else in them...

Then there will be also the final stretch, and the finish itself. The finish is the aforementioned Algorithm Drift Chart. This chart is nothing less than the long-awaited crown of all our efforts, which will tell us about the search for the move in all possible positions. In *all* positions, without exception!

Are you ready?

The first category is *Parameters* – the five parameters and the five factors of the chess position that they represent. They are:

- 1) the material factor of a chess position, and the parameter “m”;
- 2) the factor of chess time, and the parameter “t”;
- 3) the factor of safety in a chess position, and its parameter;
- 4) the factor of the compactness of a chess position and the parameter  $\Delta k$ ;
- 5) the factor of spatial expansion and its parameter  $\Delta(\text{move})$ .

#### **The five parameters:**

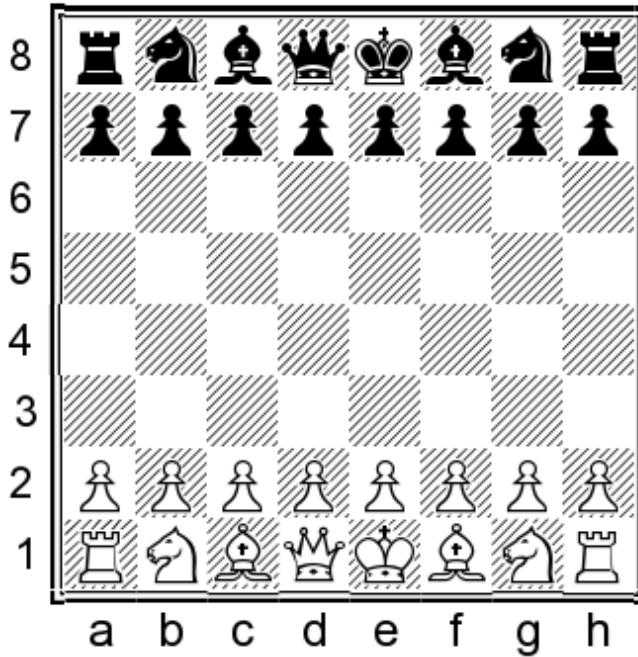
- 1) the material factor of a chess position, and the parameter “m”;
- 2) the factor of chess time, and the parameter “t”;
- 3) the factor of safety in a chess position, and its parameter;
- 4) the factor of the compactness of a chess position and the parameter  $\Delta k$ ;
- 5) the factor of spatial expansion and its parameter  $\Delta(\text{move})$ .

#### **The first parameter, “m”**

By definition,  $m = M_1/M_2$ .

Here,  $M_1$  and  $M_2$  are the total chess values of the respective positions of the first and second players. The number 1 we have already, long ago, assigned to ourselves, and our opponent will always be number 2.

Using as an example the starting position in chess, we total up our chess mass  $M_1$  and the chess mass  $M_2$  of our opponent. And so...



In this, the most frequent of all positions, and known to us all, it is White to play, and we have White. The standard question: what do we have?

$$M_1 = (m_q + 2m_r + 2m_b + 2m_n + 8m_p)_1,$$

$$M_2 = (m_q + 2m_r + 2m_b + 2m_n + 8m_p)_2,$$

Here,  $m_p = 1$ : that is, the chess “weight” or value of one pawn,

$m_n = m_b = 3\frac{1}{2}$ : the chess weight of the knights and bishops,

$m_r = 5$ : the weight of a rook,

$m_q = 9$ : the weight of a queen.

And all of these, with no king! Why?

Because the chess weights of the kings cancel each other out – see below.

*Note:* For us it is exceptionally important that the weights of the pieces and pawns be of a constant value, independently of the placement of the pieces on the board. In other words, for the queens, rooks, bishops, and knights, all 64 squares of the chessboard are the same for purposes of determining the material balance. The pieces do not discriminate among them. And for the pawns, given their peculiar nature, the number of relevant squares is 48 (from the second to the seventh rank).

This means that the numbers  $M_1$ ,  $M_2$  and their numerical difference  $\Delta M = M_1 - M_2$  do not interest us greatly. Further, we also don’t need the absolute values of the parameter “m” in a given study position. What do we need?

What we need is to know the *relationship* of the number m to the number 1!

There are three possible cases:

a)  $m = 1$ , if  $M_1 = M_2$ ;

b)  $m < 1$ , if  $M_1 < M_2$ ;

c)  $m > 1$ , if  $M_1 > M_2$ .

Let’s take each of these three cases in turn. Remember that the “m” parameter stands not only for the drift of the algorithms, it also stands for the chessplayer’s psychological state. The parameter “m” is two-faceted!

In case (a), when  $m = 1$ , we “stand in place,” our psychological stance being neutral. Our level of chess aggressiveness is medium, equivalent to our level of aggression in the starting position.

In case (b), when  $m < 1$ , we drift to the right, from the Petrosian Algorithm toward the Tal Algorithm, and our psychological attitude comes closer to that of the hungry chess wolf. In other words, we have an enhanced level of aggression.

Finally, in case (c), when  $m > 1$ , we drift to the left, from “Tal” to “Petrosian.” In this case, our psychological stance is that of a well-fed guard dog, protecting home and host. In other words, we have a lowered level of chess aggression.

Case (a) – the situation where  $m = 1$  – see the Algorithm Drift Chart at the top of this chapter.

Case (b) – that’s where  $m (\rightarrow) < 1$ .

Case (c) – is where  $m (\leftarrow) > 1$ .

The first factor of the chess position is of relatively low intensity; the arrows after the “m” indicate the direction of the drift. The intensity of the first factor doesn’t hold a candle to the intensity of the third factor...

### **The second parameter, “t”**

By definition,  $t = T_1/T_2$ , where  $T_1$  and  $T_2$  represent the total mobility of all the pieces of the first and second players.

Thus, for example, in the starting chess position,  $T_1 = T_2 = 4 + 16 = 20$ , where 4 is the number of possible moves by the knights, and 16 is the number of possible pawn moves. Therefore,  $t = T_1/T_2 = 20/20 = 1.00$ .

Of course, total mobility applies not just to the knights and pawns, but to all the chessmen.

*Note:* The “t” parameter defines the starting point – the point where the drift along the “t” axis begins, and on which the remaining four parameters of the position apply (or fail to apply) pressure.

The point  $t = 1.00$  cuts the “t” axis in two. The right side goes out to infinity, the left one down to zero. Pay attention: for the sake of convenience, I have chosen different scales: “t” to the right, and “ $1/t$ ” to the left.

One more thing: two special points on the “t” axis are:  $t_{cr}(TC) = 5/4 = 1.25$ ; and  $t_{cr}(CP) = 4/5 = 0.80$ . These critical points define, respectively, the right and left edges of the Capablanca Safety Zone; they are the centers of the areas of the TC and CP algorithms.

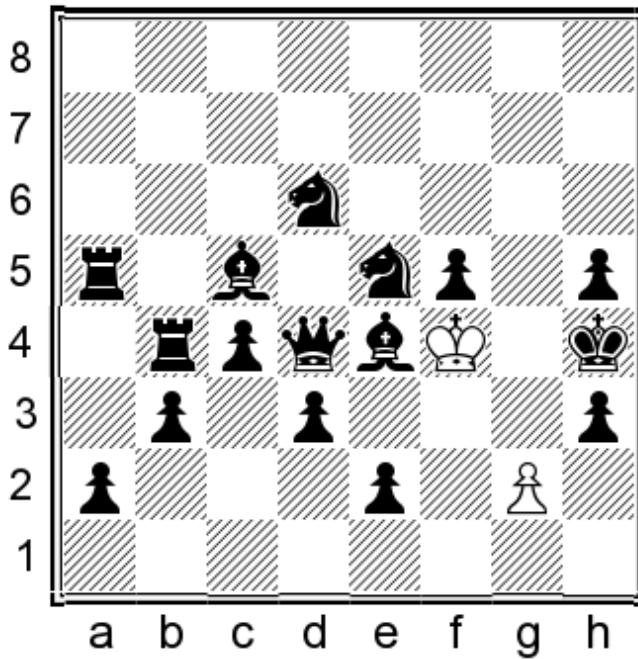
For the sake of simplicity, I almost always drop the signs (TC) and (CP) with the  $t_{cr}$ . I do this when there is no possibility of confusion. So don’t be surprised, dear reader, by my “contradictory” meanings for the critical points:  $t_{cr} = 1.25$  and  $t_{cr} = 0.80$ .

What is important, is that  $t_{cr}(TC) \times t_{cr}(CP) = 1.00$ .

### The third parameter, representing the level of safety in the position

A very capricious, and very sensitive, parameter! Often it cannot be established with any accuracy. It’s a complex function of the first, second, fourth, and fifth factors.

The “extra” pieces (or lack of them) in the attacking zone, the mobility of the kings and the corresponding local density of packing – this is an incomplete list of what influences the process of tallying up the third parameter. With this we have to depend, first of all, on our acquired sense of danger. The usual arithmetic of the other four parameters is of no help here, alas. In short, the third parameter is not science, but art... And sometimes, it’s all paradox!



*White to move*

In this position White has  $m \ll 1$ ,  $t = 3/50 = 0.06 \ll t_{cr} = 0.80$ , both kings are in a mating net,  $\Delta k > 0$ , and  $\Delta(\text{move}) \ll 0$ .

1.g3# is decisive. Mate in the “ultra-Petrosianish” meaning of the “t” parameter!

Of course, the diagram position is artificial, and it would hardly ever occur in a tournament game, and yet...

Even the tiniest “pluses” or “minuses” in the third parameter can add up to a sizable drift along the “t” axis. With a “plus” in this parameter, we always drift to the right – that is, from the Petrosian Algorithm toward the Tal Algorithm, while

with a “minus” we drift the other way.

And if we have parity in the safety factor, then we basically stand in place. In other words, in this case the third parameter is switched off – it has no effect.

When it's not clear which way the third parameter points, we immediately activate “Tal”! And if “Tal” doesn't work, then “Capablanca.” At the end of the row of algorithms there stands the Petrosian Algorithm.

The “plus” case corresponds to the “plus” symbol → (see the Algorithm Drift Chart).

The “minus” case corresponds to the “minus” symbol ←.

Parity in the safety factor corresponds to the symbol for “parity” (see the chart).

### **The fourth factor, $\Delta k$ (compactness)**

The fourth factor is a number. In the previous diagram, it is calculated as  $\Delta k = k_1 - k_2 = 2/6 - 9/32 = 5/96$ .

Here:

2 = the number of the white chessmen (king + pawn);

9 = the number of the black chessmen (king + eight pawns);

6 = the area of the rectangle f2-f4-g4-g2;

32 = the area of the rectangle a5-a2-h2-h5.

In these rectangles are placed, respectively, all of the white and black kings and pawns.

Three cases are possible:

a) if  $\Delta k > 0$ , we drift to the right ( $\Delta k > 0 \rightarrow$ ) – that is, from “Petrosian” to “Tal;”

b) if  $\Delta k = 0$ , we “stand in place;”

c) if  $\Delta k < 0$ , we drift to the left ( $\leftarrow \Delta k < 0$ ), from “Tal” to “Petrosian.”

The fourth factor of a chess position is a low-intensity factor, and the arrows next to the  $\Delta k > 0$  and  $\Delta k < 0$  indicate the direction of drift. The intensity of the fourth factor bears no comparison to the intensity of the third factor...

### **The fifth parameter, $\Delta(\text{move})$**

The fifth factor of a chess position is also a uniquely defined number. In the above position, it is  $\Delta(\text{move}) = 6/2 - 80/16 = 3.00 - 5.00 = -2.00$ .

Here:

6 = 4 + 2 (the white king is on the fourth rank, and the white pawn is on the second);

2 = the number of white chessmen;

80 = 3 + (5 × 4) + (5 × 5) + (3 × 6) + (2 × 7) (one black piece – the d6-knight – is on the third rank, counting from Black's viewpoint; five chessmen are on the fourth; five on the fifth; three on the sixth; and two chessmen – the a2– and e2-pawns – are on their seventh rank);

16 = the number of black chessmen.

Naturally, there are three cases:

a) if  $\Delta(\text{move}) > 0$ , then we drift left, from “Tal” towards “Petrosian”:  $\leftarrow \Delta(\text{move}) > 0$ ;

b) if  $\Delta(\text{move}) = 0$ , then we “stand in place”;

c) if  $\Delta(\text{move}) < 0$ , then we drift right, from “Petrosian” towards “Tal”:  $\Delta(\text{move}) < 0 \rightarrow$ .

The fifth factor is also a low-intensity one, especially when compared to the third factor, and so we indicate the drift

under  $\Delta(\text{move}) > 0$  and  $\Delta(\text{move}) < 0$  with smaller arrows.

We have filled the first of our two “baskets” to the brim with the richest concentrate, prepared from the five factors of the chess position.

An innocent question: why do we need all of these five factors?

The answer is obvious: these parameters help us to “calculate” the algorithm we’ll use to seek the strongest move.

The second basket is “Algorithms.” The fundamental and non-fundamental algorithms of the search for the strongest chess move are the “Tal,” the “Capablanca,” the “Petrosian,” and the TC, CP, and TCP algorithms.

We begin with the Tal Algorithm, with its radical sort when “t” aims toward infinity, and then we’ll gradually drift in the direction of the Petrosian Algorithm.

In the Tal Zone, the algorithm of attack on material targets – the Tal Algorithm – rules.

Its four elements are:

- 1) open and direct attacks on the opponent’s material targets;
- 2) the optimal arrangement of our pieces on squares suitable for subsequent open and direct attacks on the material targets in the opponent’s camp;
- 3) the sacrifice of chess material (we sacrifice material in order to increase the tempo of the attack); and
- 4) the win of chess material.

Or, to put it more briefly: when attacking in “Tal” style, the stronger side must –

- 1) attack;
- 2) put his pieces on good squares;
- 3) sacrifice;
- 4) win material.

In high-mobility situations featuring large “t” values, this element of the algorithm predominates. The second element is dormant. The third and fourth elements are extremely active and very closely intertwined. They work in tandem, under the name of “non-equivalent trades.”

As the position drifts to the left along the “t” axis, the influence of the first element decreases and the second element arises from its slumber to become active. Meanwhile, the tandem of the third and fourth elements of the algorithm goes through changes: it gradually degrades, turning into a strategic exchange.

Near the point where  $t = t_{cr} = 1.25$ , we enter the zone of the TC Algorithm; we’ll discuss this a little later (after “Petrosian”).

The point  $t = t_{cr} = 1.25$  is behind us now, and we are in the Capablanca Safety Zone – more precisely, in its right half. The right-handed “Capablanca” is for the strategic attack.

What has changed with our entry into this Safety Zone?

The first element of the Tal Algorithm has dwindled, so welcome to the second element of this fearsome algorithm!

The second element of the Tal Algorithm we will call also the first element of the Capablanca Algorithm.

There are three elements to the Capablanca Algorithm:

- 1) the optimal placement of our own pieces on squares suitable for a strategic attack on vacant squares of the chessboard;
- 2) pawn advances;
- 3) exchanges.

Or, more briefly: when playing in “Capablanca” style, we are obligated to:

1) put our pieces on their best squares,

2) advance the pawns, and

3) seek exchanges.

In other words: in the attack, “Capablanca” attacks first of all not the opponent’s pieces and pawns, but vacant squares.

“Capablanca” thus expands the scale of material chess targets: king, queen, rooks, bishops and knights, pawns – and now also vacant squares whose chess value is less than that of a pawn (less than 1). This is in the first place.

In the second place, “Capablanca” attacks vacant squares in enemy territory not just with pieces, but also with pawns. It “elevates” the pawns, moving them closer to the queening square.

And thirdly, in the attack, “Capablanca” refrains from “Tal”-like non-equivalent exchanges, in favor of the strategic exchange. The reason for this is the lower dynamic energy of the algorithm. The right-hand “Capablanca” is a low-intensity “Tal.”

Moving further along the scale, we soon find ourselves in the quietest of chess spots – the area around the point  $t = 1.00$ . In this point (and this is important) attack and defense come together. “Capablanca” at this point attacks and defends *at the same time!* This kind of play is called strategic play or, the strategic attack/defense of vacant squares.

The final formulation of the Capablanca Algorithm looks like this:

- 1) the optimal placement of our pieces on squares suitable for a strategic attack or defense with respect to vacant squares;
- 2) advancing the pawns;
- 3) exchanges.

Continuing to drift leftward along the “t” axis, near the point  $t = t_{cr} = 0.80$  we fall into the sphere of influence for the CP Algorithm – we will speak of it later, after the TC Algorithm.

And beyond this point we find ourselves in the Petrosian Zone.

There are three elements to the Petrosian Algorithm:

- 1) the optimal setup of our pieces and pawns on squares suitable for defending occupied and vacant squares from open and direct attacks;
- 2) exchange;
- 3) the sacrifice of material (we sacrifice material in order to slow down the opponent’s attack on our material and non-material targets);

Or, briefly: when playing in “Petrosian” style, we must:

- 1) set out our pieces and pawns on their best squares;
- 2) seek exchanges;
- 3) sacrifice material.

When defending, we defend our position according to the value scale of material and non-material targets. The main piece is the king, followed by the queen, etc. At the bottom of the heap are vacant squares of little chess value.

In defense, the first thing we do is to try to make our position more compact, easier to hold; and, preventing tragic (for us, at least) developments, we almost gratefully hand over to our opponent part of our expanse of space.

Secondly, we look to make trades. We trade our opponent’s active pieces for our own passive pieces. Depending on our possibilities, we similarly increase the “t” parameter and, more importantly, decrease the potential for attack. We play for exchanges, even if our  $\Delta k < 0$ , because the king’s safety, and that of our other pieces, is foremost.

And thirdly, we are prepared even to give the enemy part of our chess material. We give it up if our opponent’s position is very strong. Try in this to gain some advantage or other. Give up to your opponent, let’s say, a pawn for a greater degree

of safety in your position. Give up a rook for a minor piece. Give up a minor piece for a couple of pawns. Look for perpetual check, stalemate, theoretically drawn positions with an overwhelming material advantage. Look for impregnable fortresses. Keep looking... and pray to the high chess gods to protect your king!

A few words about the mixed algorithms:

The TC Algorithm (narrowly considered) is a “Tal” that knows how to attack only pawns and vacant squares, and that knows how to sacrifice only pawns. However, it also knows what a strategic exchange is!

Analogously, the CP Algorithm in its narrow treatment is a “Petrosian” that “knows how” to defend only pawns and vacant squares and that “knows how” to sacrifice only pawns.

The TC and CP algorithms may be broadened, respectively, from  $t = 1.00$  to  $t = \infty$  and from  $t = 1.00$  to  $t = 0$ . The centers of gravity of these algorithms (in their broadest treatment) are close, respectively, to the points  $t_{cr}(TC) = 1.25$  and  $t_{cr}(CP) = 0.80$ .

The most complex of the three non-fundamental algorithms is the TCP Algorithm. Its center of gravity is  $t = 1.00$ . This algorithm combines the TC and CP algorithms (in their broadest treatment). It is brave, sometimes to the point of insanity!

Now we have also filled the second “basket” to the top. We have filled it with the richest concentrate, prepared from the three fundamental and the three non-fundamental algorithms of the search for the strongest chess move.

A natural and somewhat scary question: what now?

I reply: we sum up all of our previous work. We are at our goal!

Our ideal goal in chess is faultless play in all possible positions. This goal is unattainable. Eternal is the desire to achieve it.

Our ultimate chess objective is to formulate a universal method for searching for the strongest move in all possible positions. And we stand at the threshold of that goal!

The universal method for searching for the strongest chess move lives in the Algorithm Drift Chart at the start of this chapter.

In Part II of this book, we practice the method. For each position presented, you will:

- 1) Adopt a medium level of chess aggression.
- 2) Define “m” and adjust your level of chess aggression accordingly.
- 3) Define “t” and adjust your level of chess aggression accordingly.
- 4) Calculate the third parameter. Drift. Preliminary diagnosis.

There are two possible cases:

- a) “Tal,”
- b) any other algorithm (TC, “Capablanca,” CP, “Petrosian,” TCP).

In the case of (a), consider your preliminary diagnosis your final diagnosis, and go to Step (8).

In the case of (b), proceed to Step (5).

- 5) Define the  $\Delta k$ .
- 6) Define the  $\Delta(\text{move})$ .
- 7) Correct your preliminary diagnosis and allow for the influence of parameters “m”,  $\Delta k$ , and  $\Delta(\text{move})$ .
- 8) “Engage,” one after the other, all of the elements of the calculated algorithm. Look for a move.
- 9) Make the move.

And finally – this farewell is not mine, but Capablanca's: “Never refrain from a move out of the fear of losing. If you think a move good, better to make it, without thinking of the result. Experience is the best teacher. Remember: if you want to become a good chessplayer, you must lose hundreds of games first.”

With these words, Capablanca ends his *Primer of Chess*. And with those same words, I conclude the first part of my handbook...

## Part II

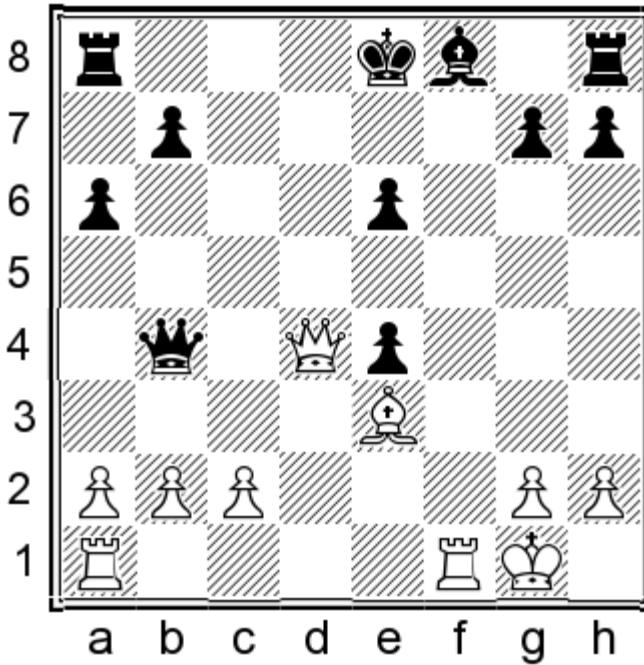
# A Universal Method For Discovering The Strongest Move, In Practice

## Chapter I

### Simple Examples

No. 41: Fischer – Dely

Skopje 1967



Position after 15...fxe6

In this position, it is White to move, and we have White.

We are down a pawn, which means that the material factor impels us to the right (see the Algorithm Drift Chart). In other words, we drift from the Petrosian Algorithm towards the Tal Algorithm.

As usual, our psychological state is one of absolute fearlessness – and, especially, of heightened aggression. We are hungry chess wolves, and we will not stop until we spill a whole sea of chess blood.

The second factor to consider is that of chess time. We need to compare the mobility of the white and black pieces. Or, what is simpler (but unfortunately less precise) is to compare two small numbers – the number of pieces each side has in play.

The white king, queen, and dark-squared bishop have already moved from their starting squares. They are developed, and their overall number is 3. Don't forget to add one unit to this, because it's White's move.

One more thing: note, dear reader, the completely crazy activity of White's f1-rook. Formally, it is considered to be an undeveloped piece – only because we have agreed that castling will be considered to be only a king move; the rook

doesn't count. But here this idea is an unjustified sacrifice to our focus on simplicity.

A question with no answer: is it  $3 + 1 = 4$  or  $3 + 1 + 1 = 5$ ?

And what does Black have?

He has only one piece in play – the queen on b4 – that is, Black is three or maybe even four tempi behind. A dangerous sign!

The next factor – that is, the third factor to take into account – is the safety factor. We must cold-bloodedly evaluate the safety of each king.

It's evident that nothing realistically threatens the white king, as there is no activity by the opponent's pieces against the castled position. The f1, f2, g2, h1, and h2 squares are not under attack, nor is there any massing of enemy forces near the white king. Total comfort!

On the other hand, the black king's position gives rise to the most serious concern. It is practically paralyzed and finds itself in a mating net, as White's queen and rook have cut off all avenues of retreat. The black king's condition is critical.

And so we may boldly state that the safety factor favors White. He has every chance of attacking without having to worry about his own rear echelons. The safety factor is in solidarity with the factor of chess time.

The final conclusion: the diagram position requires the Tal Algorithm – categorically!

We don't need the fourth and fifth factors of the position here. They are not essential in this situation, and may be ignored. These factors apply only when the position has signs of the Capablanca and/or Petrosian algorithms. But here, only "Tal" rules!

Let us recall once more the four elements of the Tal Algorithm:

- 1) open and direct attacks on the opponent's material targets;
- 2) optimal placement of our own pieces on squares suitable for these open and direct attacks on the opponent's material targets;
- 3) sacrifice of chess material (we sacrifice in order to speed up the attack);
- 4) winning chess material.

Briefly: when attacking "in Tal style," the stronger side must:

- 1) attack,
- 2) sacrifice,
- 3) win material.

Let's not forget the scale of piece values when attacking material targets. We attack first of all the king, then the queen, etc.

What happened in the game?

**16.  $\mathbb{E}xf8+$**

Not only a sacrifice, but also a check – that is, an open attack on the enemy king.

**16...  $\mathbb{Q}xf8$  17.  $\mathbb{Q}a4+$**

Another check...

Here, unexpectedly for us, IM Dely resigned. Why?

There is a convincing, four-move variation, demonstrating the hopelessness of Black's position. For the time being, I'll

show only the first three moves: 17...b5 18.  $\mathbb{W}xe4$   $\mathbb{B}d8$  19.  $\mathbb{W}c6+$   $\mathbb{B}d7$  20.  $\mathbb{B}d1$ .

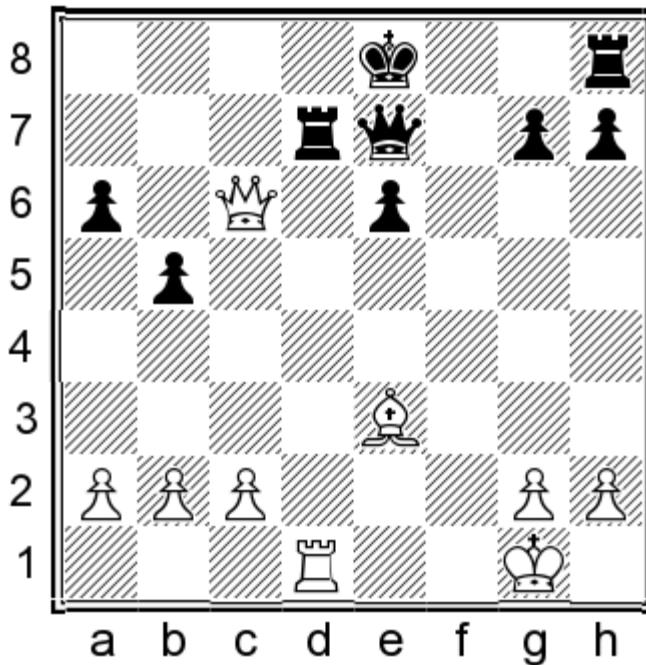
With 18.  $\mathbb{W}xe4$ , White not only wins back his pawn, but also strikes a blow in two directions, attacking targets on a8 and e6. Other, more important material targets are currently out of reach.

Let's go further – 19.  $\mathbb{W}c6+$ . With this move, White renews the assault on the king. The king is the most important target, and it is good to pursue it.

But why not 19.  $\mathbb{W}xe6+$ ? Because after 19...  $\mathbb{W}e7$  20.  $\mathbb{W}xe7+$   $\mathbb{Q}xe7$  21.  $\mathbb{B}g5+$  and 22.  $\mathbb{Q}xd8$ , White has only one extra pawn in a rook ending, and that's not enough for him. He wants more...

White's next move is 20.  $\mathbb{B}d1$ . A move of exceptional strength, and not just because White brings a piece into play which so far has been doing nothing. The main thing is that it threatens mate on the very next move – 21.  $\mathbb{W}xd7\#$ . To repeat – the opposing king is the most important target for attack!

After 20.  $\mathbb{B}d1$ , Black has only one reasonable move: 20...  $\mathbb{W}e7$ :



*Position after 20...  $\mathbb{W}e7$  (analysis)*

What to do now?

We start the search for the strongest move with open or direct attacks on the enemy king. In other words, we look for checks and one-move threats to the opposing monarch.

I see only three checks: 21.  $\mathbb{W}xd7+$ , 21.  $\mathbb{W}a8+$ , and 21.  $\mathbb{W}c8+$ . The first of these is just silly: 21.  $\mathbb{W}xd7+$   $\mathbb{W}xd7$  22.  $\mathbb{B}xd7$   $\mathbb{Q}xd7$ , and it is no longer White who wins, but Black.

The two other checks are better, but alas, they are totally lacking in prospects. After 21.  $\mathbb{W}c8+$  (or 21.  $\mathbb{W}a8+$ ) 21...  $\mathbb{W}d8$ , White has to go back – 22.  $\mathbb{W}c6$ . Black's reply is then forced: 22...  $\mathbb{W}e7$  and we have a repetition of the position. But we are not looking for a draw, we're playing to win!

Victory here requires, not a check, but the threat of one. White wins with the direct 21.  $\mathbb{B}b6$ . Now the d8 square will be controlled by the bishop, and Black has no acceptable defense to 22.  $\mathbb{W}c8+$ . He must give up the rook and thereby all hopes for a draw. Black is doomed: Dely did not resign prematurely!

Curiously, two other, no less tempting, bishop moves don't work. The open attacks on the queen, 21.  $\mathbb{B}c5$  and 21.  $\mathbb{B}g5$ , are both bad. Why?

21.  $\mathbb{Q}c5$  is refuted by 21...  $\mathbb{W}xc5+$ . Check – more accurately, a counter-check to the white king! After 22.  $\mathbb{W}xc5 \mathbb{B}xd1+$  23.  $\mathbb{Q}f2$ , White is better, but is it a win?

And White can scarcely score the point after 21.  $\mathbb{Q}g5$ . Black's answer could stun even the most experienced tournament player: 21... 0-0. Suddenly Black threatens 22...  $\mathbb{B}xd1\#$ . Truly a beautiful resource – bravo! After 22.  $\mathbb{W}xd7 \mathbb{W}xg5$  23.  $\mathbb{W}xe6+ \mathbb{Q}h8$ , White is better (compare this with our assessment of the final position after 21.  $\mathbb{Q}c5 \mathbb{W}xc5+$ ). Better, yes – but is it a win?

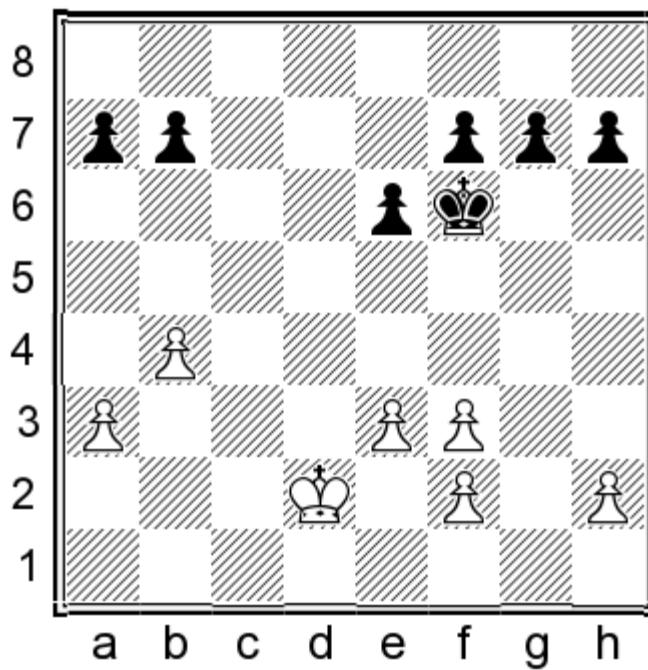
I refuse to consider that curiosity frivolous. A spectacular counterattack on our king and a no less spectacular direct attack on it cannot go by unnoticed. Both of these sacrifices are beautiful and instructive, even inspirational! But they also warn us: stay alert in the attack!

By way of a postscript to this game, the technical parameters of the position after 15...  $fxe6$  are:  $m < 1$ ,  $t = 49/32 = \sim 1.53 > t_{cr} = 1.25$ , “+”.

The high value of the “t” parameter and the more than obvious superiority in the safety factor push White into the Tal Algorithm’s embrace. “Tal” and “Tal” again!

#### No. 42: Cohn – Rubinstein

St. Petersburg 1909



Position after 26.  $\mathbb{Q}d2$

We are playing Black.

The board features material equality – that is,  $m = 1$ . The material factor provides no direction; it has nothing concrete to say for or against any algorithm. Our decision is determined by the second, the third, and (if necessary) the fourth and fifth factors.

As usual, our mindset is one of absolute chessic fearlessness. It is at the median point – a middling level of chess aggression – that is, lower than when  $m < 1$  and higher than when  $m > 1$ .

One may put it this way: if  $m = 1$ , then forget about the existence of the material factor. And be yourself!

The second chess factor: Black has only one extra tempo – both kings are in play, and Black has the move.

One more thing: there are no inactive pieces on the board. All of them (both of them) are active. Consequently, whose turn it is to move is of decisive importance in the calculation of chess tempi. If it's Black to move, he has an extra tempo; if it's White's move, he has the extra tempo, etc. In other words, we have an alternating number series: 1, -1, 1, -1, 1... – a pendulum swinging rhythmically around zero. So we have the complete right to speak of parity in the factor of chess time.

The third factor in the position: we have to evaluate and then compare the level of safety of the white and black kings. Obviously, nobody threatens those kings. The idea of any kind of mating attack in a position like this, with no other pieces, is absurd.

Our preliminary conclusion: this position requires the Capablanca Algorithm. The first, second, and third factors "vote" in favor.

Let us recall the three elements of the Capablanca Algorithm. When playing in "Capablanca" style, we are required to:

- 1) place the pieces on their best squares,
- 2) advance the pawns,
- 3) seek exchanges.

In this case, under the heading of "strategic attack" we will assume the attack on empty squares in enemy territory. "Strategic defense," on the other hand, is the defense of empty squares in our own territory.

**Under the heading of "strategic attack" we will assume the attack on empty squares in enemy territory. "Strategic defense," on the other hand, is the defense of empty squares in our**

And something else of great importance: after the third element of the Capablanca Algorithm comes the first! Followed by the second, the third, once again the first, etc. Exchange upon exchange, cycle after cycle...

The Capablanca Algorithm is unthinkable without the fourth and fifth factors of the chess position.

The fourth factor is that of compactness. The measure of the compactness of a position is how densely the king and pawns are "packed." Concretely: 7/16 and 7/24, where 7 is the number of chessmen each side has, 16 is the number of squares in the minimum rectangle a7-a6-h6-h7, and 24 is the number of squares in the minimum rectangle a2-a4-h4-h2. Now,  $7/16 > 7/24$ . Black is more concentrated, White is more scattered. Therefore Black, as the more compact side, has the right to make a trade first. The right, that is, but not the obligation. He does have freedom of choice. To put it another way, in this position the first and third elements of the Capablanca Algorithm are of equivalent importance.

The fifth and final factor of our position is spatial expansion. The parameter corresponding to it,  $\Delta(\text{move})$ , defines the degree of "elevation" of the position. The parameter  $\Delta(\text{move})$  is the arithmetical difference in the numbers expressing the position of the center of gravity of the black and the white pieces. In our case, this number is  $\Delta(26.\triangleleft d2) = -3/7 = \sim -0.43$  (see the postscript to this game).

We are not interested in the process of calculation itself. More than that: to us, even the final mathematical result is unimportant. What's important is the *trend*, or more exactly: it's as important as life itself that we define correctly the *direction* of the expansion, its vector. In other words, we must answer clearly the question: is this a strategic attack or a strategic defense? Should we "elevate" the king, or retreat it?

To put it briefly: if it's a strategic attack, then "elevate" (improve) the king! Because we have  $t > 1$ ,  $\Delta k > 0$ , and  $\Delta(26.\triangleleft d2) < 0$ . See the postscript to this game.

Our final conclusion: "Capablanca," or even the TC Algorithm. There's something for us to attack!

We firmly believe that the strategic attack is always a consistent improvement in  $\Delta(\text{move})$ . As the stronger side, we invade the opponent's territory and occupy it.

Just as firmly, we know that in strategic defense we must cede part of our territory to our opponent if he has the stronger

position. We deliberately sacrifice space in order to save the army from destruction.

And so...

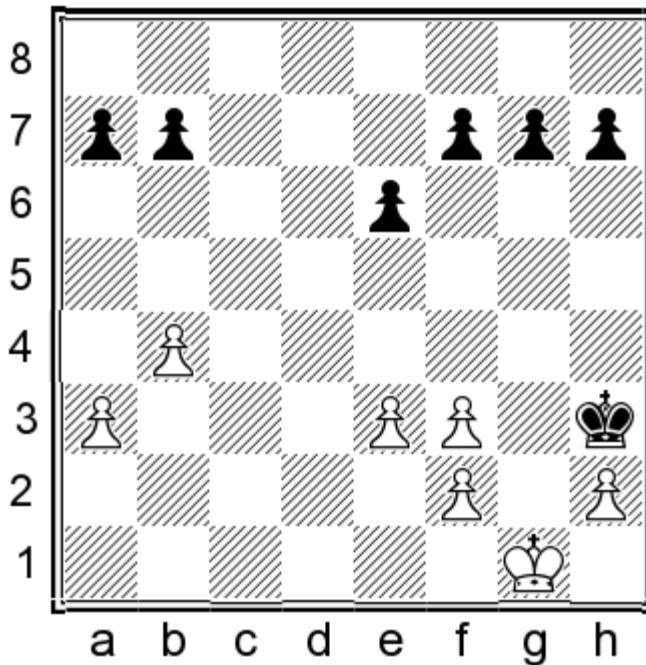
## 26... $\mathbb{Q}g5$

A strategic attack! Rubinstein invades enemy territory without delay. The black king is “elevated,” the target being the h2-pawn. Of course, before playing 26... $\mathbb{Q}g5$ , Rubinstein calculated everything exactly: White has no possibility of a counterattack.

## 27. $\mathbb{Q}e2$

27. $\mathbb{Q}d3$  loses. A rough variation is: 27... $\mathbb{Q}h4$  28. $\mathbb{Q}d4$   $\mathbb{Q}h3$  29. $\mathbb{Q}c5$   $\mathbb{Q}xh2$  30.b5  $\mathbb{Q}g2$  31.b6 (31. $\mathbb{Q}d6$  h5 32. $\mathbb{Q}e7$  b6+) 31...axb6+ 32. $\mathbb{Q}xb6$  h5 33. $\mathbb{Q}xb7$  h4 and Black wins.

## 27... $\mathbb{Q}h4$ 28. $\mathbb{Q}f1$ $\mathbb{Q}h3$ 29. $\mathbb{Q}g1$



Rubinstein has maximally “elevated” his king, which has taken up the best possible square. Thus we have fully realized the first point of the strategic (or Capablanca) algorithm. What next?

The answer is evident: proceed to the second point of the algorithm!

## 29...e5

Point 2 – we advance the pawns!

Black can also win with 29...g5 or 29...b5, although he must tread carefully in the latter line after 30.f4. Here’s the variation *Fritz* offers: 30...f6 31. $\mathbb{Q}h1$  g5 32.fxg5 fxg5 33.f3 h5 34.e4 e5 35. $\mathbb{Q}g1$  h4 36. $\mathbb{Q}h1$  g4, etc. Your task is to find the win after 37.f4. You may not make use of the computer’s advice!

## 30. $\mathbb{Q}h1$

30.b5 was better, but this pawn move, of course, doesn’t save White either.

## 30...b5

“Black fixes the white queenside pawns and leaves himself one tempo ( $\Delta a7-a6$ ) in reserve” (Rzuvaev and Murakhveri, Akiba Rubinstein, Fizkul’tura i Sport, Moscow 1980).

**31.♔g1 f5 32.♔h1 g5 33.♔g1 h5**

Model strategic play! Note the esthetically flawless phalanx of black pawns from the e- to the h-file. Except for the h-pawn, all have been maximally improved.

**34.♔h1 g4**

Rubinstein proceeds to the third point of the strategic algorithm. And he is correct – it’s winning in all variations. However, we are not ruling out the possibility that it might have been simpler to play 34...h4 followed by 35...e4. Why? Because Point 3 of the strategic algorithm is preceded by Point 2.

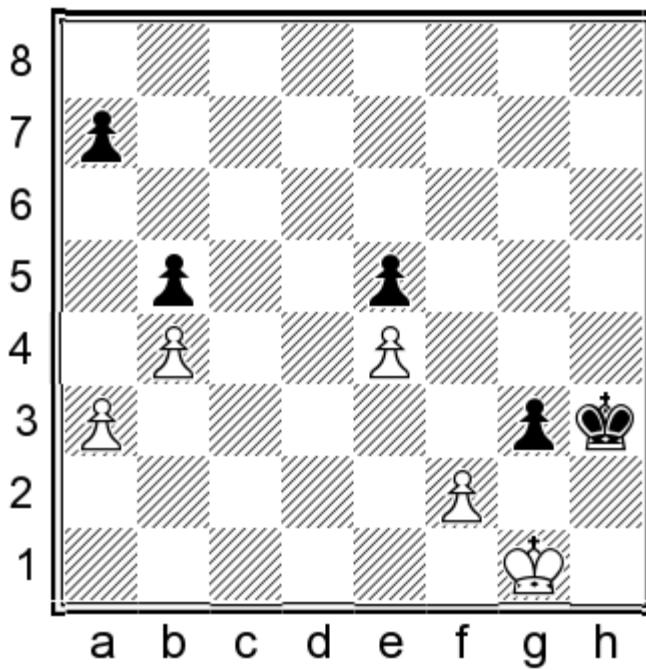
**35.e4**

If 35.fxg4, then the simplest win is 35...fxg4  $\Delta$  36...e4, 37...h4, and 38...g3.

**35...fxe4**

35...f4 was just as good.

**36.fxe4 h4 37.♔g1 g3 38.hxg3 hxg3 0-1**



In this position, White resigned – and not a moment too soon! Had he made another move or two, something terrible would have happened. Here’s a variation: 39.f4 exf4 40.e5 g2 41.e6 ♔g3 42.e7 f3 43.e8♕ f2#. Mate to the white king. And where? In the pawn ending!

I conclude my commentary to Rubinstein’s strategic gem with the technical parameters of the position after 26.♔d2:  $m = 1$ ,  $t = 14/13 = \sim 1.08 < t_{cr} = 1.25$ , “=”,  $\Delta k > 0$ ,  $\Delta(26.♔d2) = 16/7 - 19/7 = -3/7 = \sim -0.43$ .

Speaking of the parameter  $\Delta(26.♔d2)$ , 7 is the number of pieces for each side; while the sums  $16 = 2 + 2 + 2 + 2 + 2 + 3$

$+ 3$  and  $19 = 2 + 2 + 2 + 3 + 3 + 3 + 4$  represent the numbers of the horizontal rows on which the black and white chessmen, respectively, are placed (for Black, starting from the eighth rank as “1”). (When calculating this parameter, start with the player whose turn it is to move, and then subtract from it the corresponding number for the opponent.)

Our  $\Delta k > 0$  and  $\Delta(26.\hat{\square}d2) = \sim -0.43$  impel us to the right. The direction of drift, from “Petrosian” to “Tal,” the starting point  $t = \sim 1.08$ .

We stop somewhere on the boundary between the right-sided “Capablanca” and the TC Algorithm. This boundary is fuzzy...

Finally, we need to compare the values of  $\Delta(38...hxg3)$  and  $\Delta(26.\hat{\square}d2)$ .

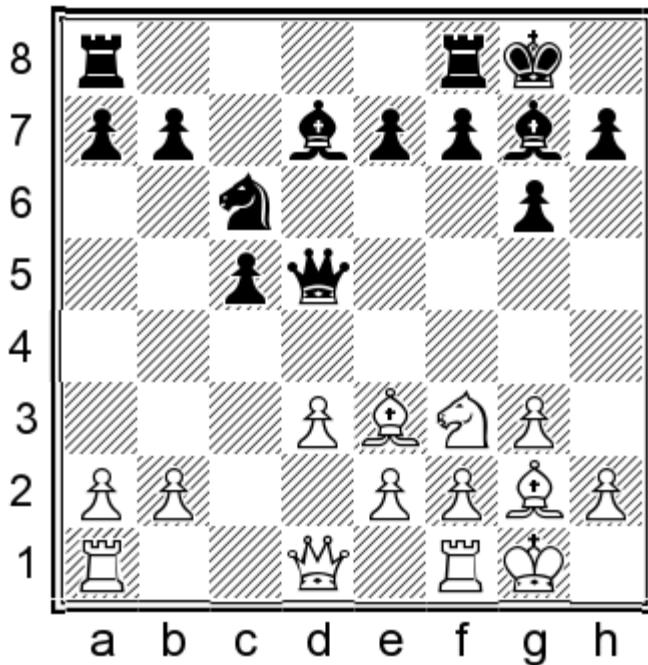
$\Delta(38...hxg3) = 22/5 - 14/5 = 8/5 = 1.60$  and  $\Delta(26.\hat{\square}d2) = 16/7 - 19/7 = -3/7 = \sim -0.43$ .

Simple and – I will not hide it – stunning arithmetic:  $\Delta(38...hxg3) - \Delta(26.\hat{\square}d2) = \sim 1.60 + 0.43 = \sim 2.03$ . The growth in  $\Delta(\text{move})$  was simply colossal. That’s what secured Black a deserved and spectacular win.

Resume: flawless strategic play (strategic attack) is always correlated with the deliberate movement of the center of gravity of our position towards the queening square.

### No. 43: Karpov – Ribli

Amsterdam 1980



Position after  $10...Qd7$

We have White.

1) The material factor: parity – that is, material equality. That means that the first factor of the position is neutral, and stays out of the process of calculating the algorithm.

Our psychological state preceding the establishment of an algorithm is one of absolute chess fearlessness. The level of aggression is medium.

2) The factor of chess time: compare the number of pieces already developed – White has  $4 + 1$  (four pieces + it’s his turn to move) and Black  $5$  – parity. But this “parity” is just a very rough approximation of the truth. Why?

Because the mobility of those pieces is of decisive importance; it alone enables us to unambiguously determine the “t”

parameter, which is the objective measure of the time factor. This parameter is responsible for the dynamics of a chess position...

In our position,  $t = 34/53 \approx 0.64$ , which is considerably less than the critical value of  $t_{cr} = 0.80$ . A worrisome sign for us!

3) Let's move to the third factor, that of safety. It almost completely dissipates our natural fears, since the white king is in complete safety, threatened by no kind of Tal-style attack. What does threaten us, if we're not careful, is a strategic bind. We will defend, and this defense will be – strategic!

Our preliminary conclusion is that the current position requires the Petrosian Algorithm. Note: with a dash of of “Capablanca.” In the strategic defense somewhere between the Petrosian and Capablanca algorithms, there is no clear boundary, it's been washed away...

4) The fourth factor is compactness, and here it's OK for us! Our packing density significantly outstrips that of our opponent. To be precise, the white king and all seven of our pawns are compressed into three horizontal rows, while Black's are located on four. That fact literally pushes us to trades, as trades are completely in accord with the strategic needs of the position.

The compactness factor pushes us slightly to the right, from “Petrosian” toward “Capablanca.” Why?

Because our  $\Delta k > 0$ . We are like a coiled spring...

5) The fifth factor also pushes us rightward, because  $\Delta(10... \mathbb{Q}d7) < 0$ ; see the game postscript.

Our final conclusion: the position after 10... $\mathbb{Q}d7$  requires the CP Algorithm. Our drift is real!

## **11. $\mathbb{Q}d4$**

If “Capablanca” leaves us free to choose between the first and third elements of the algorithm, then “Petrosian” takes away that freedom, because our homeland is endangered!

Trading our inactive pieces for Black's more mobile ones, we gradually eliminate the large deficit in the second factor of the position. We increase our “t” parameter.

## **11... $\mathbb{W}d6$ 12. $\mathbb{Q}xc6$ $\mathbb{Q}xc6$ 13. $\mathbb{Q}xc6$ $\mathbb{W}xc6$**

White has gotten rid of two of his minor pieces, including the little-used bishop at g2. What next?

## **14. $\mathbb{B}c1$**

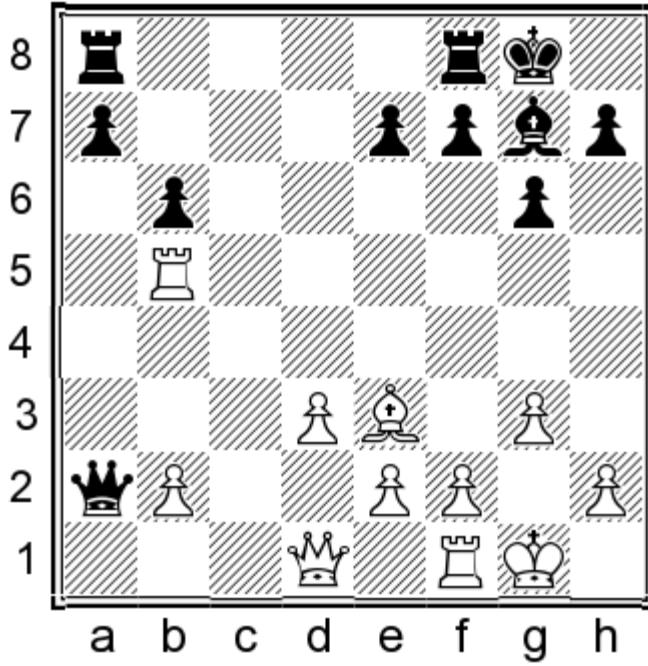
The same strategy!

## **14.... $\mathbb{W}e6$**

14...b6 is bad because of 15.b4, when White has a clear edge.

## **15. $\mathbb{B}xc5$ $\mathbb{W}xa2$ 16. $\mathbb{B}b5$ b6**

16... $\mathbb{W}a6$  is probably stronger.



Comparing this position (after 16...b6) with the starting position (after 10... $\mathbb{Q}d7$ ), we can easily see the great changes. With parity in the first and third factors, White has achieved parity also in the second factor. (Confirm this.) And if this is really the case, then White should switch from the CP Algorithm to the Capablanca Algorithm.

### 17. $\mathbb{W}a1$

Why does Karpov keep playing for trades?

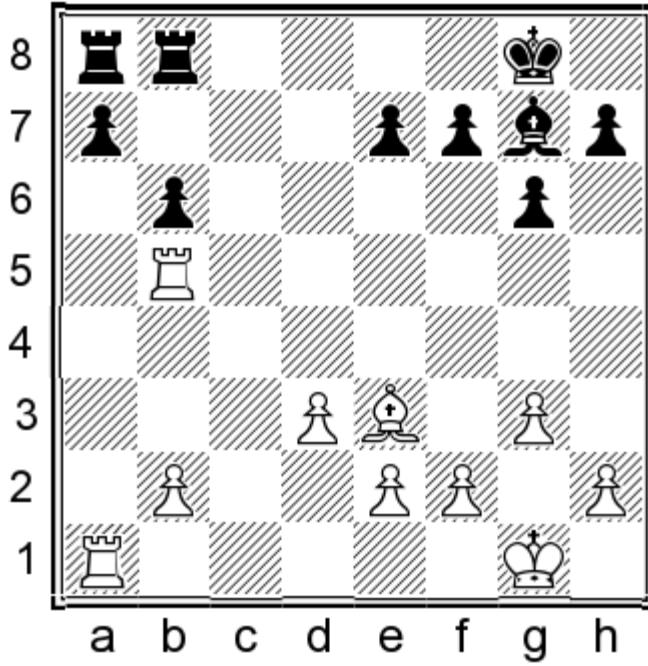
The answer is obvious: White has the upper hand in the compactness factor! Indeed, the white king and pawns stand within a smaller rectangle (b1-b3-h3-h1) than do Black's (a8-a6-h6-h8). White is “denser,” and therefore he can make trades.

### 17... $\mathbb{W}xa1$

“Black does not sense the danger awaiting him in the endgame. After exchanging, he is doomed, in the best-case scenario, to a rook ending with four pawns (e, f, g, and h) versus five white ones (d, e, f, g, and h). He should have preferred 17... $\mathbb{W}e6$ ” (Karpov).

### 18. $\mathbb{R}xa1 \mathbb{R}fb8$

“On 18... $\mathbb{R}fc8$ , White would have achieved the advantage by playing 19.  $\mathbb{R}a6 \mathbb{R}c2$  20.  $b3 \mathbb{R}xe2$  21.  $\mathbb{R}xb6$ , followed by winning the a-pawn” (Karpov).



Now, what do we have?

$t = 40/24 = \sim 1.67$ . The rest of it doesn't matter.

As a postscript to this commentary, we give the technical parameters of the positions after  $10\dots\mathbb{Q}d7$  and  $18\dots\mathbb{Q}fb8$ .

In the former position,  $m = 1$ ,  $t = 34/53 = \sim 0.64$ , “=”,  $\Delta k > 0$ ,  $\Delta(10\dots\mathbb{Q}d7) = 28/14 - 31.14 = \sim 0.21$ .

In the latter position,  $m = 1$ ,  $t = 40/24 = \sim 1.67$ , “=”,  $\Delta k > 0$ ,  $\Delta(18\dots\mathbb{Q}fb8) = 24/10 - 19/10 = 5/10 = 0.50$ .

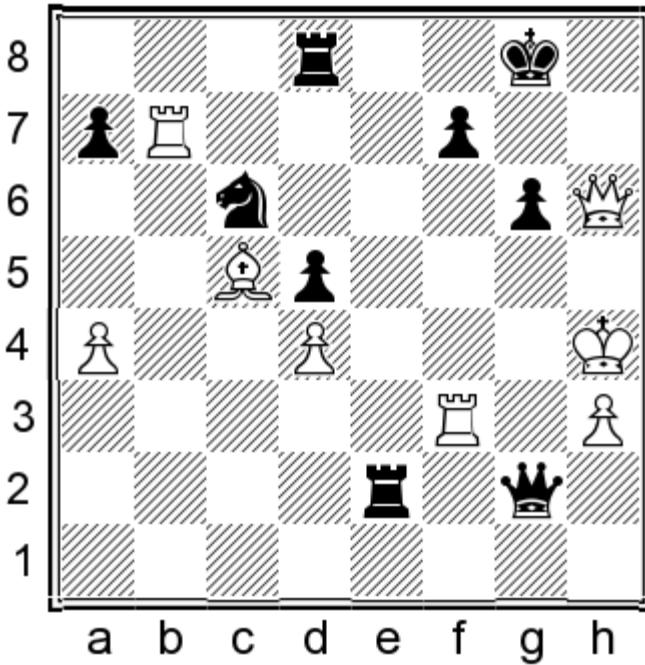
It is easy to see the colossal progress made in the “ $t$ ” parameter – from 0.64 to 1.67. We have inadvertently intruded upon “Tal” territory. Starting from the Petrosian Zone and drifting from left to right, we achieved, with  $16\dots b6$ , a “pure” Capablanca Algorithm. We attained it thanks to the hidden inner reserves of our starting position – due to our superiority in compactness. We simply converted a significant portion of our  $\Delta k > 0$  into parity in the “ $t$ ” parameter. And we came into the Tal Zone only after Black’s serious inaccuracy on move 17.

Our thinking must be flexible. We are not computer software, but biological entities. We are more accustomed to thinking in images, to seeking out the strongest move by feel. We should not overestimate the value of the formal logical component of our thought process. Logic merely fills out our thinking in images. It’s not all-powerful.

White won the game on move 35.

**No. 44: J. Polgár – L.-B. Hansen**

Politiken Cup 1989



Position after 32... ♕xg2

We are playing White.

1) The material factor: White is a pawn down. And that means... That means the same thing we had before – see Game 41. You may read it again, although this is not required.

Of course, there's been no change in my reasoning concerning the algorithm drift and recommendations on the mindset to adopt prior to starting the process of searching for the strongest move. It remains in effect, but it grows dim, receding into the shadows, and is forgotten. The reason is the third factor of the position.

2) White has an extra tempo and  $t = 43/40 = \sim 1.08$ . Therefore, the time factor nudges us toward the Capablanca Algorithm. The “crude” and the “precise” evaluations coincide. Here, between them, we have unity, not discord as in Game 43.

3) The safety factor presages the coming catastrophe. Both kings are in mating nets, which means that the outcome of the game depends mainly on the smallest, completely unpredictable subtleties. Most of all, on whose move it is.

Conclusion: the diagram position requires the TCP Algorithm. We must begin with “Tal;” and if the Tal Algorithm won’t “fire,” then we move over to “Capablanca,” and finally over to “Petrosian.”

How does “Tal” begin? With open attacks on material targets of our opponent. And of course, you have not forgotten which piece sits at the top of the value scale.

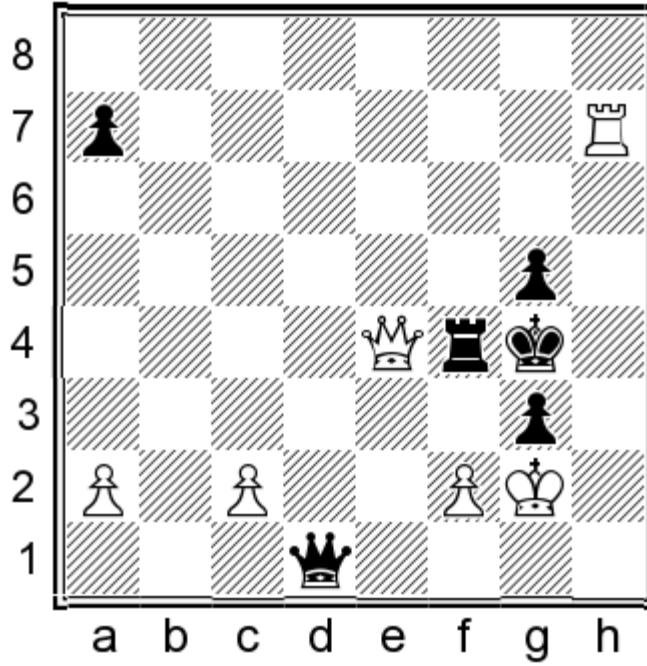
**33.♕g7+**

33.♕h7+ is just as good.

After 33... ♕xg7 34.♖fxf7+ ♕g8 (34... ♕h6 35.♕h7#) 35.♕g7+ ♕h8 36.♕h7+ ♕g8, Black gets mated with 37.♗bg7.

There will be no afterward to this tactical masterpiece. Better I should show you, dear reader, two more equally fascinating examples.

**No. 45: A. Ivanov – Grigorov**  
USSR 1987



*White to move*

**1.♗h4+**

This is how to do it! The check on e6 leads only to a repetition of the position.

**1...♝xh4**

Or 1...gxh4 2.♕g6#.

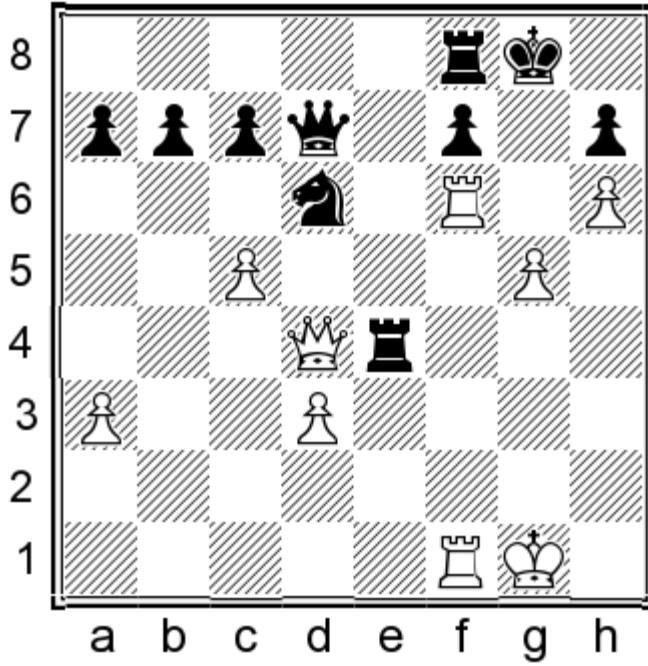
**2.♕h7+ ♜h5**

If 2...♝g4, then 3.♕h3#.

**3.fxg3+ ♔g4 4.♕d7+ ♜f5 5.♕d1+ 1-0**

**No. 46: Basman – Balshan**

Israel 1980



Position after 33... ♕e4

In this position, after 34.dxe4 ♔g4+ 35.♔h2 ♔h4+, *Fritz* expects only a draw. However...

**34.♕g6+**

A stunning sacrifice! It was miraculous and... undeserved?! Is that right?

There is no answer yet. A little later, we will only provide a little hint...

**34...fxg6**

Or 34...hxg6 35.♔g7#.

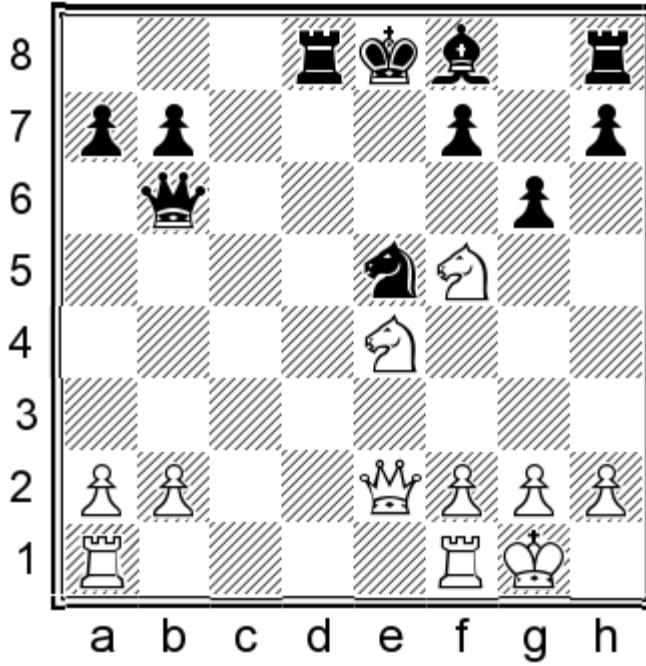
**35.♔h8+ ♔xh8 36.♕xf8# 1-0**

There is no exact “formula” for calculating beauty. It does not exist – nor can it, since the understanding of beauty is always wide open – that is, incomplete. It is also significant that the criteria for beauty change over the course of time.

The beautiful is absolutely unthinkable without the paradoxical. Paradox in chess is the paradox of the sacrifice, and its nature is closely tied to the infinite value of the king...

**No. 47: Alekhine – Kusman**

Simultaneous exhibition, New York 1924



*Position after 15...g6*

What does White have?

- 1) The material factor: parity, which means that the first chess factor stays out of the process of determining the search algorithm.
- 2) The factor of chess time: two extra tempi and... the significance of the “t” parameter, lying in the left half of the Capablanca Safety Zone – see the afterword.
- 3) The third factor of the position: White has a colossal advantage. The reason is clear: the poor position of the black king. He hasn’t castled, and two extremely dangerous knights literally hang over his position. To add to his troubles, there is that open e-file!

**The beautiful is absolutely unthinkable without the paradoxical. Paradox in chess is the paradox of the sacrifice, and its nature is closely tied to the infinite value of the king.**

I hope that you, dear reader, have already had instilled in you the deepest respect for the safety factor. It’s more important than all the other factors put together, because the king’s value is infinite!

The third factor pushes us, with great power, out of the Safety Zone into the Tal Zone.

Our final verdict: this position requires the Tal Algorithm.

We begin by engaging all four elements of the “Tal.” Recall that the first of them stands for open and direct attacks on material targets, whose scale of values starts with the king.

**16.  $\mathbb{W}b5+$**

This wins.

**16...  $\mathfrak{Q}d7$**

If 16... $\mathbb{W}xb5$ , then 17. $\mathbb{Q}f6\#$ .

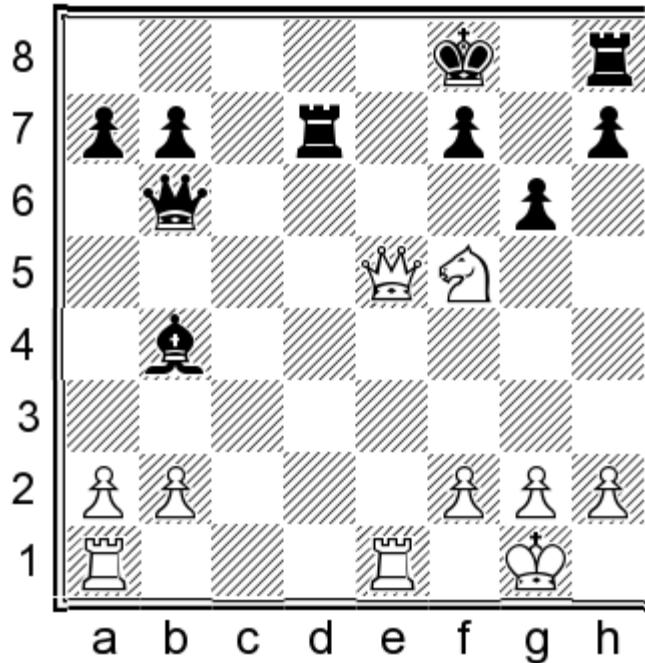
**17. $\mathbb{E}fe1$**

Threatening mate on the move.

**17... $\mathbb{Q}b4$**

True, the fearless *Fritz* considers 17... $\mathbb{Q}e7$  to be the best move here. It gives 18. $\mathbb{Q}ed6+$   $\mathbb{Q}f8$  19. $\mathbb{E}xe7$  ( $\Delta$  20. $\mathbb{E}xf7+$   $\mathbb{Q}g8$  21. $\mathbb{Q}h6\#$ ) 19... $\mathbb{W}xd6$ ... Must I continue?

**18. $\mathbb{Q}f6+$   $\mathbb{Q}f8$  19. $\mathbb{Q}xd7+$   $\mathbb{E}xd7$  20. $\mathbb{W}e5$**



Black resigned here. There is no defense to the multiple threats of 21. $\mathbb{W}e8\#$ , 21. $\mathbb{W}g7\#$ , or 21. $\mathbb{W}xh8\#$ . A terrible crush!

As an afterword, we present the technical parameters of the starting and ending positions:

After 15... $g6$ :  $m = 1$ ,  $t = 44/47 = \sim 0.94$ , “+”.

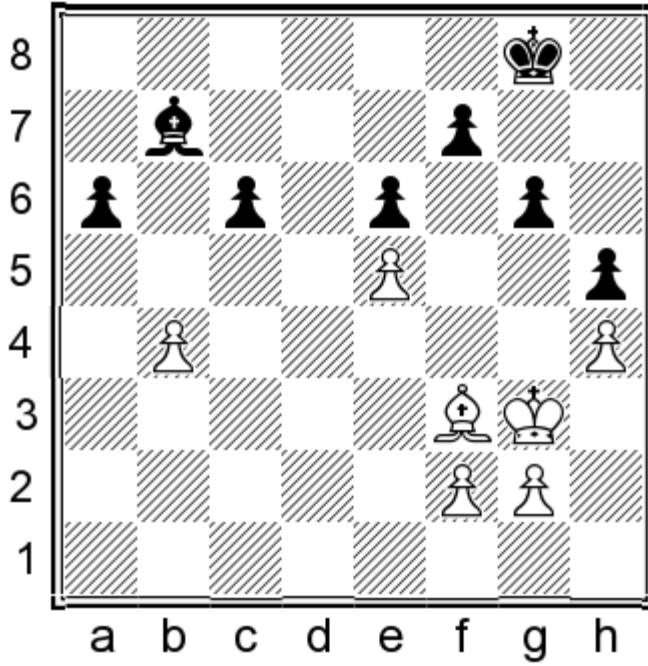
After 20. $\mathbb{W}e5$ :  $m = 1$ ,  $t = 47/39 = \sim 1.21$ , “+”.

Curiously, the “t” parameter starts below 1, and ends slightly above 1 following 20. $\mathbb{W}e5$ . However, this did not prevent White from quickly and spectacularly winning the game by a direct attack on the king.

Why? Because of the safety factor!

**No. 48: Karpov – Lautier**

Biel 1992



*Position after 32... ♕b7*

We have White.

- 1) White is down a pawn, so the first factor nudges us slightly to the right (see the Algorithm Drift Chart).
- 2) The second factor is that of chess time. Here we have parity, as the mobility of each army is the same:  $11 = 11$ . Work it out!
- 3) The safety factor: neither king is threatened by anything, and it would be stupid for it to be otherwise. “Tal” in a minor-piece ending is a rarity. In other words, we have full parity in the safety factor, which is a serious argument in favor of the Capablanca Algorithm.

“Capablanca” is our preliminary diagnosis, and it has every chance of becoming our final one. Why?

Because the safety factor, in our position, is deep in slumber. And also because our starting point is in the exact center of the Safety Zone – that is, comparatively far from its edges. The low-powered first, fourth, and fifth factors can hardly push us left or right beyond the limits of this zone.

- 4) The compactness factor: here too, we have approximate equality. The white king and pawns are packed in just as densely as the black:  $6/28 = \sim 7/32$ . That means that we are entitled to make an extra trade.

Because  $\Delta k = 6/28 - 7/32 = \sim 0.00$ , the fourth factor declares its neutrality in the establishment of an algorithm.

But the fifth factor is not neutral.  $\Delta(32... ♕b7) > 0$  and this pushes us to the left, in the direction of the Petrosian Algorithm. The fifth factor is the antipode of the first factor.

Our final diagnosis: the Capablanca Algorithm. I add that we are somewhere near where the t point = 1.0 – “100% Capablanca”!

In the game, there was a king move:

**33.♔f4**

Karpov “elevates” his king. Getting a little ahead of myself, I note that Karpov, in his maneuverings, does not wander beyond the rectangle b2-b5-h5-h2. More than that, at some point he succeeds in cutting the rectangle’s area in half!

**33... ♔f8 34.♔g5**

An excellent square for the king. On the other hand, he wouldn't look any worse on c5. The variation goes roughly thus: 34.♔e3 ♔e7 35.♔d3 (but not 35.♔d4, because of 35...c5+ and then 36.♔xc5 ♔xf3 37.gxf3 g5+-) 35...♔d7 36.♔c4 ♔c7 37.♔c5 ♔a8 38.♔e2, f2-f3, g3-g4+-.

**34...♔e7 35.♔e4**

Completing his deployment. The first point of the strategic algorithm (the Capablanca Algorithm) is now accomplished.

**35...♕a8 36.f3**

Karpov "elevates" his pawn – the second point of the strategic algorithm.

**36...♗b7**

Nor does 36...c5 save him: after 37.♗xa8 cxb4 38.♗c6 b3 39.♗a4 b2 40.♗c2 a5 41.♗b1 a4 42.g4, Black is defenseless.

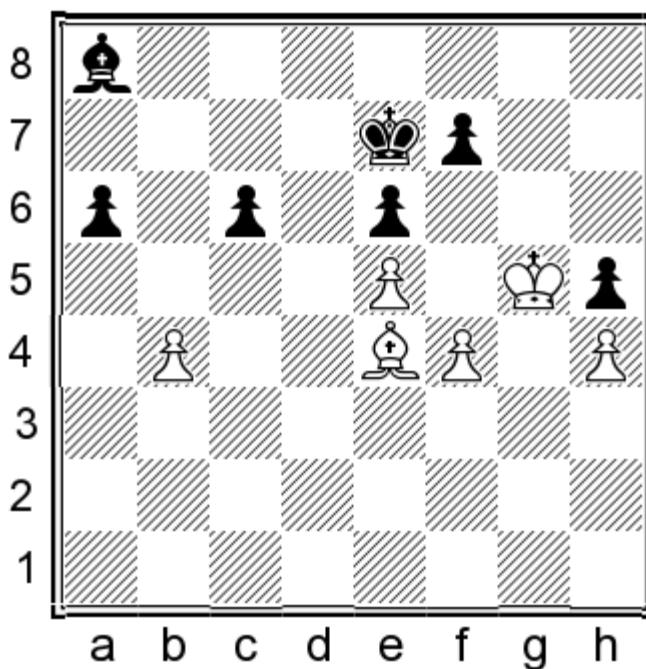
**37.g4**

Points 2 and 3 of the Capablanca Algorithm are fulfilled at the same time.

**37...♕a8**

Or 37...hxg4 38.fxg4 Δ 39.h5+-.

**38.gxh5 gxh5 39.f4**



White's position is esthetically flawless. One of the reasons for this is its compactness.

**39...♗b7 40.♗f3 ♕a8 41.♔xh5**

Black resigned. **1-0**

Let's compare the technical parameters of the positions after 32...♗b7 and 39.f4.

After 32... $\mathbb{Q}b7$ :  $m < 1$ ,  $t = 11/11 = 1.00$ , “=”,  $\Delta k = \sim 0.00$ ,  $\Delta(32... \mathbb{Q}b7) = 23/7 - 21/8 = \sim 0.67$ .

After 39.f4:  $m < 1$ ,  $t = 15/9 = \sim 1.67$ , “=”,  $\Delta k > 0$ ,  $\Delta(39.f4) = 26/6 - 18/7 = \sim 1.76$ .

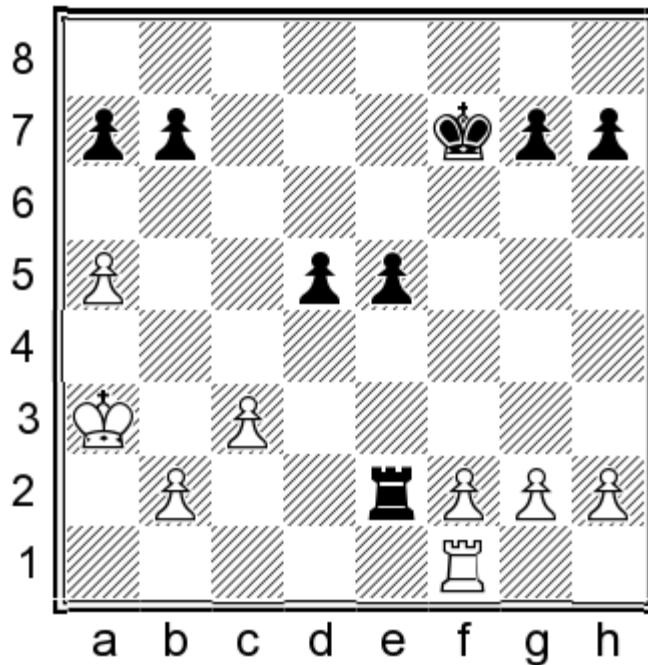
It only remains for me to point out that  $\Delta(39.f4) - \Delta(32... \mathbb{Q}b7) = \sim 1.1$ . This growth in  $\Delta(\text{move})$  is very significant; it alone assured White his well-deserved win.

Strategic play (strategic attack) always correlates with the deliberate movement of the center of gravity of our position towards the queening square.

I seem to be repeating myself. Check it out: where, when, and under what circumstances?

#### No. 49: Spassky – Shirov

Paris (rapid) 2000



Position after 24.  $\mathbb{Q}a3$

In this game, we have Black.

- 1) On the board, we have material equality – the first factor will be of no use in calculating our algorithm.
- 2) The second factor: Black is a bit better ( $t = 23/21 = \sim 1.10$ ). Our point of departure is in the right-hand section of the Capablanca Safety Zone.
- 3) The third factor: approximate parity. We’re deep in the endgame and nothing seriously threatens either king. The safety factor is silent.

Our preliminary conclusion: the Capablanca Algorithm, therefore we can’t do without the fourth and fifth factors of the position.

Black has the advantage in compactness. His position is denser – the king and six pawns are placed on three horizontal rows in the rectangle a7-a5-h5-h7. Meanwhile, White is relatively scattered over a larger rectangle, a2-a5-h5-h2 .  $7/24 > 7/32$ ,  $\Delta k > 0$ .

This means that, if he plays for a trade first, Black will not be breaking the rules of the strategic algorithm. And because our  $\Delta k > 0$ , this parameter moves us slightly to the right, to “Tal.”

But the fifth factor of the current position, on the other hand, pushes us to the left, to the Petrosian Algorithm (our

$\Delta(\text{move}) > 0$ ). This factor is also relatively weak, and its pressure on us is not very great.

Our final conclusion: the position after 24.♔a3 calls for the Capablanca Algorithm. We have stayed where we were. Our drift amounted to (almost) nothing, since the forces supporting the fourth and fifth factors were approximately equal.

We start out from a point on the “t” axis in the right half of the Capablanca Safety Zone. This means that we must attack, and that our attack must be strategic in nature. What do we do?

The answer is obvious: “elevate” our position!

#### **24...♚e6**

Black improves (“elevates”) the king.

#### **25.b3**

On defense, White strives, as far as possible in this position, to take all his pawns off the second rank. This would allow him to increase his compactness significantly, and he would obtain chances for counterplay and thus for a draw. But alas, for this he needs time.

#### **25...g5**

Strategically unobjectionable, since Black “elevates” his pawn – the second point of the strategic algorithm. But... but 25...d4 wins immediately! *Rybka* gives 26.cxd4 exd4 27.♗b4 ♕d5 28.h4 ♜c2 Δ 29...d3, etc.

Moving this pawn is stronger than moving the g-pawn. Isn’t it because  $t(25.b3) = 23/18 = \sim 1.28$ ? Find out for yourself!

Question: is it “Tal”? Yes! That’s what causes it to be a lightning crush.

#### **26.♗b4 h5 27.h3 e4**

We “elevate” the e-pawn...

#### **28.g3 ♕e5**

...and right behind it comes the king!

#### **29.♕c5 ♜d2**

Why so passive? Because Spassky has defended heroically and was now threatening 30.♖d1.

Another question: why does White (if only in one variation) get counterplay, which Black cannot but consider? The answer: compactness!

In fact, with 27...e4 Black lost his edge in the compactness factor. To be precise, he didn’t lose it, but rather converted it, trading in his compactness for spatial expansion. He significantly improved his pieces and increased his parameter  $\Delta(\text{move})$ . And that pawn on e4 is his pride and joy, his advance guard. It is the prime candidate for queening.

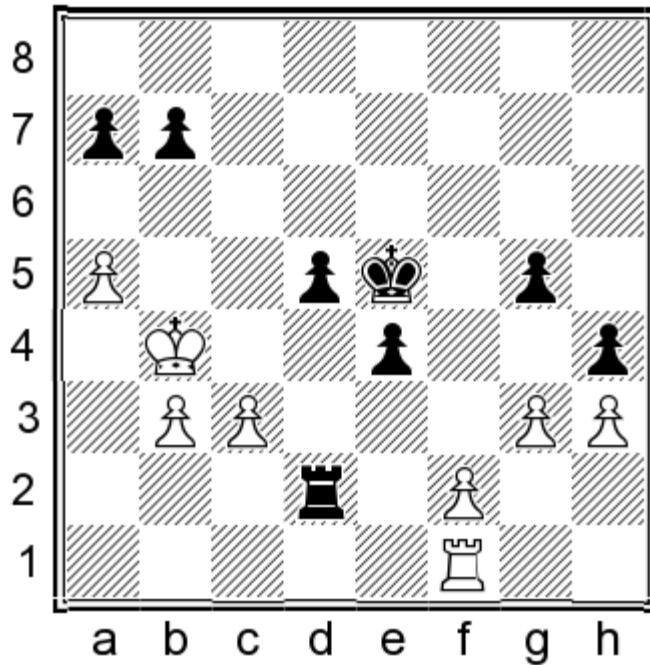
#### **30.♗b4**

Alas, White runs out of resources for a successful defense, he has no good squares left. He is in a pre-Zugzwang situation.

#### **30...h4**

Why? Because all of Black’s pieces are ideally placed. That’s in the first place. And in the second place, for the simple reason that all of the black pawns, which we would have needed to “elevate” without exchanges, have already been

“elevated.” In accordance with the requirements of the Capablanca Algorithm, Black must now enter into the third point of that algorithm.



### 31.gxh4

Else 31...hxg3 32.fxg3 e3, etc., follows.

### 31...gxh4

We already know well that following the exchange – that is, after the third point of the strategic algorithm – the stronger side must endeavor to repeat the first point of that algorithm.

What does that mean to us, concretely speaking? That the black king is ready to invade on f3 to decisive effect!

### 32.a6

Desperation.

### 32...bxa6

Now Black has only to be accurate in calculating fairly uncomplicated variations. The struggle ends with a short dynamic phase.

### 33.♗a1 ♗xf2 34.♗xa6 ♗f7

Simple and good.

### 35.♗h6 e3

and White laid down his arms. **0-1**

In conclusion, let's compare the parameters of the positions after 24.♔a3 and 30...h4.

After 24.♔a3:  $m = 1$ ,  $t = 23/21 = \sim 1.10$ , “ $\approx$ ”,  $\Delta k > 0$ ,  $\Delta(24.♔a3) = 25/8 - 20/8 = \sim 0.62$ .

In the position after 30...h4 I am only interested in the parameter  $\Delta(\text{move})$ . We see that  $\Delta(30\ldots h4) = 33/8 - 24/8 = \sim 1.12$ .

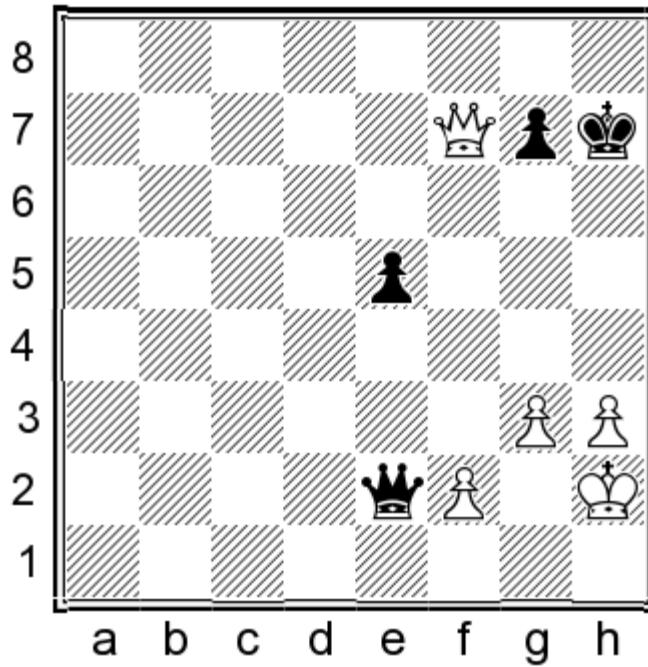
The growth in this parameter amounts to  $\sim 0.50$ , and it secured Black his victory.

Flawless strategic play (the strategic attack) is always correlated with the deliberate movement of the center of gravity of our own position toward the queening square.

I think I'm repeating myself.

### No. 50: Averbakh – Suetin

USSR Championship, Kiev 1954



Position after 41... $\mathbb{W}e2$

We are playing White.

1) White has an extra pawn – that is,  $m > 1$ . The material factor pushes us in the direction of “Petrosian.” It pushes lightly, though, as the factor is a low-powered one.

Here, as always, our original mindset before embarking on the search for the strongest move is one of absolute fearlessness. Its particular feature is a minimal level of chess aggression, because  $m > 1$ . We are not hungry chess wolves – we are satisfied, almost peace-loving watchdogs. However, our placidity vanishes in a heartbeat as soon as our foe dares to attack our home and our beloved sovereign, the king.

2) In our position,  $t = 25/20 = 1.25$  – that is, it coincides with  $t_{cr}$ . The factor of chessic time points to the TC Algorithm.

3) The third factor: the white king is safer. In the first place, it's better packed; in the second place, it can move more freely, whereas the black king is semi-paralyzed – it can only reach two of the four vacant squares next to it.

Our preliminary and also final diagnosis is the Tal Algorithm. Simply “Tal,” not the TC Algorithm, since the “plus” in the safety factor is weightier than the “plus” in the second factor. The powerful factor of safety strongly pushes us sideways into the Tal Zone.

**42.g4**

Opening the king's path through g3 to h4. The king is “elevated” – it rushes to help the queen, since one cannot

checkmate with just the queen.

**42... $\mathbb{Q}d2$**

Black's counterplay with 42...e4  $\Delta$  43...e3 doesn't work: White gives check on g5 and e8 and then removes the e3-pawn.

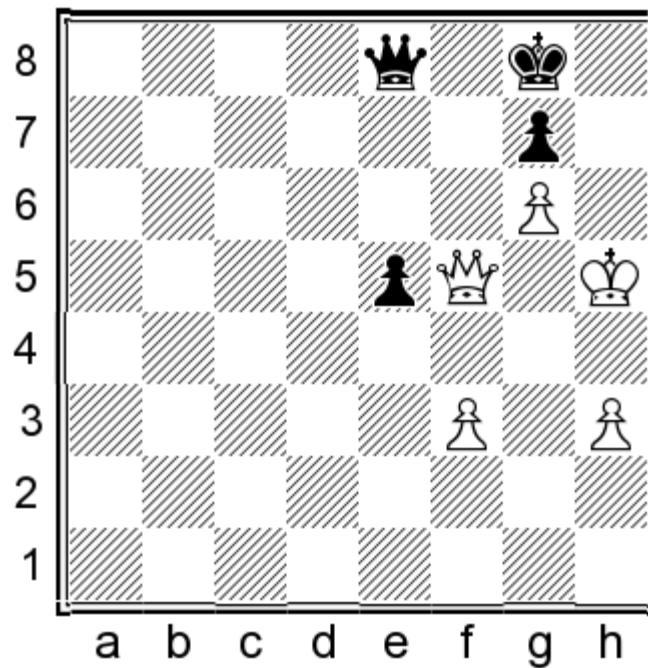
**43. $\mathbb{Q}g3$   $\mathbb{Q}c3+$  44. $\mathbb{Q}h4$   $\mathbb{Q}d4$  45. $\mathbb{Q}f5+$**

The second point of the Tal Algorithm, the first point being check – that is, an open attack on the main target.

**45...g6**

Here's what IM Konstantinopolsky wrote about this position (in 1955): "If the black king were to retreat to h8 or to g8, the dénouement would also be very rapid: White places his king on h5; then advances his pawn g4-g5-g6, creating mating threats; and if Black checks from e2, he interposes his pawn on f3 and there are no more checks."

Not without regret, I must point out that chess engines still hold this position (with the king on h5), by moving the queen to e8:



*A possible position with ... $\mathbb{Q}g7-g8$  (analysis)*

And, nevertheless, the intuition of a flesh-and-blood chessplayer exceeds the icy logic of the silicon monster! Second stage: White brings his king back to the rear, places his pawn on h5, and moves the queen to the a2-g8 diagonal (to d5, let's say), and... Zugzwang!

I also note the sometimes very weak play of chess engines in simple positions. They do not understand what a theoretically drawn position is. In some, the engines actually flounder; you cannot believe in them...

What happened in the game?

**46. $\mathbb{Q}f7+$**

Another check.

**46...†h6 47.†f6**

Threatening mate in one.

**47...†h7 48.†g5**

Not just “elevating” the king, but also attacking the g6-pawn.

I hasten to point out the obvious fact that our “Tal” goes hand in hand with “Capablanca.” In attacking the king, White is continuously “elevating” his position. On the other hand, the friendship between the Tal and Capablanca algorithms is nothing new for us.

**48...†d2+ 49.f4 exf4**

White wins after 49...†xf4+ 50.†xf4 exf4 51.†xf4 †h6 52.†e5, etc. I ask you to extend this, and don’t forget to switch over from the Tal Algorithm to the “pure” Capablanca Algorithm. Why?

Because, after the queen trade, the position is simplified greatly. The dynamic elements practically disappear, and safety considerations vanish.

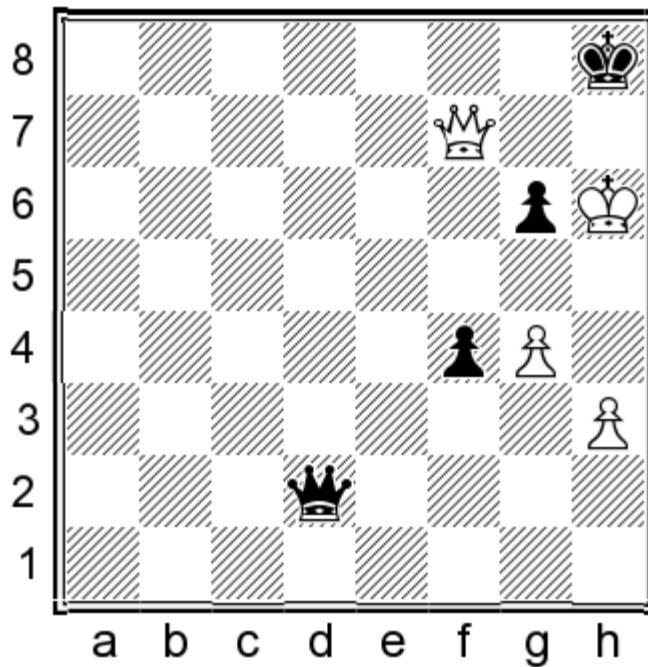
One more question: why does 52.†e5 win, whereas 52.h4 leads only to a draw?

I ask you to answer this independently:

- a) in the language of the Tal Algorithm – that is, in the language of concrete variations; and
- b) proceeding from the “abstract” – that is, from general theoretical considerations.

Theory and practice are one!

**50.†f7+ †h8 51.†h6 1-0**



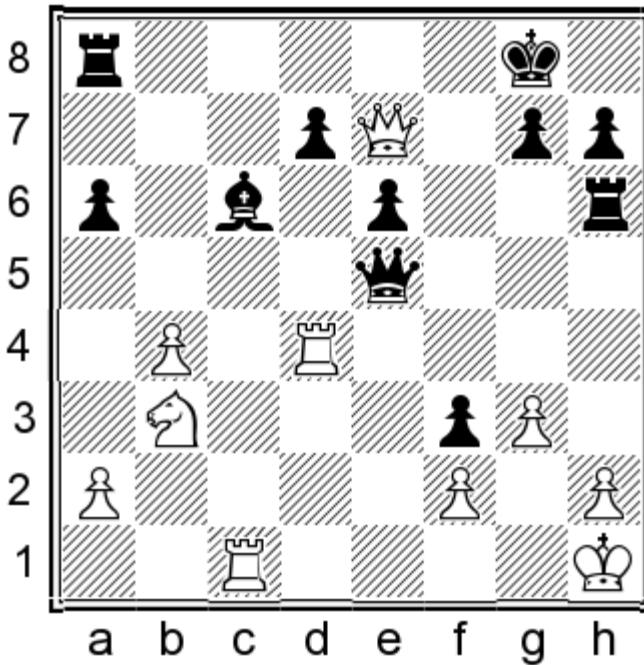
Mate is unavoidable: 51...f3+ 52.g5, etc. Checkmate is always a triumph for the dynamic chess attack. This is the end product of the Tal Algorithm...

A simple arithmetic of the game just completed:  $\Delta(51.†h6) - \Delta(41...†e2) = 1.00 - (-0.35) = 1.35$ . Work this out on your own!

And here the growth of  $\Delta(\text{move})$  brought White his victory – here, via mate to the enemy king.

### No. 51: K. Dolzhikova – O. Kalinina

Ukrainian Women's Championship, Odessa 2006



Position after 30.  $\mathbb{B}d4$

We are playing for Black.

Black has a pawn more, and that means... We already have it “passed” – see Game 50. Read, repeat. And don't forget the other factors of the position, which also help determine the choice of algorithm in the search for the strongest move.

- 2) The second factor: parity in tempi ( $4 + 1 = 5$ ) and the left-handed “Capablanca” in the “t” parameter (see the game postscript). That means that our starting point is closer to “Petrosian” than to “Tal.”
- 3) However, the third factor of the position shoves us, with colossal force, out of the Safety Zone into the Tal Zone. The position of White's king is simply terrible. It's defenseless. Over it there hang Black's merciless pieces – the rook, the queen, and the f3-pawn. And don't forget the X-rays emanating from the bishop on c6. The a8-h1 diagonal is exceptionally dangerous!

This is why we need “Tal,” and this will be our final diagnosis. The position demands it! Forward!

**30...  $\mathbb{W}xg3$**

From the viewpoint of our science of chess, this is both an open attack on the king and a piece sacrifice. It's easy to see that checkmate is unavoidable. After 31.fxg3 Black mates with 31...f2+ 32. $\mathbb{R}xc6$  f1 $\mathbb{W}\#$ . Original chess beauty!

A postscript – the technical parameters of the position after 30.  $\mathbb{B}d4$ :  $m > 1$ ,  $t = 41/45 = \sim 0.91$ , “+”.

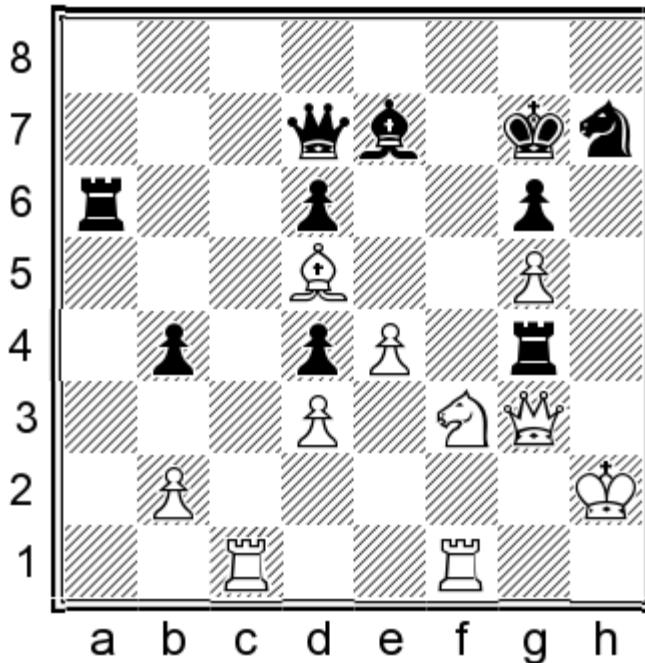
The first parameter of this position warns us to be careful. It draws us toward “Petrosian.” On the other hand, the “t” parameter requires “Capablanca.” And only the third factor calls us to the axe.

Why is “Tal” right?

Because the value of the chess piece that we call the king is infinite. Which means that the higher mathematics of chess play deals with vast numbers. It's a peculiar mathematics, and its logic doesn't jibe with our normal logic.

## No. 52: Morozевич – Lutz

Biel 2003



Position after 35...Bg4

We are playing White.

- 1) The material factor: parity.
- 2) The factor of chess time:  $t = 47/35 = \sim 1.34 > t_{cr} = 1.25$ . We are in the Tal Zone.
- 3) The third factor of the position moves us further to the right – obviously, the white king is safer. His castled fortress is in ruins; but fortunately for us he is surrounded by a sufficient number of pieces devoted to its defense, and so he stands in relative safety. Still, the black king's position is alarming, as four of the six empty squares around it are controlled by his opponent.

One more thing: White has an extra queen within the rectangle f1-f7-h7-h1. In other words, on the kingside we have an extra piece of artillery. So we have more chances to succeed in our attack!

Our final conclusion: the diagram position requires the Tal Algorithm. And we know well what to do. The four attacking elements, the attacking value scale...

**36.Qe5**

For now, the black king is out of reach (checking on e5 would be ridiculous), so we must attack the queen!

Among other things, the other attack on the queen, with 36.Qc7, also wins. Investigate this!

**36...dxe5**

There's no satisfactory defense. *Fritz* gives, as the strongest continuation, 36...Bxg5 37.Qxd7 Bxg3 38.Qf7+, etc. Now it's mate.

**37.Qf7+ ♕h8**

37... $\mathbb{Q}g8$  holds out for longer.

38. $\mathbb{E}xh7+$   $\mathbb{Q}xh7$  39. $\mathbb{W}h3+$

Black resigned. 1-0

The parameters of the position after 35... $\mathbb{Q}g4$ :  $m = 1$ ,  $t = 47/35 = \sim 1.34 > t_{cr} = 1.25$ , "+".

Curiously, the significant size of the "t" parameter peacefully coexists with the parity in tempi ( $5 + 1 = 6$ ). The "t" parameter weighs in favor of the Tal Algorithm, while the arithmetic of tempi militates for the Capablanca Algorithm. Which one to believe?

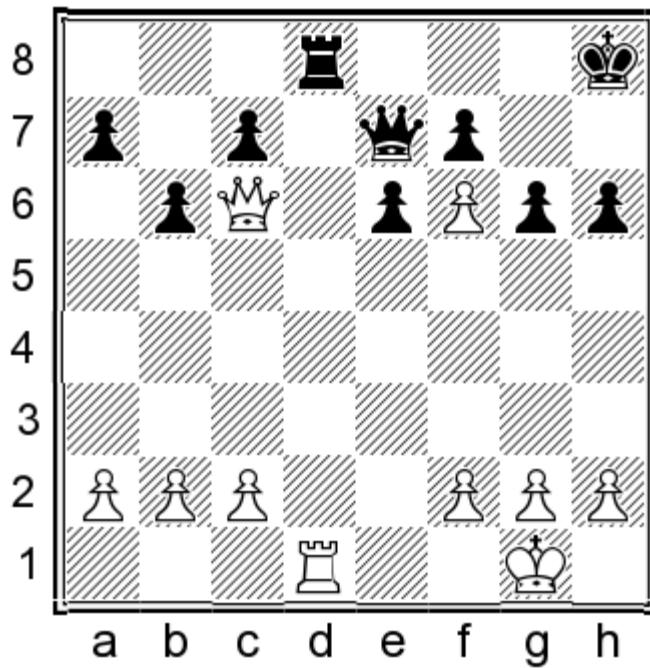
We have long since been through this: we must believe in the "t" parameter, because it is closer to the truth.

My advice is not to ignore the arithmetic of chess tempi during the game. Just use them carefully, with adjustments. Study the mobility of "good" versus "bad" pieces. Thus, for example, in our starting position the white king, bishop, and knight are "good" pieces, while the black king, bishop and knight are "bad." Why?

This is the reason why we say "yes" to the Tal Algorithm and reject the Capablanca Algorithm. In that case, we will be very close to the victorious knight leap to e5.

### No. 53: Paglilla – Carbone

Argentina 1985



White to move

What does White have?

- 1) The material factor: parity.
- 2) The factor of chess time: we are in the Tal Zone, since the value of the "t" parameter is more critical ( $t = 43/29 = \sim 1.48$ ).
- 3) The safety factor: clear signs of chess chaos! This position – and of this we have no doubt whatever – is irrational, as attack and defense are curiously intertwined. For instance, White has the enemy queen under attack, while Black is hitting the rook on d1. More than that – the white king is threatened with immediate mate! In such a position, a lot (if

not everything) depends on whose move it is...

We have already been over this (see Game 44). Read, repeat. While I, by analogy with the game Polgár – Hansen, render the final verdict: the diagram position requires the TCP Algorithm.

Where does the TCP Algorithm begin? With open, direct attacks on material targets of the enemy in accordance with our familiar value scale...

### 1. $\mathbb{Q}a8$

Winning at once, as after 1...  $\mathbb{R}xa8$  2.  $fxe7$ , there is no satisfactory defense to 3.  $\mathbb{Q}d8+$ . We are privy to a brilliant combination!

It's not hard to see that for lack of a better target, White hits the enemy rook. In fact, all attacks on the king or queen would have been either senseless or losing. Therefore, there remained only one thing – to transfer all possible open and direct attacks to the rook...

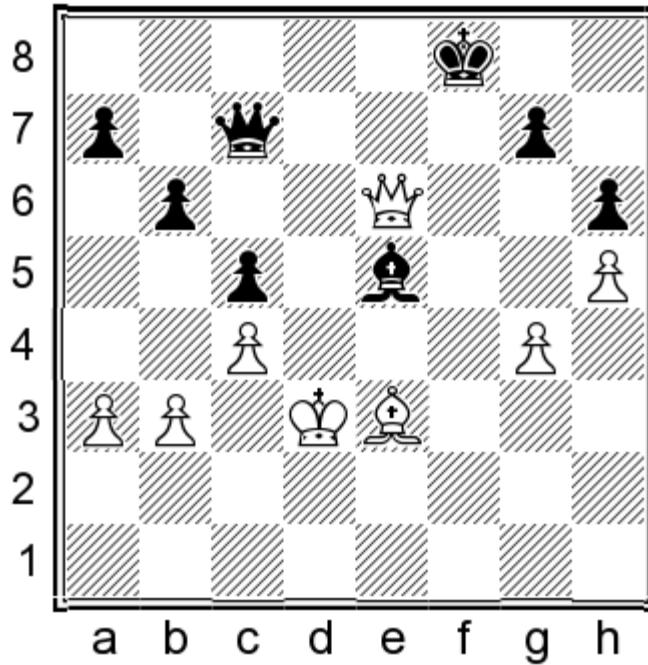
Black resigned. **1-0**

A short little afterward – the technical parameters of the starting position:  $m = 1$ ,  $t = 43/29 = \sim 1.48$ , “?”.

And the “?” sign means an irrational position.

#### No. 54: Geller – Hort

Skopje 1968



Position after 37...  $\mathbb{Q}xe5$

We have White, and we have:

- 1) parity in the first factor;
- 2) the Tal Zone, as the value of the “t” parameter is more than critical;
- 3) an edge in the safety factor, since in contrast with the non-trivial mobility of White’s king, the mobility of Black’s king is nonexistent.

With this, our final diagnosis: the current position requires the Tal Algorithm.

We begin searching for the strongest move by immediately engaging all four elements of the Tal Algorithm. “Tal” is well known to us, and we know very well what to do:

- 1) attack;
- 2) place our pieces on their best squares;
- 3) sacrifice; and
- 4) win material.

As always, remember the attacking value scale when going after material targets – it starts with the enemy king!

### **38.♔e4**

Of course, it has to be this way! The black king is unapproachable for the time being, and we may, with a clear conscience, say the same thing about the queen on c7. That leaves the bishop: open attack upon it!

But that's just the beginning...

Geller's choice is the first move in a victorious deployment of the ivory army: ♔h7/♕e6/♔e3. Of course, along the way we will have to drive the black bishop off the a1-h8 diagonal which is so important to him. But we will accomplish this easily, and then our opponent's kingside citadel will collapse!

### **38...♗h2**

Retreating along the long diagonal is impossible due to 39.♗f4.

### **39.♗f5 ♗g3**

After 39...♗f7+ 40.♗xf7+ ♔xf7, White wins with 41.♔c1 ( $\Delta$  ♔b2, ♔e4-d5-c6-b7) 41...♔d6 42.♔b2 ♔f8 43.♔e5. Then White places his pawn on a4 and tears his opponent's defenseless queenside to shreds.

### **40.♔d2**

40.♗g6 also wins, since after 40...♗d6 41.♗xd6+ ♗xd6 42.♔c1 ( $\Delta$  43.♔b2+-) 42...♔e5 43.♗f5 and 44.♗e6, Black cannot avoid dropping material.

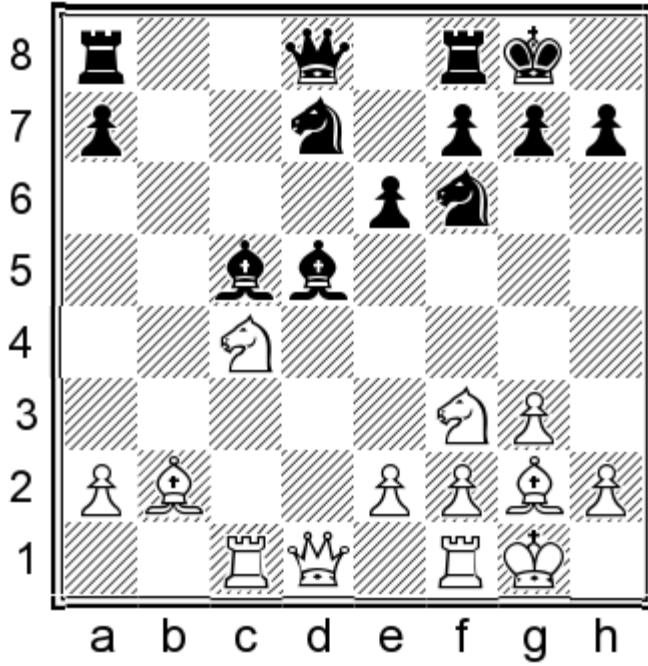
### **40...♗h2 41.♔c3 ♗f7+**

“The game was adjourned here, but was not played out, since the variation 42.♗xf7+ ♔xf7 43.♔e4 and 44.♔d5 is obvious” (Geller).

Black resigned. **1-0**

**No. 55: Khalifman – E. Vorobiov**

Russian Upper League Championship, Kazan 2005



*Position after 13...Qd5*

In this position, White has:

- 1) parity in the first factor;
- 2) the Capablanca Safety Zone:  $t = 42/38 = \sim 1.11 < t_{cr} = 1.25$ ;
- 3) rough parity in the safety factor, since White's king is very safe – and White counters the pressure from the two black bishops on his castled position with his “extra” minor piece in the rectangle f1-f8-h8-h1.

Our preliminary diagnosis: the Capablanca Algorithm.

What next? Call on the fourth and fifth parameters. In brief: for us, they are at parity and approximate parity. *Verify this.*

Obviously, the diagnosis of the position doesn't change – for us, “Capablanca” rules.

There followed

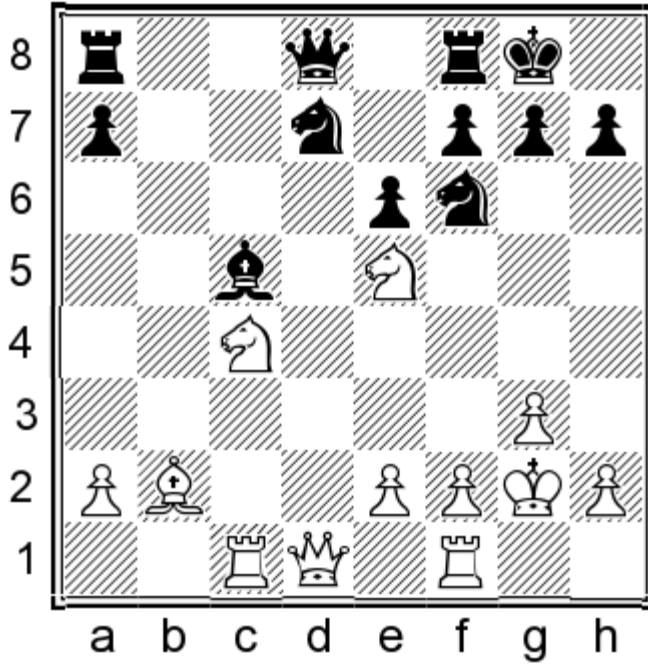
#### **14.Qfe5**

*Question:* How is this move notable?

*Answer:* White rids himself of his hardly mobile light-squared bishop, trading it for his opponent's active cleric. This way, Khalifman automatically increases the value of “t.” In addition, White meanwhile gets rid of even the ghost of an enemy attack on his king. That's in the first place.

And in the second place, after the bishop trade White instantly adds to his compactness factor (see the following diagram).

**14...Qxg2 15.Qxg2**



Indeed, if prior to the exchange White had his king and pawns on three ranks, now they sit only on two. That's a significant achievement.

**15...♝xe5 16.♝xe5**

*Fritz* recommends 16.♝xd8. We have no objection, as White's compactness is much greater than Black's.

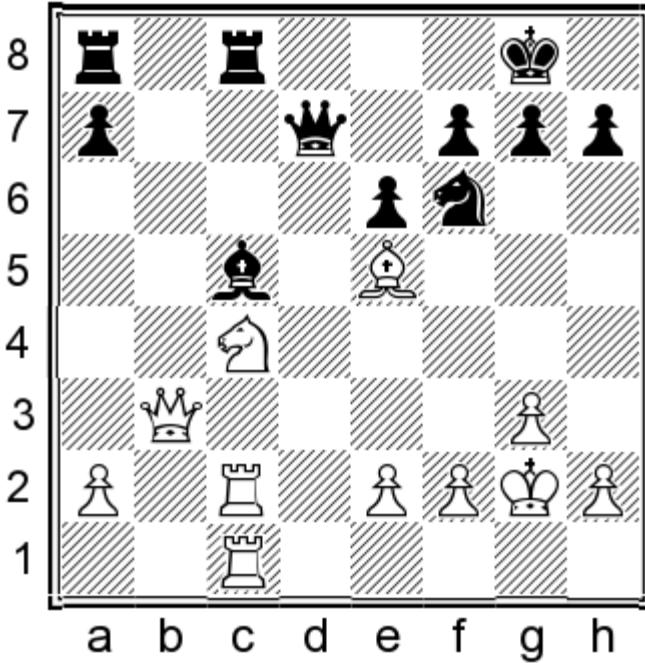
**16...♛e7 17.♛b3**

Point 1 of the strategic algorithm in action.

**17...♜fc8 18.♜c2**

Simple and good. Khalifman doubles his rooks on the c-file.

**18...♛d7 19.♜fc1**



**19...♝d4**

This is a tactical and strategic error. Why?

Because after 20.♛f3 White wins a pawn almost by force, so Black is not entitled to an out-of-order trade.

**20.♛f3**

White threatens a fatal bishop pin on the d-file.

**20...♝xe5 21.♝xe5**

*Question:* Are you sure that after 21.♝xe5 Khalifman will keep playing according to the Capablanca Algorithm? I'm not at all sure!

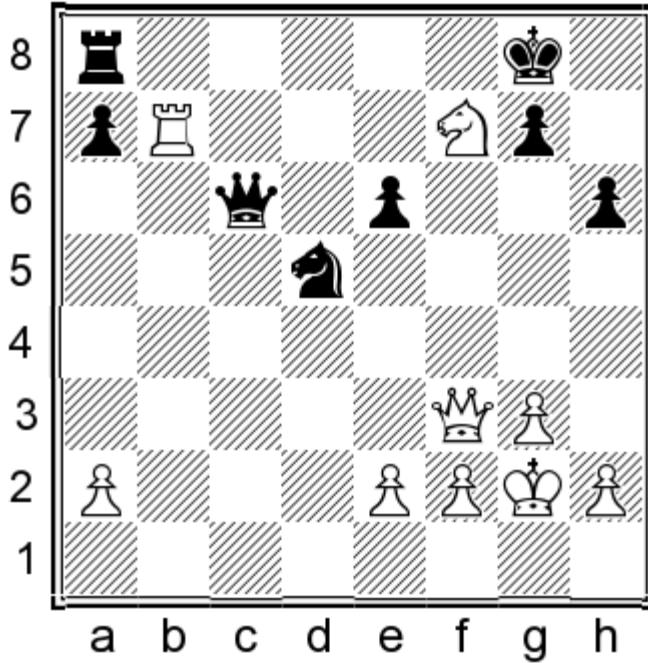
**21...♚e8 22.♜c7**

Open attack on the f7-pawn!

**22...h6**

*Fritz* likes 22...a6 and 22...♜ab8 better, but here too, it adjudicates a win for White.

**23.♝xf7 ♜xc7 24.♜xc7 ♛d5 25.♜b7 ♜c6**



**26.  $\mathbb{Q}xh6+$**

An open attack on the king, and a sacrifice! When playing in “Tal” style, we know that the chief target of the attack is the king.

**26...  $\mathbb{Q}h7$**

If 26...gxh6, then 27.  $\mathbb{W}f7+$  and 28.  $\mathbb{W}h7\#$ .

**27.  $\mathbb{W}e4+ \mathbb{Q}h8$**

Your task is to find the win after 27... $\mathbb{Q}xh6$ .

**28.  $\mathbb{Q}f7+ \mathbb{Q}g8$  29.  $\mathbb{Q}g5$  1-0**

After 29... $\mathbb{W}xb7$  Black comes out a queen down: 30.  $\mathbb{W}h7+ \mathbb{Q}f8$  31.  $\mathbb{W}h8+ \mathbb{Q}e7$  32.  $\mathbb{W}xg7+$  and then 33.  $\mathbb{W}xb7$ .

Let us recall the parameters of the position after 13... $\mathbb{Q}d5$ :  $m = 1$ ,  $t = 42.38 = \sim 1.11$ , “ $\approx$ ”,  $\Delta k = 0\dots$

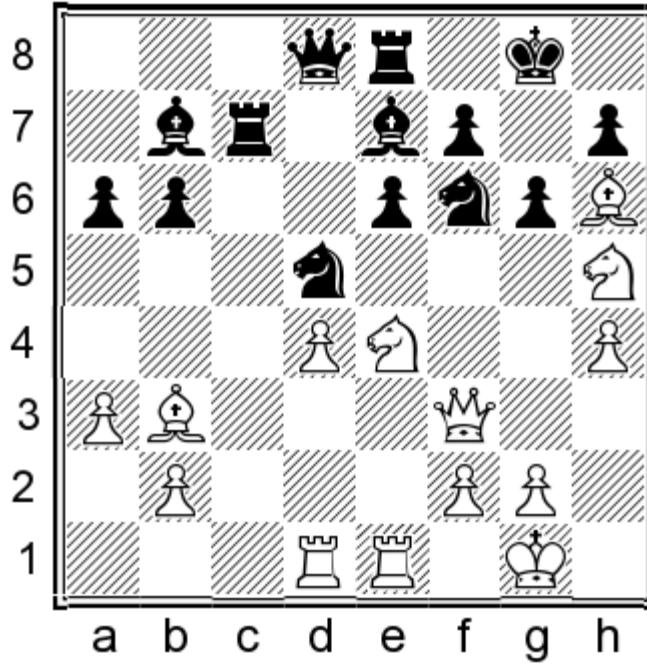
And now for the position after 25... $\mathbb{W}c6$ :  $m > 1$ ,  $t = 40/36 = \sim 1.11$  and a huge “plus” in the safety factor.

“Capablanca” is obvious after 13... $\mathbb{Q}d5$ , and “Tal” is obvious after 25... $\mathbb{W}c6$ . The third parameter categorically requires “Tal”!

The reason for the algorithm drift is Black’s mistake on move 19.

**No. 56: Kamsky – Short**

PCA Candidates’ Match (5), Linares 1994



*Position after 21... ♔7f6*

In this position (we have White):

- 1) there is parity in the first chess factor;
- 2)  $t = 47/36 = \sim 1.31$ , meaning that we are in the Tal Zone;
- 3) an advantage in the third factor of the position:
  - a) White's king is safe, while Black's king is partially immobile, and
  - b) in the rectangle f1-f8-h8-h1, White has an overwhelming material superiority.

Our final conclusion: this position requires the Tal Algorithm. We know well what to do in such cases...

**22. ♜hxf6+**

Not just a trade, but also a check – an open attack on the most important chess target.

**22... ♜xf6 23.d5**

A sacrifice – into four different captures!

**23... ♜xe4**

If 23... ♜xd5, then 24. ♜xd5 ♜xd5 25. ♜xd5, etc. Please extend the variation. Start with a check!

**24.dxe6**

This double attack ends the contest.

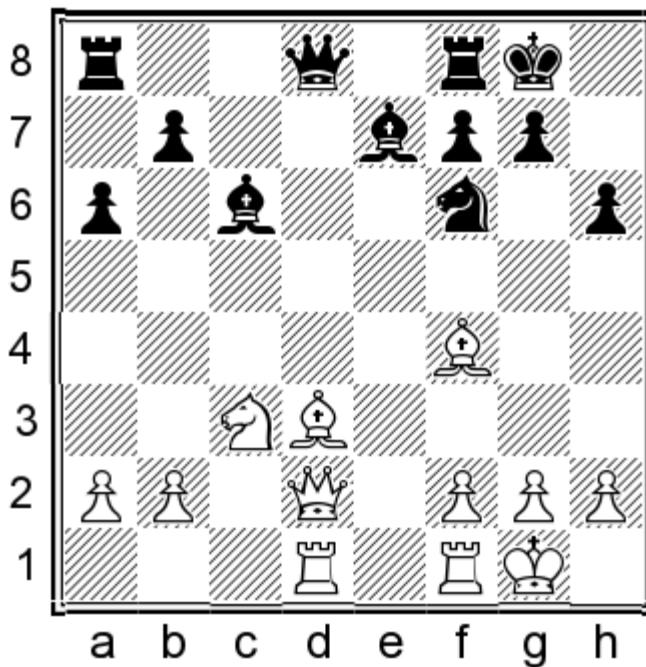
**24...f5**

Resigning is simpler.

**25. ♜xd8 ♜xd8 26. ♜d1 1-0**

## No. 57: Kamsky – Lautier

Dortmund 1993



Position after 15...0-0

We are playing White, and we have:

- 1) material equality;
- 2) three extra tempi, and, strangely enough, a Capablanca Safety Zone:  
 $t = 44/41 \approx 1.08$ ;
- 3) advantage in the third factor of the position, since the pressure exerted by the white pieces ( $\mathbb{Q}d3/\mathbb{Q}f4/\mathbb{W}d2$ ) on the black king outweighs the opponent's corresponding pressure ( $\mathbb{Q}c6$ ).

After a little thought, in the end we give our final verdict: the Tal Algorithm. Why?

Because the safety factor is always very sensitive. And understandably so – the king, as we know, is a piece of limitless chess value. It's not good to take him lightly!

### 16. $\mathbb{Q}xh6$

A natural, practically provoked, piece sacrifice. This move didn't surprise me. I was surprised by a different move suggested by *Fritz*: 16.  $\mathbb{W}e2$ , threatening check on h7. All of a sudden, there comes 16...  $\mathbb{E}e8$ , with the following simple variation: 17.  $\mathbb{Q}h7+$   $\mathbb{Q}xh7$  18.  $\mathbb{Q}xd8$   $\mathbb{Q}axd8$ , etc. *Fritz* considers this variation almost the strongest for Black!

Question for readers and the authors of the program: didn't *Fritz* go out of its mind?

And a request: when you give your reply, refrain from using any other chess engine!

### 16... $\mathbb{g}xh6$

It was probably better to decline the sacrifice. Down a pawn (say, after 16...  $\mathbb{W}a5$ ), he could still have offered some resistance. But now, after –

### 17. $\mathbb{W}xh6$

– the computer finds no salvation.

### **17... $\mathbb{E}e8$**

Or 17... $\mathbb{W}a5$  18. $\mathbb{E}fe1$ , etc.

### **18. $\mathbb{Q}c4$ $\mathbb{Q}d7$**

If 18... $\mathbb{W}c8$ , then 19. $\mathbb{E}d3$  Δ  $\mathbb{E}g3++$ . And after 18... $\mathbb{W}c7$ , *Fritz* likes 19. $\mathbb{E}d4$  best.

### **19. $\mathbb{E}d4$**

White must not hurry. Black is doomed.

### **19... $\mathbb{Q}f8$**

Alternatives are no better.

### **20. $\mathbb{W}g6+$**

The first of six consecutive checks!

### **20... $\mathbb{Q}g7$ 21. $\mathbb{W}xf7+$ $\mathbb{Q}h8$ 22. $\mathbb{E}h4+$ $\mathbb{Q}h7$ 23. $\mathbb{E}xh7+$**

Plus a sacrifice, too!

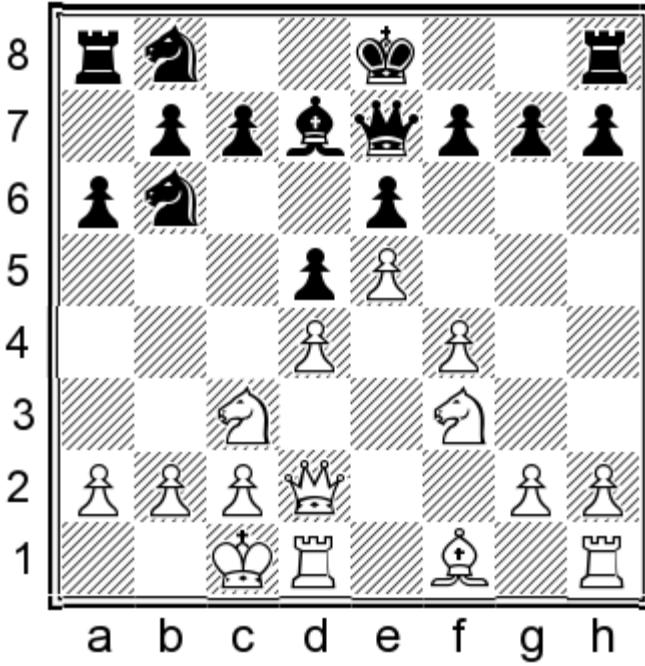
### **23... $\mathbb{Q}xh7$ 24. $\mathbb{W}h5+$ $\mathbb{Q}h6$ 25. $\mathbb{Q}d3+$ $\mathbb{Q}g8$ 26. $\mathbb{W}xh6$**

White now has a knight and three pawns for a rook – a material advantage. And the attack on the king still rages.

**1-0**

**No. 58: Inarkiev – Morozhevich**

Russian Championship, Krasnoyarsk 2003



*Position after 10.0-0-0*

Here we are taking Black's side, and there is parity in the first, second and third factors of the position. Work this out for yourself!

And if that's all correct, then our diagnosis is crystal clear: "Capablanca." The low-powered fourth and fifth factors of our position simply can't evict us from the middle of the Safety Zone.

We begin our search by activating all three elements of the Capablanca Algorithm. Then, after thinking for a bit, we claim the right to make a trade first, as Black's position is more compact:  $9/32 > 9/40$ . Verify this!

**10...♝b5**

A perfect move – perfect both strategically and tactically.

**11.♞xb5**

But this is clearly a strategic mistake, since after

**11...axb5**

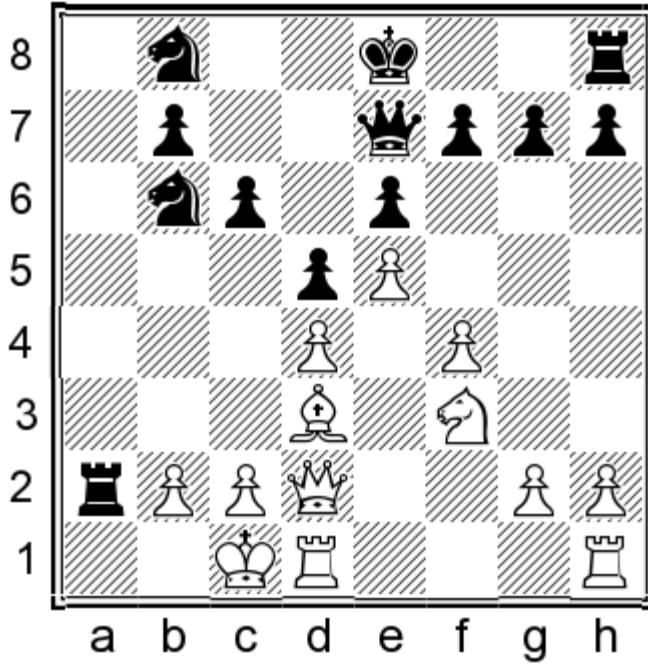
Black adds to his second and fourth parameters at no cost to himself.

**12.♝xb5+**

If 12.♝b1, then 12...♞c4 with a great game.

**12...c6 13.♝d3 ♞xa2**

Why are these trades so good for Black? Because the black rook's mobility has increased so much, expanding by a factor of eight! Even better, Black now threatens mate on the move. In other words, White's strategic blunder has given Black good attacking chances.



In the diagram position, we can no longer speak of parity in the first three factors. Material equality has been maintained, but a small “plus” has popped up for us in the second and third factors. Therefore the requirements of the position after 13...Bxa2 are met, no longer by the Capablanca Algorithm, but by the TC Algorithm.

#### **14.Qb1 Ba4 15.g4**

Futile; this wastes valuable time. Better was 15.c3, or even 15.f5 exf5 16.Qf4 Qa6 17.Qxf5 Qc7 (*Fritz*).

#### **15...Qc4 16.Qxc4 dxc4**

Now the density of packing of the two kings has evened out:  $8/35 = 8/35$ . Black’s position has turned more brittle, which cannot be good for him, of course. But in return he has added to his second and fifth factors of the position. Figure out the parameters “t” and  $\Delta(\text{move})$  before 15...Qc4 and after 16.Qxc4.

The most important thing is that the exchange has brought the pawn from d5 to c4. Drawing nearer to the white king, it will participate in the attack on it. Thus Black has also added significantly to the third factor of the position.

To sum up, we may say that Black has very favorably converted his superiority in the compactness factor.

#### **17.Qg5 b5**

Already threatening the winning 18...Qa7.

#### **18.Qe3 Qa6**

The best squares for the knight are b4 and d5.

#### **19.c3 Qc7 20.Qe4 Qd5**

With tempo! Now, of course, White cannot play 21.Qd6+ because of the prosaic 21...Qxd6.

#### **21.Qf3 0-0**

Black not only tucks his king away in a safer place, but also brings the formerly inactive rook into the attack.

**22.f5 b4**

Black's attack is the stronger one. There is no defense – at least, none that *Fritz* can see.

**23.♕hf1**

If 23.f6, then 23...♛a7, etc. Extend this variation – start without a computer!

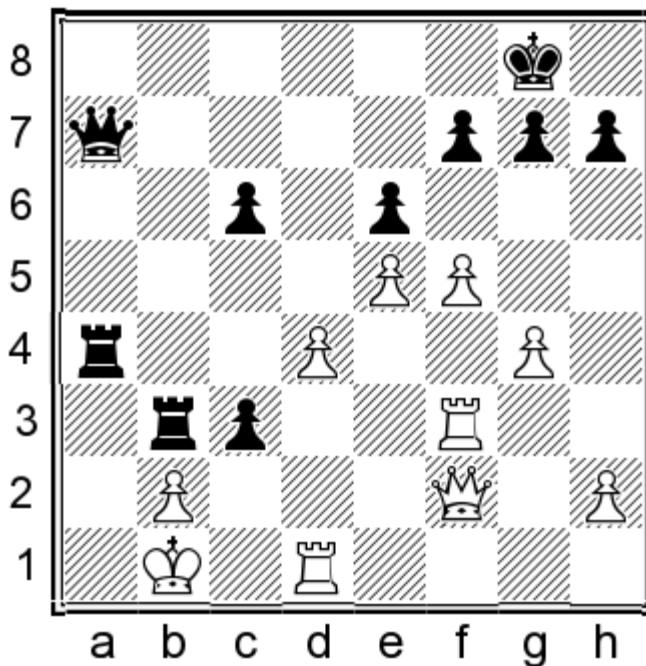
**23...bxc3 24.♕xc3 ♕xc3+**

Check! The king is the chief target of attack.

**25.♕xc3 ♜b8 26.♕f3 ♜b3**

The value scale for attacking material targets – king, queen, rook...

**27.♕c2 ♜a7 28.♕f2 c3 0-1**



White's position is a sorry sight. Within the rectangle a1-a8-c8-c1, Black has an "extra" queen and two rooks – and that's not counting that awesome c3-pawn!

I conclude our notes on this game with the technical parameters of the positions following 10.0-0-0, 13...♜xa2, and 28...c3.

After 10.0-0-0:  $m = 1$ ,  $t = 32/32 = 1.00$ , “=”,  $\Delta k > 0$ .

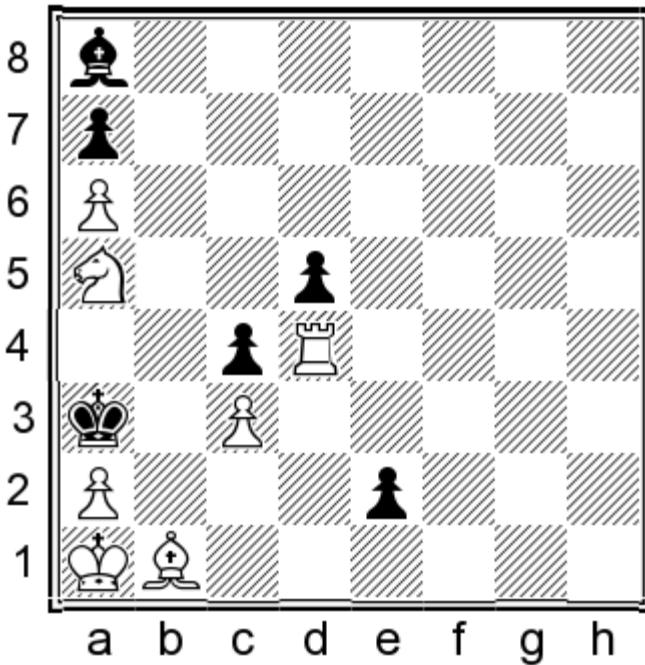
After 13...♜xa2:  $m = 1$ ,  $t = 39/36 = \sim 1.08$ , “+”,  $\Delta k > 0$ .

After 28...c3:  $m = 1$ ,  $t = 37/31 = \sim 1.19$ , and a large “+”...

The drift is obvious – from a “100%” Capablanca Algorithm to the TC Algorithm, and even into the Tal Algorithm. I note also that after 22...b4, Black's attack rolled like an avalanche.

**No. 59: Palevich – Lebelt**

corr. 1985



*White to move*

We are playing White, and we have:

- 1) something obscure in the first factor of the position: White is up the exchange, but for the time being there seems to be no defense at all against 1...e1 $\mathbb{W}$ .
- 2) an overwhelming superiority in the time factor;
- 3) a disturbing uncertainty as regards the third factor of the position (the kings stand at a minimal distance from each other).

Our verdict: the TCP Algorithm.

How does it begin? We know the answer – with the Tal Algorithm. If “Tal” doesn’t work, then we activate “Capablanca,” and then the Petrosian Algorithm.

How does the Tal Algorithm begin? Perhaps we have already learned this by heart – with the four elements of that algorithm. And one more thing: the attacking value scale...

And then here, it’s not out of the question that you, dear reader, might find what Palevich missed – a spectacular attack on the enemy king that achieves the draw (I’ll give *Fritz*’s variation): 1. $\mathbb{Q}xc4$  e1 $\mathbb{W}$  2. $\mathbb{B}c5$  ( $\Delta$  3. $\mathbb{Q}c4+$  and 4. $\mathbb{B}a5\#$ ) 2... $\mathbb{W}e2$  3. $\mathbb{Q}c4+$   $\mathbb{W}xc4$  4. $\mathbb{B}xc4$  dx $c4$ . This draw is from a position of superiority!

However, Palevich activated, not “Tal,” but “Petrosian,” and got what he was seeking – the draw. And how! You will be stunned...

**1. $\mathbb{Q}xc4+$  dx $c4$  2. $\mathbb{B}d1$**

A miracle! Now it’s stalemate after either 2...exd1 $\mathbb{W}$  or 2...exd1 $\mathbb{B}$ . Black gets nothing out of 2...exd1 $\mathbb{Q}$  3. $\mathbb{B}e4$   $\mathbb{B}f3$  4. $\mathbb{B}c2$  (a variation pointed out by Palevich). That’s why Lebelt promoted his pawn to a knight:

**2...exd1 $\mathbb{Q}$**

Black has an extra knight! What do we do now?

Palevich’s answer makes us once again believe in miracles on this earth. There followed the stunning:

**3.♕e4**

After 3...♕xe4, it's stalemate again!

**3...♝xc3 4.♝xa8 ♜xa2**

According to *Fritz*, 4...♝d1 ( $\Delta$  ...♝e3 and ...c4-c3) is stronger, with problematic winning chances. But why not grab that little pawn on a2 along the way?

**5.♝d5**

Why?

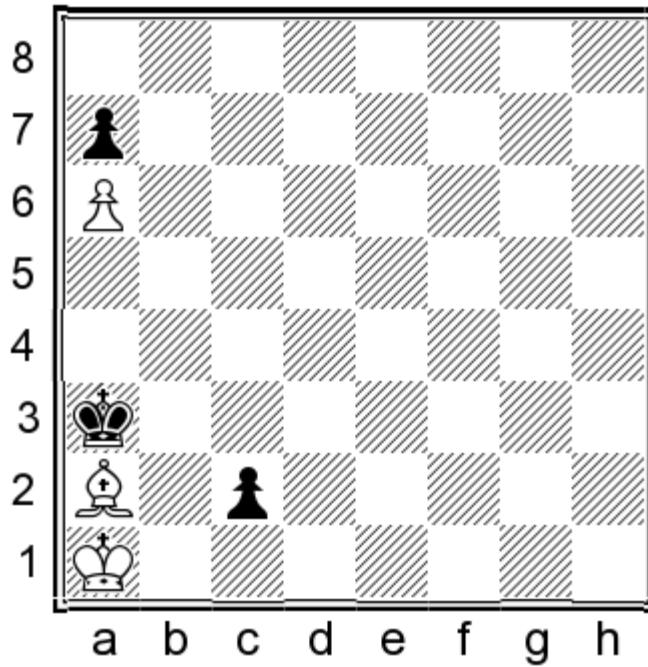
**5...c3**

If 5...♝b3, then 6.♝xc4+ with a draw.

**6.♝xa2**

Insanity, or genius? Where to draw the line?

**6...c2**



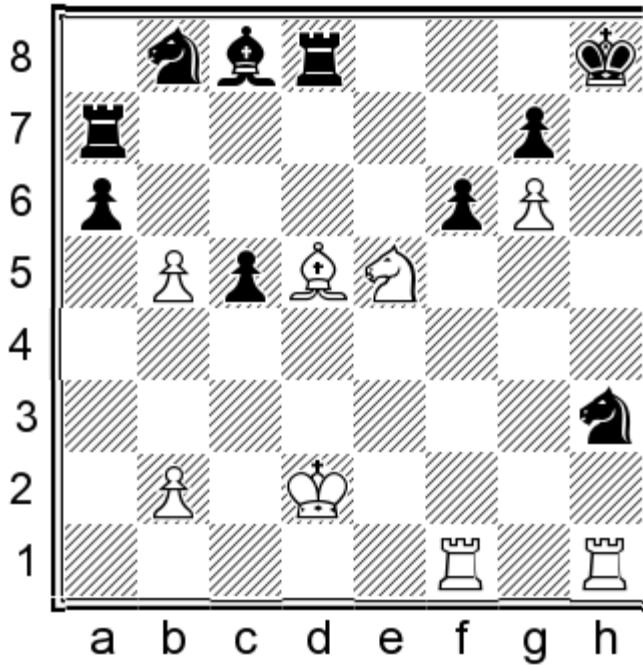
**7.♝b1**

Draw!

An exact “formula” for the beautiful does not exist. It doesn’t, and it can’t, because the world around us is boundless in its manifestations.

Nor will an exact, all-encompassing model for playing chess ever come to be, because chess is practically inexhaustible. And that means that, for us chessplayers, our game will be an endless source of delight.

No. 60: Granberg – Gubnicki  
corr. 1986



White to move

What does White have?

- 1) a piece less – that is, Black has an overwhelming material advantage;
- 2) the Tal Zone, since  $t > t_{cr} = 1.25$  (work this out!);
- 3) an overwhelming superiority in the third factor, as the white king's mobility is at a maximum, while that of the black king is zero (it's in a mating net).

Conclusion: the position requires the Tal Algorithm.

We start with checks. I see just two: 1.  $\mathbb{Q}xh3+$  and 1.  $\mathbb{Q}f7+$ . I calculate the variations... These checks, alas, do not work. See for yourself!

Next I move from open attacks on the king to direct attacks on it, and... O miracle!

**1.  $\mathbb{Q}d7$**

A one-move threat – mate on h3.

**1...  $\mathbb{Q}xd7$**

Warding off the threat, but White insists:

**2.  $\mathbb{Q}f3$**

There is no defense!

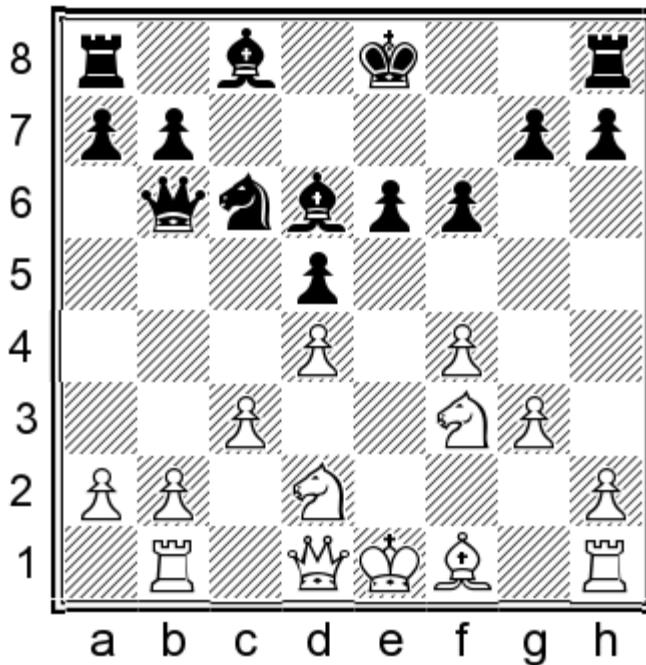
Gubnicki was mated after

**2...  $\mathbb{Q}e6$  3.  $\mathbb{Q}fxh3+ \mathbb{Q}g8$  4.  $\mathbb{Q}h8\#$**

Outstanding, no?

### No. 61: Chepukaitis – I. Zaitsev

Botvinnik Memorial 2003



Position after 12.g3

We are playing Black. We have:

- 1) parity in the first factor,  $m = 1$ ;
- 2) the Tal Zone:  $t = 44/33 = \sim 1.33 > t_{cr} = 1.25$ ;
- 3) perhaps a slight superiority in the safety factor (the X-rays radiating from the black queen are rather stronger than the clutch of senselessly crowded “extra” white pieces in the rectangle d1-d8-f8-f1 shared by both kings).

Our final diagnosis: the Tal Algorithm.

#### 12...e5

This is no innocent play for massive trades. This is an open attack on the targets at d4 and f4. Black attacks immediate objectives and at the same time improves the mobility of his pieces (the light-squared bishop and, a little later, the queen).

#### 13.fxe5 14.dxe5

No objections here.

#### 13...fxe5 14.dxe5

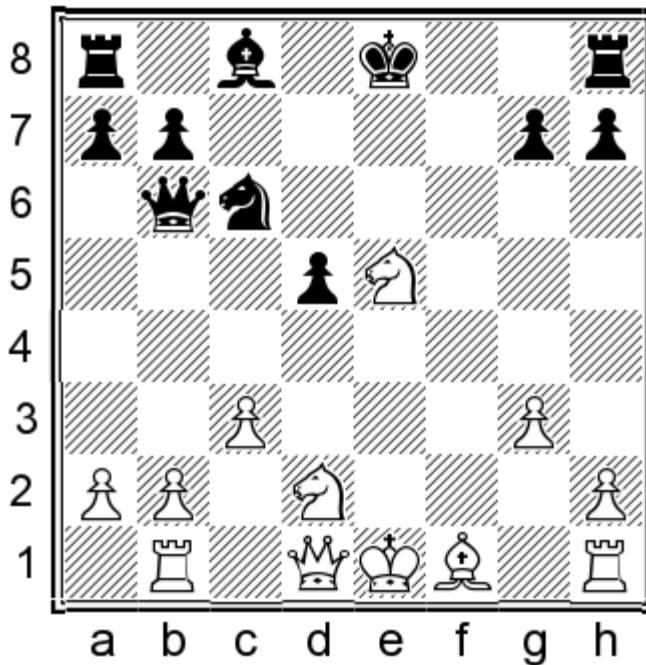
And there's no objection to this, either.

#### 14...Qxe5 15.Qxe5

But now...

He had to run for the draw at full speed with 15.  $\mathbb{W}b3$ , offering a queen trade. After 15...  $\mathbb{Q}f5$  16.  $\mathbb{W}xb6$   $axb6$  17.  $\mathbb{E}a1$  White is worse, but certainly not lost!

On the other hand, Black's reply was very, very difficult to find... Chepukaitis probably saw only 15...  $\mathbb{Q}xe5$  16.  $\mathbb{W}h5+$   $\mathbb{Q}f7$  17.  $\mathbb{W}e2+$ , with complicated and roughly equal play.



## 15...0-0

Outstanding! Remember that we are within the range of the Tal Algorithm, and "Tal" directs us to attack. The main target is the king. Black threatens mate on f2!

There is no satisfactory defense. At least, neither *Fritz* nor *Rybka* see one. A few variations to support our conclusion:

- a) 16.  $\mathbb{Q}df3$   $\mathbb{Q}xe5$  17.  $\mathbb{W}xd5+$   $\mathbb{Q}e6$  18.  $\mathbb{W}xe5$   $\mathbb{Q}xf3$ ;
- b) 16.  $\mathbb{Q}ef3$   $\mathbb{Q}g4$  17.  $\mathbb{Q}e2$   $\mathbb{Q}ae8$  18.  $\mathbb{Q}f1$   $\mathbb{Q}h3+$ ;
- c) 16.  $\mathbb{Q}d3$   $\mathbb{Q}e5$  17.  $\mathbb{W}b3$   $\mathbb{W}e3+$  18.  $\mathbb{Q}d1$   $\mathbb{Q}c4$  19.  $\mathbb{Q}xc4$   $dxc4$  20.  $\mathbb{W}xc4+$   $\mathbb{Q}e6$  21.  $\mathbb{W}d4$   $\mathbb{W}f3+$ ;
- d) 16.  $\mathbb{W}b3$   $\mathbb{W}e3+$  17.  $\mathbb{Q}d1$   $\mathbb{W}xe5$ .

Please extend these variations. Let that be your homework.

Chepukaitis preferred a different move:

## 16. $\mathbb{W}h5$

Doesn't save him!

## 16... $\mathbb{Q}xe5$

Simple and good.

## 17. $\mathbb{W}xe5$ $\mathbb{Q}g4$

The white king is caught in a mating net.

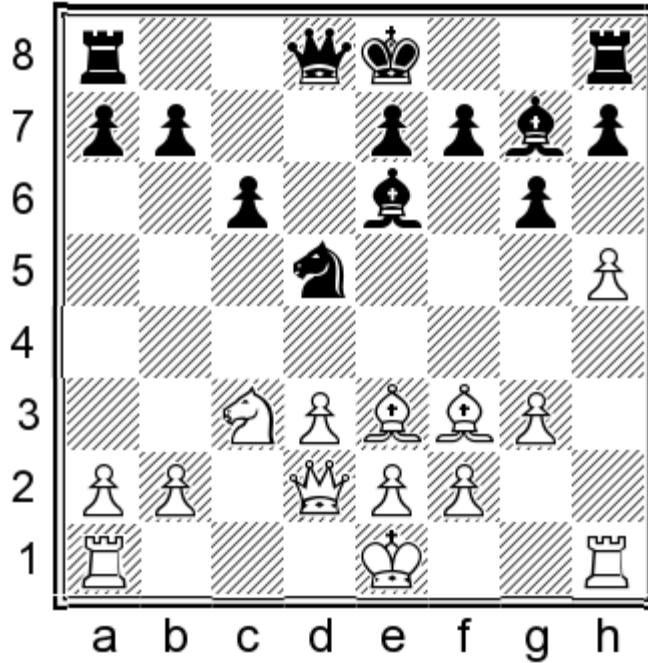
**18.♕xd5+**

Spite check.

**18...♝h8 19.♛d4 ♜ae8+ 20.♝e4 ♜xe4+ 1-0**

**No. 62: Van Wely – Wang Hao**

Beijing 1997



*Position after 12...♝d5*

We're playing White, and we have:

- 1) parity in the first factor;
- 2)  $t = 40/42 \approx 0.95$ , so our starting point lies in the Capablanca Safety Zone;
- 3) rough equality in the safety factor.

Our preliminary diagnosis: the Capablanca Algorithm.

Let us go further – wouldn't the fourth and fifth factors of our position bring in some adjustments?

Answer: they would! Our  $\Delta k \ll 0$ , since 3 << 5 (our king and pawns are located on five horizontal rows, while our opponent's are on three). Add to this our "plus" in  $\Delta(\text{move})$ !

The fourth and fifth factors together impel us to the left, to the Petrosian Algorithm. The drift is not too big, but it's real.

Our final diagnosis: the CP Algorithm – that is, "Capablanca" with clear signs of the Petrosian Algorithm.

**13.♝h6**

Why? Because, first of all, "Petrosian" allows us to play for an exchange. And second, because White is forced to make the trade, given that moving the bishop to c5 or g5 is bad. So we are limited to choosing only between the text move and the unpleasant exchanges on d5.

Van Wely is justified! He exchanges the dark-squared bishop for lack of anything better.

### **13...♝xh6**

*Fritz* prefers the clever 13...♝d4 to this trade. This is easy to understand, because after...

### **14.♛xh6**

...White has the very serious threat of 15.hxg6 fxg6 16.♛xg6+.

### **14...♝a5**

A mistake! This pseudo-active move is strategically deficient. Now White obtains, by force, a position with a backward pawn on h7, which proves to be a most tempting object for attack.

He needed to take the knight with 14...♞xc3 and then play 15.♛g7 ♜f8 16.♛xc3 g5, or 16.bxc3 ♜a5 (*Rybka*), when Black is out of the woods. I would add that, were it not for the fact that *Rybka* guarantees 15...♜f8, Black would have had to parry the opponent's threat with the paradoxical 15...♝d7, or even with 14...♝d7. Why? Compactness!

And now for a more concrete reply: after 14...♝d7 15.hxg6, Black replies simply 15...hxg6, and the rook is well protected on h8. The f-pawn recapture is much worse, and you know why!

### **15.hxg6**

Of course! White converts his superiority in the factor of space expansion into an edge in compactness.

### **15...fxg6**

If 15...♞xc3, then 16.gxf7+ ♜xf7 17.♛d2+-.

### **16.♝xd5**

White has the more compact position, so he's entitled to trade pieces first.

### **16...cx d5**

Or 16...♝xd5 17.♛xg6++-.

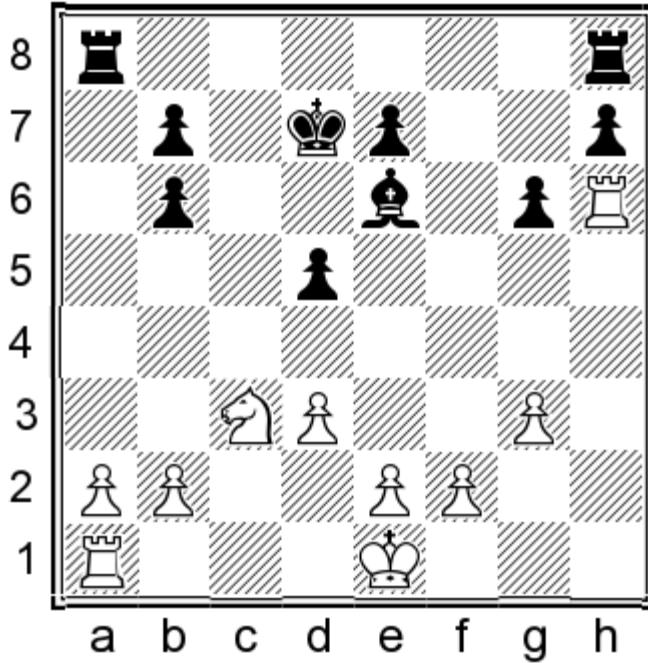
### **17.♛g7**

Bad would be 17.♛xg6+ hxg6 18.♜xh8+ and 19.♜xa8, on account of 19...d4 when Black comes out a piece ahead.

### **17...♝d7 18.♛d4**

You could play this way. Or you could play it like *Fritz*, i.e. 18.e4 with attack, for instance 18...♜ac8 19.♛e5 ♜b4 20.exd5 ♜g4 21.0-0, etc.

### **18...♝b6 19.♛xb6 axb6 20.♜h6**



The only way! Now Black's backward pawn is securely blockaded and will make an excellent target for attack – a “Tal”-style attack. But “Tal,” obviously, will be shepherded by “Capablanca.” For instance, the following setup beckons: ♖d2, ♜ah1, and if he can swing it, pawns on a3 and d4. And then – and then, we will have a run-of-the-mill TC Algorithm. And so what, if all of the plan doesn’t materialize? The main thing is that we know what to do in the position after 20.♖h6.

White won. The h7-pawn fell on move 25, and Black resigned on move 31.

Afterword: the technical parameters of a couple of positions.

First, the position after 12...♝d5:  $m = 1$ ,  $t = \sim 0.95$ , “ $\approx$ ”,  $\Delta k \ll 0$ .

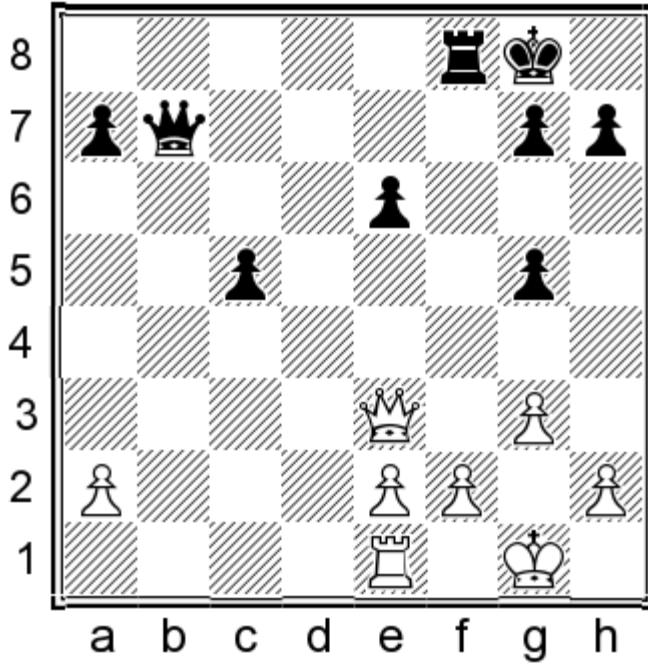
And then the position after 20.♖h6:  $m = 1$ ,  $t = \sim 0.94$ , “ $=$ ”,  $\Delta k = 0$  ( $7/21 = 7/21$ ). Verify this!

It is easy to note the significant progress in  $\Delta k$ , caused by the fact that, on move 15, the white h-pawn disappeared. After the pawn trade, White’s density of packing for his king and pawns increased sharply, from  $8/40$  to  $7/21$ ; whereas for Black it decreased from  $8/24$  to  $7/24$ . All of Black’s troubles stemmed from this...

As an afterword to the afterword of the game just completed – two fragments from the games of the twelfth World Champion. Both are strategic games, joined by their common theme of trading off bad pawns on the edge of the board for the opponent’s good pawns. In each case the upshot of those exchanging operations was a clear positional advantage and well-deserved victory.

### No. 63: Karpov – Hort

Waddinxveen 1979



Position after 21...bxc5

Karpov has:

- 1) a pawn less;
- 2)  $t = 27/41 \approx 0.66 < t_{cr} = 0.80$  – the Petrosian Zone;
- 3) an almost completely paralyzed king – that is, it's in danger.

Our preliminary conclusion: the Petrosian Algorithm. Let's move on.

4) The fourth factor: we are more compact, so we should not overestimate the danger. We will easily defend our king. Our problems are not dynamic, but strategic in nature.

Our final conclusion: the strategic branch of the Petrosian Algorithm. We are simply obligated to play for the trade!

I will act in standard fashion, within the range of the CP Algorithm, by analogy with Game 43. We have already been over that, and know that our defense is a strategic one. We also know just as firmly that in this case there is no sharp line between Petrosian's algorithm and Capablanca's. The line is washed away...

With a raft of possibilities for improving his position, Karpov selects the one that will quickly enable him to get rid of that "extra" pawn, of little esthetic value, on the a-file.

**22.¤c1 ♕d5 23.¤xc5 ♕xa2**

Done!

**24.¤xg5 ♕b1+ 25.¤g2 ♕b6 26.¤e5 ♕xe3 27.¤xe3 ♕e8 28.¤a3**

and White obtained excellent winning chances. Karpov scored the point on move 57.

The parameters of the position after 21...bxc5:  $m < 1$ ,  $t = 27/41 \approx 0.66$ . “-”,  $\Delta k > 0$ ,  $\Delta(21\dots bxc5) = 16/8 - 21/9 \approx 0.33$ .

The parameters of the position after 28.¤a3:  $m = 1$ ,  $t = 23/16 \approx 1.44$ , “=”,  $\Delta k \gg 0$ , because  $5/8 \gg 5/24$ ,  $\Delta(28.\text{¤a3}) = 14/6 - 11/6 = 0.50$ .

Let us compare, let us be amazed, and let us be enraptured!

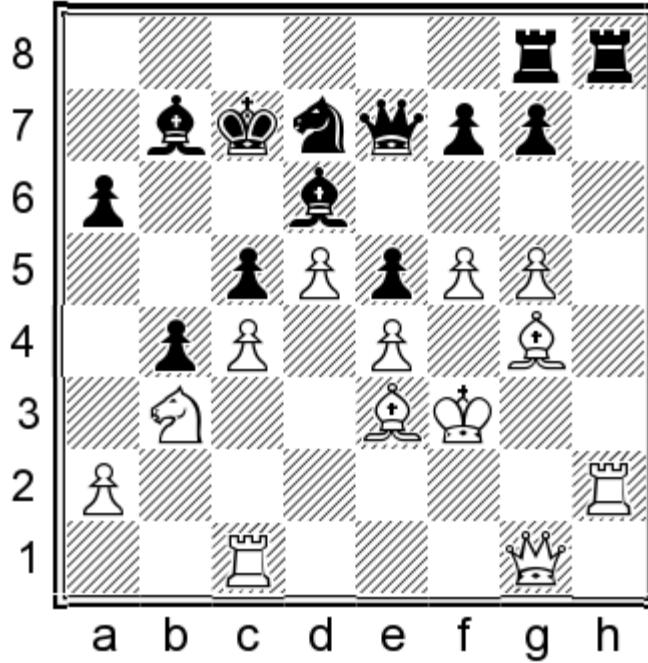
Over the space of seven moves, some truly amazing things occurred: White progressed significantly in all five parameters! It's easy to see that Karpov not only won back his previously sacrificed pawn, but also moved comfortably out of the Petrosian Zone – which didn't appeal to him very much – into the victorious Tal Zone. In addition, White totally liquidated the ghost of an attack on his king that was so frightening, and – most importantly – he outpaced his opponent fantastically in the fourth and fifth factors of the position.

I advise you to study this strategic masterpiece most carefully. Use your computer with the most powerful engine at your disposal.

Our slogan is – compactness!

### No. 64: Karpov – Gligorić

San Antonio 1972



*Position after 45... ♜d7*

We are playing White, and we have:

- 1) material equality;
- 2)  $t = 47/33 \approx 1.42$ , which means we are in the Tal Zone;
- 3) very approximate equality in the safety factor.

Our preliminary diagnosis: the Tal Algorithm, with signs of the TCP Algorithm.

For the time being, we cannot evaluate, with the required accuracy, the safety level of either king. Evidently, we need additional information.

- 4) Compactness:  $7/28 = 7/28$ . The fourth chess factor is neutral, so the information it brings us is null.
- 5) Spatial expansion: we have an overwhelming advantage! The advance guard consists of three white pawns which have already crossed the middle of the board, at d5, f5, and g5. And Black has just one similarly advanced pawn, on b4. Therefore the white pawns are more “elevated” and their value is greater than the value of their black counterparts. A space advantage is analogous to a material advantage: White has something to lose!

Our final diagnosis: not “Tal” with hints of the TCP Algorithm, but the TC Algorithm.

The fifth factor narrows our drift zone a little, moving us slightly in the direction of the Petrosian Algorithm.

Your task is to review the Algorithm Drift Chart. Pay particular attention to the parameter  $\Delta(\text{move})$ .

What happened in the game?

#### 46.a3

Both a sacrifice and a strategic exchange at the same time. That's harmony!

#### 46...bxa3 47.Qa2 Qh4 48.Qxa3

Once the “ugly” a2-pawn disappears, Black necessarily falls apart in short order. Why?

Answer: the compactness of the white pieces (the a- through g-pawns went to being the c- through g-pawns)...

#### 48...Qgh8

For some reason, *Fritz* suggests 48...Qf6, capitulating rapidly after 49.gxf6 gxf6 50.Qa5 Qhxg4 51.Qxg4 Qxg4 52.Qxg4 and 53.Qxc5+-.

#### 49.Qb1 Qb8

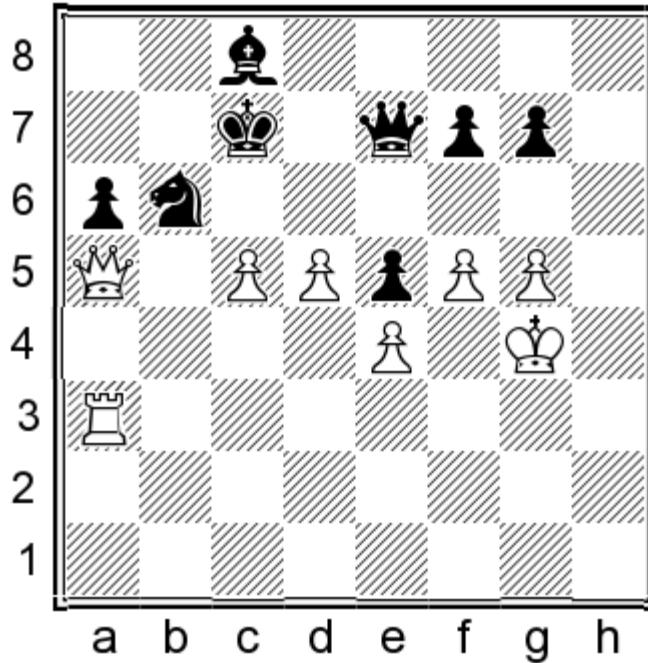
50.Qa5 was threatened.

#### 50.Qe1 Qxg4

Or 50...Qhh8 51.Qa5+ Qc8 52.f6 gxf6 53.Qxc5+- (analysis by Karpov).

#### 51.Qxg4 Qc8 52.Qa5+ 1-0

It's all over, because after 52...Qb6 there is an easy, elegant win with 53.Qxc5 Qxc5 54.Qxb6 Qxb6 55.Qxb6+ Qxb6 56.c5:



Position after 56.c5 (analysis)

The parameters of the position after 56.c5:  $m = \sim 1$ ,  $t = 27/19 = \sim 1.42$ , “+”,  $\Delta k >> 0$  ( $6/10 >> 5/21$ ),  $\Delta(56.c5) = 36/8 - 19/8 = \sim 2.12$ .

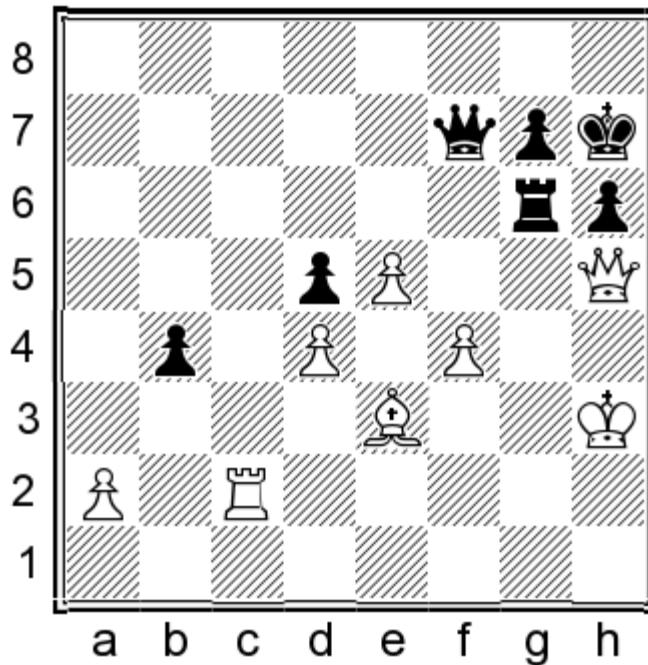
White's superiority in four of the five parameters is more than evident, particularly in the fourth and fifth. White literally crushed his opponent, overrunning him with his compact chess mass...

Our slogan – compactness!

Our final example in this chapter will be one more on the theme of compactness. Compactness can be multifaceted, it can be of a particular kind...

Pay attention! Another example from Karpov's chest of treasures.

### No. 65: Karpov – Yusupov USSR Championship 1983



Position after 42... ♜f7

In this position, White has:

- 1) an extra piece – that is, an overwhelming material advantage;
- 2)  $t = 32/26 = \sim 1.23$  – the Capablanca Safety Zone;
- 3) serious problems in the safety factor – 43... ♜g3+ is threatened.

Our diagnosis can have only one meaning: the Petrosian Algorithm. White is in mortal danger!

A nervous question: what to do? Is there any salvation from that extremely dangerous check on g3?

The then-World Champion has an answer for us. His answer is a move of unusual power.

**43.♖h2**

Commenting on this game, Karpov (and he is very stingy with compliments) gives this move two exclamation points. And he is absolutely right!

Now, as we can easily see, White doesn't fear the check on g3, because the rook securely defends its colleague on h5.

Victory!

Yusupov resigned after

#### 43... $\mathbb{W}d7+$ 44.f5

We selected the Petrosian Algorithm, not on a whim, but out of necessity. Saving himself from a mortally dangerous check, with the rook move White instantly increased his local packing density. Having moved to h2, the rook literally clung to its king, and saved it!

Before 43. $\mathbb{E}h2$ , the density of packing of the pieces around the king was 2/3 (two pieces in the minimal rectangle h3-h5). Now it is 3/4 (three pieces in the rectangle h2-h5). Though small, the magnitude of the increase was decisive. White became more compact!

I conclude my commentary on this final game fragment with two statements on the theme of the strategic and dynamic branches of the Petrosian Algorithm (see also the materials in Part I, Chapter 4). For now, the bare statements.

- 1) The strategic branch of the Petrosian Algorithm practically coincides with the CP Algorithm of the search for the strongest chess move. Particularly if you are entitled to trade first, then you have to exploit it immediately.
- 2) When defending against a dynamic attack on your king, your only real chance for salvation lies in increasing your local piece packing density, placed close to your king. You must do this at all costs!

Karpov – Yusupov is a game on the theme of defending against a dynamic attack by your opponent. A sharp attack, a sharp defense. In the unified spectrum of all attacks and defenses, the place of this game (or, more exactly, of the position after 43... $\mathbb{W}f7$ ) is on the far left half of the spectrum (see the Algorithm Drift Chart).

And we started on the rightmost part of the spectrum – see Game 41. That Fischer game was an illustration of the theme of the sharpest dynamic attack.

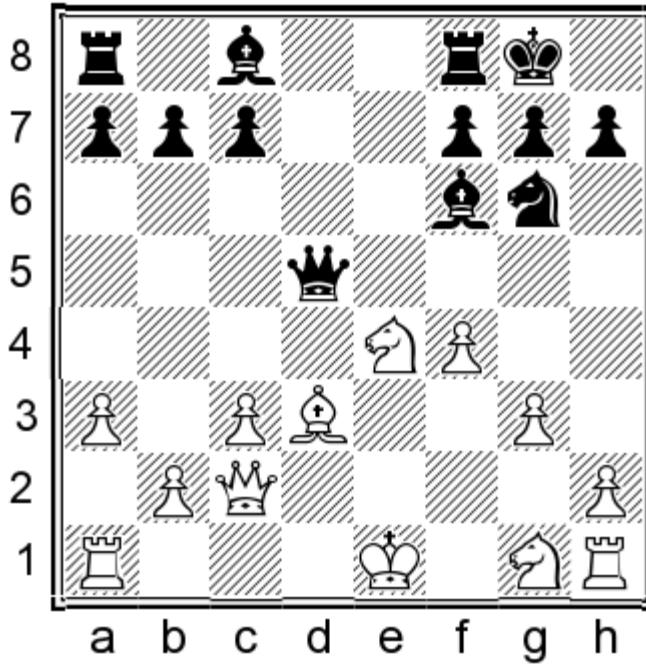
Thus we have surveyed the entire spectrum, lit all the lighthouses along it. Our method is the universal method for searching for the strongest chess move, worked out for all positions, without exception. All of them!

## Chapter 2

### Medium-Difficulty Examples

No. 66: Topalov – Bareev

Linares 1994



Position after 13.a3

We're playing Black. What do we have?

- 1) parity in the first factor of the position;
- 2) the Capablanca Safety Zone:  $t = 47/41 = \sim 1.15$ ;
- 3) an obvious superiority in the safety factor – compare the local density of the black and white pieces right around their kings.

Our preliminary diagnosis: either “Tal” or the TC Algorithm. More likely “Tal,” but...

Our doubts are fueled by the fourth factor: we are more compact! We move right, into “Tal” (see the Algorithm Drift Chart).

The fifth factor of the study position also works in favor of “Tal”:  $\Delta(13.a3) < 0$ . Check it out!

Our final diagnosis: the Tal Algorithm.

Remember, once again, the four elements of the Tal Algorithm:

- 1) open and direct attacks on our opponent’s material targets;
- 2) the optimal placement of our pieces on squares suitable for open and direct attacks on our opponent’s material targets;
- 3) sacrificing chess material (we sacrifice material in order to speed up the pace of the attack); and

4) winning chess material.

In accordance with the value scale, we attack the king first of all, then the queen, etc.

Ready to fight?

**13...♞xf4**

Sacrificing the knight, while at the same time openly assaulting the white bishop! Why? Why, you ask, is Bareev hitting the bishop, precisely? Where's the king? Where are the queen and rook?

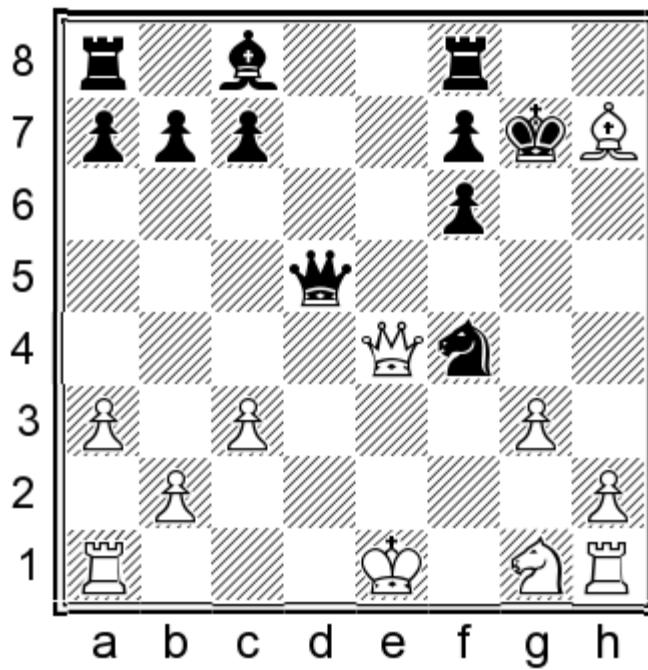
It's all pretty simple: Bareev attacks the bishop because he has nothing better to attack.

**14.♝xf6+**

A mistake. Topalov, it is almost obvious, simply did not notice Black's shattering move 16.

Better 14.gxf4, although then too, after 14...♝h4+ 15.♚f1 f5 16.♝e2 ♚h8 17.♝g2 fxe4, Black has the upper hand (variation provided by *Fritz*).

**14...gxf6 15.♝xh7+ ♚g7 16.♝e4**



In three moves, the position has changed drastically. And those changes are clearly not in White's favor, since his king's position has gone sharply downhill.

Let me show you: compare the mobility of White's king after 13.a3 and then after 16.♝e4. Back then we had six possible moves (not forgetting the right to castle long), and now only two. That means that the probability of a radical resolution of the position has grown. Look for a sacrifice!

**16...♜e8**

There's the refutation of White's plan. Black sacrifices a rook – not for the heck of it, but in order to speed up the attack.

The alternative is the almost prosaic knight check 16...♞d3+. See whether this check wins. And don't forget to use the computer's advice.

**17.  $\mathbb{W}xe8$   $\mathbb{Q}f5$**

The apex of Black's grand plan! By sacrificing his other rook, Bareev forces mate.

**18.  $\mathbb{W}xa8$**

If 18.  $\mathbb{W}a4$ , then 18...  $\mathbb{Q}d3+$  19.  $\mathbb{Q}f1$   $\mathbb{Q}xh7$  (for example) with an easy win (Bareev).

**18...  $\mathbb{W}e4+$**

The local density of the white pieces around the white king is exactly: none!

**19.  $\mathbb{Q}f2$**

Or 19.  $\mathbb{Q}d2$   $\mathbb{W}g2+$  20.  $\mathbb{Q}e3$   $\mathbb{Q}d5+$ , and so forth, as in the game.

**19...  $\mathbb{W}g2+$  20.  $\mathbb{Q}e3$   $\mathbb{Q}d5+$**

Nothing but checks, checks, checks...

**21.  $\mathbb{Q}d4$   $\mathbb{W}d2+$  22.  $\mathbb{Q}c5$   $\mathbb{W}e3+$  23.  $\mathbb{Q}c4$**

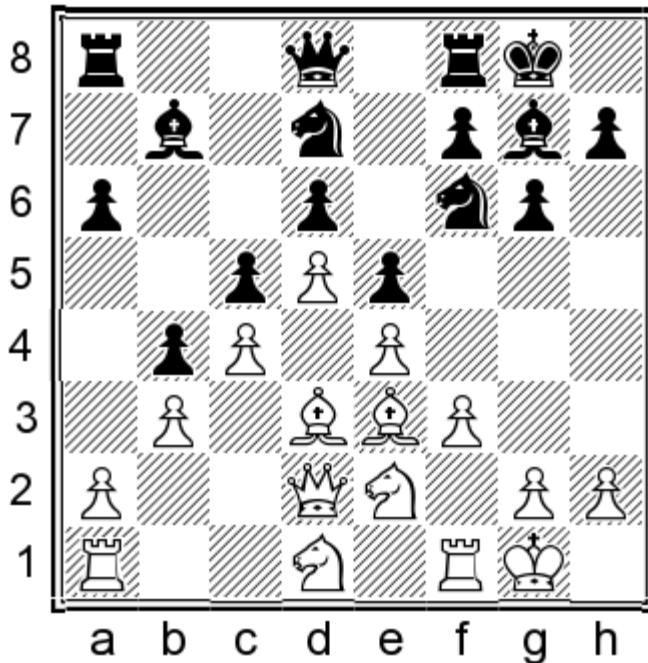
I prefer 23.  $\mathbb{Q}xd5$   $\mathbb{Q}e6\#$ .

**23...  $\mathbb{Q}b6+$**

and Topalov resigned, as he cannot prevent mate within a few moves. **0-1**

### No. 67: Spassky – Penrose

Palma de Mallorca 1969



*Position after 13...c5*

We are playing White, and we have:

- 1) parity in the first factor of the position;
- 2)  $t = 35/28 = 1.25 = t_{cr}$ , meaning that our starting point is on the border between the Capablanca Safety Zone and the Tal Zone;
- 3) parity in the safety factor.

Our preliminary conclusion: the position requires the TC Algorithm.

- 4) Compactness:  $9/40 = 9/40$ . The density of packing of the king and their pawns is equal – the fourth chessic factor is silent;
- 5)  $\Delta(13\dots c5) = 0$  (see the postscript). White and Black are “elevated” to precisely the same degree, which means that the fifth factor of the position, too, is silent. It does not press on us at all.

Since the effect of the fourth and fifth factors amounts to nothing, our final conclusion reiterates our initial one: the study position requires the TC Algorithm. We could put it like this: the position requires both “Tal” and “Capablanca” at the same time.

“Tal,” we have just repeated – see the previous example. But let’s also remember “Capablanca” – more exactly, the right-handed, attacking “Capablanca.”

The three elements of the algorithm are:

- 1) the optimal placement of our pieces on squares suitable for the coming strategic attack on vacant squares of the chessboard;
- 2) advancing the pawns;
- 3) exchanges.

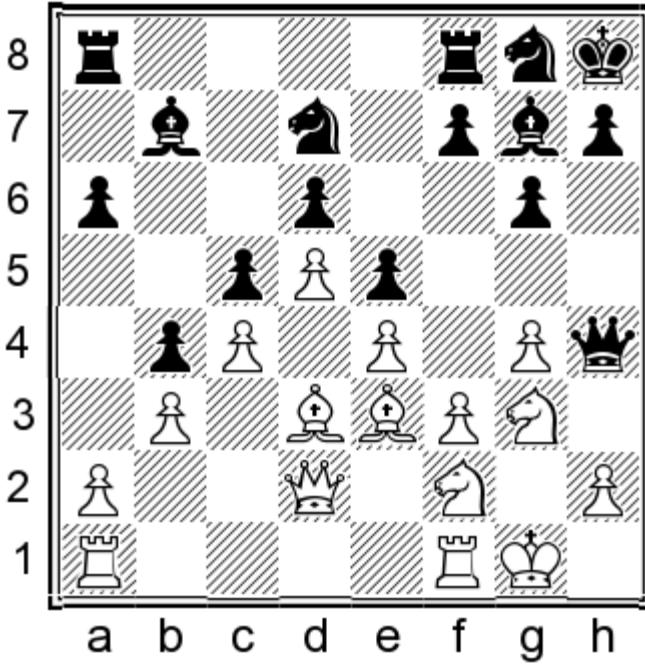
And one more thing: after the third element of the Capablanca Algorithm, there comes the first again. And then the second, the third, and again the first, and so forth. Trade after trade, cycle after cycle. Rinse and repeat.

In this game, Spassky first plays in “Capablanca” style and then in “Tal” style. We know well that there is no sharp line between these algorithms.

#### **14.g4**

Why does this pawn rush forward? For the sake of the seventeenth move!

**14...♝h8 15.♞f2 ♝g8 16.♝g3 ♜h4**



“The queen is not the best blockader, but in this case, the tactical trap 17.♕g5? ♔h6! justifies this decision” (Spassky). What to do? The tenth World Champion has something ready. Pay attention!

**17.♔g2**

White not only “elevates” the king, but also significantly increases the density of packing of his own position, from 9/40 to 9/32. And it’s also important that now White becomes more justified in making an out-of-order exchange.

**17...h6**

What to do? Draw a “picture”: a2-a3, ♕a2, and ♕fa1. And then play a3xb4, etc.

**18.a3**

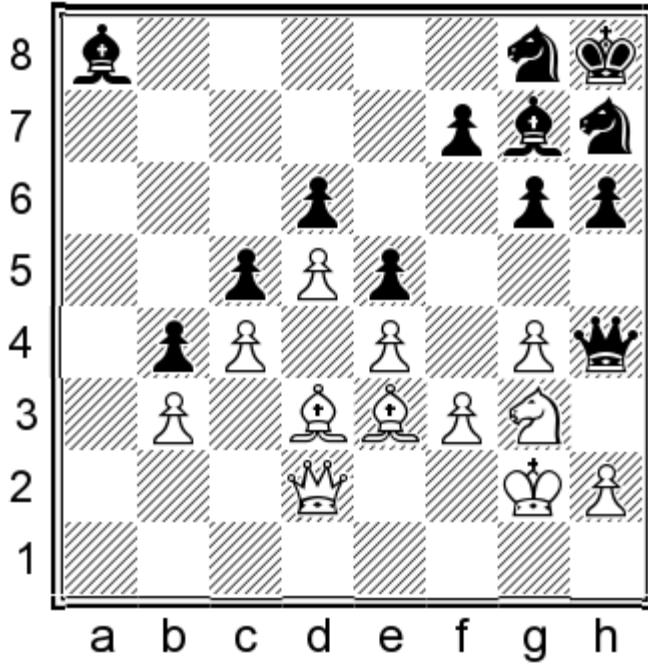
We have the right.

**18...a5 19.♕a2 ♔df6 20.♕fa1 ♔h7**

“A purely strategic error: on 20...♕ab8! 21.axb4 axb4, White has the open file, but no invasion squares. And after the exchange of rooks the white queen will feel like a pirate on the open seas in the enemy’s rear” (Spassky).

And how does that sound, in our terms? 9/40 < 9/32, from which comes 20...♕ab8!.

**21.axb4 axb4 22.♕xa8 ♕xa8 23.♕xa8 ♕xa8**



The first of the strategic cycles is now done. All the rooks and the a-file pawns have come off the board. What next?

**24.♕a2**

Spassky continues to play strategically. The queen moves to a2 and later on (see move 29) to b8. But was he correct? The silicon monster suggests that White had a very strong, concrete move – 24.g5, and then 24...♝xg5 25.♕a2 ♜b7 26.♗a7, a strictly “Tal-like” open attack on the poor light-squared bishop. What to do?

Rybka advises: 26...♝xf3 27.♝xf3 ♜e7 28.♗b8 ♜h7. The evaluation is ± at a depth of 15 ply. So there!

So, why “Tal,” and not “Capablanca”? Because  $t(23\dots\ddot{\text{Q}}xa8) = 32/23 = \sim 1.39$ . Thanks to Black’s mistake on move 20, we have moved into the Tal Zone and have the right to a tactical strike.

**24...♜b7**

Better was 24...♝d8, “Petrosian”-style.

**25.♕a7**

Of course, 25.g5 was stronger – see the note to White’s previous move. More than likely, Spassky simply missed this tactical possibility.

**25...♝e7 26.♝e2**

“Beginning to regroup, intending to carry out f3-f4” (Spassky).

**26...♝hf6**

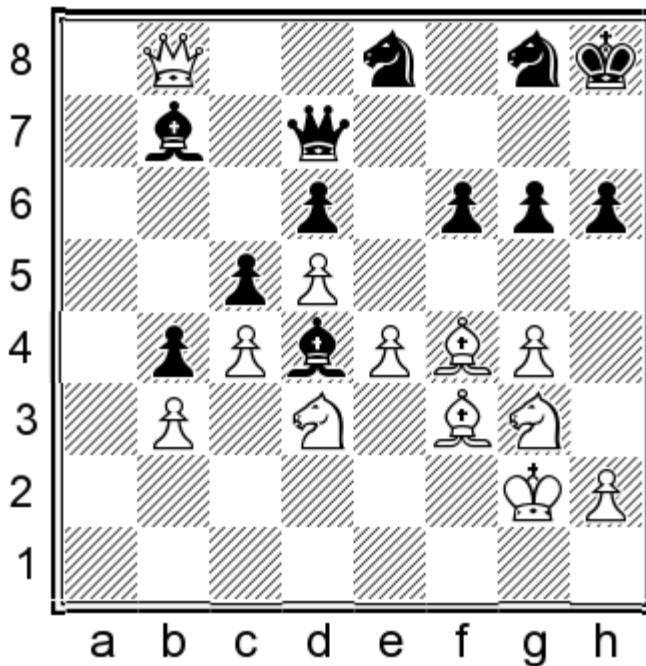
The tenth World Champion thinks that, “... he would have held out longer with a passive approach to defense: 26...♝f8!? 27.f4 f6, with the idea of playing the maneuver 28...♝c8 29.♗b6 ♜b7, ridding himself of the white queen’s pressure.”

**27.f4 exf4 28.♝xf4 ♜e8 29.♗b8**

How is this move notable? By the fact that from the b8 square, the queen keeps watch on, not one, but three targets – the

light-squared bishop, the knight, and the d6-pawn.

29... $\mathbb{Q}d4$  30. $\mathbb{Q}d3$  f6 31. $\mathbb{Q}f3$   $\mathbb{W}d7$



It's easy to see that White has already safely managed to put all his pieces on their best squares. In other words, Spassky, playing strategically, has fulfilled Point 1 of the Capablanca Algorithm. Spassky – we can say this – has forgotten "Tal." For now...

32.h4

Point 2 of the strategic algorithm – push the pawns!

However, it was also possible to play 32. $\mathbb{Q}e2$   $\Delta$  33. $\mathbb{Q}xd4$  cxd4 34.c5+- . Now on 32... $\mathbb{Q}c3$  White wins with 33. $\mathbb{Q}xd6$  – I ask you to extend this. And if 32... $\mathbb{Q}e5$  (Rybka's first line), then 33. $\mathbb{Q}xe5$  fxe5 34. $\mathbb{Q}xe5+$  dx5 35. $\mathbb{W}xe5+\pm$  is very strong. Rybka continues 35... $\mathbb{Q}gf6$  36.g5 hxg5 37. $\mathbb{W}xg5$   $\mathbb{W}f7$  38. $\mathbb{Q}f4$ , and Black's situation is not to be envied. By the way, one threat is  $\mathbb{Q}f4$ -d3. White attacks the target on c5...

"Tal"? Or perhaps we are dealing with an expanded version of the TC Algorithm? Which is it?

I admit that I like the second variation better.

32... $\mathbb{Q}h7$  33.h5 g5 34. $\mathbb{Q}d2$   $\mathbb{Q}e5$

With this move, Black chooses the most radical measure to prevent the possible pawn sacrifice 35.e5 fxe5 36. $\mathbb{Q}e4$ , and so on (Spassky's recommendation). I would add that the maneuver  $\mathbb{Q}f3$ -e4-f5, followed by  $\mathbb{Q}g3$ -e4, also looks very promising.

But it's not beyond the realm of possibility that, instead of the text, it nevertheless would have been stronger to play 34... $\mathbb{Q}e7$ .

Your are hereby tasked with trying out Spassky's recommendation. Research the position after 34... $\mathbb{Q}e7$  35.e5 fxe5 36. $\mathbb{Q}e4$  – first without a chess engine, and then with one.

35. $\mathbb{Q}e3$

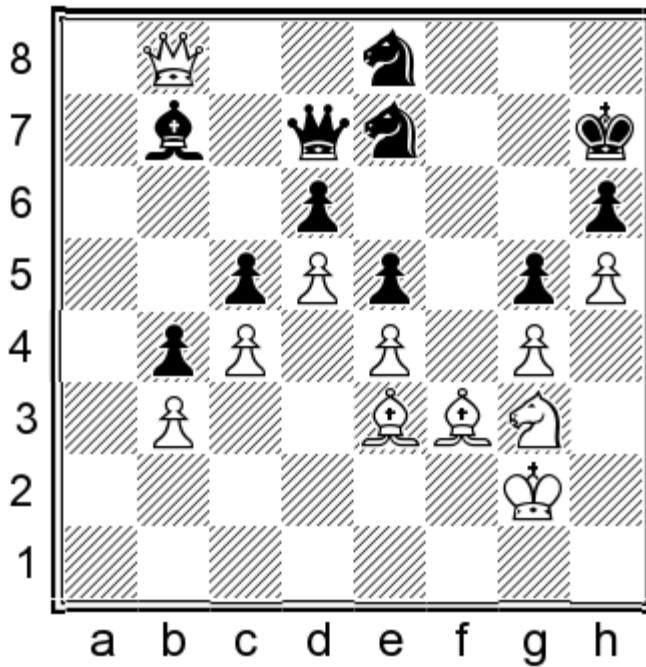
The best square for the bishop.

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

What should White do? Trade? Why?

Because, in the first place, all his pieces already stand on their best squares. And in the second place, the white pawns have been improved to the utmost.

36. $\mathbb{Q}xe5$   $fxe5$



37. $\mathbb{Q}xc5$

Was this sacrifice an accidental or a regular one?

A regular one! Because (forgive the monotonous repetition) White has already succeeded in deploying all his pieces to their best squares and improved all of his pawns to their limit.

I add: the sacrifice of a bishop for two enemy pawns is the closest thing to a strategic trade. There is no separation between “Tal” and “Capablanca”!

37... $dxc5$  38. $\mathbb{W}xe5$   $\mathbb{Q}g8$  39. $\mathbb{W}b8$

Clearly, with both queens still on the board, the best square for the white queen is on b8. With his move 39, Spassky starts a new cycle of the strategic algorithm – the first point of it. But the immediate queen trade (39. $\mathbb{W}f5+$ ) deserved the most serious attention. Why?

Because  $7 > 5$  and  $7/28 > 5/28$  – compare the density of packing of White and Black with respect to the king and pawns. White is more compact, and consequently, is entitled to exchange first!

And now, a word from the unemotional *Fritz*: 39. $\mathbb{W}f5+$   $\mathbb{W}xf5$  40. $\mathbb{Q}xf5$   $\mathbb{Q}gf6$  41.e5  $\mathbb{Q}d7$  42.e6. Is White winning? Please extend this.

...A few years after *Fritz*'s revelations, I returned to the position after 39. $\mathbb{W}f5+$  and fired up *Rybka*. And here's what it told me:

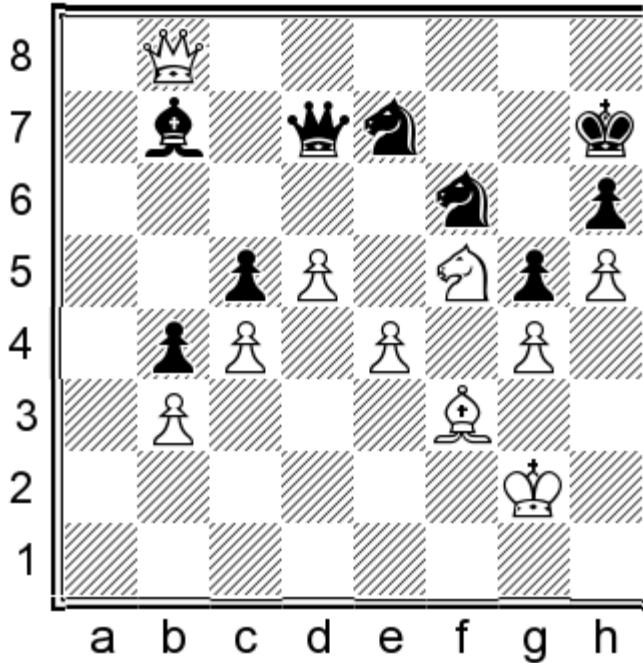
After 39.♕f5+ ♜xf5 40.♗xf5, we must play, not 40...♝gf6, but 40...♝c8. And, lo and behold! – after 41.e5 ♜xf5 42.gxf5, Black gives back the piece with 42...♝gf6, and there's no win in sight!

The unanswered questions are: could it be that White should not play 41.e5? And what then? Or, finally, was Spassky's 39.♕b8 the strongest? Or did Spassky, forgetting about "Tal" (see my notes to 24.♕a2 and 25.♕a7), play on until he lost real winning chances?

### 39...♝ef6

A mistake. 39...♝gf6 was stronger, and if 40.e5, then 40...♝xd5 with unclear play. And on 40.♗f5, Black has two replies (40...♝c8 and 40...♝c7) when White is better, but there is no direct win.

### 40.♗f5 ♜e7



### 41.♗xh6

An elegant little combination in the style of Capablanca. On 41...♝xh6, White wins at once with 42.♕f8+ ♚h7 43.♕f7+. On the board, it's "Tal." Why?

I will answer that question with a question: after 40...♝e7, what is the mobility of the black king?

### 41...♝exd5 42.cxd5 ♚xh6 43.♕f8+ ♚g7 44.♕xc5 ♜d7 45.♕d6+ ♚h7 46.e5

Spassky's outstanding! A final little combination: on 46...♝xe5 the bishop check wins – 47.♝e4+.

### 46...♚h8 47.h6 ♜h7 48.e6 ♜c2+

A typical final check before dying.

### 49.♚g3

Black resigned. **1-0**

## *Postscript*

The dynamic of the two parameters in the course of the game:

$$\Delta(13\dots c5) = 39/16 = 0 \text{ and } \Delta k = 0.$$

$$\Delta(17.\ddot{\Delta}g2) = 44/16 - 41/16 = \sim 0.19 \text{ and } \Delta k = 0.$$

$$\Delta(23\dots \ddot{\Delta}a8) = 40/13 - 36/13 = \sim 0.31 \text{ and } \Delta k > 0.$$

$$\Delta(36\dots fxe5) = 44/11 - 32/11 = \sim 1.09 \text{ and } \Delta k = 0.$$

Day and night, I will tirelessly keep repeating to you, dear reader, the same truly deep chess maxim. One more time (Spassky is my witness): flawless strategic play (the strategic attack) is always correlated with the deliberate movement of the center of gravity of your own position toward the queening square. I add: with  $\Delta k \geq 0$ .

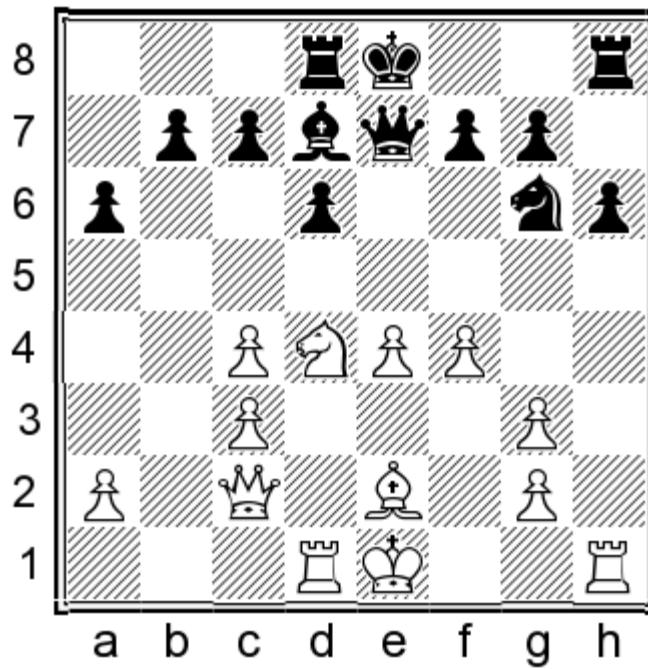
The bigger our  $\Delta k$ , the better our chances of breaking down the enemy's defenses.

A strong player who proceeds strategically will not be sidetracked by the calculation of lengthy variations. He thinks in images. From a multitude of possible positions, the strong player chooses the most beautiful and desirable alternative. And he strives to achieve that, to turn his fantasies into reality...

Spassky's play in this game was strategically flawless. Concretely – that is, tactically – not without some rough edges. As with Capablanca, the stronger side constantly improves his position and sets the dynamics going only at the last minute.

### No. 68: Botvinnik – Nenarokov

Leningrad 1933



*Position after 16... Qd8*

We play White, and we have:

- 1) parity in the first factor;
- 2) the Capablanca Safety Zone:  $t = 40/36 = \sim 1.11$ ;
- 3) a slight inferiority in the safety factor (compare the local density of the pieces around the kings – the white king is

less well packed).

Our preliminary diagnosis: either “Capablanca” or the CP Algorithm.

For a more exact conclusion, we clearly lack the information.

4) in the fourth chess factor, White is a little worse:  $\Delta k = 8/28 - 8.24 < 0$ . So the compactness factor moves us slightly toward the Petrosian Algorithm. Our position is porous, and our opponent has real chances to get into the “gaps;”

5) the fifth factor: White is better here, as  $\Delta(16... \mathbb{E}d8) = 33/13 - 27/13 = 6/13 = \sim 0.46$ .

Our significant “plus” in the fifth parameter means that we have something to lose, which means that there’s something to defend. In other words, our rather large  $\Delta(\text{move})$  also moves us in the direction of “Petrosian.”

From this, our final diagnosis: the study position requires the CP Algorithm.

We defend. We protect the king, the other pieces, and (if possible) our high  $\Delta(\text{move})$  value. The king, we protect at any cost; the pieces and pawns – where possible. And the large  $\Delta(\text{move})$  is last in line, because the value of the vacant squares controlled by the white pieces and pawns is less than the value of our pieces and pawns themselves.

What to do?

Botvinnik gives the answer:

### **17.♗f2**

With this move, White considerably increases the density of packing of his king and pawns from 8/28 to 8/21. White becomes more compact than Black, and that’s a plus! No less important is the fact that after 17.♗f2 the white pieces’ mobility is also increased. Verify this!

However, not everything is so remarkable. The downside is that White has brought his king closer to the front. His position has become less safe, which means that, in the not-so-distant future, Botvinnik will have to take measures (which cannot be put off) to increase the safety of his position.

What sorts of measures, exactly? Botvinnik answers (I’m getting a little ahead of myself here). Here’s his deployment: the bishop on f3, queen on d2, and ♜d4-c2-e3. This setup will guarantee White a safe life. Only once it’s completed can White think about more than defense.

### **17...♝f6**

17...0-0  $\Delta \dots \mathbb{E}fe8$  and ...♝c6, with excellent play, was simpler.

### **18.♗f3**

Else 18...♜e5 and Black is better.

### **18...♜e7 19.♝d2**

We know what to do: we increase the density of the pieces around our king.

### **19...b6**

Very passive; 19...0-0 was better. Black need not fear the ghost of an attack. The strong player is always a fearless player!

### **20.g4**

Given the smallest opportunity, Botvinnik shows some activity. 21.g5 is threatened, and Black cannot reply 21...hxg5. This aggressive pawn move is a worthy reply to his opponent's passive stance, and this kind of play earns our appreciation.

## 20...g6

Black's lack of activity is simply revolting! With such a policy, he is doomed to a bad end.

*Fritz* advises 20...g5 or even 20...0-0. A couple of variations:

a) 20...g5 21.fxg5 (21.g3!?) 21...hxg5 22.♖xh8+ ♜xh8 23.♗xg5 ♖g6;

b) 20...0-0 21.♖h5 ♜fe8 22.♖dh1 ♔f8.

## 21.♖h2

"The threat is 22.♖dh1 ♜g7 23.g5 h5 24.g4, winning a pawn" (Botvinnik).

## 21...♗g7 22.♖dh1 f6 23.♘c2 g5

Much too late, and without great hope of success. Black is in a bad way.

## 24.♘e3

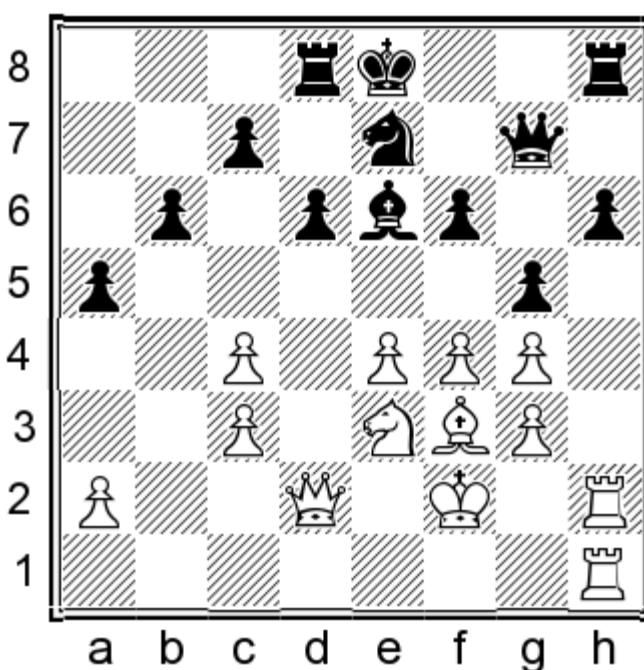
"Here the knight protects the pawns at c4 and g4, and also attacks the points d5 and f5. White has no fear of 24...gxh4 because of 25.♘f5 ♜xf5 26.exf5, and then ♜xf4, with a triple attack on the pawn at h6" (Botvinnik).

## 24...♜e6 25.g3

With this move, White has completed the setup we discussed in our notes to 17.♔f2. True, Botvinnik strengthened it with two rooks on the h-file and the pawn at g4. The reason: Black's passive play.

## 25...a5

Black has nothing left to do but wait.



Are you sure that the diagnosis of this position coincides with the diagnosis after 16... $\mathbb{B}d8$ ?

You may now be having doubts. And you'd be right! We must take the position under the microscope once again, since it is likely that the relevant algorithm has changed. And so, we now have:

- 1) parity in the first factor of the position;
- 2) Capablanca Safety Zone:  $t = 42/38 = \sim 1.11$ ;
- 3) rough parity in the safety factor – there's nothing seriously threatening the kings.

Our preliminary diagnosis: the Capablanca Algorithm.

- 4)  $\Delta k = 8/21 - 8/32 > 0$ . The compactness factor moves us in the direction of "Tal;"
- 5)  $\Delta(25\dots a5) = 37/13 - 32/13 = 5/13 = \sim 0.38$ . The fifth factor of the position leads us to "Petrosian," negating the fourth factor.

We have every reason to believe that the fourth and fifth factors cancel each other out and have no influence on our choice of algorithm.

Therefore, our final diagnosis coincides with the previous one: the Capablanca Algorithm. And we know very well what to do here...

### 26.a3

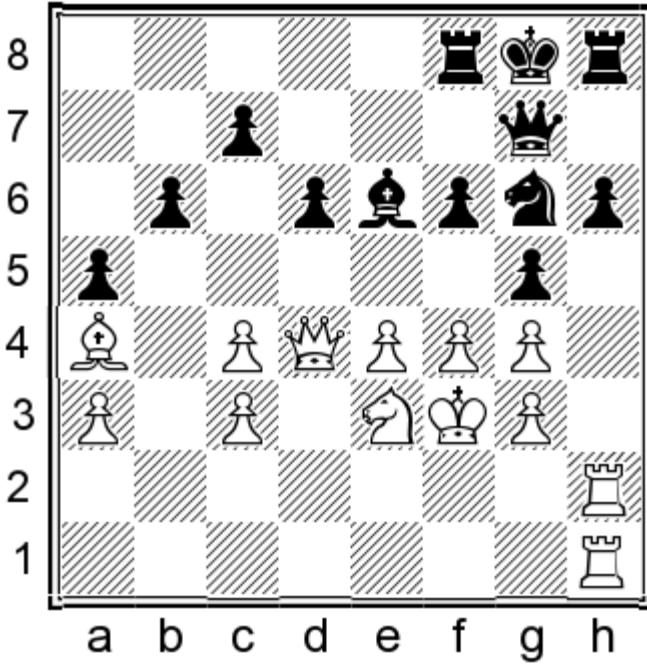
Much as a droplet of water is like the ocean, this little move by the white pawn reflects all the primeval depth of our impressive game. Botvinnik improves this pawn, most probably by intuition, in the most modest way imaginable. Or, to put it another way, he improves it proceeding out of esthetic and practical considerations. Here's what the first Soviet World Champion writes in his annotations: "When your opponent doesn't have even a hint of possible counterplay, waiting moves are always allowable and even useful, in order to let the other side express himself, while you yourself get the time to fully analyze the position again."

In the language of the Capablanca Algorithm this sounds standard: it's the second point of the algorithm! Botvinnik improves the pawn because he has already placed his pieces on their best squares.

**26... $\mathbb{Q}d7$  27. $\mathbb{W}e2$   $\mathbb{B}b8$  28. $\mathbb{W}d3$   $\mathbb{Q}e8$  29. $\mathbb{Q}d1$   $\mathbb{Q}g6$**

The final mistake. 29... $\mathbb{Q}d7$ , not allowing the activation of White's bishop, was better.

**30. $\mathbb{Q}a4+$   $\mathbb{Q}f8$  31. $\mathbb{Q}f3$   $\mathbb{Q}g8$  32. $\mathbb{W}d4$   $\mathbb{B}f8$**



The parameters of the diagram position are:  $m = 1$ ,  $t = 47/31 \approx 1.52$ , roughly “=”,  $\Delta k = 8/14 - 8/32 >> 0$ ,  $\Delta(32... \mathbb{Q}f8) = 42/13 - 33/13 = 9/13 \approx 0.69$ .

Obviously, this position needs the Tal Algorithm – first of all, so that the importance of the “t” parameter should be more than critical.

Attention! What does Botvinnik do?

**33.  $\mathbb{Q}f5$**

Open attack on the queen! And it is only because the black king is (thus far) out of reach.

**33...  $\mathbb{Q}xf5$  34.  $\mathbb{exf}5$   $\mathbb{Q}e7$  35.  $\mathbb{Q}d7$**

Getting to the king. There is no defense against the check from e6.

**35...  $\mathbb{Q}h7$  36.  $\mathbb{fxg}5$   $\mathbb{fxg}5$**

“Or 36...  $\mathbb{W}xg5$  37.  $\mathbb{Q}h5$   $\mathbb{W}g7$  38.  $g5$   $c5$  (38...  $\mathbb{fxg}5$  39.  $\mathbb{Q}e6+$   $\mathbb{Q}h8$  40.  $\mathbb{Q}xh6$ ) 39.  $\mathbb{Q}e6+$   $\mathbb{Q}h8$  40.  $gxh6$   $\mathbb{W}xg3+$  41.  $\mathbb{Q}xg3$   $cx d4$  42.  $cx d4$   $\mathbb{Q}c6$  43.  $\mathbb{Q}5h4$ , etc.” (Botvinnik)

**37.  $\mathbb{Q}e6+$   $\mathbb{Q}f7$**

If 37...  $\mathbb{Q}h8$ , then 38.  $\mathbb{Q}xh6$  wins.

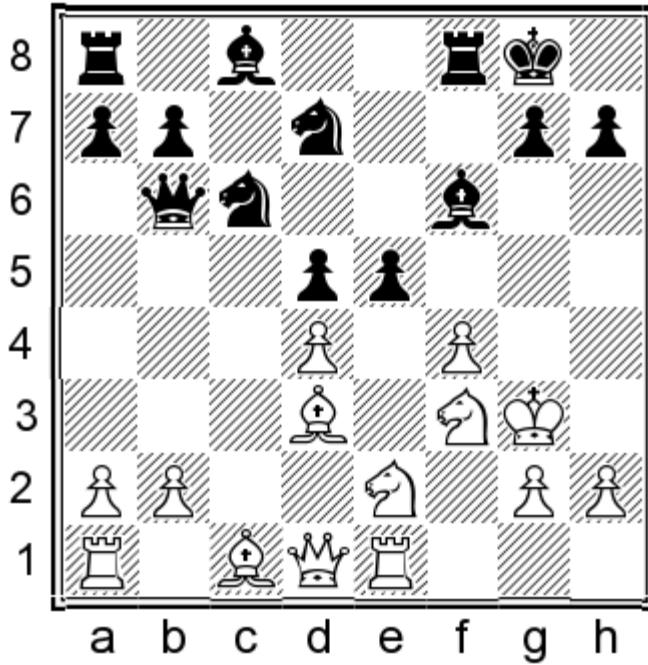
Here Black resigned, as further resistance is pointless after 38.  $\mathbb{W}xg7+$   $\mathbb{Q}xg7$  39.  $\mathbb{Q}xf7$   $\mathbb{Q}xf7$  40.  $\mathbb{Q}xh6$ . **1-0**

Refraining from tactical melees, Black gave ground inch by inch. White, naturally, accepted it and – what is super-important – securely held onto it. This was made possible by the fact that the aggressor’s piece density was higher than (or at least equal to) the density of the defending side.

Botvinnik’s victory is an example of slow, careful strategic expansion in the middlegame.

**No. 69: Reshevsky – Vaganian**

Skopje 1976



*Position after 14...e5*

In this position, White has:

- 1) the chance to win a pawn in one move;
- 2) rough parity in the second factor:  $t = 38/37 = \sim 1.03$ ;
- 3) a marked inferiority in the safety factor: White's king doesn't have a whole lot of moves, and besides – and this is most unpleasant! – it's subjected to the heat of powerful beams from the enemy queen and light-squared bishop.

Our final diagnosis: the Petrosian Algorithm – more exactly, its dynamic branch. Why?

First of all, because our king is not safe. And secondly, for the simple reason that Black has just sacrificed a pawn. Our "Petrosian" is the natural reaction to the opponent's "Tal."

Pay attention! White's position is threatened! What should we do?

Above all, we must understand clearly that – as a general proposition – we do not have, and there cannot be, "pure 100%" defensive methods. Just as, for the stronger side attacking us, there are not (nor can there be) "100%" attacking methods.

We have three defensive elements. Because defense is always the converse of attack, "Petrosian" is the mirror of "Tal."

The general quality of both "Tal" and "Petrosian" is their identical hierarchy of values. In the attack, the stronger side pursues the king first, then the queen, etc. This means that, in defense, the weaker side defends the king first, followed by the queen, etc. Save the king!

When defending, we are obligated, in the first place, to watch out for open and direct attacks on our king. And secondly, we must at all costs ensure the necessary and sufficient level of piece density around our king.

Rybka finds a defense: 15.  $\mathbb{Q}c3$  exf4 16.  $\mathbb{Q}xf4$ , and if 16...  $\mathbb{Q}xd4$ , then 17.  $\mathbb{Q}xd4$   $\mathbb{W}xd4$  18.  $\mathbb{Q}xd5$ , etc. Note that, after 16.  $\mathbb{Q}xf4$ , the packing density of the white pieces around the king stays unchanged, while after 18.  $\mathbb{Q}xd5$  it decreases – the knight has vanished from f3. But it did not perish in vain! Its death led to the destruction of the strong enemy light-squared bishop.

Reshevsky, however, played the weaker

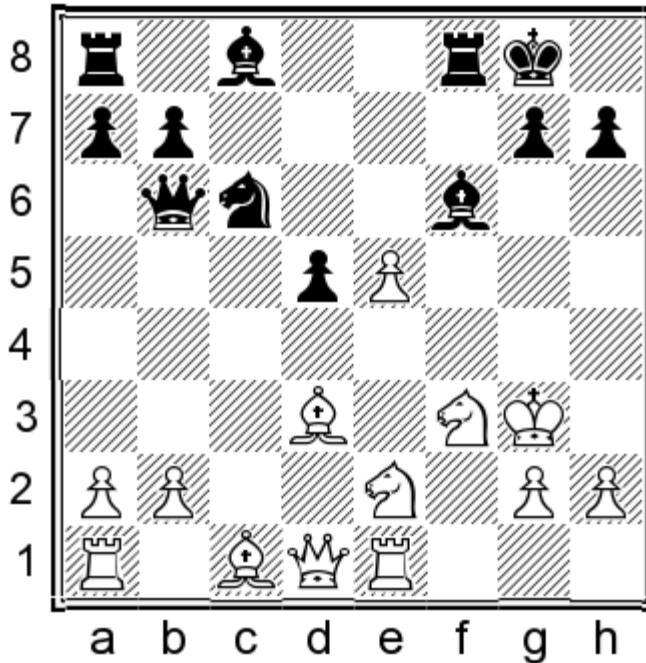
**15.fxe5**

White, without any particular need to do so, exposes his king – the f4-pawn disappears.

**15...Qdxe5**

The punishment. Vaganian is outstanding!

**16.dxe5**



The final mistake. It is obvious that the American grandmaster has overlooked his opponent's stunning reply.

**16...Qh4+**

Now 17.Qxh4 is not possible because of the mortal blow 17...Qf2#. The only other move was –

**17.Qxh4**

– but then

**17...Bxf3**

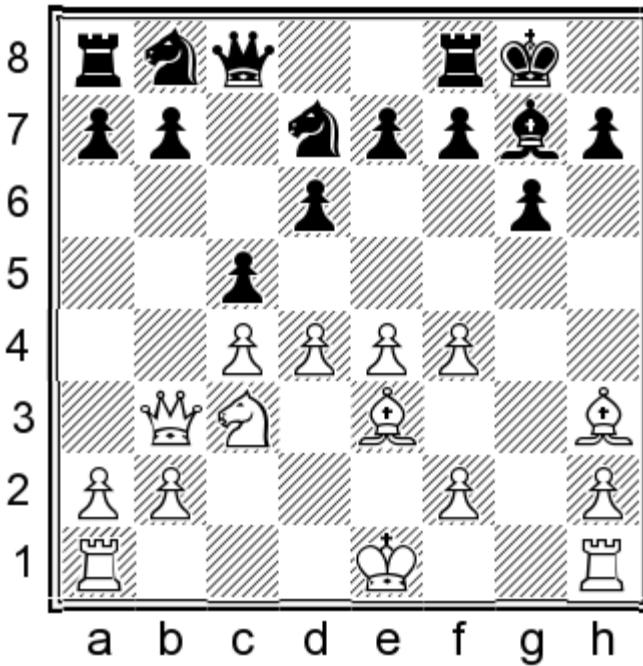
and even *Rybka* can't help. Reshevsky resigned on move 29.

As a postscript to this gem by Vaganian, let the last word be the final moves of the game. I present them without comment, because the theme of this example is defense and not attack.

**18.Bf1 Qb4+ 19.Qf4 Qe7+ 20.Qg5 Qe6 21.Qf5 Bxf5 22.Qf4 Qxe5 23.Qg4 Bf7 24.Qh5 Qe7 25.g4 Qg6+ 26.Qg3 Qd7 27.Bae1 Qd6 28.Qh6 Baf8 0-1**

**No. 70: Kamsky – Adams**

Las Palmas 1994



*Position after 10...c5*

White has:

- 1) parity in the first chess factor;
- 2)  $t = 40/30 = \sim 1.33 > t_{cr} = 1.25$  – the Tal Zone;
- 3) a barely noticeable “minus” in the safety factor, because the packing density of the white pieces around the king is smaller than the corresponding density of the black pieces.

Our preliminary diagnosis: the TC Algorithm, or the right side of “Capablanca.”

For now, we cannot evaluate, with the needed accuracy, the level of safety of the opposing kings. Evidently, we need more information:

- 4) the fourth chess factor is at parity;
- 5) the fifth factor: White stands better here. This is visible to the unaided eye: compare White’s four pawns on the fourth rank with the sole black pawn pushed to its fourth rank.

White has something to lose ( $\Delta(10...c5) > 0$ ), which means that he has something to protect. In other words, the factor of spatial expansion works against any modifications of the Tal Algorithm. It moves us in the direction of the Petrosian Algorithm.

Our final conclusion: not the TC Algorithm, but the right half of the Capablanca Algorithm.

How did the game go?

### 11.dxc5

One of the two possible and strategically flawless solutions. Why?

Because in this position, White has the right to make a strategic exchange first ( $\Delta k = 0$ ).

The alternative is 11.d5, hitting the strategically important vacant squares c6 and e6.

### 11...Qxc5

After 11...dxc5 12.e5 ( $\Delta$  13. 0-0-0), White stands clearly better.

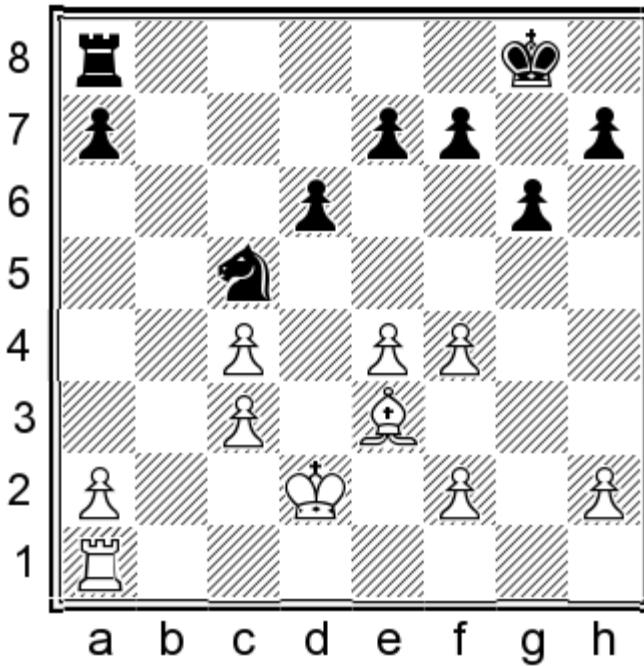
But now play becomes forcing.

**12.♗xc8 ♗xb3 13.♗xb7 ♗xc3+ 14.bxc3 ♗xa1 15.♗d2**

*Fritz* considers this to be the best move.

**15...♗d7 16.♗xa8 ♜xa8 17.♗xa1 ♜c5**

Black's last move is no better or worse than other choices, such as 17...♗f8, 17...f5, etc.



A difficult endgame has arisen for Black.

Colossal alterations have occurred in the last seven moves, which means that the algorithm has very likely shifted. Let us examine the diagram position:

- 1) White has an extra pawn:  $m > 1$ ;
  - 2)  $t = 21/26 = \sim 0.81$  – that is, we are practically right on the line between the Capablanca Safety Zone and the Petrosian Zone;
  - 3) complete and inarguable parity in the safety factor.
- From there, we have our preliminary diagnosis: the CP Algorithm, or else the Petrosian Algorithm. What makes us lean toward “Petrosian” is the material factor. Let’s go further:
- 4)  $\Delta k > 0$ , as  $8/24 > 7/24$ ;
  - 5)  $\Delta(17...♜c5) = 27/10 - 20/9 = \sim 0.48$ . That is, our  $\Delta(\text{move}) > 0$ .

The fourth factor pushes us toward “Tal,” while the fifth pulls toward “Petrosian.” We will judge that they cancel each other out; they have no net effect on our assessment of the position.

Our final diagnosis: this position meets all the requirements of both the CP Algorithm and the Petrosian Algorithm. We are within the strategic branch of the Petrosian Algorithm.

There followed

## 18.e5

Trades favor White, and so this move cannot be bad. However, most likely the requirements of the position are better satisfied by a different trade: 18... $\mathbb{Q}xc5$ . After 18... $dxc5$  19. $\mathbb{B}b1$   $\mathbb{B}d8+$  20. $\mathbb{Q}e3$   $\mathbb{B}d6$  (*Rybka's first line*), White has every prospect of winning: 21. $\mathbb{B}b5$   $\mathbb{B}c6$  22. $\mathbb{B}a5$  a6 23.e5  $\Delta$   $\mathbb{Q}e4-d5$ , and then  $\mathbb{B}a3-b3$ , a4-a5, etc.

## 18... $\mathbb{Q}e6$

Wrong! Following 18... $\mathbb{B}c8 \Delta \dots \mathbb{B}c6$ , ...a7-a6, ... $dxc5$  (after trading bishop for knight) and ...f7-f5, Black gains real drawing chances. Why?

Short answer: the fortress!

Of course, White would have every chance to avoid such an unfavorable development, but... but somehow, a direct win doesn't seem possible.

Investigate this position! First on your own, and then with the help of a chess engine.

## 19.exd6

19.f5 was stronger (*Fritz*). Now 19...gxf5 would be bad: after 20. $\mathbb{B}g1+$   $\mathbb{Q}h8$  (20... $\mathbb{Q}f8$  21. $\mathbb{Q}h6+$   $\mathbb{Q}e8$  22. $\mathbb{B}g8++-$ ) 21.exd6 exd6 22. $\mathbb{Q}d4+$   $\mathbb{Q}xd4$  23.cxd4  $\Delta$   $\mathbb{Q}c3$  and c4-c5, White wins.

## 19...exd6 20. $\mathbb{B}b1$ $\mathbb{B}c8$

Loses without a fight. Both 20... $\mathbb{Q}f8$  and 20... $\mathbb{Q}c5$  were better.

## 21. $\mathbb{Q}xa7$ $\mathbb{B}xc4$ 22. $\mathbb{B}b4$ $\mathbb{B}c6$ 23.a4

Simplest. White improves his pawn without delay. The goal: the a8 square!

## 23... $\mathbb{B}a6$ 24. $\mathbb{B}b6$ $\mathbb{Q}xf4$ 25.a5

In order to increase his  $\Delta$ (move), White doesn't shrink even from sacrifices. First a pawn...

## 25... $\mathbb{Q}d5$

...and then the exchange.

## 26. $\mathbb{Q}d3$

On the board, "Tal" is howling. There is no defense.

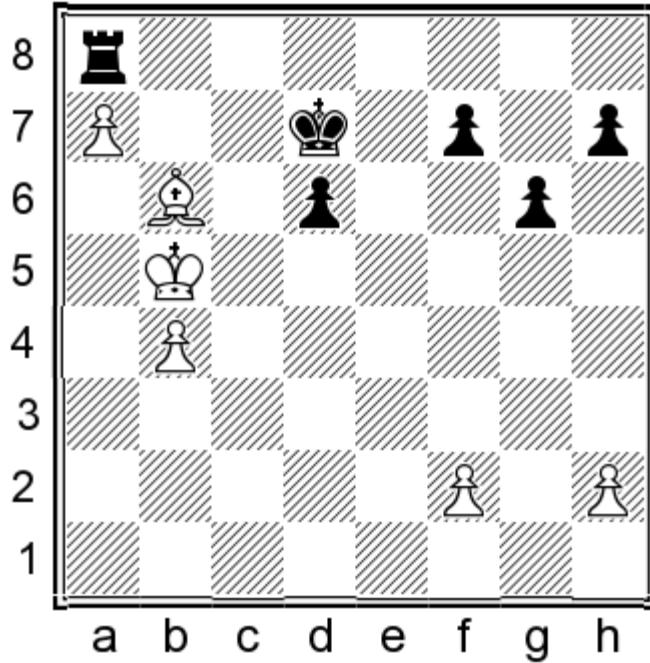
## 26... $\mathbb{Q}f8$ 27. $\mathbb{Q}c4$ $\mathbb{Q}xb4$ 28.cxb4

Ever higher and higher!

## 28... $\mathbb{Q}e7$ 29. $\mathbb{Q}b5$ $\mathbb{B}a8$ 30.a6

Another good line would be 30. $\mathbb{Q}c6 \Delta \mathbb{Q}b7$ , a6-a7, etc.

## 30... $\mathbb{Q}d7$ 31.a7



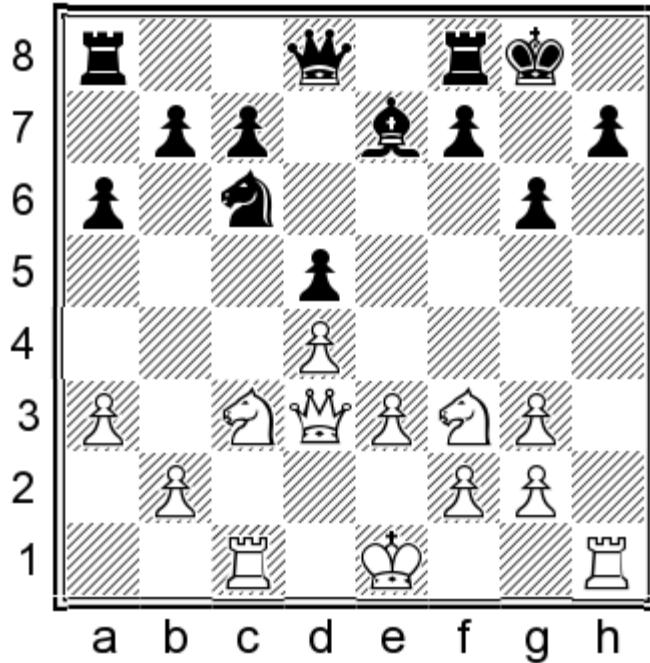
Black resigned. **1-0**

In the final position,  $\Delta(31.a7) = \sim 2.17$ . Confirm this.

Flawless play in strategically superior positions correlates with an increasing  $\Delta(\text{move})$  – that is, with expansion.

### No. 71: Van Wely – I. Sokolov

Internet 2000



*Position after 13...g6*

We are playing White, and we have:

- 1) parity in the first factor;

2)  $t = 48/32 = 1.50 > t_{cr} = 1.25$  – the Tal Zone;

3) a significantly higher level of safety, because h7, located in the immediate vicinity of the black king, is attacked by the white rook.

Our situation is relatively simple. It arises from the great number of examples we have already examined, where the attack on the king had to be prepared carefully.

#### **14.♔e2**

By improving the king, White not only increases his  $\Delta(\text{move})$  and compactness: his mobility is also enhanced – primarily, that of the rooks.

White plans to double rooks on the h-file. His goal will be the material target on h7.

#### **14...♜f6 15.g4 ♜g7 16.g5**

The target on h7 is now fixed.

#### **16...f5**

This move cannot be called adequate. It seems to me that Black has missed the point of White's operations: White will have rooks on the h-file, a pawn on g3, and the king on g2. Next he will redeploy the c3-knight to f4. And all this with that pawn on g5, so awful for Black.

*Fritz* advises 16...f6.

#### **17.♝h4**

Cutting off any possible enemy counterplay with 17...f4, etc.

#### **17...♝f7 18.♝ch1**

Open attack on the h7-pawn. By attacking it, we also attack the king. Why?

Because the h7-square is one of the five squares surrounding the king on g8.

#### **18...♞h8**

Or 18...♝f8 19.♔f1 ♜d6 20.♕e2.

#### **19.♔f1 ♜d6 20.♕e2**

In total accordance with the second point of the Tal Algorithm, White places his pieces on squares suitable for the coming attack. The knight goes to f4, closer to the enemy monarch!

#### **20...♝e7 21.♝f4 c5**

It's very hard to call this counterplay timely. It looks like Black's predicament is very bad indeed.

#### **22.g3**

White is in no hurry – perfect strategy! Now the king has a very safe and comfortable refuge on g2.

#### **22...♝b6 23.♔g2 ♜c8**

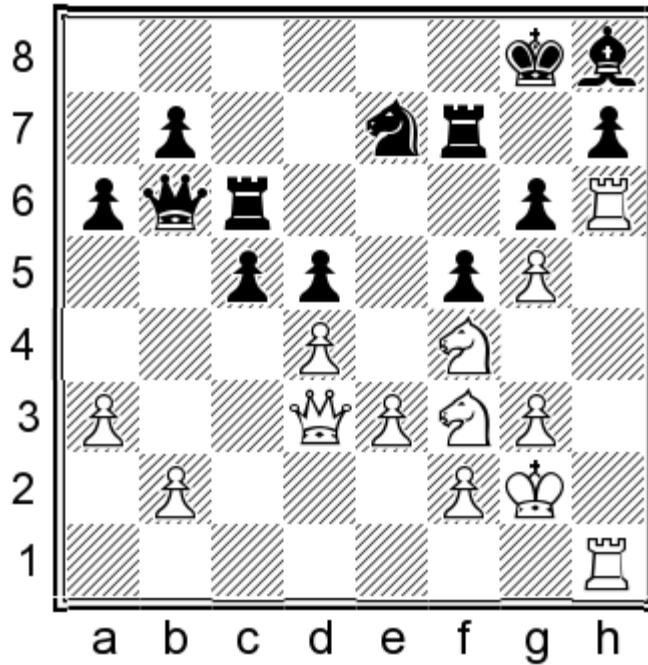
The b2-pawn is poisoned: 23... $\mathbb{W}xb2$  24. $\mathbb{B}b1$   $\mathbb{W}a2$  25. $\mathbb{B}xb7+-$ .

## 24. $\mathbb{B}h6$

Fritz likes this move a lot. It also likes 24.b4 and 24. $\mathbb{Q}e5$ . Computer programs always think concretely.

## 24... $\mathbb{B}c6$

Losing quickly; Black clearly underestimated the flaws in his position following the knight's jump to e5. It was necessary to address this concrete threat: 24... $\mathbb{W}c6$  (*Rybka*). But even then, after, let's say, 25. $\mathbb{W}e2$   $\mathbb{W}d6$  26. $\mathbb{Q}h4$   $\mathbb{B}g7$  27.dxc5, White has a clear advantage. More to the point: White's position is strategically winning!



## 25. $\mathbb{Q}e5$

Preparations for the offensive are complete. More precisely: the stage is set for the dynamic phase of the attack on material targets. This knight move is the first shot: a double attack!

## 25... $\mathbb{Q}xe5$ 26.dxe5 $\mathbb{W}xb2$

26... $\mathbb{W}d8$  holds out longer, but there too, Black's predicament is not to be envied – 27. $\mathbb{B}d1$ . One variation runs 27...c4 28. $\mathbb{W}d4$  b5 29.e6  $\mathbb{B}g7$  30. $\mathbb{W}f6$   $\mathbb{W}e8$  31. $\mathbb{B}dh1$   $\mathbb{B}c7$  32. $\mathbb{W}xg7+$   $\mathbb{Q}xg7$  33. $\mathbb{B}xh7+$   $\mathbb{Q}f8$  34. $\mathbb{B}1h6$   $\Delta$   $\mathbb{B}h8++-$ .

## 27.e6

Open attack on the rook.

## 27... $\mathbb{B}g7$ 28. $\mathbb{Q}xd5$

The threat is 29. $\mathbb{Q}xe7+$   $\mathbb{B}xe7$  30. $\mathbb{W}d8+$ , with unstoppable mate.

## 28... $\mathbb{B}xe6$ 29. $\mathbb{Q}c7$

The rook hangs, but worse than that White also threatens 30. $\mathbb{W}d8+$   $\mathbb{Q}f7$  31. $\mathbb{W}e8\#$ .

Black resigned. **1-0**

Postscript to this game – the parameters of two positions.

I begin with the position after 13...g6:  $m = 1$ ,  $t = 48/32 = 1.50 > t_{cr} = 1.25$ , “+”,  $\Delta k = 8/28 - 8/32 > 0$ ,  $\Delta(13\dots g6) = \sim 0.31$ .

And now the position after 24... $\mathbb{B}c6$ :  $m = 1$ ,  $t = 52/26 = 2.00 >> t_{cr} = 1.25$ , “+”,  $\Delta k = 8/28 - 8/32 > 0$ ,  $\Delta(24\dots \mathbb{B}c6) = \sim 0.54$ .

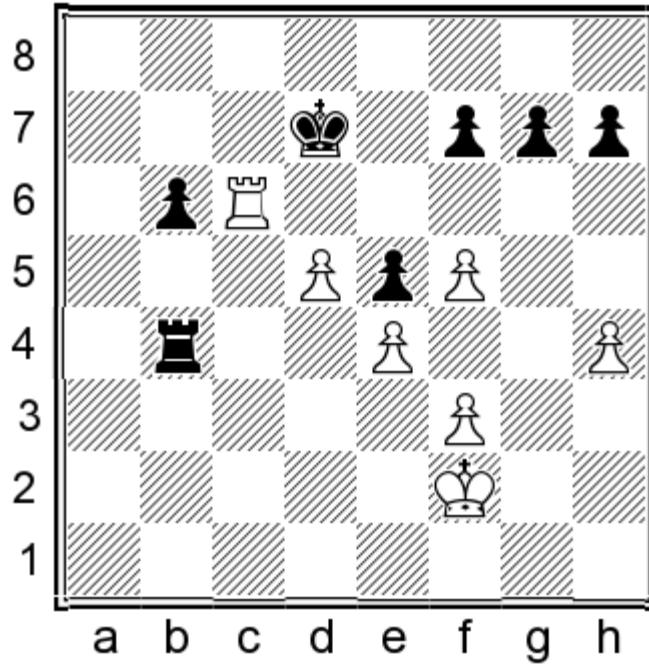
Note the significant growth in the “t” parameter, and the insignificant increase in  $\Delta(\text{move})$  – to be exact,  $\Delta(24\dots \mathbb{B}c6) - \Delta(13\dots g6) = \sim 0.23$ .

And one more thing: White has one rook and one minor piece more than Black in the f1-f8-h8-h1 rectangle.

Solve this puzzle:  $0.50 + 0.23 + \text{rook} + \text{minor piece} = ?$

### No. 72: Karpov – Miles

Bugojno 1978



Position after 44... $\mathbb{Q}d7$

In this position, White has:

- 1) material equality;
- 2) the Tal Zone, as  $t = 24/17 = \sim 1.41 > t_{cr} = 1.25$ ;
- 3) a microscopic advantage in the safety factor (the black king's freedom is somewhat limited, but White lacks the power to carry out a successful attack on it (we are, after all, deep in the ending)).

Our final diagnosis: the position requires the Tal Algorithm. Exactly that, because our  $t > t_{cr} = 1.25$  and because you can see our (admittedly small, but nevertheless real) “plus” in the factor of safety. We are obliged to attack!

**45.h5**

After 46.h6 gxh6 47.♗xh6, White intends to win the h-pawn, and with it the game.

But that's not all. Also very important to us is the fact that once the h-pawn gets traded for the g7-pawn, there will be a dramatic, favorable alteration in Δk. Please confirm this on your own! Grim prospects – for Black, of course!

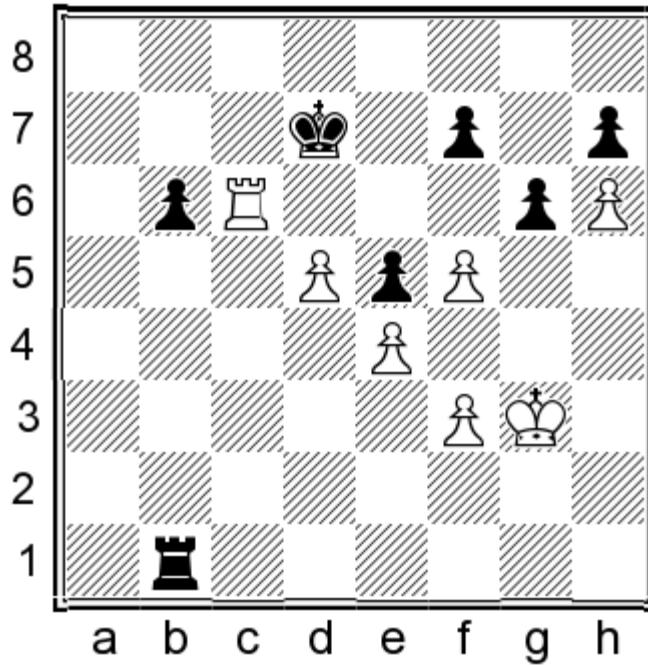
**45...♝b2+ 46.♔g3 ♘b1**

If 46...h6, then 47.f6+-.

**47.h6 g6**

Or 47...gxh6 48.♗xh6 b5 49.♗xh7 ♔e7 50.♗h6 b4 51.♗b6 b3 52.f6+ ♔d7 53.♔g4 b2 54.♔f5 ♔c7 55.♗b5 ♔d6 56.♗b7 [Zugzwang! – A.Sh.] 56...♗f1 57.♗b6+! ♔c5 58.♗xb2+-(from Karpov's *My 300 Best Games*).

And if 51...f6 (instead of 51...b3), then White wins by marching over to the b-pawn: 52.♔f2 b3 53.♔e2 b2 54.♔d3. After 54...♗d1+ 55.♔c2 ♗f1 56.♗xb2 ♗xf3 57.♗b3, White will elevate his king with no particular difficulties and escort the d-pawn to promotion.



**48.fxg6 hxg6**

48...♗g1+ 49.♔f2 ♗xg6 is also bad: after 50.♗xg6 fxg6, the pawn ending is hopeless for Black. Check it out – don't use a computer!

And if 48...fxg6, then White wins by 49.♔h4 (*Rybka*'s recommendation). White threatens a victorious king march to g7, therefore 49...♗b3 forcing 50.♔g4 etc., for example 50...b5 51.♗b6 ♔c7 52.♗f6 ♗b2 53.♗f7+ ♗b6 54.♗xh7 b4 55.♗h8 ♔b7 56.h7 ♗h2 57.d6 and wins.

Curiously, Karpov's recommendation of 49.♗e6 (after 48..fxg6) probably doesn't win. According to Karpov, 49...b5 50.♗xe5 b4 51.♗e6 is winning. However (pay attention now!), there is 51...b3 52.♗b6 g5 53.e5 b2 54.♔g2 ♔c7, or 52.♔f4 g5+ 53.♔e5 ♗f1 54.♗b6 ♗xf3 55.d6 ♗d3... draw?! Play it out! On your own – no computer!

**49.♗c2**

In order to get the rook behind the passed pawn.

**49... $\mathbb{Q}g1+$**

Or 49... $\mathbb{Q}a1$  50.h7  $\mathbb{Q}a8$  51. $\mathbb{Q}a2$   $\mathbb{Q}h8$  52. $\mathbb{Q}a7+$   $\mathbb{Q}d6$  53. $\mathbb{Q}xf7+-$  (as indicated by *Fritz* and supported by *Rybka*).

**50. $\mathbb{Q}g2$**

50. $\mathbb{Q}h2$  is even simpler. It's useless to argue with both *Fritz* and *Rybka*: 50... $\mathbb{Q}a1$  51. $\mathbb{Q}c8+-$ , or 50... $\mathbb{Q}g5$  51. $\mathbb{Q}h1+-$ . It's not hard even for a world champion to miss that last "anti-positional" king maneuver to h1.

Computer: you destroy hundreds, thousands of illusions! You force us to think more concretely.

Fortunately, 50. $\mathbb{Q}g2$  doesn't throw away the win. Karpov has merely delayed the conclusion for two or three moves.

**50... $\mathbb{Q}a1$**

50... $\mathbb{Q}c1$  holds out longer.

**51. $\mathbb{Q}h2$**

Simpler was 51.h7  $\mathbb{Q}a8$  52. $\mathbb{Q}a2$  – see the note to 49... $\mathbb{Q}g1+$ .

**51... $\mathbb{Q}a8$**

The only move.

**52. $\mathbb{Q}g4 f6$**

Otherwise there comes 53. $\mathbb{Q}g5 \Delta \mathbb{Q}f6-g7$  or h6-h7 and  $\mathbb{Q}h6-g7$ , winning in short order.

**53. $\mathbb{Q}b2$**

An open attack on the enemy pawn.

**53... $\mathbb{Q}c7$  54. $\mathbb{Q}c2+$**

Check – that is, an open attack on the king. The apex of the Tal Algorithm!

**54... $\mathbb{Q}b7$**

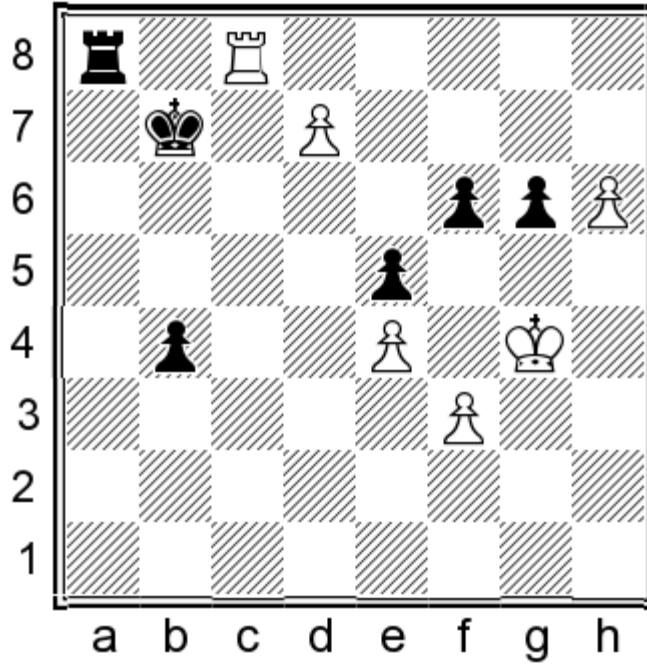
Or 54... $\mathbb{Q}d7$  55. $\mathbb{Q}c6$   $\mathbb{Q}a1$  56. $\mathbb{Q}xf6+-$ .

**55.d6**

There is no defending against 56.d7 and 57. $\mathbb{Q}c8$ .

**55...b5 56.d7 1-0**

The white pawn queens after 56...b4 57. $\mathbb{Q}c8$  (see the diagram below) 57... $\mathbb{Q}xc8$  58.dxc8 $\mathbb{W}+$   $\mathbb{Q}xc8$  59.h7 b3 60.h8 $\mathbb{W}+$ . Black is behind by "only" two tempi.



Position after 57.  $\mathbb{R}c8$  (analysis)

Postscript: the dynamic of the fourth and fifth parameters. Let's compare the positions after 44... $\mathbb{Q}d7$  and 57. $\mathbb{R}c8$ :

$\Delta k = 6/20 - 6/21 = \sim 0.0$  and  $\Delta(44... \mathbb{Q}d7) = \sim 1.29$ ;

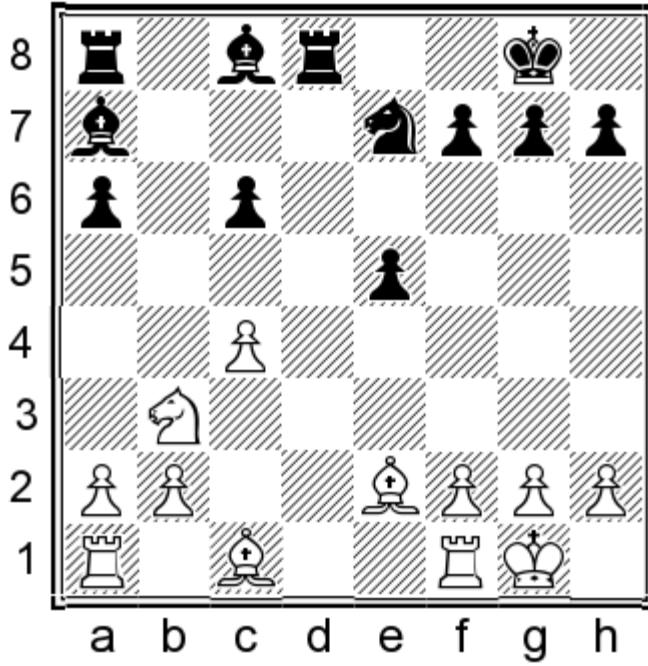
$\Delta k = 5/25 - 5/24 = \sim 0.0$  and  $\Delta(57. \mathbb{R}c8) = \sim 2.33$ .

With an unchanging  $\Delta k$ , White substantially increased the  $\Delta(\text{move})$  parameter. In other words, White won because he successfully shifted his position's center of gravity. The direction of the expansion was the queening square!

“Tal” and “Capablanca” are twin brothers, are they not?

### No. 73: Kasimdzhanov – Shirov

Calvià Olympiad 2004



*Position after 15...♝xd8*

We are playing White, and we have:

- 1) material equality;
  - 2) the Petrosian Zone, as  $t = 25/36 = \sim 0.69 < t_{cr} = 0.80$ ;
  - 3) rough parity in the safety factor (the dark-squared bishop's pressure on f2 can be disregarded).
- Preliminary diagnosis: the Petrosian Algorithm.
- 4) The fourth factor of the position: parity,
  - 5) The fifth factor: approximate parity, or more precisely  $\Delta(15...♝xd8) = \sim -0.08$ .

Since we can ignore the effect of the fourth and fifth factors, our final conclusion strongly confirms our preliminary one: this position demands the Petrosian Algorithm.

## 16.♝e3

Why?

Because exchanges are very much in our favor, and “Petrosian” requires these exchanges.

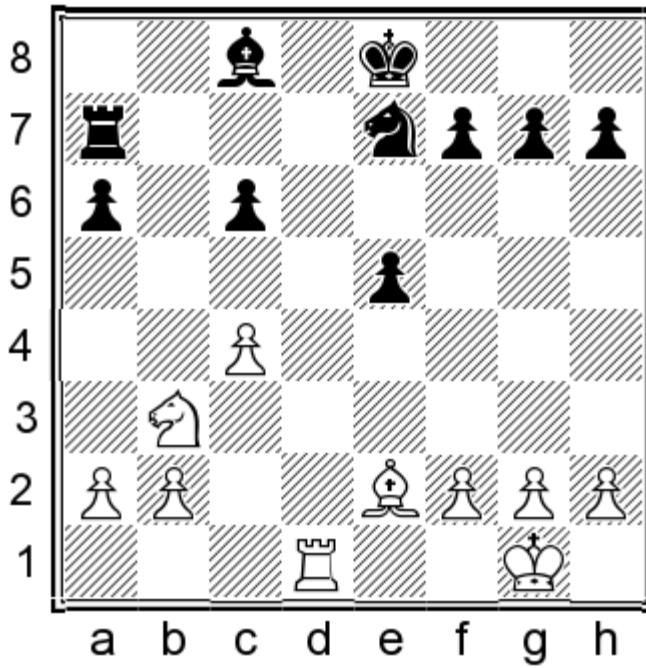
With the text move, White significantly increases his army’s mobility. He increases, first of all, the mobility of the dark-squared bishop itself, but also that of both rooks.

## 16...♝f8

Of course, 16...♝xe3 is bad for Black, because after 17.fxe3 the f1-rook’s mobility increases sharply. It’s also important that, after the trade on e3, White’s king has the possibility of immediate elevation to f2. This would significantly increase the density of his position, which is a good thing for White.

Other candidate moves: 16...♝b8 and 16...♝f5. Investigate whether they work out concretely. First without the computer’s advice.

**17.♜fd1 ♜xd1+ 18.♜xd1 ♚e8 19.♝xa7 ♜xa7**



The parameters of this position are:  $m = 1$ ,  $t = \sim 1.42$ , “ $\approx$ ” ...

Great changes have occurred over the last four moves: Kasimdzhanov has transformed the Petrosian Algorithm into the Tal Algorithm (or the TC Algorithm)!

**20.♘c5**

Intending, after 21.♗d6 and 22.♗f3, to attack the target on c6.

**20...♗f5**

“Nor would 20...♗g6 21.♗f3 ♜c7 22.b4 have improved matters; and after 20...♜c7 21.♗d3! Black’s ideas of transferring the knight to d4 would have been reduced to an impossible dream. But he ought to have preferred 20...a5, hoping for a little counterplay in the variations 21.♗f3 a4 22.♗d6 ♜a6, or 21.♗f1 a4 22.♗f3 ♜a5 23.♗e4 ♜e6” (A. Kuzmin).

The following line, which demonstrates the viability of Black’s position, is curious: 20...a5 21.♗d6 a4 22.♗d1 a3 23.b4 ♜a8 24.♗a4 ♗f5 ( $\Delta$  25...♗b1) 25.b5 ♜d8. Black’s last move was indicated by *Fritz*. Now Black has realistic drawing chances!

**21.♗g4**

Of course! It’s the only way! Now the black knight is paralyzed.

**21...♝e7**

Covering the d6 square, because White threatened to take on f5 and get into d6 with the rook.

**22.♗e1**

Open attack on the e5-pawn. How is this not “Tal”?

**22...♝d6 23.♞e4+**

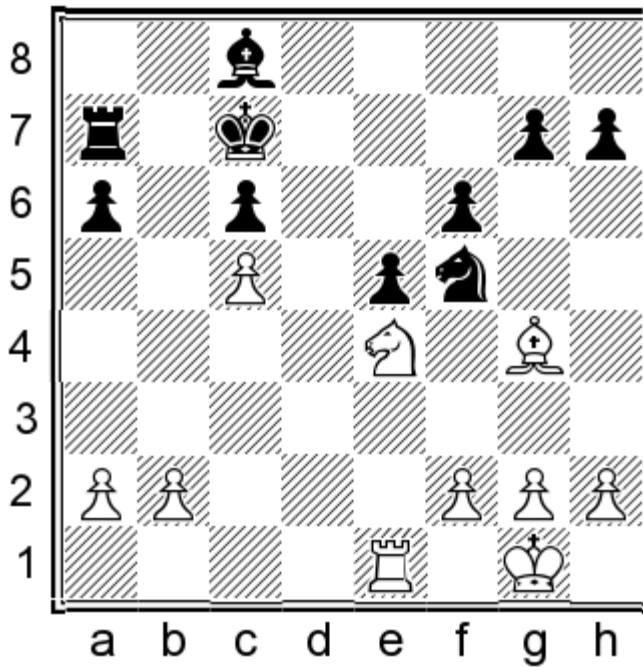
Once more, the Tal Algorithm.

**23...♝c7 24.c5**

The Capablanca Algorithm: White elevates the pawn.

**24...f6**

A mistake. Black most likely overlooked his opponent's powerful reply. Better (at least according to *Fritz*) is 24...♝e7 25.♝xc8 ♜xc8 26.♝g5 f6 27.♝xh7 ♜b7 or 27...♝e7, with vague hopes of salvation.



**25.f4**

The decisive blow! Now 25...exf4 loses immediately, as after 26.♝d6 Black is defenseless. Verify this, but without resorting to a computer.

**25...♝d4 26.♝xc8 ♜xc8 27.fxe5 fxe5 28.♝d6+ ♜d7**

"The last chance here might have been to transpose into a knight ending after 28...♝d8 29.♜xe5 ♜e7" (A. Kuzmin).

**29.♜xe5 ♜a8 30.♜e4 ♜e6 31.♝c4 ♜e7**

Or 31...♝xc5 32.♝b6+ ♜d6 33.♝d4+ ♜e5 34.♝c4 ♜b8 35.♝xc5+ ♜d6 36.♝a4+-.

**32.b4 ♜d8 33.♝e5 ♜c8 34.♝f2 a5**

Merely hastening the inevitable.

**35.♝d3**

36.♝f4+- is threatened.

**35...♝f6**

If 35... $\mathbb{Q}f8+$  36. $\mathbb{Q}e3$  axb4, then 37. $\mathbb{Q}f4$   $\mathbb{Q}xf4$  38. $\mathbb{Q}xf4$   $\mathbb{Q}xf4$  39. $\mathbb{Q}xf4$ , with a winning pawn ending.

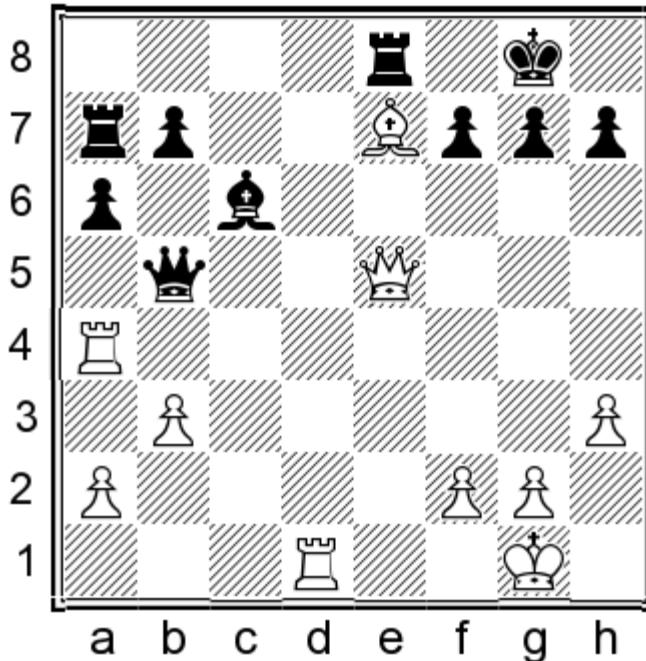
**36.bxa5  $\mathbb{Q}a8$  37. $\mathbb{Q}a4$   $\mathbb{Q}c7$  38. $\mathbb{Q}e3$   $\mathbb{Q}e6$  39.a6  $\mathbb{Q}b5$**

Or 39... $\mathbb{Q}xa6$  40. $\mathbb{Q}xa6$   $\mathbb{Q}xa6$  41. $\mathbb{Q}d4$   $\Delta$   $\mathbb{Q}c4$ ,  $\mathbb{Q}b4$ , a4-a5-a6+-.

**40. $\mathbb{Q}e4+$   $\mathbb{Q}d5$  41.a4 1-0**

#### No. 74: Steinikov – Yashkov

USSR 1988



White to move

We are playing White. We have:

- 1) parity in the first factor;
- 2) an overwhelming advantage in the time factor:  $t = 63/33 = \sim 1.91$ ;
- 3) an insignificant advantage in the safety factor.

A unanimous diagnosis: the Tal Algorithm.

**1. $\mathbb{Q}xg7+$**

An open attack on the king + a sacrifice! Of course, it needs to be calculated exactly and all the way to the end.

**1... $\mathbb{Q}xg7$  2. $\mathbb{Q}g4+$   $\mathbb{Q}h6$  3. $\mathbb{Q}d6+$  f6**

This doesn't save him.

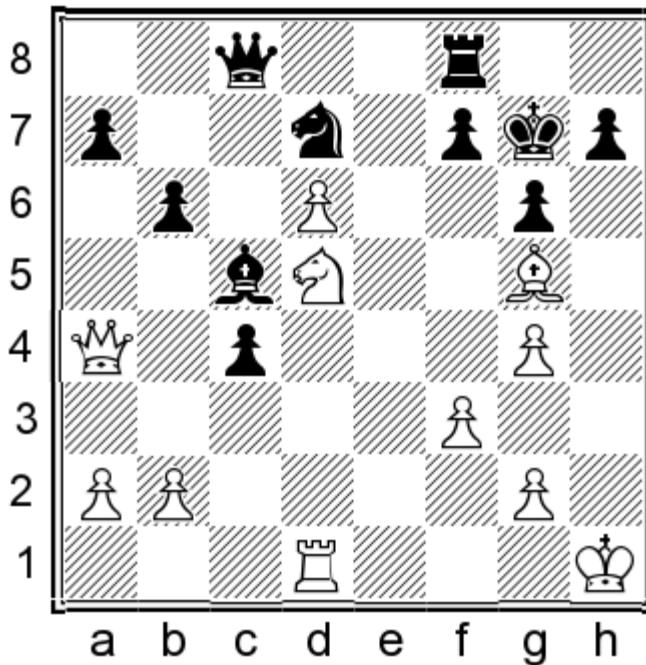
**4. $\mathbb{Q}xf6+$   $\mathbb{Q}h5$  5. $\mathbb{Q}h4+$   $\mathbb{Q}g5$**

Or 5... $\mathbb{Q}xh4$  6. $\mathbb{Q}h6\#$ .

6.f4+ ♖xh4 7.♖h2 1-0

No. 75: Andrés – Pérez

La Habana 1987



White to move

We play White. We have:

- 1) parity in the first factor;
- 2) the Tal Zone:  $t = 43/32 = \sim 1.34 > t_{cr} = 1.25$ ;
- 3) a noticeable superiority in the safety factor.

We will act similarly to the previous example. “Tal” is our algorithm!

**1.♘xd7**

Very spectacular. Another solution is: 1.♗e7 ♜g8 2.♗xc4+ (Fritz).

**1...♘xd7 2.♗f6+ ♖h6**

If 2...♗g8, then 3.♗e7+ ♗xe7 4.dxe7 Δ 5.♗d8+-.

**3.g5+ ♖h5 4.♗f4+**

An alternative win is 4.g4+ ♖h4 5.♗g2 Δ 6.♗h1#.

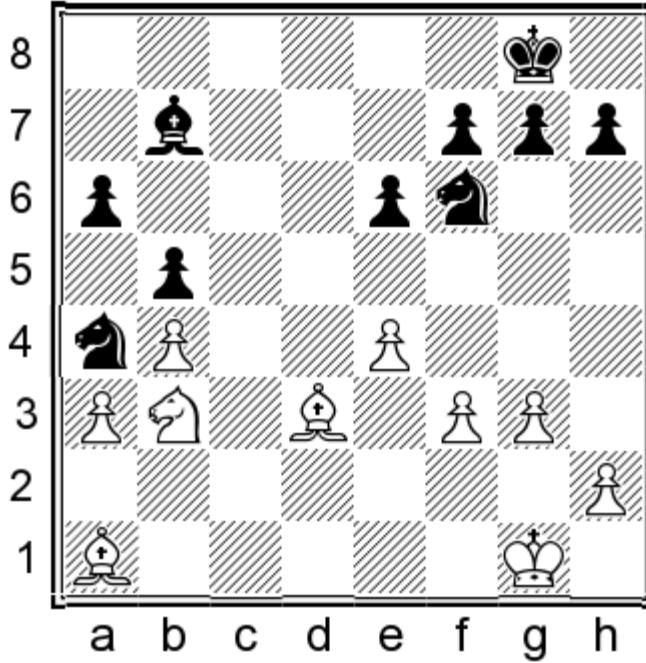
**4...♖h4 5.♗h2 ♜f2 6.g3+**

Magical play!

**6...♗xg3+ 7.♗g2**

Black resigned. The only way to avoid checkmate is 7... $\mathbb{Q}h2$  8. $\mathbb{Q}h1$   $\mathbb{W}g4+$ , etc. It avoids mate, yes – but not ultimate defeat. A treasure! **1-0**

**No. 76: Kharlov – Ulybin**  
USSR Championship 1991



Position after 27...a6

In this position, White has:

- 1) material equality – that is, parity in the first factor of the position;
- 2) the Capablanca Safety Zone:  $t = 25/23 = \sim 1.09$ ;
- 3) parity in the third factor (neither king is in danger, because we have an ending on the board).

Our situation is quite simple, and the preliminary diagnosis is unanimous: the Capablanca Algorithm. What about the other parameters?

$\Delta k = 0$  and  $\Delta(27\dots a6) = 0.00$ . Thus our preliminary conclusion holds: we are playing according to “Capablanca.” I add: our “Capablanca” is active, if only because our  $t = \sim 1.09$ . It is greater than 1!

**28. $\mathbb{Q}a5$**

First the knight is elevated...

**28... $\mathbb{Q}c8$  29. $\mathbb{Q}f2$**

...then the king.

**29... $\mathbb{Q}f8$  30. $\mathbb{Q}e3$   $\mathbb{Q}d7$  31.f4**

Pawns are chessmen too, and they take part in White’s intended deployment (see the position after 36... $\mathbb{Q}e7$ ).

**31...f6 32. $\mathbb{Q}c2$**

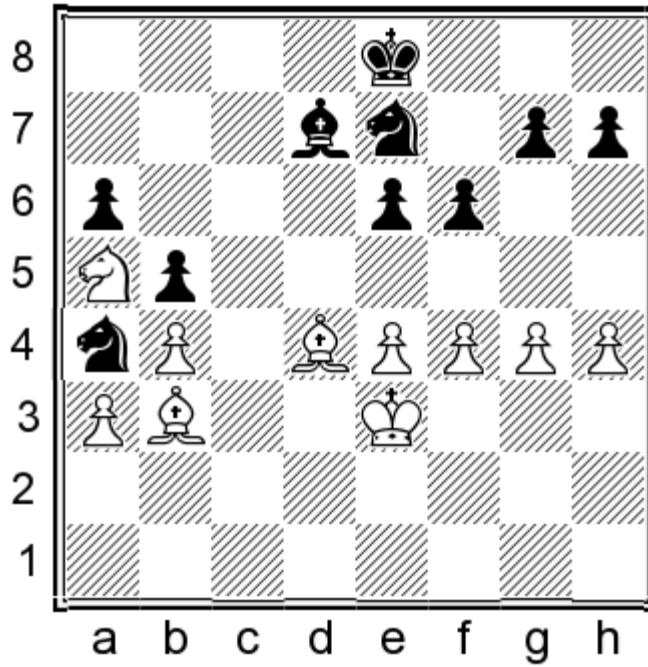
The place for the light-squared bishop is on b3. From here it will fire on the newly created target at e6.

**32...♝db6 33.♝d4**

From this square, White's bishop not only hits the b6-knight, it also paralyzes the target on a4.

**33...♝e8 34.g4 ♘d7 35.♘b3 ♜c8 36.h4 ♜e7**

White steadily increases his  $\Delta$ (move). The packing density of his king and pawns exceeds the opponent's corresponding indicator twice over.



Here, I note merely that  $\Delta(36\dots\♝e7) = 1.10$ . Compare this with  $\Delta(27\dots\text{a6})!$

**37.g5**

The first point of the strategic algorithm is behind us (put your pieces on their best squares!). And the second one is also behind us (advance your pawns!). I hope I don't need to repeat again the already registered truth of the third point of the algorithm:

White plays for exchanges!

**37...fxg5**

37...f5 may be stronger.

**38.hxg5 g6 39.♝b7 ♜c8 40.♝c5**

Trades favor White, because he is more compact!

**40...♝xc5 41.♝xc5 ♜e7 42.♝xe7**

See the previous note.

**42...♝xe7 43.e5**

A new setup (see also 45.†e5).

**43...†d8 44.†d4 †c8 45.†c5 †c7**

$\Delta(45...†c7) = \sim 1.43$ . The fifth parameter grows and grows...

**46.†d1**

White strives to elevate his a-pawn. *Zugzwang* to the rescue!

**46...‡e8**

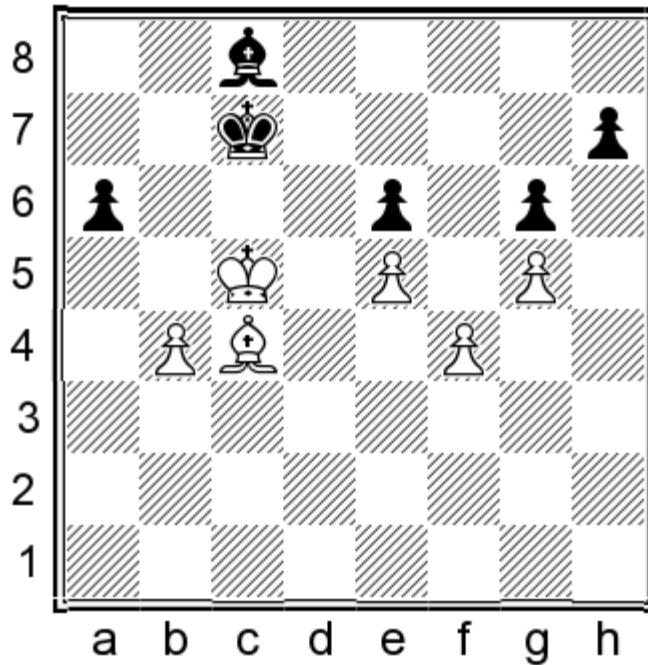
Or 46...‡c6 47.‡c2 ‡e8 (47...‡d7 48.‡b3) 48.‡e4 ‡d7 49.‡g2 ‡e8 50.‡f3 ‡d7, and we reach the same position as after 47...‡d7 in the game.

**47.‡f3 ‡d7 48.‡g4 ‡c8 49.‡d1 ‡d7 50.‡b3**

*Zugzwang*. Now Black is forced to allow the enemy pawn to go to a4.

**50...‡c8 51.a4 1-0**

Black will be down a pawn after 51...‡d7 52.axb5 axb5 53.‡c2 and 54.‡d3. And if 51...bxa4, then 52.‡xa4 ‡b7 53.‡b3 ‡c8 54.‡c4, and we have a new *Zugzwang* on the board.



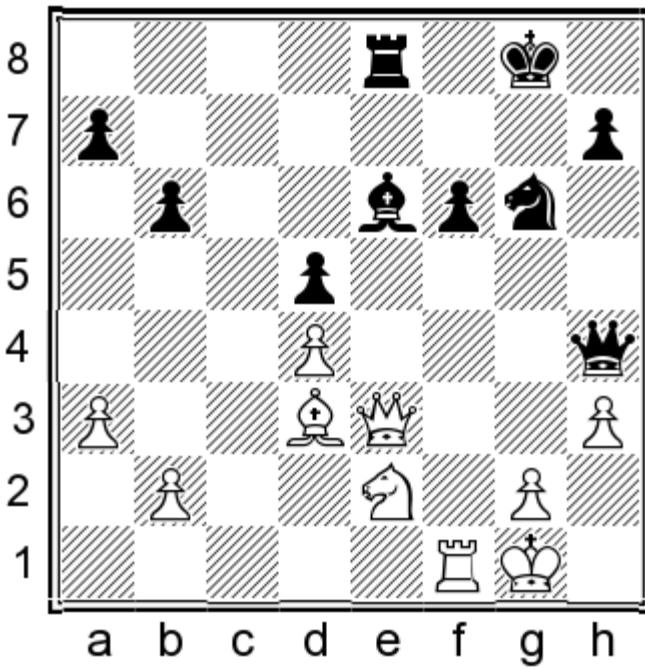
In this position,  $(54.‡c4) = \sim 2.17$ . And now, dear reader, compare the center of gravity of the white and black forces after 54.‡c4, 45...‡c7, 36...‡e7, and 27...a6.

Done? I get 2.17, 1.43, 1.10, and 0.00.

At all stages in this battle, the density of packing of White's position was never lower than that of Black's position. White's strategy was flawless!

**No. 77: Sasikiran – C. Hansen**

Malmö 2005



*Position after 25...gxf6*

We have White. And we have:

1) parity in the first chess factor;

2) the Capablanca Safety Zone:

$$t = 40/38 = \sim 1.05;$$

3) approximate parity in the safety factor.

Our preliminary conclusion: the Capablanca Algorithm. It has every chance to become our final one, as our starting point ( $t = \sim 1.05$ ) is close to the center of the Safety Zone.

4)  $\Delta k = 0$ , so the compactness factor has no effect on the algorithm.

5)  $\Delta(25...gxf6) = -0.30$ . Less than zero! Our  $\Delta(\text{move})$  nudges us slightly to the right, toward the Tal Algorithm.

Our final verdict: the position demands the Capablanca Algorithm. Our “Capablanca” is right-handed, closer to “Tal” than to “Petrosian.”

## 26. $\mathbb{W}g3$

Because  $\Delta k = 0$ , White has the right to offer a preliminary exchange. However, we could also put it like this: with this move, White hits the f6-pawn with the threat of 27.  $\mathbb{W}xh4$   $\mathbb{Q}xh4$  28.  $\mathbb{R}xf6$ .

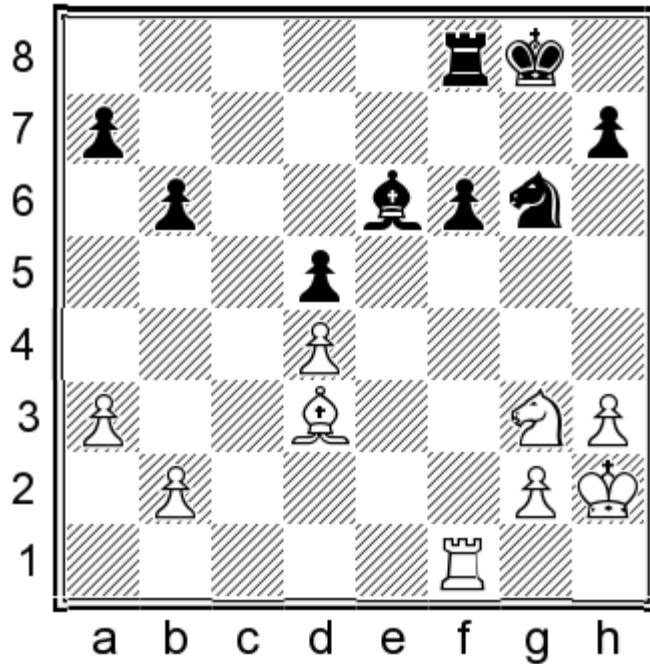
## 26... $\mathbb{W}g5$ 27. $\mathbb{Q}h2$

With this move, Sasikiran considerably increases the compactness of his position. Now his king and all five of his pawns are contained in the rectangle a2-a4-h4-h2, and not a1-a4-h4-h1. White has become more compact than Black!

## 27... $\mathbb{W}xg3+$

One cannot call Black’s play consistent, let alone exemplary. If the queens were to be traded, then this should have happened one move earlier, without the loss of tempo. And if they were not, then 27...  $\mathbb{Q}g7$ , elevating the king, was more consistent!

28.  $\mathbb{Q}xg3$   $\mathbb{Q}f8$



Something momentous has occurred: the two strongest pieces are off the board. Play has simplified, and the safety factor has taken a back seat...

Here's some very useful and timely practical advice. After a queen trade, try to forget at once the previous diagnosis of the position. Analyze it again, look at it with fresh eyes!

Now we have  $m = 1$ ,  $t = 32/26 = \sim 1.23$ , “=”,  $\Delta k > 0$ , and  $\Delta(28... \mathbb{Q}f8) = \sim 0.11$ .

Our new diagnosis: the TC Algorithm, as the new starting point lies somewhere on the border between the algorithms of Capablanca and Tal. We are entitled to play more aggressively!

**Here's some very useful and timely practical advice: After a queen trade, try to forget at once the previous diagnosis of the position.**

**Analyze it again, look at it with fresh eyes!**

29.  $\mathbb{Q}h5$

White hits the material target on f6. This is “Tal,” but it’s also “Capablanca,” since White improves the knight. All together – harmony!

29...  $f5$  30.  $\mathbb{Q}g3$

We elevate the king. The direction of the expansion is the eighth rank.

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

The rook can't go to e8 – the target on f5 is under attack.

31.  $\mathbb{R}c1$

The best square for the rook. White threatens the close-to-fatal 32.  $\mathbb{R}c7$ .

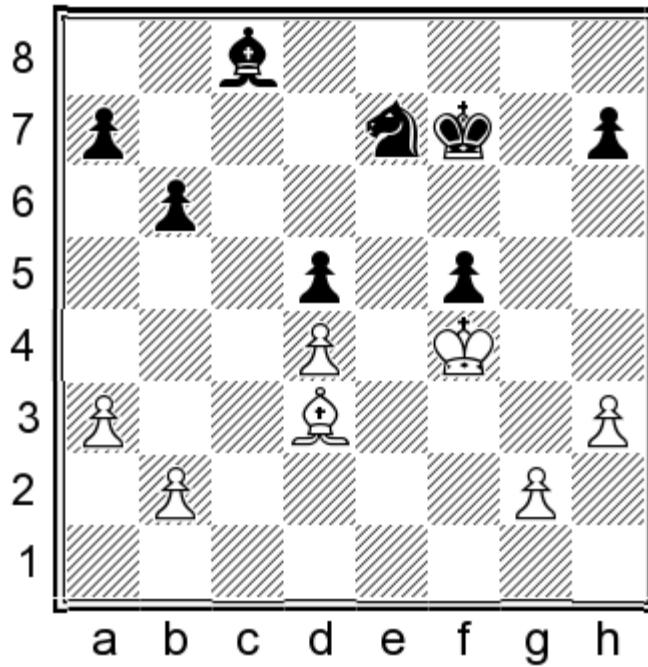
**31...♝c8 32.♝xc8+**

Trades favor White, since he is the more compact.

**32...♞xc8 33.♞f4**

We must forge ahead fearlessly!

**33...♞f7**



**34.♞e5**

Flawless, both strategically and tactically! White has calculated everything out perfectly. He is playing “Tal”-like, for the destruction of his opponent’s spirit.

**34...♝c6+**

Strongest, according to *Fritz*.

**35.♞xd5 ♜b7**

Threatening 36...♝b4+ 37.♝c4 ♜xd3 38.♞xd3 ♜xg2, when Black puts the worst behind him. What do we do?

**36.♞f4**

That’s what! From f4, the knight securely holds both the bishop and the g2-pawn.

White retreats because he has something to defend – an extra pawn. He needs to think about consolidating his very scattered position; and Sasikiran, as we can see, plays to increase his pieces’ packing density. Bravo!

**36...♞f6**

Threatening 37...♝e5+.

### **37.♗c4**

Now White is out of danger. Why?

Because his  $\Delta k > 0$  ( $6/24 > 5/24$ ). White is a pawn up!

The Petrosian Zone is behind us, and we are once again in the embraces of the Capablanca Algorithm.

In fairness, I cannot help but mention that the aggressive bishop move, 37.♗b5, was stronger than the game move:  $t(36\dots\dot{\square}f6) = 21/19 = \sim 1.11$ , and this clearly right-Capablanca “t” allows us to start playing aggressively at once.

### **37\dots\dot{\square}g5**

He could have prolonged the struggle with the solid 37\dots\dot{\square}e7  $\Delta \dots\dot{\square}c8-d6$  (Rybka).

### **38.g3 h5 39.d5**

The beginning of the end – White’s passed pawn has crossed the midpoint line.

### **39\dots\dot{\square}a5+ 40.♔d4 h4 41.♕e2 hxg3**

Kuzmin writes: “On 41\dots\dot{\square}f6, of course, Sasikiran was planning, not 42.gxh4? because of 42\dots\dot{\square}b3+ 43.♔c4 \dot{\square}a5+, when he would have had to give up the d5-pawn, but 42.♕c2!, threatening to capture the knight. And if 42\dots\dot{\square}a6, then 43.♕f4 was very strong.” After 43\dotshxg3 44.h4, White must win.

### **42.\dot{\square}xg3 ♔f4 43.♕e2+**

The Tal Algorithm? Yes!

The variation 43.\dot{\square}xf5 \dot{\square}b3+ 44.♔c4 \dot{\square}a5+ (given by Kuzmin) is not good for White.

### **43\dots\dot{\square}f3 44.♕c1**

Brilliant! White threatens the prosaic 45.b4, trapping the knight.

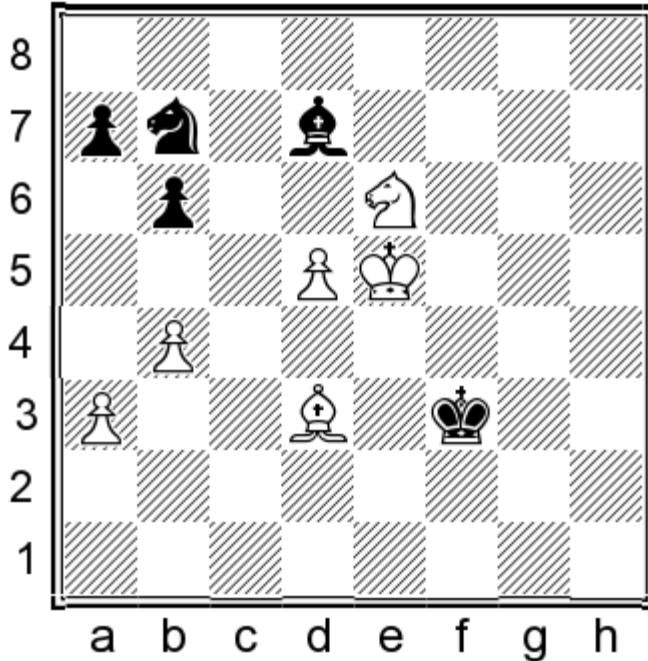
### **44\dots\dot{\square}c8 45.b4 \dot{\square}b7 46.♔e5**

Attacking the target on f5.

### **46\dotsf4 47.♕e2**

You can’t run away!

### **47\dots\dot{\square}xh3 48.♕xf4 \dot{\square}d7 49.♕e6**



Black resigned. **1-0**

In the final position,  $\Delta(49.\mathbb{Q}e6) = \sim 1.33$  – compare that with  $\Delta(25\dots gxf6)$ . Night and day!

As a postscript to this strategic treasure – a few words about the phases of this battle.

White began in the right half of the Capablanca Safety Zone. Trading queens, and making use of Black's indecision, White invaded his opponent's territory without delay.

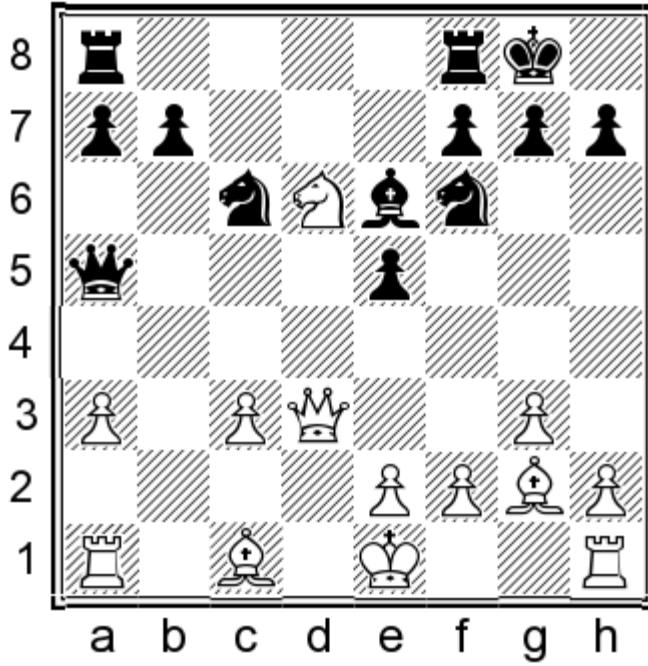
The expansion went very well; White won a pawn and instantly went over from the Capablanca Algorithm to the Petrosian Algorithm, as his extra material was imperiled.

Having completed the process of consolidation, White renewed his strategic attack (39.d5). On the other hand, this attack was brief, because Black provoked him into complications (40...h4).

Sasikiran was forced to enter sharp tactical play – checks, threats, and so on – and easily came out the victor in this uneven struggle.

### No. 78: Topalov – Ivanchuk

Linares 1999



Position after 14.  $\mathbb{W}d3$

In this position, Black has:

- 1) material equality;
- 2) three extra tempi and, strangely enough, a Capablanca Safety Zone:  $t = 48/51 = \sim 0.94$ ;
- 3) the better position (by how much – we don't know!) in the third factor.

Obviously, our situation is not very simple. The reason is the lack of clarity in the safety factor. The only clear thing is: we are required to attack – although it's not quite clear which targets. Will these be material targets ("Tal") or vacant squares ("Capablanca")?

Our preliminary (and final) diagnosis is the expanded version of the TC Algorithm. And with this, it is evident that our point of departure lies somewhere (where, exactly?) in the right half of the spectrum.

So, where does the TC Algorithm begin? Or, to which of the two fundamental algorithms – "Tal" or "Capablanca" – should we give preference?

We know the answer: whenever there's a doubt, "Tal" is for preference!

How does the Tal Algorithm begin? Well, we know this best of all...

#### **14...e4**

We attack the queen, and only because we cannot get at the king – for now!

#### **15. $\mathbb{Q}xe4$**

Only heavy computer analysis can answer the question: which is better, 15.  $\mathbb{Q}xe4$  or 15.  $\mathbb{W}c2$ ?

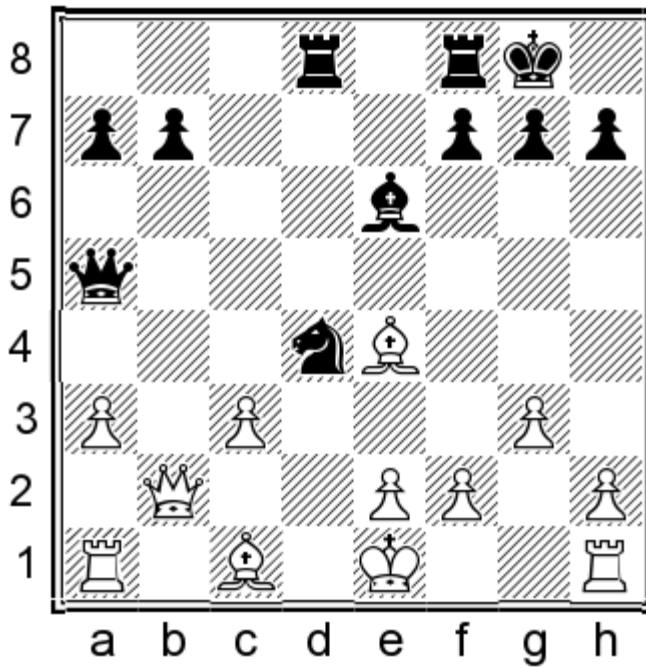
#### **15... $\mathbb{Q}xe4$ 16. $\mathbb{Q}xe4$ $\mathbb{Q}ad8$**

The queen is the second-highest valued piece.

#### **17. $\mathbb{W}c2$ $\mathbb{Q}d4$**

A second open attack on the queen. For now, everything looks (I'm thinking of Ivanchuk's attack) almost trivial...

**18.♗b2**



**18...♝xe2**

Brilliant! However, we do not have the right to call this move the key of the idea. The key to Black's truly magnificent plan lies in the quiet move 19.

**19.♚xe2 ♜fe8**

That's it!

**20.♗b4**

Also losing is 20.♗e3 ♜c4+ 21.♗f3 ♜xe4 (*Rybka's second line*).

20.f3 was better, when we have 20...f5 21.♗xb7 ♜xc3 (spectacular!) 22.♗f2 ♜xb2+ 23.♗xb2 ♜d2+ 24.♗g1 ♜xb2 25.♗a6. White is in a very bad way, most likely lost.

Your task is to extend Ivanchuk's plan to its end. Try to do it without the advice of our silicon friends.

**20...♝h5+ 21.f3 f5 22.g4**

Saving the bishop, but not the game.

**22...♝h3 23.gxf5 ♜xf5**

No rush!

**24.♝c4+**

Spite check.

24... $\mathbb{Q}h8$  25. $\mathbb{R}e1 \mathbb{R}xe4+$

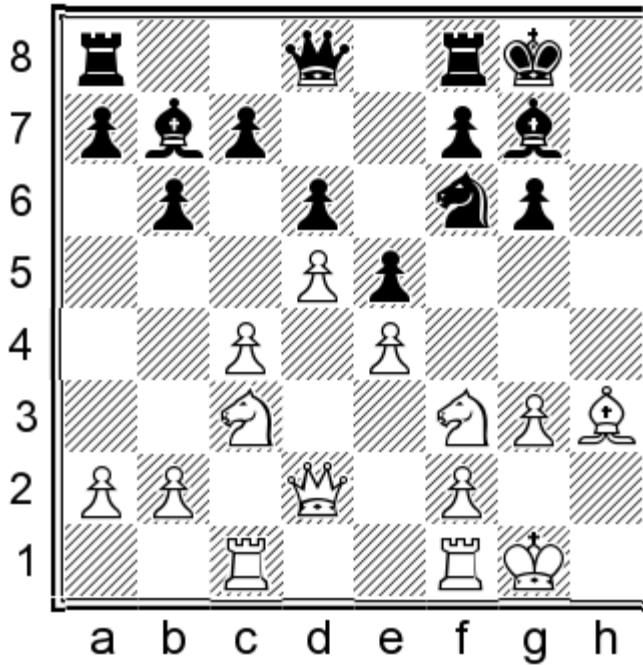
And this check is fatal.

0-1

An outstanding creative achievement from one of the greatest players alive today. Ivanchuk is a chess titan...

### No. 79: Epishin – Ehlvest

Terrassa 1991



Position after 16...hxg6

What does White have?

- 1) material equality;
- 2) an obvious superiority in the time factor:  $t = 43/29 = \sim 1.48$ , the Tal Zone;
- 3) parity in the third factor, as both kings are totally safe.

Our preliminary conclusion: the position requires the Tal Algorithm, but... But the black king is completely safe! That means that the position contains suggestions of the Capablanca Algorithm.

- 4) The compactness factor: our  $\Delta k < 0$ , which impels us to the Capablanca Algorithm.
- 5) The fifth factor:  $(16...hxg6) = \sim 0.43$ . It, too, moves us in the direction of the Capablanca Algorithm.

Our final conclusion: the diagram position requires the TC Algorithm.

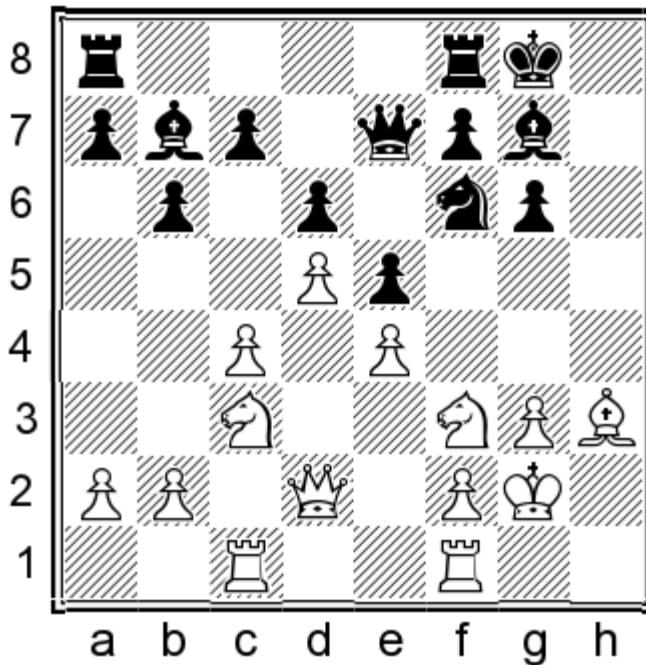
What to do? The answer comes from GM Epishin:

17. $\mathbb{Q}g2$

White improves his king. And not just for the heck of it, but with a plan: he wants to bring both rooks to the h-file, closer to the enemy king.

17... $\mathbb{W}e7$

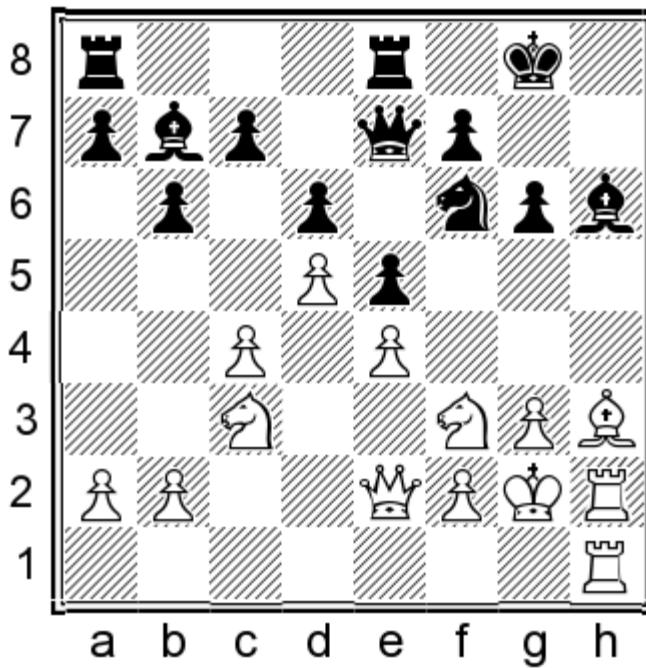
I won't rule out that it would have been better to open an escape hatch with 17... $\mathbb{E}e8$  and then ... $\mathbb{B}g8-f8-e7$ , ... $\mathbb{B}b7-c8$ , and, if necessary, ...a7-a6.



**18.  $\mathbb{E}h1$   $\mathbb{B}fe8$  19.  $\mathbb{E}h2$   $\mathbb{W}f8$**

Now Black's plan becomes clear: he intends to put the dark-squared bishop on h6. But there is a hole in this plan.

**20.  $\mathbb{E}ch1$   $\mathbb{B}h6$  21.  $\mathbb{W}e2$   $\mathbb{W}e7$**



The stronger side is completely mobilized. Perhaps there needs only to be a knight on b5, but it would stand unsteadily there: 22.  $\mathbb{B}b5$  a6. If that's the case, then we must fight for that square! White needs to find a tactical stroke – or its analog, a strategic exchange.

**22.♕d7**

A sacrifice, and a double blow. Total success!

**22...♛xd7 23.♝xh6 ♔g7**

On 23...♔f8, *Fritz* offers an uncomplicated variation: 24.♗g5 ♔c8 25.♘f3 ♔e7 26.♗xf7, etc.

**24.♘d2 ♜g8 25.♘g5 ♜e7**

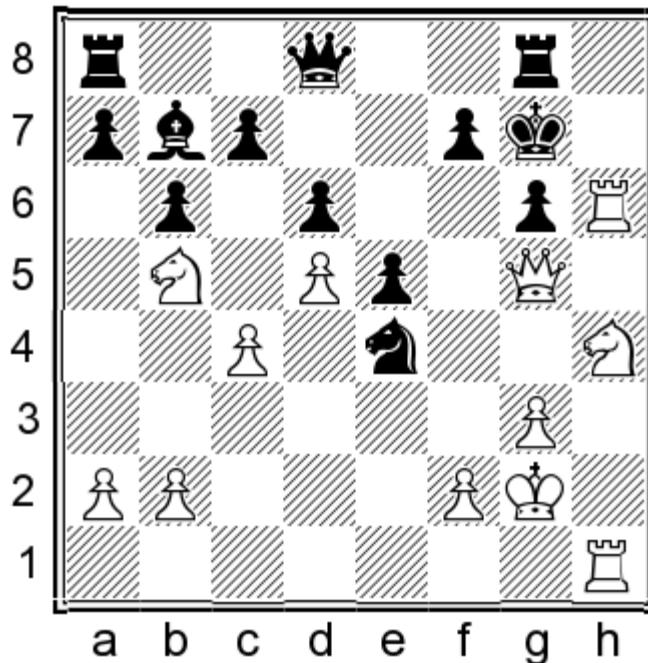
*Fritz* considers those two moves best.

**26.♗b5 ♜d8**

If 26...a6, then 27.♗h4 is a possibility, and the win is not far off. A reasonable variation (*Fritz*) runs 27...♔f8 28.♗xc7 ♜c8 29.♗e6+ ♔e8 30.♗xg6 fxg6 31.♗xg6 ♜xg6 32.♗xg6+ ♔d7 33.♗f5, etc.

Your task is to extend this variation without the computer's assistance.

**27.♗h4 ♔xe4**



The American GM Reuben Fine once noted that in such positions, "combinations are as natural as a baby's smile." Of course, he had in mind open positions with overwhelming forces in the attacking sector.

**28.♜h7+**

If now 28...♔xh7, then 29.♗f5#.

**28...♔f8 29.♗xg6+ ♔e8**

29...fxg6 is bad because of 30.♗h6+ ♔e8 31.♗xc7+ and wins. Still worse is 29...♜xg6 30.♗h8+ ♔g7 31.♗1h7#.

**30.♗f5 ♜d7 31.♗xe4 ♜xg6 32.♗xc7+**

Like a gunshot at the close of a play. Almost like Chekhov. The knight didn't hover on b5 for nothing!

**32... $\mathbb{W}xc7$  33. $\mathbb{W}xg6$**

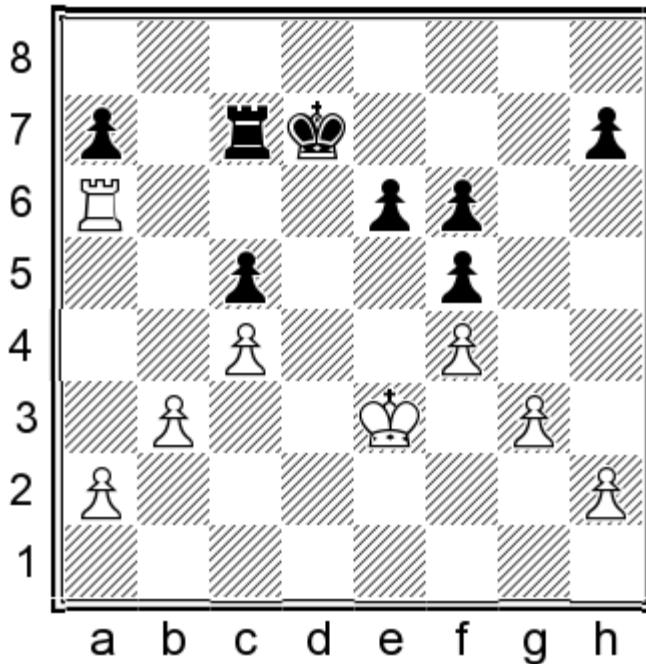
Curtains. The last few moves of this were not necessary.

**33... $\mathbb{W}e7$  34. $\mathbb{B}xf7$   $\mathbb{W}xf7$  35. $\mathbb{B}h8+$   $\mathbb{K}e7$  36. $\mathbb{B}h7$   $\mathbb{B}f8$  37. $\mathbb{W}e6+$   $\mathbb{K}d8$  38. $\mathbb{B}xf7$  1-0**

A game in the style of Akiba Rubinstein or the latter Efim Geller.

### No. 80: Flohr – Maróczy

Bled 1931



Position after 36... $\mathbb{K}d7$

We are playing White. What do we have?

- 1) material equality;
- 2) an overwhelming advantage in the factor of chess time:  $t = 19/10 = 1.90 >> t_{cr}$ ;
- 3) parity or at best a microscopic advantage in the safety factor (the black king is less than fully mobile, but attacking it is hardly practical – we are deep into a rook ending)

Our unanimous conclusion: the Tal Algorithm.

“Tal” in the endgame? How can that be?

The answer: “Tal” is “Tal”! And it starts with open and direct attacks on material targets.

**37.g4**

Not just an open attack on an enemy pawn, but also a sacrifice. White can sacrifice a pawn because his “t” is through the roof.

The alternative is the quiet, “Capablanca” move 37. $\mathbb{K}d3$  with the idea of a2-a3, b3-b4, etc.

**37...fxg4 38.f5 ♜c6**

After 38...exf5 39.♕xf6 (39.♔f4 would be bad, because of 39...♜c6 40.♕xa7+ ♔e6, and Black has every chance of drawing) 39...♜c8 40.♕xf5, White restores material equality with an obvious advantage and good winning chances.

**39.♕xa7+ ♔d6**

Retreating to the eighth rank looks completely joyless.

**40.♔f4**

We attack the target on g4.

**40...h5 41.♕f7**

And now the target on f6. Triumph!

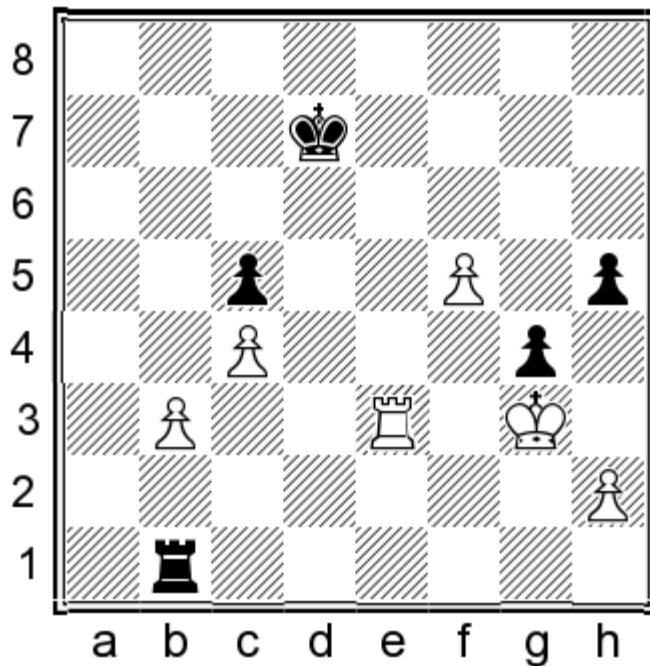
**41...♝a6 42.♕xf6**

He can play this way, too, but *Fritz* likes 42.a4 better, with this variation: 42...♝b6 43.♕xf6 ♜xb3 44.♕xe6+ ♔d7 45.a5, etc.

**42...♜xa2 43.♕xe6+ ♔d7 44.♔g3 ♜b2 45.♕e3**

Threatening 46.f6, etc.

**45...♝b1**



**46.♔h4**

White is entitled to exchange first.

**46...♝f1 47.♝xh5 ♜f3**

Useless shuffling about.

**48.♜e5 g3 49.hxg3 ♜xg3 50.f6**

This pawn decides. Black is helpless.

**50...♝xb3 51.f7 ♜f3 52.♝g6**

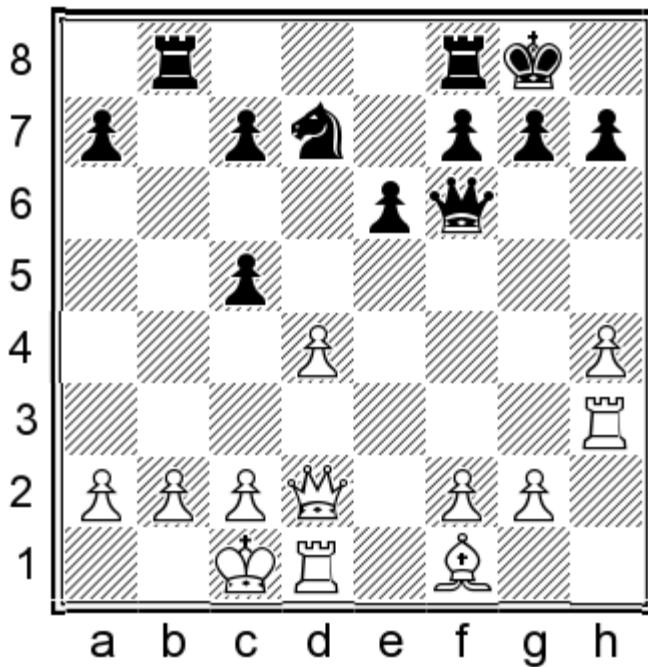
Black resigned. **1-0**

In the final position,  $\Delta(52.♝g6) = 1.50$ . Verify this, and compare it to  $\Delta(36...♝d7)$ .

All that remains for me is to conclude the annotations to this game with a maxim that by now we know quite well: the strategic attack is always correlated with the deliberate movement of your position's center of gravity toward the queening square.

### No. 81: Spassky – Petrosian

World Championship (23), Moscow 1966



*Position after 14...c5*

In this position, White has:

- 1) parity in the first factor of the position;
- 2) near-parity in the second factor:  $t = 39/38 = \sim 1.03$ ;
- 3) a slight disadvantage in the safety factor: the b2-pawn is attacked, plus there is an X-ray from the queen at f6.

Our preliminary diagnosis: "Capablanca," or the CP Algorithm?

- 4) the compactness factor:  $\Delta k = 0$ .

- 5) the factor of space expansion:  $\Delta(14...c5) = \sim 0.08$ .

Our final diagnosis coincides almost completely with our tentative one: "Capablanca"? CP Algorithm? Status quo!

What to do?

**15.♕g5**

A worthy reply!

White is entitled to an out-of-order exchange (“Capablanca”), and he is required to make use of it (“Petrosian”)!

Outstanding strategy. Tactics? Can Black stop to munch on the pawn at f2?

The unanimous answer is: No! 15...♕xf2 loses by force: 16.♗f3 ♕g1 17.♗g3 Δ 18.♗e2+- . Nor does 16...f6 save him: after 17.♗g4 f5 18.♗h3, the queen is captured by force.

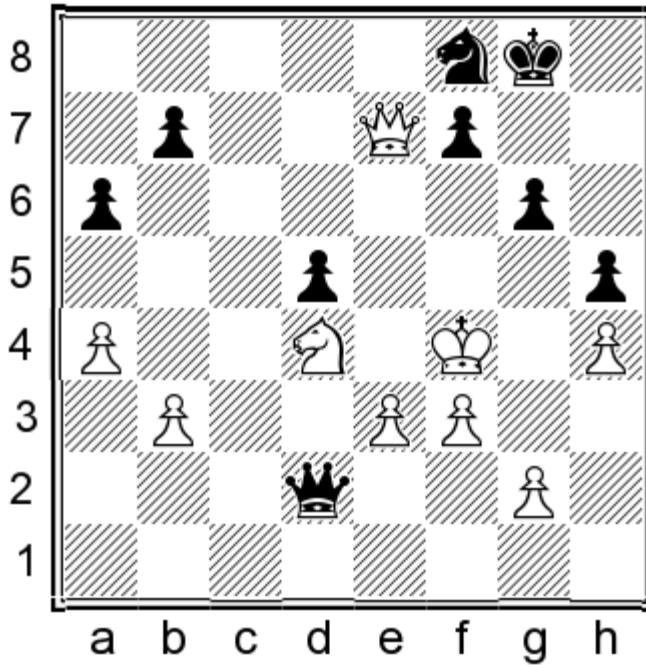
Black must acquiesce to the queen trade. The game continued

**15...cxd4 16.♕xf6 ♗xf6 17.♗xd4**

and White got a clearly better endgame. Spassky won on move 31.

### No. 82: Bu Xiangqi – Bruzón

World Team Championship, Beer-Sheva 2005



Position after 38... ♔d2

In this position, White has:

1) parity in the first factor of the position;

2) the Capablanca Safety Zone:

$$t = 29/27 = \sim 1.07;$$

3) uncertainty in the safety factor (a naïve question: what is the state of health of our very elevated king?).

Our preliminary diagnosis: the Capablanca Algorithm, or its expanded (by what measure?) version – the TCP Algorithm?

We clearly need more information. Perhaps the fourth and fifth factors of the position will aid us? What do they have to

say?

Answer:  $\Delta k > 0$  and  $\Delta(38... \mathbb{W}d2) = \sim 0.78$ . That means that the fourth and fifth factors explain nothing, but pull us in different directions! What do we do?

Settle for uncertainty and... fire at the position with the six-inch guns of the most menacing algorithm.

Our final diagnosis: this position requires the TCP Algorithm. In other words, we have to start with “Tal.”

**39.†g5**

Wins! The king goes to h6.

**39...Wxg2+ 40.†h6**

The king is safe here, securely protected by the enemy (!) pawns on g6 and h5. Now White has only to put his queen on the long dark-squared diagonal.

**40...Wb2**

Clever, but alas it is not enough. Black intends to parry the threat of 41.Wf6 by hopping the knight to e6.

**41.f4**

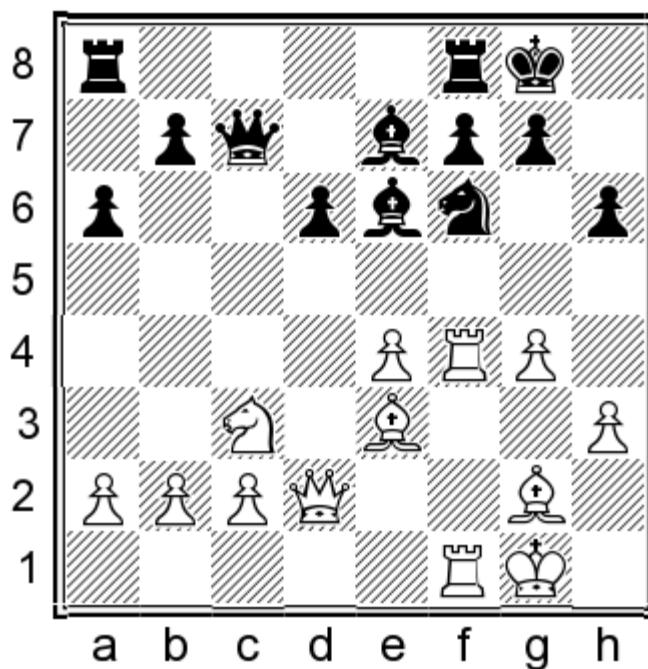
All of White’s pieces are placed ideally. Isn’t it time to elevate that pawn?

The Capablanca Algorithm? Yes or no?

Black resigned, as there is no defense against 42.We5, for example 41...Wc3 42.We5 ♜e6 43.♗xe6 Wxe5 44.fxe5 fxe6 45.†xg6, etc. **1-0**

### No. 83: Timman – Van Wely

Match (6), Breda 1998



Position after 15...0-0

We are playing White, and we have:

- 1) material equality;
- 2) approximate parity in the second factor:  $t = 43/44 \approx 0.98$ ;
- 3) an advantage in the safety factor (an extra rook in the rectangle f1-f8-h8-h1) +  $\mathbb{W}d2/\mathbb{Q}e3$ , aiming at the h6-pawn.

Our preliminary diagnosis, which is also the final one, is the Tal Algorithm. The third factor in the position here is more important than the rest of them put together. The first, second, fourth, and fifth factors are not very sensitive, while the third factor is a stretched-out string, which “twangs” at the lightest touch...

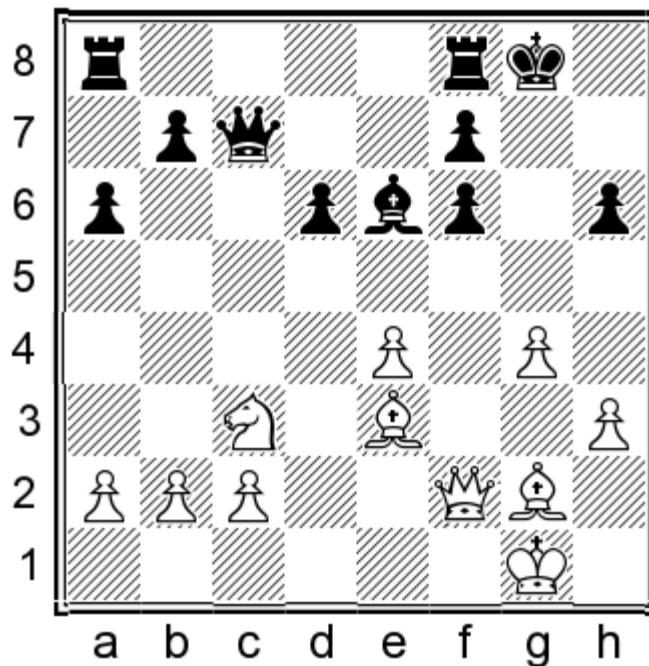
Here Timman sacrificed each of his rooks for a minor piece:

**16.  $\mathbb{B}xf6$   $\mathbb{Q}xf6$  17.  $\mathbb{B}xf6$   $gxf6$**

Why? Because White has clearly superior forces in the attacking sector. This means that the likelihood of blood being spilled increases sharply. Timman’s double sacrifice has good chances of being correct.

For us, it’s very important that this double exchange sacrifice is an intuitive one. It’s practically impossible to calculate its consequences all the way to the end. This is a task that even the most powerful computer program would find hard to deal with. It remains but for us to go by feel, from one favorable position to the next – all the way to victory!

**18.  $\mathbb{W}f2$**



White’s intention is primitive enough: 19.  $\mathbb{W}xf6$  Δ 20.  $\mathbb{Q}d4$  and  $\mathbb{W}g7\#$ . Other possible attacking continuations: 18.  $\mathbb{Q}xh6$ , 18.  $\mathbb{Q}d4\dots$  How many others?

Follow up on these continuations – first without a computer, then with one.

In the diagram position, if Black now plays 18...  $\mathbb{W}e7$  (Δ ...  $\mathbb{B}fe8$  and ...  $\mathbb{W}f8$  – closer to the king!), then, according to analysis by V. Atlas, 19.  $\mathbb{W}h4$  looks very strong: 19...  $\mathbb{B}fe8$  20.  $\mathbb{Q}d4$   $\mathbb{Q}h7$  21.  $\mathbb{Q}xf6$   $\mathbb{W}f8$  22.  $e5$   $d5$  23.  $\mathbb{Q}f1$ . Does White win? Yes or no?

Most likely not: after 23...  $\mathbb{W}c5+$  24.  $\mathbb{Q}g2$  Black has the fantastic answer 24...  $\mathbb{Q}f5!$  (*Rybka*) when, after 25.  $gxf5$   $\mathbb{W}e3$ , or 25.  $g5$   $\mathbb{W}f8$ , White has nothing decisive – dynamic equality! It’s like a miracle, isn’t it?

Stronger than 24.  $\mathbb{Q}g2$  are the alternatives 24.  $\mathbb{Q}h1$  and 24.  $\mathbb{Q}h2$ . Followed by variations upon variations... Thirteen and

even more ply deep, *Rybka* takes the position to be “ $\pm$ ”, but nothing more than that. A flesh-and-blood chessplayer cannot go that deep!

It is indeed possible that the strongest move in the position is 18... $\mathbb{W}a5$  (Van Wely’s recommendation). Is that right?

I admit to thinking long and hard over this, and I thought it was not so. My skepticism was fueled by *Fritz* – at that time *Fritz 8*, back then the latest version of that miracle program. We managed (more *Fritz* than I) to find a very dangerous variation for Black: 18... $\mathbb{W}a5$  19. $\mathbb{Q}xh6$   $\mathbb{W}e5$  20. $\mathbb{Q}f4$   $\mathbb{W}c5$  21. $\mathbb{Q}e3$   $\mathbb{W}e5$  22.h4, depriving the queen of the g5 square and preparing the murderous 23. $\mathbb{Q}d4 \Delta$  24. $\mathbb{W}xf6$ .

But, in the age of *Rybka*, a bitter disappointment lay in store for me. In the first place, *Rybka* holds the position after 22.h4 with 22... $\mathbb{W}a5$  23. $\mathbb{Q}d4$   $\mathbb{Q}fd8$  24. $\mathbb{W}xf6$   $\mathbb{Q}f8$  25.h5  $\mathbb{Q}e8 \Delta$  26... $\mathbb{Q}d7$ . Black is in a bad way, but it’s  $\pm$  and not  $+-$ . Of course, by digging deeper into the position, I might turn that  $\pm$  into a  $+-$ . I didn’t do this. Why not?

Because – and this is in the second place – my silicon friend found an unexpected reply to 19. $\mathbb{Q}xh6$  – 19... $\mathbb{W}d8!$ , with the continuation 20. $\mathbb{Q}e3$   $\mathbb{Q}g7$  21. $\mathbb{Q}d4$   $\mathbb{Q}g8$  22.g5  $\mathbb{Q}f8$  23. $\mathbb{Q}xf6$   $\mathbb{W}a5$  24.h4  $\mathbb{Q}c8$ , etc. What the heck?

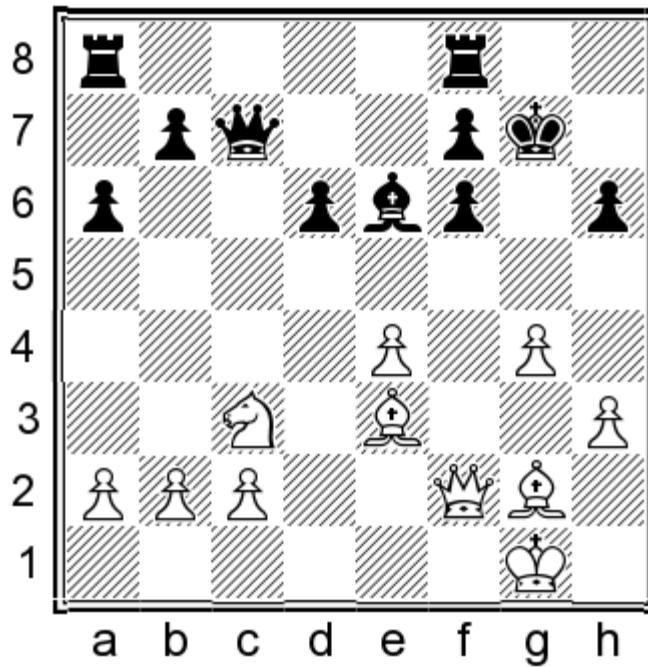
Could it be that the position after 24... $\mathbb{Q}c8$  is one of dynamic balance? Or is White only a bit better after all? Or...?

Chess is inexhaustible, and the truth – which we equate with the strongest move – drifts away from us. It loses itself in the wasteland of the primeval chessic chaos, and chaos in chess is irrational complications.

Van Wely preferred to make a king move:

### 18... $\mathbb{Q}g7$

Black defends the targets at f6 and h6, and also sharply increases the local density of his pieces right around the king. But there is a drawback to this: the king moves closer to the front line, and that’s dangerous – very dangerous!



### 19.e5

Powerful, and very strong. The threat is to win the f6-pawn with check.

### 19...fxe5

Most likely, Van Wely overlooked his opponent’s spectacular reply. On the other hand, Black no longer has a defense.

At least, neither *Fritz* nor *Rybka* itself could see one. Here are some variations:

19... $\mathbb{E}h8$  20. $\mathbb{W}xf6+$   $\mathbb{Q}g8$  21. $\text{exd}6$ ,

a) 21... $\mathbb{W}xd6$  22. $\mathbb{Q}d4$   $\mathbb{E}h7$  23. $\mathbb{Q}e4$   $\mathbb{W}c7$  24. $\mathbb{W}f2+-$ ;

b) 21... $\mathbb{W}d8$  22. $\mathbb{W}e5$   $\mathbb{E}h7$  23. $\mathbb{Q}e4$ , etc.

## 20. $\mathbb{Q}xh6+$ $\mathbb{Q}g6$

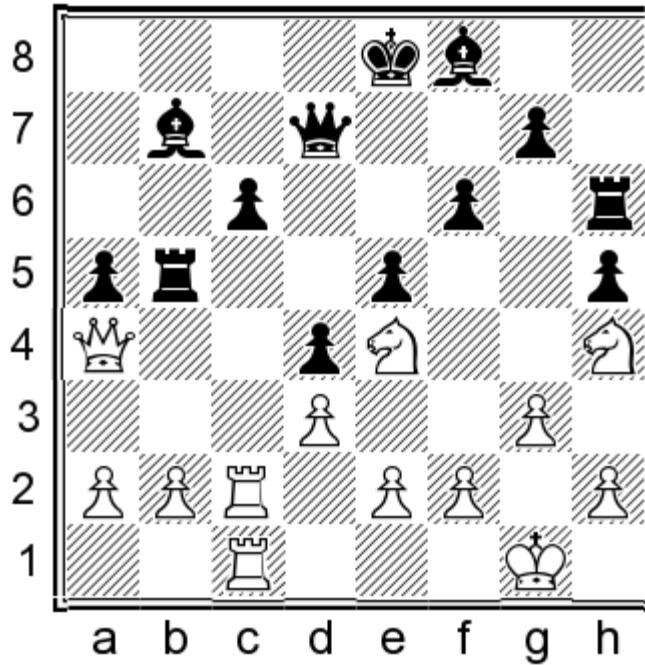
20... $\mathbb{Q}xh6$  is mate in a few moves.

## 21. $\mathbb{W}h4$

Black resigned in view of 21... $\mathbb{E}g8$  22. $\mathbb{Q}e4+$  f5 23. $\mathbb{Q}xf5+$   $\mathbb{Q}f7$  24. $\mathbb{W}h5+$   $\mathbb{Q}e7$  25. $\mathbb{Q}g5+$ . No comment necessary. **1-0**

### No. 84: Psakhis – Tukmakov

Rostov-on-Don 1993



Position after 19... $\mathbb{E}h6$

We're playing White, and we have:

1) material equality;

2) the Capablanca Safety Zone:

$t = 38/35 \approx 1.09$ ;

3) rough parity in the safety factor, given that nothing seriously threatens the kings.

Our preliminary diagnosis: the Capablanca Algorithm.

4) the fourth factor of the position:  $\Delta k \gg 0$ . The compactness factor moves us toward the Tal Algorithm;

5) and the fifth factor does the same, since  $\Delta(19... \mathbb{E}h6) < 0$  – work it out!

Our final diagnosis: the TC Algorithm. The movement from “Capablanca” to the TC Algorithm is endorsed by the fourth and fifth algorithms of our position.

## 20.b3

GM Psakhis is almost pacifistic. He patiently prepares exchanges – White intends to play 21.♘c5. Exchanges favor White, but not all of them do. For some reason, Psakhis isn't satisfied with the variation 20.♘c5 ♕xc5 21.♕xc5 ♖xb2. Why?

The answer is: compactness!

## 20.b3 ♕d5

A good move – Black prevents (if only for a while) the knight sortie to c5, which would be very unpleasant for him.

An alternative to this careful move would be the aggressive 20...g5, raising his sword and seeking to test the soundness of White's citadel. After 21.♘f3 h4 and then ...hxg3 and ...♗h3 he would obtain real counterchances.

What should White do after 20...g5? Answer blow for blow! Like 21.♘f5!. For this we have a sound basis. Only by force, only with "Tal," can we bridle our opponent's rage. And no doubts. We must win!

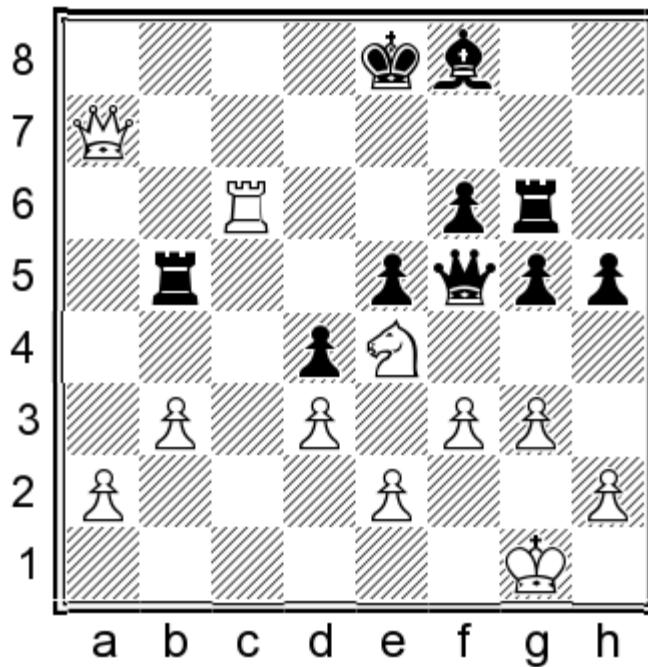
Now the straightforward 21...♗xf5 loses – 22.♕xc6 decides. Check it out!

And if so, then Black has only one reasonable reply: 21...♗g6. Black delays capturing that cheeky knight. Continue: 22.f3!. The battle of nerves reaches its climax! Now Black must accept the sacrifice, since 23.g4, with a complete positional bind and a guaranteed win, is threatened. But the sacrifice cannot be accepted right away – play 22...♗b4 first (recommended by *Fritz*).

Then 23.♗xa5 ♜b5 is quite possible. Black, of course, would not object to a repetition of moves: 24.♗a4 ♜b4 25.♗a5 ♜b5, etc. Draw? Answer, White!

Our proud reply is: No!

Let's examine the position after 24.♗a7 ♗xf5 25.♕xc6 ♔xc6 26.♕xc6:



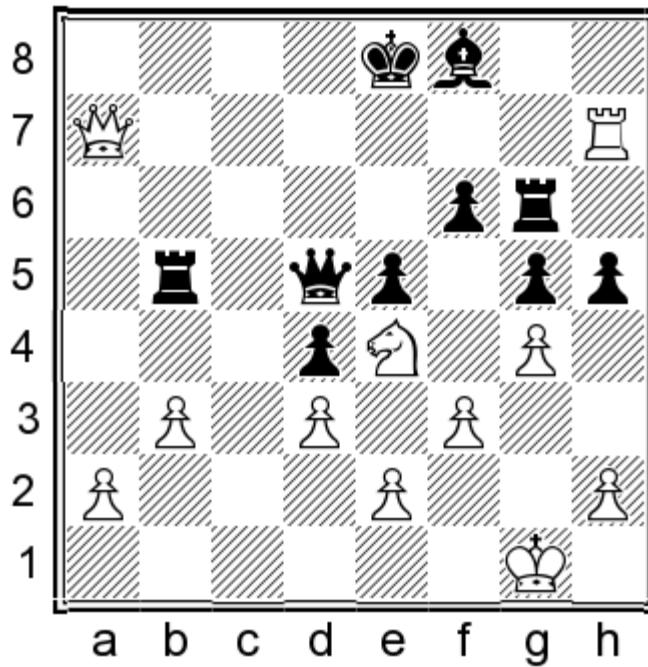
Position after 26.♕xc6 (analysis)

White threatens 27.♗a4 and, after the rook retreats, intends to deliver a victorious check on c8.

Black loses after 26...♗d5, a *Fritz* move of secondary power. White wins with 27.♗h7 Δ 28.g4 hxg4 29.♘g3, etc. And if

Black replies 27...g4, then 28.♖c7 Δ 29.♕f7+ ♔d8 30.♖b7 is winning. Verify *Fritz*'s analysis.

The top move is 26...♗d7, but here too, Black's situation is not to be envied: 27.♖c7 ♗d8 28.♖h7, with the prosaic idea of "Scholar's Mate" at f7, looks very strong. Here 28...♗d5 allows both the decisive 29.♕a6 Δ 30.♗xf6+ and the charming 29.g4:



*Position after 29.g4 (analysis)*

Isn't this a *Zugzwang*? No more words, just variations:

- a) 29...hxg4 30.fxg4 f5 31.gxf5 ♕gb6 32.a4 ♕xb3 33.a5+-;
- b) 29...h4 30.♖h8 ♕c6 31.♕a3 ♕b4 32.♕xb4 ♕c1+ 33.♔g2 h3+ 34.♔f2 ♕e3+ 35.♔f1 ♕c1+ 36.♕e1+-.

Of course, these lines are only the tip of the iceberg. I advise you, dear reader, to independently explore its underwater part. You won't regret it... Chess is inexhaustible, and its secrets will be opened to the fearless!

Let's go back to the game after GM Tukmakov's move 20. What did White play?

**21.♕c4**

Remember, we are playing by the TC Algorithm, which means that we are entitled to an out-of-order exchange.

**21...♔d7**

A strategically perfect move. Black "elevates" his king, automatically increasing the density of packing of his king and pawns.

**22.♕xd5+**

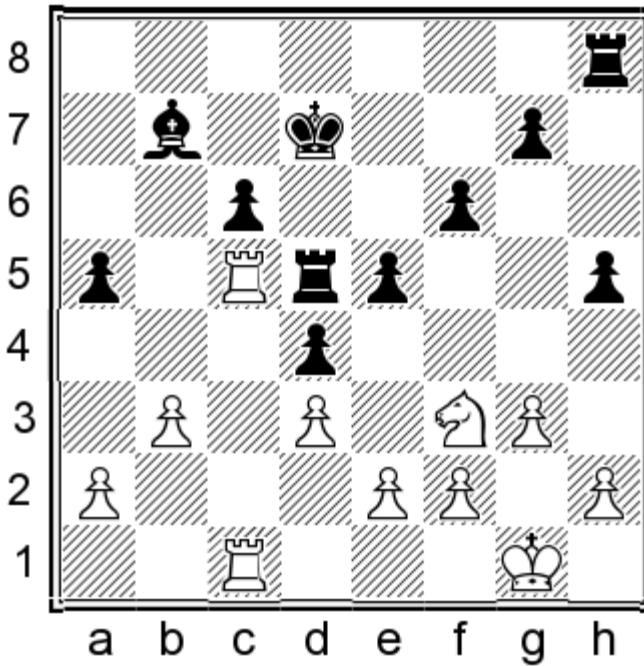
The queen trade is unavoidable, and therefore it need not have been forced. White erroneously rushes matters. 22.f4 was better, when if 22...♝a3, then 23.♖f1 with outstanding kingside prospects.

**22...♖xd5 23.♗c5+**

23.f4 looks very good.

**23...♜xc5 24.♝xc5 ♜h8 25.♞f3**

Careless! It was better to retreat, not the knight, but the rook from c5 to c4. This is because, in the position after 24...♜h8, Black's superiority in forces on the queenside – the focus of the battle – is plain to see. That place is the rectangle a8-a1-d1-d8. The black king, rook, and bishop are stronger than the two white rooks, which means that White simply must surrender this sector to his opponent.



**25...♝b8**

Returning the favor! Black misses his chance. Instead 25...a4, intending to trade his “poor” a-pawn for the “good” white b-pawn, was necessary. This would be very good for Black in terms of compactness: after the a-pawn disappeared, Black would enjoy a significant increase in the packing of his king and pawns.

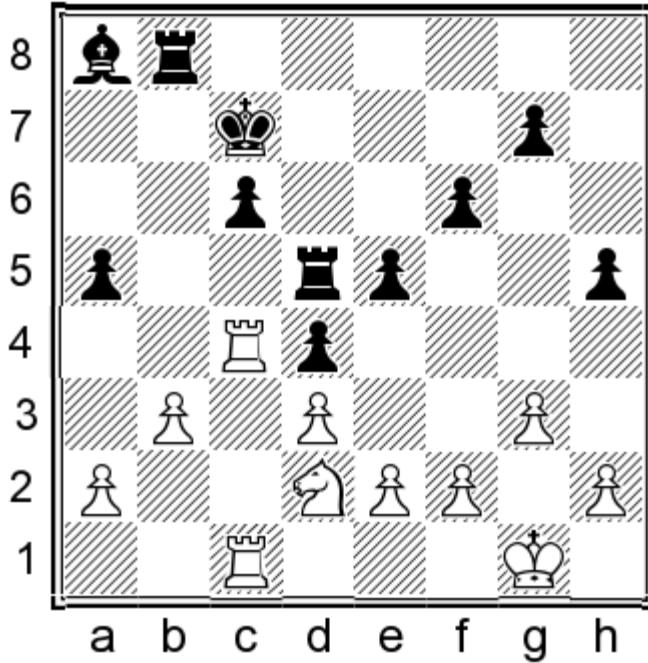
Now let's hear from *Rybka*, fleshing out (and in some cases confirming) *Fritz*: 25...a4 26.b4 a3 27.♞d2 ♜b8 (the target of the coming attack is the b4-pawn) 28.♜5c4 ♜b5 29.♝e4 ♜e7 30.f4 ♜a8.

Dynamic balance! See for yourself!

**26.♞d2 ♜a8 27.♜5c4**

Finally!

**27...♝c7**



We have:  $m = 1$ ,  $t = 31/30 = \sim 1.03$ , approximate parity in the third factor of the position,  $\Delta k > 0$ , and  $\Delta(27\dots \mathbb{Q}c7) = \sim -0.73$ . Diagnosis: the TC Algorithm.

“Nothing new under the sun” – compare this diagnosis with that of the position after  $19\dots \mathbb{Q}h6$ . Algorithms for seeking the strongest move are sometimes very stubborn!

A new question: Why is that? I reply evasively, half in a riddle: fixed pawn chains... Am I right?

**28.  $\mathbb{Q}e4$   $\mathbb{B}b4$  29.  $\mathbb{Q}g2$**

White improves his position, increasing the  $\Delta k$  and  $\Delta(\text{move})$ . It looks strategically flawless!

**29...f5**

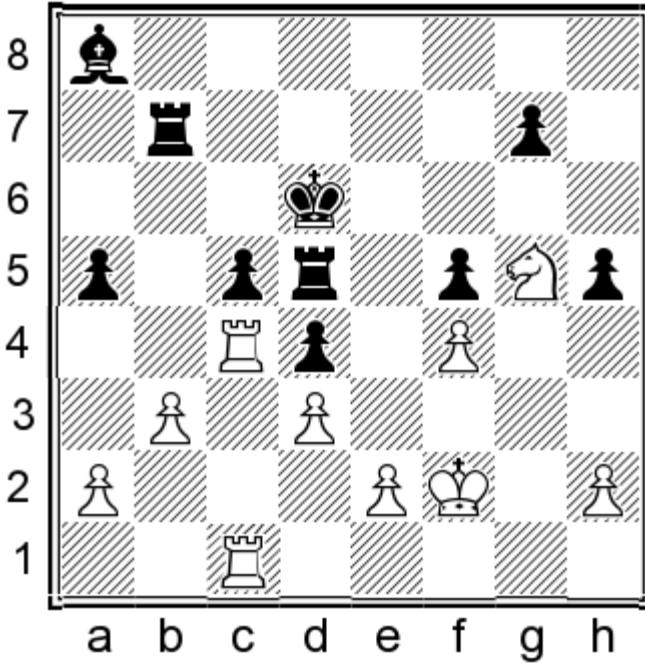
A very suspicious move. Quite probably it's connected with a tactical oversight – see White's move 34. Obviously, Black wants to put his pawn on c5, bringing to life his inactive bishop. But...alas!

**30.  $\mathbb{Q}g5$   $\mathbb{Q}d6$  31.  $f4$   $exf4$  32.  $gxsf4$   $c5$  33.  $\mathbb{Q}f2$**

33.  $\mathbb{Q}e4+$  would have been a grievous error:  $33\dots fxe4$   $34. dx e4 \mathbb{Q}f5+-$ .

**33...  $\mathbb{B}b7$**

See the note to 29...f5. I believe that my suspicions may have had some basis in fact.



34.  $\mathbb{Q}e4+$

The decisive stroke! And it's no accident. This game-winning check is a consequence of Black's flawed play. He was punished for his unjustified ambitions in an inferior position. Black treated his position aggressively (28... $\mathbb{E}b4$ , 29... $f5$ , 32... $c5$ ), and this is what destroyed him!

You need to understand: *the TC Algorithm for White means the CP Algorithm for Black*. Otherwise, you have a game working against the requirements of the position. Tukmakov was playing almost in "Tal"-style when he should have been playing almost like "Petrosian," and that led to this catastrophe.

The TC Algorithm is anti-symmetrical to the CP Algorithm (see the Algorithm Drift Chart), and these two algorithms are equidistant from the "center" of the Capablanca Algorithm. And the Capablanca Algorithm is self-contained. It is symmetrical (mirroring) unto itself. On the edges of the spectrum of all attacks and defenses there lie the algorithms of Tal and Petrosian, mirroring each other.

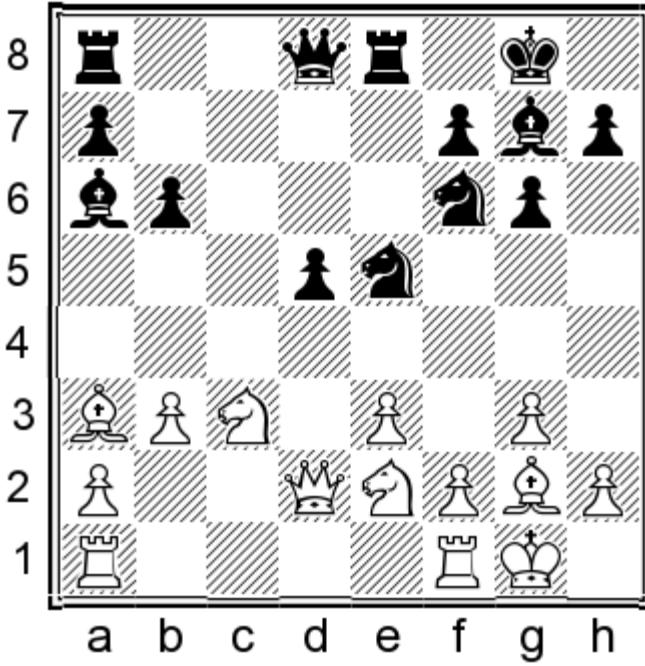
The rest of the game is of little interest to us – it's agony for Black. It ended:

34... $fxe4$  35. $dxe4$   $\mathbb{E}f7$  36. $exd5$   $\mathbb{xf4+}$  37.  $\mathbb{Q}e1$   $\mathbb{xd5}$  38.  $\mathbb{xc5}$   $\mathbb{g4}$  39.  $\mathbb{xa5}$   $\mathbb{g1+}$  40.  $\mathbb{Q}d2$   $\mathbb{g2}$  1-0

**The TC Algorithm for White means the CP Algorithm for Black.**

**No. 85: R. Byrne – Fischer**

U.S. Championship, New York 1963/64



Position after 13...Qxe5

We are playing White, and we have:

- 1) parity in the first factor of the position;
- 2)  $t = 45/36 = 1.25 = t_{cr}$  – that is, our starting point is on the border between the algorithms of Tal and Capablanca;
- 3) parity in the safety factor – neither side's king is seriously threatened.

Our preliminary diagnosis: the TC Algorithm.

- 4) the fourth factor:  $\Delta k > 0$  – that is, the compactness factor impels us toward the Tal Algorithm.
- 5) the factor of spatial expansion:  $\Delta(13\diamond\diamond e5) = \sim -0.14 < 0$  – that is, the fifth factor of the position acts in contrast to the fourth, pulling us slightly to the right.

Our final diagnosis: we are somewhere in the middle, between the “pure” Tal Algorithm and the TC Algorithm.

In the game, there followed a rook move:

#### 14.Qfd1

Wrong rook! In *My 60 Memorable Games*, Fischer writes: “Correct was 14.Qad1!. Originally I gave the following ♦? refutation’: ♦?14...Qe4 15.Qxe4 dxe4 16.Qxe4 Qxd2 17.Qxd2 Qc4 18.Qxa8 Qxd2 19.Qd1 Qc4 20.bxc4 (best) 20...Qxa8, regaining the pawn with a big endgame advantage.’ But Averbakh found a ♦?hole’ in my analysis with 20.Qc6! (instead of 20.bxc4 which I had carelessly given as ♦?best’): 20...Qxa3 21.Qxe8 Qxe2 22.Qd7, and White is the one who wins instead of Black!.

“I spent an evening just staring at the position after 14.Qad1, trying everything, unwilling to let my brilliancy go down the drain. The more I looked, the more I liked White’s game!...”

Fischer concludes: “Finally I found 14...Qc8! – the only move to keep the pressure...”

This position attracted notice from a lot of gifted analysts. It was analyzed by Hübner and Kasparov... For example (speaking of “14...Qc8 – the only move to keep the pressure”), here is what the thirteenth World Champion wrote about it (*My Great Predecessors*, Part IV): “According to analysis by Hübner, this is correct both in the event of 15.Qxd5 Qxd5 16.Qxd5 Qd8 17.f4 Qxd5! (17...Qg4!? 18.e4 Qf6) 18.Qxd5 Qb7! 19.Qd2 (19.Qd8+? Qxd8 20.Qxd8+ Qxd8

21.fxe5  $\mathbb{B}d2$ ! 22. $\mathbb{B}f2$   $\mathbb{B}xe5$ ) 19... $\mathbb{W}c6$ ! (not Fischer's variation 19... $\mathbb{W}h3$ ? 20. $\mathbb{Q}d4$   $\mathbb{Q}g4$  on account of 21. $\mathbb{Q}f3$ !  $h6$  22. $\mathbb{Q}c1$ ) 20. $\mathbb{Q}d4$   $\mathbb{W}h1$ + 21. $\mathbb{Q}f2$   $\mathbb{W}xh2+$  22. $\mathbb{Q}e1$   $\mathbb{W}xg3+$  23. $\mathbb{W}f2$   $\mathbb{W}xf2+$  24. $\mathbb{B}xf2$   $\mathbb{Q}g4$  25. $\mathbb{B}e2$   $\mathbb{Q}a6$  or 20. $\mathbb{W}d5$   $\mathbb{W}xd5$  21. $\mathbb{B}xd5$   $\mathbb{Q}xd5$  22.fxe5  $\mathbb{B}xe5$  with the better endgame, and after 15. $\mathbb{W}c1$   $\mathbb{W}f5$ ! (Fischer's recommendation of 15... $\mathbb{Q}e4$  16. $\mathbb{Q}xd5$   $\mathbb{B}xe2$  17. $\mathbb{Q}xe4$   $\mathbb{Q}h8$  is unclear in view of 18.f4!), but with 15. $\mathbb{Q}d6$ !  $\mathbb{Q}e4$  (15... $\mathbb{Q}d3$ ? 16. $\mathbb{Q}xd5$ ; 15... $\mathbb{W}g4$ ! – G.K.) 16. $\mathbb{Q}xe4$  dxe4 17. $\mathbb{Q}xe5$  (17. $\mathbb{Q}xe4$ ?!  $\mathbb{Q}c4$ !) 17... $\mathbb{B}xe5$  18. $\mathbb{B}c1$  and 19. $\mathbb{B}fd1$  White maintains the balance."

Now I will tear a couple of fragments out of this long game, and fill them out with the ultra-intelligent *Rybka*.

First fragment: 14... $\mathbb{W}c8$  15. $\mathbb{Q}xd5$   $\mathbb{Q}xd5$  16. $\mathbb{Q}xd5$   $\mathbb{B}d8$  17.f4  $\mathbb{B}xd5$  18. $\mathbb{W}xd5$   $\mathbb{Q}b7$  19. $\mathbb{W}d8$ ?  $\mathbb{W}xd8$  20. $\mathbb{B}xd8+$   $\mathbb{B}xd8$  21.fxe5  $\mathbb{B}d2$ ! 22. $\mathbb{B}f2$   $\mathbb{B}xe5$ . 22... $\mathbb{B}xa2$  looks stronger, for instance 23. $\mathbb{Q}d6$   $\mathbb{B}a5$  24.b4  $\mathbb{B}a3$  25.b5  $\mathbb{B}e3$ †.

Second fragment: 14... $\mathbb{W}c8$  15. $\mathbb{Q}d6$   $\mathbb{Q}d3$  16. $\mathbb{Q}xd5$ . Contrary to Kasparov, *Rybka* does not consider White's last move the refutation of the "erroneous" 15... $\mathbb{Q}d3$ , and continues 16... $\mathbb{Q}xd5$  17. $\mathbb{Q}xd5$   $\mathbb{B}d8$  18. $\mathbb{Q}xa8$   $\mathbb{W}xa8$  19. $\mathbb{Q}a3$   $\mathbb{Q}f6$  20.e4  $\mathbb{W}xe4$  21. $\mathbb{W}e3$ , when White (most likely) does indeed hold the balance. But nothing more than that...

My commentary, and the commentaries of Fischer, Hübner, and Kasparov: if "Tal" (i.e., 15. $\mathbb{Q}xd5$ ) doesn't work, then "Capablanca" must be tried – specifically, the second half of the TC Algorithm; see the diagnosis for the starting position. That's where 15. $\mathbb{Q}d6$ ! comes from. Trading his dark-squared bishop for Black's knight would favor White.

Why? You know the answer: White is more compact!

After 14. $\mathbb{B}ad1$ , Black's strongest move is probably not 14... $\mathbb{W}c8$ , but 14... $\mathbb{W}d7$ ! (Kasparov's marks). After that Fischer advises "15. $\mathbb{W}c2$  followed by  $\mathbb{B}d2$  and  $\mathbb{B}fd1$  (if 15... $\mathbb{B}ac8$ , 16. $\mathbb{W}b1$ )." However (and here I let the thirteenth World Champion have the floor), "...after 16... $\mathbb{W}g4$ ! 17.h3 (17.f3?!  $\mathbb{W}h5$  leaves the e3-pawn too weak) 17... $\mathbb{W}h5$  18. $\mathbb{Q}f4$   $\mathbb{Q}f3$ + 19. $\mathbb{Q}h1$   $\mathbb{W}h6$  the initiative is with Black..."

Nevertheless, it seems to me that after 19... $\mathbb{W}h6$  White should not be worse, most of all because the overall diagnosis of the position after 13... $\mathbb{B}xe5$  is quite satisfactory for him. This is why I advise you, dear reader, to extend Kasparov's analysis. Concretely: check out 20. $\mathbb{Q}xd5$ .

A question for you: does this extremely curious move work out?

Let's return to the game, to the position after the careless 14. $\mathbb{B}fd1$ . With this move by "the wrong rook," White "catastrophically weakens the f2-pawn" (Kasparov). And he will pay for it!

#### **14... $\mathbb{Q}d3$**

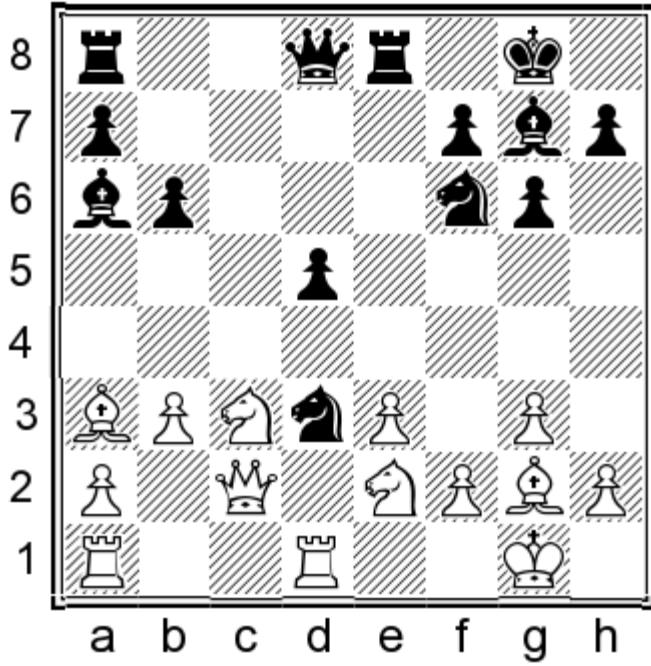
With the unpleasant threat of 15... $\mathbb{Q}e4$  16. $\mathbb{Q}xe4$  dxe4, and Black gets an "eternal" knight on d3.

#### **15. $\mathbb{W}c2$**

Not hesitating for a minute, Byrne attacks the enemy knight and – loses by force, since after 14. $\mathbb{B}fd1$   $\mathbb{Q}d3$  White is not entitled to attack. His kingside is weakened, and therefore he must not attack, but rather defend. Byrne's move was his second consecutive error – a grievous one, and his last!

The strongest move was 15. $\mathbb{Q}d4$  (Kasparov), continuing with 15... $\mathbb{Q}e4$  16. $\mathbb{Q}xe4$  dxe4 17. $\mathbb{Q}b2$   $\mathbb{B}c8$  18.a4  $\mathbb{W}g5$  (according to Fischer, Hübner, and Kasparov). And here "Black has an obvious advantage, thanks to his powerful knight at d3" (Kasparov).

I add: an advantage, but not a forced win.



15...♞xf2

Why does this move win?

Of course, not because we have material equality. And especially not because the overall mobility of Black's pieces is less than that of White's ( $t = 39/43 = \sim 0.91$ ).

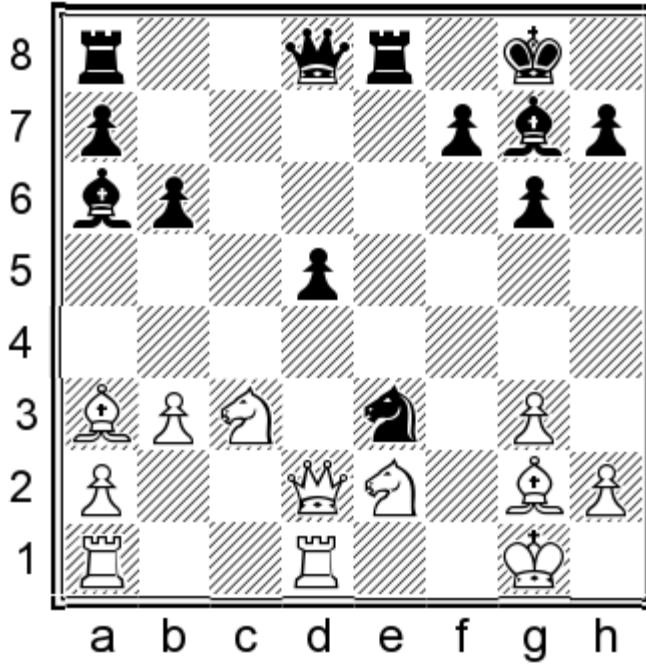
The reason White loses is because he (pardon my repetition!) has “catastrophically weakened” the f2 square.

We have long known that the safety factor is a very sensitive one, easily upset. Sometimes, it seems as though a mating attack arises spontaneously, out of nowhere. But this is not so. Chess is not roulette. It does contain an element of chaos, no doubt, a fundamental lack of certainty. But it is just as true that chess is a game that observes strict rules.

Our game is one which balances on a razor's edge between chaos and order. Our task (and, I add, an infinitely complex one) consists of creating order out of chaos.

16.  $\text{Qxf2}$   $\text{Qg4+}$  17.  $\text{g1}$   $\text{Qxe3}$  18.  $\text{Wd2}$

There is nothing else.



Now we will play Black. The parameters of the position are:  $m < 1$ ,  $t = 44/41 = \sim 1.07$ , a clear “+” in the factor of safety. Diagnosis: the Tal Algorithm. The first and the third factors of the position work in favor of “Tal.” Fischer, as is to be “expected” from  $m < 1$ , is very aggressively inclined. There followed:

**18...♝xg2**

“A brilliant stroke. Byrne was hoping for 18...♝xd1 19.♝xd1 with an unclear game” (Kasparov).

**19.♝xg2 d4**

An open attack on the enemy knight!

**20.♝xd4 ♜b7+**

Check is an open attack on the king, a piece of limitless value. White is finished.

**21.♚f1**

Kasparov: “The machine confirms that other moves were equally bad: 21.♚g1 ♜xd4+ 22.♝xd4 ♜e1+!, or 21.♚f2 ♜d7! 22.♝ac1 ♜h3 23.♝f3 ♜h6 24.♝d3 ♜e3+ 25.♝xe3 ♜xe3 26.♚xe3 ♜e8+ 27.♚f2 ♜f5! (Fischer).”

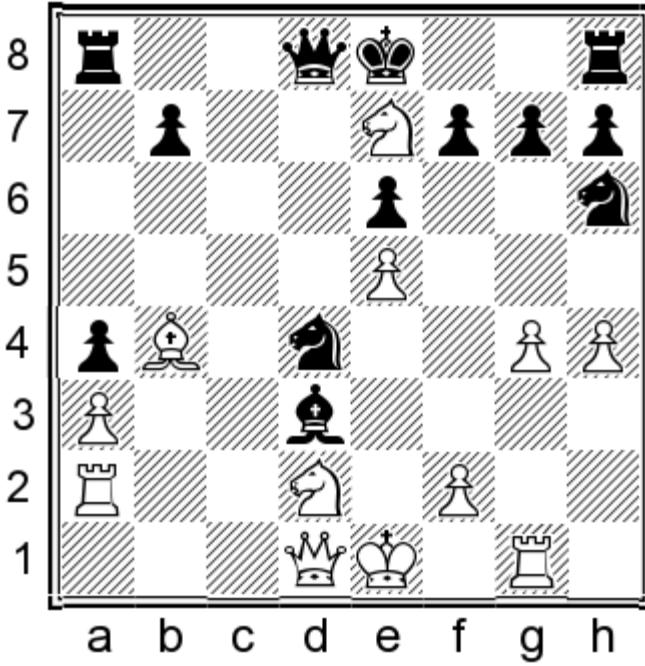
**21...♜d7**

White resigned “in view of 22.♝db5 ♜h3+ 23.♚g1 ♜h6, or 22.♝f2 ♜h3+ 23.♚g1 ♜e1+!! 24.♝xe1 ♜xd4” (Kasparov).

**0-1**

**No. 86: Yemelin – Dolmatov**

Russian Championship, Krasnoyarsk 2003



Position after 21.  $\mathbb{Q}b4$

We are playing Black. We have:

- 1) an extra pawn – that is,  $m > 1$ ;
  - 2)  $t = 44/35 = \sim 1.26$ , so our starting point is practically on the line between the Tal and Capablanca algorithms;
  - 3) an advantage in the third factor of the position, since White's king is totally paralyzed, and our king only partially so.
- The first factor drives us toward "Capablanca," and the third toward "Tal." We know well that the third factor is more important. Our diagnosis: Tal!

The game continued:

**21...  $\mathbb{Q}g8$**

The cold-blooded *Fritz* considers this the strongest. And, true, we find it impossible to argue with it, because chess engines are head-and-shoulders above humans in sharp positions. And we don't argue. Even when the move goes against our judgment.

Dolmatov and *Fritz* have "neglected" the value scale. They disapprove of the "correct" moves 21...  $\mathbb{W}c7$  ( $\Delta$  22...  $\mathbb{W}e5+$  or 22...  $\mathbb{Q}c2+$ ) and 21...  $\mathbb{Q}e2$ . Both human and computer refrain from open and direct attacks on the king and queen! Why?

Because after the natural

**22.  $\mathbb{Q}xg8$**

Black has the very strong and spectacular reply

**22...  $\mathbb{W}d5$**

This unexpected move wins at once, as White has no satisfactory defense against 23...  $\mathbb{W}xa2$  or 23...  $\mathbb{W}xe5+$ . Cute, yes? Yemelin resigned after

**23.  $\mathbb{E}g3$   $\mathbb{W}h1+$  0-1**

We know that Dolmatov's play was perfect. In other words, we will stipulate that all three of Black's moves (21... $\mathbb{Q}g8$ , 22... $\mathbb{W}d5$ , and 23... $\mathbb{W}h1+$ ) were as strong as they could be. This, despite the fact that the first of these was "a move against."

Why does counterintuitive play become ideal?

Because the value of an empty square on the chessboard can be greater than the value of a square that is occupied by an enemy pawn or piece. The chess value of an empty square is variable – it can change from the vanishingly small to the boundlessly great.

The ideal chessplayer – that is, one who never makes a mistake – sees no difference between vacant and occupied squares. In the attack, he makes a move "by feel," as it were. By some mysterious method he defines exactly the value of the squares that are accessible to his pieces. This ideal player crawls from square to square along the line of least resistance. Speaking metaphorically, the ideal chessplayer is always the optimal intermediary for the divine emanations of Caissa, the goddess of chess!

**The value of an empty square on the chessboard can be greater than the value of a square that is occupied by an enemy pawn or piece. The chess value of an empty square is variable – it can change from the vanishingly small to the boundlessly great.**

Let us recall what happened in the game (and remember: we consider Dolmatov's play to be ideal):

21... $\mathbb{Q}g8$  was the strongest move – meaning that, in the position preceding this move, the value of the empty square g8 was greater than the value of any other vacant or occupied square available to Black. With this move, Black attacked a material target on e7 that was putting him in danger. The empty square g8 dovetailed with the occupied square e7...

22... $\mathbb{W}d5$  was a best move, too. This means that, in the position after 22. $\mathbb{Q}xg8$ , the value of the empty square d5 was greater than that of any other square, including the now non-vacant square g8. With this move, Black attacked targets on a2 and e5. And also a target on g8, and many vacant squares, whose accurate chess value could not be determined. I will say only that the empty squares meshed with the non-vacant. A Gordian knot!

23... $\mathbb{W}h1+$  was a strongest move. That means that the value of the empty square h1 was greater than the value of any other square on the board.

Vacant squares and occupied squares are interconnected. They make for a unified whole. If we separate them, that means that we tear them apart. If we reduce chess too much to its constituent elements, we risk killing chess.

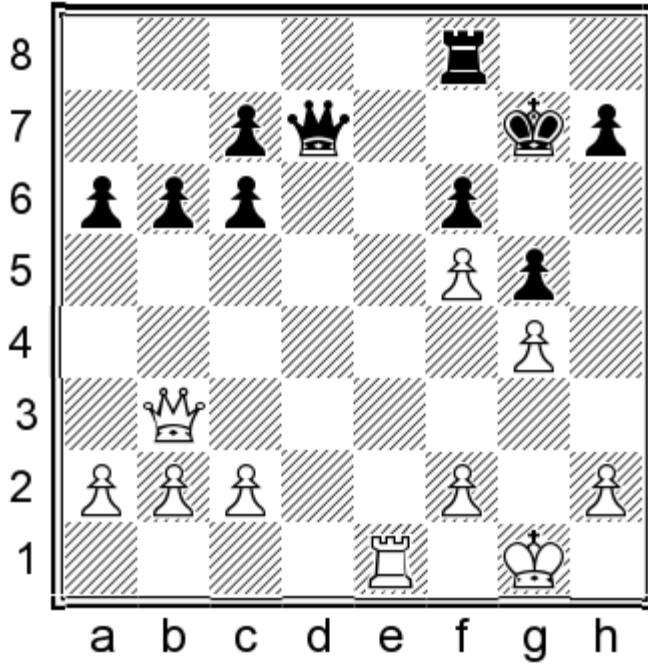
On the other hand, if we do not tear it apart, then we risk turning into complete and utter bystanders in fruitless contemplation, and along the way, chess kills the chessplayer...

Where does the truth lie?

The truth, slipping away from us, is to be found in that undefinable "middle way."

**No. 87: Adorján – P. Lukács**

Hungarian Championship, Budapest 1970



*Position after 23... ♔g7*

We are playing White. The characteristics of the position are:

- 1) material equality;
- 2) a clear advantage in the second factor:  $t = 39/28 = \sim 1.39 > t_{cr}$  – the Tal Zone;
- 3) serious problems with the third factor: we cannot accurately define the level of safety of the kings (fortunately for us, our king is presently not under any sort of pressure from our opponent, but unfortunately for us it is very loosely packed; whereas the black king, although not very mobile, is at the same time very securely tucked away).

Clearly, we need more information. What do the fourth and fifth factors tell us?

- 4) the compactness factor is practically catastrophic!  $\Delta k \ll 0$ , since the white king and seven pawns stand within the rectangle a1-a5-h5-h1 (40 squares), while the black pieces are inside the rectangle a7-a5-h5-h7 (24 squares). This means that the fourth factor pushes us from the “Tal” to the “Petrosian” side. Perhaps our starting algorithm is “Capablanca”?

- 5) the factor of space expansion is virtually at parity. Indeed,  $\Delta(23... ♔g7) = -0.10$  – that is, very close to zero. In other words, the fifth factor does not influence the process of determining the algorithm.

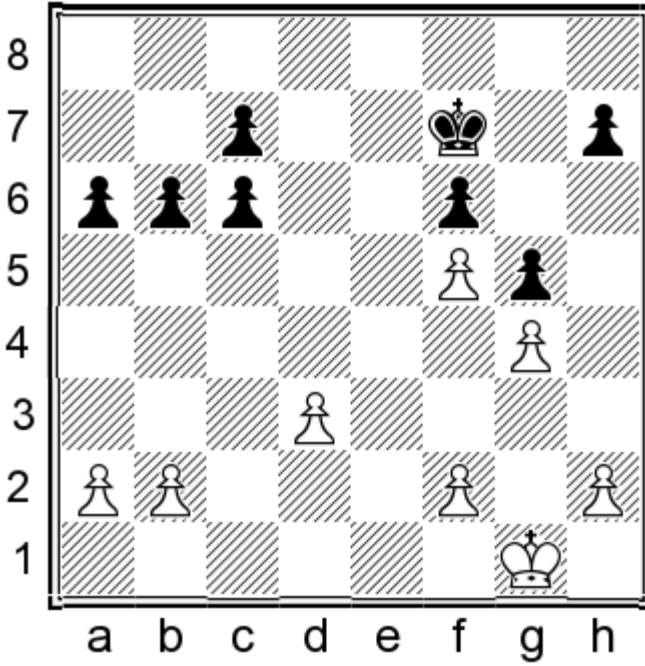
Time to add everything up. Weighing all the factors, and laying it all out by parts, I take the risk of pronouncing our final diagnosis: this position requires an expanded version of the TC Algorithm. I add: our algorithm has a wide “amplitude” – from “100% Tal” to the quietest “Capablanca.” And yet, the truth eludes us! Why?

Due to the uncertainty in the third factor of the position...

What happened in the game?

#### 24. $\mathbb{W}d3$

A “Tal”-style move. White not only assails the queen, but also launches a combination. After the very likely 24...  $\mathbb{W}xd3$ , which is not unobjectionable, there would follow, not 25.cxd3, but 25.  $\mathbb{E}e7+$   $\mathbb{E}f7$  26.  $\mathbb{E}xf7+$   $\mathbb{Q}xf7$  27. cxd3:



### Position after 27.cxd3 (analysis)

Before us we have a complex and almost pure pawn ending. “Almost,” because for the time being we do lack an accurate answer to the question: is it a win for White, or a draw, after all? A difficult question!

At the time – in that far-off, pre-computer era – I spent some intense and very happy hours analyzing this ending. And I well remember how I “succeeded” in finding the win. But then – horrors! – I was shown, convincingly, that my analysis had a hole in it... The question I posed remains unanswered. Reader, you try!

Here are a few variations, and the questions stemming from each. I think they will help you analyze.

a) The black king goes to the center: 27... $\hat{Q}e7$  28. $\hat{Q}g2$   $\hat{Q}d6$  29.f4 gxf4 30. $\hat{Q}f3$   $\hat{Q}e5$  31.d4+  $\hat{Q}xd4$  32. $\hat{Q}xf4$ .

Questions:

a1) Does Black have a draw after 32. $\hat{Q}xf4$ ?

a2) Wouldn't it be better for Black to refrain from 29...gxf4 and allow White to trade on g5 – after 30.fxg5 fxg5, isn't there a draw on the board?

a3) Wouldn't it be stronger to play 29. $\hat{Q}f3$  followed by 30. $\hat{Q}e3 \Delta f3-f4$  (bringing the pawn to f4 after completely exhausting his spare tempi with pawns)?

b) Black, wasting no energy, maintains a seventh-rank defense: 27...c5, ...h7-h6, ... $\hat{Q}f7-g7-h7-g7$ , etc. One variation: 27...c5 28. $\hat{Q}g2$  h6 29. $\hat{Q}g3$   $\hat{Q}g7$ .

Questions:

b1) Does Black have a draw after 30.h4 gxh4+ 31. $\hat{Q}xh4$   $\hat{Q}h7$  32. $\hat{Q}h5$   $\hat{Q}g7$  33.f3  $\hat{Q}h7$  34.f4  $\hat{Q}g7$  35.g5?

b2) Does Black have a draw after 30.f4  $\hat{Q}h7$  31.fxg5 hxg5 32.h4 gxh4+ 33. $\hat{Q}xh4$   $\hat{Q}h6$ ?

b3) Is the penetration of White's king to b7 dangerous for Black? I.e., 30.f4  $\hat{Q}h7$  31. $\hat{Q}f3$   $\hat{Q}g7$  32. $\hat{Q}e4$   $\hat{Q}f7$  33.fxg5 hxg5 34. $\hat{Q}d5$   $\hat{Q}e7$  35. $\hat{Q}c6$   $\hat{Q}d8$  36. $\hat{Q}b7$  (White forces Black to waste one of his few remaining tempi) 36...a5 37. $\hat{Q}c6$ , followed by a march to g3 to enforce h2-h4.

b4) Shouldn't Black, in variation (b3), play, not 32... $\hat{Q}f7$ , but 32...c6 to prevent the enemy king from reaching b7?

c) Black, not fearing 28.d4/b4, which paralyzes the c6- and c7-pawns, maintains a totally boring seventh-rank defense by 27... $\hat{Q}g7 \Delta \hat{Q}f7-g7-f7$ , etc.

**The clock ticks unpleasantly; time trouble draws near. Feverishly you calculate and calculate, looking many moves deep. You grow weary, and “the taxi’s here – time to go!” You almost despair... What to do?? Believe in your intuition! And, what is most important, banish all fear! Make your move, without thinking of the consequences. Step over the precipice... along with your opponent!**

Is it a draw, or a win?

We don’t have the right answer. But we do know that the position after 27.cxd3 requires “Capablanca.” And that means that we must “elevate” this position. When playing to win, we are simply obligated to increase the  $\Delta(\text{move})$  of our position!

How do we do this, specifically?

The clock ticks unpleasantly; time trouble draws near. Feverishly you calculate and calculate, looking many moves deep. You grow weary, and “the taxi’s here – time to go!” You almost despair... What to do??

*Believe in your intuition! And, what is most important, banish all fear! Make your move, without thinking of the consequences. Step over the precipice... along with your opponent!*

Chess is a most complicated game. It’s almost inexhaustible, and the element of uncertainty in it was, is, and ever shall be. The uncertainty of our game is ineradicable. I call upon you, dear reader, not to fear it, but to embrace and to fall in love with it!

However, let’s return to our starting position, the one after 23... $\mathbb{Q}g7$ .

An alternative to White’s aggressive sortie 24. $\mathbb{W}d3!!+-$  (all signs are Adorjan’s) was the modest 24. $\mathbb{W}e3$ . With this move, White improves the placement of his queen – the first point of the Capablanca Algorithm. This might be followed by  $\mathbb{W}e4$ ,  $\mathbb{Q}g2$ ,  $\mathbb{Q}e2$  – pawns on a2, b3, c4, f2, f5, g4, h3, etc. And “etc.” here means: some exchange or other. All in complete accordance with the Capablanca Algorithm.

Clearly, White has winning chances. But is he *winning*?

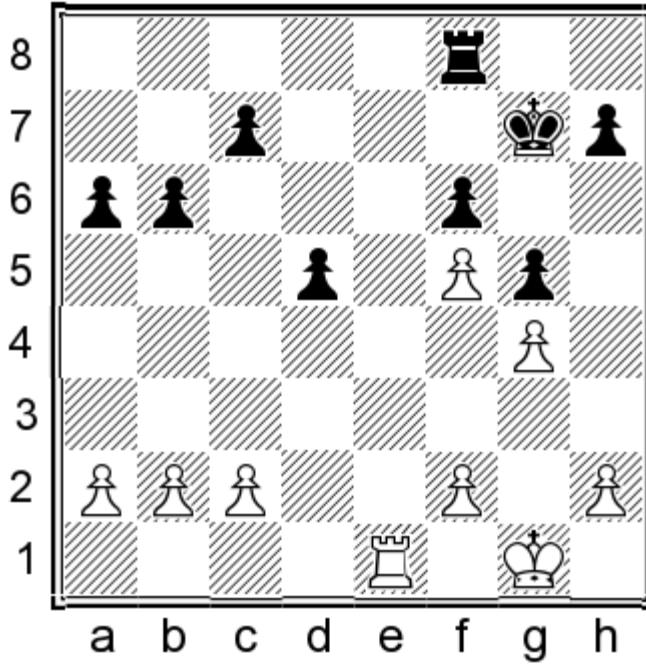
#### **24... $\mathbb{W}d5$**

This can hardly be called a good move. A modest rook move like 24... $\mathbb{R}f7$  was stronger. Then, after the probable (but, for White, not obligatory) exchange of queens, Black gets counterplay on the d-file, now cleared of pawns – a dangerous circumstance for us.

#### **25. $\mathbb{W}xd5$**

Just so! The enemy queen has gotten dangerous. From d5 it not only threatens the a2-pawn, it also acts against the white kingside. In short: White’s king is in danger! From that comes our reply – instant “Petrosian”!

#### **25...cxd5**



After the queen trade, it is very important to examine the position once more, with fresh eyes. An algorithm drift is possible since, after the trade, the sum of the mobility of the players' pieces could change sharply. In addition, a change in the safety factor is likely.

In this position, we have  $m = 1$ ,  $t = 25/19 = \sim 1.32 > t_{cr}$ , approximate parity in the safety factor,  $\Delta k \ll 0$ ,  $\Delta(25\dots cxd5) = \sim -0.33$ .

Our diagnosis is a narrow band between the algorithms of Tal and Capablanca. Or the quiet sort of "Tal," where its second element is predominant. Or maybe the aggressive sort of "Capablanca." By playing according to "Capablanca," we will place our pieces on the squares that facilitate our attacks on our opponent's material targets.

Our TC Algorithm differs from the TC Algorithm in the position after  $23\dots \mathbb{Q}g7$ . There – a great "amplitude;" here – not so much...

What happened in the game?

## 26. $\mathbb{R}e6$

The best spot for the rook is on either e6 or c6. From there, the rook pressures not only the f6-pawn, but also the queenside pawns.

## 26... $\mathbb{R}f7$ 27. $\mathbb{Q}f1$

The king hastens to reach d4.

## 27... $h5$ 28. $h3$

Of course, White refuses to be provoked – if 28.  $gxh5$ , then 28...  $\mathbb{Q}h6$ , with powerful counterplay.

## 28... $hxg4$ 29. $hxg4$ $a5$

Or 29...  $\mathbb{R}d7$  30.  $\mathbb{Q}e2$   $\mathbb{Q}f7$  31.  $\mathbb{Q}d3$   $\mathbb{R}e7$  32.  $\mathbb{R}c6$ , declining to trade major pieces. Clearly, exchanges only benefit Black – compare the density of packing of the white and black pieces.

## 30. $a4$

Slightly better was 30.†e2, followed by †d3, †c6, †d4, f3, and a4. There was no reason to fear 30...a4. Why? Adopting the plan a2-a3 + b2-b3 + c2xb3 (after exchanging the black a-pawn for the white b-pawn), a3-a4, b3-b4, and a4-a5, White gets what he was aiming for – the pawn is unstoppable! 30.a4 is “against the rules,” since it is not a piece move. Remember that, in complete accordance with the strategic Capablanca Algorithm, it is preferable to begin by optimally deploying our pieces and only then advance the pawns. Point 2 of the strategic algorithm follows Point 1!

### **30...†d7 31.†e2 †f7**

Threatening a rook trade after 32...†e7.

### **32.†d3 †d8**

Useless! Better to go down fighting than to die on your knees! 32...†e7 33.†c6 †e4, with counterplay – a double attack on the pawns at g4 and a4 – is better. And how could we not think of White’s mistake on move 30!

To be fair, though, I should note that all of Black’s counterplay cannot save him. After 34.†xc7+ †e8 35.f3 †xa4 36.c3 (pointed out by *Fritz*), White still wins, but he must do so in battle!

### **33.†c6 †d7 34.†d4**

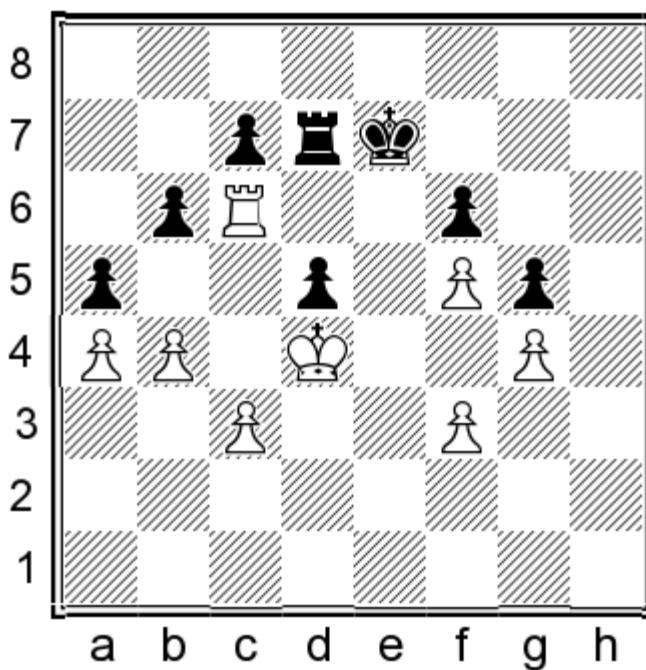
Absolute domination! Black is suffocating – in a pre-Zugzwang situation.

### **34...†g7 35.f3 †f7 36.c3**

The final preparations before the final, accurate blow.

### **36...†e7 37.b4**

That’s it!



The parameters of the position are: m = 1, t = 13/8 = ~1.62, approximate parity in the safety factor,  $\Delta k = 0$  (!!),  $\Delta(37.b4)$

= ~1.12.

Black's defense falls apart. Why?

Because White has an overwhelming advantage in the second and fifth factors and a long-awaited parity in the density of packing (compare it with the differences in the  $\Delta k$  parameter after 23... $\mathbb{Q}g7$  and 25... $cxd5$ ).

The conclusion was:

**37...axb4 38.cxb4  $\mathbb{Q}f7$  39.a5 bxa5 40.bxa5  $\mathbb{Q}e7$  41.a6**

and Black resigned. **1-0**

### Type I and II Critical Positions

Instead of a postscript to this remarkable game, I offer another new (and, I hope, not too complicated for us) theoretical concept. We will be speaking of *Type I critical positions*. In such positions, we have *two (or more) moves of the same practical strength: one in "Tal" style, and the other in "Capablanca" style*. In other words, we get the right to choose – legitimately.

This right to choose is only tenuously connected with our chess brains. Freedom of choice is given to us from above. That's how the world is; that's how the Universe is put together, and the immense complexity of the game is merely the consequence of the inexhaustibility of the world around us. There are positions which eons of intensive labor, by thousands of chess geniuses, cannot investigate completely: take merely the starting position of a game!

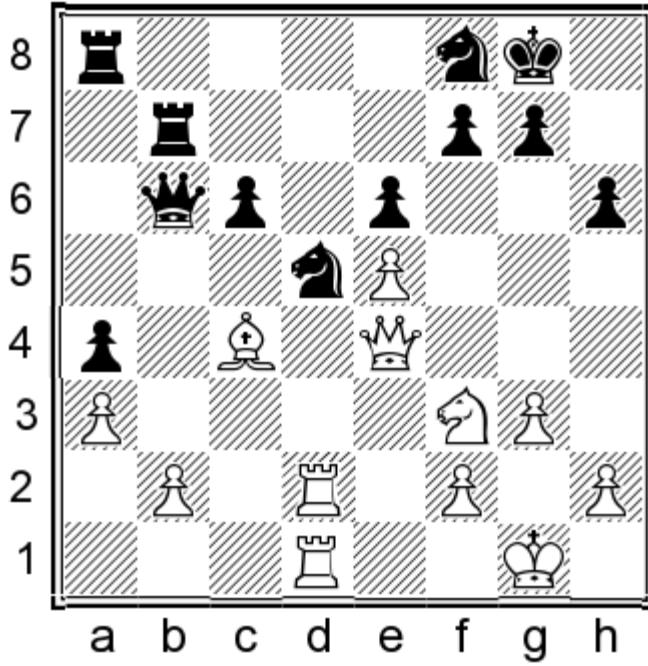
**Type I critical positions – in such positions, we have two (or more) moves of the same practical strength: one in "Tal" style, and the other in "Capablanca" style. In other words, we get the right to choose – legitimately.**

The initial position in our last example, of course, is much simpler than that, and we have some hope of solving it – that is, to find an answer to the question of which move is stronger, 24. $\mathbb{W}d3$  or 24. $\mathbb{We}3$ . It's a small matter; to find a single answer we would have to calculate all the variations of the pawn ending after 24. $\mathbb{W}d3$   $\mathbb{W}xd3$  25. $\mathbb{E}e7+$   $\mathbb{E}f7$  26. $\mathbb{E}xf7+$   $\mathbb{Q}xf7$  27. $cxd3$ . Can we do it during the course of the game? Yes or no?

My advice: don't torture yourself needlessly in positions that are too complex for you. When selecting a move, trust your intuition. Or simply roll the dice! Know, dear reader, that – from the viewpoint of contemporary physical knowledge – in Nature, chaos dominates over order. And that means that the logical dyad "yes" or "no" that we know so well, needs to be expanded into three. The third element is "indefinite."

**No. 88: Karpov – Petrosian**

Tilburg 1982



Position after 29... Kb7

In this position, White has:

- 1) material equality;
- 2) the Capablanca Safety Zone:

$$t = 44/42 = \sim 1.05;$$

3) approximate parity in the safety factor: the pressure by Black's queen on White's kingside is completely neutralized by the white queen's pressure; in addition, inside the rectangle common to both sides, f1-f8-h8-h1, each side has one knight and three pawns: equality.

Our preliminary diagnosis: this position requires the Capablanca Algorithm.

- 4) the fourth factor: parity.  $\Delta k = 0$ , because the squares of the a1-a5-h5-h1 and a8-a4-h4-h8 rectangles are of equal size.
- 5) the fifth factor: we're a little better, as  $\Delta(29\dots Kb7) = \sim 0.17$ .

Our final diagnosis coincides with our initial one: the Capablanca Algorithm. We are practically in the center of the Safety Zone, equidistant from the "Tal" and "Petrosian" zones. What do we do?

**30. Rc2**

Point 1 of the strategic algorithm. Or could it be an attack on e6?

**30... Rab8 31. Rdd2**

Karpov is practically pacifistic. He elevates his position in the most modest way possible. And (very importantly for us) Karpov does this by thinning out his rearguard – that is, by improving the pieces standing at the rear of his fighting formation.

**31... Re7 32. Rg2**

Very consistent.

**32...♝a5 33.h4 ♞d7 34.♗e2**

Clearing the fourth rank for future rook maneuvers. In other words, only now does White undertake active operations. And not for nothing: compare the positions of the centers of gravity of the two sides, and their compactness!

**34...♝d5 35.♝d4 ♞xd4**

If 35...♞a8, then 36.♞cc4. Held in reserve: 34.♗d1.

**36.♛xd4 ♜d5**

A tragic oversight.

**37.♝xc6**

Black resigned five moves later.

This fragment from Karpov – Petrosian is good, not only in and of itself, but also because it allows us to introduce a new and useful definition. What is needed is just a bit of effort: we “turn on” our fantasy – that is, we imagine that, in the example we are studying, a different setup of the white pieces and pawns is possible. If Karpov had ♔g2, ♚c2, h2-h4 + ♞d1-d2, then we have ♔g2, ♚c2, h2-h4 + h4-h5. What’s the difference?

Karpov’s ♞d1-d2 is *prophylactic*, while our h2-h4 is clearly *aggressive*: crossing the demarcation line is associated with a declaration of war.

Another thing: it’s easy to see that the mobility of Karpov’s position is lower than that of ours. For us, this is a plus. But on the other hand, the safety level of Karpov’s position is substantially greater than ours, because the density with all of Karpov’s twelve pieces and pawns is greater. That’s a plus for Karpov, and a minus for us!

Which is more important – mobility or safety? Or: when increasing the  $\Delta(\text{move})$ , which is more important – to improve the position by elevating its rear ( $\square\text{d1-d2}$ ) or by improving its spearhead ( $\text{h4-h5}$ )?

I note that in both cases, the values of the  $\Delta(\text{move})$  of the positions – that is, Karpov’s and ours – increases by the same amount, with an unchanging density of packing of king and pawns.

*Definition:* we shall (more precisely, we leave ourselves the possibility to) call positions in which the stronger side has *an equivalent choice between “elevating” the position by improving its rear guard or its advance guard, “Type II critical positions.”*

Such positions refer to the Capablanca Algorithm, and they are notable for the fact that in them we cannot say which is more important – compactness or expansion. Compactness and expansion are complementary, and each one separately cannot fully describe a chess system.

Whereas, in Type I critical positions, neighboring algorithms are “competing” (“Tal” and “Capablanca”), in Type II critical positions the argument is really within the same algorithm. We are confronted with utter uncertainty, and our freedom to choose the one, irreducibly strongest move is no fiction, but reality. More: reality and responsibility.

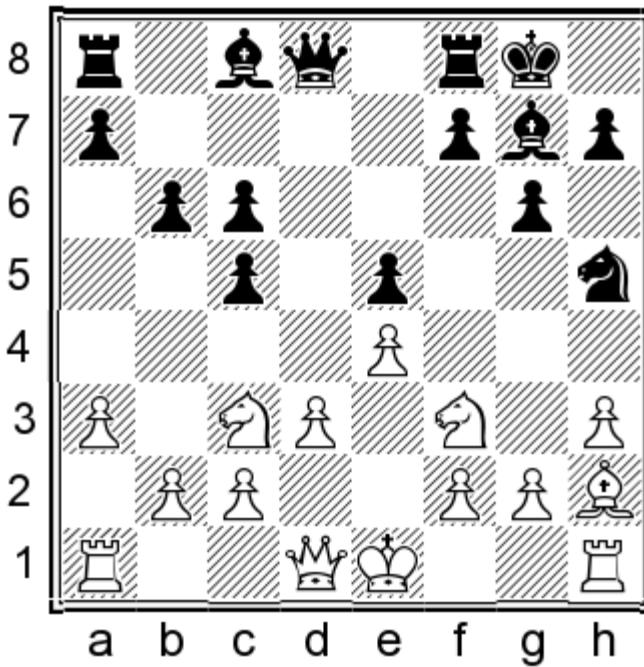
**Positions in which the stronger side has an equivalent choice between “elevating” the position by improving its rear guard or its advance guard, are “Type II critical positions.”**

What to do?

Answer: Don’t torture yourself unnecessarily. Believe in intuition, believe in your sympathies and in your feel for beauty. And don’t be afraid of freedom. Remember: freedom of choice was sanctioned by Caissa. She rolls the dice, respecting and trusting in His Majesty, Chance.

## No. 89: Grischuk – Volokitin

World Team Championship, Beer-Sheva 2005



Position after 10...e5

We are playing White, and we have:

- 1) the possibility of immediately winning an enemy center pawn;
- 2) approximate equality in the time factor:  $t = 36/35 = \sim 1.03$  (the center of the Capablanca Safety Zone);
- 3) approximate parity in the safety factor: no one is threatening the kings.

The preliminary diagnosis: the Capablanca Algorithm.

- 4) the compactness factor: parity.
- 5) the spatial expansion factor: approximate parity. Confirm this on your own!

Final diagnosis: the Capablanca Algorithm – regardless of whether we take the e5-pawn or decline the gift.

### 11.♕xe5

Simple and strong. 11.♕xe5 leads to dangerous and unnecessary complications: 11...♝g5 12.g4 ♔f4 13.♔f3 ♛h6, with good compensation for the pawn (as indicated by *Rybka*).

### 11...♕xe5 12.♔xe5 ♔f4

The “attack” with 12...♝g5 doesn’t work: Black drops the queen after 13.♔f3 ♛xg2 14.♖h2.

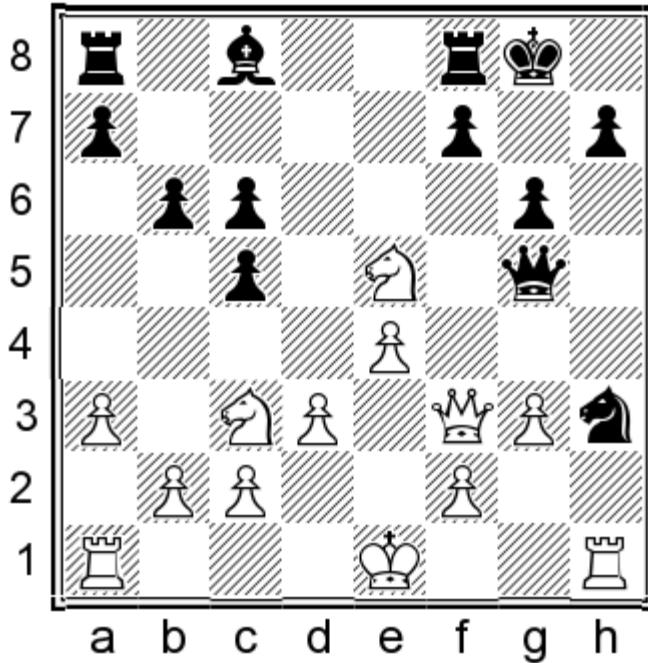
### 13.♛f3

Defending and counterattacking at the same time.

### 13...♝g5 14.g3

Played with the idea of trading the h3-pawn for the c6-pawn?

**14...Qxh3**



GM Grischuk answers, and his reply is in the negative!

**15.Qc4**

Amazing! White sidesteps the complications arising from 15.Qxc6 Qd7 16.We3. Extend this interesting variation. White is better here, but why risk it if you don't have to?

With simple play, White soon obtains an overwhelming position "for free."

**15...b5**

"After 15...Qe6 White needn't rush into the attack with 16.Wg2 Qf4 17.Wh2 Qh5, as the preliminary 16.Qe3! is far stronger. And if 15...We7 the white pawns are set in motion: 16.Wg2 Qg5 17.f4 Qe6 18.e5! followed by Qc3-e4" (Shipov).

**16.Qe3 b4 17.axb4 cxb4 18.Qe2**

Six white pawns and their king stand within the rectangle b1-b4-g4-g1, while the black pawns and king are in the rectangle a8-a4-h4-h8. Thus our  $\Delta k >> 0$ , as  $7/24 >> 7/40$ . Moreover, White has gained attacking prospects on the kingside – that open h-file! And finally, White's hegemony in the center is simply overwhelming.

We may confidently state that Grischuk didn't give up anything when he refrained on move 15 from the "natural" capture of the c6-pawn.

**18...h5**

No salvation is visible.

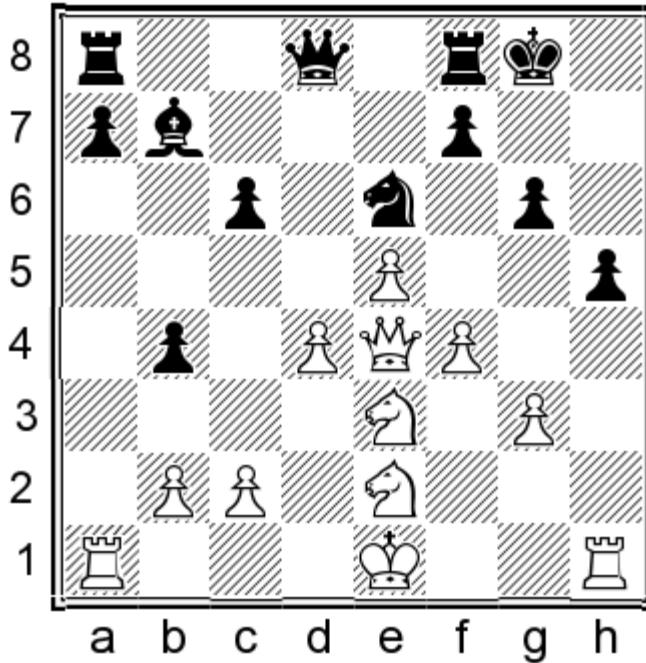
**19.Wg2 Wf6 20.d4**

We do not need the silly complications after 20.Qxh3.

**20...Bg5**

Acknowledging the failure of his whole previous strategy.

**21.f4 Be6 22.e5 Wd8 23.We4 Bb7**



An esthetically flawless position. It's almost symmetrical, in regard to the e-file, while the e5-pawn pokes into the position like a spear. The e5-pawn eyes e8, its queening square.

One more thing: notice the activity White has created for his rooks. They have yet to make a single move (nor will they be making any), but what a pair of rooks!

Our quickie assessment after 23...Bb7:  $m = 1$ ,  $t = 44/36 = \sim 1.22$ , ““,  $\Delta k > 0$  ( $7/30 > 7/40$ ), and  $\Delta(23...Bb7) = \sim 0.33$ . “Tal,” of course!

Now it only remains for White to quietly, accurately strike at Black's position:

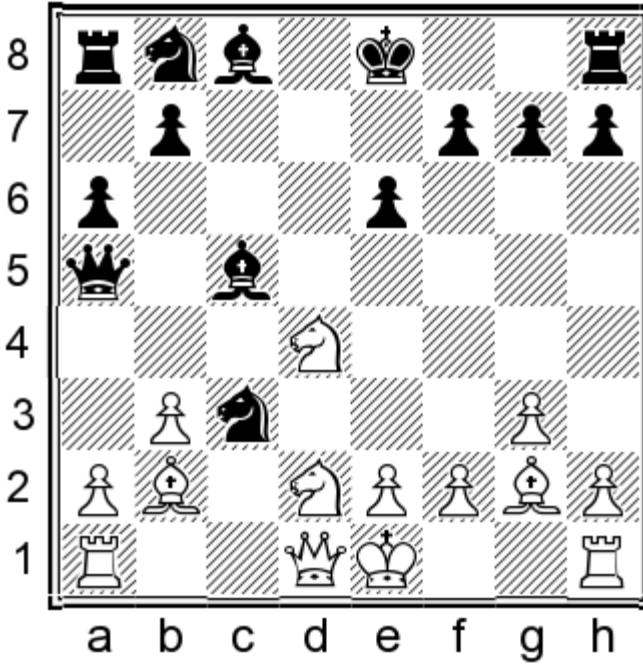
**24.g4**

and the house of cards collapses. There followed:

**24...Bxd4 25.Bxd4 c5 26.Wxb7 Wxd4 27.Wf3 Wxb2 28.Bf2 Ed8 29.gxh5 Ed2+ 30.Bg3 g5 31.Bc4 gxf4+ 32.Bg4 Wxc2 33.Bxd2 Wxd2 34.Wxf4 1-0**

**No. 90: Du. Rajković – V. Petkovski**

Arandjelovac 1986



*Position after 12... ♜c3*

An analysis of the position shows that White has:

- 1) equality in material;
- 2) the Capablanca Safety Zone:

$$t = 40/44 \approx 0.91;$$

- 3) slightly the worse of it in the safety factor: there are hanging pieces on d1 and d4, while also important is the fact that at the moment our king isn't feeling too comfortable, to put it mildly (note the knight on c3).

Our preliminary diagnosis: the Petrosian Algorithm. But is it the dynamic or the strategic branch?

- 4) parity in compactness; and this fact, I will admit, soothes me immensely.

- 5) the fifth factor: our opponent is "elevated" higher than we are. Our  $\Delta(12... ♜c3) = -0.36 < 0$ . A reasonable question: isn't Black's attack overextended?

Our final diagnosis: "Petrosian." And prepare for the dynamic branch of the algorithm dominating over its strategic branch.

### 13. ♜c2

We can do it this way, too! However, were it not for this move, 13. ♜xc3 would also be entirely appropriate: after 13... ♜xc3 14. e3 0-0 15. 0-0 ♜xd4 16. ♜c1 ♜d3 17. ♜e4, White is better (*Fritz*).

### 13... ♜xd4 14. ♜c4 ♜c7

Note by Rajković: "...better was 14... ♜c5 15. e3 ♜f6 (15... ♜xe3? 16. ♜xc3! ♜xf2+ 17. ♜e2 ♜c6 18. ♜xg7 ♜f8 19. ♜a3 ♜b4 20. ♜ad1+-; 18... ♜d4 19. ♜xd4 ♜xd4 20. ♜d6+++) 16. ♜xc3 ♜xc3+ 17. ♜xc3 0-0 18. 0-0±." These annotations were given in the distant, pre-computer past.

Your task is to extend, and even slightly correct, those notes with the aid of one of our silicon friends.

### 15. ♜xc3 ♜xc3+ 16. ♜xc3 0-0 17. ♜e3

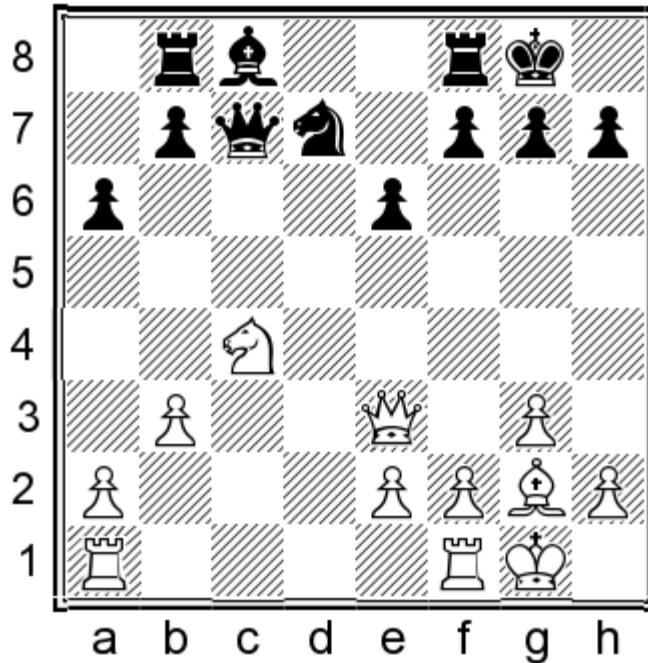
White attacks the vacant square b6.

**17...Qd7**

The root of all his future terrible suffering, ending in death by suffocation – *Zugzwang*. The computer advises 17...Qc6 Δ ...Qd7 or even 17...a5 Δ ...Qa6.

**18.0-0 Qb8**

If it were Black's move in this position, he would play 19...b5 and then 20...Qb7, with complete freedom. But it's White's move!



In this position we have:  $m = 1$ ,  $t = 46/28 = \sim 1.64$  (!), “=”,  $\Delta k = 0$ , and  $\Delta(18...Qb8) = \sim 0.33$ .

Diagnosis: “Tal”! Forward!

**19.Qa7**

An impressive move! By elevating his queen, White not only sticks to the major target on b8, but also completely paralyzes his opponent's whole queenside – the second point of the Tal Algorithm in action. Remember that the second point of this algorithm is at the same time the first point of the Capablanca Algorithm. The line between those two algorithms is fuzzy...

**19...Qc5**

I don't see anything else.

**20.Qxc5 Qxc5 21.Qac1**

After the exchange, a new setup. The best squares for White's rooks are c1 and d1. These are the best, for now – and then, don't worry, Rajković will find a way to “elevate” these pieces.

**21...Qd7 22.Qfd1 b6 23.Qd6**

The square d6 is ideal for the rook. Here it restricts Black in a fundamental way, pressuring not just the knight, but also the b6-pawn. This pawn is not protected by the a-pawn, which means it requires protection from other, more powerful pieces.

### **23...b5 24.♖a5**

White steadily increases his  $\Delta$ (move). The evaluation of the rook's position on d6 is unaffected after 23...b5, since the rook, while continuing to pressure the enemy knight, now presses on a new target – the a6-pawn. I repeat: the white rook stands ideally on d6!

### **24...♘f6 25.h3**

White not only elevates the pawn, but also denies the g4 square to the black knight. In other words, White plays to restrict the mobility of his opponent's pieces.

### **25...h6**

Because the white pawn's march to e5 is unstoppable, Black prepares a retreat for the knight.

### **26.e4 g5**

Black's position is strategically hopeless.

### **27.e5 ♘h7 28.♖c7**

Now the second rook also stands ideally. It's safe – no fork threatens from e8.

Black starts to choke.

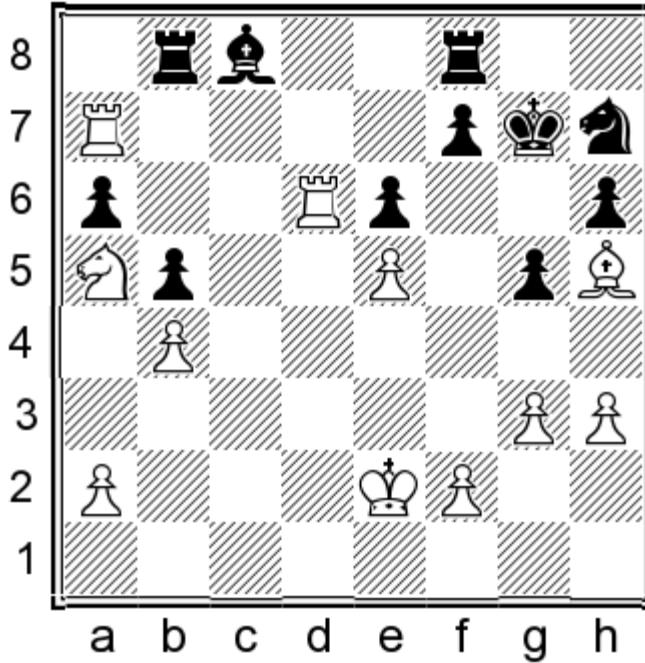
### **28...♗g7 29.b4**

Picture-perfect play! White calmly keeps elevating his position. This is how the great Capablanca himself would teach us – mortal chessplayers that we are – to play in strategically superior positions.

### **29...♖h8 30.♖e4 ♖f8 31.♖f1 ♖h8 32.♖e2**

Why did White elevate his king from g1 specifically to e2? Because the position with the king on e2 is more esthetically attractive. In Rajković's play, meta-chessic considerations are clearly uppermost. He knows that he is risking nothing so long as he keeps improving his position. He is in no rush, openly enjoying his position. Success is guaranteed!

### **32...♗g7 33.♗f3 ♖h8 34.♗h5 ♗g7 35.♖a7 1-0**



Apotheosis!

I can't help but express my absolute delight at White's play. The final position was a position from God, not from humans.

Your task is to go over, one by one, all thirteen of Black's available moves (only!), and find an immediate win after each of them.

The technical parameters of the final position:  $m = 1$ ,  $t = 39/13 = 3.00$  (an astronomically high value!), a solid “+” in the third factor of the position,  $\Delta k < 0$ ,  $\Delta(35.\mathbb{Q}a7) = \sim 1.64$ . Work it out!

And there's more:  $\Delta(35.\mathbb{Q}a7) > \Delta(18...\mathbb{B}b8) > \Delta(12...\mathbb{Q}c3)$ .

We know that strategic play (with a strategic attack) is always connected to the elevation of the center of gravity of one's own position. We shift our position toward the queening square. Not only the pawns are elevated, but also the pieces themselves!

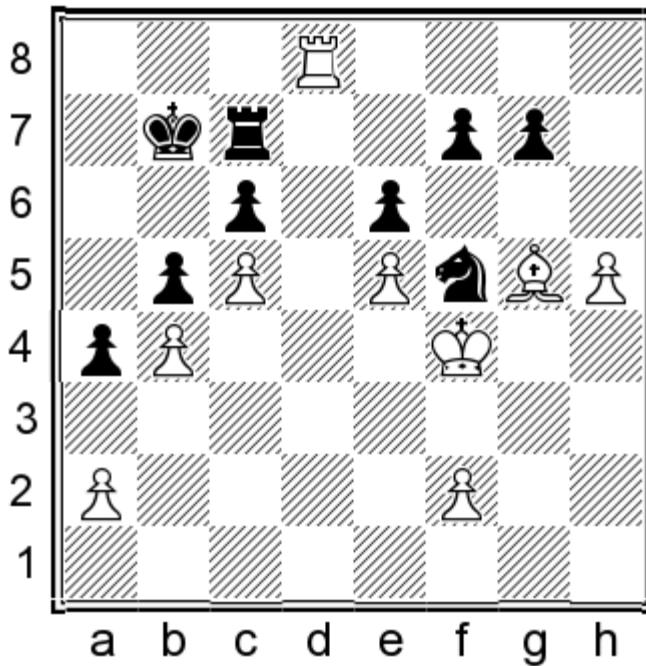
Thus we conclude this chapter. Our path led from the simple to the complex.

# Chapter 3

## Complex Examples

No. 91: Kramnik – Bareev

Wijk aan Zee 2003



Position after 45... $\mathbb{Q}b7$

In this position, it's White to move, and we have White. We have:

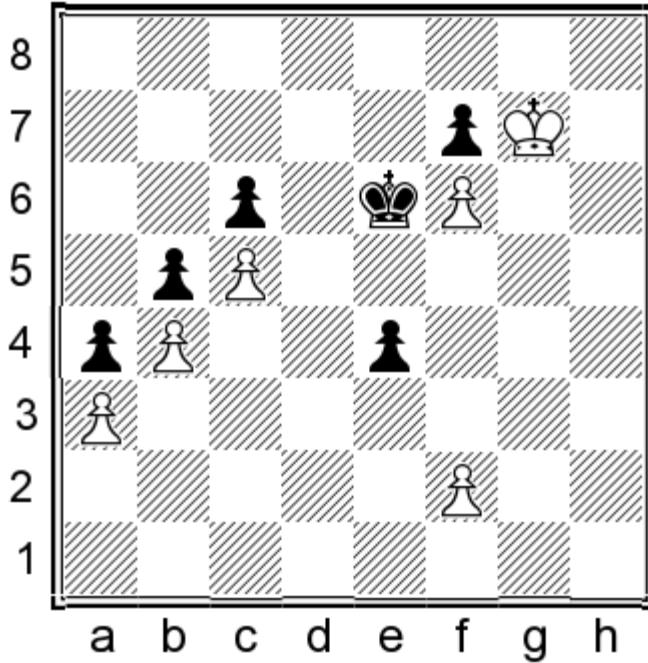
In short:  $m = 1$ ,  $t = 24/15 = 1.60$ , and rough parity in the safety factor. Therefore our algorithm is "Tal." Final diagnosis.

**46.  $\mathbb{Q}f6$**

Winning in all variations.

Curiously, a powerful computer program (*Rybka*) did not "see" this hyper-aggressive move right away – most likely because, in the main variation, for a long time White plays on (maneuvers) a piece down.

The main variation, according to Lukács in *Megabase*, is: 46...gxf6 47.exf6  $\mathbb{Q}c8$  (47... $\mathbb{Q}h4$  48. $\mathbb{Q}g4!$   $\mathbb{Q}f5$  49. $\mathbb{Q}g5+-$ ) 48. $\mathbb{Q}xc8$   $\mathbb{Q}xc8$  49. $\mathbb{Q}g5$   $\mathbb{Q}d7$  50.h6  $\mathbb{Q}xh6$  51. $\mathbb{Q}xh6$  e5 52. $\mathbb{Q}h7!$  e4 (52... $\mathbb{Q}e6$  53. $\mathbb{Q}g7$  a3 54.f3+-) 53. $\mathbb{Q}g7$   $\mathbb{Q}e6$  54.a3+-:



The variation has been examined, and there are no comments. *Zugzwang* is the crowning glory of strategic play!

Most often, chess time (the right to move) is the player's friend, not an enemy. However, not in a position of mutual *Zugzwang*!

Bareev instead chose

**46...g6**

The game did not continue for long.

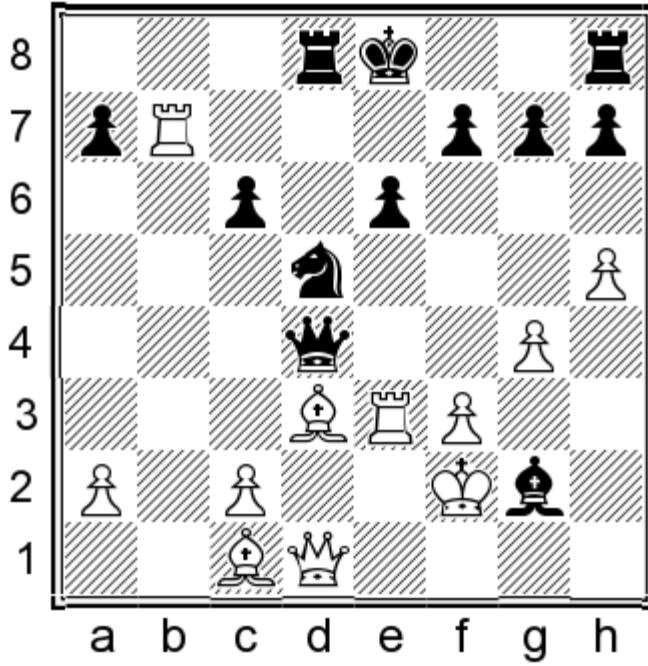
**47.hxg6 fxg6 48.♔g5**

Black resigned. **1-0**

After 48...♚c8 49.♜d7+ ♚c7 50.♜d3 ♜f7 51.♝xg6 ♜f8, White can take his time. One possible picture: pawns on a3 and f4 + ♜d3-h3-h7 hitting the target on e6. Now, finish this attack on your own!

### No. 92: Anand – Lautier

Biel 1997



*Position after 19...Qd8*

In this position we (White) have: uncertainty in the first and third factors of the position,  $t = 42/45 = \sim 0.93$ , TCP Algorithm.

How does the TCP Algorithm begin? We have learned the answer by heart: with “Tal”!

## 20.h6

A very modest pawn sacrifice, impossible for most flesh-and-blood players to understand. What’s the idea?

### 20...gxh6

Loses at once with a deafening crash. True, Anand’s reply was practically impossible to guess over the board.

The cool-headed computer, lacking any sort of emotion or prejudice, prefers two other moves:

a) 20...Qf4 (Rybka’s second line) 21.hxg7 Qxg7 (21...Qg8 22.Qb2 Qc5 23.Qd2+-) 22.Qe4 Qxd3+ 23.cxd3+-.

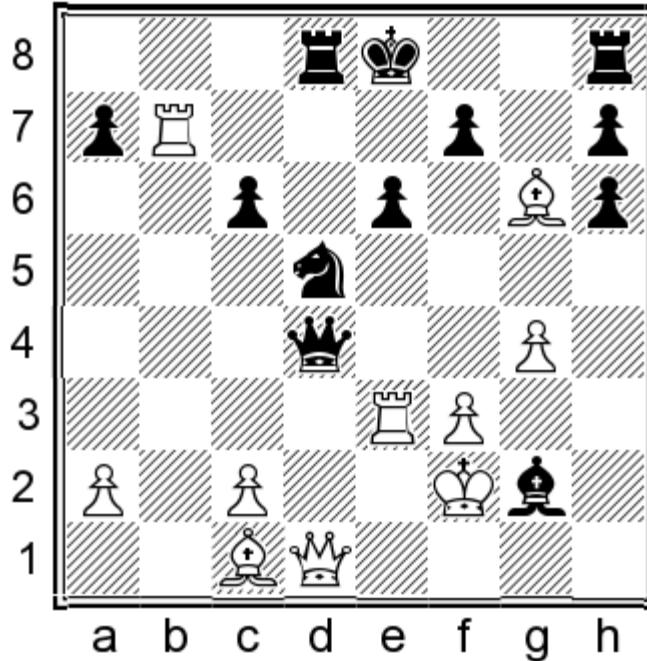
b) 20...Qxe3 (first line) 21.Qxe3 We5 22.hxg7 Qg8 23.Qg1 (23.Qh6 Wh2!) 23...Qxf3 24.Qxf3± (according to Anand).

The latter variation can be improved: not 23.Qg1, but 23.Qc1 (*Rybka*) 23...Qxf3 24.Qa3 and wins, because after 24...Wh2+ 25.Qxf3 the king escapes the black queen’s pursuit by running to c1. There is no perpetual check – nor can there be one!

The variation 23...Qh3 ( $\Delta$  24...Wh2+ etc.) 24.Wh1, and if 24...Qxg4, then 25.f4!, is utterly entrancing. Don’t forget the attacking value scale! The queen hangs, and mate in two is threatened. A terrible crush!

But let us return to the game. I am sure that you will be shaken...

### 21.Qg6



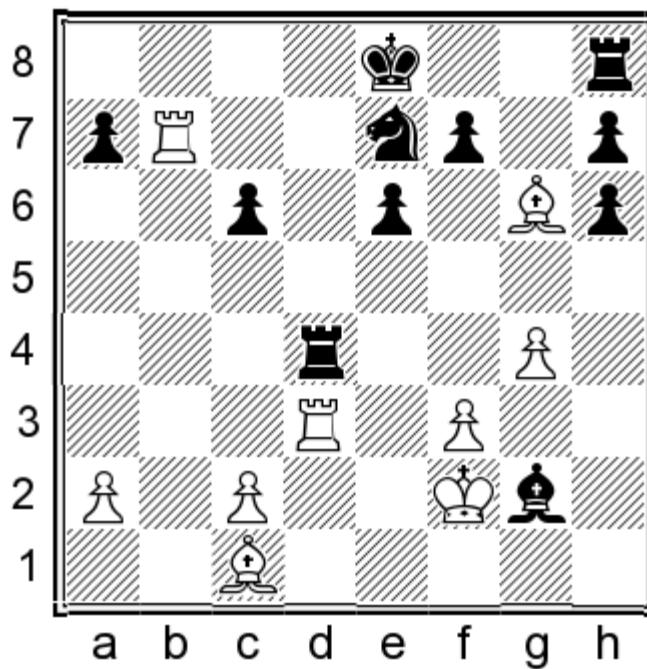
Taking the queen leads quickly to mate: 21... $\mathbb{W}xd1$  22. $\mathbb{B}xe6+$ , etc. 21... $\mathbb{Q}xe3$  also loses in short order: White continues with 22. $\mathbb{Q}xf7+$   $\mathbb{Q}f8$  23. $\mathbb{W}xd4$   $\mathbb{B}xd4$  24. $\mathbb{Q}xe3$  and Black can resign with a clear conscience.

The strongest move in the diagram position is 21... $\mathbb{W}f6$  (*Rybka*), but here too, Black's situation is not to be envied. One winning line is 22. $\mathbb{Q}xf7+$   $\mathbb{W}xf7$  23. $\mathbb{B}xf7$   $\mathbb{Q}xe3$  24. $\mathbb{W}xd8+$   $\mathbb{Q}xd8$  25. $\mathbb{Q}xe3$ . Extend this variation, please!

**21... $\mathbb{Q}e7$**

This doesn't save him.

**22. $\mathbb{W}xd4$   $\mathbb{B}xd4$  23. $\mathbb{Q}d3$**

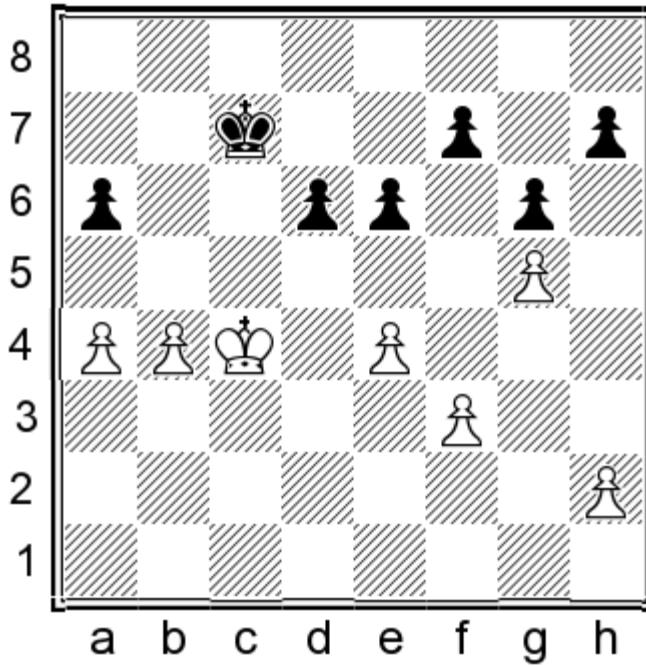


Black is doomed.

23... $\mathbb{E}d8$  24. $\mathbb{E}xd8+$   $\mathbb{Q}xd8$  25. $\mathbb{Q}d3$

The final stroke. An outstanding performance by Anand! 1-0

No. 93: V. Nedeljković – L. Volpert  
USSR – Yugoslavia Match, Belgrade 1961



Position after 41... $\mathbb{Q}c7$

We are playing White, and we have:  $m = 1$ ,  $t = 10/14 = \sim 0.71$ , parity in the safety factor,  $\Delta k << 0$ , and  $\Delta(41\dots\mathbb{Q}c7) = 26/7 - 18/7 = \sim 1.14$ .

Our diagnosis: the Petrosian Algorithm, strategic branch.

**42.f4**

The immediate 42.b5 looks better – White, being in Petrosian territory, is entitled to make a trade first, even if  $\Delta k < 0$ . This is because the number of material targets has decreased. The fewer the pieces, the fewer the objects of attack.

And besides (speaking concretely here), following 42.b5 it's easy to see that Black has nothing better than 42...a5, since after 42... $\mathbb{Q}b6$  43.bxa6  $\mathbb{Q}xa6$  44. $\mathbb{Q}b4$ , and also in the case of 42...axb5+ 43. $\mathbb{Q}xb5$ , White – wasting no time – trades his a-pawn for the enemy d-pawn and then invades the kingside with the king. Victory!

By inducing 42...a5, White frees herself for active operations on the kingside and in the center.

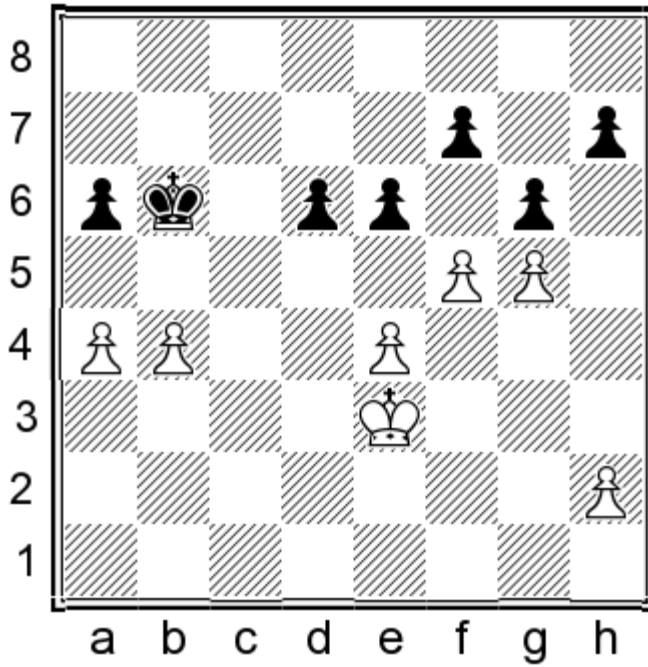
**42... $\mathbb{Q}b6$  43. $\mathbb{Q}d4$**

And here too, 43.b5 would be totally adequate – after 43...axb5+ 44.axb5 White must win. Check this out, please – no computer!

**43... $\mathbb{Q}c6$  44. $\mathbb{Q}e3$**

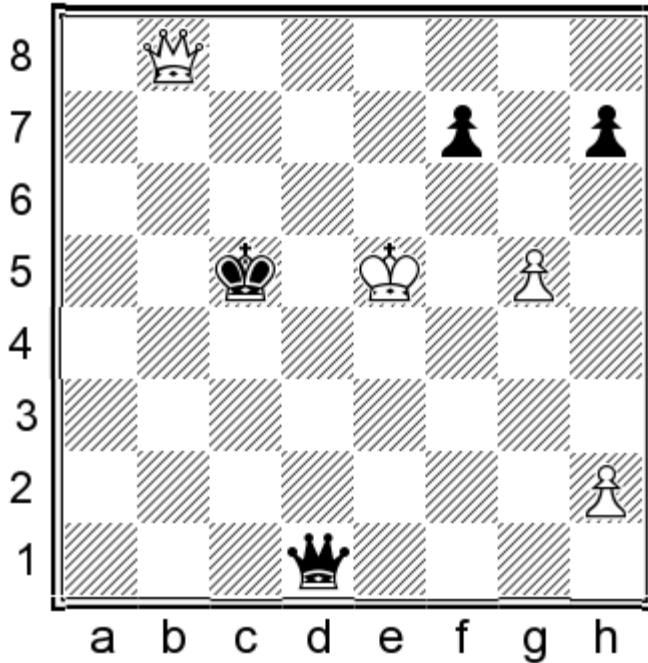
Closer to f5. White's goal is to get the pawn to f6.

44... $\mathbb{Q}b6$  45.f5



If Black stands still (45... $\mathbb{Q}c6$  46.f6  $\mathbb{Q}b6$  47. $\mathbb{Q}d4$   $\mathbb{Q}c6$  48. $\mathbb{Q}c4$   $\mathbb{Q}b6$ ), then White wins with 49.a5+  $\mathbb{Q}c6$  50.h3 (Averbakh), with the normal Zugzwang for pawn endings (see also the postscript to this game). Black is helpless: 50...d5+ (otherwise, after the king retreats to the seventh rank, White plays 51.b5+-) 51.exd5+ exd5+ 52. $\mathbb{Q}d4$   $\mathbb{Q}d6$  53.h4 (Zugzwang again!) 53... $\mathbb{Q}c6$  (53... $\mathbb{Q}e6$  54.b5+-) 54. $\mathbb{Q}e5$   $\mathbb{Q}b5$  55. $\mathbb{Q}xd5$   $\mathbb{Q}xb4$  56. $\mathbb{Q}d6$   $\mathbb{Q}xa5$  57. $\mathbb{Q}e7$ , etc.

So instead of standing still, Black needs to play actively: 45...exf5 46.exf5 gxf5 47. $\mathbb{Q}f4$   $\mathbb{Q}c6$  48. $\mathbb{Q}xf5$   $\mathbb{Q}d5$  ( $\Delta$  49... $\mathbb{Q}c4$ , 50...d5, etc.). Now 49.b5 axb5 50.axb5  $\mathbb{Q}c5$  51. $\mathbb{Q}e4$  d5+ (51... $\mathbb{Q}xb5$  52. $\mathbb{Q}d5$ +) 52. $\mathbb{Q}e5$  d4 53.b6 (53. $\mathbb{Q}e4$   $\mathbb{Q}c4\pm$ ) 53...d3 54.b7 d2 55.b8 $\mathbb{W}$  d1 $\mathbb{W}$ :



Position after 55...d1 $\mathbb{W}$  (analysis)

White is much better, perhaps even winning. But we now have, on the board, not a pawn ending anymore, but a tricky

queen ending, with its definite drawish tendencies – the Damoclean sword of perpetual check. It is possible that, had this variation occurred in the game, Nedeljković would have regretted the possibility she passed up on move 42.

For the time being, I note without commentary (that'll come later, in the postscript) the swift and unexpected change in algorithm. In something like four moves, we have managed to move out of the Petrosian Zone ( $t(41\dots \mathbb{Q}c7) = \sim 0.71$ ) into the area where the TC Algorithm rules ( $t(45.f5) = 15/12 = 1.25$ ). Why?

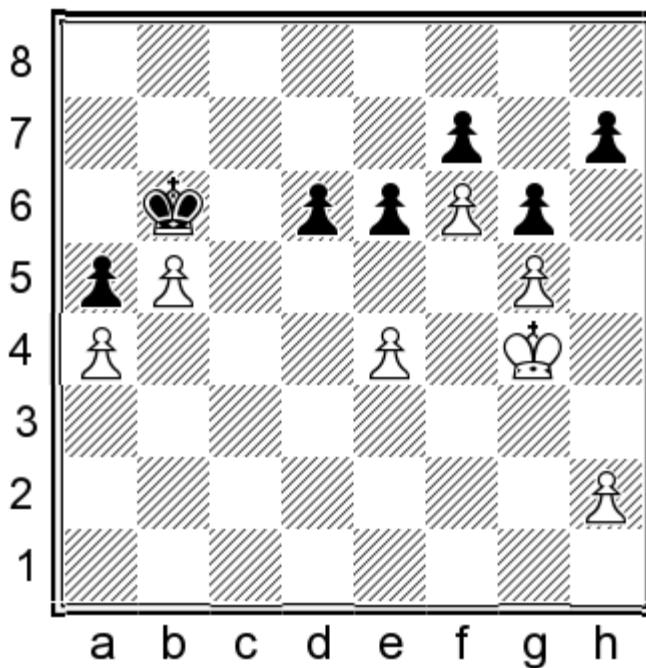
#### 45...a5

By advancing the a-pawn, Black seeks to construct an impregnable fortress. Alas!

**46.b5  $\mathbb{Q}c5$  47.f6  $\mathbb{Q}b6$  48. $\mathbb{Q}f3$**

To the h6-pawn! The correct strategy – a deliberate increase in  $\Delta(\text{move})$ .

**48... $\mathbb{Q}c5$  49. $\mathbb{Q}g4$   $\mathbb{Q}b6$**



#### 50.h3

This is laudable. White has no need to hurry. She wants to push the pawn to h5 when the opposing king is on b6. This would be good for White, since it brings Black's counterplay down to nothing. In truth, however, we should note that h4-h5 also wins with the black king on c5. Here's a variation: 50.h4  $\mathbb{Q}c5$  51.h5 d5 (otherwise 52.h6, and we have a position from the game) 52.exd5 gxh5+ (52... $\mathbb{Q}xd5$  53.h6  $\Delta$   $\mathbb{Q}f4-f7+-$ ; 52...exd5 53.hxg6 hxg6 54. $\mathbb{Q}f3+-$ ) 53. $\mathbb{Q}xh5$   $\mathbb{Q}xd5$  (53...exd5 54. $\mathbb{Q}h6$  d4 55. $\mathbb{Q}xh7$  d3 56.g6 d2 57.gxf7 d1 $\mathbb{Q}$  58.f8 $\mathbb{Q}+$  and it's check!) 54. $\mathbb{Q}h6$  e5 55. $\mathbb{Q}xh7$  e4 56.g6 e3 57.gxf7 e2 58.f8 $\mathbb{Q}$  and wins.

**50... $\mathbb{Q}c5$  51.h4  $\mathbb{Q}b6$  52.h5  $\mathbb{Q}c5$  53.h6  $\mathbb{Q}b6$**

White's strategic accomplishments are unquestionable: 6 = 6 (mobility of the pieces; see also the postscript) and  $\Delta(53\dots \mathbb{Q}b6) > \Delta(41\dots \mathbb{Q}c7)$ . Indeed,  $\Delta(53\dots \mathbb{Q}b6) = 34/7 - 20/7 = 2.00 > 1.14$ . What to do next?

Increase the  $\Delta(\text{move})$ !

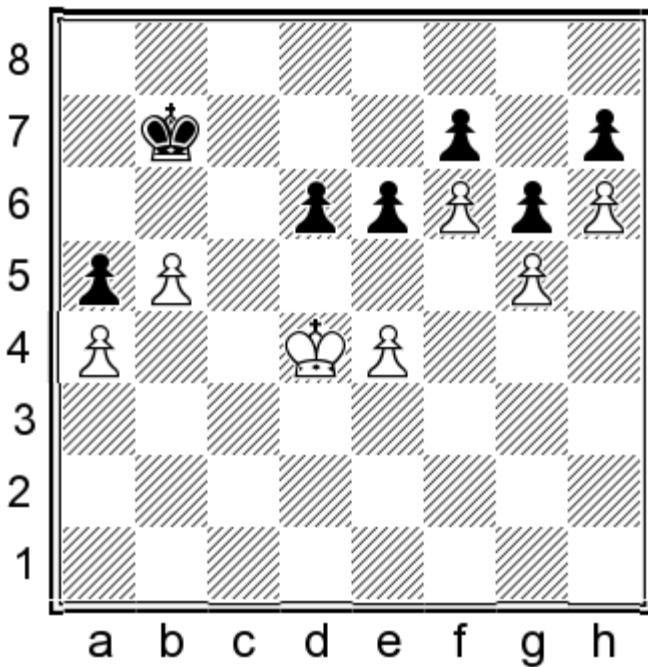
**54.†f4**

Preparing e4-e5.

**54...†c5**

Maybe retreating to the seventh rank was subtler; for example, 54...†b7, so that after 55.†e3 †c7 56.†d4 she could forestall the opposing king with 56...†b6. Now it would be bad to rush with 57.e5, due to 57...d5 with a draw. However, 57.†c4 wins, for example 57...†b7 58.e5 dxe5 (58...d5+ 59.†c5 transposes to the game) 59.†d3 †c7 60.†e4 †d6 61.b6 (breaking up the mutual Zugzwang) 61...†c6 62.†xe5 †xb6 63.†d6 e5 64.†e7 (64.†xe5 †c5 is a draw!) 64...e4 65.†xf7 e3 66.†g7 e2 67.f7 e1†W 68.f8†W with an easy win.

**55.†e3 †b6 56.†d4 †b7**



**57.e5**

The line of least resistance in a strategic attack correlates with the purposeful increase in  $\Delta(\text{move})$ . The problem is the lingering concern over the protected passed pawn.

**57...d5**

If 57...dxe5 58.†xe5 †c7, the winning line is the forceful 59.b6+, breaking up the mutual Zugzwang. After 59...†xb6 60.†d6 e5 61.†e7, White wins (see also the note to 54...†c5).

**58.†c5 †c7 59.b6+**

Caesar crosses the Rubicon.

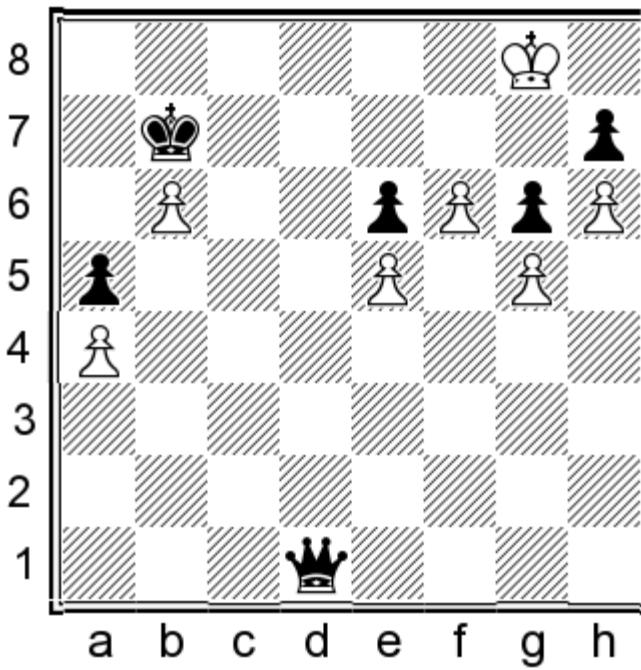
**59...†b7 60.†d6**

The dynamic phase of the struggle!

White has fearlessly passed through the strategic high point (its name being *Zugzwang*), and is prepared to shed blood.

The Capablanca Algorithm has been set aside, it's time for "Tal" to howl!

60...d4 61.♔e7 d3 62.♔xf7 d2 63.♔g8 d1♛



64.f7

White's efforts bear fruit. The potential energy of the far-advanced white pawns guarantees the opponent's defeat.

64...♚xa4 65.f8♚ ♜b3 66.♔xh7

Black resigned. **1-0**

*Postscript*

As a rule, *Zugzwang* is the end product of an extended strategic attack. The stronger side deploys his pieces on their best squares, elevates his pawns, finds an exchange, redeploys his pieces, advances his pawns, and – a cyclical process!

With each new cycle, the number of pieces on the board grows inexorably smaller, total mobility is reduced sharply, and the "t" parameter begins to act, shall we say, oddly. Why?

Because the random deviations of the total mobilities of the white and black pieces ( $T_1$  and  $T_2$ ) from their "normal" values start to become comparable in size to those mobilities themselves.

Let's compare  $T_1$ ,  $T_2$ , and  $t = T_1/T_2$  after 41...♝c7, 45.f5, and 53...♝b6:

$$t(41\dots\ddot{\text{B}}c7) = 10/14 = \sim 0.71,$$

$$t(45.f5) = 15/12 = 1.25,$$

$$t(53\dots\ddot{\text{B}}b6) = 6/6 = 1.00.$$

Our  $T_1$  changes within the limits from 6 to 15, while  $T_2$  for Black ranges from 6 to 14, or  $T_1 = 10 \pm 5$  and  $T_2 = 10 \pm 4$ .

Here 10 and 10 are the "normal" (median) total mobilities, and 5 and 4 are the fluctuations – that is, the random deviations from the median values.

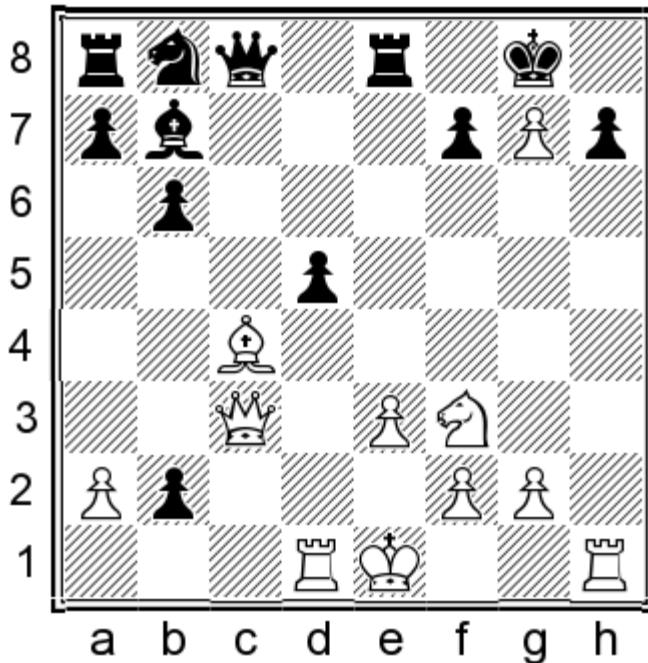
And lastly – the diagnoses of the positions following 41...♝c7, 45.f5, and 53...♝b6. In order: "Petrosian," the TC Algorithm, "Capablanca." We see very large accidental drifts from the algorithm. A large drift with small values of  $T_1$

and T2 is a drift into “Capablanca” territory. That’s it!

Conclusion: when the total mobilities are small, activate the expanded version of the Capablanca Algorithm – that is, the TC Algorithm. And, of course, start your search for the strongest move by activating the Tal Algorithm!

### No. 94: T. Rakić – S. Martinović

Belgrade 1968



After 17...  $\mathbb{Q}e8$

White has  $m < 1$ ,  $t = 50/35 = \sim 1.43$ , and an overwhelming advantage in the safety factor.

Diagnosis: the Tal Algorithm.

**18.  $\mathbb{Q}xh7$**

Sacrifice, and a direct attack on the king – the threat is 19.  $\mathbb{Q}h8\#$ .

At first, *Rybka* prefers 18.  $\mathbb{W}d3$ . Its principal variation is 18...  $\mathbb{Q}e4$  19.  $\mathbb{Q}xd5$   $\mathbb{Q}xd5$  20.  $\mathbb{W}xd5$   $b1\mathbb{W}$  (20...  $\mathbb{W}c6$  21.  $\mathbb{W}f5$   $\mathbb{W}g6$  22.  $\mathbb{W}c8+$   $\mathbb{Q}xg7$  23.  $\mathbb{W}c3+$   $f6$  24.  $\mathbb{W}c7++-$ ) 21.  $\mathbb{Q}xb1$   $\mathbb{W}c6$  22.  $\mathbb{W}f5$   $h6$  23.  $\mathbb{Q}d1+-$ . It's hard for the program to find White's quiet move after 18.  $\mathbb{Q}xh7$ .

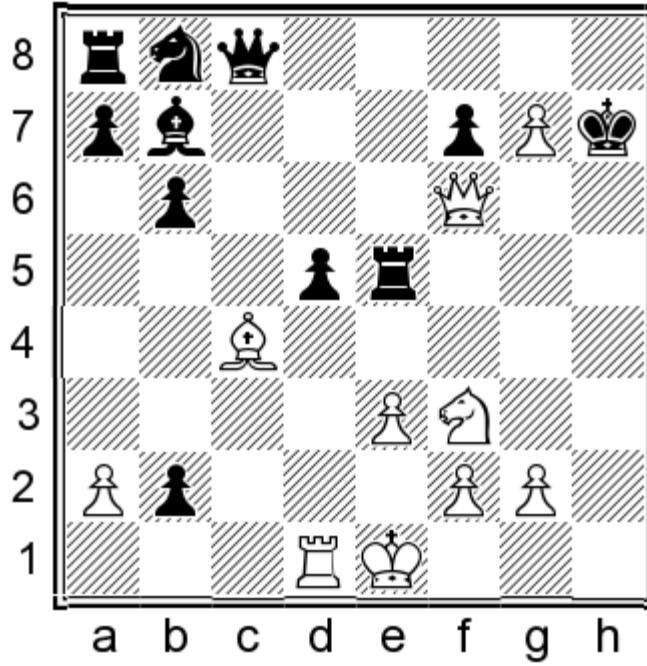
**18...  $\mathbb{Q}xh7$  19.  $\mathbb{W}f6$**

Outstanding! White threatens a primitive mate on f7 after 20.  $\mathbb{Q}g5+$ , and even *Rybka* sees no satisfactory defense.

**19...  $\mathbb{Q}e5$**

The computer has no sense of humor, but please tell me, can we take its first line seriously: 19...  $\mathbb{Q}g8$  20.  $\mathbb{Q}g5$   $\mathbb{W}e6$ , giving up the queen?

It's a difficult position for Black, very difficult.



**20.♖d2**

Beautiful! White brings the other rook into the attack, with the threat of 21.♖h1+ followed shortly by mate. Although the prosaic 20.♗xf7 wins even faster – check it out!

**20...♗g4 21.♖h1+**

And here too, 21.♗xf7 mates more quickly.

**21...♖h5 22.♗g5+ ♗xg5 23.♗xg5**

Is that it?

**23...b1♗+**

No! Black is left only with a few spite checks.

**24.♔c2 ♗a3+ 25.♔c3**

Across the minefield...

**25...♗b1+ 26.♔b2**

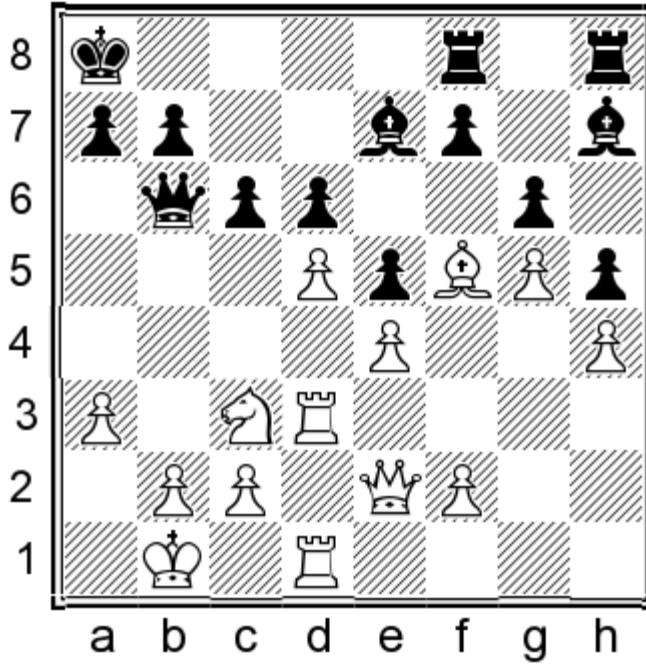
Is that all? Yes, indeed!

**1-0**

A fabulous struggle!

**No. 95: I. Rogers – G. Milos**

Manila Olympiad 1992



Position after 23...g6

White has  $m = 1$ ,  $t = 37/29 \approx 1.28$ , approximate parity in the third factor of the position,  $\Delta k < 0$ , and  $\Delta(23\dots g6) \approx -0.64$ .

Our diagnosis: the TC Algorithm.

#### **24.dxc6**

The sacrifice of a piece is clearly a “Tal”-style move. However, the bishop retreat 24... $\mathbb{Q}d7$  looks no worse. In that case there would probably follow 24...c5, with more or less peaceful, “Capablanca”-style strategic play. In other words, we have a Type I critical position, where both the bloody and the quiet scenarios are equally probable.

#### **24...bxc6**

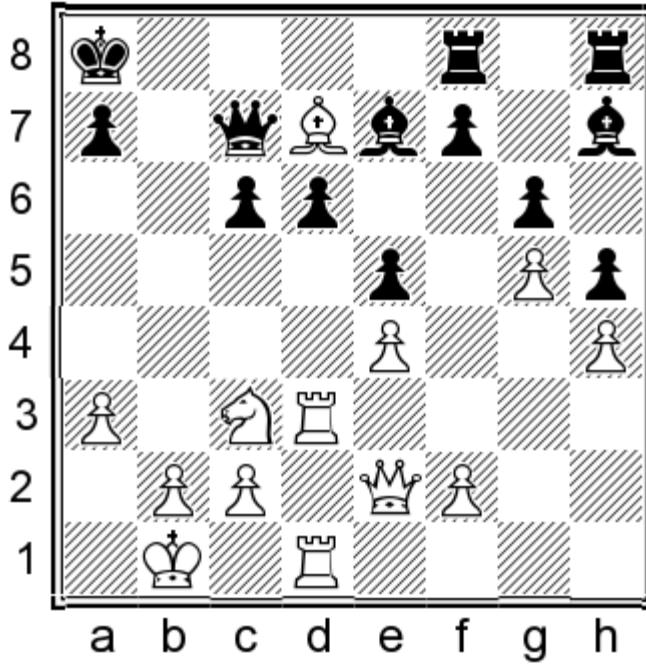
The bishop is poisoned: 24...gxf5 25. $\mathbb{Q}d5$   $\mathbb{W}d8$  26. $\mathbb{E}b3$ , and if 26...bxc6, then 27. $\mathbb{W}a6$  with inevitable mate (*Rybka*).

#### **25. $\mathbb{Q}d7$**

A carefully hidden trap, which even the all-powerful *Rybka* didn’t see right away.

#### **25... $\mathbb{W}c7$**

Losing. It was necessary to tuck the rook against the lone king – 25... $\mathbb{E}b8$ , and then the heavenly thunder would not have rumbled...



**26.♗xc6+**

White's idea will become understandable perhaps only after four or five moves. For now, we will be formalistic: the bishop move is the only way to give check here. Let's remember our eternal attacking mantra: king, queen, rook...

**26...♛xc6 27.♝d5**

Open attack on the bishop.

**27...♝d8 28.♜c3**

Attacking the second piece on the value scale.

**28...♛b7**

Or 28...♛a4 29.b3 ♛d7 30.♛a6 ♔b8 31.♛c4+- (*Rybka*).

**29.♜b3**

White insists.

**29...♛c6**

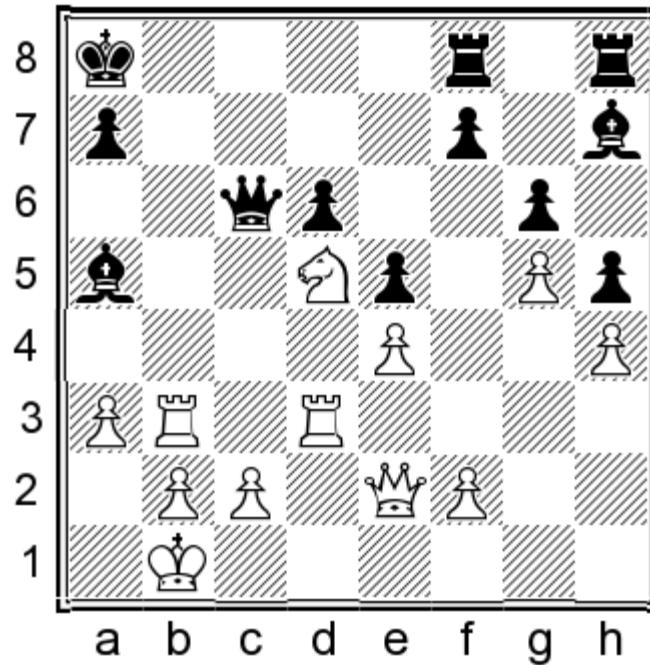
On 29...♛c8, White wins by 30.♛b5 (threatening mate after 31.♝c7+) 30...a6 31.♛b4 ♔a7 32.♜dd3+- (*Rybka*).

**30.♜dd3**

Probably the most difficult move to find in this whole brilliant attack – White brings up the final reserve. He threatens the crushing 31.♜dc3.

**30...♝a5**

Futile resistance...



**31.Rdc3**

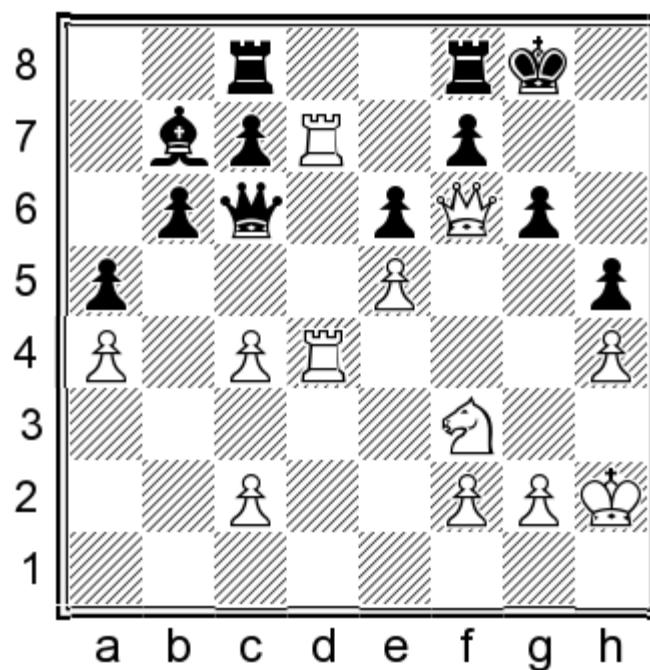
An innocent trade of a not-very-active rook for the hyperactive black bishop? No answer necessary!

**31...Qxc3 32.Qa6**

A beauty! I doubt that even our titan, Mikhail Tal, could have done any better.

**No. 96: Short – Timman**

Tilburg 1991



### *Position after 31...♝c8*

Again we have White. Here  $m = 1$ ,  $t = 36/20 = 1.80$ , and there is a great “plus” in the safety factor. Our diagnosis: the Tal Algorithm.

We immediately engage all four of the (by now familiar) elements of the algorithm for attacking material targets. Remember the attacking value scale: king, queen, rook, bishop...

Our knight is crippled: if 32.♞g5, then 32...♛xg2#. So an open attack on the target at f7 (and with it, on the king itself) is not possible. Nor are there any promising-looking attacks on the queen, the rook, the bishop...

Could we, then, proceed to set up our pieces well?

A quick scan of the force deployment: ♜f6, ♕d4, and ♖d7. All of them seem to be ideally placed.

So can we find a way to improve the knight?

We determine the trajectory: ♘f3-e1-d3-f4-g6 (of course, if necessary we play f2-f3 to defend against mate). Here's a simple little variation: 32.♘e1 ♜xa4 33.♘d3 ♜xc2. What next?

I don't like this line!

So, how about 32.♖e7 followed by 33.♖dd7? Of course (look – I'm almost happy!), my rook at d4 is not great. My superficial assessment of its ideal position (see above) was, to put it mildly, not objective. And... A bucket of cold water: 32...♜ce8. White doesn't want trades: he's attacking, after all!

So then (grasping at straws), perhaps the pawns will help me, for they are chessmen too...

What pawns? I don't see which...

And suddenly...

### **32.♗g3**

The objective is the h6 square! Hello, Mr. King!

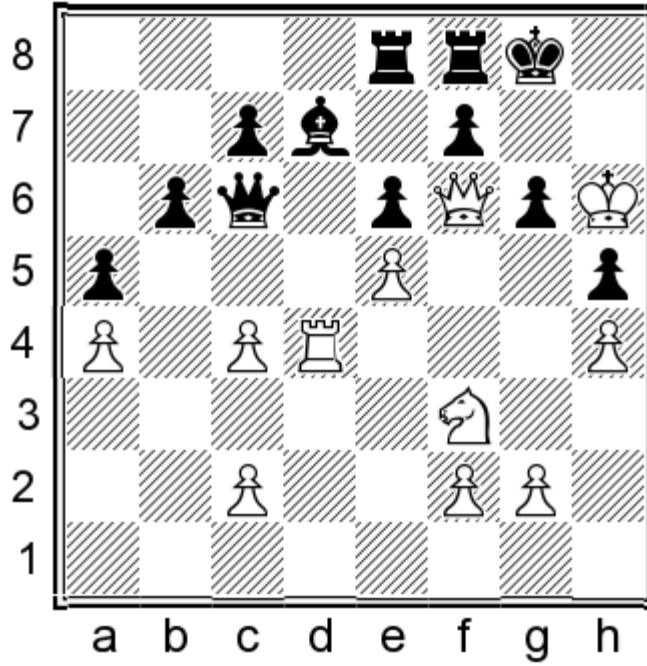
### **32...♜ce8**

To be or not to be?

Not to be.

### **33.♗f4 ♜c8 34.♗g5 1-0**

There is no stopping mate after 34...♝xd7 35.♝h6.



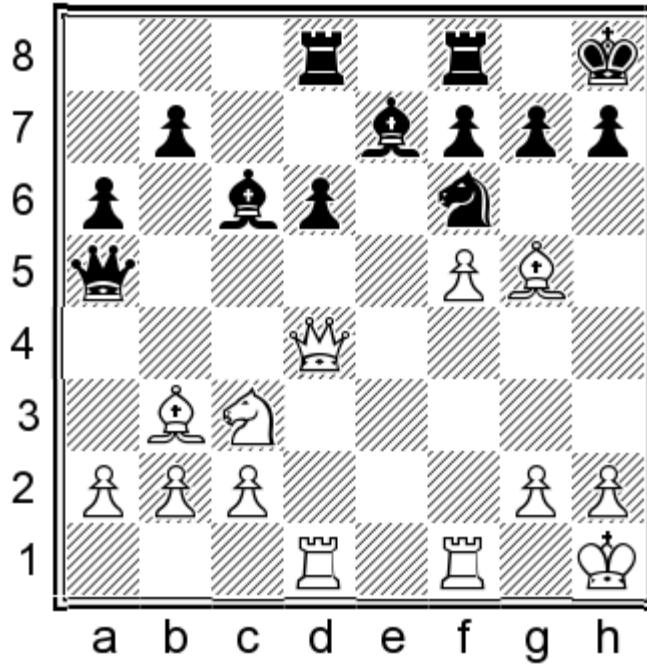
A unique attack!

The final position would have been absolutely esthetically perfect, had the c2-pawn been on b3! Why? For the meta-chessic considerations of symmetry...

The three facets of beauty are simplicity, symmetry, and paradox.

### No. 97: Illescas – U. Andersson

Úbeda 1997



*Position after 17. Wd4*

We are playing Black, and we have:  $m = 1$ ,  $t = 41/53 = \sim 0.77$ , approximate parity or a slight inferiority in the safety factor,  $\Delta k \gg 0$ , and  $\Delta(17. Wd4) =$

~-0.31.

Diagnosis: The CP Algorithm? “Petrosian”?

### 17...d5

We have no serious objection to this move, as Black frees himself from all possible and impossible unpleasantness connected with the pressure by White's light-squared bishop on f7. The only drawback is the bad bishop on c6.

The moves 17...h6 and 17... $\hat{Q}g8$  also look good.

Moving the h-pawn offers instant relief against the enemy attack along that file. However, this could become an unfortunate tempo loss, since it literally shoves the white dark-squared bishop to the central square d4 (18. $\hat{B}e3 \Delta \hat{W}d3, \hat{B}d4$ ). The bishop stands well there, and that's bad for us!

A rough variation from *Rybka*: 17...h6 18. $\hat{B}e3 \hat{B}de8$  19. $\hat{Q}g1$  (if 19. $\hat{W}d3$ , then 19... $\hat{Q}g4$  with good play) 19... $\hat{Q}g8$  20.a3 (White plays strategically – the strategic branch of the TC Algorithm). And now if 20... $\hat{B}c8$ , then 21. $\hat{W}d3 \Delta \hat{B}fe1, \hat{B}d4$  is possible. White is better. A position with no counterplay.

There are pros and cons to 17... $\hat{Q}g8$ , too. Here it is good that Black immediately – and, what is important to us, significantly – increases the local density of the pieces around his king. The drawback is that White gains the possibility of elevating his rook to the third rank, thereby obtaining real chances for an attack on Black's king.

However, 17... $\hat{Q}g8$  can hardly be of independent significance. With the king on g8, Black probably cannot do without ...d6-d5, meaning that he has every prospect of reaching the game position (see 17...d5 and 20... $\hat{Q}g8$ ).

### 18. $\hat{W}h4$

White intends to put a rook on h3, trading off the dark-squared bishop and mating on h7. Good intentions – destined to fail!

### 18... $\hat{B}fe8$

Andersson plans to sacrifice the h7-pawn. The goal is to create a safe haven for the king over on the queenside. A tremendous idea!

### 19. $\hat{B}d3 \hat{W}c5$

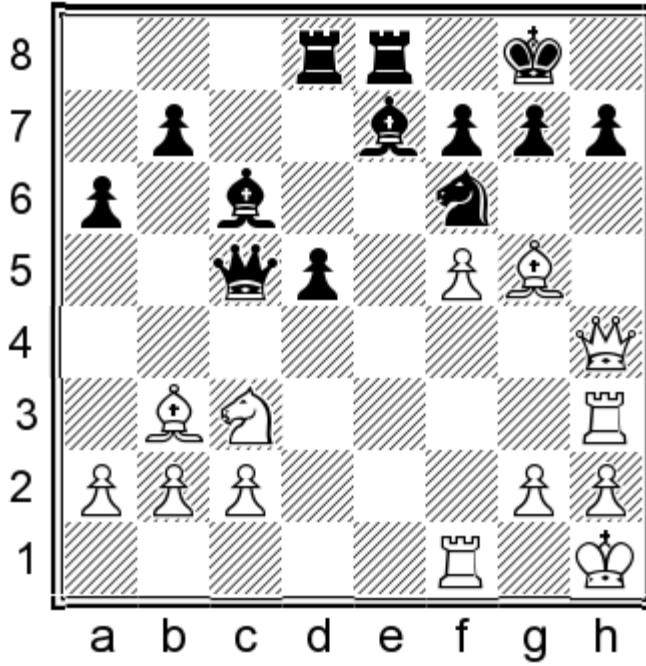
Drawing closer to the king. And not just to the black one, but also the white one – Andersson quietly begins to weave intrigues against the white monarch, who appears to be in complete safety.

With the help of a true and emotionless silicon friend, I hasten to note that after 19. $\hat{B}d3$ , Black has a one-hundred-percent chance to put a lid on the opponent's kingside offensive with 19...d4!. Now the attack up the h-file is not possible: 20. $\hat{B}h3 dxcc3$  21. $\hat{B}xf6 \hat{W}xf5$ , and Black wins! Effective, no?

White would have to take this pawn with 20. $\hat{B}xd4$  and shift from attack over to defense – a complete turnaround! Unfortunately, analysis shows that Black doesn't get full compensation for the sacrificed pawn.

### 20. $\hat{B}h3 \hat{Q}g8$

The only defense – the king rushes to the queenside.



**21.♕xf6**

Wrong! White wins a pawn but loses the initiative. He should have played according not to “Tal,” but to “Capablanca,” trying to improve his position as much as possible. Why?

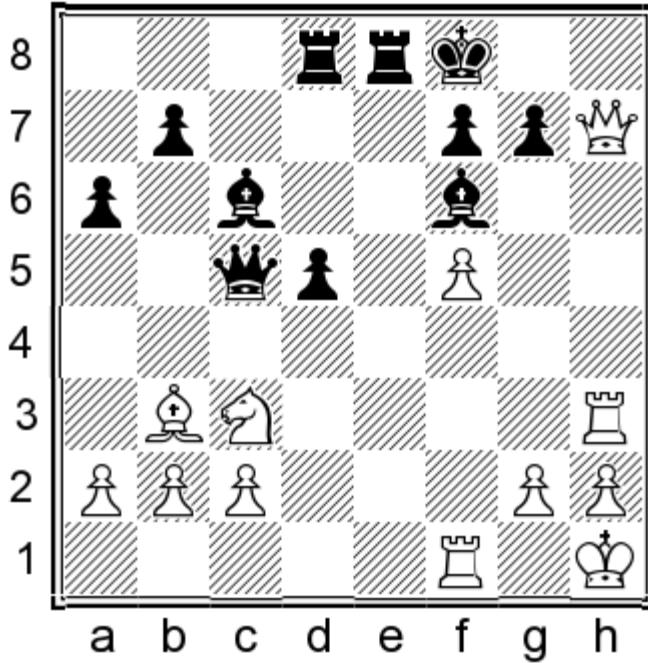
Because the CP Algorithm for Black automatically indicates the TC Algorithm for White. And the TC Algorithm is “Tal” and “Capablanca” at the same time.

The “paradoxical” move 21.a3 (*Rybka*’s recommendation) deserved serious attention. White intends to retreat the bishop to a2 and follow up with b2-b4, ♘a2-b3, a2-a4, and b4-b5, increasing the  $\Delta(\text{move})$  of his position. And if 21...h5 (again, recommended by *Rybka*; to me, it seems almost pathological), then shifting the knight to f4 with ♗c3-e2-f4 looks very strong. Black has serious problems.

A different line of defense after 21.a3 is ...a6-a5 and ...b7-b6. Black now elevates, not the h-pawn, but the pawns on the queen’s wing. But then, let’s say after 21.a3 a5, White pushes the pawn to a4 (that weak point b5!) and starts a slow, strategic game with the h-pawn’s execution reserved for later.

After 21.a3 White is no doubt better.

**21...♕xf6 22.♗xh7+ ♔f8**



We will examine this position first from White's side, and then from the opposite side:  $m > 1$ ,  $t = 37/42 = \sim 0.88$ , rough parity in the safety factor (White is not one bit better!),  $\Delta k < 0$ , and  $\Delta(22\dots \mathbb{Q}f8) = 33/12 - 26/11 = \sim 0.39$ .

Diagnosis (for White): the CP Algorithm. This means that, if nothing extraordinary happens, Black has to play according to the TC Algorithm.

Metamorphosis – and what a transformation it is! With such a magical shift from defense to attack, psychologically speaking it's simpler to play the side of the one who used to be defending – here, Andersson. It is much harder for Illescas to play...

### 23. $\mathbb{W}h8+$

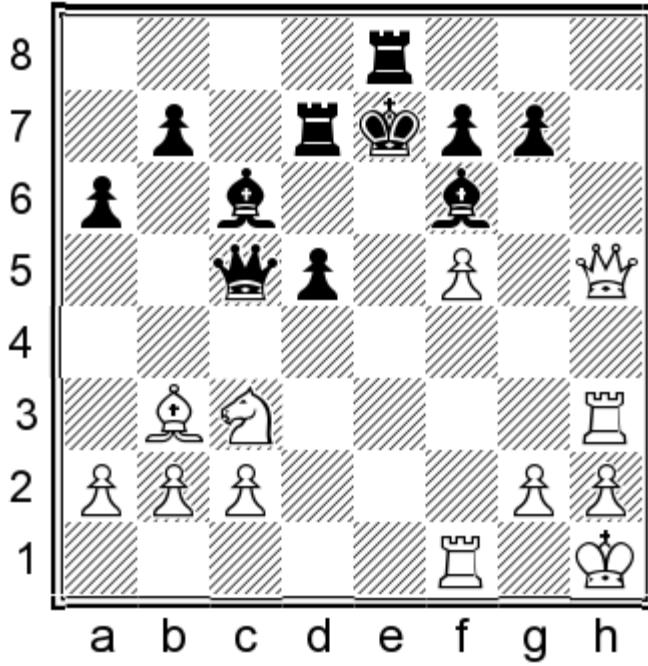
This move doesn't seem to spoil anything yet. Still, 23.  $\mathbb{E}d3$ , sounding the retreat without delay, is for choice. The d3-rook is clearly better used in defense.

The following long – and therefore not completely indisputable – variation is possible: 23.  $\mathbb{E}d3$   $\mathbb{E}e5$  (Stohl's engine-endorsed recommendation) 24.  $\mathbb{W}h8+$   $\mathbb{Q}e7$  25.  $\mathbb{W}h5$   $\mathbb{E}d7$  26.  $\mathbb{Q}e2$  (26.  $\mathbb{Q}a4$   $\mathbb{W}a5$  27.  $\mathbb{Q}c3$   $\mathbb{W}c5$  28.  $\mathbb{Q}a4$  – draw?) 26...  $\mathbb{Q}b5$  27.  $\mathbb{Q}f4$   $\mathbb{W}c6$  28.  $\mathbb{E}xd5$   $\mathbb{E}xd5$  29.  $\mathbb{Q}xd5+$   $\mathbb{E}xd5$  30.  $\mathbb{Q}xd5$   $\mathbb{W}xd5$  31.  $\mathbb{E}e1+$   $\mathbb{Q}e5$  32.  $\mathbb{W}g5+$ . And everywhere = (0.00) – at 13, 14 ply (half-moves)... A position of dynamic equilibrium?

Answer this question on your own – of course, with the help of the computer.

### 23... $\mathbb{Q}e7$ 24. $\mathbb{W}h5$ $\mathbb{E}d7$

Simple and good. The gate to the queenside has opened!



**25.♕e1+**

A step towards the precipice. Against the needs of the position, White plays for the attack, and that leads to catastrophe. Preferable is 25.♖d3 ( $\Delta \text{Rdd1}$ ), giving up a pawn, for example after 25...♗d8 26.♖dd1 ♗xc3 27.bxc3 ♗xc3. On the other hand, Black is not required to rush into trading his bishop for the knight. He's better ( $\mp$ ), but nothing more than that.

The strongest move (*Rybka*-approved) is probably 25.♘a4. An illustrative variation is 25...♗xa4 26.♕e1+ ♗d8 27.♕xe8+ ♗xe8 28.♗xa4 b5 29.♗b3 ♗e7 30.♗d1 ♗e4 31.♗f3 ♗xb2 32.♗f1, with dynamic equilibrium – White has neutralized his opponent's initiative. One important consideration is that, after 28.♗xa4, a potential assassin of the white king (the light-squared bishop) leaves the board – whereas in the actual game it stays alive.

**25...♗d8 26.♕xe8+**

With this trade, White catastrophically weakens his first rank. Mistake after mistake!

**26...♗xe8 27.♗h8+**

White... attacks?! 27.♗d1, offering some chances for a draw, is necessary.

**27...♗e7 28.♗d1**

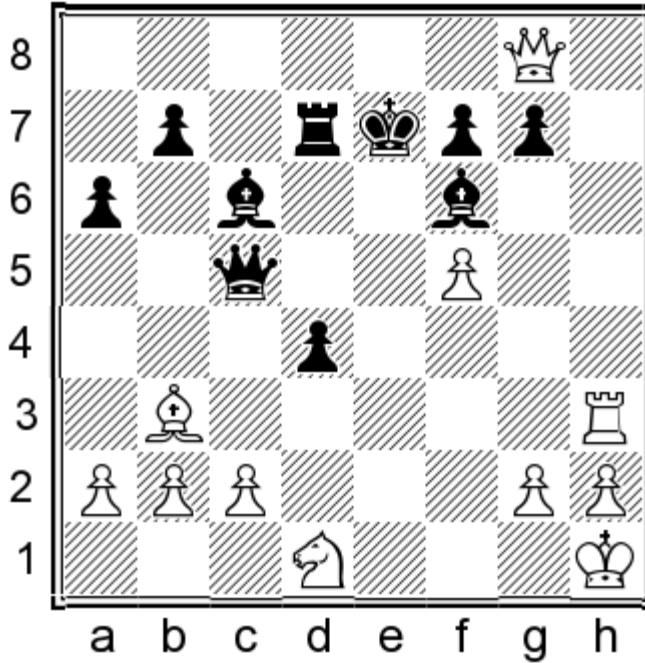
And here retreating the queen is imperative – 28.♗h5, with at least a little bit of hope...

**28...d4**

Black shifts over to the attack. Target: the f5-pawn.

**29.♗g8**

The apex of White's suicidal idea – the target on f7 is attacked. Clearly an unwarranted act.



**29... $\mathbb{Q}e5$**

A just and harsh punishment for White's previous missteps. Mate is threatened, and there's no real defense to this simple threat.

**30. $\mathbb{Q}xf7+$   $\mathbb{Q}d8$  31. $\mathbb{Q}h8+$**

Or 31. $\mathbb{Q}e6$   $\mathbb{Q}e7$  32. $\mathbb{Q}xe5$   $\mathbb{Q}xe5$  33. $\mathbb{Q}g1$   $\mathbb{Q}e1+--$ .

**31... $\mathbb{Q}c7$  32. $\mathbb{Q}e8$   $\mathbb{Q}xf5$**

Threatening mate on the move.

**33. $\mathbb{Q}e1$   $\mathbb{Q}e7$**

The scale of attacking targets: king, queen...

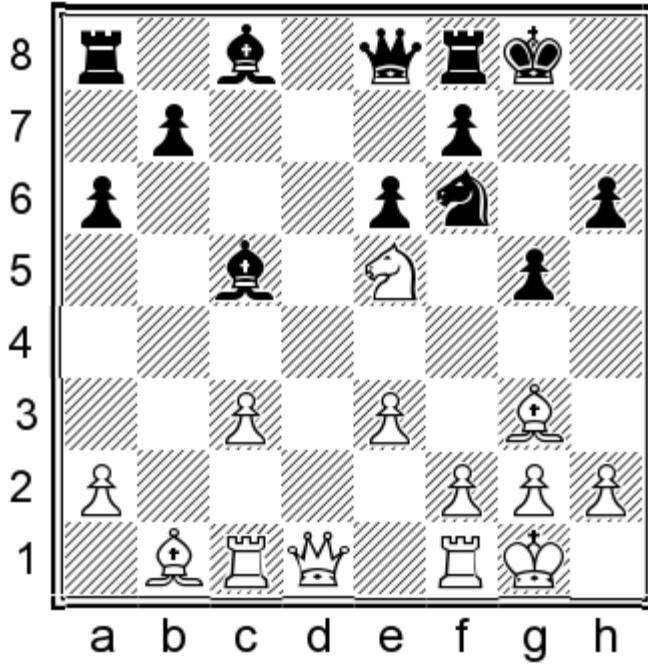
**34. $\mathbb{Q}g3+$   $\mathbb{Q}b6$  35. $\mathbb{Q}c4$   $\mathbb{Q}xc2$  36. $\mathbb{Q}b3$  1-0**

White resigned without waiting for mate in two (two different ways).

Andersson's play leaves a very strong impression.

**No. 98: Mikenas – Lebedev**

Tbilisi 1941



Position after 19...Qxc5

White has:  $m = 1$ ,  $t = 42/30 = 1.40$ , a “plus” in the safety factor. Our diagnosis: Tal.

## 20.f4

Mikenas: “I saw this possibility well before this, but for a long time could not decide on it. The point was that such a sharp continuation requires exact calculation. Carefully examining all the possible variations, still I embarked upon this step.” (I am citing from the book *Vladas Mikenas, Fizkul’tura i Sport*, Moscow 1987.)

As will become clear a little later, with this fearless move White sacrifices not just a pawn, but also a rook. Get ready to see fireworks!

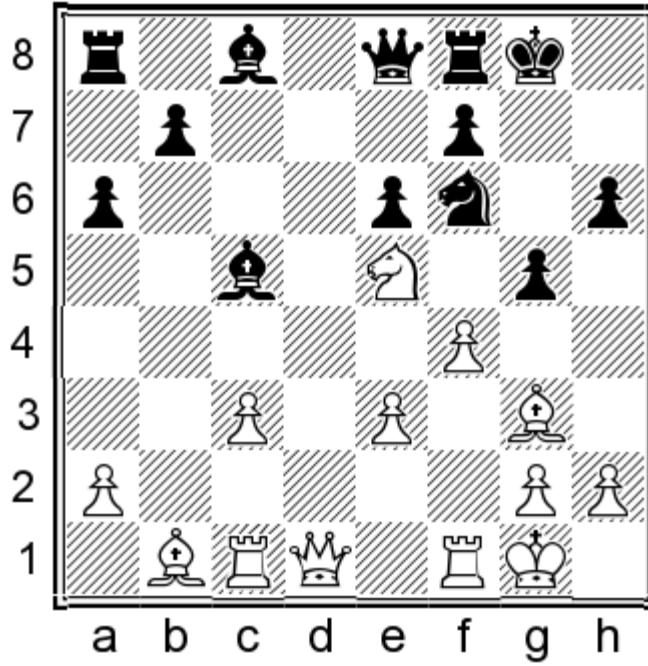
Computer analysis shows that the sacrifices are correct, and should have led (with correct defense) to a considerable plus for White. However, the same computer analysis (thanks to *Rybka*) calmly also indicates a more powerful move: 20.Qd3, when after 21.Qg4 White intends to force the win immediately.

The variations are:

- a) 20...Qg7 21.f4 Qd8 22.fxg5 hxg5 23.Qe2 Qe7 24.Qxf6 Qxf6 25.Qg4 Qe7 26.Qe5+-.
- b) 20...Qd8 21.Qc2 Qg7 22.Qcd1 Qe8 23.Qg4 Qxg4 24.Qh7+ Qf6 25.f3+-.

I’d like you to extend these variations, and then either to condemn or approve of them.

## 20.f4



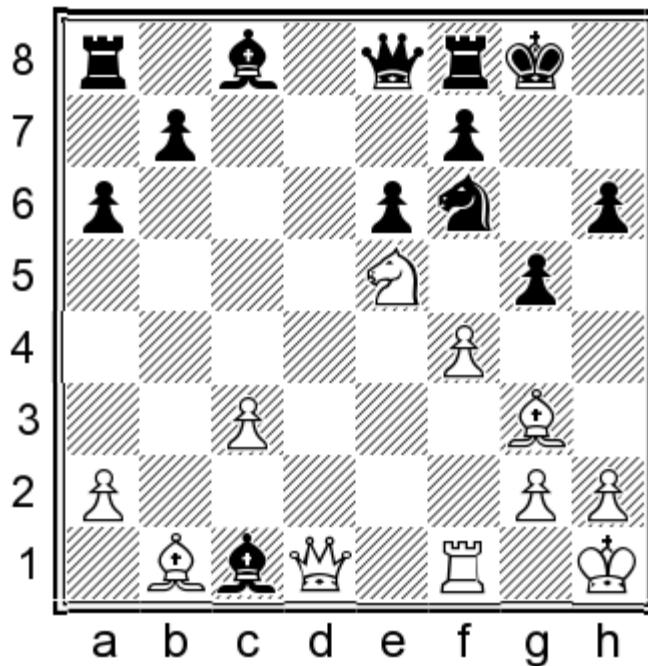
**20...Qxe3+**

Too self-confident, this move probably loses at once.

It was necessary to glue the knight to the king – 20...Qh7 – and now after, let's say, the straightforward 21.Qd3, Black can reply 21...f5!. His position is inferior, possibly even greatly so, but then again, it's not losing right away! Whereas now there comes:

**21.Qh1 Qxc1**

Or 21...We7 22.Wc2 Ed8 23.fxg5 Qxg5 24.Qf4, and White must win (this variation is from *Rybka*).



## 22.fxg5

Too beautiful, too elegant! Evidently Mikenas, entranced by his idea, was full of sacrificial fervor: he wanted to get at the target on f6 by the shortest route possible (the e5-knight is more valuable to him than both rooks!), and then mate on h7!

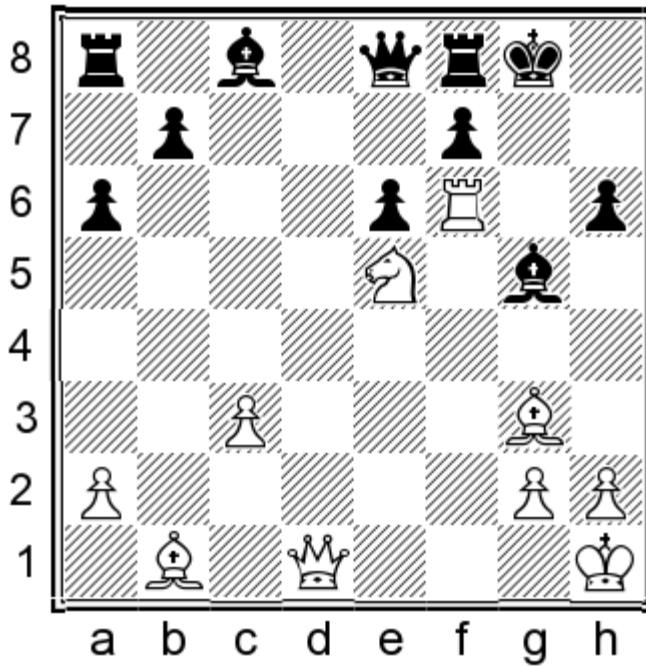
To carry out all this would not be easy. I add that there is a hole in Mikenas's analysis – see his vast notes to Black's move 23.

The simple 22... $\mathbb{W}xc1$  (as offered by *Rybka*) was easier: the computer sees no salvation. Here's one line out of many: 22... $\mathbb{Q}h5$  23.fxg5  $\mathbb{W}b5$  24. $\mathbb{Q}g4$   $\mathbb{Q}xg3+$  25.hxg3 hxg5 26.c4  $\mathbb{W}c5$  27. $\mathbb{Q}f5$  and White wins. This variation is fairly long and so requires additional research. Dare to plunge into it! And let your project be aided by ultramodern chess engines – chess is truly inexhaustible.

## 22... $\mathbb{Q}xg5$

I have no problems with this move.

## 23. $\mathbb{Q}xf6$



## 23... $\mathbb{Q}g7$

But with this one, I have a thousand. The king move – if we are to believe *Rybka* – leads to forced mate in sixteen moves against best defense!

A word from Mikenas. Here is what he writes in his notes to the diagram position (remember, these were pre-computer age commentaries): "The rook cannot be taken: 23... $\mathbb{Q}xf6$  24. $\mathbb{W}d3$ , and mate is unavoidable. But Black could have put up a more stubborn defense with 23... $\mathbb{W}b5!$  24. $\mathbb{W}c2$   $\mathbb{W}xb1+!!$  25. $\mathbb{W}xb1$   $\mathbb{Q}xf6$ , getting two rooks for his queen. True, this variation is not forced. I intended to continue with my kingside attack, although I was not convinced of the correctness of my calculations. It was only from mutual analysis after the game that we found an interesting variation of the attack: 24. $\mathbb{Q}g4!$   $\mathbb{Q}xf6$  (there is nothing better: White threatens 25. $\mathbb{W}c2$ ) 25. $\mathbb{Q}xf6$   $\mathbb{Q}g7$  26. $\mathbb{Q}h4!$   $\mathbb{W}c4$  27. $\mathbb{Q}e4$  e5 28.h3! (there's no sense in White hurrying into the immediate 28. $\mathbb{W}e1$ , since after 28... $\mathbb{Q}g4$  29. $\mathbb{Q}xg4$  f5 Black defends successfully) 28... $\mathbb{Q}f5$  29. $\mathbb{Q}h5+$   $\mathbb{Q}g8$  30. $\mathbb{W}f3!$   $\mathbb{Q}xe4$  31. $\mathbb{W}f6$   $\mathbb{Q}xg2+$  32. $\mathbb{Q}h2$ , and White wins." I add: if only it were so.

A bucket of cold water: after 30.  $\mathbb{W}f3!$  (Mikenas's mark) there is 30...  $\mathbb{Q}g6$  and Black is better! More likely,  $\mp$  and not +- (which one is irrelevant to us). Alas! Black glues the bishop and the king together, and soaks up the pressure.

However, we too have good news from Rybka: after 27...e5 White must continue, not 28.h3, but 28.  $\mathbb{Q}h5+-$ . The easy solution lies right on the surface! Here's a simple variation: 28...  $\mathbb{Q}h8$  (28...  $\mathbb{Q}g8$  29.  $\mathbb{W}f3+-$ ) 29.  $\mathbb{Q}f6+$   $\mathbb{Q}g8$  30.  $\mathbb{W}f3$ , and Black is helpless.

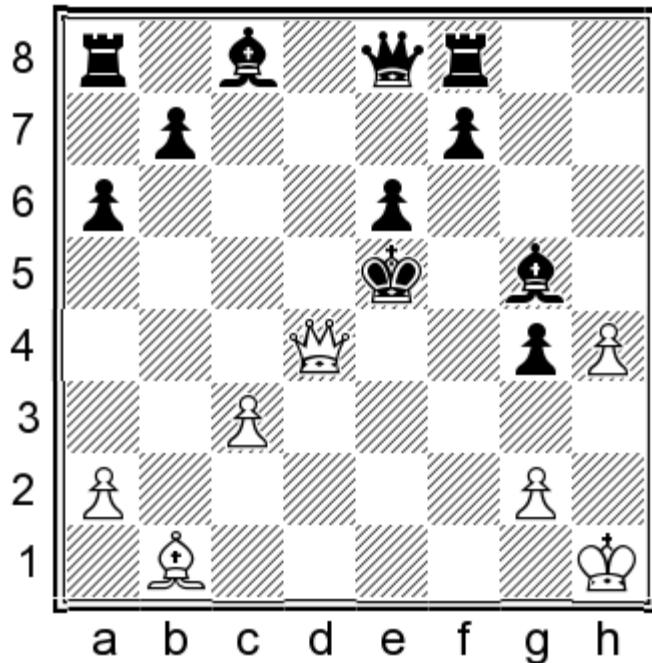
That's it: the attack was correct after all. Fortune favors the bold!

The game's conclusion leaves an indelible impression.

**24.  $\mathbb{W}d3$  h5 25. h4**

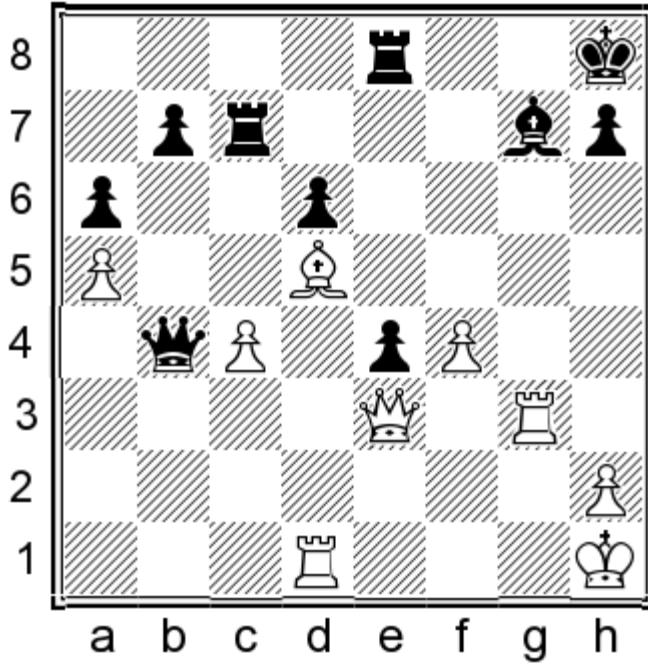
25.  $\mathbb{Q}xf7$  also mates.

**25...  $\mathbb{Q}xf6$  26.  $\mathbb{Q}g4+$  hxg4 27.  $\mathbb{Q}e5+$   $\mathbb{Q}xe5$  28.  $\mathbb{W}d4\#$**



**No. 99: Karpov – Nunn**

London 1982



Position after 35...  $\mathbb{W}xb4$

We are playing White. We have:  $m < 1$ ,  $t = 45/41 = \sim 1.10$ , somewhat (how much?) better in the safety factor,  $\Delta k < 0$ , and  $\Delta(35\dots \mathbb{W}xb4) = 28/9 - 26/10 = \sim 0.51$ . Our diagnosis: “Tal”? the TC Algorithm?

### 36. $\mathbb{E}dg1$

A natural move – but maybe not the strongest one. *Rybka* prefers 36.  $\mathbb{W}e2$ , allowing White (after, let's say, 36...  $\mathbb{W}b2$ ) to take the queen to h5. Then White brings his rook to h3 with extremely uncomfortable, permanent pressure on Black's kingside. Opposite-colored bishops in the attack – that's always a plus, and often a very serious one!

### 36... $\mathbb{W}b2$

Defending not only against 37.  $\mathbb{W}e2 \Delta \mathbb{W}h5, \mathbb{E}h3$ , but also against 37.  $\mathbb{W}d4$ .

### 37. $\mathbb{E}g5$

After this flexible, White gets not just to mass all his major pieces on the g-file (with 38.  $\mathbb{W}g3$ ), but also to transfer the queen to h3 (38.  $\mathbb{W}h3 \Delta 39. \mathbb{E}h5$ ).

### 37... $\mathbb{W}f6$

Preventing 38.  $\mathbb{W}h3$  – Black eyes the target on f4.

### 38. $\mathbb{E}1g4$

To defend the f4-pawn?

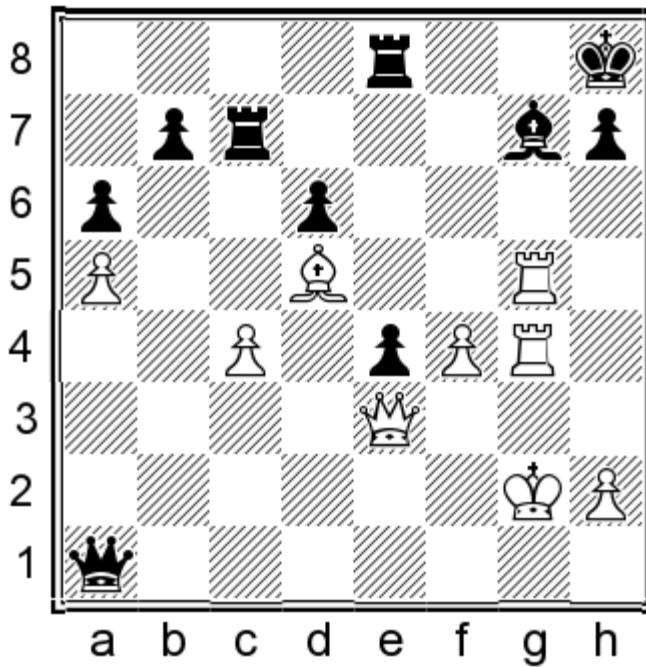
The emphatic answer: No! White elevates the rook from the first rank, so that later... he can elevate the king!

Innocent question: is White playing strategically?

Yes! And I once again risk repeating my favorite mantra: flawless strategic play (the strategic attack) always correlates with the deliberate shift of the stronger side's pieces and pawns toward the queening square. Karpov increases the  $\Delta(\text{move})$  of his position in the dullest way possible. With queen, rooks and minor pieces still on the board... Isn't that

miraculous?

38... $\mathbb{W}a1+$  39. $\mathbb{Q}g2$



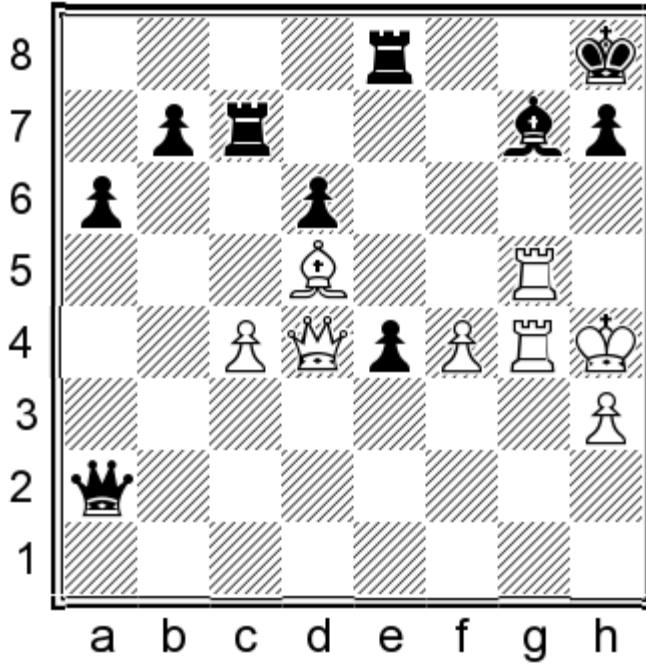
Let's examine the position after 39. $\mathbb{Q}g2$  from Black's point of view. What can he do – how does he play here? Or, finally, what does he have?

Answer:  $m > 1$ ,  $t = 43/38 = \sim 1.13$  and an indefinite safety factor. I add that Karpov has improved his pieces – that is, he has made significant additions in the fourth and fifth parameters, although not for free. The price is a deficit in the “t” parameter and also in the third parameter. It looks like the World Champion, by that very fact, has lost part of his previous advantage.

Our diagnosis of this position is: the TCP Algorithm. That means that Black must start with “Tal.”

39... $\mathbb{W}b2+$

39... $\mathbb{W}xa5$  loses to 40. $\mathbb{W}d4$ . Now Black is saved neither by 40... $\mathbb{W}ee7$  41. $\mathbb{W}xg7$   $\mathbb{W}xg7$  42. $\mathbb{W}f6$   $\mathbb{W}d2+$  43. $\mathbb{Q}h3$   $\mathbb{W}e3+$  44. $\mathbb{W}g3$ , nor by 40... $\mathbb{W}a2+$  41. $\mathbb{Q}g3$   $\mathbb{W}b3+$  42. $\mathbb{Q}h4$   $\mathbb{W}a2$  43.h3:



Position after 43.h3 (analysis)

For us, it is both important and interesting that  $\Delta(43.h3) = \sim 1.32$  in the diagram position. To this huge  $\Delta(\text{move})$ , add White's overwhelming advantage in the third and fourth parameters.

But after 39... $\mathbb{W}b2+$  Black has every prospect of holding. How?

**40.  $\mathbb{Q}h3 \mathbb{R}ce7$**

No problem with this move.

**41.  $f5 \mathbb{W}f6$**

But this move is confusing, to put it mildly. Better is 41... $\mathbb{W}a1$ , threatening to check from the rear. Black needs to play actively! Why?

Because (sorry for repeating this) the TCP Algorithm starts off with “Tal” and not “Petrosian.”

Karpov himself indicates 41... $\mathbb{W}a1$ , and he also points out 41... $\mathbb{R}f8$  (the first and second lines by *Rybka*).

**42.  $\mathbb{R}h5$**

Of course! Now Black’s queen is hobbled – 42... $\mathbb{W}a1$  43. $\mathbb{R}xh7++$ . White intends to place his other rook on h4, provoking Black into moving the h-pawn.

**42...  $\mathbb{R}f8$**

We probably do not have the right to criticize this move – Black has accepted that ...h7-h6 is inevitable, and intends, in the variations, to push the rook to f6 in order to securely guard the target on h6.

The attempt to keep the pawn on h7 most likely will fail. In support of this we offer a long variation given by *Rybka*: 42... $\mathbb{R}c7$  43. $\mathbb{R}gh4 \mathbb{Q}f8$  44. $\mathbb{W}g3 \mathbb{Q}h6$  (bravo!) 45. $\mathbb{R}xe4$  (45. $\mathbb{R}xh6 \mathbb{W}xf5+$  46. $\mathbb{R}g4 \mathbb{Q}g7$  47. $\mathbb{W}f4 \mathbb{W}xg4+$  48. $\mathbb{W}xg4 \mathbb{R}xg4$  49. $\mathbb{Q}xg4$  e3 50. $\mathbb{Q}f3$  e2=) 45... $\mathbb{R}cc8$  46. $\mathbb{R}eh4 \mathbb{Q}e3$  47. $\mathbb{W}xe3 \mathbb{W}xh4+$  48. $\mathbb{R}xh4 \mathbb{Q}xe3$  49. $\mathbb{Q}g4$  h5 50. $\mathbb{Q}g6 \mathbb{Q}h7$  51. $\mathbb{R}xd6$ , and White has every chance to win this.

Of course, one must take long variations with a grain of salt. Try to improve both sides’ play.

A practical player cannot calculate such a long variation at the board. He trudges along a thousand times more slowly than a modern chess computer. He moves by feel, often making decisions out of general considerations. And these general considerations could be maxims of the strategic algorithm.

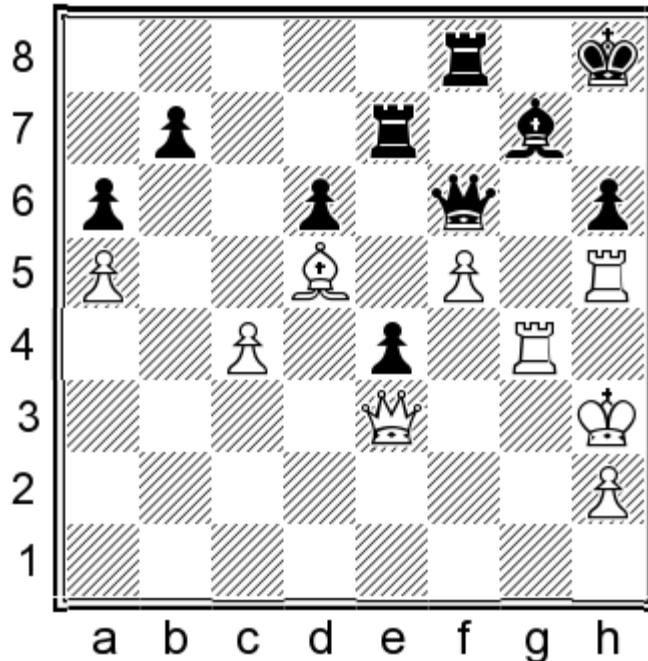
When playing strategically, we must hew closely to the third, fourth, and fifth parameters of the chess position. Our idols are safety, compactness, and spatial expansion!

#### 43. $\mathbb{E}gh4$ h6 44. $\mathbb{E}g4$

White dreams of putting a rook on g6 and the king on g4. Why?

Because one of his strategic idols is spatial expansion. Its parameter is  $\Delta(\text{move})$ . We want to play primitively – to increase our  $\Delta(\text{move})$ . We believe that, with a large value in  $\Delta(\text{move})$ , victory will come by itself.

Of course, 44.  $\mathbb{E}xh6+$  is bad; after 44...  $\mathbb{E}xh6$  45.  $\mathbb{E}xh6+$   $\mathbb{W}xh6+$  46.  $\mathbb{W}xh6+$   $\mathbb{E}h7$ , Black has an extra exchange in the ending.



In the diagram position, Black has a lot of possibilities – there is no threat of a triple capture on h6, the queen is free (or almost free!) to maneuver. In short, a breather – but... But his position is seriously compromised – there is now a hole on g6!

I won't irritate the reader with an endless string of variations prepared by our hardware helpers. I will think of schemes (setups), for instance  $\mathbb{E}g6 + \mathbb{Q}g4$  (we have already talked about this) and...  $\mathbb{Q}h1 + \mathbb{E}g1$  (saving the king from the irritating check on a1) +, let's say,  $\mathbb{Q}d5-e6$ ,  $\mathbb{W}e3xe4$ , etc. I do not intend long calculations – really! I have faith, I will go ahead by feel...

#### 44... $\mathbb{E}e5$

Or 44...  $\mathbb{W}a1$  45.  $\mathbb{Q}g2$   $\mathbb{W}b2+$  46.  $\mathbb{Q}h1$ , etc.

#### 45. $\mathbb{E}gg5$

One more baby step toward the goal – White increases his  $\Delta(\text{move})$ .

#### 45... $\mathbb{E}c8$

A “Tal”-style move, as Black threatens to win after 46... $\mathbb{Q}xd5$ . Black can’t play this way, though. He has to play according to “Petrosian” and not “Tal”!

**46. $\mathbb{Q}g4$**

Parrying Black’s threat – and decisively elevating his king!

**46... $\mathbb{Q}h7$**

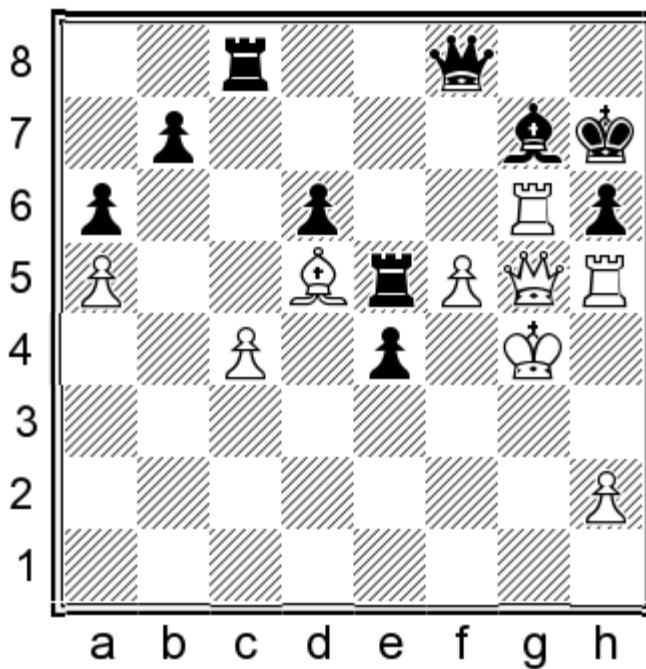
Protecting the target on h6. Safely?

**47. $\mathbb{Q}g6 \mathbb{W}f8$**

Do you believe in the merciless power of the strategic principle we have endured, of increasing the  $\Delta(\text{move})$ ? If, for now, you do not believe in it, I hope that White’s next simple move will make you believe ...

Karpov replied

**48. $\mathbb{W}g5$**



Marvelous! The threat is 49. $\mathbb{Q}gxh6+$   $\mathbb{Q}xh6$  50. $\mathbb{W}g6+$ , with a quick mate. Black is helpless.

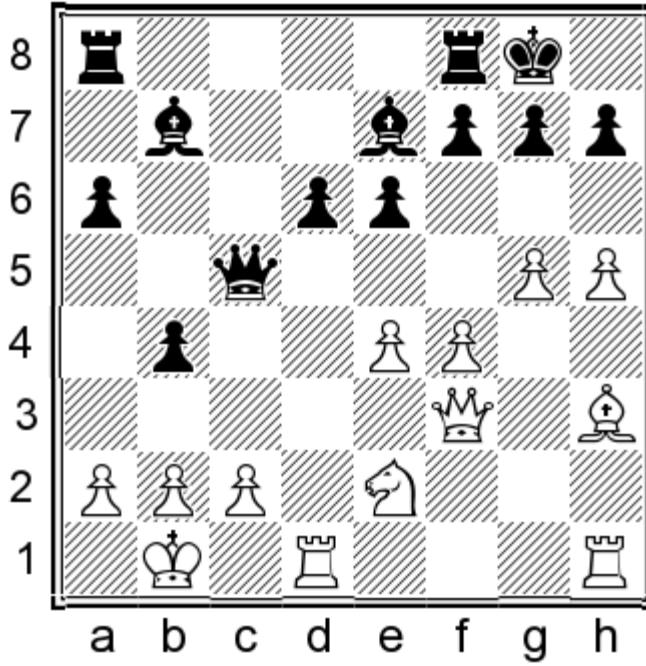
Nunn resigned after

**48... $\mathbb{W}xf5+$  49. $\mathbb{W}xf5 \mathbb{Q}xf5$  50. $\mathbb{Q}xg7+$   $\mathbb{Q}xg7$  51. $\mathbb{Q}xf5$  1-0**

The shortest afterward we can think of to this amazing game is  $\Delta(48.\mathbb{W}g5) = \sim 1.96$ .

**No. 100: Adams – Svidler**

San Luis 2005



Position after 22.  $\mathbb{W}f3$

We are playing Black. The parameters are:  $m = 1$ ,  $t = 43/44 = \sim 0.98$ , approximate parity or slightly worse in the safety factor,  $\Delta k = 0$ , and  $\Delta(22.\mathbb{W}f3) = \sim -0.31$ .

Our diagnosis: the Capablanca Algorithm? The CP Algorithm?

Here Svidler played an astonishing move:

### 22...h6

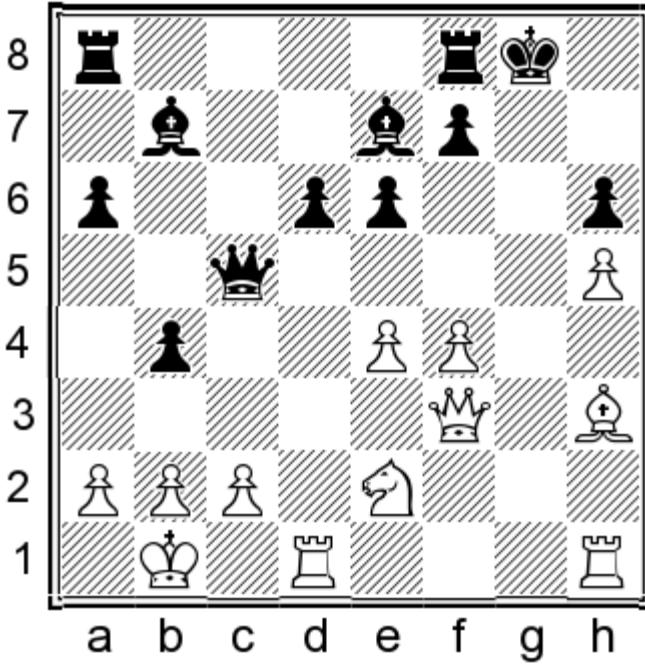
In the most brazen way possible, Black has broken the one unshakable ancient rule that says the weaker side should never move pawns where his opponent is attacking.

A mistake? No, no, and again no! Svidler has envisioned the transformation of one defensible position into another. He (see below) could maintain approximate parity in the third factor.

But in the language of “Capablanca” (we won’t overstate the danger to the king’s position), Svidler’s move could even, on the whole, be considered trivial: Black, playing strategically, is totally within his rights to make a trade first, given that  $\Delta k = 0$ . And so Black fearlessly “elevates” his position. Bravo!

On the natural 22... $\mathbb{B}ac8$  (instead of the “counterintuitive” 22...h6), there would most likely follow 23. $\mathbb{B}d2 \mathbb{B}c7$  24. $\mathbb{B}hd1$   $\mathbb{B}c6$  25. $\mathbb{B}g2 \mathbb{B}a4$  (25...e5) 26. $\mathbb{B}e3 \mathbb{B}c5$  27. $\mathbb{B}c1 \mathbb{B}e8$  (*Rybka*). Black stands slightly worse – the white g5- and h5-pawns hang unpleasantly over the king’s head. A complex struggle...

### 23.gxh6 gxh6



After the pawn trade, it is very easy to see that White has no serious threats, since the black king will shortly find safe haven without great difficulty. That haven will be on the h-file. And the square h7 is clearly more appealing than h8. Why? Thanks to the compactness factor!

The first line from *Rybka* is 24.  $\mathbb{W}d3$ . The second line is 24.  $f5$ , as Adams chose; we will examine it later.

After 24.  $\mathbb{W}d3$  Black has two nice moves: the very risky 24...  $\mathbb{E}ad8$  and the very solid 24...  $\mathbb{Q}h8$  (h7 is “forbidden” – see that queen on d3!).

After the “very risky” 24...  $\mathbb{E}ad8$ , I dare to “frighten” you with a not very short (and therefore highly suspect) variation, and ask you to support it or refute it yourself. Here is this variation, which admittedly I do like a lot: 25.  $\mathbb{Q}xe6$   $fxe6$  26.  $\mathbb{Q}d4$   $\mathbb{Q}c8$  27.  $e5$   $\mathbb{E}f7$  28.  $\mathbb{E}hg1+$   $\mathbb{Q}h8$  29.  $\mathbb{W}g6$   $\mathbb{E}df8$  (29...  $\mathbb{E}h7$  30.  $\mathbb{Q}b3$   $\Delta$   $\mathbb{E}g4$ ,  $\mathbb{E}dg1+-$ ) 30.  $\mathbb{Q}xe6$   $\mathbb{Q}xe6$  31.  $\mathbb{W}xh6+$   $\mathbb{E}h7$  32.  $\mathbb{W}xe6$   $\mathbb{W}c8$  (32...  $dxe5$  33.  $\mathbb{E}g6$   $\Delta$  34.  $\mathbb{E}dg1\pm$ ) 33.  $\mathbb{W}xd5$   $dxe5$ , with an approximately equal game.

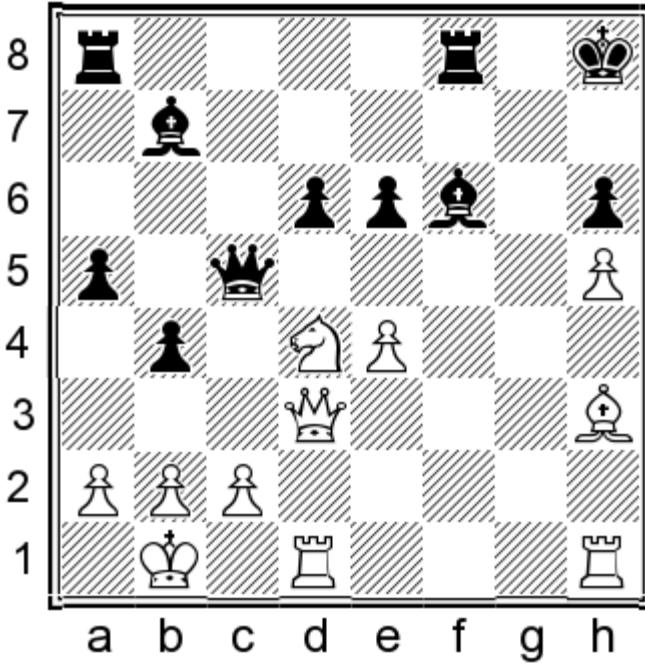
Of course White, if he wished, could safely reject the sharp 25.  $\mathbb{Q}xe6$ . He has other candidate moves: 25.  $\mathbb{Q}d4$ , 25.  $\mathbb{E}hg1+$ . In reply – bishop to f6, king to h8... A complex and, most likely, strategic struggle, as the black king feels quite comfortable. The evaluation of that position would be  $\pm$ : compare that with the 22...  $\mathbb{E}ac8$  variation.

Our next step is the position after the “solid” 24...  $\mathbb{Q}h8$ . In order not to drown you, dear reader, in a sea of variations, I present only a very small number of them. The bare minimum! Beauty will be the guideline for their selection. That will help us mortal chessplayers to approach the primeval depths of our game.

Quite possibly, on 24...  $\mathbb{Q}h8$  Adams would have played 25.  $\mathbb{Q}d4$ , when Black would have replied 25...  $\mathbb{E}f6$ . This is not just prophylaxis (the bishop comes closer to its king), but also a move bearing the signs of the Tal Algorithm, since from f6 the bishop hits b2!

“Tal”? Don’t hurry with the reply!

Going deeper: 26.  $f5$   $a5$  (who’s attacking whom?) 27.  $fxe6$   $fxe6$ :



Position after 27...fxe6 (analysis)

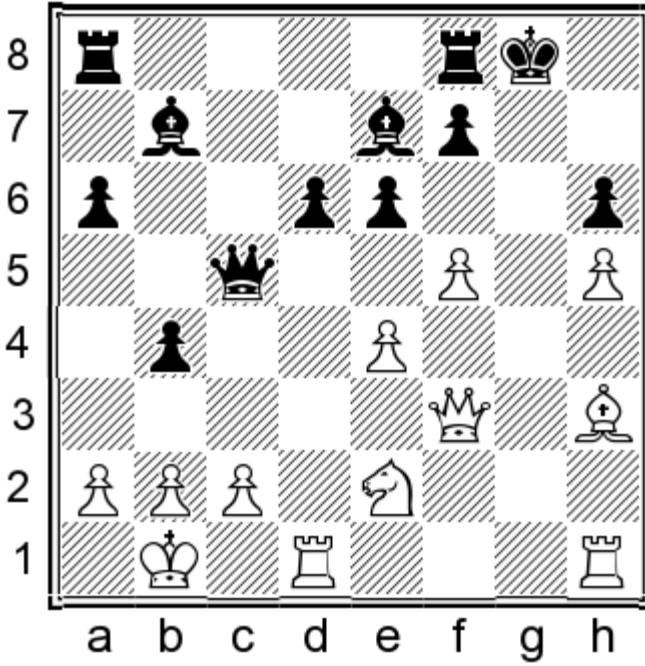
The promised minimal variations:

- a) 28. ♔xe6 ♕e5 29. ♜b3 ♜fe8 30. ♔c7 (30. ♔d4; 30. ♜hf1) 30... ♔c6 31. ♔xe8 ♔a4. Who is worse?
- b) 28. ♔xe6 ♜ae8 29. ♔d5 ♔xd5 30. exd5 ♔xd4 31. ♜xd4+ ♜xd4 32. ♜xd4 ♜f5 Δ 33... ♜ee5, with good compensation for the pawn and an almost guaranteed draw.
- c) 28. ♜he1 (likely the most dangerous move for Black) 28... ♔xd4 29. ♜xd4+ ♜xd4 30. ♜xd4 d5 31. exd5 (31. ♔xe6 dxe4 32. ♜d7 ♜f6±) 31... ♔xd5 32. a3 bxa3 33. ♔xe6 ♔f3 34. ♔b3±, the same evaluation as before.

The general conclusion: 24. ♜d3 (the first line by Rybka) doesn't refute Svidler's idea.

Almost certainly, White also doesn't have anything serious after the game move.

**24.f5**



**24... $\mathbb{Q}e5$**

A multipurpose move! Black not only brings the queen over to his half-exposed king, but also attacks enemy targets on e4 and, most importantly, on b2. We mustn't forget that on the right side (a1-a8-c8-c1) Black's forces have and will (at least in the near future) continue to enjoy a great superiority. Black has the right to counterattack!

Many hours of computer analysis showed that Black holds this position securely. I add that it's a very difficult position for an analyst, who is looking for the one strongest move. In such a sea of variations, even *Rybka* feels uncomfortable and changes its evaluations frequently.

As difficult as this is for a computer, it was still harder for Adams and Svidler – two gifted chessplayers, world championship candidates. All the more so for us mere mortals... What are we to do?

Answer: find the strongest move by blindly forging ahead. In this it is sometimes necessary to proceed from general chess considerations. And you, dear reader, must always work with convincing (though short) variations. Let your concrete tactics be at the service of flawless strategy!

One more thing – a quote from Capablanca (I quote this, not for the first time, nor for the last): “Never refrain from a move out of the fear of losing. If you think a move good, better to make it, without thinking of the result. Experience is the best teacher. Remember: if you want to become a good chessplayer, you must lose hundreds of games first.”

I will continue the theme of searching for the strongest move later, after concluding the analysis to the present game.

**25. $\mathbb{E}hg1+$**

Or 25. $\mathbb{E}d4$  a5 26.fxe6 fxe6 27. $\mathbb{W}g4+$   $\mathbb{Q}h8$  28. $\mathbb{W}xe6$   $\mathbb{E}f6$  29. $\mathbb{W}xe5$  dx $e$ 5, with an outstanding game for the sacrificed pawn (*Rybka*'s variation).

**25... $\mathbb{Q}h7$**

25... $\mathbb{Q}g5$  wasn't bad, either – the engine's recommendation. But I like the human's move better. Why? Because it assures Black of a greater density of packing of his king and pawns' position!

**26.fxe6**

Rybka considers 26.♗g2 strongest here, with 26...♝ac8 27.fxe6 fxe6 28.♗b3 ♜f2 to follow. But Black has another path! It would be interesting to work out the more compact 26...♝g8 – does this purely “Petrosian”-like move work? Rybka replies 27.fxe6 fxe6 28.♗b3 d5 29.exd5 (a “Tal”-style piece sacrifice!) 29...♝xe2 (Black’s king is densely packed, and therefore he has every prospect of warding off the attack!) 30.♔f3 ♚e5 31.♜ge1 ♛f4 32.♜e4 ♛f8 (closer to the king) 33.♜xe6 ♔h8, and Black is out of danger! Try and refute this, if you can...

## 26...♝xe4

Black is not worse.

The game ended in a draw on move 40.

**A quote from Capablanca: “Never refrain from a move out of the fear of losing. If you think a move good, better to make it, without thinking of the result. Experience is the best teacher. Remember: if you want to become a good chessplayer, you must lose hundreds of games first.”**

The universal method for searching for the strongest move may be filled out by a sort of extra-chessic (supra-chessic, meta-chessic) component. For us, that will be the esthetic element in the game of chess. We will activate this aspect when we have a choice between the beautiful move and the not-so-beautiful one, an ugly one.

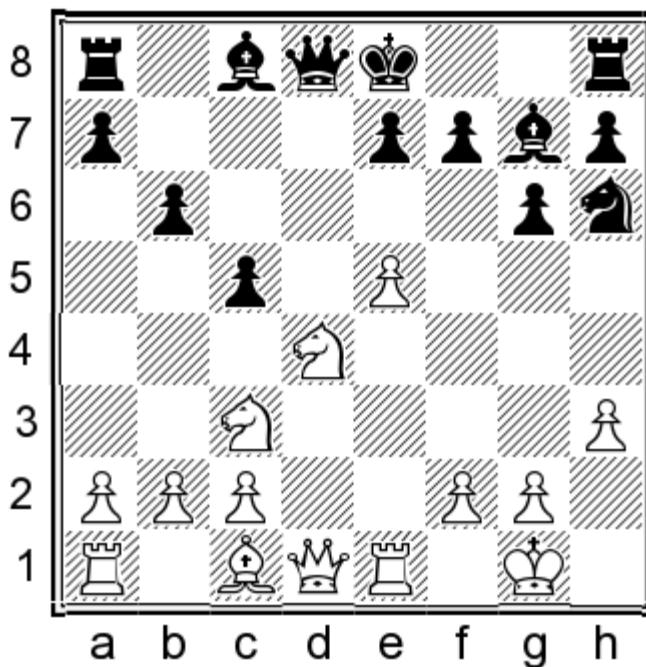
Why?

Because we believe (and strongly!) that the beautiful move in chess has greater chances of being the strongest one ...

We know a lot of “formulas” for beauty. Here is one of the favorites: simplicity + symmetry + paradox. This formula, it seems to me, coincides with the formula for the beautiful in our modern love of nature, and we cover it with the magical veil of our beloved game...

### No. 101: Kholmov – Keres

USSR Championship, Tbilisi 1959



Position after 11...c5

The parameters of this position are:  $m = 1$ ,  $t = 42/33 = \sim 1.27$ , a small “plus” in the safety factor.

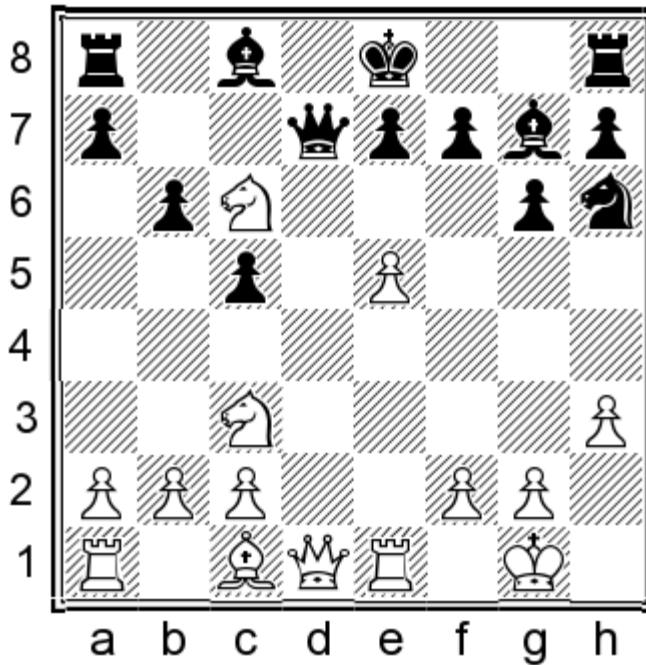
Our diagnosis: the Tal Algorithm.

## 12. $\mathbb{Q}c6$

Only like this, although no doubt the game move required not just courage, but also accurate calculation. By invading c6 with the knight, White risks dropping it. But he is not afraid of this – on the contrary, he intends to sacrifice it shortly!

## 12... $\mathbb{W}d7$

“It turns out that 12...  $\mathbb{W}xd1$  13.  $\mathbb{E}xd1$   $\mathbb{Q}b7$  does not work, in view of 14.  $\mathbb{Q}b5!$   $\mathbb{Q}xc6$  15.  $\mathbb{Q}c7+$   $\mathbb{Q}f8$  16.  $\mathbb{Q}xa8$ , and the knight cannot be taken in view of the mate on d8” (Kholmov).



## 13. $\mathbb{Q}xe7$

The culmination of a magnificent idea!

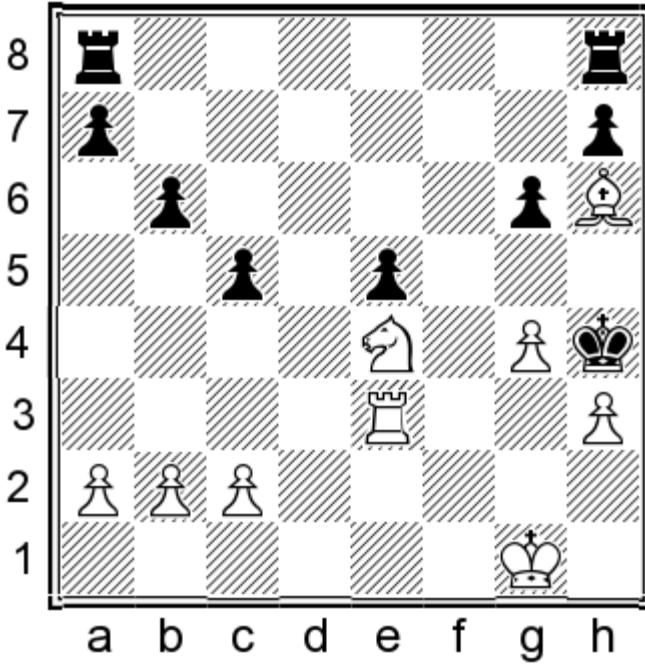
The knight sacrifice, as computer analysis showed, was totally correct, but... how many complex variations there were!

## 13... $\mathbb{Q}xe7$

Kholmov: “After this, Black loses quickly. The question arises: was it possible, on the whole, to defend?

“In the first place, a preliminary queen trade suggests itself. And so, 13...  $\mathbb{W}xd1$  14.  $\mathbb{E}xd1$   $\mathbb{Q}xe7$  15.  $\mathbb{Q}g5+!$   $\mathbb{Q}e6$  (15...  $f6?$  16.  $exf6$   $\mathbb{Q}xf6$  17.  $\mathbb{Q}d5+)$  16.  $\mathbb{E}d6+$   $\mathbb{Q}f5$  (16...  $\mathbb{Q}xe5$  is worse: 17.  $\mathbb{E}d5+!$   $\mathbb{Q}e6$  18.  $\mathbb{E}e1+$ ) 17.  $f4!$ .

“Now White threatens to capture on h6 and give mate on f6, while on 17...  $\mathbb{Q}g8$  I had prepared 18.  $g4\#$ . After 17...  $\mathbb{Q}e6$ , Black also loses quickly: 18.  $\mathbb{Q}e2!$   $\mathbb{Q}e4$  19.  $\mathbb{Q}g3+$   $\mathbb{Q}e3$  20.  $\mathbb{E}e1\#$ . The only way to hold out for longer was 17...  $\mathbb{Q}xe5$ , but then too, after 18.  $\mathbb{E}d5$   $f6$  19.  $\mathbb{Q}xh6$   $\mathbb{Q}b7$  20.  $fxe5$   $\mathbb{Q}xd5$  21.  $\mathbb{Q}xd5$   $\mathbb{Q}xe5$  22.  $c4$ , White must win, since the f6-pawn is lost, too. In this variation, Black can try not giving up this pawn by playing 21...  $fxe5$ . However, here he would jump out of the frying pan into the fire – a rather pretty finish follows: 22.  $g4+!$   $\mathbb{Q}e4$  23.  $\mathbb{Q}c3+$   $\mathbb{Q}f3$  24.  $\mathbb{E}e1$   $\mathbb{Q}g3$  25.  $\mathbb{E}e3+$   $\mathbb{Q}h4$  26.  $\mathbb{Q}e4$ :



Position after 26. ♜e4 (analysis)

and mate next move.”

More variations (I’m quoting again here): “And if 23... ♔d4 [instead of 23... ♔f3 in the previous line – A.Sh.] then 24. ♕e1! c4 25. ♔e3# is no less effective. Finally, if 19... g5 (instead of 19... ♔b7), 20. fxe5 ♔g6 21. ♕f1 ♔xh6 22. ♕xf6+ ♔g7 23. ♜e4, Black’s position is also hopeless.”

These pre-computer analyses by GM Kholmov (see *Ratmir Kholmov*, Moscow: Fizkul’tura i Sport, 1982) were all checked by *Rybka*. No comment needed!

Kholmov considers Black’s best defense to be 13... ♕xe7, but here too, as *Rybka* shows, Black is doing poorly. Some variations:

14. ♜d5 ♕d8 15. ♜f6+ and now:

a) 15... ♔e7 16. ♕f3 ♔e6 17. ♔g5 ♕c8 18. ♜h5++-;

b) 15... ♔xf6 16. exf6+ ♔e6 17. ♔xh6 ♕xf6 18. ♕d6 ♕d8 19. ♕g3 ♕d5 20. c4 ♕d7 21. ♔g5 ♕d4 22. ♕b8++-.

And so, 13... ♕xe7 loses. Keres’s move, 13... ♔xe7, also loses – in every variation!

How, specifically? Let the victor demonstrate.

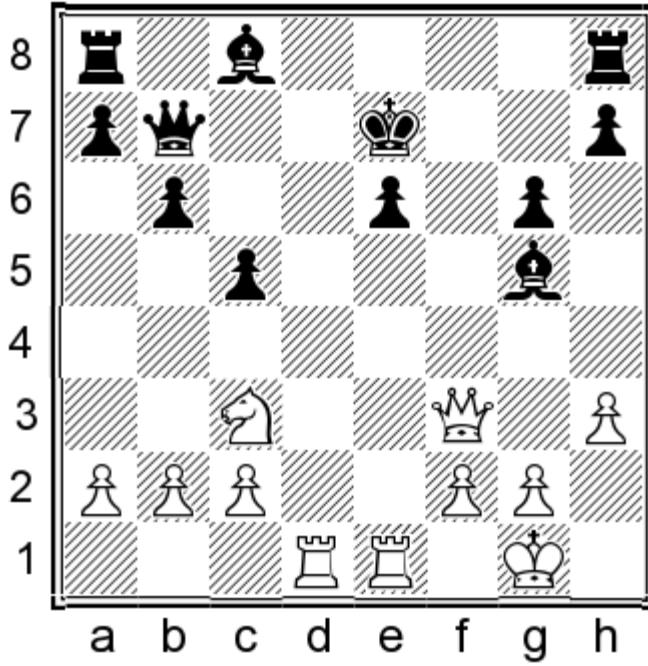
#### **14. ♔xh6 ♔xh6**

Or 14... ♕xd1 15. ♔g5+, with an extra pawn in the ending.

#### **15. ♕f3 ♔g7**

“Black parries the chief threat (16. ♕f6+), ignoring the secondary threat (16. ♕xa8). It seems that 15... ♕e8 was stronger, preparing to retreat the king to f8, but here too White would have a great choice of continuations. I could play 16. ♕ad1 ♕b7 17. ♕f6+ ♔f8 18. ♕h8+ ♔e7 19. ♕xh7, with enough of an attack to win, but better would be the more energetic 16. e6! fxe6 17. ♕ad1 ♕b7 18. ♜d5+ ♔d6 19. ♜b4+! ♔c7 20. ♕g3+ e5 21. ♕xe5!, with an easy win” (Kholmov).

I add that 15... ♔g5 loses, too. White prevails with the “standard” 16. e6 fxe6 17. ♕ad1, indicated by the computer, and then the no less “standard” 17... ♕b7:



Position after 17... ♕b7 (analysis)

18. ♜xe6+! wins. Extend this, please – now without a computer!

**16. ♜d5+**

“Of course, 16. ♜xa8? would not be good because of 16... ♜b7 17. ♜xa7 ♜c6 18. f3 ♜a8 19. ♜d5+ ♜xd5 with an uncertain outcome” (Kholmov).

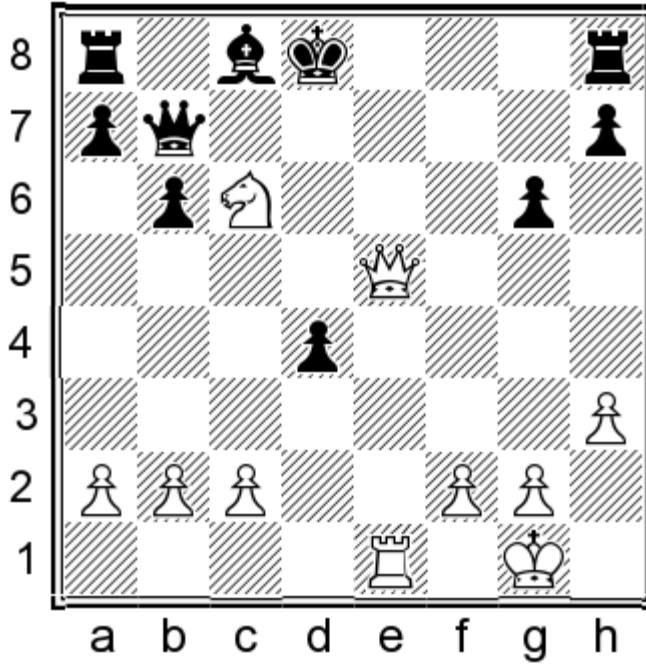
**16... ♜d8**

All other continuations lose – work them out!

**17. ♜ad1 ♜b7**

Kholmov: “Tempting was the attempt to remove his queen from the dangerous file by 17... ♜b7, expecting 18. ♜xb6+ ♜c7 19. ♜xa8+ ♜b8, with a safe visit by the king, but that runs into the energetic reply 18.e6!!” [indeed, this “standard” e-pawn move holds the key to the enemy’s fortress – A.Sh.].

Out of the whirlwind of pretty variations offered by Kholmov and supplemented by Rybka, I show possibly the most beautiful of all: 18... fxe6 19. ♜b4 ♜d4 20. ♜xd4+ cxd4 21. ♜f6+ ♜c7 22. ♜e5+ ♜d7 23. ♜xe6+ ♜d8 24. ♜f6+ ♜c7 25. ♜e5+ ♜d8 26. ♜c6+:



Position after 26.  $\mathbb{Q}c6$  (analysis)

Mate is unavoidable.

How did the game end? Rather boring prose! I note only that Kholmov played flawlessly as the game progressed.

**18.  $\mathbb{W}b3$   $\mathbb{Q}c6$  19.  $\mathbb{Q}xb6$**

He can do it this way, too. Here, all roads lead to Rome...

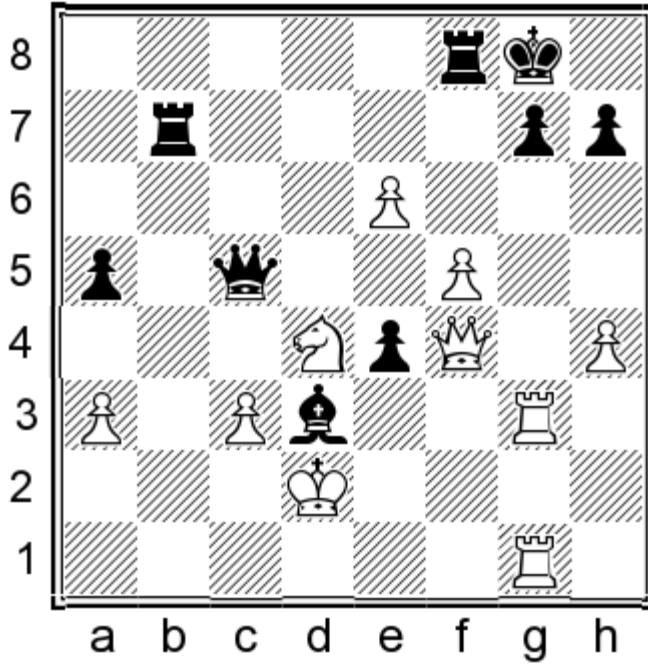
**19...axb6 20.  $\mathbb{W}xf7$   $\mathbb{Q}xe5$  21.  $\mathbb{R}xd7+$   $\mathbb{Q}xd7$  22.  $\mathbb{R}xe5$   $\mathbb{Q}c7$  23.  $\mathbb{R}e7$   $\mathbb{R}ad8$**

The queen and rook are optimally placed. Isn't it time to make a pawn move?

**24. a4 g5 25.  $\mathbb{W}d5$   $\mathbb{R}he8$  26.  $\mathbb{R}xh7$  g4 27. a5 gxh3 28. axb6+  $\mathbb{Q}xb6$  29.  $\mathbb{R}xd7$  1-0**

**No. 102: Yudasin – I. Schneider**

New York 2002



Position after 35...  $\mathbb{W}c5$

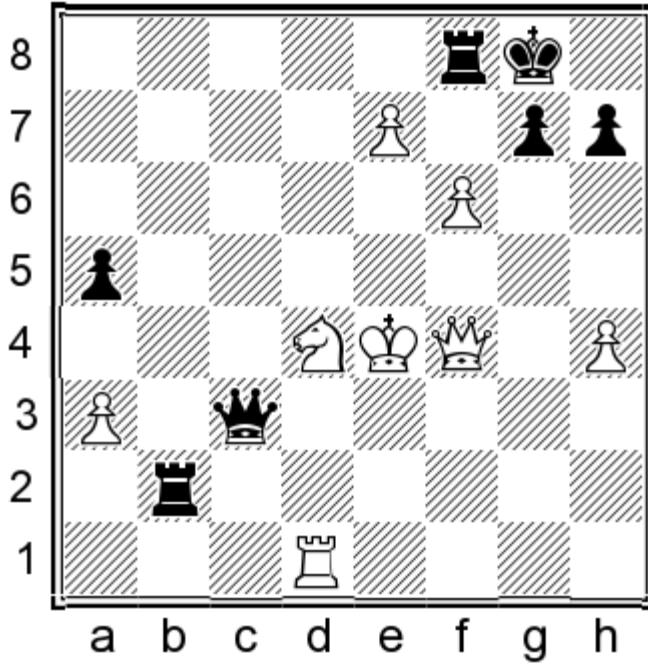
The parameters of this position are:  $m = 1$ ,  $t = 44/50 = -0.88$ , an indefinite safety factor,  $\Delta k > 0$ , and  $\Delta(35\dots \mathbb{W}c5) = 35/10 - 27/9 = \sim 0.50$ .

Our diagnosis is the TCP Algorithm.

### 36. $\mathbb{B}xg7+$

A “Tal”-style move; the die is cast. One alternative would be 36.  $\mathbb{B}xd3$ . By giving up the exchange (or giving up his rook for bishop and pawn, anyway!), White also wins in all variations. For example, 36...  $\mathbb{B}xd3$  37.  $f6$ , and Black is defenseless – the threat being 38.  $\mathbb{W}h6$   $g6$  39.  $f6$  with an easy win.

However, there’s another, much more interesting variation – 36...  $\mathbb{B}b2+$  (instead of the primitive 36...  $\mathbb{B}xd3$ ) 37.  $\mathbb{B}e3$   $\mathbb{B}xd3$  38.  $f6$   $d2$  39.  $e7$   $d1\mathbb{Q}+$  40.  $\mathbb{B}xd1$   $\mathbb{W}xc3+$  41.  $\mathbb{B}e4$ :



Position after 41.†e4 (analysis)

After 41...†c8 (probably strongest) 42.exf8† + †xf8, the computer insists on 43.†f5. Guaranteed victory:

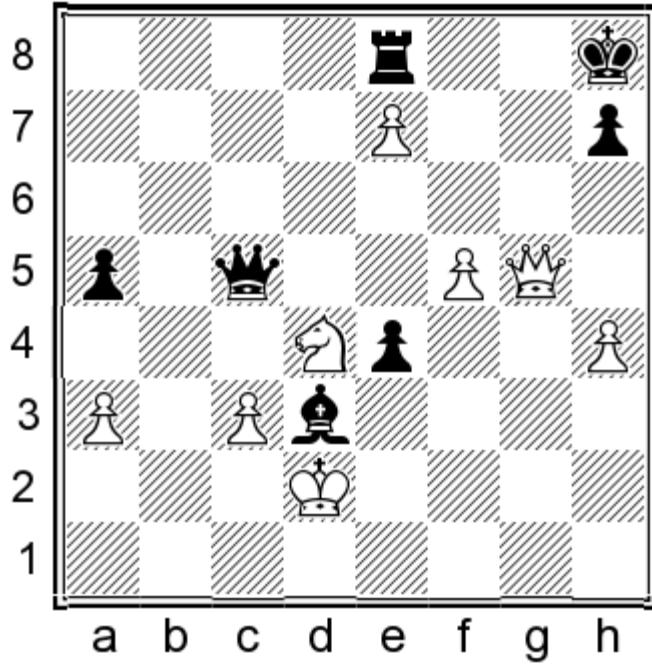
- a) 43...gxf6 44.†g4+ †h8 45.†d8+-;
- b) 43...†xf6 44.†h6++-;
- c) 43...†a8+ 44.†d5+-;
- d) 43...†e2+ 44.†d3+-.

The game continued:

**36...†xg7 37.†xg7+ †xg7 38.†g5+ †h8 39.e7 †e8**

Here *Rybka* recommends 39...†c4, but in any case – luckily for us! – adjudicates victory for White: 40.exf8† + †xf8 41.f6 †f7 42.†e3, etc. The cold-blooded 40.f6 is also very strong, when after 40...†xg5+ 41.hxg5 †e8 (nor does 41...†b8 save Black), we get the same position as in the game after Black's move 41.

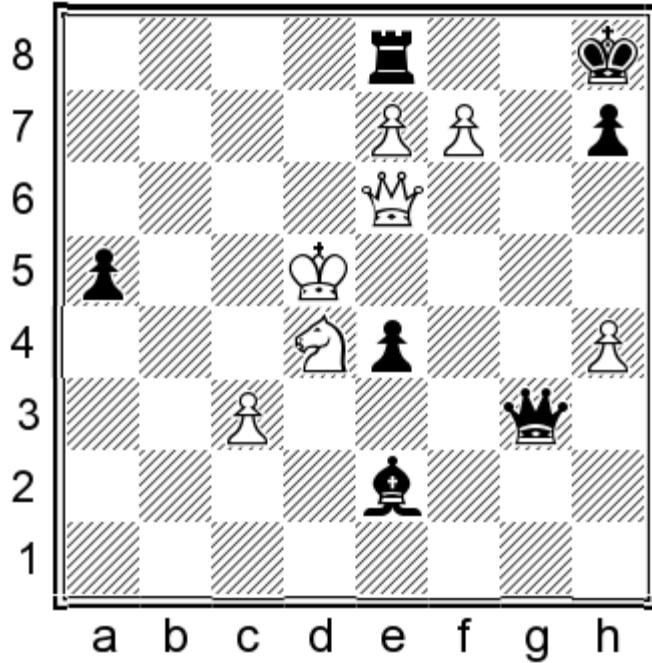
After move 39 in the actual game, the following position arose:



**40.f6**

Brilliant! “Exchanging queens, a whole rook down, is the last thing that could enter a chessplayer’s head!” (Yudasin)

The fascinating 40. $\mathbb{W}f6+$   $\mathbb{Q}g8$  41. $\mathbb{W}e6+$   $\mathbb{Q}h8$  42.f6 also wins, as Black has no defense against 43.f7. At least, neither *Fritz* nor *Rybka* can see one. One rough variation goes 42... $\mathbb{W}xa3$  43.f7  $\mathbb{W}b2+$  44. $\mathbb{Q}e3$   $\mathbb{W}c1+$  45. $\mathbb{Q}f2$   $\mathbb{W}f4+$  46. $\mathbb{Q}g2$   $\mathbb{W}d2+$  47. $\mathbb{Q}g3$   $\mathbb{W}e3+$  48. $\mathbb{Q}g4$   $\mathbb{Q}e2+$  49. $\mathbb{Q}f5$   $\mathbb{W}f2+$  50. $\mathbb{Q}e5$   $\mathbb{W}g3+$  51. $\mathbb{Q}d5$ :



Impressive, eh?

We return to the game after 40.f6. There follows the queen trade:

**40...Wxg5+ 41.hxg5**

And then Black's attempt to blockade the threatening white pawns:

**41...♞c4**

What to do? The stunning reply: to play strategically – that is, to increase his  $\Delta(\text{move})$ !

**42.♘f5**

The best square for this knight is h6.

**42...♝f7 43.♞h6 ♝g6 44.♝e3**

We improve the king...

**44...♚c8 45.c4**

...and now the pawn!

**45...a4 46.c5**

Eyeing c8.

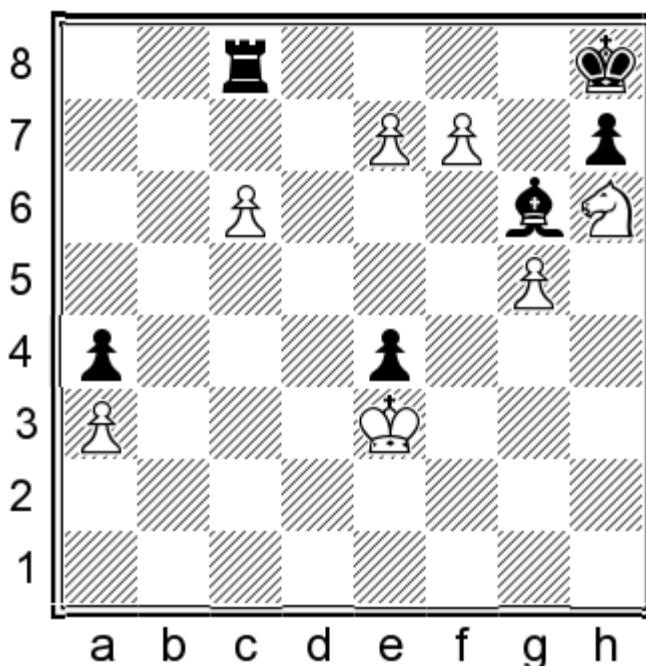
**46...♜b8 47.c6**

There's no stopping White.

**47...♜c8**

Or 47...♜b3+ 48.♔d4 ♜d3+ 49.♔e5 e3 50.f7+- (Yudasin).

**48.f7**



Black resigned. **1-0**

In the final position,  $\Delta(48.f7) = 37/7 - 17/6 = \sim 2.46$ . Amazing!

I also note that, starting with 39.e7 (and also previously – confirm this!), White did not make a single backwards move. This is a sure sign that his play was strategically flawless!

Afterword to this game:

After 35... $\mathbb{W}c5$ , White had a choice. Instead of the quiet choice, and if you please, the semi-strategic one, Yudasin preferred the radical, “Tal”-like 36. $\mathbb{B}xg7+$ .

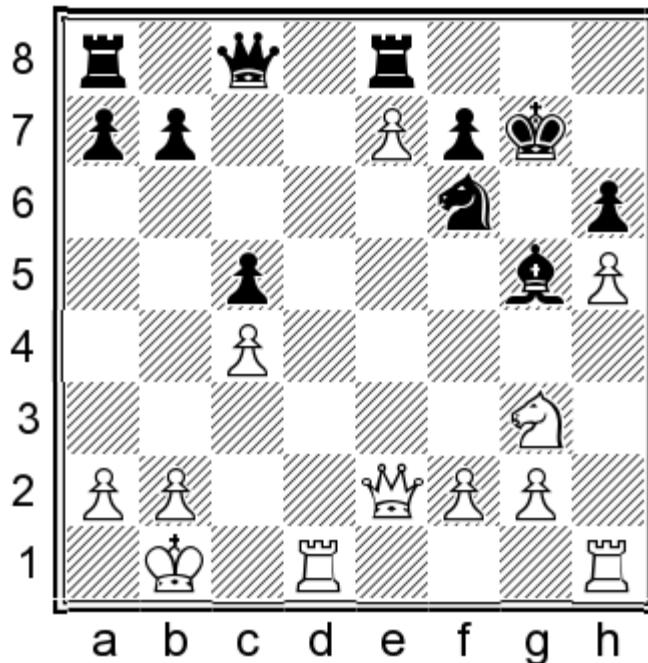
Here's a question: a Type I critical position (for the definition, see Game 87)? Yes or no?

Yes, indeed!

Yudasin had a choice on move 40 too. What was it? The grandmaster preferred the “super-quiet” move with the f-pawn to the “bloody” 40. $\mathbb{W}f6+$ .

### No. 103: Karpov – Hübner

Tilburg 1982



Position after 21... $\mathbb{B}e8$

The parameters of this position are:  $m < 1$ ,  $t = 30/34 = \sim 1.15$ , better (by how much?) in the safety factor,  $\Delta k \ll 0$ , and  $\Delta(21... \mathbb{B}e8) = 32/12 - 25/11 = \sim 0.40$ .

Our diagnosis: the TC Algorithm? “Tal”?

22. $\mathbb{B}d6$

Commenting on the game, Karpov gave this energetic move two exclamation points. But alas, they were wasted! Much later, Hübner, in his brilliant annotations, found a defense to this move which apparently wins – see below.

More likely, 22. $\mathbb{W}c2$  (the first line given by Rybka) is stronger, when after 22... $\mathbb{B}g4$  23. $\mathbb{Q}f5+$   $\mathbb{Q}h8$  24.f3  $\mathbb{W}f4$  25. $\mathbb{B}he1$   $\mathbb{Q}g8$  26. $\mathbb{B}d7$  White is a little bit better. He has more than enough compensation for the sacrificed piece, and is attacking across the whole board!

## 22.♗d6 ♕g4

A mistake. That's at least what Hübner thinks, and the German grandmaster's opinion coincides with Rybka's assessment.

Hübner gives 22...♝f4 23.♝xf6 ♔xf6 24.♝f3 ♚c7 (this modest queen move is what Karpov overlooked in his commentary) 25.♝h4 ♔xe7 26.♝xf4 ♔f8, and Black stands no worse!

And how is it with White? He has complete compensation for his minimal material deficit.

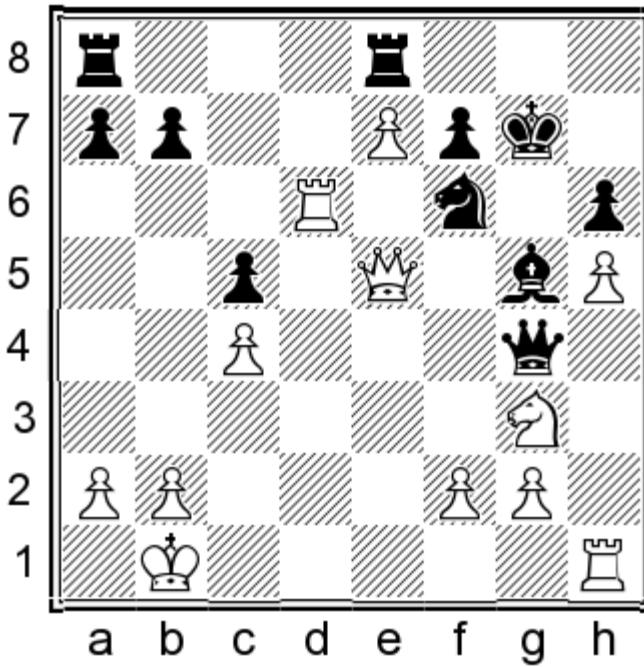
After 26...♔f8 White would more than likely have continued 27.a3 – prophylaxis against the opponent's attack along the first rank. And then ♜a2, ♜f5 hitting the target on h6, with a complex struggle.

The game continued

## 23.♛e5

Returning the favor! One gets the impression that the World Champion was in a fighting mood and didn't see the queen trade. He perceived only one target – the enemy king – and therefore disdained the other, less bloody possibility.

After 23.♛xg4 ♜xg4 24.♜f5+ ♔h7 25.♝e1 ♜xf2 26.♝d7 Δ 27.♝d6 (Rybka), White has real winning chances. Getting somewhat ahead of ourselves, I add: after the text, White is not better!



## 23...♝g8

A good move. However, computer analysis shows that the other retreat, 23...♝h7 Δ 24...♝g8+, was just as good. So, after 23...♝h7, there was only one thing for White to do – take the knight: 24.♝xf6 ♜xf6 25.♝xf6. But then, to White's chagrin, Black would have the very unpleasant 25...♛e6. Karpov evaluates the position after 26.♛xe6 fxe6 with one symbol: ±. Question: what to do?

Answer: White has the saving check 26.♛f5+, and Black must refrain from trading queens! After 26...♝g8 27.♛xc5 a hard fight lies ahead. Approximate equality.

Conclusion: 23...♝h7 was enough for equality. Black holds the position.

He also holds after the game move, 23...♝g8. The question is: how?

You will see the answer in my notes to Black's move 24, but first...

## 24. $\mathbb{E}e1$

Karpov: "Of course, not 24.  $\mathbb{E}xf6$   $\mathbb{Q}xf6$  25.  $\mathbb{W}xf6$  – 25...  $\mathbb{W}e6$ ." Clearly and accurately put – see also my notes to 23...  $\mathbb{Q}g8$ .

## 24... $\mathbb{Q}d7$

"In the event of 24...  $\mathbb{Q}xh5$  25.  $\mathbb{E}e4$   $\mathbb{Q}f4$  26.  $\mathbb{Q}f5$  f6 27.  $\mathbb{W}xf6$   $\mathbb{Q}xf6$  (27...  $\mathbb{W}d1+$  28.  $\mathbb{E}xd1$   $\mathbb{Q}xf6$  29.  $\mathbb{E}xf4$ ) 28.  $\mathbb{Q}xh6+$   $\mathbb{Q}g7$  29.  $\mathbb{Q}xg4$   $\mathbb{Q}xe7$  30.  $\mathbb{E}d7$   $\mathbb{Q}g6$  31. f4, White has the advantage, but still stronger is 25.  $\mathbb{Q}f5$  (instead of 25.  $\mathbb{E}e4$ ) 25...  $\mathbb{Q}f4$  26.  $\mathbb{W}d5$   $\mathbb{Q}g7$  27.  $\mathbb{E}f6$   $\mathbb{W}h5$  28. g4" (Karpov). An important addendum: that book came out way back in 1984...

This pre-computer analysis we can and must correct. This is what our loyal software assistant discovered:

1) 25...  $\mathbb{Q}h8$  instead of 25...  $\mathbb{Q}g7$  in the variation with 25.  $\mathbb{E}e4$ , or

2) 25...  $\mathbb{W}f4$  in the variation with 25.  $\mathbb{Q}f5$ .

And now, the variations themselves (after my editing):

1) 24...  $\mathbb{Q}xh5$  25.  $\mathbb{E}e4$   $\mathbb{Q}f4$  26.  $\mathbb{Q}f5$  f6 27.  $\mathbb{W}xf6$   $\mathbb{Q}xf6$  28.  $\mathbb{Q}xh6+$   $\mathbb{Q}h8$  29.  $\mathbb{Q}xg4$   $\mathbb{Q}xe7$  30.  $\mathbb{E}d7$   $\mathbb{Q}g5=$ ;

2) 24...  $\mathbb{Q}xh5$  25.  $\mathbb{Q}f5$   $\mathbb{W}f4$  26.  $\mathbb{W}d5$   $\mathbb{Q}f6$  27.  $\mathbb{W}f3$   $\mathbb{W}xf3$  28. gxf3  $\mathbb{Q}h5$  29.  $\mathbb{E}g1$   $\mathbb{Q}g7$  30.  $\mathbb{Q}xg7$   $\mathbb{Q}xg7$  31. f4  $\mathbb{E}xe7$  32. fxg5 h5=.

I ask you to correct (or even to refute!) these "final" variations. If, of course, you can do it. A difficult battle, even for world champions and their challengers...

A tentative conclusion: Black holds the position also after 23...  $\mathbb{Q}g8$  24.  $\mathbb{E}e1$   $\mathbb{Q}xh5$ .

But after the move in the game (24...  $\mathbb{Q}d7$ ), he loses by force.

## 25. $\mathbb{E}xd7$

There is nothing supernatural about this sacrifice, since in an attack on the king, chess time (here, a single tempo) is more important than material (it's only an exchange).

## 25... $\mathbb{W}xd7$ 26. $\mathbb{Q}f5$ f6 27. $\mathbb{W}d5+$

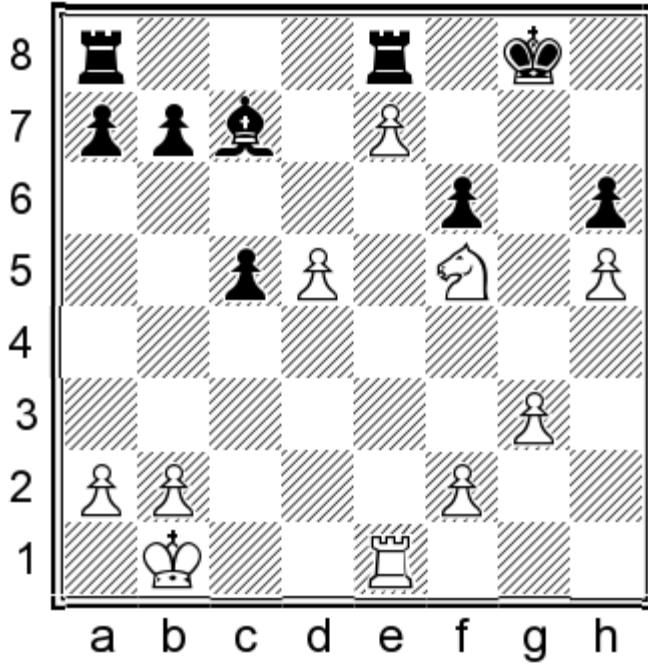
But here's a genuine miracle: Karpov voluntarily enters into an ending while down a rook!

## 27... $\mathbb{W}xd5$ 28. cxd5 $\mathbb{Q}f4$ 29. g3

Open attack.

## 29... $\mathbb{Q}c7$

And suddenly...



**30.♔c2**

What?! And after that, a thousand questions...

It could be that, with the text move, White did everything to make it possible to capture the h6-pawn unopposed, as (with the king still on b1!) 30.♕xh6+ ♔h7 31.♕f5 would run into the spectacular reply 31...♝ad8. Or did Karpov, by elevating his king in the most pedestrian way possible, start playing strategically? Or perhaps he forgot about advancing his d-pawn?

**30...b5 31.♕xh6+**

White doesn't rush. The d-pawn's advance, which will decide the game, can wait a bit.

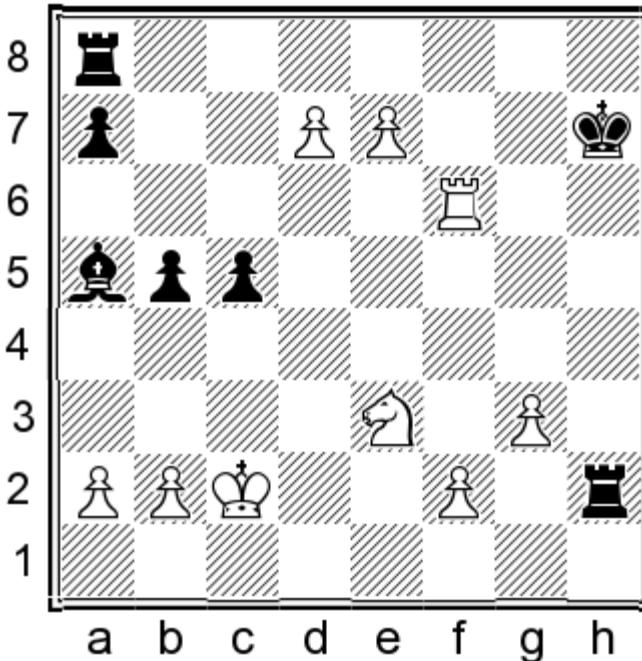
**31...♔h7 32.♕f5 ♘g8 33.d6**

At long last!

**33...♝a5 34.♜e6 ♘g5 35.♜xf6**

Obviously, Karpov doesn't want to get up from this game. Just like us, his admiring fans! And nonetheless...

**35...♝xh5 36.d7 ♘h2 37.♕e3**



**1-0**

What do Games 101, 102, and 103 have in common? The short answer is: the attack.

The stronger side attacks the king preferentially, and then all other material and non-material chess targets. The battle is for control of the non-vacant and vacant squares of the chessboard in the enemy's territory.

The Tal Algorithm and the right-

sided "Capablanca" meet and join up. In the end, we might say this: in the attack, we use an expanded version of the TC Algorithm.

And one more thing: the expansion factor predominates over the compactness factor.

A new question: what unites Games 104, 105, and 106? The analogous response is: defense.

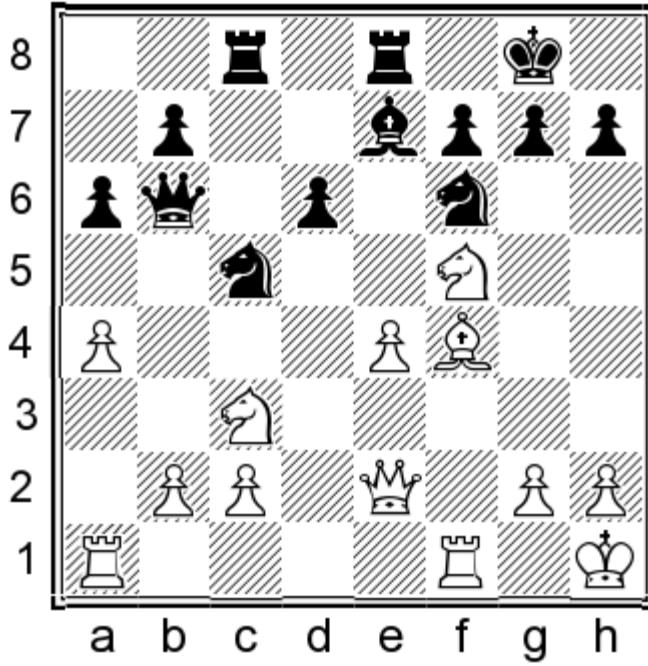
The weaker side defends the king first of all, and then all the other material and non-material targets. The battle is for control of the non-vacant and vacant squares of the chessboard in our own territory.

The Petrosian Algorithm and the left-sided "Capablanca" work hand-in-glove. We could put it like this: in defense, we use the expanded version of the CP Algorithm.

Further: the compactness factor predominates over the factor of spatial expansion.

**No. 104: J. Polgár – Anand**

Buenos Aires 1994



Position after 17.  $\mathbb{Q}f5$

Black to move. The parameters of this position are:  $m = 1$ ,  $t = 37/55 = \sim 0.67$ , slightly worse in the safety factor,  $\Delta k > 0$ , and  $\Delta(17. \mathbb{Q}f5) = \sim -0.31$ .

Our diagnosis: the Petrosian Algorithm.

We have a problem – the b2-pawn. Should we take it or not?

In favor of the cautious approach (“don’t take!”), there is at least the fact that our “t” is much lower than  $t_{cr} = 0.80$ . And that means that we have excellent chances to come under a crushing attack, if we spend just one more tempo on capturing the pawn. Our instinct for self-preservation screams out at the sight of this danger.

On the other hand, in favor of the decision to “take immediately,” the fourth factor of the position – we are more compact! – cries out just as loudly. Also speaking in favor of the capture is the fact that, after diving into a sea of variations, we have thus far not found any refutation of this bold action.

And what does the computer think? *Rybka* replies:

- 1) 17...  $\mathbb{W}xb2\bar{=}$  (-0.39) at 13 ply;
- 2) 17...  $\mathbb{Q}f8=$  (-0.21) at 13 ply.

Now it’s Anand’s turn:

**17...  $\mathbb{W}xb2$**

Anand is fearless! But Judit Polgár is no less so:

**18.  $\mathbb{Q}d5$**

This is not an exchange. Though temporary, it’s still a piece sacrifice, because after...

**18...  $\mathbb{Q}xd5$**

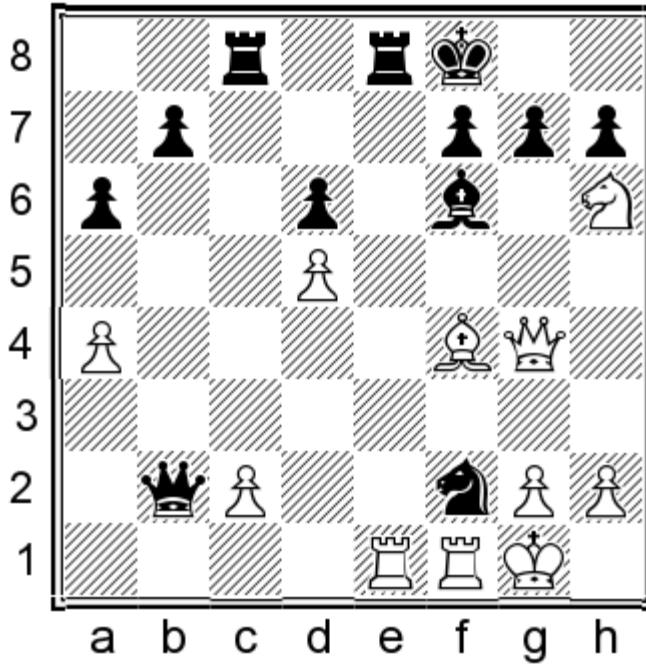
...Polgár didn’t retake on d5, but played instead:

## 19.♔g4

The engine's first choice.

Analyzing this game for *Megabase*, Anand picked out the following most attractive line from this sea of variations:  
19.exd5 ♔f6 20.♔g4 (20.♔f3 ♕xc2) 20...♕e4! 21.♕h6+ (21.♔ab1? ♕f2+!; 21.♔ac1 ♕f2+! 22.♔xf2 ♕xc1+ 23.♔xc1 ♕e1+) 21...♔f8 22.♔ae1? ♕f2+! 23.♔g1 ♕b6!!+- (23...♕xg4? 24.♔xd6+ ♕e7 25.♔xe7+ ♕xe7 26.♔xf7+ ♔e8 27.♔fxe7+ ♔f8 28.♔f7#).

There will be no commentary on this, only a diagram:



Position after 23.♔g1 (analysis)

That retreat, 23...♕b6, wins. Bravo!

Pretty, but then only an unexpected counterattack can be pretty. “Pretty” might also turn out to be the optimal setup of the pieces on squares useful for defense, which is what we will now see.

## 19...♕f6

Closer to the king! Note that the knight on d5 can't move: 19...♕xf4 20.♕xe7++-. That's no longer the case after Black's move.

Curiously, *Rybka*, that emotionless and esthetically challenged computer program, at first clearly underestimates the depth of Anand's conception. It prefers – and I am beside myself with indignation! – 19...g6 and 19...♔h8.

Unbelievable!

Anger aside, I love *Rybka*. But I (and you, I hope) will not overestimate its powers.

What does the computer lack? It lacks a feel for beauty!

Beauty is a powerful force that helps us flesh-and-blood players to touch the chess Absolute...

## 20.exd5

There's nothing else.

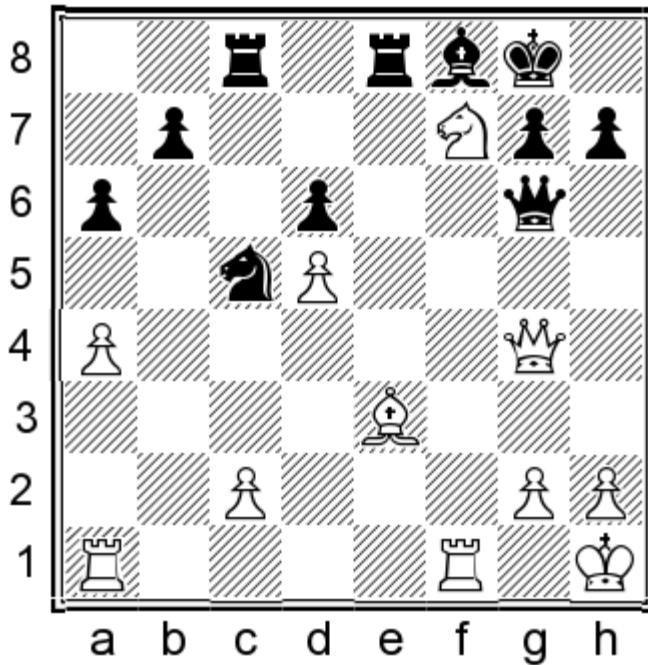
**20...♝f8**

The point. Having rid himself of his excess Δ(move) with 19...♝f6 and 20...♝f8, Anand has managed almost completely to ensure the safety of his king. And when he rids himself of that “extra” pawn on f7, then he will, all in all, be very, very happy.

**21.♞h6+**

Or 21.♞e3 ♜g6 22.♝f3 f6 (*Rybka*), and Black is out of danger. With an extra pawn!

**21...♝h8 22.♞e3 ♜g6 23.♝xf7+ ♜g8**



**24.♝h3**

Polgár's attempt to revive her sputtering attack (24.♝h3 Δ ♜f3, ♜af1) soon ends in an instructive knockout. The computer advises 24.♝xg6, going into an inferior, maybe losing endgame.

**24...♝e4**

Closer to the king – and to the white king too! Along the way, Black threatens to capture the c2-pawn – not with the queen anymore, but with the c8-rook! Who's attacking whom?

**25.♜f3**

I have already told you of White's “fearsome” plans: 26.♜af1 and... what then?

On the other hand, it's no crime to honor this heroic attempt, and...

**25...h5**

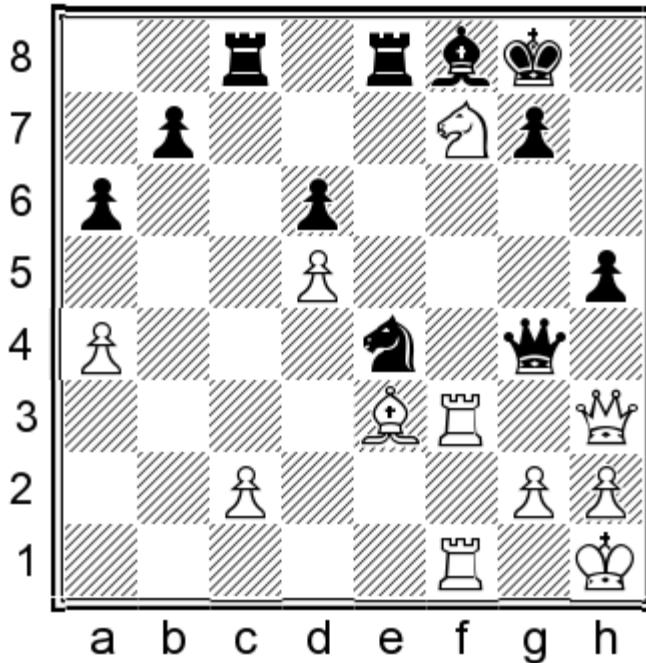
...and offer one's surprised opponent a queen trade. Anand is playing across the whole board! Amazing!

**26.♜af1**

Clearly played out of inertia, and most likely in severe time pressure. GM Polgár, obviously, has simply overlooked the simple “mate” to the white queen, after which any sort of resistance is pointless. The “paradoxical” 26.g4 (*Rybka*) merits attention, hoping for 26...hxg4 27.♕h8#, or 26...♗xg4 27.♗h6++-!

On the other hand, after the cool-headed 26...♝f6, White loses in all variations. Check it out!

**26...♝g4**



It's all over.

**27.♔d4 ♚xh3 28.♚xh3 ♜c7 29.♚hf3**

Resignation was simpler.

**29...♝d2 30.♝g5 ♜xf3 31.gxf3 ♜xc2 32.♝e6 ♜ec8 33.♝e3 ♜e2 34.♝f4 ♜a2 35.♝g1 ♜xa4 36.♝h6 ♜h8 37.♝xg7 ♜h7  
0-1**

Afterword – it's actually free-association.

Some fifty years ago, I was taken practically by force to the Hermitage Museum! It was the beginning of the 'Sixties in Leningrad; Public School No. 319 (with windows on the Fontanka River and the House of Pioneers); I was on an obligatory class trip...

Our guide was a teacher we adored, the kindest of kind women, by the name of Mariya Grigorievna, and she loved us, “her children,” beyond measure. We loved her back, and it would have been unthinkable to insult her. We feared disappointing her more than we feared the principal’s righteous anger or that of any of the male teachers.

The bus, the Nevsky Prospekt, the great Palace Square, the main entrance and halls – treasures, treasures all...

What do I remember of those times? The Alexandrian column? The marble staircase? Or perhaps Raphaël?

In part. But this was not the main thing.

In one of the halls, Mariya Grigorievna paused, and softly asked us to be quiet. Instant silence. And there, bringing us in front of a wonderful painting (I can’t tell you which one – that is my secret, and mine alone), she quietly and authoritatively declared: “Children, remember: this is beautiful!”

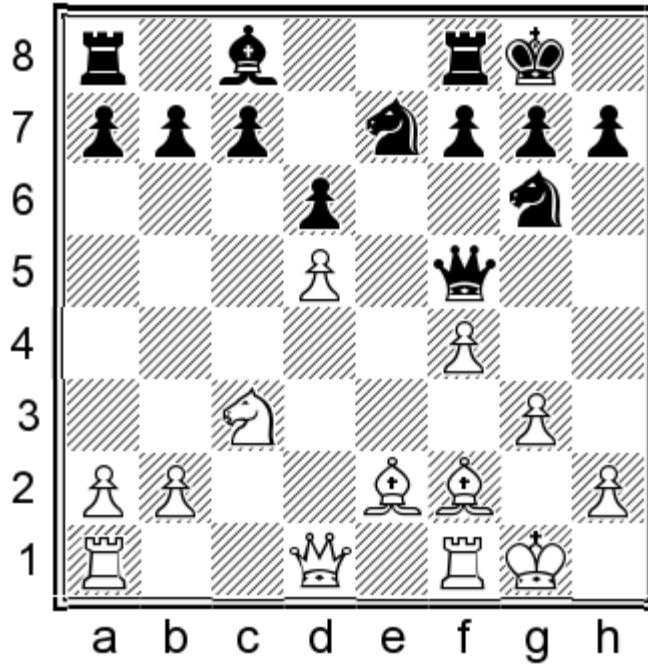
A sacred fear overcame me. I was in the presence of something truly beautiful. Unimaginable power. And joy, and fortune...

What does all of this matter; what's my point?

Here's the point: reader, remember this: Anand's play in this game was beautiful.

### No. 105: Carlsen – Lékó

Nanking 2009



*Position after 15.d5*

Our first three parameters are (we have Black):  $m > 1$ ,  $t = 35/38 = \sim 0.92$ , and... approximate parity and even a small “minus” with respect to safety. And this, with the king on g8! Why?

Answer: the “bad” queen at f5, an excellent target for attack! The queen is in danger, and that “minus” makes up for the “plus” of the king on g8. We have that unpleasant circumstance which requires us to engage our second pass (see Chapter 4 of this part of the book).

Proceeding further: what about the fourth and fifth parameters?

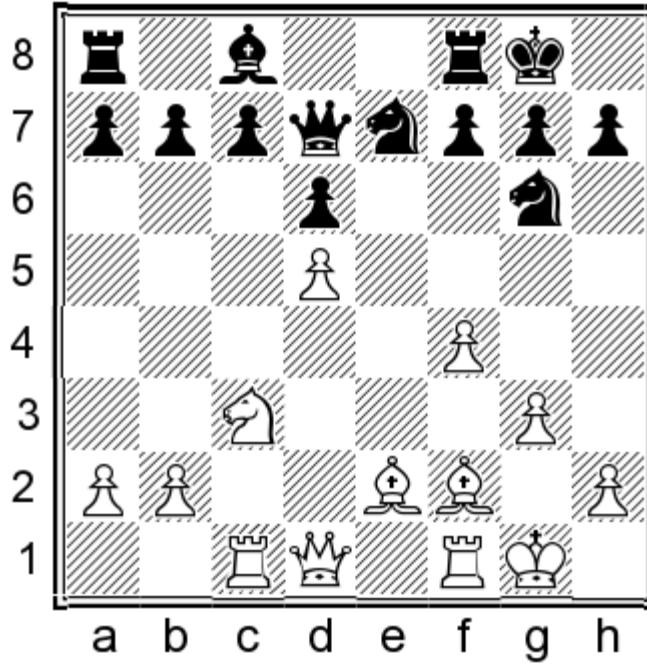
We have:  $\Delta k \gg 0$  and  $\Delta(15.d5) = \sim -0.23$ .

Our diagnosis: the thin swath of spectrum from  $t = 0.8$  to  $t = 1.0$ , from the CP Algorithm to the center of the Capablanca Safety Zone.

In my view, the strongest and most principled move in this position is 15... $\mathbb{W}d7$  (Lékó played something else). What's so great about this move?

It addresses practically every problem connected with the safety of the position. Now the queen is securely tucked away, and nothing can seriously harm it. At what price?

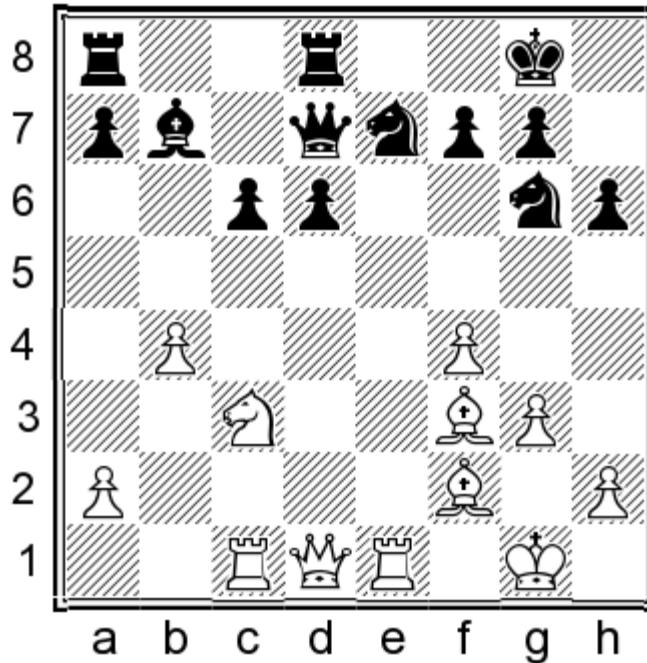
A “catastrophe” in the “t” parameter – see its significance after the rook move 16. $\mathbb{R}c1$  that wants to be played:



*Position after 16. Bc1 (analysis)*

Black has:  $m > 1$ ,  $t = 30/38 = \sim 0.79$ , complete and irrefutable parity in the safety factor, the “standard”  $\Delta k \gg 0$ , and  $\Delta(16. Bc1) = \sim -0.37$ . An almost classic case of “100%” CP Algorithm, and we know what to do.

16...c5 (trades are good for us) 17.dxc6 (practically forced, as otherwise White will have no convenient targets for attack) 17...bxc6 18.b4 (18. Bb3  $\Delta Bf3$ , Ba3, Bd1/e1, with great compensation for the pawn, wasn’t bad either). A further continuation might be (fantasizing now) 18...Bd8 (prophylactic defense of the d6-pawn) 19.Be1 h6 20.Bf3 Bb7:



*Position after 20...Bb7 (analysis)*

Black has an extra pawn, a solid though cramped position ( $\Delta k > 0$ ), and dreams of nursing the extra pawn through to a pawn ending.

White is down a pawn, but as compensation for that minimal material deficit he enjoys a persistent initiative. And he still has hopes for a crushing tactical stroke.

How about the game?

### **15...a6 16.♗e1 ♖h8**

Let's hear from Carlsen (64, No. 12/2009): "One can hardly call 16...b5 17.a3 a solution to Black's problems, since Black cannot play ...♝b7 because of ♜g4 ♕f6 and ♜d4, and the queen is trapped."

I say: 16...♝d7 was worth a look.

### **17.♗c1 ♜d7**

17...♝d7 deserves attention.

### **18.♝f3**

"A very useful move, preparing ♜e2-d4 with domination" (Carlsen).

### **18...♝ac8 19.♕b3 b5**

If he can't do without this move (a tremendous weakening of the queenside), then it looks like Black is in a bad way. I repeat: 15...♝d7, 16...♝d7, and 17...♝d7 all deserved a look...

### **20.♘e2 ♕h3 21.♘d4 ♜g4**

In Carlsen's opinion, 21...♝g8 was stronger.

### **22.♝g2 ♕h5 23.h4**

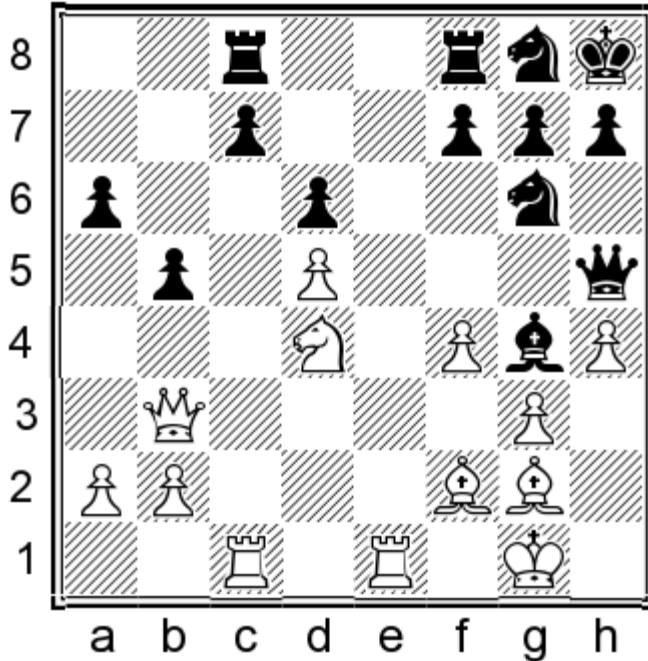
"The key move! Black's pieces look stupid on the kingside, and it's as if the sheaves of pawns on the queenside are awaiting their reapers" (Carlsen).

Well put!

Looking at the queen standing on that useless square h5, for the last time in this game I will say something extremely unpleasant for Black, which is that he should have played 15...♝d7, or 16...♝d7, or 17...♝d7...

### **23...♝g8**

A tactical oversight in a very difficult position. Lékó, most likely in time pressure, overlooked White's simple reply.



**24.♕c6**

The decisive blow!

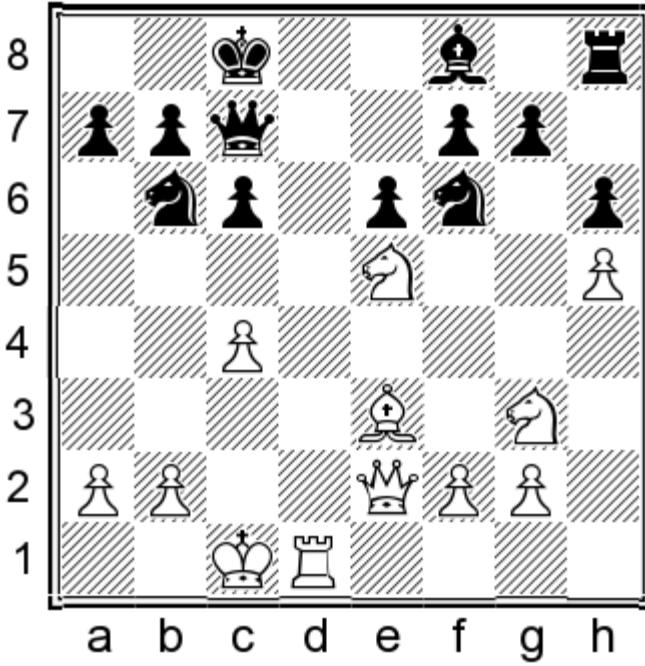
**24...♝f6 25.♝xa6**

Carlsen continues, “Now the b5-pawn falls, and White must win. I was somewhat afraid that on a6 the rook would be out of play, while Black took over the e-file. However, my fears proved groundless.”

**25...♝d7 26.♝xb5 ♜b8 27.a4 ♜g4 28.♝f3 ♜h6 29.♝c4 ♜xh4 30.♝xg4 ♜xg4 31.gxh4 ♜f3 32.f5 ♜h5 33.♝f4 ♜xd5 34.♝xc7 ♜b7 35.♝b6 f6 36.♝d4 ♜f7 37.♝e6 ♜g8 38.♝f2 ♜bc8 39.♝c3 ♜d5 40.a5 ♜c4 41.♝d4 ♜a8 42.♝xd6 ♜h5 43.♝f4 ♜cc8 44.♝be6 1-0**

**No. 106: Hellers – Khalifman**

New York 1990



Position after 18. ♕xd1

The parameters of the position (we have Black) are:  $m > 1$ ,  $t = 32/46 \approx 0.70$ , approximate parity or even slightly worse in the safety factor,  $\Delta k \gg 0$ , and  $\Delta(18. ♕d1) = \sim -0.52$ .

The unanimous diagnosis: the Petrosian Algorithm.

In the diagram position, Khalifman has a tremendous number of interesting moves; I have chosen seven. Some of them are very bad, simply bad. There are also some good moves, and then there is one singularly amazing move.

For example, 18... ♕xe5 is bad; after 19. ♕d8+ (but not 19. ♕xb6 ♕g5+) 19... ♕xd8 20. ♕xb6+ axb6 21. ♕xe5, White has all the winning chances.

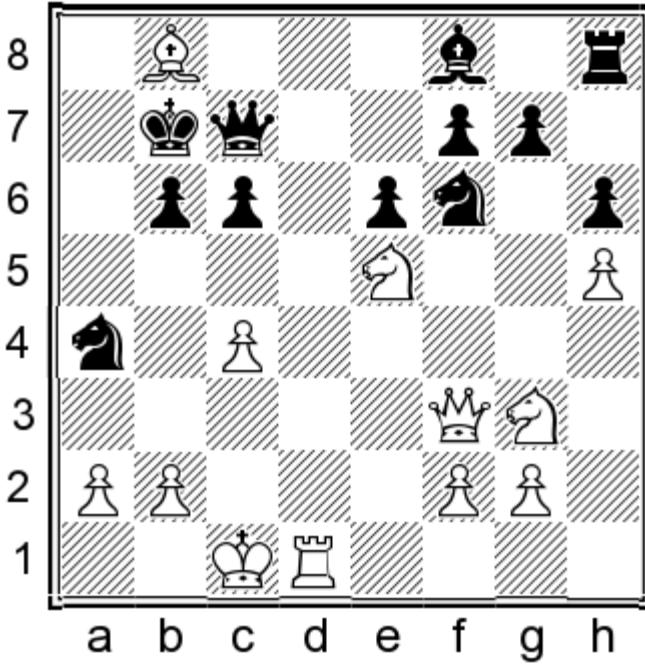
No better is 18... ♕d6, when White wins with 19. ♕xd6 ♕xd6 20. ♜xf7.

18... ♕b4 19. ♜d3 ♕e7 also loses. After 20. ♜f4 ♕d8 21. ♜e5 ♕e8 22. ♜xf7 ♕xf7 23. ♕e5, Black's predicament is dire. 19... ♕e7 20. a3 ♕xa3 21. ♕xb6 axb6 22. bxa3 ♕xa3+ 23. ♕b2 is better, but White is clearly on top. And rightly so!

Why "rightly," you ask? Because, when on defense, it's dangerous to cross the demarcation line with your pieces. In defense, Caissa loves compact formations very much. That's why!

And Caissa would punish us for yet another immodest move – 18... ♜a4 (threatening 19... ♕xe5). How?

First, a pretty false lead: 19. ♕xa7 b6 20. ♕f3 (Rybka). Now, on the "winning" 20... ♜b7 the miraculous computer has prepared the stunning 21. ♜b8!:



*Position after 21.Qb8! (analysis)*

Outstanding!

On the other hand, Black still has some chances to hold this difficult position: 21...Qxb8 22.Qxc6+ Qb7. After 23.Qd8 (I don't see anything else) 23...Wxc6 24.Qb8+ Qxb8 25.Wxc6 Qc5 26.Wxb6+ Qb7, White is better, but there may not be a forced win.

The modest 19...Qe5 is stronger than the ambitious 19...b6, and (I ask you to believe *Rybka* here) White has no winning chances at all! *Rybka* thinks that equality is assured for Black also by the (watch now!) very strange move 19...Qg8. How? Where would this be going?

I will not answer these questions, not yet...

So, 19.Qxa7 leads nowhere. 19.Qf4 Δ 20.Qg6 looks stronger, attacking both queen and rook. Hard times... What can be done?

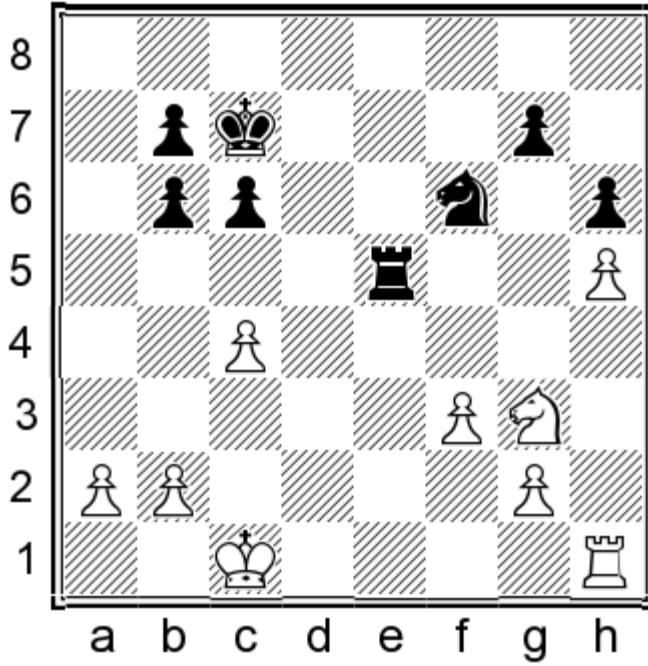
He might possibly still avert immediate disaster – we must believe *Rybka*! Here's its lengthy and (probably) arguable variation: 19.Qf4 Qd6 20.Qxd6 Wxd6 21.Qg6 Wd4 22.Qe5 Wd8 23.Qxh8 Wxh8 24.Wd1 (threatening both 25.Wxa4 and 25.Wd6) 24...Qd7 25.Wxa4 Qxe5 26.Wxa7, when White is better.

Long variations in general, and long computer variations in particular, are always suspect. Therefore, dear reader, try to refute or correct this line. One thing is clear: it's a monumental job. It would be unthinkable without a computer, and to calculate such a long variation at the board is practically impossible.

From ambitious and (dare I say it) very immodest variations, we shift our attention to more modest lines. There are three – 18...Qe7, 18...c5, and finally the move Khalifman chose. Remember that we are playing Black, and in "Petrosian" style. We defend!

I begin with 18...Qe7. This is not dropping material, but a sacrifice – and of two pawns, at that! 19.Qxf7 Qe8 20.Qxb6 axb6 21.Wxe6+ Qb8. Black is already down a pawn, but he does have the initiative! Is it enough to draw?

Answer: likely, yes! In support of which, one more long line from *Rybka*: 22.Qd6 Qxd6 23.Wxd6 Wxd6 24.Qxd6 Qc7 25.Qd1 Qe5 26.Qh1 Qg4 27.f3 Qf6:



*Position after 27...Qf6 (analysis)*

Threatening 28...Rg5. Black has excellent drawing chances!

However, White can play more strongly with 20.f4 (after 19.Qxf7 Re8) or even 19.Qf4, with the terrible threat of 20.Qg6. Oh, that rook on h8!

Rybka found the saving line: 19.Qf4 Rd8. A sample variation: 20.Qd3 e5 21.Qxe5 Wd7 22.b3 We6 23.Qf4 Wg4 24.Wxg4+ Qxg4 25.Qxg7 Qg5 26.Rxd8+ Qxd8 27.Qge2 Qxf2. Black is just a bit worse in this ending, too, as he is in the middlegame after 19.Qxf7 Re8 20.f4.

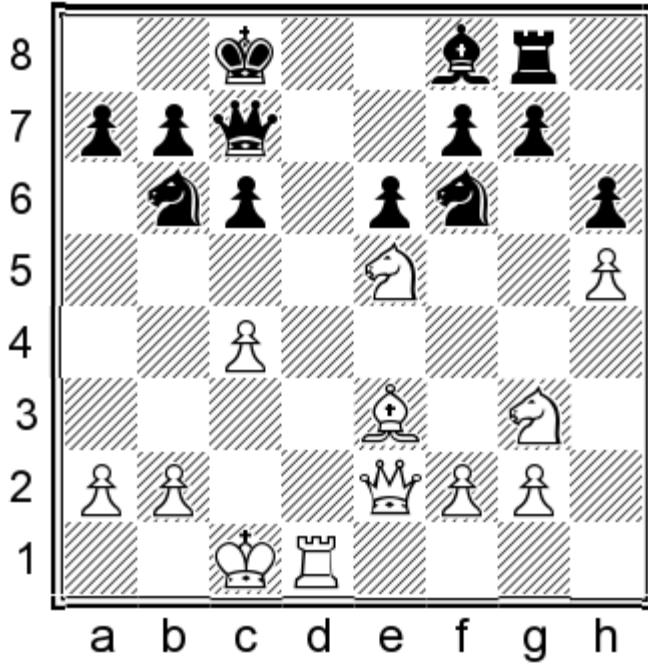
Conclusion: 18...Re7 is a viable option!

No less viable is 18...c5. After 19.Qf4 (Δ 20.Qg6, attacking the queen and that rook on h8) 19...Rd6 20.Rxd6 Wxd6 21.Qg6 Wd4, Black most likely holds the position, as there is nothing decisive for White. And here is a semi-forcing variation that would seem to support this verdict: 22.Qe3 Wd8 23.Qxh8 Rxh8 24.Qxc5 We8. Here White has merely a formal, vanishingly small advantage.

More clever than 19.Qf4 is 19.Wf3 – the e5-knight is poisoned! But here too, if we believe our silicon friend, Black has a narrow little path, beginning with a very humble rook move – 19...Rg8. Oh, that rook! Rybka can do nothing: 20.Qxh6 gxh6 21.Wxf6 Qg7 22.Wxf7 Wxf7 23.Qxf7 Qxc4 with approximate equality.

Khalifman preferred the quiet rook move to the lively moves 18...Re7 and 18...c5. There followed:

**18...Rg8**



With this extremely modest move, Black renders moot all ideas of exploiting the rook's unfortunate position on h8. With the rook on g8 now, putting the bishop on f4 is a shot into the air (see the game), and it is White who must demonstrate his right to exist.

As computer analysis showed, in the diagram position White does have such a right: 19.f4 with good compensation for the sacrificed pawn – a complex position, close to dynamic balance.

However, Hellers couldn't find this pawn thrust, and put his bishop on f4 instead.

**19.♗f4**

Weak.

**19...♝bd7**

Of course! The target on h8 is gone.

**20.♛d2 ♚b4**

Punishment!

**21.♛xb4 ♜xe5 22.♝e2**

White's in shock.

**22...♝xh5**

and Black successfully exploited his material advantage. Hellers resigned on move 47.

Is that all? No! An afterword, important for practical chessplayers, is yet to come.

Black's position became denser after 18...♝g8 – the rook grew closer to the king. The “traditional” density of packing for Black's position for all the pieces was 13/24, where 24 is the area of the “minimal” rectangle a8-a6-h6-h8. But would it perhaps have been more accurate to replace the number 24 with the figure  $20 = 6 + 7 + 7$ , where 6 is the distance between the king on c8 and the rook on h8, the first 7 is the distance between the a7- and g7-pawns, and the

second 7 is the distance between the b6-knight and the h6-pawn? The density of packing of Black's position then would be 13/20.

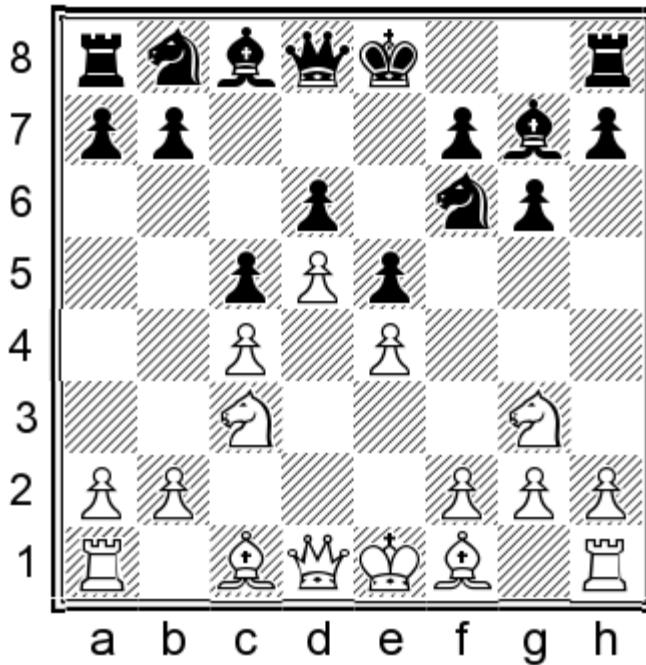
A thousand questions... Chess is limitless.

For now, one thing is clear to us:  $13/19 > 13/20$ , where  $19 = 5 + 7 + 7$  – the rook has made one step in the direction of the king.

A final query, out of the thousand unanswered ones: is there a kernel of truth in my ruminations?

### No. 107: Taimanov – B. Ivkov

Palma de Mallorca 1970



Position after 7.  $\mathbb{Q}g3$

The parameters of this position (we're playing Black) are:  $m = 1$ ,  $t = 34/36 = \sim 0.94$ , complete parity in the safety factor,  $\Delta k > 0$ , and  $\Delta(7. \mathbb{Q}g3) = \sim -0.12$ .

Our diagnosis: the Capablanca Algorithm.

7...h5

Splendidly played. Why?

Because Black clearly lacks space. In other words, Black's problems are connected with the optimal placement of the pieces. There are a lot of pieces – 8, to be exact – while there is a dearth of good squares for them – fewer than 8. What to do?

Answer:

- seek exchanges to decrease the number of pieces on the board;
- take away from the opponent at least a few (two or three) vacant squares on his half of the board.

With the h-pawn move, Black:

- assures himself the exchange of dark-squared bishops (... $\mathbb{B}g7-h6$ ), any time he likes;

b) prepares an incursion into his opponent's territory (7...h5 Δ 8...h4 and ...♝f6-h5-f4).

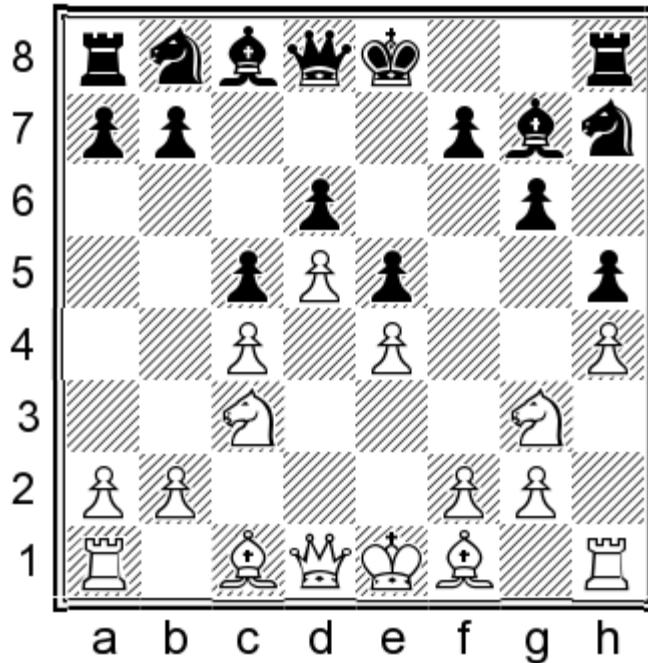
## 8.♗d3

I will say here that this move is good, despite the fact that it brazenly ignores Black's counterplay. To me, it seems to be not at all inferior to the alternative, 8.h4.

Its pluses are obvious: White adds significantly to his second and fifth parameters ("t" and Δ(move)). The drawback of this bishop move, however, is the opponent's counterplay.

8.h4 is good, too, and its positives are more than obvious. White not only increases the Δ(move) of his own position, but also – and this is most important! – nips Black's counterplay in the bud. The drawback is stagnation in the second parameter of the position; compare the mobility of the white pieces before and after 8.h4.

Taimanov (White) may have rejected the move because he feared the simple knight maneuver 8...♞h7 Δ 9...♝f6 and 10...♝xh4:



Position after 8...♝h7 (analysis)

If this is right, then he was wrong! On 8...♝h7, White has a more than adequate reply in 9.♝ge2!. The point is evident: 10.g3 (after 9...♝f6). Does White hold?

Yes, and again, yes! White does have something to protect – he has an obvious space advantage (see the d5-pawn). White plays to limit his opponent's possibilities and he is not afraid of limiting his own while doing this.

It is curious that the chess engines do not "see" 9.♝ge2. The first two lines from *Rybka* are 9.♝e3 and 9.♝e2 (14 half-moves deep). More: after 9.♝e3, the engine launches into pseudo-Tal outbursts – 10.♝b5 and 10.♛a4+. Try it out!

Why is the computer less than all-powerful?

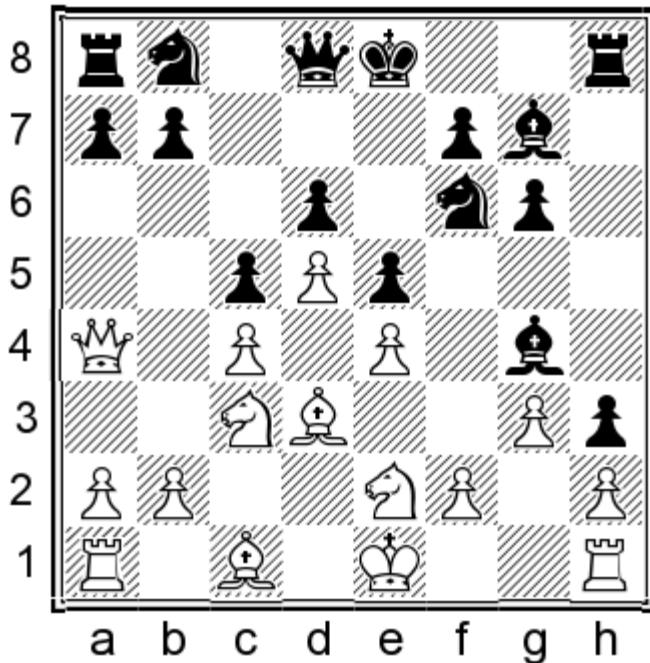
Because chess is an inexact game! In other words, in chess there is an incredible number of complex positions with ambiguous solutions. Binary computer logic is powerless in such situations.

## 8...h4

Naturally!

## **9.♘f1**

This move I would argue with: 9.♗ge2 looks stronger. Now, hyper-aggressive, unprepared, reckless moves such as 9...h3 10.g3 ♖g4 ( $\Delta$  11...♖f3) don't work. White is saved from a strategic bind on the kingside by the "lucky" check 11.♕a4+:



*Position after 11.♕a4+ (analysis)*

Now, after 11...♔f8, 11...♗bd7, or 11...♗fd7, White is better with 12.♗g1!, most likely by a lot. The target on h3 isn't going away. In addition, by advancing his pawn there, Black (and we *are* playing Black!) has lost the struggle in the fourth parameter of the position –  $\Delta k(9...h3) < 0$ . Now trades favor not Black, but White!

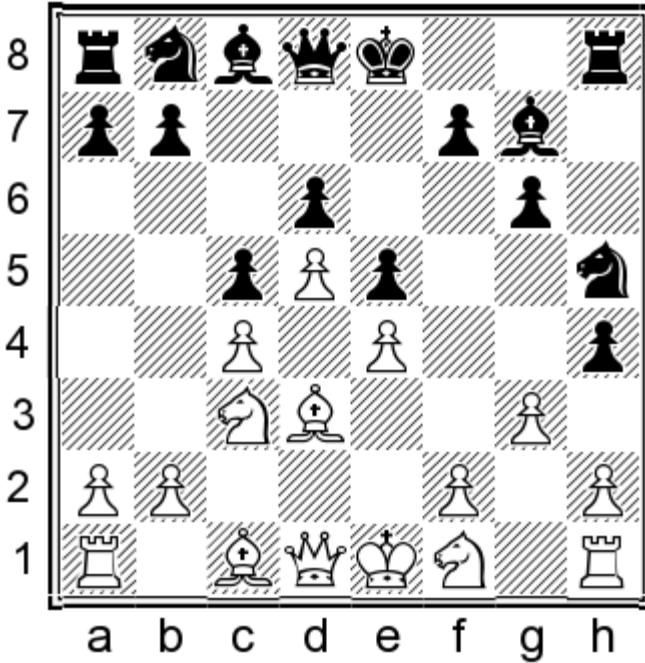
My advice, in case of 9.♗ge2, would be to refrain from 9...h3.

## **9...♘h5**

Black plans to place his knight on f4, forcing a favorable trade.

## **10.g3**

There is nothing else. And suddenly...



**10...♞f6**

The knight's back-and-forth motion leaves an impression. Ivkov intends to do what Taimanov has allowed him to do, namely 12...♝h3 and 18...♝g4 – see later on – with permanent pressure on the h2-pawn. Outstanding!

**11.♝g5**

This is wrong – White consistently increases the mobility of his pieces at the cost of their compactness. 11.♝g1 was better – considerations of compactness predominate over the “t” parameter. The idea is, after 11...hxg3, to play 12.hxg3 and not 12.fxg3 as in the game. Most complicated strategic play, “equalizing” with three unknowns – parameters “t”, Δk, and Δ(move).

Remember, for the hundredth time (or maybe the thousandth): with “Capablanca,” compactness considerations predominate. Especially with the left-handed Capablanca: White has something to protect.

Taimanov has taken the first step into the abyss...

**11...hxg3 12.fxg3**

It was probably better to take back on g3 with the knight, increasing the “t” parameter, since after either pawn recapture White stands equally badly in the Δk parameter. And all this with a minus in the Δ(move) parameter for Black.

An important moment: holes have appeared in White’s position, and Black has every reason to release the spring.

**12...♝h3**

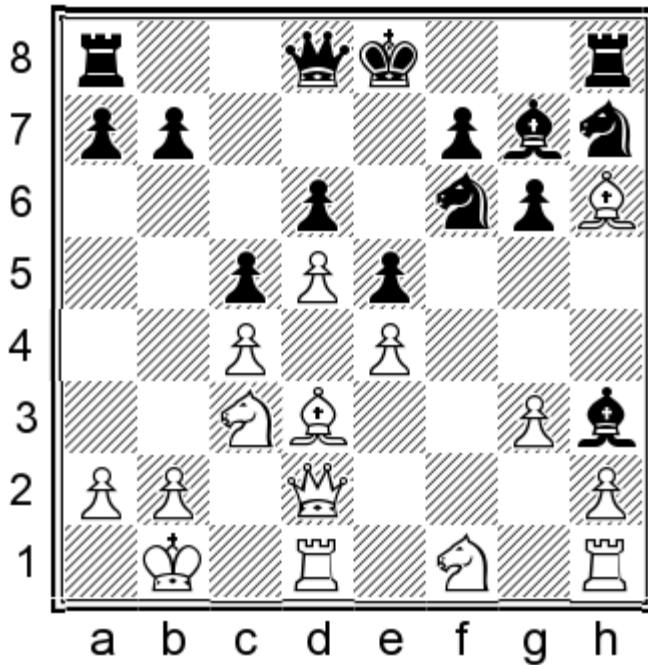
The dream has come to pass. Black problems with his piece arrangement are over.

**13.♛d2 ♞bd7 14.0-0-0 ♞f8**

He can play this way or some other way. Black’s hands are freed – he has the strategic initiative. White is a little worse, and must stay alert!

**15.♗b1 ♗8h7 16.♗h6**

A clear strategic blunder (exchanges are contraindicated for White; 16.♗h4 was better) in addition to a minor tactical oversight.



**16...♝f8**

Neither player sees the intricate maneuver of the light-squared bishop after the primitive exchange on h6! Here is roughly the variation indicated by Rybka: 16...♝xh6 17.♔xh6 ♗g2 18.♕g1 ♛f3 19.♕d2 ♗g4 20.♕g7 ♘f6, with a clear edge for Black.

**17.♝xg7+**

Wasn't it better to retreat this bishop to e3? On the other hand, after 17.♝e3 ♗g4, White is worse.

**17...♝xg7**

Black's superiority in the fourth factor is threatening. Tough times for White...

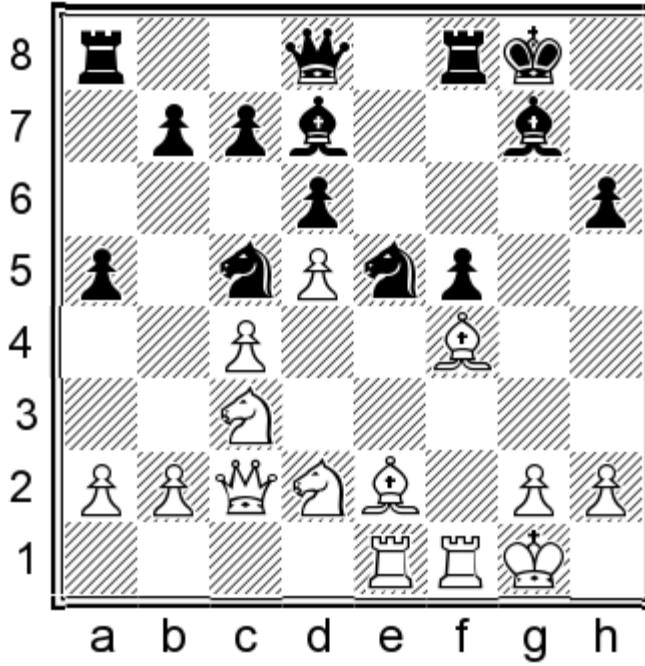
**18.♞e3 ♗g4**

Forcing yet another exchange.

Black won. Taimanov resigned on move 47.

**No. 108: Petrosian – Suetin**

USSR Team Championship, Riga 1954



Position after 16...Qd7

The position's parameters are:  $m = 1$ ,  $t = 43/43 = 1.00$ , a "micro-plus" in the safety factor,  $\Delta k < 0$ , and  $\Delta(16\dots Qd7) = \sim -0.07$ .

The diagnosis is the right-sided "Capablanca," and, as with any right-sided algorithm, it impels us to undertake active operations. The attack will be strategic in nature.

The problem is that  $\Delta k < 0$ . Our position is loose, and therefore we have no right to take risks! White's attack can be effective only when  $\Delta k \geq 0$ , and only then!

Therefore, the idea of elevating the king to the second rank (with 17.g3  $\Delta$  18.Qg2, or 17.h3  $\Delta$  18.Qh2) is flawless. This way we not only increase our  $\Delta(\text{move})$ , but we also achieve the desired parity in the compactness factor.

The downside is the degradation in the safety factor (if our opponent plays correctly). Why?

Because, with the king on g2, one does not like 17...Qh4, while moving the king to h2 is not so good either, in light of 18...Qg4+ (check!).

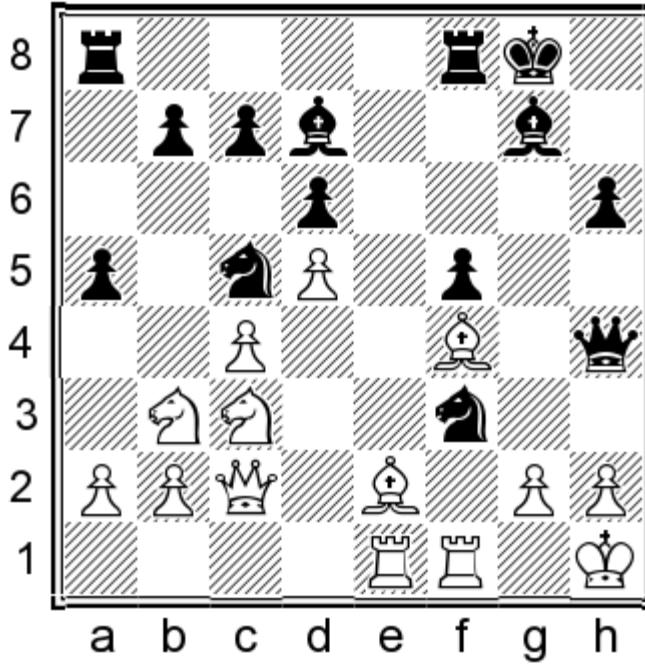
So, perhaps then we should think about 17.b3  $\Delta$  a2-a3, b2-b4, etc. (after 17.a3  $\Delta$  18.b4, we have to consider 17...a4)? Shoot – after 17...Qf6 ( $\Delta$  18...Qxe4), we'd have to retreat the knight with 18.Qd1. I don't like this!

What to do?

Answer: choose from the three remaining candidate moves: 17.Qb3 (the engine's recommendation), 17.Qf3 (what Petrosian actually played), and 17.Qh1. This king move has excellent chances of becoming the strongest choice in the position in question: on h1 the king might feel slightly more comfortable.

It's important that we have no apothecary's scales for chess, nor can we get any that can accurately weigh up all the pros and cons of the aforementioned three good moves. Chess is a totally inexact game! The truth hides...

I will not compare them; better I should choose one alone from the dozens of computer variations behind these three possibilities. It's very pretty (thanks to *Rybka!*): 17.Qh1 Qh4 18.Qb3 Qf3:



*Position after 18... ♔f3 (analysis)*

But this is still not all! This, dear reader, is only one part of a unified whole – part of a spectacular surprise. In this position, the computer discovered (the trivial 19. ♖xf3 ♕xf4 doesn't figure in our thinking) a charming resource for White: 19. ♖xf3 – an exchange sacrifice! A somewhat forcing variation: 19... ♕xe1+ 20. ♖f1 ♕h4 21. ♔xc5 dxc5 22. ♖xc7, and White is better. Excellent!

But, as we know, the game continued

**17. ♔f3**

Petrosian: “If the pawn were on h7, 17... ♔g6 would be a good move. But now, after 18. ♔e3, Black has no satisfactory f-pawn advance that doesn't lose a piece. Therefore, the normal move is

**17... ♕f6**

as my opponent played.”

**18. ♕d2**

Where does the queen stand better – here, or on c2? Petrosian has no comment on his last move.

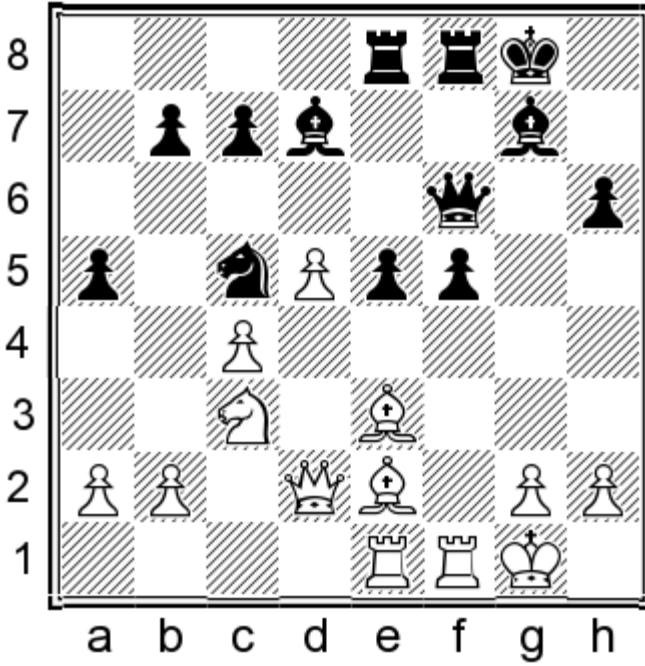
**18... ♕ae8**

Rybka prefers 18... ♔f3+. Remember, Black is more compact – which means that he is entitled to make an exchange first.

**19. ♔xe5**

This, shall we say, debatable strategic exchange (Black is more compact!) was conceived by Petrosian back on move 17. Otherwise, it seems to me, he would have played, not 17. ♔f3, but 17. ♔h1.

**19... dx e5 20. ♔e3**



“One of the most complicated strategic problems, which has occupied more than one generation of masters, is the problem of hanging pawns. As a rule, they come about (for White as well as Black) in closed openings, primarily in the Queen’s Gambit. Those who love hanging pawns expect to utilize their dynamic power. Other chessplayers are prepared to show that hanging pawns have much greater problems than advantages. And of course, there are specialists who accurately sense every nuance of such positions and successfully play both with and against hanging pawns...

“Later on in the game, we have uninteresting-looking positional maneuvering. So as not to fall asleep from boredom while examining moves 21 through 32, one should keep in mind the following:

“Hanging pawns are good when they control important central squares, give the possibility of developing the forces under their protection, then threaten – by the advance of one of the pawns (or both, if the opponent and the situation permit it) – to destroy the enemy battle formation. While this is happening, one must take into account that the main positional method for combating hanging pawns is a direct attack on them – which, however, is often only a decoy aimed at inducing one of the pawns into advancing so that an enemy piece can penetrate and set itself up comfortably.

“This game is a characteristic demonstration of the way to play against hanging pawns” (Petrosian).

Please memorize these words. They have wisdom in them... Petrosian is our mentor!

## **20...b6 21.♗h5**

Commenting on this game, the ninth World Champion acknowledged that he considered this move (most likely, incorrectly!) a wasted tempo.

## **21...♝e7 22.♝d1**

In order to play 23.♝c2, “with a direct attack” (Petrosian’s phrase) on the hanging f5-pawn . With an attack, which “...is only a decoy aimed at inducing one of the pawns into advancing.”

22.g3, recommended by *Rybka*, is probably stronger than the game move. Now the tempting 22...♝b7 Δ ...c7-c5, ...♝d6 is not possible, as 23.♝e4! wins immediately.

The h5-bishop would restrict Black’s possibilities on the kingside in the strongest way possible, whereas the attack on the target at f5 could wait a bit...

**22...♝d6**

A natural reaction to the “counterintuitive” stance on the f-file – oh, that “awful” rook on f1! On the other hand, I’m not sure that Suetin’s move was the strongest... Chess is a very complex intellectual game. and this encounter between Petrosian and Suetin is a clear example of that. Such games are a genuine nightmare (or just a sweet horror!) for analysts.

I spent 15-20 hours on this game and wrote out a bunch of computer variations, ten pages of them – over a hundred possible variations at least 14-15 moves deep. And what did that get me?

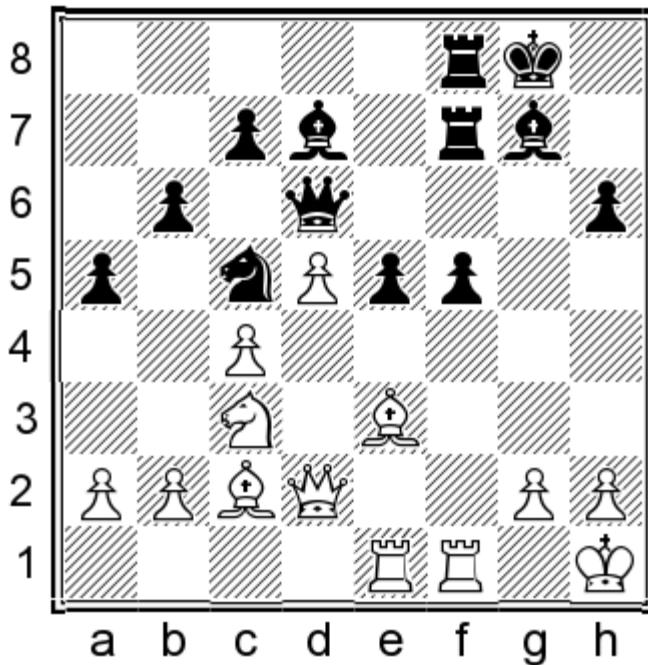
Sometimes I feel that I don’t understand a thing...

**23.♝c2 ♜ef7**

Of course! The greater the local density of packing in the immediate vicinity of the king, the easier it is to defend.

**24.♔h1**

A question with no answer: didn’t Petrosian here regret choosing 17.♗f3 over 17.♔h1? Wasn’t he too hasty?



**24...♜a8**

A mistake! Suetin misses a most curious redeployment: 24...♝b7, ...c7-c5(!), ...♝d6-f6(g6, e7), ...♝b7-d6.

It’s interesting that this setup was also overlooked by Petrosian (in his pre-computer age analysis). Even more interesting is that Kasparov himself (aided by a computer) didn’t notice it! Why?

Probably because both man and machine found it very hard to find ...c7-c5 – a subconscious fear of the protected passed pawn. Am I right?

I dare *Rybka* – I move 24...♝b7. The engine replies 25.b3, expecting 25...♝c5. Amazing!

My own move is 25...c5. I wait...

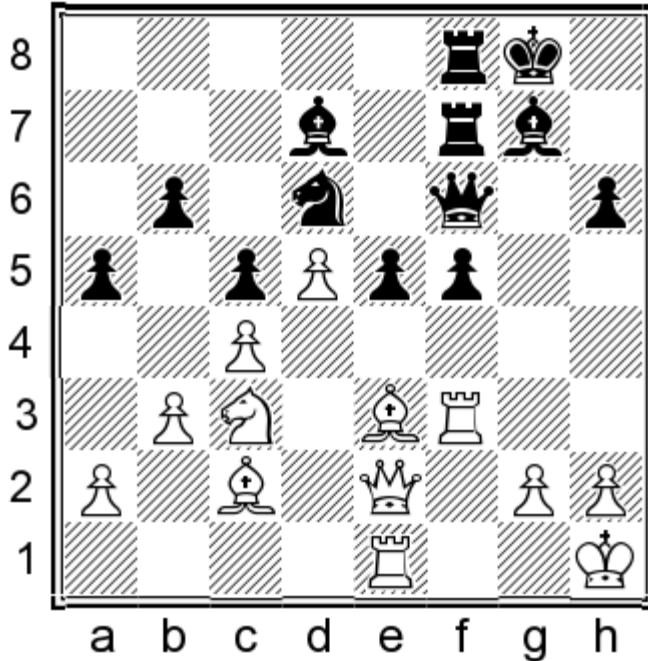
The reply: 26.♜f3 ♜f6 27.♝e2 (27.♝e4 ♜h4=) 27...f4 28.♝d3 ♜h8± (0.63) at 14 ply (half-moves).

Again, my own move involves waiting with 27...♝d6.

First line: 28.♗c1 ♖d8 29.♗b2 ♗f6± (0.63), 16 ply.

I don't believe that the value of ± is so great! The computer can evaluate a position incorrectly, and I'm glad for that here. In short, the position after 25...c5 and 27...♘d6 is one I like very much. It is pretty! *Rybka* here is needed to make sure I'm not overlooking some clever tactical resource.

That's my dream... Fall in love along with me!



Position after 27...♘d6 (analysis)

This is probably a position of dynamic equality... isn't it? Try to answer this question yourself, and don't fear the complications!

Finally, if my assessment after 27...♘d6 is correct, then White must look for an edge somewhere before this. And it seems to me that I know where: dear reader, investigate the move 26.dxc6 (after 25...c5). See you later!

Let's go back to the game. With 24...♖a8, Suetin took his first step into the abyss.

**25.♖e2**

White intends to put this rook on f2 and then bring the queen to h5.

**25...♘f8**

Perhaps he should have returned the rook to f8?

**26.♖ef2 ♘b7**

To bring the knight to d6.

**27.♕e2**

Too direct. 27.♗b5 looks better: 27...♗c8 (27...♗xb5 28.♗xf5+-) 28.g3 Δ ♖d2-e2-h5 ±.

**27...♘d6 28.c5**

Petrosian and Kasparov both give this move an exclamation point. Now “...the number of weaknesses in the enemy camp begins to exceed the acceptable norm” (Kasparov).

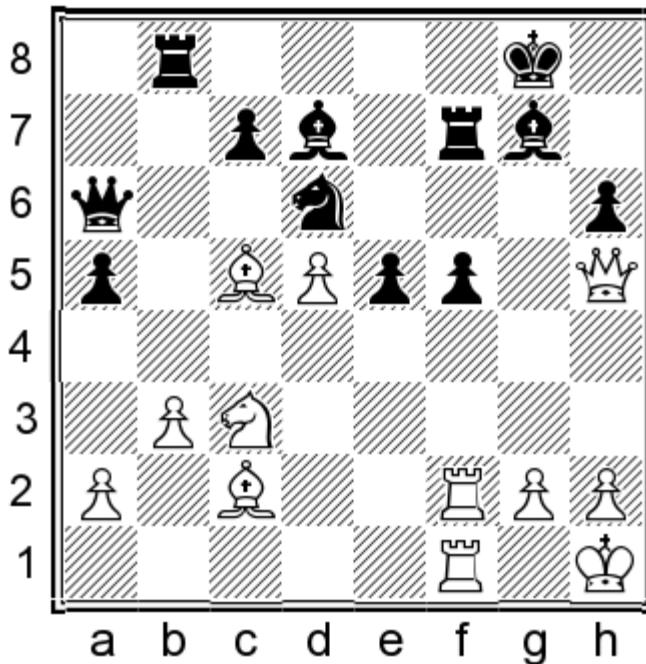
**28...bxc5 29.Qxc5 Bb8 30.b3 Qc8**

“An incomprehensible maneuver which takes his queen away from the major field of action. 30...e4 was correct, after which White could not play 31.Qxe4, because of 31...Bb5” (Petrosian). But the e-pawn move, of course, does not end Black’s suffering: after 31.Qe3 Δ 32.Qc3-e2-f4 (indicated by Kasparov), White’s advantage is more than evident.

**31.Qh5 Wa6**

The final step over the edge. Now Black simply must lose – assuming, of course, that White plays perfect chess... 31...f4 (*Rybka*) leaves Black some small hope for survival. I will not bore you with reams of analysis. Let me say only that Black is in a bad way, but he’s not losing immediately.

Whereas now...



**32.g4**

A crushing blow, after which Black’s defense shatters into little pieces, as White enjoys an overwhelming force superiority in the attack zone.

White engaged the Tal Algorithm on the proper basis.

**32...f4**

Petrosian: “Forced, but now Black’s threatening-looking passed pawns are easily blockaded...”

**33.Re1**

Alas, Petrosian is mistaken! The rook’s place is on g1. But not right away: after the preliminary, and winning, 33.g5 (*Rybka*), White is obligated to attack material targets, and not empty squares in his own half of the board. “Tal” is “Tal.”

Later on, in Black's time pressure, both sides did not play their best, to put it mildly. So therefore I decline to present the rest of the game, such an interesting one to this point. Suetin resigned on move 40.

The final words by Kasparov: "Despite the mutual time-trouble mistakes, this is a very instructive game. It signifies the triumph for the basic idea of... deep prophylaxis, based on the effect of long-term factors of the position against temporary, petering out dynamics..."

What do Games 107 and 108 have in common?

Answer: the strategic struggle for control of occupied and vacant squares near the demarcation line.

The Capablanca Algorithm – both its left and its right sides in action. In this, it is important to note its starting point at 1.00.

One more thing: there is a sharp confrontation over the right to dominate. The factor of compactness and the factor of spatial expansion are in conflict...

We are nearing the finish line – just seven instructive examples to go in this chapter. Complex, even super-complex examples, with diagnoses ranging from "Tal" to "Petrosian" – the entire chess spectrum is represented.

What do all of these notable games have in common?

Answer: chess beauty! Beauty through paradox.

Beauty is above logic, and synthesis is higher than analysis, since paradox always lies beyond any sort of branches of any "ultimate" formal/logical system. Render unto God the things that are God's, and unto Caesar the things that are Caesar's...

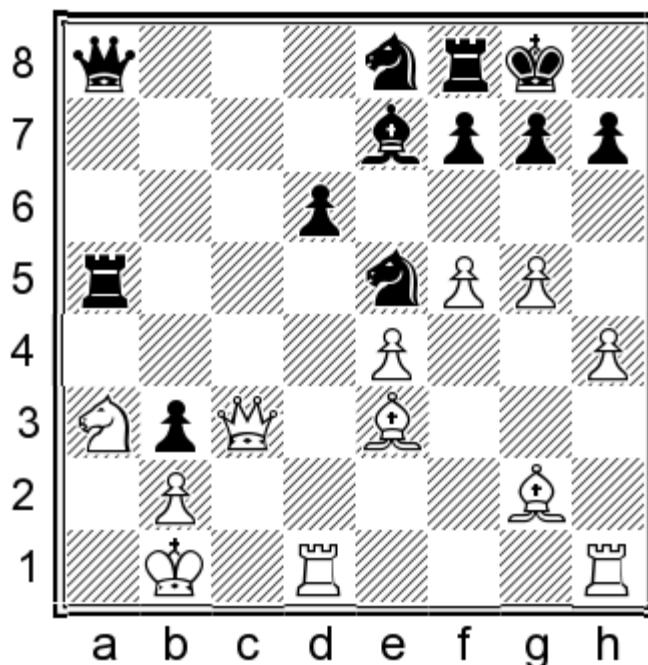
So close to the end of this chapter, I do not intend to bore you too much, dear reader, with my maxims and commandments. What will we have next, then?

Answer: a triumphant hymn of primordial chess beauty.

Let it begin!

### No. 109: Karjakin – Anand

Wijk aan Zee 2006



Position after 24.  $\mathbb{Q}g2$

The parameters of this position (we are playing Black) are:  $m = 1$ ,  $t = 34/49 \approx 0.69$ , “plus” (exactly what?) in the safety factor,  $\Delta k < 0$ , and  $\Delta(24. \mathbb{Q}g2) = \approx -0.42$ .

Diagnosis: the part of the spectrum encompassing all attacks and defenses from the left-handed “Capablanca” to the Tal Algorithm.

**24...  $\mathbb{Q}c7$**

Surprisingly, this wins by force. And this, with such a small value in the “t” parameter!

For us mortal chessplayers, it is also curious that also the “super-intelligent” chess engine at first does not particularly like this move. It prefers the heavyweight maneuverings of the rook, with 24...  $\mathbb{R}a6$  or 24...  $\mathbb{R}a4$ , to this piece sacrifice.

**25.  $\mathbb{W}xc7$**

The only reasonable move, as Black threatened the decisive 25...  $\mathbb{R}xa3$  26.  $bxa3$   $\mathbb{Q}b5+$ .

**25...  $\mathbb{R}c8$**

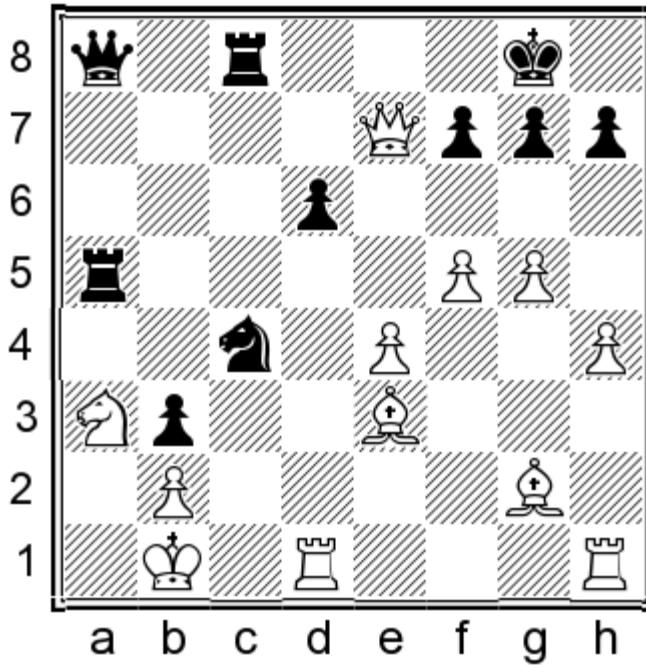
Outstanding!

**26.  $\mathbb{W}xe7$**

There is nothing else. He certainly couldn't play 26.  $\mathbb{W}xa5$   $\mathbb{W}xa5$ !.

**26...  $\mathbb{Q}c4$**

Black's attack is irresistible.

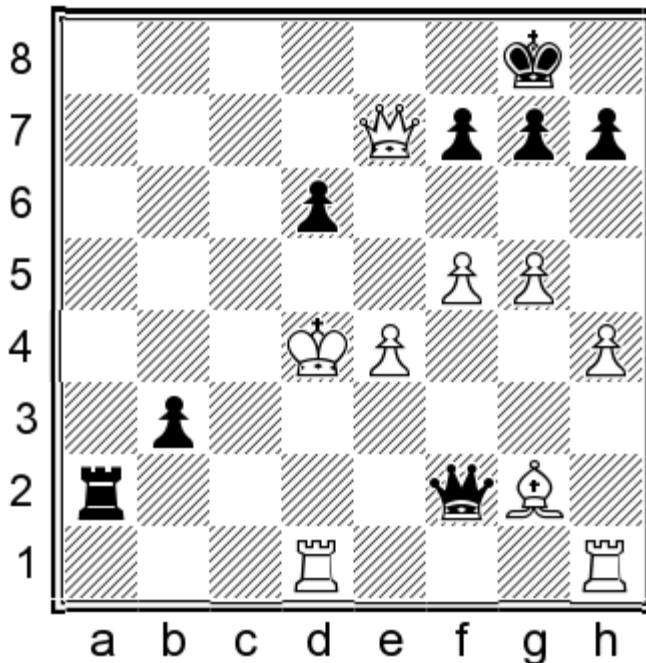


Two variations from GM Ftáčnik (in *Megabase*):

27.  $\mathbb{Q}d4$   $\mathbb{R}xa3$  28.  $bxa3$   $\mathbb{Q}xa3+$  29.  $\mathbb{Q}b2$   $\mathbb{Q}c4+$  30.  $\mathbb{Q}c3$   $\mathbb{W}a5+$  31.  $\mathbb{Q}d3$   $\mathbb{W}a2$  32.  $\mathbb{Q}c5$   $\mathbb{W}c2+$  33.  $\mathbb{Q}d4$   $\mathbb{W}f2+$  34.  $\mathbb{Q}c3$   $\mathbb{W}xc5-$ ;
27.  $\mathbb{Q}c1$   $\mathbb{W}c6-$ -.

And a third variation (Ftáčnik and Rybka):

c) 27.  $\mathbb{Q}c5 \mathbb{B}xa3$  28.  $bxa3 \mathbb{B}xc5$  (28...  $\mathbb{Q}xa3+$ , Ftáčnik) 29.  $a4$  (29.  $\mathbb{Q}f1 \mathbb{Q}xa3+$  30.  $\mathbb{Q}b2 \mathbb{B}c2+$  31.  $\mathbb{Q}xb3 \mathbb{W}b8+$  32.  $\mathbb{Q}a4 \mathbb{B}b2+$ ) 29...  $\mathbb{Q}a3+$  30.  $\mathbb{Q}b2 \mathbb{B}c2+$  31.  $\mathbb{Q}xa3 \mathbb{B}a2+$  32.  $\mathbb{Q}b4 \mathbb{W}xa4+$  33.  $\mathbb{Q}c3 \mathbb{W}c6+$  34.  $\mathbb{Q}d4 \mathbb{W}c5+$  35.  $\mathbb{Q}d3 \mathbb{W}c2+$  36.  $\mathbb{Q}d4 \mathbb{W}f2+:$



Position after 36...  $\mathbb{W}f2$  (analysis)

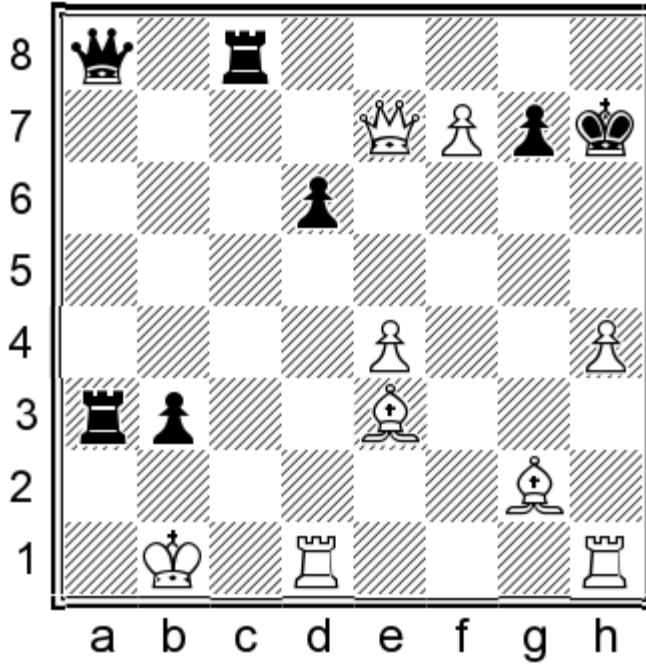
and...

c1) 37.  $\mathbb{Q}c4 \mathbb{B}c2+$  38.  $\mathbb{Q}xb3 \mathbb{B}b2+$  39.  $\mathbb{Q}c4 \mathbb{W}c2+$  40.  $\mathbb{Q}d4 \mathbb{B}b4+$  41.  $\mathbb{Q}e3 \mathbb{B}b3+$  42.  $\mathbb{Q}f4 \mathbb{W}f2+$  43.  $\mathbb{Q}g4 \mathbb{W}xg2+$  44.  $\mathbb{Q}h5 \mathbb{W}e2\#;$

c2) 37.  $\mathbb{Q}c3 \mathbb{W}e3+$  (for 37...  $\mathbb{B}c2+$  38.  $\mathbb{Q}xb3 \mathbb{B}b2+$ , see c1) 38.  $\mathbb{Q}c4 \mathbb{B}c2+$  39.  $\mathbb{Q}b5 \mathbb{W}c5+$  40.  $\mathbb{Q}a6 \mathbb{B}a2+$  41.  $\mathbb{Q}b7 \mathbb{B}a7+$  42.  $\mathbb{Q}b8 \mathbb{W}b6+$  43.  $\mathbb{Q}c8 \mathbb{W}c6+$  44.  $\mathbb{Q}b8 \mathbb{W}a8\#.$

The game continued

27.  $g6 \mathbf{hxg6}$  28.  $f \times g6 \mathbb{Q}a3+$  29.  $b \times a3 \mathbb{B}xa3$  30.  $g \times f7+\mathbb{Q}h7$



**31.f8Q+**

A beautiful check before dying.

**31...Rxf8 32.Qxf8 Ra1+ 33.Qb2 Ra2+ 34.Qc3**

Or 34.Qb1 Rxf8-+.

**34...Ra5+ 35.Qd3 Rb5+ 36.Qd4 Ra4+ 37.Qc3 Rc4+ 0-1**

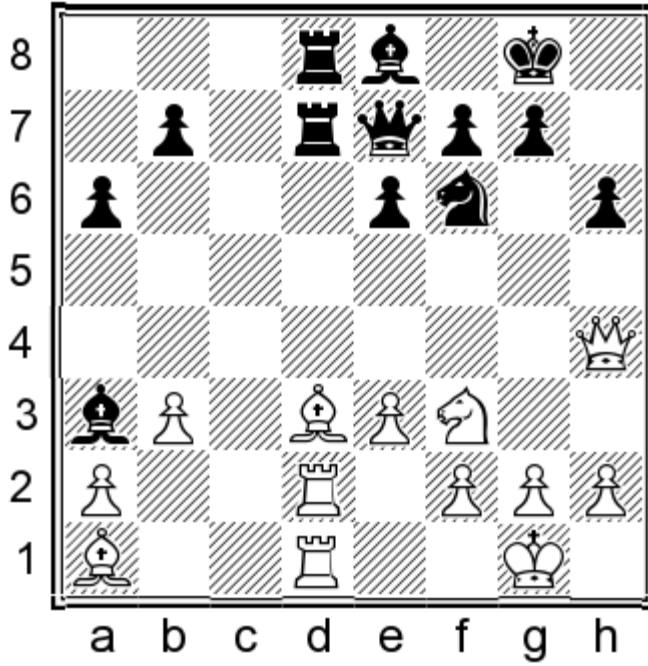
So why did Anand sacrifice the knight on c7?

In order to play 25...Rc8, hitting the queen!

Here we have the second-pass evaluation in action...

### No. 110: Bisguier – Stein

Stockholm Interzonal 1962



Position after 22.  $\mathbb{Q}cd2$

The parameters of the position (we are playing Black) are:  $m = 1$ ,  $t = 31/47 \approx 0.66$ , “minus” for the king, and “plus” for the center (the rooks on d1 and d2, and the bishop on d3 are “bad”),  $\Delta k = 0$ , and  $\Delta(22.\mathbb{Q}cd2) = \approx 0.15$ .

Our diagnosis: “Petrosian” with signs of the TCP Algorithm.

**22...Bb4**

With this move, Stein takes the tiger by the tail – playing dangerously! Dangerous for Black – and for White.

After the “correct” and slightly pathetic 22...Bd5 23.  $\mathbb{W}xe7$   $\mathbb{Q}xe7$ , the game would most likely have ended in a draw. While now... now, we will be witnesses to great activity by Black’s king.

**23.  $\mathbb{Q}xf6$  gxf6**

Of course not 23...  $\mathbb{W}xf6$  24.  $\mathbb{W}xb4+-$ .

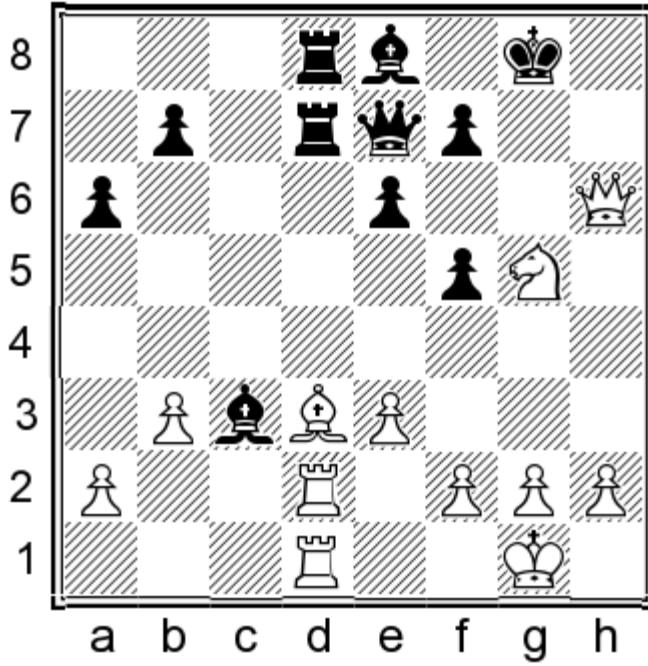
**24.  $\mathbb{W}xh6$  f5**

The threat was mate in two.

**25.  $\mathbb{Q}g5$**

Once again, mate in two moves.

**25...Bc3**



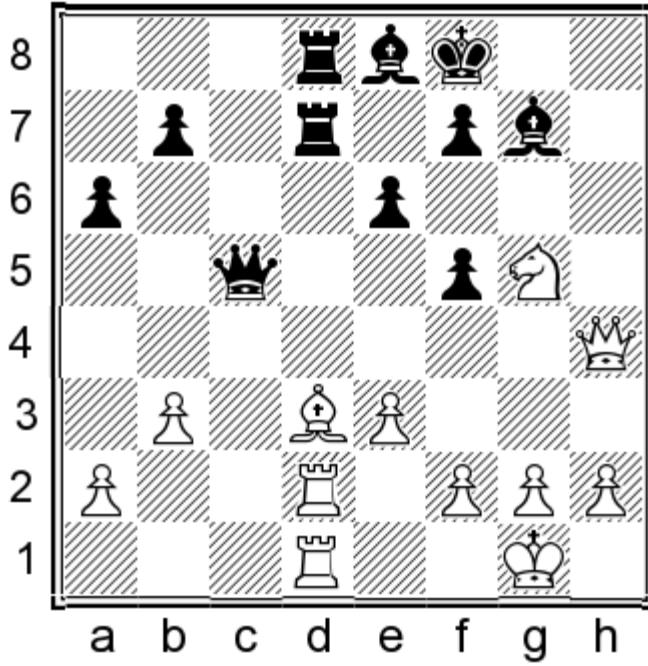
"This is Stein's amazingly courageous idea! At first glance, Black doesn't threaten anything right away, but only defends. Nevertheless, Black has prepared a hidden threat – 26... $\mathbb{W}f6!$ , warding off White's attack and keeping all of his trumps on the d-file. The whole point is that none of the three white pieces piled on that file can move from its spot, so Black can allow himself the luxury of first defending his king, and only then proceed to the reaping" (Gufeld and Lazarev, in their book on Leonid Stein).

## 26.h4

A clear error, probably rooted, not in chess, but purely in psychology – Bisguier overestimates the merits of White's position. Had he realized that his position was not better and that he needed to defend, then he could have found the draw without any particular difficulty. For this, it would have been necessary to forgo "Tal" in favor of "Petrosian"...

The wide avenue to the draw begins with an attempt to give perpetual check: 26. $\mathbb{W}h7+$   $\mathbb{K}f8$  27. $\mathbb{W}h6+$ , etc. And if Black does not consent to this, then he has only one way to continue the fight: 27... $\mathbb{Q}g7$ , but this removes his attack on the d2-rook – a clear achievement for White!

Moving along: 28. $\mathbb{W}h4$ . This is the only move, since 28. $\mathbb{W}h5$  is not possible in view of 28...f6, and admittedly this does not require much mental gymnastics. Here Stein would have had to work hard to find the strongest line: 28... $\mathbb{W}c5$  Δ 29... $\mathbb{Q}xd3-$ :



Position after 28...  $\mathbb{W}c5$  (analysis)

In this position, White has a guaranteed draw following either the cautious 29.  $\mathbb{W}g3$  (Moiseev) or the active 29.  $\mathbb{W}h5$  (Kasparov), as well as after the aggressive 29. g4, not mentioned by anyone.

Possible variations:

- a) 29.  $\mathbb{W}g3 \mathbb{E}xd3$  30.  $\mathbb{Q}h7+$   $\mathbb{Q}g8$  31.  $\mathbb{Q}f6+=$ ;
- b) 29.  $\mathbb{W}h5 \mathbb{W}b4$  30.  $\mathbb{W}e2$  e5 31. e4  $\mathbb{Q}h6$  32.  $\mathbb{W}h5 \mathbb{Q}xg5$  33.  $\mathbb{W}h8+$   $\mathbb{Q}e7$  34.  $\mathbb{W}xe5+$   $\mathbb{Q}f8$  35.  $\mathbb{W}h8+=$ ;
- c) 29. g4 ( $\Delta$  30.  $\mathbb{Q}h7+$   $\mathbb{Q}g8$  31. g5  $\Delta$  32.  $\mathbb{Q}f6+$  with attack) 29...  $\mathbb{W}b4$  30. h3  $\mathbb{E}d5$  31. a3  $\mathbb{W}xb3$  32.  $\mathbb{Q}c2$  (if 32.  $\mathbb{Q}h7+$   $\mathbb{Q}g8$  33. g5, then 33...  $\mathbb{E}xd3$  34.  $\mathbb{Q}f6+$   $\mathbb{Q}xf6$  35. gxf6  $\mathbb{W}xd1+$  36.  $\mathbb{E}xd1$   $\mathbb{E}xd1+$  37.  $\mathbb{Q}h2 \mathbb{Q}c6-$ ) 32...  $\mathbb{W}xa3$  33.  $\mathbb{E}xd5$   $\mathbb{E}xd5$  34.  $\mathbb{E}xd5$  exd5 35.  $\mathbb{Q}xf5$ , with an approximately equal position.

One gets the impression that after 29. g4 (variation c), it is Black who needs to play accurately in order to maintain equality.

Leaving these interesting variations behind, we return to the game.

## 26... $\mathbb{W}f6$

A forceful punishment for White's overextending his position (with 26. h4)! As an uncomplicated analysis shows, White now loses in all variations.

## 27. $\mathbb{W}h7+$ $\mathbb{Q}f8$ 28. $\mathbb{W}h5$ $\mathbb{W}h8$

"More elegant than the crude 28...  $\mathbb{Q}e7$ " (Kasparov). As we can see, the esthetic component predominates... And for Stein, and for Kasparov, and, you can be sure, for many, many other gifted or simply strong chessplayers.

## 29. $\mathbb{Q}h7+$

After 29.  $\mathbb{W}xh8+$   $\mathbb{Q}xh8$ , followed by ...  $\mathbb{Q}h8-c3$ , White cannot be saved.

## 29... $\mathbb{Q}g8$ 30. $\mathbb{W}g5+$ $\mathbb{W}g7$

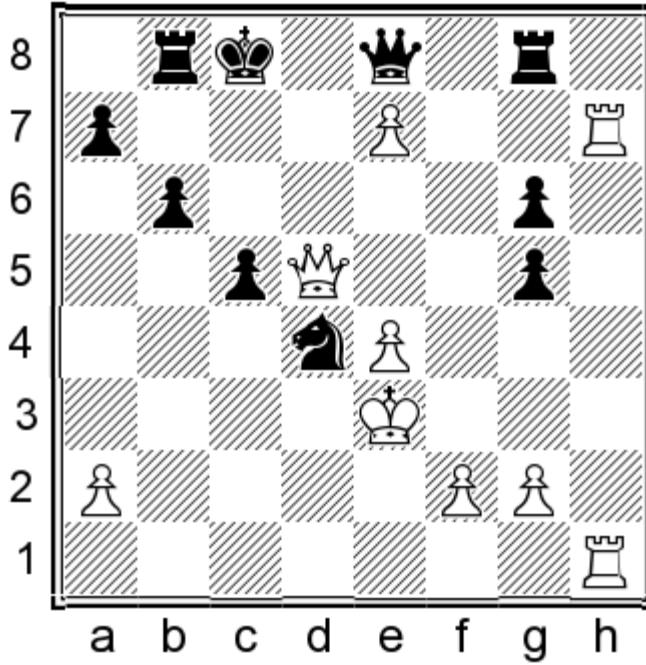
Avoiding the final trap: 30... $\hat{Q}$ xh7 31. $\hat{Q}$ xf5+!.

**31. $\hat{Q}$ c2  $\hat{Q}$ xg5 32. $\hat{Q}$ xg5  $\hat{R}$ xd3 0-1**

Why didn't the monster gobble Stein when he tweaked the tiger's tail? Wasn't it because Stein was the compact one, more densely "packed"?

### No. 111: Väisser – Vachier-Lagrange

French Championship, Chartres 2005



Position after 29... $\hat{B}$ b8

Parameters for this position (we're taking White):  $m \ll 1$ ,  $t = 45/27 = \sim 1.67$ , approximate parity or a bit better in the safety factor.

Diagnosis: the Tal Algorithm.

**30.g4**

An amazing move for its beauty, and paradoxical to boot! White increases his  $\Delta(\text{move})$  and prepares a safe haven for the king. And this while having a "Tal" in the middlegame!

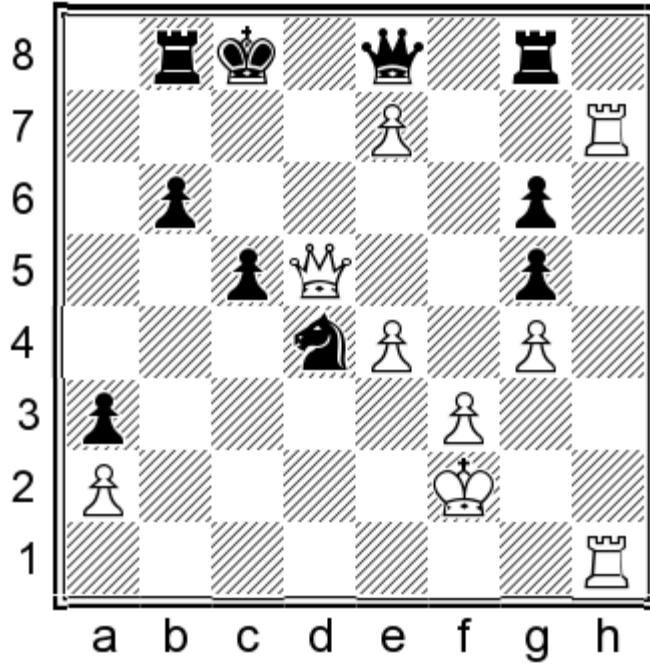
And one more thing: there's a... Zugzwang? On the board! Could that be?

**30... $\hat{B}$ b7**

Knight checks are pointless: after 30... $\hat{Q}$ c2+ 31. $\hat{Q}$ f3  $\hat{Q}$ d4+ 32. $\hat{Q}$ g2, White wins. And 30... $\hat{Q}$ c6 31. $\hat{W}$ e6+  $\hat{Q}$ b7 32. $\hat{W}$ xg8+- is quite bad for Black. Nor does 30...b5 help: after 31. $\hat{W}$ xc5+  $\hat{Q}$ c6 32. $\hat{R}$ d1, Black can resign with a clear conscience.

One more problem – the king is paralyzed (30... $\hat{Q}$ c7 31. $\hat{W}$ xg8+-). Add to that problem two more great ones – the immobile queen and the poor rook on g8.

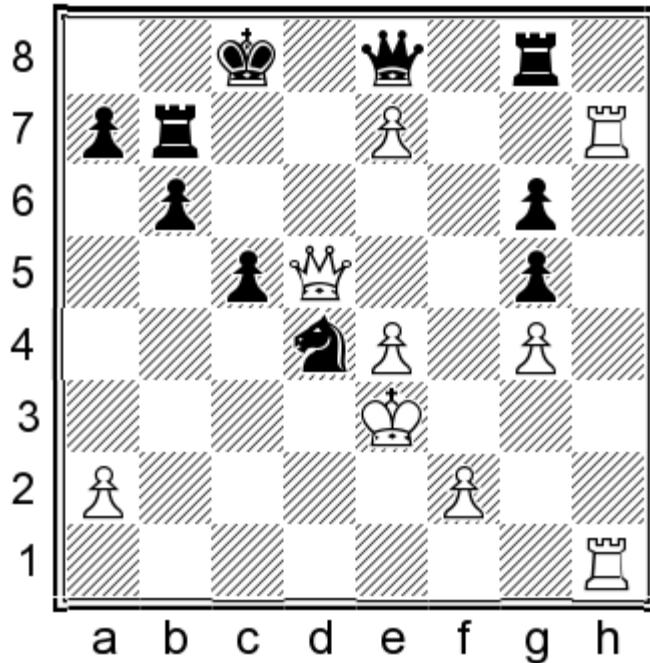
Black has only a-pawn moves left... Here's a variation by Krasenkow: 30...a6 31.f3 a5 32. $\hat{Q}$ f2 a4 33. $\hat{Q}$ g2 a3 34. $\hat{Q}$ f2:



Position after 34.  $\mathbb{Q}f2$  (analysis)

Zugzwang. Verify this – examine all of Black's moves and find their immediate refutation. Zugzwang in the middlegame is a very rare event!

Let's return to the game and its spectacular finish.

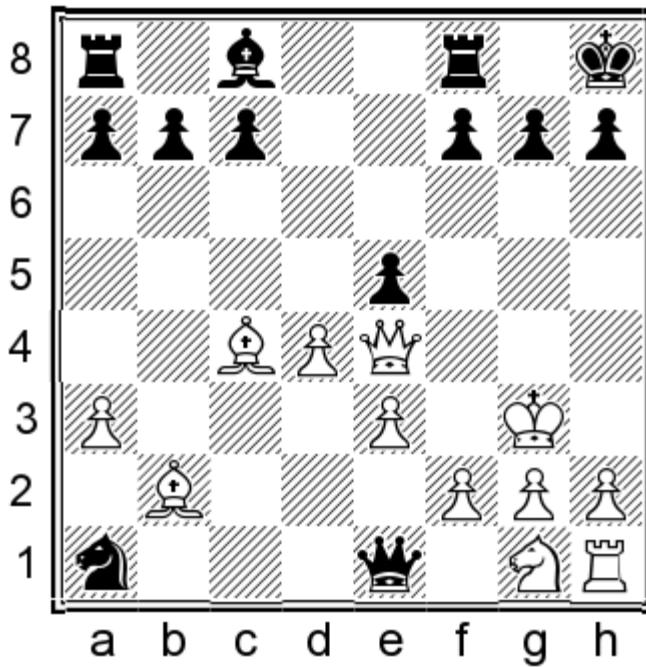


31.  $\mathbb{Q}xg8$

This wins.

31...  $\mathbb{Q}xg8$  32.  $\mathbb{R}h8$   $\mathbb{Q}xe7$  33.  $\mathbb{Q}xg8+$   $\mathbb{Q}b7$  34.  $\mathbb{Q}xg6$   $\mathbb{Q}f7$  35.  $\mathbb{Q}h3$   $\mathbb{Q}c2+$  36.  $\mathbb{Q}e2$   $\mathbb{Q}d4+$  37.  $\mathbb{Q}f1$  1-0

No. 112: Atalik – Sax  
Szeged 1997



Position after 16... ♔h8

The parameters of the position (we're playing White) are:  $m \ll 1$ ,  $t = 37/37 = 1.00$ , and uncertainty in the safety factor.

Diagnosis: the TCP Algorithm.

**17.dxe5**

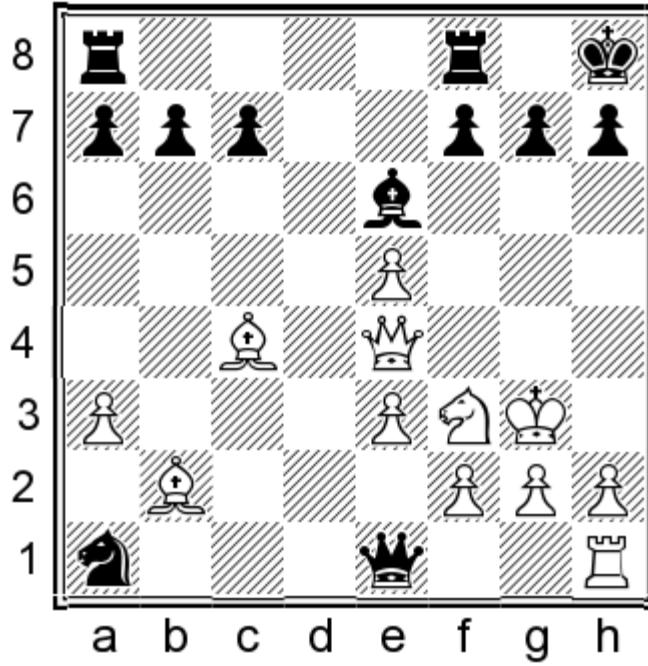
An opening novelty, breaking up what appears to be a position that has been studied inside and out. Now comes independent play from GM Sax.

**17... ♕e6**

The only move.

**18. ♜f3**

This idea is not new.



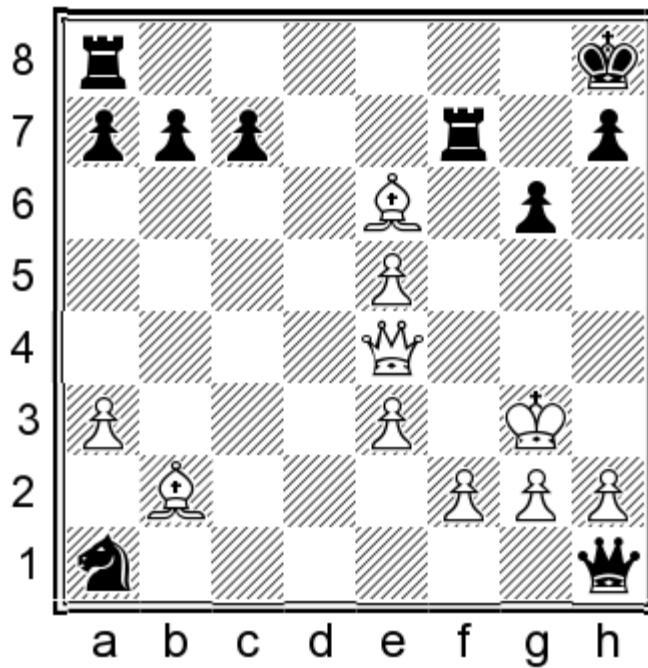
**18... $\mathbb{W}xh1$  19. $\mathcal{Q}g5$  g6 20. $\mathcal{Q}xf7+$**

The point of White's idea. I add: the computer got interested in this move only at a depth of 14 ply. Before that, its top two lines were 20. $\mathbb{W}f4$  and 20. $\mathbb{W}f3$ .

**20... $\mathbb{B}xf7$**

If 20... $\mathcal{Q}g7$ , then 21. $\mathcal{Q}g5$  wins (*Rybka*).

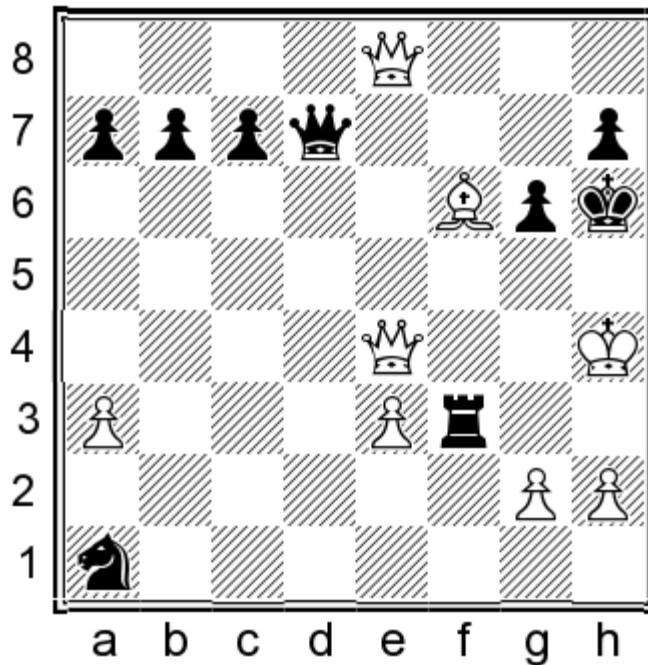
**21. $\mathcal{Q}xe6$**



The critical position. According to analysis, Black is much worse. Question: is there a saving line?

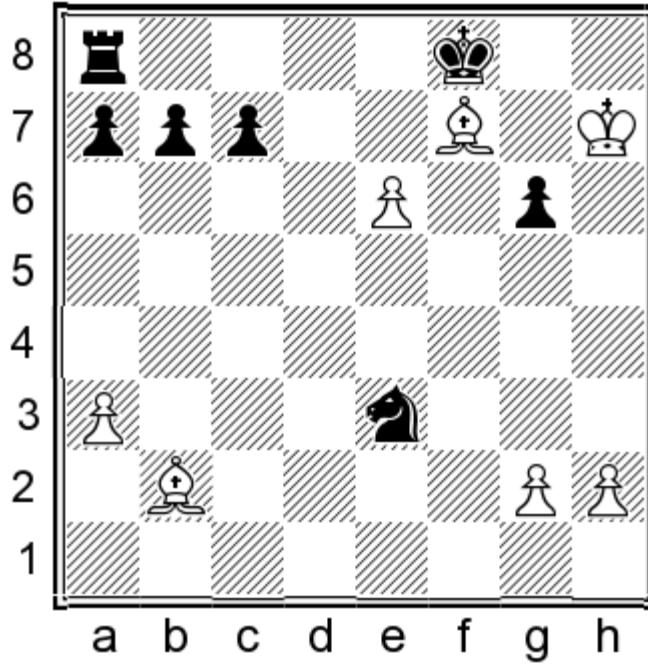
A careful answer (and, of course, one which by no means aims at absolute truth): more than likely, Black's position is indefensible.

Commenting in *Chess Informant* on this notable game, GM Suat Atalik risked bringing under his readers' judgment one lengthy – it would be a sin to hide it – and debatable variation. Here it is: 21... $\mathbb{Q}xf2!$ ? 22. $\mathbb{Q}xf2$   $\mathbb{Q}f8+$  23. $\mathbb{Q}g3$   $\mathbb{W}e1+$  24. $\mathbb{Q}h3$   $\mathbb{Q}g7$  25. $\mathbb{Q}d7$   $\mathbb{Q}h6$  26.e6  $\mathbb{Q}f5$  27. $\mathbb{Q}f6!!$   $\mathbb{Q}h5+$  (27... $\mathbb{Q}xf6$  28.e7+-) 28. $\mathbb{Q}g4$   $\mathbb{Q}f5$  29.e7  $\mathbb{W}d1+$  30. $\mathbb{Q}h3!$   $\mathbb{W}d7$  (30... $\mathbb{Q}h5+$  31. $\mathbb{Q}g3$   $\mathbb{W}e1+$  32. $\mathbb{Q}f4$   $\mathbb{W}f1+$  /32... $\mathbb{Q}f2+$  33. $\mathbb{Q}f3$   $\mathbb{Q}h4+$  34. $\mathbb{Q}g4!$ ; 32... $\mathbb{Q}g5+$  33. $\mathbb{Q}e5$   $\mathbb{W}c3+$  34. $\mathbb{Q}d4$  g4+ 35. $\mathbb{Q}f4+-$ ; 32... $\mathbb{Q}h4+$  33. $\mathbb{Q}xh4$   $\mathbb{W}xh4+$  34. $\mathbb{Q}f3+-$ ) 33. $\mathbb{Q}f3+-$  31.e8 $\mathbb{W}$   $\mathbb{Q}f3+$  (31... $\mathbb{Q}h5+$  32. $\mathbb{Q}g3+-$ ) 32. $\mathbb{Q}h4+-$ :



Position after 32. $\mathbb{Q}h4$  (analysis)

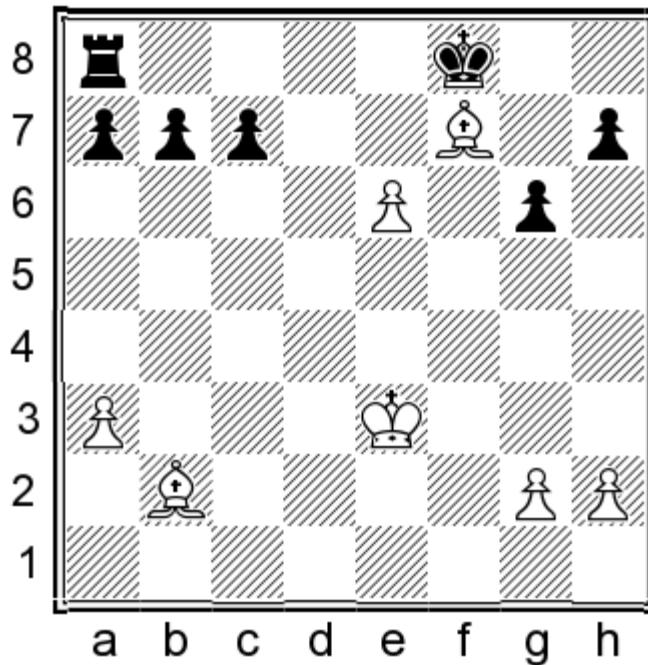
And there is yet another resource for Black – 22... $\mathbb{Q}c2$  (instead of Atalik's 22... $\mathbb{Q}f8+$ ). The knight move was found by *Rybka*, and now it is I who risk offering my own long variation: 22... $\mathbb{Q}c2$  23. $\mathbb{Q}f7$   $\mathbb{W}e1+$  24. $\mathbb{Q}f3$   $\mathbb{W}d1+$  25. $\mathbb{Q}f4$  (25. $\mathbb{Q}g3$   $\mathbb{Q}g7$  26.e6+  $\mathbb{Q}f8$  27. $\mathbb{Q}c3$   $\mathbb{W}c1$  28. $\mathbb{Q}f2$  c5±) 25... $\mathbb{Q}g7$  26.e6+  $\mathbb{Q}f8$  27. $\mathbb{Q}g5$   $\mathbb{W}d2$  28. $\mathbb{Q}h6$   $\mathbb{W}xe3+$  29. $\mathbb{W}xe3$   $\mathbb{Q}xe3$  30. $\mathbb{Q}xh7+-$ :



Position after 30. ♔xh7 (analysis)

Am I right?

And one more line, which I discovered only by accident, and which left me scratching my head. We're talking about 27... ♔xe3 (instead of 27... ♕d2 in the previous variation). This leads to an ending that the silicon monster finds completely indigestible: 27... ♔xe3 28. ♕xe3 ♕h5+ 29. ♔f4 ♕h6+ 30. ♔f3 ♕xe3+ 31. ♔xe3:



Position after 31. ♔xe3 (analysis)

The attack on the kingside targets wins – White increases the Δ(move) of his own position without end. One of the great number of lines examined by Rybka: 31... ♕d8 32. h4 ♕d1 33. g4 ♔e7 34. ♔f4 ♕d2 35. ♔g7 ♕f2+ 36. ♔g5 c5 37. ♔h6, winning.

A human thinks in terms of schemes (piece setups); the computer thinks in variations...

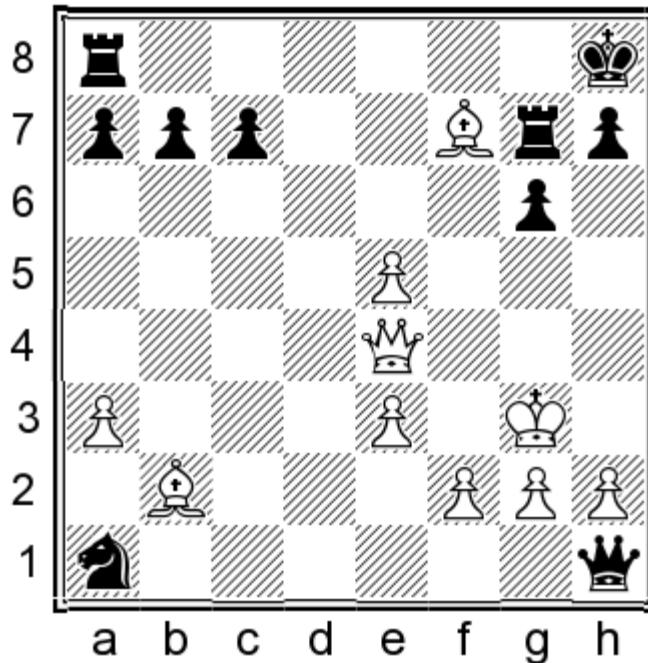
My preliminary conclusion, coinciding with that of Atalik, is: 21... $\mathbb{R}f2$  will not save him. Am I wrong?

In the game, the rook retreated:

21... $\mathbb{R}g7$

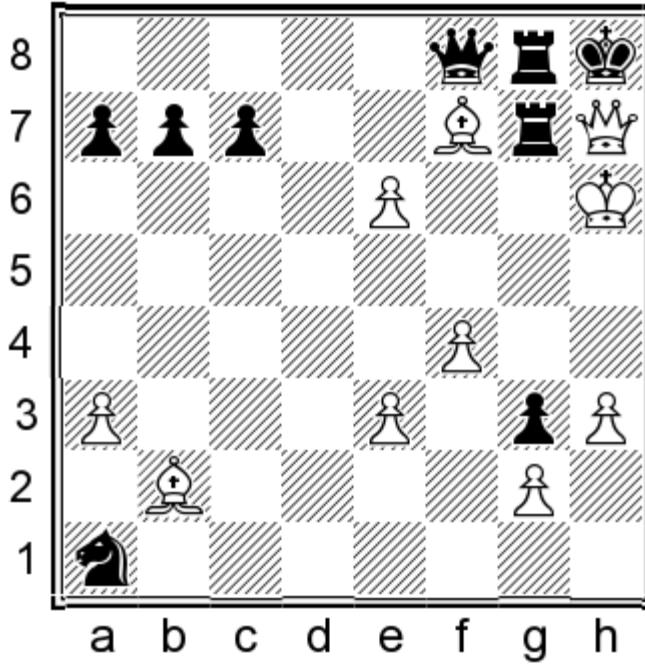
White replied with another sacrifice! There followed

22. $\mathbb{Q}f7$



This position, it seems to me, is much simpler than that following 21... $\mathbb{R}xf2$ . A sample variation (Atalik + Rybka + my imagination):

22... $\mathbb{W}d1$  23.e6  $\mathbb{W}d6+$  24.f4 (24. $\mathbb{Q}e5$   $\mathbb{W}e7$  25. $\mathbb{Q}xa1+-$ ; 24. $\mathbb{Q}h3+-$ ) 24...g5 25. $\mathbb{Q}g4$   $\mathbb{W}d1+$  (25...gxf4 26. $\mathbb{Q}h5$   $\mathbb{W}c5+$  27. $\mathbb{W}e5+-$ ) 26. $\mathbb{Q}h3$  (26. $\mathbb{Q}f5$   $\mathbb{W}d6\pm$ ) 26...g4+ 27. $\mathbb{Q}h4$  g3 28.h3  $\mathbb{W}d6$  29. $\mathbb{Q}h5$   $\mathbb{E}ag8$  30. $\mathbb{Q}h6$   $\mathbb{W}f8$  31. $\mathbb{W}xh7\#$ :



Impressive, huh?

If you don't like that long variation (if it seems unpersuasive to you), then try to improve on Black's play. I couldn't do it...

In the game, Sax played a weaker line and lost without a struggle.

**22...♝xf7 23.e6+ ♕g8**

Or 23...♝g7 24.♛e5 ♜ag8 25.e7+-.

**24.♛d4**

This road, too, leads to Rome.

**24...♝f8 25.exf7 ♕xf7**

25...♝e7 is also hopeless – both 26.♜xa1 and 26.♛g7 win.

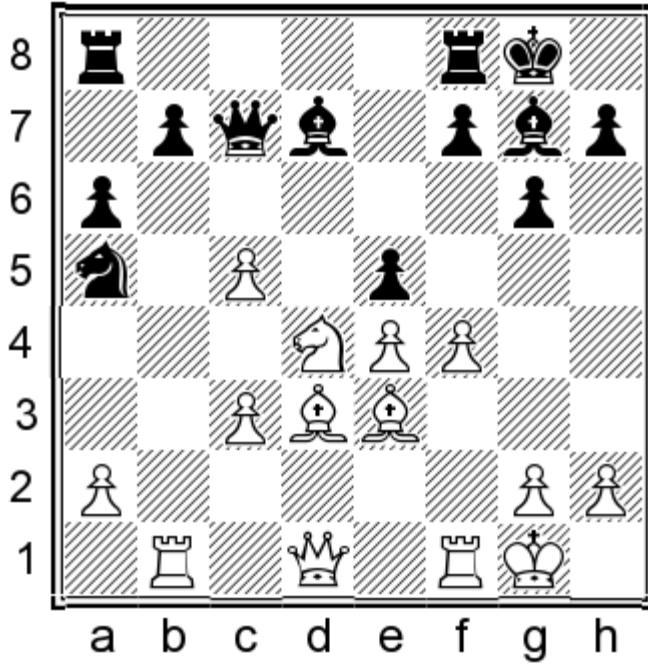
**26.♛d7+ 1-0**

Sax resigned, since after 26...♝f8 27.♝f6 there is no defense against mate.

Ineffable beauty...

**No. 113: Sakaev – V. Belov**

Russian Championship, Krasnoyarsk 2003



*Position after 15...e5*

The parameters of the position (we are playing White) are:  $m > 1$ ,  $t = 49/41 \approx 1.20$ , rough parity in the safety factor (in particular – the knight is hanging!),  $\Delta k < 0$ , and  $\Delta(15\dots e5) \approx 0.34$ .

Diagnosis (final?): the right-handed “Capablanca.”

## 16.f5

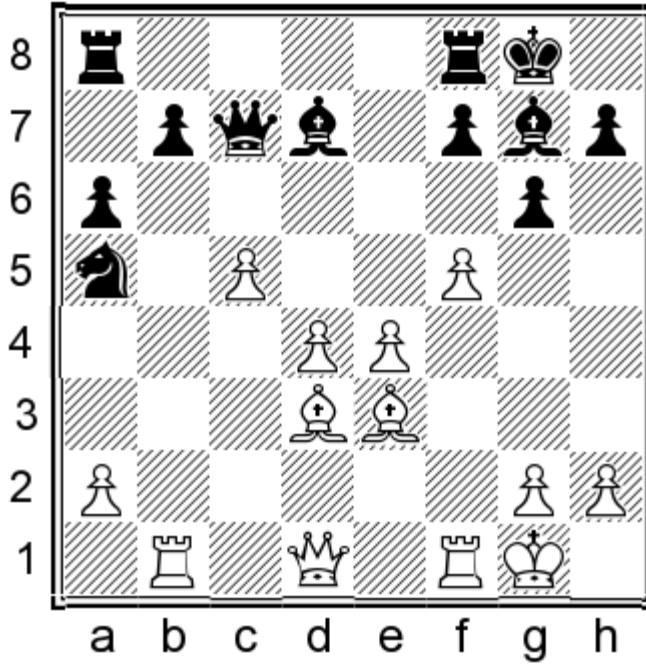
“Of course, this piece sacrifice is of an intuitive nature, as all of the variations could not be calculated over the board. Black’s idea is revealed after 16.fxe5  $\mathbb{Q}xe5$  17. $\mathbb{Q}h6$  (on 17. $\mathbb{Q}f3$ , 17... $\mathbb{Q}g4$  is not bad) 17... $\mathbb{Q}xh2+$  18. $\mathbb{Q}h1$   $\mathbb{Q}e5!$  19. $\mathbb{Q}xf8$   $\mathbb{Q}xf8$  – despite the loss of the exchange, Black has full positional compensation” (Sakaev, *Shakhmatny Peterburg*, Nos. 4-5, 2003).

The text move was not a virtual, but a real sacrifice. For Sakaev, we will see that the initiative was worth more than material.

The two first lines of *Rybka* (at a depth of 13 ply):

- 1) 16.fxe5  $\mathbb{Q}xe5$  17. $\mathbb{Q}f3$   $\mathbb{Q}g4$  18. $\mathbb{W}c2$   $\mathbb{Q}xf3$  19. $\mathbb{Q}xf3$ ;
- 2) 16.f5 exd4 17.cxd4 gxf5 18.exf5  $\mathbb{Q}f6$  19. $\mathbb{Q}b6$  (at this depth of calculation, the computer could not give a proper evaluation of 19. $\mathbb{Q}h5$  – see the analysis position in the diagram following the next one).

## 16...exd4 17.cxd4



Position after 17.cxd4

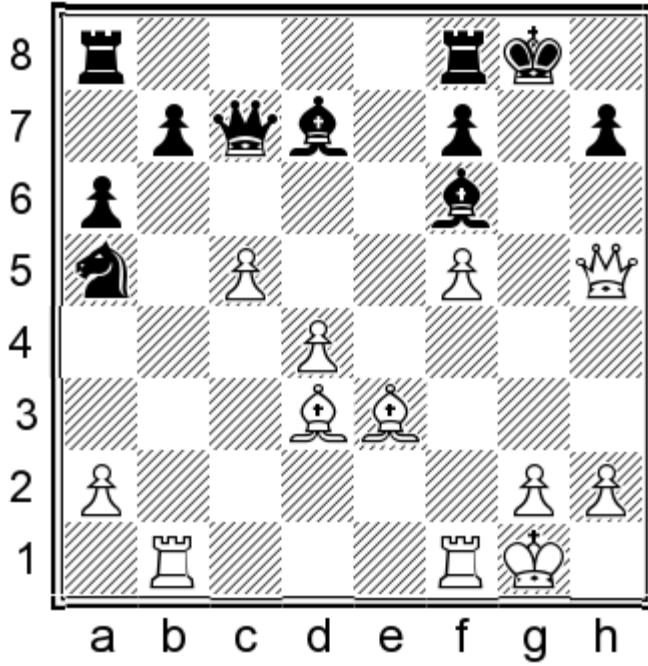
The parameters of the position from Black's standpoint are:  $m > 1$ ,  $t = 43/46 \approx 0.93$ , approximate parity or slight inferiority in the safety factor,  $\Delta k > 0$ , and  $\Delta(17.cxd4) \approx -0.54$ .

Diagnosis for Black: the expanded version of the CP Algorithm. That means that the diagnosis for White, anti-symmetrical to Black's, is the TC Algorithm.

The zone of uncertainty has widened (compare this with the assessment of the position after 16...e5). It may even have stepped over the boundary of the Capablanca Safety Zone and taken up the part of the spectrum from  $t = \sim 1.0$  to  $t = \sim 1.5$ . Of course, in our case, we can only be talking about approximate boundaries for the zone of uncertainty.

Analyzing the position after 17.cxd4, I flesh out Sakaev's analysis, even if only a little. I did, however, find a major hole in Krasenkov's *Megabase* analysis. And here is my careful verdict on the study position: the piece sacrifice is correct, and 16.f5 is, most likely, the strongest move.

In GM Sakaev's opinion, the best defense for Black would have been 17...gxf5 18.exf5 ♖f6. However, one may argue with this, since White does have a very strong reply which gives him the advantage: 19.♗h5 (indicated by Rybka after very heavy thinking):



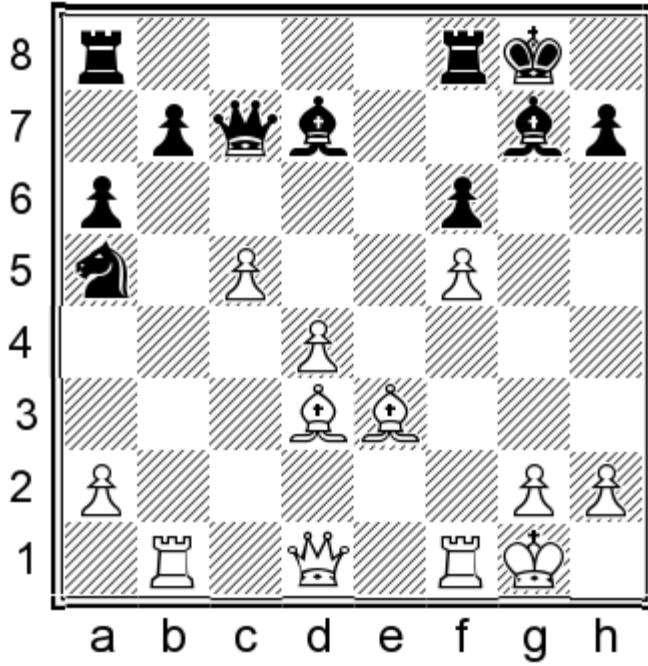
*Position after 19.  $\mathbb{W}h5$  (analysis)*

Out of the many dozens – even hundreds – of possible variations in this highly complicated position, I have selected two. One of them is long (meaning: arguable) but carefully selected:

- a) 19...  $\mathbb{E}fe8$  20.  $\mathbb{E}f4$  ( $20. \mathbb{E}f3 \mathbb{E}xe3! 21. \mathbb{E}xe3 \mathbb{Q}xd4 22. \mathbb{W}g4+ \mathbb{Q}g7 23. \mathbb{E}c1 \mathbb{Q}c6$ , “and in the resulting very complex position, Black is no worse” – Sakaev) 20...  $\mathbb{E}xe3$  21.  $\mathbb{E}g4+$   $\mathbb{Q}h8$  22.  $\mathbb{W}h6 \mathbb{W}d8$  23.  $\mathbb{W}xe3 \mathbb{Q}b5$  24.  $\mathbb{E}d1 \mathbb{Q}c4$  25.  $\mathbb{Q}xc4 \mathbb{Q}xc4$  26.  $d5\pm$ ;
- b) 19...  $\mathbb{E}ae8$  20.  $\mathbb{E}f4 \mathbb{Q}b5$  ( $20... \mathbb{E}xe3 21. \mathbb{E}g4+ \mathbb{Q}h8 22. \mathbb{W}h6 \mathbb{W}d8 23. \mathbb{E}h4 \mathbb{Q}xh4 24. f6+-$ ) 21.  $\mathbb{E}f3 \mathbb{E}xe3$  ( $21... \mathbb{Q}xd3 22. \mathbb{E}h3+-$ ) 22.  $\mathbb{E}xe3 \mathbb{Q}xd3$  ( $22... \mathbb{Q}c6 23. \mathbb{W}h6 \mathbb{Q}g7 24. \mathbb{W}h4 f6 25. \mathbb{E}be1\pm$ ) 23.  $\mathbb{E}xd3 \mathbb{W}f4$  24.  $d5 \mathbb{Q}d4+$  25.  $\mathbb{Q}h1 \mathbb{Q}xc5$  26.  $d6 \mathbb{Q}c6$  27.  $d7\pm$ .

Our conclusion: Black is worse after 17...  $gxf5$  18.  $exf5 \mathbb{Q}f6$  19.  $\mathbb{W}h5$ .

So perhaps it would be better to play, not 18...  $\mathbb{Q}f6$ , but 18...  $f6$  instead? Let’s take a look:



*Position after 18...f6 (analysis)*

Obviously, 18...f6 instantly rids Black of all unpleasantness connected with an attack on his king. But oh, that bishop on g7!

Nevertheless, I like the pawn move better than 18...♝f6 because it is safer, as analysis shows. Some likely variations:

19.♞f4 ♛d8 20.d5 ♜c8 21.♝c2, and then:

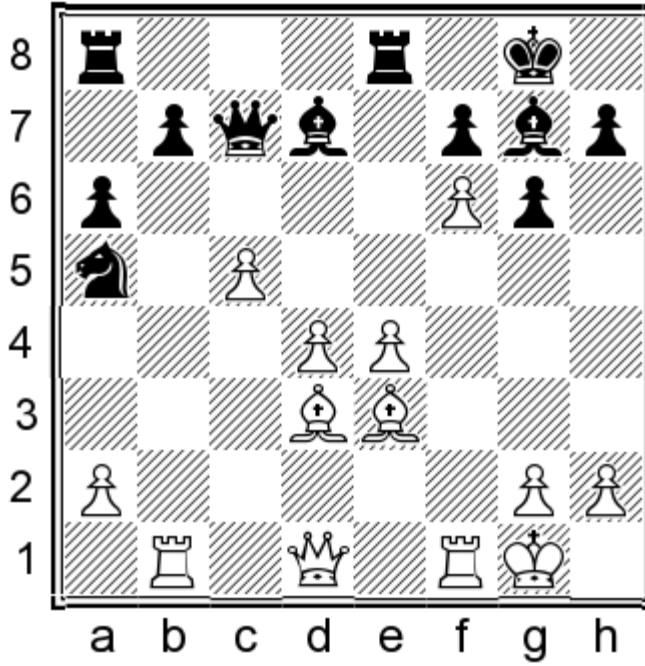
a) 21...♝e8 22.d6 ♚f7 23.♝fe1 ♚e8 24.♝e4 ♛d7 25.♝d2 ♜c6 26.♝b6 (Δ 27.♝b1 or 27.♝eb1±/±, with powerful pressure on the b7-pawn);

b) 21...b5 22.a4 ♚e8 23.♝e4 ♜c4 24.c6 ♚f7 25.axb5 axb5 26.♝f2 ♚e8 27.♝f3 ♜d6 28.♝xd6 ♛xd6 29.♝xb5±.

Please verify this for yourself!

Let's return to the game we have almost forgotten – that is, to the position after 17.cxd4.

**17...♝fe8 18.f6**



### **18...♝f8**

The natural retreat. However, oddly enough, the “unnatural” retreat to h8 also has a claim on our consciousness: after 18...♝h8, Black – even in the variations – never does get mated on g7, as White cannot trade off the dark-squared bishops. Possible variations include:

18...♝h8 19.♜b6 ♜b5 20.♝f4, and now:

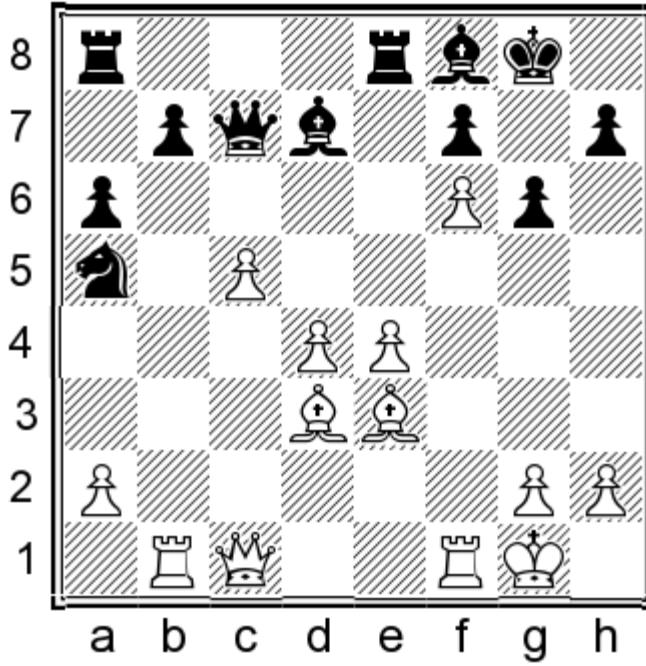
- a) 20...♛c8 21.♝d6 ♜e6 22.e5 ♜c4 23.♝xc4 ♜xc4 24.♝f4 (Sakaev’s recommendation of 24.♝f3 is suspect: 24...♝xf1 25.♝xf1 ♛e8 26.♜xb7 ♜c8 Δ 27...♝xf6 with powerful counterplay – Black is better!) 24...♝d5 25.♝d2 ♛e8 26.♜b2 (Δ h2-h3, ♜h2, ♜h4, ♛h6+-) and Black is defenseless;
- b) 20...♝d8 21.♝d6 ♛c8 22.a4 ♜xd3 (22...♝c4 23.e5 b5 24.cxb6 ♜xd3 25.♝xd3 ♜b7 26.♝d5±) 23.♝xd3 ♜e6 24.e5 ♜xd6 25.cxd6 h5 26.♜c1 ♛g4 27.♝g3 ♛g5 28.♜c7±.

As we can see, in that last variation Black manages to hold the position somehow. Or, at least, he is not losing by force.

### **19.♛c1**

“Intending to use the h6 square to give mate. 19.♝d2, with the same goal in mind, would not work because of 19...♝b5 20.♝h6 ♜xc5! 21.dxc5 ♜ed8!, and the roles change – Black becomes the attacker” (Sakaev).

The position after 19.♛c1 (see diagram) is also unspeakably complex; and I admit that I could not exhaust it totally. It’s likely a tiny bit better for White, but... But, like the neutrons in an atom bomb, the variations deserving attention flare out exponentially after every move, and I lose control of the whole process...



Some variations I like:

a) 19...Qb5 20.Qxb5 axb5 21.Qh6 Qxc5 (21...Rxe4 22.Qxf8 Qxf8 23.Qh6+ Qe8 24.Rfe1 Rc6 25.Qh4! Rxe1+ 26.Rxe1+ Qd8 27.Qxh7+-) 22.Qxc5!? (22.dxc5 Rxe4 23.Qxb5 Qc4) 22...Rxc5 23.dxc5 Rxe4 24.Qxb5 – Krasenkov's variation.  
My evaluation of the final position is ±.

b) 19...Qh8 20.Qh6 Rd8 21.Qxf8 Rxf8 22.Qb6 Rg8 23.d5 Qb5 24.Qxb5 axb5 25.Qxb5±.

c) 19...Rac8 20.Qf4 (20.Qh6 Qxc5±) 20...Rc6 21.Qh6 Qxc5 22.dxc5 Rxc5+ 23.Rxc5 Rxc5 24.Qfc1±.

The unanswered question is: is 19...Rac8 the best move here?

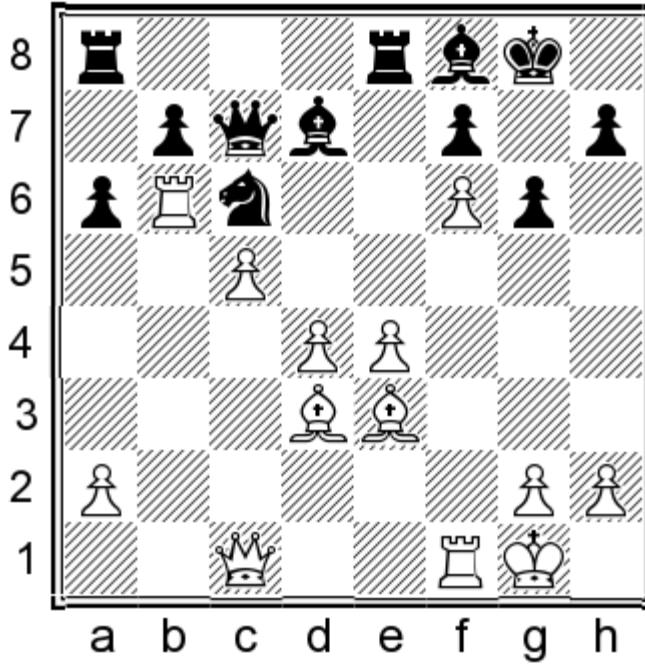
GM Belov's choice was likely no worse. Let me put it more delicately: it's a worthy challenger to the rook move!

### **19...Qc6**

Coming closer to the king. Now the tempting 20.Qh6 doesn't work, as after 20...Rxd4 21.Qxf8 Rxf8 22.Qh6 Re6 Black fends off the attack without difficulty. Among other things, what saves him is that he can take the c5-pawn with check.

### **20.Qh1**

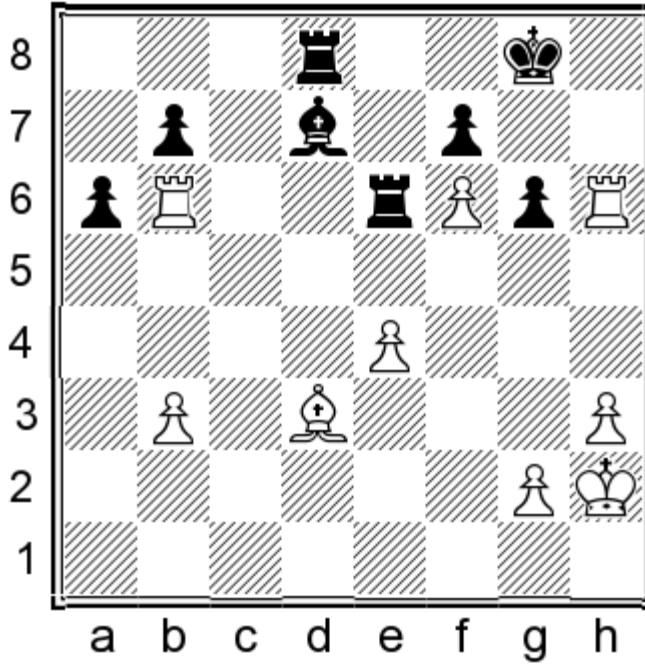
Prophylaxis. Now the capture on c5 no longer comes with check – super-fine play! However, it is possible that White would have had better chances for success with the somewhat rough 20.Qb6:



Position after 20...Bb6 (analysis)

Wandering along with Rybka through the impenetrable jungles of variations, I select a trail – one of a thousand possible ones. Here it is:

20...Bd8 21.Qh6 (21.Qf4 Qe5 22.We3 Wc8 23.Qxe5 Bxe5 24.c6 Bh5 25.cxd7 Bxd7, and Black may even be just a bit better) 21...Qd6 22.Qf4 Qxf4 23.Qxf4 Qxd4 24.Qh4 Qb3 (and what about 24...Qe2+?) 25.axb3 (try out 25.Bxb3 Be6 26.Wg5) 25...We5 26.h3 h5 27.Wh6 Wxc5+ 28.Qh2 Wf8 29.Bxh5 Wxh6 30.Bxh6 Qe6:



Position after 30...Be6 (analysis)

Here the wizard Rybka found 31.Bxg6+, instantly returning a verdict of ±. A little bit later, it discovered a draw in the pawn ending: 31...fxg6 32.Qc4 Qf7 33.Qd6 Qxf6 (33...Bb8±) 34.Qxe6 Qe7 35.Qxd7+ Bxd7 36.Qxd7 Qxd7 37.Qg3 a5=. Confirm this!

In these thickets of variations, even supermodern computer programs go astray. All the more helpless is a mortal chessplayer.

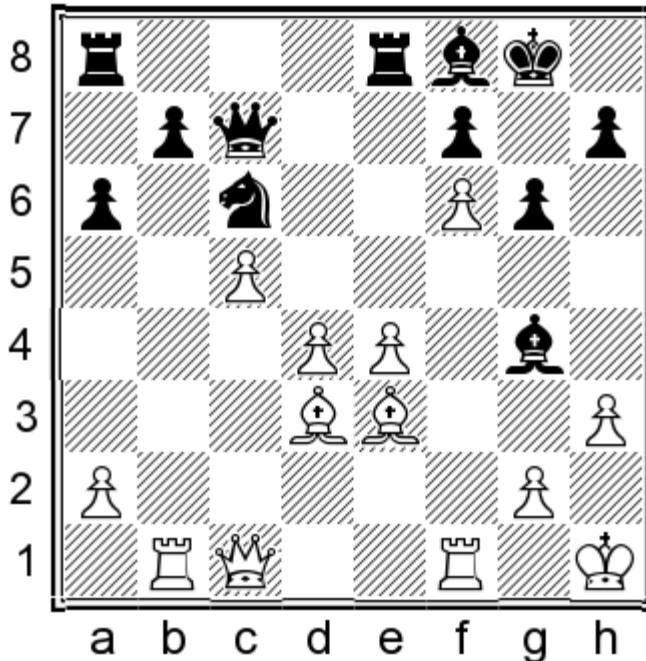
One question that we can ask: who among players alive today would risk rendering a final verdict on the positions after 20. $\mathbb{B}b6$ , 19... $\mathbb{B}ac8$ , or 19. $\mathbb{W}c1$ ? Who?

Let's go back to the game. Black to move:

**20...h5**

Sakaev thinks that this is the only move. However, Krasenkov disagrees, having discovered a paradoxical-looking bishop move: 20... $\mathbb{B}g4!?$ , and then 21.h3 (see diagram below; inferior is 21. $\mathbb{B}h6 \mathbb{Q}xd4$  22. $\mathbb{B}xf8 \mathbb{B}xf8$  23. $\mathbb{W}h6 \mathbb{Q}e6$  24. $\mathbb{B}c4 b5$  25. $\mathbb{B}d5 \mathbb{B}a7$  26. $\mathbb{B}be1 \mathbb{W}xc5$  27.h3  $\mathbb{B}h5$  28.g4  $\mathbb{B}xg4$  29.hxg4  $\mathbb{W}c3$ ) 21... $\mathbb{B}c8!?$  22. $\mathbb{B}h6 \mathbb{Q}xd4$  23. $\mathbb{B}xf8 \mathbb{B}xf8$  24. $\mathbb{W}h6 \mathbb{Q}e6$  25. $\mathbb{B}b6!$ .

Now we see the point of 20... $\mathbb{B}g4$ : after 25. $\mathbb{B}xe6$  (instead of 25. $\mathbb{B}d5$ ) 25...fxe6, Black's queen safely defends the Achilles' heel of the position – the g7 square – from c7. Bravo, Krasenkov! Bravo, and... oh, the horror!



*Position after 21.h3 (analysis)*

Our electronic assistant found an incredible resource for Black: 21... $\mathbb{Q}xh3!.$  After 22.gxh3  $\mathbb{W}g3$ , White is worse – see for yourself!

That is why the same *Rybka*, in rejecting 21.h3, preferred instead 21. $\mathbb{W}c3$  or 21. $\mathbb{B}b6$ . Approximate equality in a long, drawn-out positional struggle...

**21. $\mathbb{B}f4$**

White also has the upper hand after the quieter 21. $\mathbb{B}b6$  (*Rybka*).

**21... $\mathbb{W}d8$**

Or 21... $\mathbb{W}c8$  22. $\mathbb{B}d6\pm$ .

**22. $\mathbb{B}d6 \mathbb{Q}h7$**

Inaccurate, to put it mildly. 22... $\mathbb{Q}xd6$  23.cxd6  $\mathbb{Q}h7$  was better.

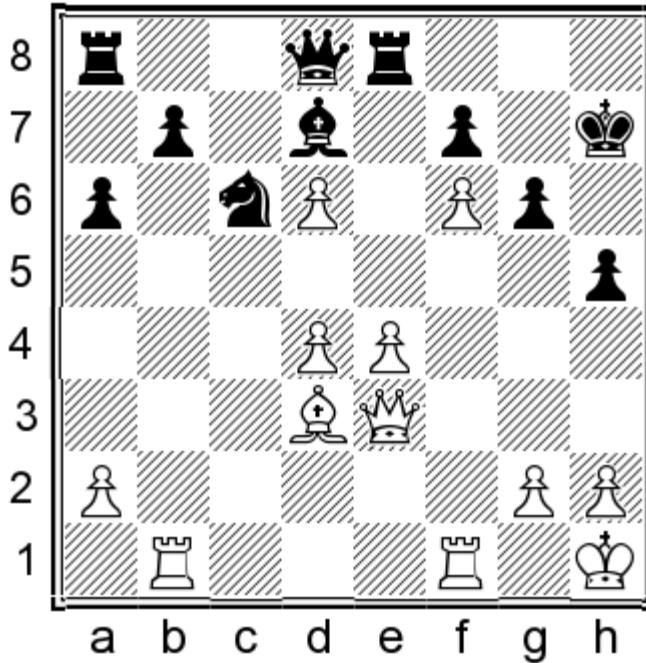
### 23. $\mathbb{W}e3$

Returning the favor! 23.e5 was stronger, and if 23... $\mathbb{Q}xd6$ , then 24.exd6, with a large and almost decisive advantage.

### 23... $\mathbb{Q}xd6$

“On 23... $\mathbb{Q}h6$  there would follow simply 24. $\mathbb{W}f2$ , with e4-e5 to come” (Sakaev).

### 24.cxd6



### 24... $\mathbb{Q}c8$

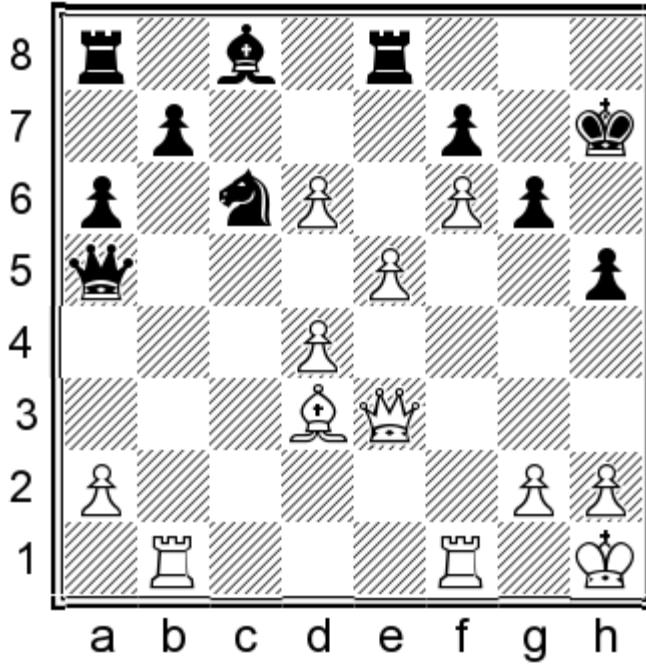
This loses, whereas another move, 24... $\mathbb{W}b8$ , offers hope. Here's Rybka's variation: 25.e5  $\mathbb{W}xd6$  26. $\mathbb{W}f3$  (26. $\mathbb{Q}xb7\pm$ ) 26... $\mathbb{Q}xe5$  27. $\mathbb{W}xh5+$   $\mathbb{Q}g8$  28.dxe5  $\mathbb{Q}xe5$  29. $\mathbb{W}h6$   $\mathbb{W}f8$  30. $\mathbb{W}xf8+$  (30. $\mathbb{W}h4$   $\mathbb{Q}h5$  31. $\mathbb{W}g3$   $\mathbb{W}b8\pm=$ ) 30... $\mathbb{Q}xf8$  31. $\mathbb{Q}xb7$   $\mathbb{Q}e6$ . White is better, but a draw is the most likely outcome.

### 25.e5

Simple and good.

### 25... $\mathbb{W}xd6$

Our engine found a nice variation after 25... $\mathbb{W}a5$ :



Position after 25...  $\mathbb{W}a5$  (analysis)

26.  $\mathbb{B}xb7$   $\mathbb{Q}xb7$  27.  $\mathbb{E}f5$ .

**26.  $\mathbb{Q}xg6+$**

A pretty tactic before the curtain comes down.

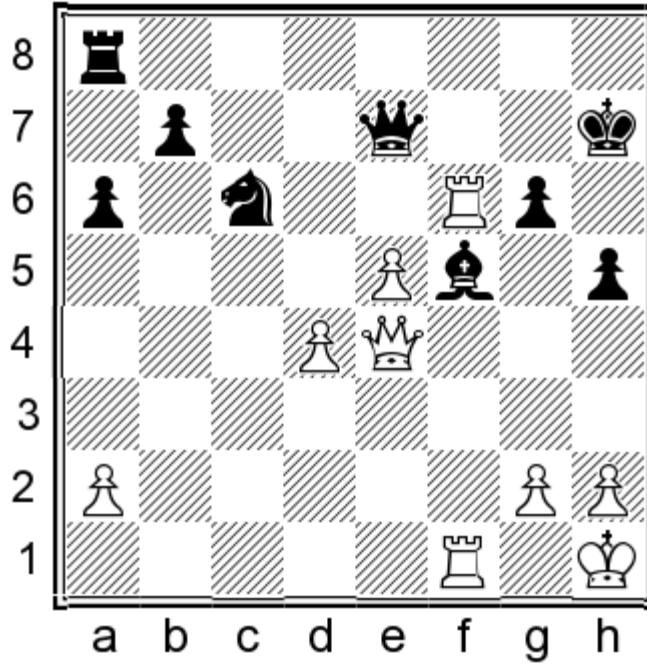
**26...fxg6 27.  $f7$   $\mathbb{W}e7$  28.  $fxe8\mathbb{W}$   $\mathbb{W}xe8$  29.  $\mathbb{E}f6$**

“Black’s pieces lack coordination, so this mating attack is unavoidable” (Sakaev).

**29...  $\mathbb{W}e7$**

“For instance, 29...  $\mathbb{Q}g7$  could be met by 30.  $\mathbb{B}bf1$   $\mathbb{Q}e6$  31.  $d5!$   $\mathbb{Q}xd5$  32.  $e6$ ” (Sakaev).

**30.  $\mathbb{B}bf1$   $\mathbb{Q}e6$  31.  $\mathbb{W}e4$   $\mathbb{Q}f5$**



32.  $\mathbb{E}1xf5$

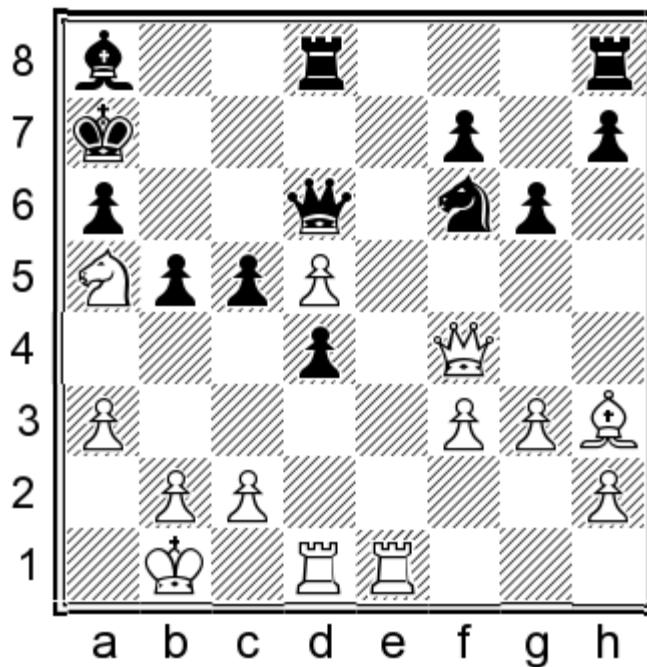
Sweeping aside the last obstacle...

32...  $gxf5$  33.  $\mathbb{W}xf5+$   $\mathbb{Q}g8$  34.  $\mathbb{E}g6+$  1-0

One of the most complex games we have seen so far. But wait, we still have Polugaevsky – Torre (Game 120), an analyst's nightmare!

#### No. 114: Kasparov – Topalov

Wijk aan Zee 1999



*Position after 23... $\mathbb{W}d6$*

The parameters of the position (we're playing White) are:  $m = 1$ ,  $t = 47/38 = \sim 1.24$ , a “plus” in the safety factor.

Our diagnosis: the Tal Algorithm.

24. $\mathbb{E}xd4$

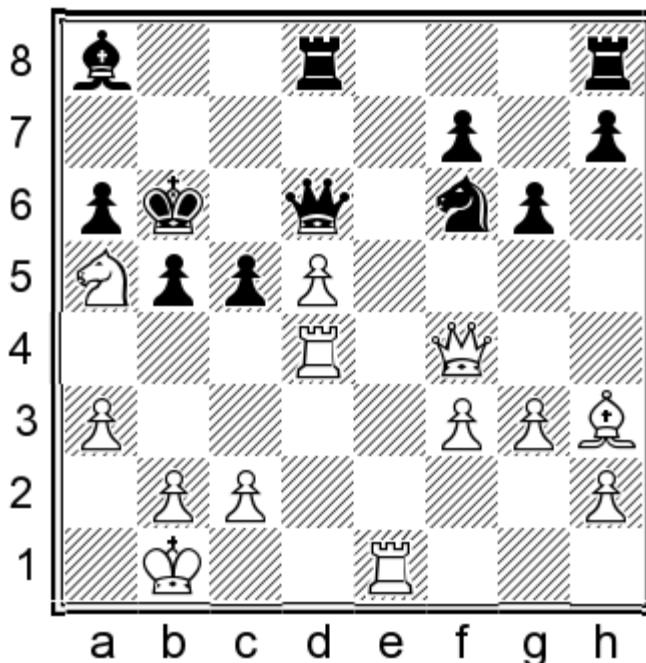
Computer analysis showed that the rook sacrifice is completely correct. Worse yet – the rook is poisoned!

The alternative was 24. $\mathbb{Q}c6+$ , with this approximate variation: 24... $\mathbb{Q}xc6$  25. $\mathbb{W}xd6$   $\mathbb{E}xd6$  26. $dxc6$   $\mathbb{Q}b6$  27. $\mathbb{E}e7$   $\mathbb{E}xc6$  28. $\mathbb{E}xf7$   $\mathbb{E}e8$  29. $\mathbb{Q}c1$   $\mathbb{E}d6\bar{F}$ .

**24. $\mathbb{E}xd4$  cxd4**

This move is refuted in a hardly obvious way. Commenting on this game for *Shakhamatny Peterburg*, No. 1, 1999, GM S. Ivanov rejected this move, as did GM Stohl for *Megabase*. Their analyses were independent of one another, varying in the details.

At least three other moves were stronger than the text: 24...g5 (*Rybka*), 24... $\mathbb{E}xd5$ , and 24... $\mathbb{Q}b6$ . Both Ivanov and Stohl consider the king move strongest in this position. No argument there!



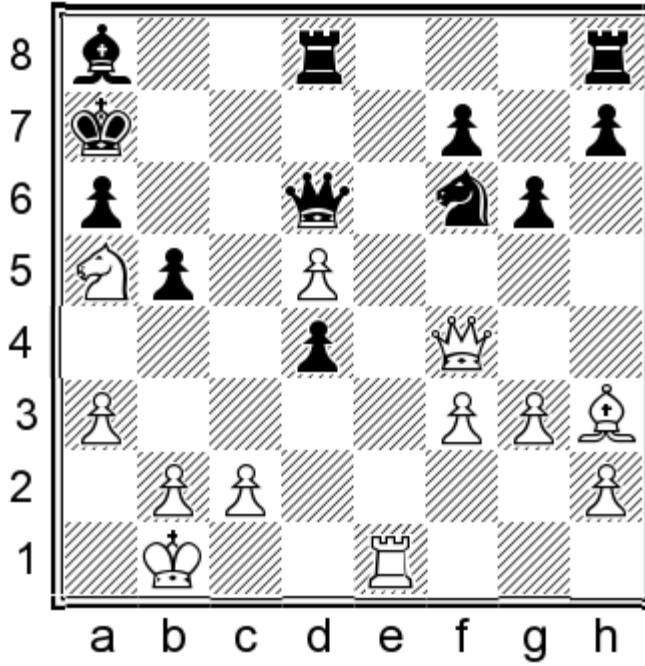
*Position after 24... $\mathbb{Q}b6$  (analysis)*

Some variations (S. Ivanov) are illustrative of the situation in the diagram:

- 25.c4  $\mathbb{Q}xa5$  26.b4+  $cxb4$  27.c5  $\mathbb{W}xf4$  28.axb4+  $\mathbb{Q}a4-$ . “White is one tempo short of a win (if the king stood on b2...);
- 25.b4  $\mathbb{W}xf4$  26. $\mathbb{E}xf4$   $\mathbb{Q}xd5$  27. $\mathbb{E}xf7$   $cxb4$  28.axb4  $\mathbb{Q}xb4\bar{F}$ ;
25. $\mathbb{Q}b3$   $\mathbb{Q}xd5$  (25... $cxd4?$  26. $\mathbb{W}xd4+$   $\mathbb{Q}c7$  27. $\mathbb{W}a7+$   $\mathbb{Q}b7$  28. $\mathbb{Q}c5+-$ ) 26. $\mathbb{W}xd6+$   $\mathbb{E}xd6$  27. $\mathbb{E}d2$   $\mathbb{E}hd8\bar{F}$ .

And so, after 24... $\mathbb{Q}b6$ , Black would have ensured a somewhat better ending.

The game saw a crushing shot:



**25.♕e7+**

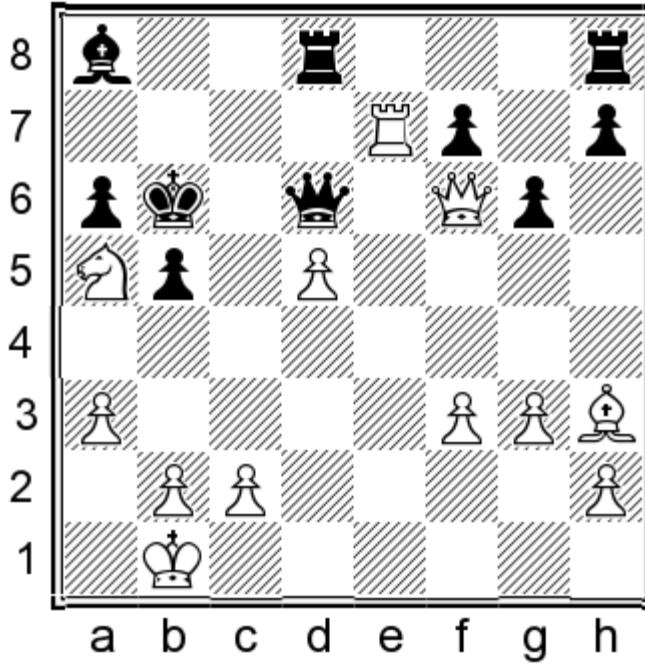
Only like this! And first of all because the natural 25.♕xd4+ doesn't work, since after 25...♛b6 26.♕e7+ ♔d7 27.♕xd7+ ♜xd7 28.♕xh8 now it's Black who wins – 28...♛g1+ 29.♔a2 ♕xd5+ 30.c4 (30.b3 ♜c7-+) 30...bxc4-+ (Rybka).

**25...♛b6**

"Black must go forward, as 25...♛xe7 loses: 26.♕xd4+ ♔b8 27.♛b6+ ♔b7 28.♕c6+ ♔a8 29.♛a7# or 25...♔b8 26.♕xd4 ♔d7 (26...♜d7 27.♕xd7 ♔xd7 28.♕xh8++) 27.♔xd7..." (S. Ivanov). After 27...♔xd5 28.c4! (S. Ivanov, Stohl), Black is defenseless. Check it out!

**26.♕xd4+ ♔a5**

If 26...♛c5, then 27.♛xf6+ ♛d6:



Position after 27...  $\mathbb{W}d6$  (analysis)

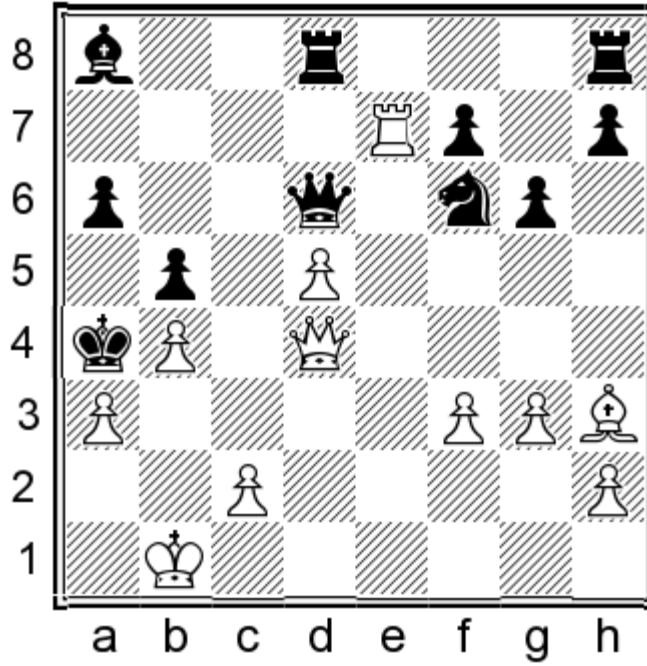
And now 28.  $\mathbb{Q}e6$  wins (indicated by Stohl).

Genius!

Sample variations:

- a) 28... fxe6 29.  $\mathbb{Q}xe6$ +-;
- b) 28...  $\mathbb{Q}xa5$  29. b4+  $\mathbb{Q}a4$  30.  $\mathbb{W}c3$   $\mathbb{Q}xd5$  31.  $\mathbb{Q}xd5$   $\mathbb{W}xd5$  32.  $\mathbb{Q}a7$   $\mathbb{Q}a8$  33.  $\mathbb{Q}xa8$   $\mathbb{Q}xa8$  34.  $\mathbb{Q}b2$  Δ 35.  $\mathbb{W}b3$ ++-;
- c) 28...  $\mathbb{Q}xd5$  29. b4 (Δ 30.  $\mathbb{W}d4$ ++) 29...  $\mathbb{Q}c6$  30.  $\mathbb{W}xf7$  (Δ 31.  $\mathbb{Q}b7$ ++) 30...  $\mathbb{W}d1+$  31.  $\mathbb{Q}b2$   $\mathbb{W}xf3$  32.  $\mathbb{Q}c7$   $\mathbb{Q}hf8$  33.  $\mathbb{W}g7$   $\mathbb{W}f6+$  34.  $\mathbb{W}xf6$   $\mathbb{Q}xf6$  35.  $\mathbb{Q}xc6$ ++-.

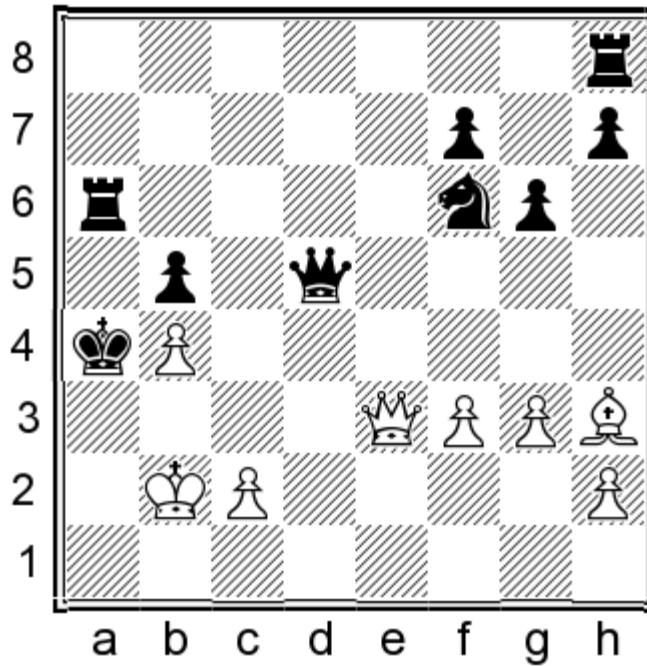
**27.b4+  $\mathbb{Q}a4$**



**28.♕c3**

This probably wins. However, Stohl indicated a slightly stronger move, 28.♖a7. Stohl's variations:

- a) 28...♗xd5 29.♕c3 ♜he8 30.♔b2 ♜e2 31.♕c7+--;
- b) 28...♗xd5 29.♕xa6+ ♜xa6 30.♕b2 ♜c3+ 31.♕xc3 ♔d5 32.♔b2 ♜e6 33.♗xe6 fxe6 34.♕b3+ ♔xb3 35.cxb3#;
- c) 28...♔b7 29.♕xb7,
- c1) 29...♗xd5 30.♔d7 (Δ 31.♔b5+--+) 30...♗xd7 (30...♗a8 31.♔xb5+ axb5 32.♔a7+ ♜a6 33.♗xd5+--);
- c2) 29...♗xd5 30.♕b6 a5 (30...♗a8 31.♗xf6 a5 32.♔f1 Δ ♜c3, ♔b2, ♜b3+--+) 31.♔a6 ♗a8 32.♗e3 ♗xa6 33.♔b2 axb4 34.axb4:



Position after 34.axb4 (analysis)

White wins!

And what happened in the game?

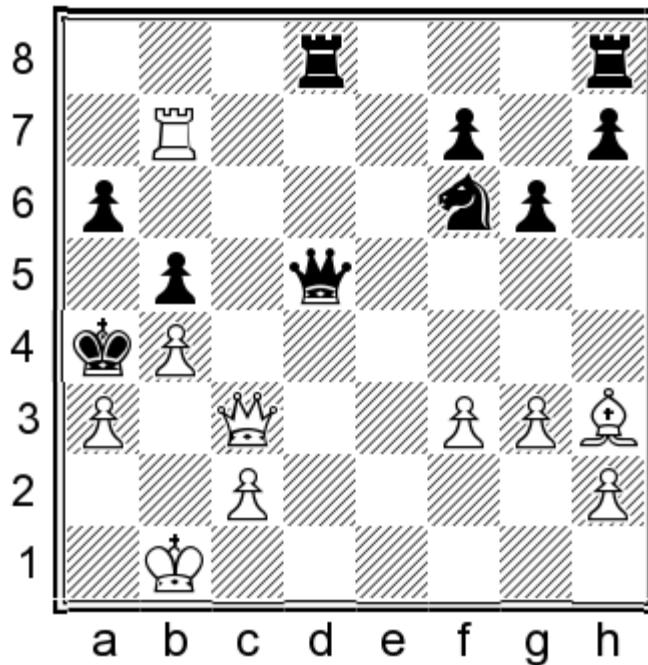
**28... $\mathbb{W}xd5$**

White scores the point at once after 28... $\mathbb{W}xd5$  29. $\mathbb{Q}b2$ .

**29. $\mathbb{E}a7 \mathbb{Q}b7$**

29... $\mathbb{E}d6$  was bad: 30. $\mathbb{Q}b2$ , and Black can't play 30... $\mathbb{W}d4$  because of mate on a6.

**30. $\mathbb{E}xb7$**



**30... $\mathbb{W}c4$**

Ivanov and Stohl both view this move with suspicion, preferring 30... $\mathbb{E}he8$ . True, this doesn't stop Stohl, after 31. $\mathbb{E}b6$   $\mathbb{E}a8$  32. $\mathbb{Q}f1$ , from burdening Black with imminent defeat – that is, “+”.

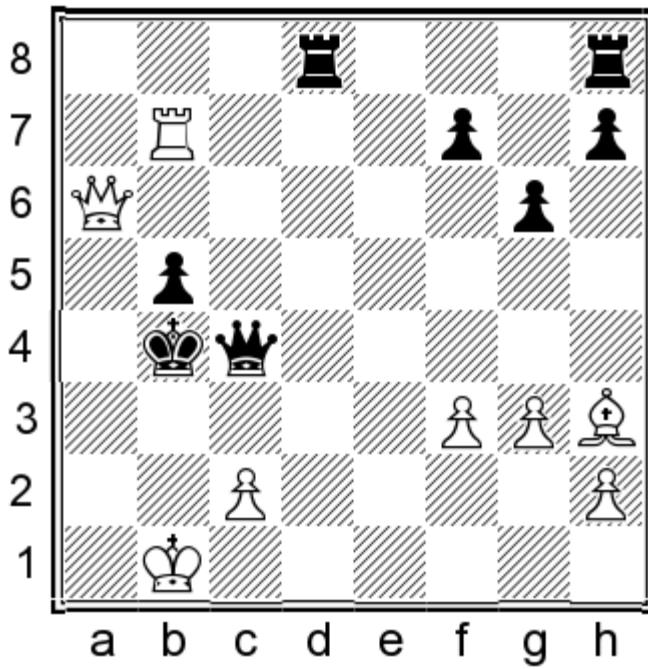
Is that so? More than likely, as 32... $\mathbb{E}ec8$  33. $\mathbb{W}xc8$   $\mathbb{W}d1+$  34. $\mathbb{Q}a2$   $\mathbb{W}d5+$  35. $\mathbb{Q}c4$   $\mathbb{W}xc4+$  36. $\mathbb{W}xc4$   $bxc4$  37. $\mathbb{E}xf6$  (*Rybka*) yields a lost ending for Black. Try it!

**31. $\mathbb{W}xf6 \mathbb{Q}xa3$**

“The black king goes bravely forward – to his doom. Now Black loses by force. After 31... $\mathbb{E}d1+$  32. $\mathbb{Q}b2$ , he could trade queens: 32... $\mathbb{W}d4+$  33. $\mathbb{W}xd4$   $\mathbb{E}xd4$ , but this would not change his fate: 34. $\mathbb{E}xf7$   $\mathbb{E}d6$  (34...a5 35. $\mathbb{E}a7+-$ ; 34... $\mathbb{E}e8$  35. $\mathbb{E}f6$   $\mathbb{E}a8$  36. $\mathbb{Q}e6+-$ ) 35. $\mathbb{E}e7!$   $\Delta$   $\mathbb{Q}e6+-$ .

“And in the case of 32... $\mathbb{E}a8$  33. $\mathbb{W}b6$  (33. $\mathbb{E}xf7$   $\mathbb{E}d2$ ) 33... $\mathbb{W}d4+$  (33...a5 34. $\mathbb{Q}d7$   $\mathbb{E}d5$  35. $\mathbb{W}e3+-$ ) 34. $\mathbb{W}xd4$   $\mathbb{E}xd4$  35. $\mathbb{E}xf7$  a5 36. $\mathbb{Q}e6$   $axb4$  37. $\mathbb{Q}b3+$   $\mathbb{Q}a5$  38. $axb4+$   $\mathbb{Q}b6$  (38... $\mathbb{E}xb4$  39.c3+-) 39. $\mathbb{E}xh7+-$ , Black cannot hold the position” (S. Ivanov).

**32.♔xa6+ ♔xb4**



**33.c3+**

Remarkable.

**33...♝xc3**

Or 33...♛xc3 34.♕xb5+ ♔a3 35.♕a7++-; 33...♝c5 34.♕c7++- (S. Ivanov). Or 33...♝b3 34.♕a2+ ♔xc3 35.♕b2+ ♔d3 36.♕e7!+- (Stohl).

**34.♕a1+ ♔d2**

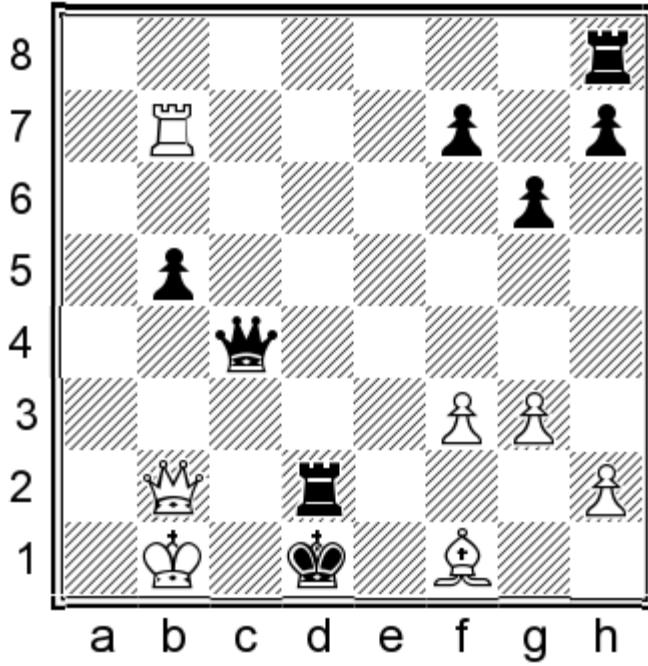
If 34...♝b4, then 35.♕b2+ ♔a5 36.♕a3+ ♛a4 37.♕a7++-.

**35.♕b2+ ♔d1**

Black loses after 35...♝e1 36.♕e7+ ♔d1 37.♝f1 (Stohl). Let's play out this variation: 37...♝d2 38.♝e2+ ♜xe2 39.♝xe2 ♛d3+ 40.♝c2++-.

**36.♝f1 ♜d2**

Or 36...♝xf1 37.♝c2+ ♜e1 38.♝e7++-.



**37.♕d7**

The decisive blow.

**37...♝xd7 38.♝xc4 bxc4**

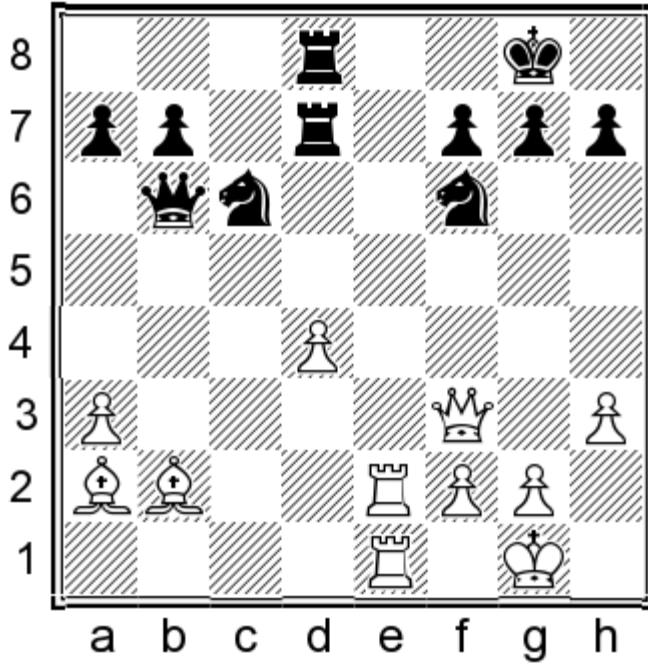
Otherwise it's mate on c1.

**39.♛xh8 ♜d3 40.♛a8 c3 41.♛a4+ ♔e1 42.f4 f5 43.♔c1 ♜d2 44.♛a7 1-0**

The black king, having reached the first rank, is forced to sign articles of unconditional surrender.

**No. 115: Shashin – Korchnoi**

Leningrad 1973



Position after 19...  $\mathbb{W}b6$

The parameters of the position, from White's viewpoint:  $m = 1$ ,  $t = 43/38 = \sim 1.13$ , a small "plus" in the safety factor,  $\Delta k \ll 0$ , and  $\Delta(19\dots \mathbb{W}b6) = \sim 0.18$ .

Our diagnosis: the TC Algorithm.

## 20. $\mathbb{W}c3$

The right-hand – that is, the “Tal” branch of the TC Algorithm: White sacrifices a pawn for an attack on the king. The alternative is the “Capablanca” 20.  $\mathbb{E}d2$ , which leads to the trade of the “bad” d-pawn for the b-pawn. *Rybka* gives the variation 20...  $\mathbb{Q}xd4$  21.  $\mathbb{Q}xd4$   $\mathbb{E}xd4$  22.  $\mathbb{E}xd4$   $\mathbb{W}xd4$  23.  $\mathbb{Q}b3$  b5 24.  $\mathbb{W}b7$   $\mathbb{E}f8$  25.  $\mathbb{W}xb5\pm$ .

I was hoping for more. More precisely, I didn't see any moves like 20.  $\mathbb{E}d2$  or 20.  $\mathbb{W}e3$  (*Rybka*'s second line), because I was consumed by an irrepressible feeling of chess aggression. Indignantly, after rejecting the cowardly 20. d5 due to 20...  $\mathbb{Q}d4\mp$ , I cast myself into the depths of irrational complications, without any inner resistance. And Caissa turned away from Korchnoi and smiled broadly on me!

## 20... $\mathbb{Q}xd4$

The threat is 21. d5+-, so Black is forced to capture the pawn, and with the knight in particular, as otherwise (after 20...  $\mathbb{W}xd4$  or 20...  $\mathbb{E}xd4$ ) 21.  $\mathbb{W}g3$  wins.

## 21. $\mathbb{E}e7$

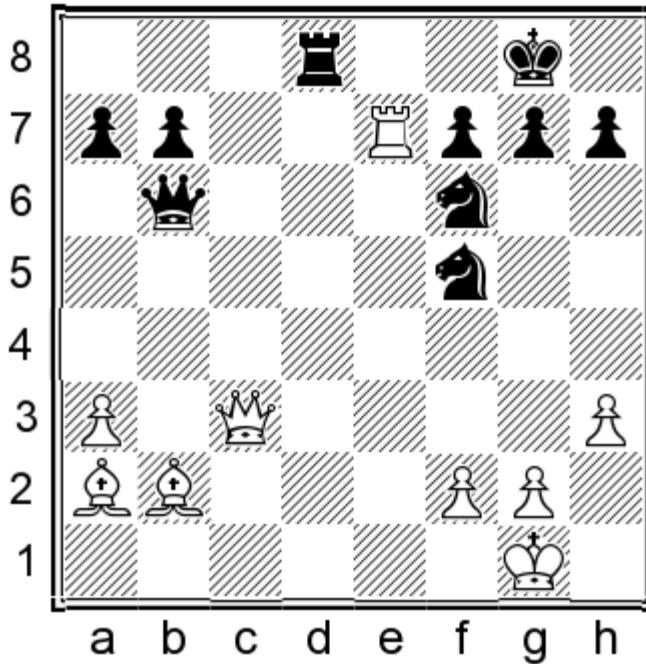
The pawn was sacrificed in order to play this incursion.

## 21... $\mathbb{E}xe7$

“21...  $\mathbb{Q}f8$ , driving out the dangerous white rook, deserved attention. For example, 22.  $\mathbb{E}xd7$   $\mathbb{E}xd7$  23.  $\mathbb{W}c8+$   $\mathbb{E}d8$  24.  $\mathbb{W}c4$   $\mathbb{E}d7$ , and Black holds on (S. Ivanov, A. Kentler, V. Faibisovich, B. Khropov, *Shakhmatnaya Letopis Peterburga 1900-2005. Championati goroda*).”

## 22. $\mathbb{E}xe7$ $\mathbb{Q}f5$

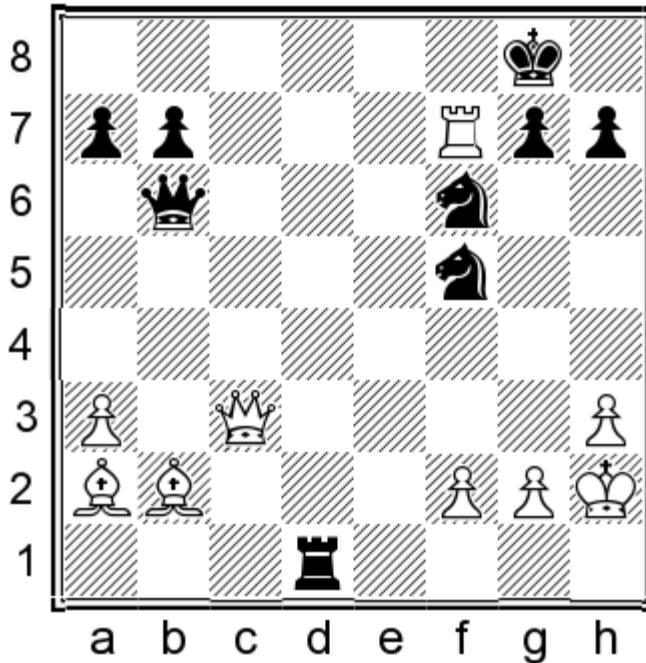
Korchnoi's laconic annotations: 22... $\mathbb{Q}e6$  23. $\mathbb{W}b3\pm$ ; 22... $\mathbb{W}d6$  23. $\mathbb{W}e1!\pm$  (see Chess Informant No. 15).



**23. $\mathbb{B}xf7$**

The sensible 23. $\mathbb{W}e1$ , cutting off my opponent's terrible counterattack, would have amounted to moral capitulation. However, I saw no refutation of the game move, and so – this is important! – lost my instinct for self-preservation.

**23... $\mathbb{B}d1+$  24. $\mathbb{Q}h2$**



Back after 22... $\mathbb{Q}f5$ , I had calculated the following variations:

a) 24... $\mathbb{Q}g4+$  25.hxg4,

a1) 25... $\mathbb{W}h6+$  26. $\mathbb{W}h3$   $\mathbb{W}f4+$  27.g3  $\mathbb{W}xf2+$  28. $\mathbb{W}g2$   $\mathbb{W}xg2+$  29. $\mathbb{Q}xg2$   $\mathbb{E}d2+$  30. $\mathbb{Q}h3$   $\mathbb{E}xb2$  31. $\mathbb{Q}e6+-;$

a2) 25... $\mathbb{W}d6+$  26. $\mathbb{W}g3$  (26.g3  $\mathbb{W}h6+$  27. $\mathbb{Q}g2$   $\mathbb{W}h1\#$ ) 26... $\mathbb{Q}xg3$  (26... $\mathbb{W}h6+$  27. $\mathbb{W}h3+-$ , see line a1) 27. $\mathbb{E}d7+$   $\mathbb{Q}f8$  28. $\mathbb{Q}xg7+$   $\mathbb{Q}e8$  29. $\mathbb{E}xd6$   $\mathbb{Q}f1+$  30. $\mathbb{Q}g1$ , and if 30... $\mathbb{E}xd6$ , then 31. $\mathbb{Q}xf1+-.$

b) 24... $\mathbb{W}d6+$  25.g3  $\mathbb{Q}g4+$  26. $\mathbb{Q}g2$  (26.hxg4  $\mathbb{W}h6+$  27. $\mathbb{Q}g2$   $\mathbb{W}h1\#$ ) 26... $\mathbb{Q}g3+$  27. $\mathbb{Q}f3+-.$

Then, when I had already reached the position after 24. $\mathbb{Q}h2$ , I began to go over my calculations once again, and found a hole in variation (a2). More accurately – not a hole, but a continuation of the variation 30. $\mathbb{Q}g1$ , and now, not 30... $\mathbb{E}xd6$ , but 30... $\mathbb{Q}d2+$  31. $\mathbb{Q}h2$   $\mathbb{Q}f1+$  with perpetual check. What a shame!

However – and this I saw in an instant – I did have a small chance to continue the struggle by giving up the rook: 32. $\mathbb{Q}h3$   $\mathbb{E}xd6$  33.g5!. A sharp ending arises – and, remember, I didn't even start to torture myself with pointless questions like “who's better?” which I put off for later: first let Korchnoi find the check on d2!

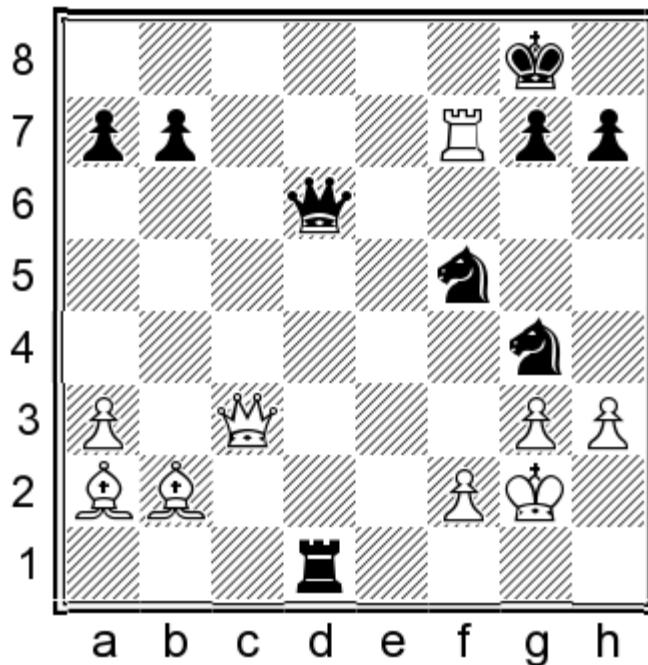
As became clear right after the game ended, Korchnoi, like me, had seen variations (a1) and (a2)... but he had overlooked the knight check!

I had not yet re-evaluated the “winning” line (b), when the first move in the variation showed up on the board!

**24... $\mathbb{W}d6+$**

Now 25. $\mathbb{W}e5$  is bad (and I forgot to mention it in my annotations) due to 25... $\mathbb{Q}g4+$ , with mate next. However...

**25.g3  $\mathbb{Q}g4+$  26. $\mathbb{Q}g2$**



Is everything going according to plan? Is it a win?!

Korchnoi's reply sent me reeling. The grandmaster gave check, “not with that knight and not in that place”!

**26... $\mathbb{Q}h4+$**

This move completely escaped me. Completely!

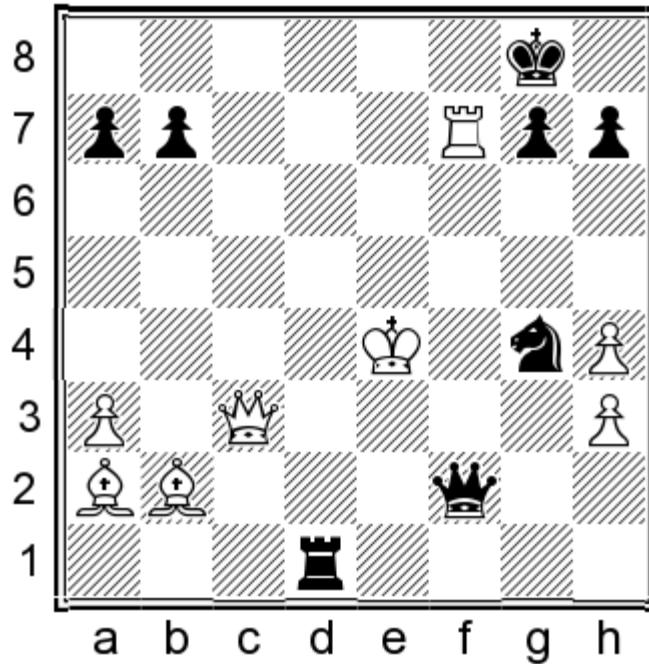
What do I do now??

Fortunately for White, very little depends on him now – he is swimming with the current. The driver is Korchnoi; and

he, not I, is making the decisions... I add that mutual time pressure was approaching!

**27.gxh4 ♖h2+ 28.♔f3 ♖xf2+ 29.♔e4**

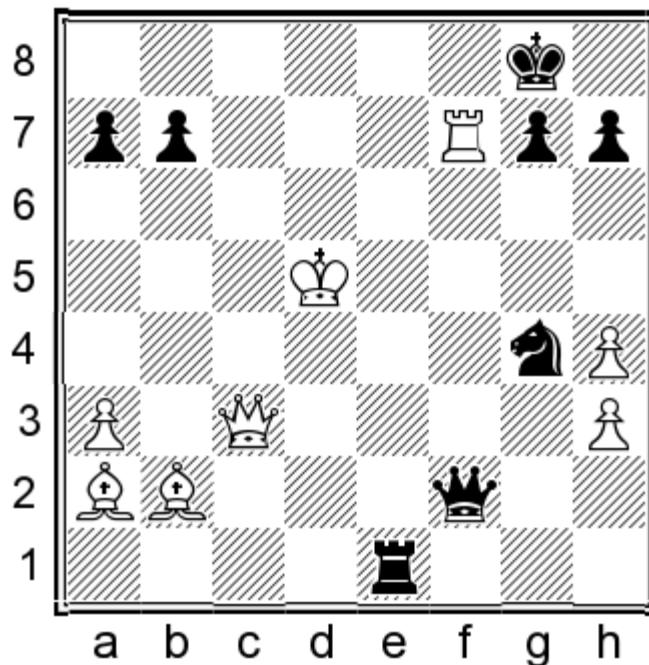
“A move like this is easy to find, since it’s strictly necessary. The alternative is to be checkmated: 29.♔xg4? ♕g1+ 30.♔h5 g6+ 31.♔h6 ♖xh4#” (*Shakhmatnaya Letopis Peterburga*).



**29...♖e2+**

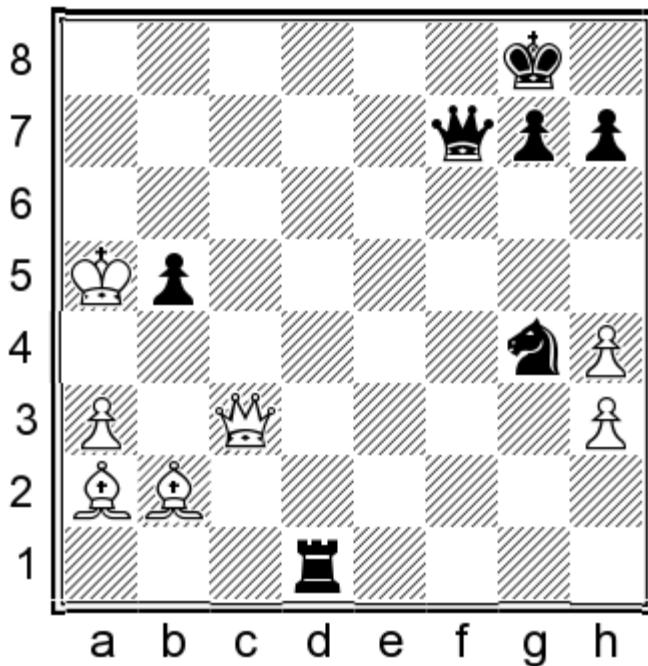
Loses by force. The rook check 29...♜e1+ left him some chances to draw, with correct and “non-human” play...

Selected variations after 29...♜e1+ 30.♔d5:



Position after 30.  $\mathbb{Q}d5$  (analysis)

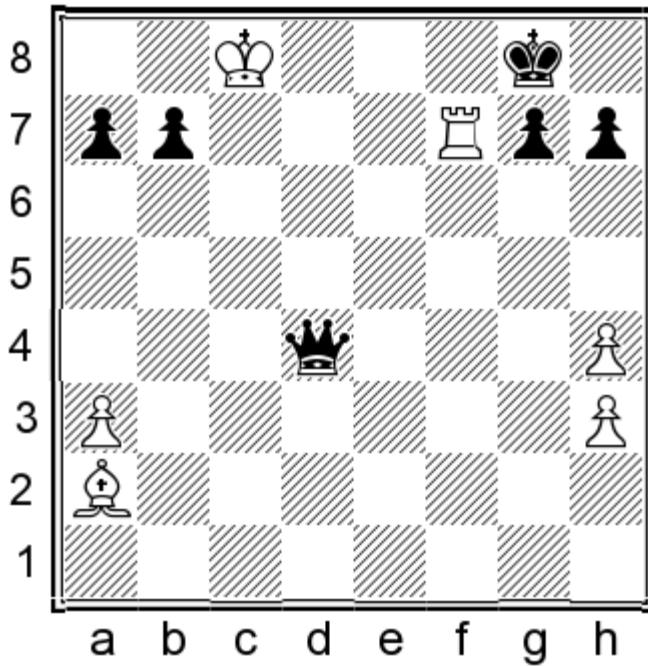
a) 30...  $\mathbb{W}xf7$  31.  $\mathbb{Q}d6$  (31.  $\mathbb{Q}c5 \mathbb{E}e5+\mp$ ) 31...  $\mathbb{E}d1+$  32.  $\mathbb{Q}c5 b6+$  33.  $\mathbb{Q}b4 a5+$  34.  $\mathbb{Q}a4 b5+$  35.  $\mathbb{Q}xa5+-:$



Position after 35.  $\mathbb{Q}xa5$  (analysis)

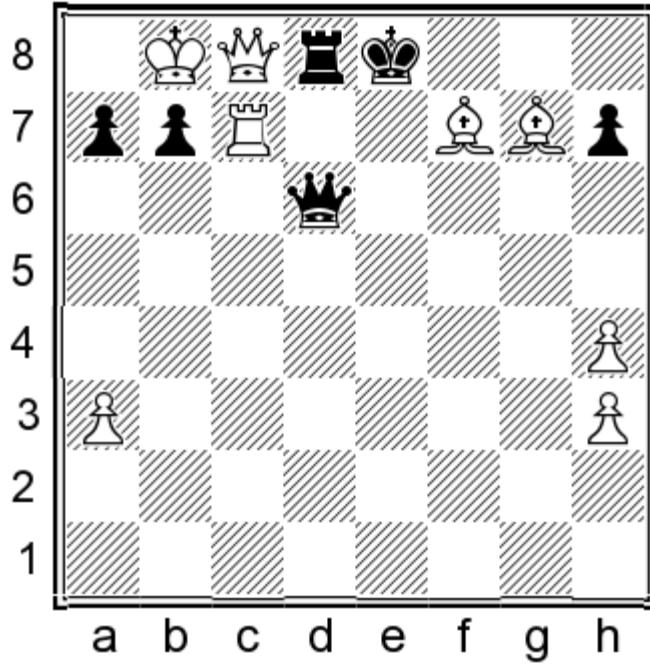
b) 30...  $\mathbb{Q}e3+$  31.  $\mathbb{Q}d6$   $\mathbb{Q}c4+$  32.  $\mathbb{W}xc4$ ,

b1) 32...  $\mathbb{W}b6+$  33.  $\mathbb{Q}d7 \mathbb{E}d1+$  34.  $\mathbb{Q}d4 \mathbb{E}xd4+$  35.  $\mathbb{W}xd4 \mathbb{W}xd4+$  36.  $\mathbb{Q}c8+-:$



Position after 36.  $\mathbb{Q}c8$  (analysis)

b2) 32...  $\mathbb{E}d1+$  33.  $\mathbb{Q}c7$  (33.  $\mathbb{Q}e7+-$ ) 33...  $\mathbb{W}b6+$  34.  $\mathbb{Q}b8 \mathbb{E}d8+$  35.  $\mathbb{W}c8 \mathbb{W}d6+$  36.  $\mathbb{E}c7+ \mathbb{Q}f8$  37.  $\mathbb{Q}xg7+ \mathbb{Q}e8$  38.  $\mathbb{Q}f7#$ :



c) 30... $\mathbb{Q}f6+$  31. $\mathbb{B}xf6$   $gxf6$  32. $\mathbb{W}xf6$  33. $\mathbb{Q}xf6$  (*Shakhmatnaya Letopis Peterburga*);

d) 30... $\mathbb{B}d1+$  31. $\mathbb{Q}c4$   $\mathbb{Q}xf7$  32. $hxg4$   $\mathbb{Q}e8\pm$  (Khalifman).

After 29... $\mathbb{W}e2+$ , White wins with no particular difficulties.

**30.  $\mathbb{Q}f4$   $\mathbb{B}f1+$  31.  $\mathbb{Q}g5$   $h6+$**

Will the checks never end?

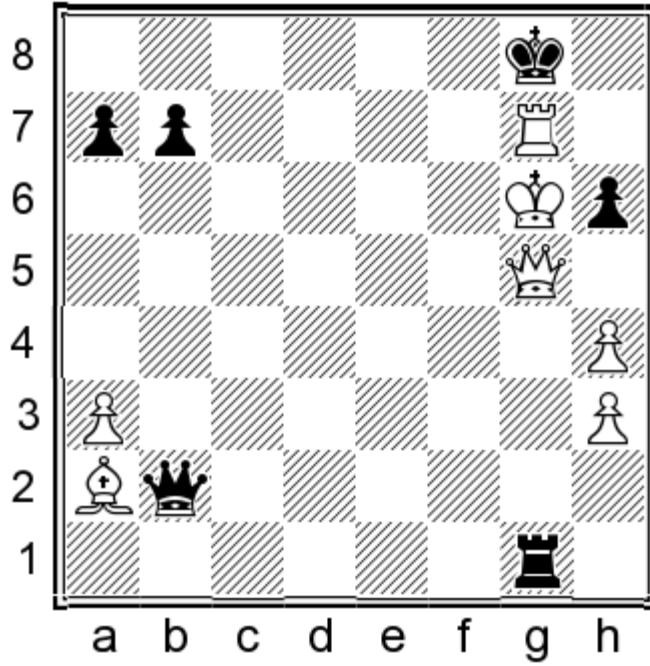
**32.  $\mathbb{Q}g6$   $\mathbb{Q}e5+$  33.  $\mathbb{W}xe5$   $\mathbb{B}g1+$  34.  $\mathbb{W}g5$**

Only thus! 34.  $\mathbb{Q}f5$   $\mathbb{W}f2+$  leads to a draw – work it out yourself!

**34...  $\mathbb{W}xb2$**

Or 34... $\mathbb{B}xg5+$  35. $hxg5$   $\mathbb{W}xb2$  (35... $\mathbb{W}c2+$  36. $\mathbb{B}f5\#\#\#$ ) 36. $\mathbb{B}xb7$   $\mathbb{W}xa2$  37. $\mathbb{B}b8\#$ .

**35.  $\mathbb{B}xg7+$**



Black resigned ( $35 \dots \mathbb{Q}f8$   $36 \mathbb{Q}g8\#$ ). **1-0**

As the players in the championship joked, the queen with her own body prevented the king's access to e7.

Victory!

The crazy white king, walking around the whole board (and that with queens, rooks, and minor pieces still present!), was protected by Caissa. Why?

There's no rational explanation for it, and there probably cannot be.

## Chapter 4

### The Second-Pass Evaluation

We start the fourth chapter with an interview, which I was lucky enough to have with the author of this book. It's short, and dedicated to the specifics of the third factor of the chess position. Were there no such particularities, there wouldn't be a second-pass evaluation...

**Q.** Dear author, what do you mean by the expression, "second pass"?

**A.** The second pass should come after the first one.

**Q.** All right then, one more question: what do you mean by the expression, "first pass"?

**A.** The first and the second passes are both tied, as closely as possible, to the third factor of the chess position – that is, to the factor representing the safety level in the position as a whole. And the position as a whole – that's king + any other chessmen. More accurately, the white king + other white chessmen and the black king + other black chessmen.

The first-pass evaluation has to do only with the kings; the second, with the other chessmen.

**Q.** Why do you draw a distinction between the king and all the other pieces?

**A.** Because the king is a piece of limitless value. The value of the king exceeds the total value of all the other pieces, and therefore we can very often disregard the safety of the other pieces, without loss to the truth.

**Q.** And when is that not possible?

**A.** Usually when the opposing kings are out of danger. Or when the danger to them is not great...

**Q.** And then we look in turn at the safety of the queens, rooks, minor pieces... Do I have that right?

**A.** Correct, since the level of safety in a chess position is the sum of the safety levels of the kings in the first place, and of all the other pieces in the second. And they...

**Q.** Then, would you ask the chess practitioner (the practical player, not the theoretician!) to show up for his game with a calculator? And, in the end, where do you ask us mortals to draw the line? Where is the standard? What do you say?

**A.** There is no standard of safety, but there is the possibility of comparing the level of safety using the model of the "bad" or "good" king, the "bad" or "good" queen, and so forth.

**Q.** Very complicated, and – if you'll excuse me – cumbersome. We are not computers with their fantastic speed. We are mere flesh-and-blood chessplayers...

**A.** Precisely! We must learn to make use of our purely human advantages. We have intuition, foresight. Ultimately, we have the ability to distinguish the beautiful from the ugly, and there is the will that overcomes terror. As the years pass, we gain experience...

**Q.** What do we do if our position is complicated?

**A.** That's not a question! That is something we have long since gotten past! We must engage the TCP Algorithm and start with "Tal."

**Q.** Then let me reformulate my question: what should we do in relatively simple positions, if we doubt the correctness of our diagnosis?

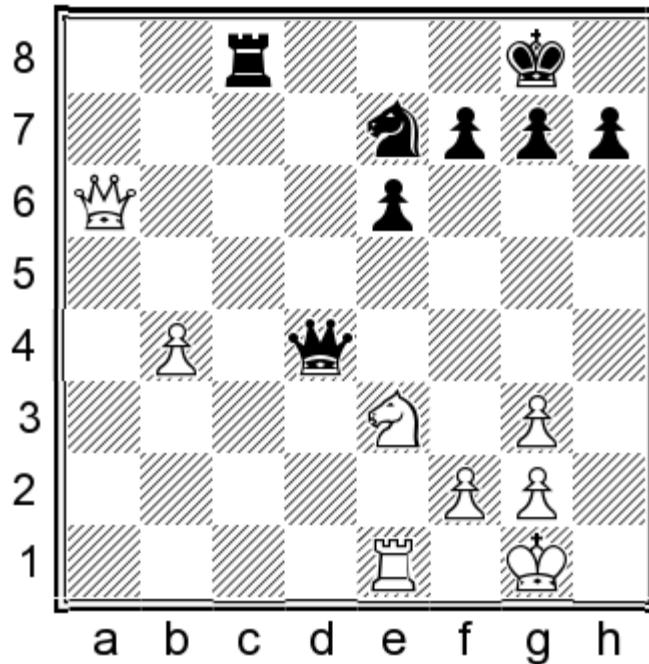
**A.** My advice is to stay on the alert. Overcome your fears, but let your fearlessness not hinder your feeling of deepest respect for the safety factor. And then the position itself will categorically require you to undertake the second-pass evaluation!

The purely chess part of this very modest-sized chapter, I begin with a most instructive and very beautiful example. Let me give right off the bat the diagnosis for the study position (see diagram): the Tal Algorithm. I add (don't be surprised, please!): we have a radically different side of this aggressive algorithm.

Brace yourself! Now the thunder rolls...

### No. 116: Khmelnitsky – Kabatansky

USSR 1989



White to move

**1.♘f5 1-0**

Black resigned, as he gets mated after 1...exf5 2.♕xc8+.

Why? Why “Tal”?

Of course, not because  $m = 1$ ,  $t = 38/47 \approx 0.81$ ,  $\Delta k \ll 0$ , and  $\Delta(\text{move}) = 22/8 - 18/8 = 0.50$ . Not because of that!

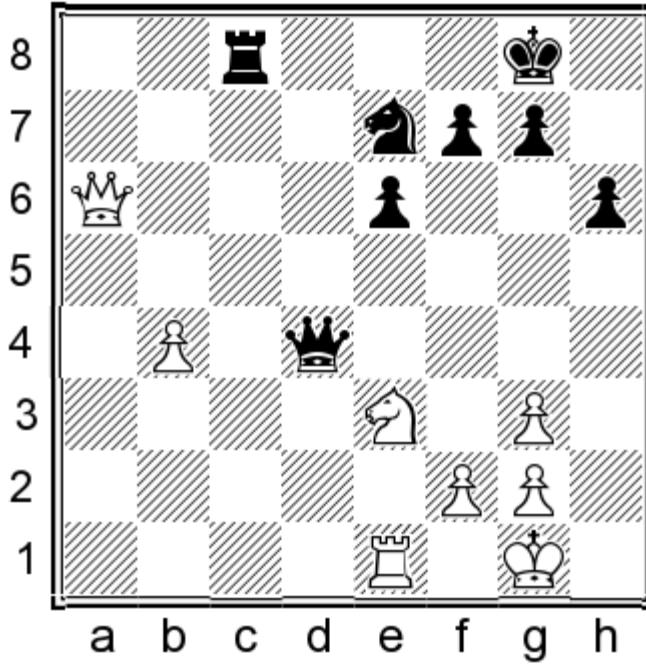
If we had parity in the safety factor, it would be a pressured CP Algorithm, that's all. But...

But we have parity in the safety factor in the first pass, and a “plus” in the second pass! Why?

Because the poor rook on c8 is under attack! Because the knight on e7 is not defended. Because the black queen is too far afield. And because the mobility of the black king is not great – now, if that pawn were on h6 instead of h7!...

Enough. We activate the Tal Algorithm: open and direct attacks – on the king, the queen... stop! The knight leaps, and... victory!

And now, we modify slightly this marvelous position, moving the pawn from h7 to h6:



*White to move*

Dispensing with the third factor for the time being:  $m = 1$ ,  $t = 38/47 \approx 0.81$ ,  $\Delta k \ll 0$ , and  $\Delta(\text{move}) = \approx -0.38$ . Compare this with the parameters of the position we started out with... Done?

We have experienced minimal movements in the fifth and (notice!) in the third factor. Now the black king's mobility is a little better. It's increased by one – and miraculously, Black is out of danger!

Let's give the floor to the cool-headed *Rybka* (pawn on h6):

- 1) 1.  $\mathbb{W}b7 \mathbb{W}d6$  2.  $\mathbb{E}a1 \mathbb{E}c7$  3.  $\mathbb{W}b8+$   $\mathbb{Q}h7$  4.  $\mathbb{E}d1 \mathbb{Q}d5=$  (0.16) at 16 ply;
- 2) 1.  $b5 \mathbb{E}b8$  2.  $\mathbb{E}c1 \mathbb{Q}h7$  3.  $\mathbb{E}c4 \mathbb{W}e5$  4.  $\mathbb{W}a3=$  (0.00) at 16 ply.

I set up the position after 4.  $\mathbb{E}d1$  (see the first line). What's on the screen?

4...  $\mathbb{Q}d5$  5.  $\mathbb{Q}xd5$   $exd5$  6.  $\mathbb{W}b5 \mathbb{E}d7$  7.  $\mathbb{E}d4 \mathbb{W}e6=$  (0.09), 16 ply;

4...  $\mathbb{W}c6$  5.  $b5 \mathbb{W}b7$  6.  $\mathbb{W}d8\pm$  (0.43), 16 ply.

Conclusion: the second position is approximately equal. I repeat: approximately equal – that is, Black is out of danger! From rags to riches! Why?

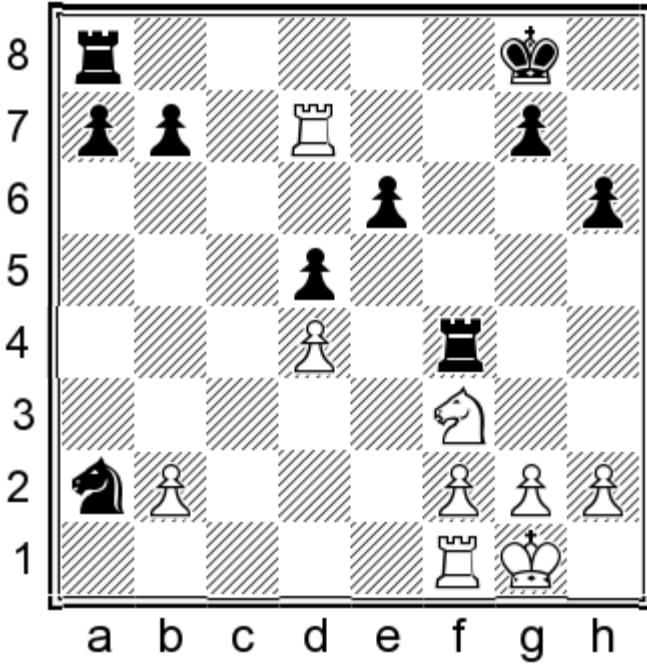
Because of the unpredictable third factor.

My advice: in previewing the final diagnosis of a given position, don't forget to activate "Tal" for a few seconds – that is, where possible, take the crudest and even most senseless open attacks on the king, the queen... Allow "Tal" to be, going forward, your faithful companion. But just don't engage its full force in *every* position! I don't want our method – the universal method for searching for the strongest move – to be turned into an exclusively TCP Algorithm, with no possible alternatives. In that case we would need a heck of a lot of time to conduct our search.

On the other hand, if I imposed on you an unconditional taboo on the "Tal" in quiet and apparently simple positions, then you would no doubt have zero chance of rising to the shining heights of the divine 1.  $\mathbb{Q}f5!$  – none at all!

**No. 117: Smagin – S. Volkov**

Russian Championship, St. Petersburg 1998



Position after 21... $\mathbb{B}xd7$

We are playing Black. The parameters are:  $m > 1$ ,  $t = 28/25 = 1.12$ ,  $\Delta k = \sim 0.00$ , and  $\Delta(21.\mathbb{B}xd7) = 30/10 - 24/9 = \sim 0.33$ . With parity in the third factor, we would undoubtedly need “Capablanca,” but...

But we evidently do not have a very good king, and the a2-knight is placed, to put it delicately, not very well. These two poor pieces impel us toward “Petrosian,” requiring a heightened degree of alertness. We must deny ourselves any thoughts of relaxing...

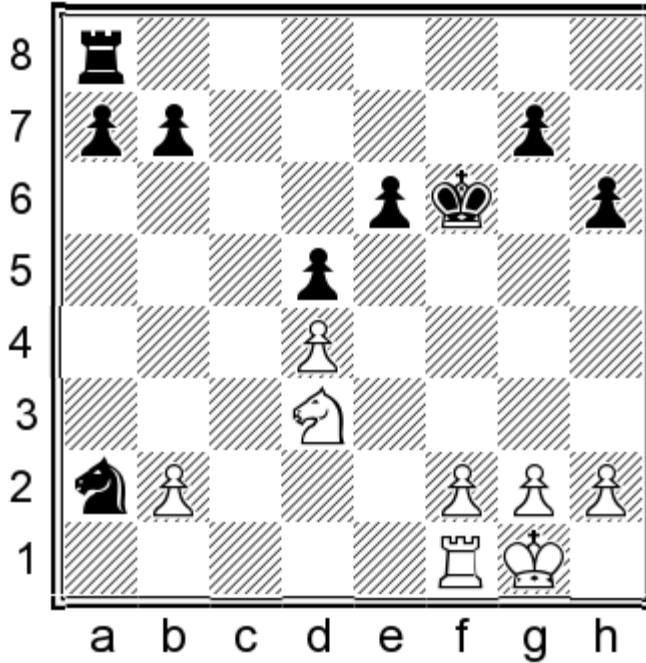
**21... $\mathbb{B}f7$**

Alas, this loses a piece by force – Black gets careless and overlooks a two-move maneuver by the white knight.

After 21... $\mathbb{B}c8$  22. $\mathbb{B}b7$   $\mathbb{B}f7$ , analysis shows that Black has no problems – we have dynamic balance.

And on 21... $b6$ , Black probably is even slightly better, and it is White who must then find a narrow path to the draw. For example, 22. $\mathbb{B}a1$   $\mathbb{Q}b4$  23. $\mathbb{B}c1$  (23. $\mathbb{B}xa7$   $\mathbb{B}xa7$  24. $\mathbb{B}xa7$   $\mathbb{Q}c6\#$ ) 23... $\mathbb{B}f7$  24. $\mathbb{B}xf7$   $\mathbb{Q}xf7$  25. $\mathbb{B}c7+$   $\mathbb{Q}g8$  26. $\mathbb{Q}e5$  (*Rybka*). *Rybka* sees no advantage for Black, either, after the cool 22. $h3$ . A draw would have been the proper outcome of the struggle.

**22. $\mathbb{B}xf7$   $\mathbb{Q}xf7$  23. $\mathbb{Q}e5+$   $\mathbb{Q}f6$  24. $\mathbb{Q}d3$**



Chess is an amazing game after all! Black has a “plus” in four of the five parameters, yet is defenseless in the face of 25.♖a1 Δ 26.♖xa2. Verify this for yourself.

**24...♜c8**

Nor does 24...a5 help: after 25.♖a1 ♜b4 26.♖xb4 he can't play 26...axb4 – that rook on a8!

**25.♖a1 ♜c4 26.♖xa2 ♜xd4 27.♘e1 ♜d2**

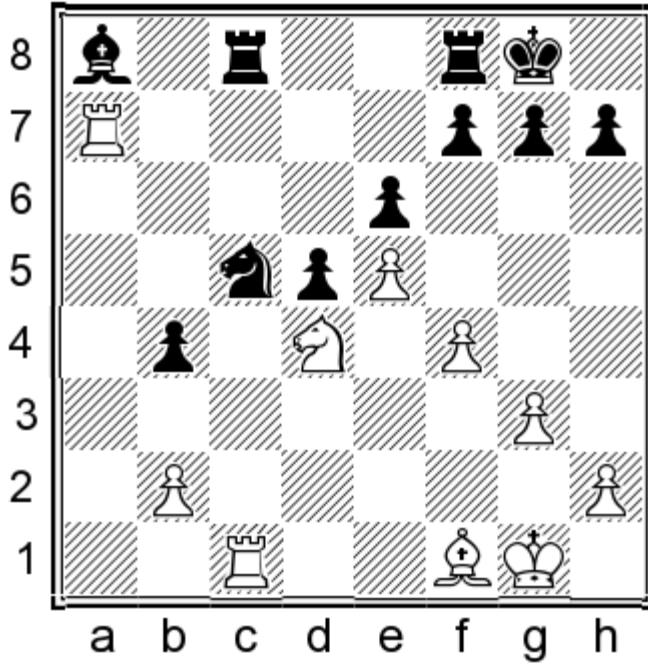
White is winning – the knight is stronger than the two pawns, while the rook on the seventh rank can be driven away easily.

We have exhausted our theme for this game – the theme of the second-pass evaluation in determining the genuine diagnosis of a position. So I will not comment on it further. I'll only point out the winner's flawless technique and the irrelevant (to the outcome) mistake by Black on move 35.

**28.♗f1 a6 29.♗f3 ♜c2 30.♗d4 ♜c4 31.♗b3 g5 32.h3 h5 33.♗d2 ♜b4 34.b3 e5 35.♗c2 a5 36.♗c5 ♜d4 37.♗e2 b6 38.♗c6+ ♔f5 39.♗xb6 a4 40.♗f1 e4 41.♗e3+ ♔e5 42.♗c2 1-0**

**No. 118: Ponomariov – Bareev**

FIDE World Cup, Khanty-Mansiysk 2005



*Position after 26... ♕a8*

The first and second parameters of the position (we are playing White) are:  $m < 1$  and  $t = 43/24 = \sim 1.79$ .

The third parameter is: a small “plus” thanks to Black’s bad bishop. Because both kings are out of danger, here I have activated the second pass.

The universal diagnosis is the Tal Algorithm, with all three parameters voting in favor.

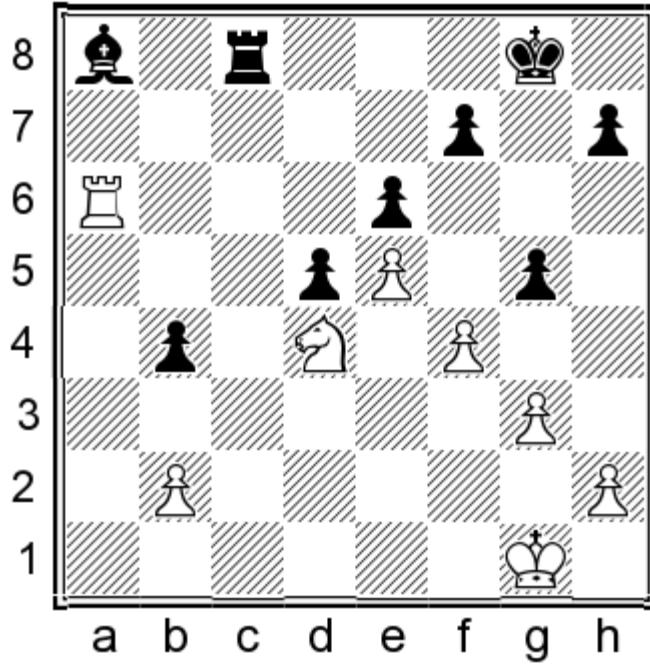
### 27. ♘a6

An open attack on the rook and – this is the main thing! – a prelude to massive trades. In other words, White plays according to “Tal” and... against “Tal” – a paradox! A reasonable question: is such strange play correct?

Yes. Indeed, it is more than correct: computer analysis shows that Black’s position is most likely lost.

**27... ♗xa6 28. ♖xc8 ♗xc8 29. ♖xa6 g5**

Black intends, after 30... ♗b7 and 31... ♗c4, to drive the hated knight from d4 – but, no!



**30.b3**

Both simple and good. Black's position is unenviable.

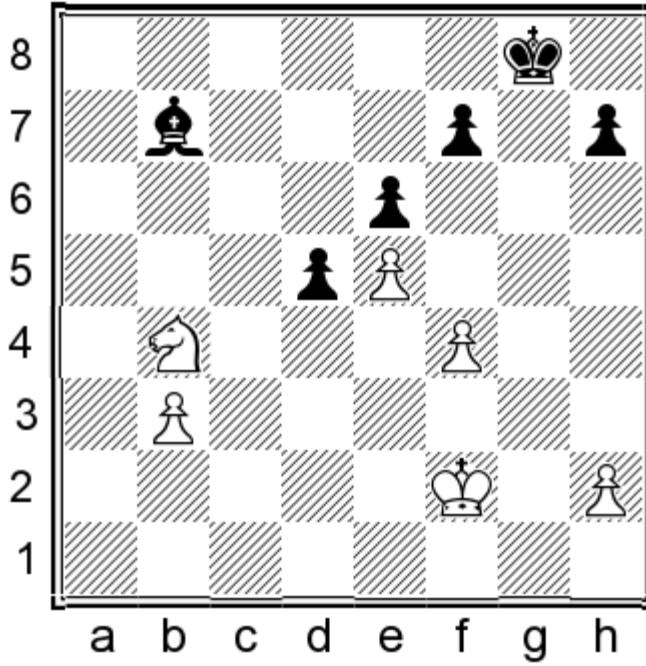
**30...gxf4 31.gxf4 ♜b7 32.¤b6 ♜c7**

To bring the bishop to d7, where it will feel a bit better.

**33.¤f2 ♜c8 34.¤c6**

Bravo! White forces the exchange of his opponent's last good piece.

**34...¤xc6 35.¤xc6 ♜b7 36.¤xb4**



**36...d4**

The only practical chance – Black activates his bishop at the cost of the b- and d-pawns.

If Black plays passively (36... $\hat{Q}f8\Delta \dots \hat{Q}f8-e7-d7-c7-b6$ ), then after 37. $\hat{Q}e3$  White succeeds, barely (confirm this!) in marching his king over to the strategically vital square b5. Then White brings the knight to d4, so as to prepare the “final” f4-f5. An additional resource (let’s say, with the bishop on c8) would be  $\hat{Q}d4-f3-g5$ , and Black is defenseless since sooner or later he will lose either the f-pawn or the h-pawn.

The superiority of the “good” knight over the “bad” bishop is obvious – no wonder White played for massive trades!

After –

**37. $\hat{Q}c2$  d3 38. $\hat{Q}b4$  d2 39. $\hat{Q}e2$   $\hat{Q}g7$  40. $\hat{Q}xd2$**

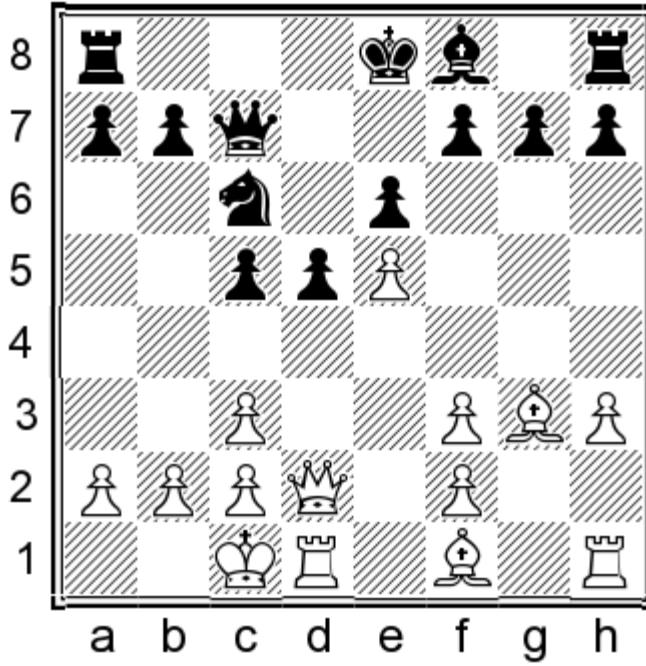
– the d-pawn fell, and White finally won (not without mutual mistakes) on move 57.

We are keenly aware of the fact that all pieces except the king have a finite chess value. Let’s rank them in a way well known to us from the time of “Tal”: queen, two rooks, four minor pieces, eight enemy pawns...

Now we fill out this incomplete array of material targets (the occupied squares of the chessboard) with selected vacant squares. Let these be, for example, the light squares d3, e4, f5, and g4 – see the diagram:

**No. 119: Yates – Capablanca**

Moscow 1925



*Position after 11...Bg3*

The parameters of the position are (we are playing Black):  $m = 1$ ,  $t = 38/29 \approx 1.31$ , approximate parity or a microscopic “minus” in the third factor,  $\Delta k > 0$ , and  $\Delta(11...Bg3) = \sim -0.07$ .

Diagnosis: right-sided “Capablanca”? TC Algorithm?

This natural assessment is not bad. It gives us non-zero chances of finding the strongest move – one of four candidates: 11...0-0-0, 11...Be7  $\Delta$  12...0-0, 11...Bg7 and, finally, 11...c4. The c-pawn move is, obviously, the most aggressive of the four.

Fortunately for us, we have an excellent opportunity to refine our diagnosis (we call it a first-pass diagnosis). And then Capablanca’s move – precisely the c-pawn advance! – will become, for us, practically trivial to find!

We begin our second pass with a supplement. We supplement our “micro-minus” in the safety factor with an unnoticed “micro-plus” in the selected vacant squares d3, e4, f5, and g4. These light squares we can easily make absolutely inaccessible to the enemy pawns and pieces.

Our corrected diagnosis (second pass): is it the TC Algorithm? “Tal”? By correcting our diagnosis, we have moved the first-pass zone of uncertainty to the right, toward the “real Tal.”

We must play actively, and therefore Capablanca crosses the border:

**11...c4**

Depriving White’s light-squared bishop of the d3 square and limiting its mobility. This restriction strategy will be continued – see 12...g6 and 13...h5!.

**12.f4**

A naïve attempt to break the bishop out of its cage.

**12...g6**

Simple and good.

### 13.♔b1 h5

The cage closes! Now Black has only to prepare calmly and carry out his attack on the king. Success is guaranteed – in effect, Black has an extra piece!

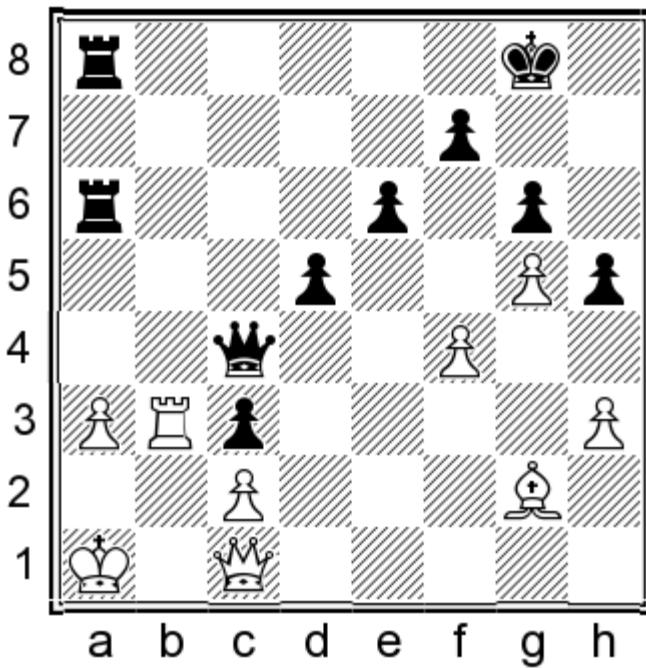
### 14.♕h4 ♕e7

This bishop may be traded off.

### 15.♗g5

A crude tactical blunder (I suspect that Yates simply “closed his eyes”). A mistake in a strategically hopeless position. For us, the balance of the game is insignificant. More exactly, insignificant for our study of the theme of the second pass in figuring the algorithm. And therefore I, with a clear conscience, make use of the author’s right to “comment without commentary.”

15...♝xg5 16.fxg5 ♛xe5 17.♔e3 0-0 18.♗e2 ♛c6 19.f4 ♛e7 20.♗hg1 ♛f5 21.♗f2 ♛fe8 22.♗ge1 b5 23.♗f1 a5 24.♗e5 b4 25.♗e1 ♛eb8 26.♗a1 ♛b6 27.♗d2 ♛ab8 28.♗b1 ♛d6 29.♗g2 ♛b5 30.cxb4 c3 31.bxc3 ♛xc3 32.♗b3 axb4 33.a3 ♛a6 34.♗e3 ♛ba8 35.♗exc3 bxc3 36.♗c1 ♛c5 37.♗a2 ♛c4 38.♗a1



### 38...♗xb3 1-0

White resigned, as he gets mated after 39.cxb3 ♛xa3+ 40.♔b1 ♛a1+ 41.♔c2 ♛8a2+ 42.♔d1 ♛d2+ 43.♔e1 ♛xc1#.

Attacking selected vacant squares and playing to restrict the mobility of a piece are the same thing. They’re just different terms referring to the same chess phenomenon.

The first term comes from “Tal;” the second, from “Petrosian.” Somewhere in the depths of the Capablanca Algorithm, they joined together and lost their respective identities.

The following game is unique. Why?

First, it’s very complicated – the computer often radically changes its evaluations.

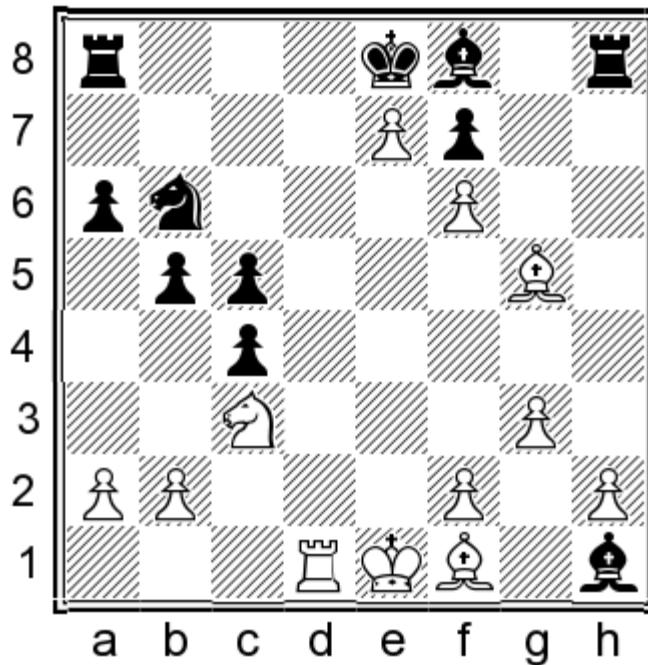
And secondly, it's a serious test for what we have labeled the "second-pass evaluation."

I acknowledge that my many hours of computer analysis in this game cannot be labeled comprehensive at all. I often lost control of the position. I was drowning in a sea of variations – quite a lot of unexpected tactics. And there were strategic discoveries, too!

So I invite you, dear reader, to be especially careful in your evaluations.

### No. 120: Polugaevsky – Torre

Moscow 1981



Position after 16...a6

The parameters of the position from White's side are:  $m \ll 1$  (true, we may, after 17.exf8 $\mathbb{W}$ +, almost completely restore parity in the first factor),  $t = 42/26 = \sim 1.62$ , and an overwhelming advantage in the third factor, given that the black king is in a mating net.

The evident diagnosis is: a radical (is it really?) version of the Tal Algorithm.

I'm confused by the e7/f6 duo. Can these pawns substantially affect the diagnosis?

#### 17.h4

Kasparov says (*My Great Predecessors*, Part III): "Very fine!... Earlier they played the automatic 17.exf8 $\mathbb{W}$ +  $\mathbb{Q}xf8!$  18. $\mathbb{R}d6$   $\mathbb{B}b8$  19. $\mathbb{Q}e3$   $\mathbb{B}h5!$  20. $\mathbb{Q}e2$   $\mathbb{B}e5$  21. $\mathbb{Q}d2?!$  b4 22. $\mathbb{Q}d1$   $\mathbb{Q}g8!$  (Plachetka – Bagirov, Berlin 1979), or 21. $\mathbb{Q}d1$   $\mathbb{Q}g8$  22. $\mathbb{Q}f4$   $\mathbb{B}e8$  23. $\mathbb{Q}e3$   $\mathbb{Q}e4$  24.f3  $\mathbb{Q}g6$  25.h4  $\mathbb{B}b7$  26.g4  $\mathbb{Q}a4$  (Beliavsky – Bagirov, Moscow 1981), and in either case Black has good counterplay on the queenside."

The h-pawn move is in "Tal" style. But at the same time it's also "Capablanca" and "Petrosian"! Why?

"Tal," because it is an extended (by two moves) rook sacrifice. Precisely the rook, and not the exchange, as Polugaevsky declined to play 17.exf8 $\mathbb{W}$ +

"Capablanca," because it is the beginning (sorry, the continuation!) of a space expansion. To the highly elevated pawns at e7 and f6, we rush to add the assistance of the h-pawn.

“Petrosian,” because this is where I expected to find it, since this move prepares a cage for Black’s king’s rook. White is playing to restrict that rook’s mobility.

Returning to the diagnosis. Is it the TCP Algorithm, yes or no?

A favor to ask: don’t be hasty in answering...

### 17.h4 ♜h6

I won’t rule out the possibility that this may be a serious mistake. It seems to me that it would have been better to play 17...b4 18.♖d6 (18.exf8+ ♔xf8=) 18...♜xe7 19.fxe7 (19.♖xb6 ♜d8-+) 19...♝d7 Δ 20...f6.

I have found no decisive advantage for White after 19...♝d7. Some variations:

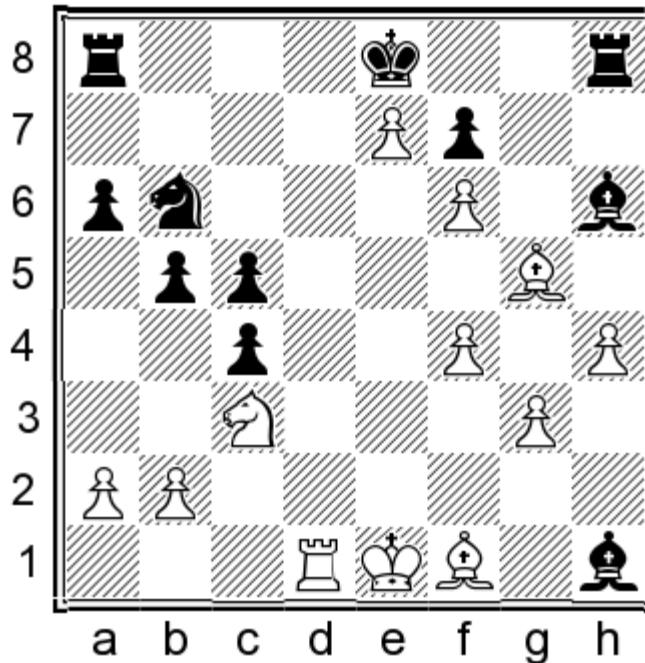
1) 20.♝d5 ♜xd5 21.♖xd5 f6 22.♛e3 ♜xe7;

2) 20.♝a4 f6 21.♛f4 c3 22.♝xc3 ♜xe7;

3) 20.♝h3 f6 21.♝xd7+ ♜xe7 22.♝xf6 bxc3 (22...♝xd7 is possible, too) 23.♝f5 cxb2 24.♝b6+ ♔f7 25.♝g6+ ♔g8 26.♝xb2 ♜f3 Δ ...♝h5-f7.

White is better in all lines – from ± to ±. Try and refute that!

### 18.f4



The focus of White’s idea is the crippled h8-rook. Polugaevsky is more than outstanding!

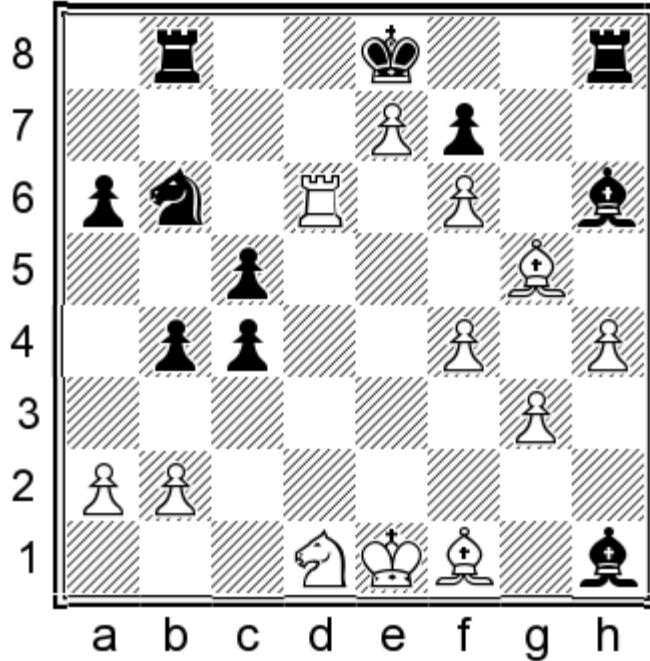
### 18...b4 19.♖d6 ♜b8

“After 19...bxc3 20.♖xb6 cxb2 (if 20...c2 21.♔d2 ♔d7 22.♜xc4 ♜e4, then even the paradoxical-looking 23.♖xa6! wins) 21.♜xc4 followed by ♜xb2 and Black loses because of his weakness on f7 and the amazing helplessness of his rooks. And, after putting his rook on the d-file, White can even trade off the bishops and play a unique ‘three-rook’ endgame!” (Polugaevsky)

### 20.♝d1

Of course, I have no argument whatever with this natural move. And no argument with the previous three half-moves,

either.



**20... $\mathbb{Q}xg5$**

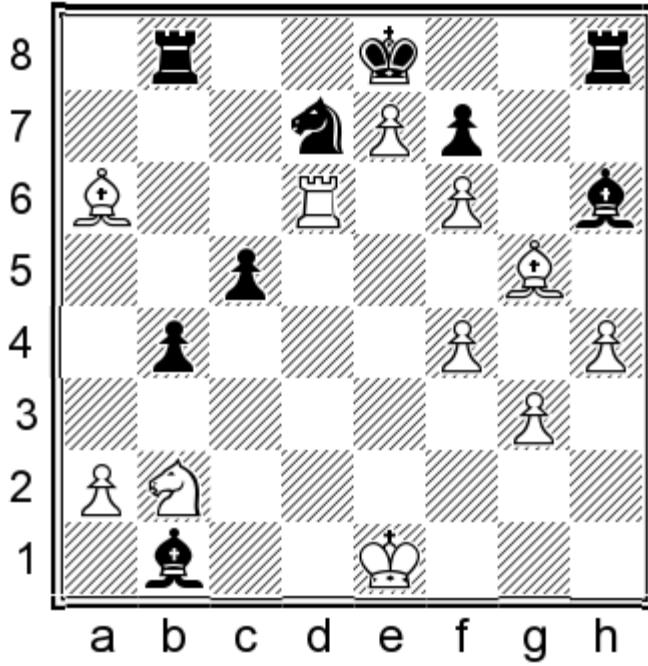
But I do have questions about this move, because it is not the only possible one. In the diagram position, Black has at least two interesting alternatives.

Kasparov: “The consequences of 20... $\mathbb{Q}e4!?$ , which is not mentioned by the commentators, should have been clarified. For example, 21. $\mathbb{Q}e3$  c3 22. $\mathbb{Q}xa6$  (not 22.bxc3?! bxc3 23. $\mathbb{Q}xa6$   $\mathbb{Q}d7$  24.a4  $\mathbb{Q}b1+$  25. $\mathbb{Q}f2$   $\mathbb{Q}b2+$ ) 22... $\mathbb{Q}d7$  23. $\mathbb{Q}c4$  cxb2 24. $\mathbb{Q}xb2$   $\mathbb{Q}b1$  (*see next diagram*) 25. $\mathbb{Q}d1!$   $\mathbb{Q}xa2$  26. $\mathbb{Q}c4!$ , and if 26...b3?, then 27. $\mathbb{Q}b5!$   $\mathbb{Q}xb5$  28. $\mathbb{Q}c4$  and wins, while if 26... $\mathbb{Q}xg5$  27.fxg5 b3, then 28. $\mathbb{Q}f1$  is good.”

Excellent! Kasparov has fired the starter pistol. He has provoked an analytical tsunami, and I certainly cannot let this humble reply go unanswered!

I will analyze two episodes, two positions which interest me.

The first is:



Position after 24... $\mathbb{Q}b1$  (analysis)

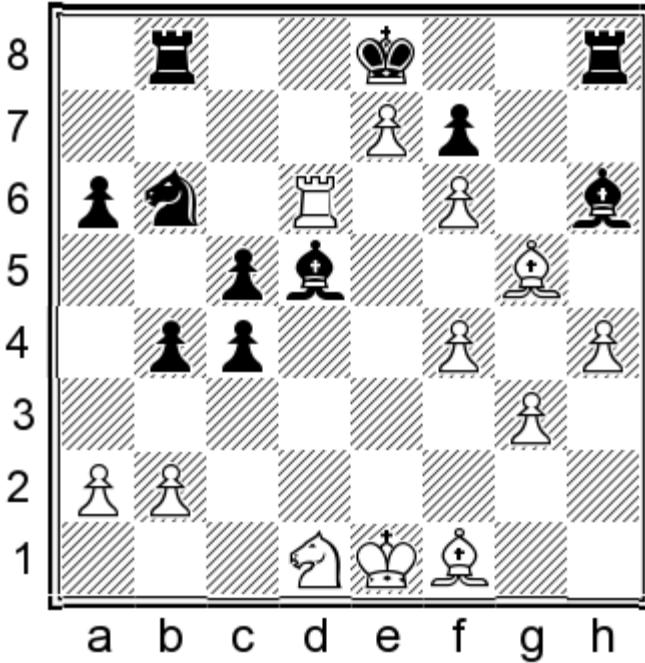
White indeed wins after 25. $\mathbb{R}d1$   $\mathbb{Q}xa2$  26. $\mathbb{Q}c4$  b3 27. $\mathbb{Q}b5$   $\mathbb{R}xb5$  28. $\mathbb{Q}c4$ , i.e. 28... $\mathbb{R}b6$  29. $\mathbb{Q}xb6$  b2 30. $\mathbb{Q}c8$ , mating.

It is also the case that after 26... $\mathbb{Q}xg5$  (instead of 26...b3) 27. $f\mathbb{x}g5$  b3, White doesn't have the "winning" move 28. $\mathbb{Q}b5$  – 28... $\mathbb{R}xb5$  29. $\mathbb{Q}c4$   $\mathbb{Q}xf6$  30. $g\mathbb{x}f6$  (the bishops are traded off, and White no longer has 30. $\mathbb{Q}xf6$ ) 30... $\mathbb{R}b8$ , and it's Black who wins! So White must limit his ambitions, as Kasparov rightly points out, to "the very good 28. $\mathbb{Q}f1$ ." Rybka extends the variation: 28. $\mathbb{Q}f1$   $\mathbb{R}b6$  29. $\mathbb{Q}h3$   $\mathbb{Q}xf6$  30. $g\mathbb{x}f6$   $\mathbb{R}xf6$  31. $\mathbb{R}d8+$   $\mathbb{Q}e7$  32. $\mathbb{R}xh8$ . White is better here, possibly even ±. But there is nothing forcing yet!

But the winning follow-up to 24... $\mathbb{Q}b1$  (it seems to me) is not the Kasparovian 25. $\mathbb{R}d1$ , but 25. $\mathbb{Q}d3$ . Here's my main line: 25. $\mathbb{Q}d3$  ( $\Delta$  26. $\mathbb{Q}xc5$   $\mathbb{Q}xc5$  27. $\mathbb{Q}b5++$ ) 25... $\mathbb{Q}xd3$  26. $\mathbb{Q}xd3$   $\mathbb{R}b6$  27. $\mathbb{R}xb6$   $\mathbb{Q}xb6$  28. $\mathbb{Q}b5+$   $\mathbb{Q}d7$  29. $\mathbb{Q}d2$  ( $\Delta$   $\mathbb{Q}d3-d6$  and  $\mathbb{Q}d7\#$ ) 29... $\mathbb{Q}f8$  30. $\mathbb{Q}d3$   $\mathbb{Q}xe7$  31. $f\mathbb{x}e7$   $\mathbb{R}g8$  32. $\mathbb{Q}e4$  f6 33. $\mathbb{Q}xf6$   $\mathbb{R}xg3$  34.h5++. See for yourself!

I can't avoid making a snarky remark about the bishop maneuver on moves 29 and 30 which saves him from mate on d7: wouldn't it have been better to give up his bishop for the e7-pawn (see my note to 17... $\mathbb{Q}h6$ )? Then Black would have had good chances to draw, whereas here we have a catastrophe.

The second position is, if instead of the game move, 20... $\mathbb{Q}xg5$ , we were to play 20... $\mathbb{Q}d5$ :



*Position after 20...Qd5 (analysis)*

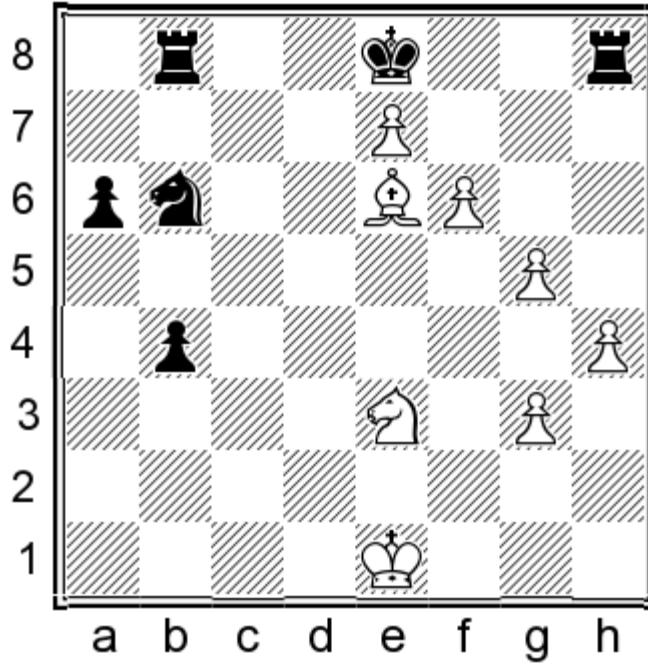
This position cost me a whole mountain of time...

In his defense, Black wishes to set up the bishop on e6, closer to his king. From here, the bishop would cover d5 and f5 (he has to consider ♜d1-e3-d5(f5)). Besides, from d5 (or e6) the bishop looks greedily at that helpless pawn on a2, and that is, I admit, very disturbing to me. It seems to me that with the disappearance of White's a- and b-pawns (let's say, after ...c4-c3 and ...♝xa2), his dreams of victory would similarly vanish. Fortunately, my fears were not all to be realized!

Clarity came to me unexpectedly. It arrived the minute I asked myself this simple question: by what algorithm, strictly speaking, should I be governed? By "Tal," or "Capablanca," or "Petrosian"?

I am ashamed to admit that I had given in to my "pro-Petrosian" prejudice, as the board shows all the signs of the Tal Algorithm (the radical "Tal" or the TCP Algorithm?). I had to attack, and Target No. 1 was the king!

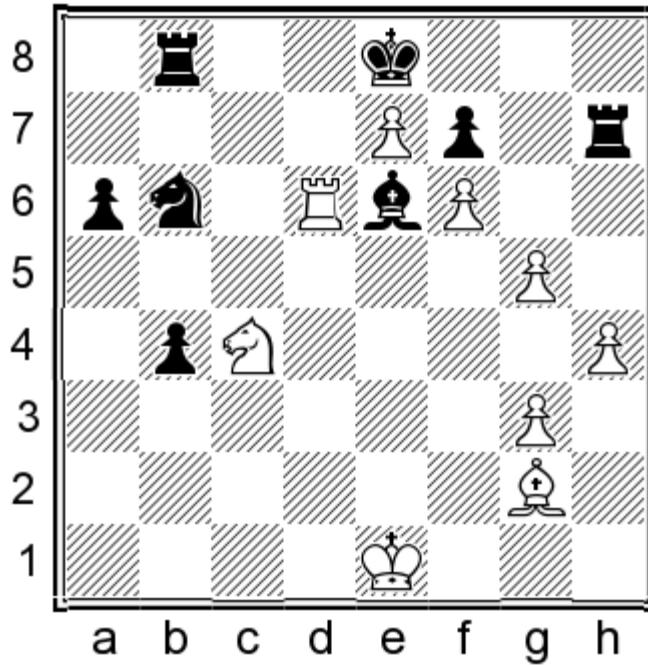
At once, a cascade of beautiful variations came tumbling out as if from the horn of plenty. One of them was 21.♝h3 c3 22.bxc3 ♜xa2 23.cxb4 cxb4 24.♝e3 (Δ ♜f5) 24...♜xg5 25.fxg5 ♜e6 26.♝xe6 fxe6 27.♝xe6:



*Position after 27. ♜xe6 (analysis)*

White wins.

But that's not all! Instead of 25... ♜e6, Black has one more resource – 25... ♜h7. Black is ready with exceptional joy to give up his rook for the knight (after ♜e3-f5-g7), but now there is 26. ♜g2 ♜e6 27. ♜c4!:



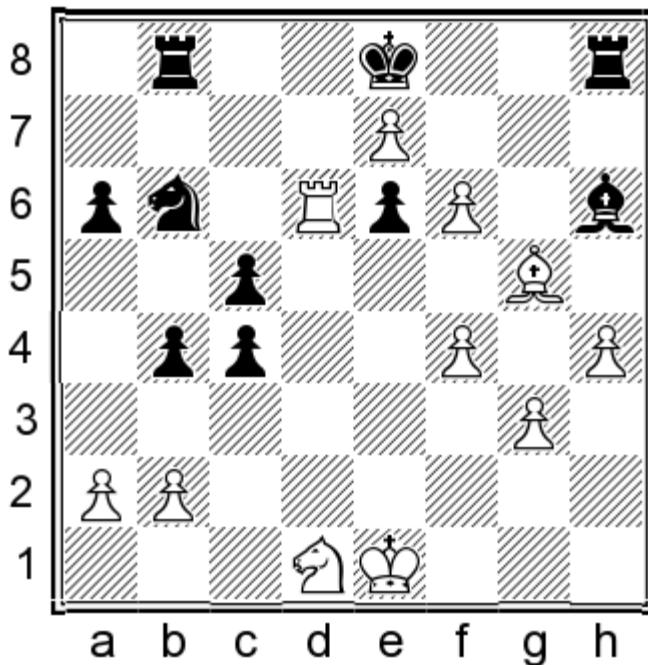
*Position after 27. ♜c4! (analysis)*

Amazing!

Tsunami, continuous destruction... a chess apocalypse. Isn't it because the root of all evil is the white light-squared bishop?

Let's see! Instead of a "Tal-like" move such as 21...c3, let's play a good move according to "Petrosian": 21... ♜e6. Then

after 22.♕xe6 fxe6 we get the following position:



*Position after 22...fxe6 (analysis)*

How is that trade on e6 good? Because the king gets an escape square on f7!

How is it bad? Because all of a sudden now the f6-pawn is passed.

Question: what do we do? You know the answer!

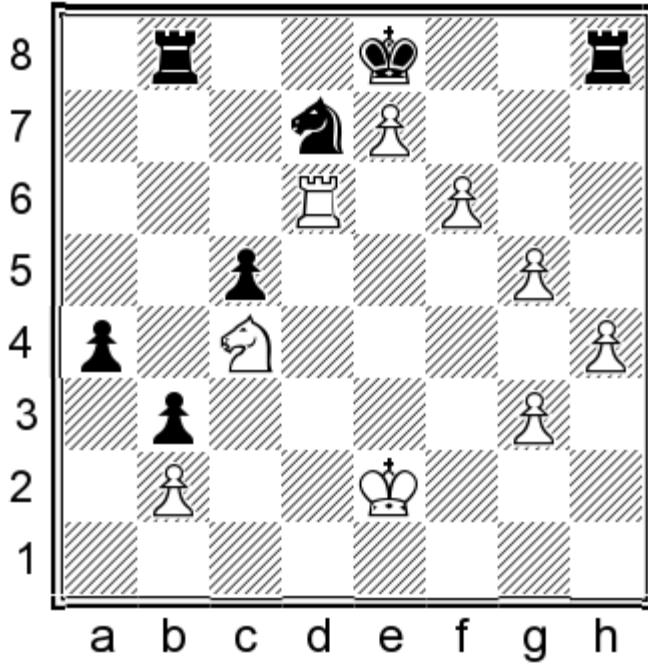
A quick analysis of the diagram position:  $m \ll 1$ ,  $t = 24/20 = 1.20$ , a solid but not overwhelming “plus” in the third factor of the position (first pass),  $\Delta k = 8/56 - 6/25 \ll 0$ , and  $\Delta(22...fxe6) = \sim 0.83$ .

The second pass: that poor rook on h8 – this is our solid “plus”! – and Black’s overwhelming advantage on the queenside – this is our solid “minus.”

Diagnosis: the expanded version of the TC Algorithm.

Resuming the analysis: 23.♘e3.

The first step on the none-too-wide path to victory. ♘e3-g4 looms if Black proceeds too slowly. For example, it is bad to play the Tal-like 23...b3: 24.axb3 cxb3 25.♘g4 ♕xg5 26.fxg5 ( $\Delta \text{N}e5, \text{R}xe6, f6-f7\#$ ) 26...♗d7, and here, surprising as it might seem, there is a purely Capablanca-like solution to the position: 27.♔e2. White elevates his king – bravo, Rybka! The engine continues: 27...a5 28.♖xe6 ( $\Delta 29.g6+-$ ) 28...♗f7 29.♗d6 ♔e8 30.♗e3 a4 31.♗c4+-:



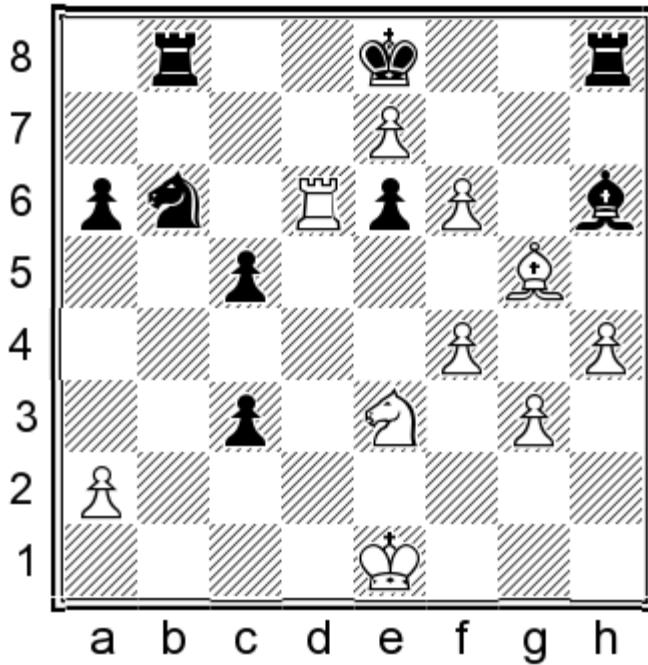
*Position after 31. Qc4 (analysis)*

Absolute domination! Black's queenside counterplay is stymied, and Black is powerless to halt the marching kingside pawn phalanx.

The diagram position is a strategic one, and no long variations are needed!

Our problems would be somewhat more complex if Black were to pre-empt the leap to g4 with 23...c3.

Let's make two half-moves: 24.bxc3 bxc3. And now let's give our standard question: what do we have?



*Position after 24...bxc3 (analysis)*

We do not – this comes first – have 25.Qg4, because after 25...Qxg5 26.fxg5 c2, we can't play 27.Qd2, as 27...Qc4+ would come in reply.

But we do have – and this comes second – the alternative 25.†d1, rendering harmless the c3-pawn. Then we attack the target on c3 instead of the one on h6. It's a somewhat more modest target – play is simpler...

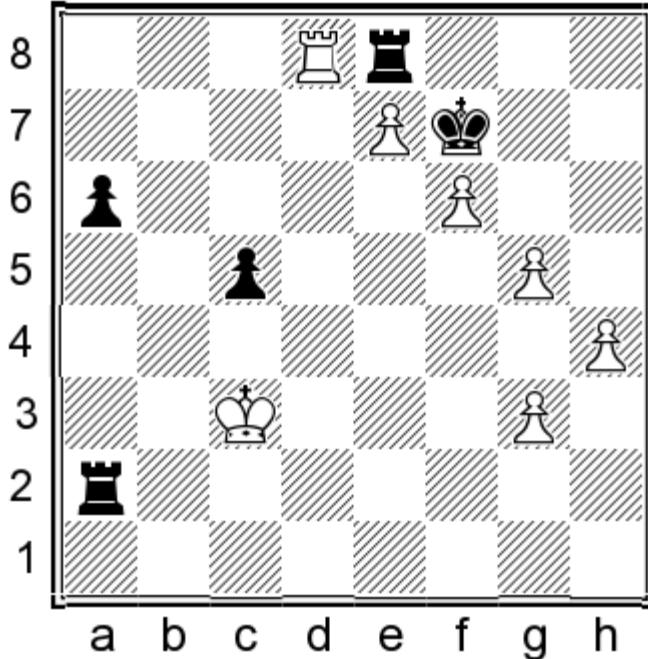
One possible (desired!) scenario for Black's execution:

- 1) we win the c3-pawn, bringing down to nothing any initiative for Black on the queenside;
- 2) we force our opponent to trade on g5 (...†xg5 fxg5);
- 3) we get the pawn mass on the kingside moving.

We have every expectation of overcoming our opponent's resistance!

After 25.†d1, here are two most important variations (in my view), serving the outlined general strategic plan:

- a) 25...†f7 26.†c2 †d5 (pursuing the very valuable pawn on a2) 27.†xd5 exd5 28.†xd5 †b2+ 29.†xc3 †xg5 30.fxg5 †xa2 31.†d8 †e8:

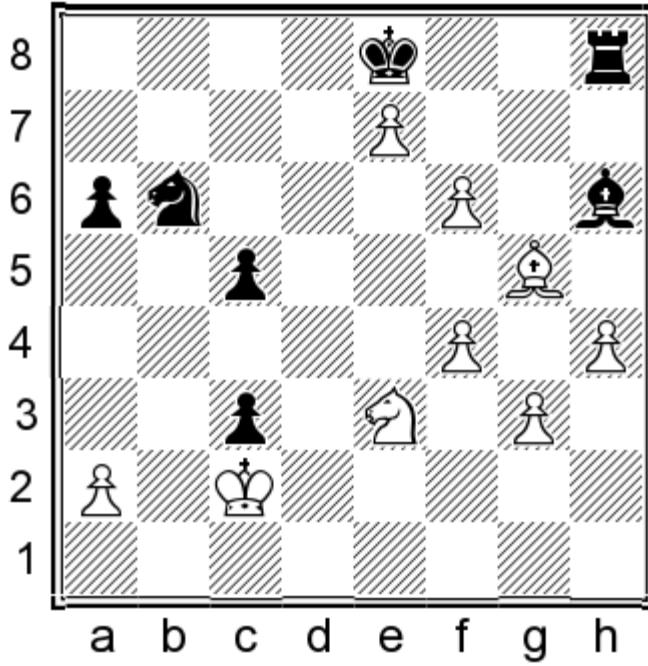


*Position after 31...†e8 (analysis)*

Here Black would be totally shocked to discover that not only the “three-rook endgame” (Polugaevsky's term) was lost, but also the “one-rook”! And that, despite White's having an empty queenside! With a- and c-pawns for Black!

White wins with 32.†xe8 †xe8 33.g6. After, let's say, 33...†g2 34.g7 †xg3+ 35.†c4 †f7 36.h5, Black has no way to stop the h-pawn.

- b) 25...†d7 (trying to get rid of White's rook) 26.†xe6 †b6 27.†xb6 †xb6 28.†c2:



*Position after 28. ♔c2 (analysis)*

In this variation too, Black is completely defenseless. And no wonder – five (!) passed pawns on the kingside, plus a live pawn on a2!

Rybka continues 28...c4 29. ♔xc3 ♔f7 30.a3 (increasing the density of packing of the king and pawns) 30... ♔d7 31. ♔f5 ♔xg5 32.hxg5 ♔xf6 33.gxf6 ♔xf6 34.g4, with a winning position.

With this variation, I conclude my extended commentary to the thirteenth World Champion's remarks. Not an easy task, but certainly a most enjoyable one!

My careful conclusion: both Kasparov's 20... ♔e4 and my 20... ♔d5 lose.

As we know, Torre opted to trade on g5 – 20... ♔xg5. The game continued:

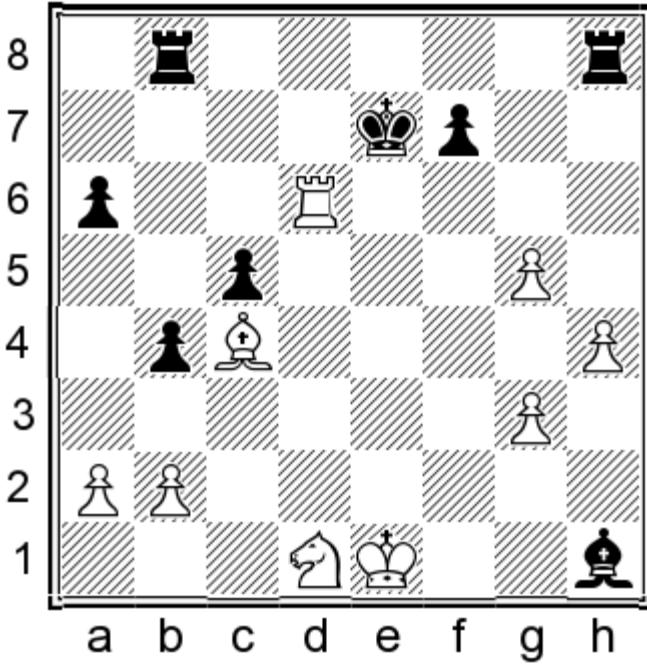
**21.fxg5 ♔d5**

Black intends to give up the knight for the tandem of white pawns.

**22. ♔xc4 ♔xe7 23.fxe7 ♔xe7**

The advanced duo is destroyed. Does Black have any drawing chances now?

To answer that question, we need to carefully investigate the resulting position:



The parameters:  $m < 1$  (true, he could capture the pawn),  $t = 35/31 \approx 1.13$ , an insignificant “plus” in the safety factor (adding that we have an endgame on the board!),  $\Delta k < 0$ , and  $\Delta(23\dots \mathbb{Q}xe7) \approx -0.14$ .

Diagnosis: the TC Algorithm, or a plain version of the Tal Algorithm.

#### 24. $\mathbb{R}f6$

“It is much more important to prevent the rook at h8 from coming into play, than to go after the a6-pawn” (Polugaevsky).

Kasparov continues: 24.  $\mathbb{R}xa6$   $\mathbb{R}he8$  25.  $\mathbb{R}f6$   $\mathbb{Q}f8+$ . His verdict: “...the activation of his rook would have enabled Black to save the game.”

Rybka’s line: 26.  $\mathbb{Q}f1$   $\mathbb{E}e7$  27.  $\mathbb{Q}f2$   $\mathbb{Q}a8$  28.  $h5$   $\mathbb{B}be8$  29.  $\mathbb{Q}g1$   $\mathbb{E}d7$  30.  $g6$  (30.  $h6$   $\mathbb{E}e3$ ) 30...  $\mathbb{E}e3$  31.  $g4$   $\mathbb{E}f3$  32.  $\mathbb{E}xf7+$   $\mathbb{E}fxf7$  33.  $\mathbb{Q}xf7$  (33.  $gxf7$   $\mathbb{Q}d5$ ) 33...  $\mathbb{Q}d5$  34.  $\mathbb{Q}xd5$   $\mathbb{B}xd5$  35.  $\mathbb{Q}e4$   $\mathbb{Q}g7$ , and Black is not worse. Which means that we have thoroughly discredited the greedy 24.  $\mathbb{R}xa6$ .

Whereas, after the game move, White (as shown by computer analysis) must win.

#### 24... $\mathbb{R}hf8$

If 24...  $\mathbb{R}h7$ , then White wins with 25.  $\mathbb{Q}e3$   $\mathbb{Q}e4$  26.  $\mathbb{R}xa6$   $\mathbb{R}d8$  27.  $\mathbb{Q}g4$   $\mathbb{R}d4$  28.  $b3$   $\mathbb{Q}g6$  29.  $\mathbb{Q}f6$   $\mathbb{R}h8$  30.  $\mathbb{Q}e2$   $\mathbb{Q}f8$  31.  $\mathbb{Q}e3$   $\mathbb{Q}g7$  32.  $\mathbb{R}c6$   $\mathbb{R}dd8$  33.  $\mathbb{R}xc5$   $\mathbb{R}a8$  34.  $\mathbb{R}b5$   $\mathbb{R}xa2$  35.  $\mathbb{R}xb4$ .

Of course, one should be suspicious of long variations (even when sanctioned by the latest chess engines)... Consider them and try to refute them – if you can!

#### 25. $\mathbb{Q}e3$ $\mathbb{Q}e4$ 26. $\mathbb{R}xa6$

26.  $h5$ , declining the pawn, looks simpler: if 26...  $a5$ , then 27.  $\mathbb{Q}f5+$   $\mathbb{Q}xf5$  28.  $\mathbb{R}xf5$ , with a permanent attack against the target at f7, looks very strong. Here’s a variation from Rybka: 28...  $\mathbb{R}bd8$  29.  $\mathbb{Q}e2$   $\mathbb{R}d4$  30.  $b3$   $a4$  31.  $h6$   $axb3$  32.  $axb3$   $\mathbb{R}e4+$  33.  $\mathbb{Q}f3$   $\mathbb{R}xc4$  34.  $bxcc4$   $\mathbb{R}b8$  35.  $\mathbb{Q}e4$ , and White is in time to hold the enemy b-pawn. Victory is assured!

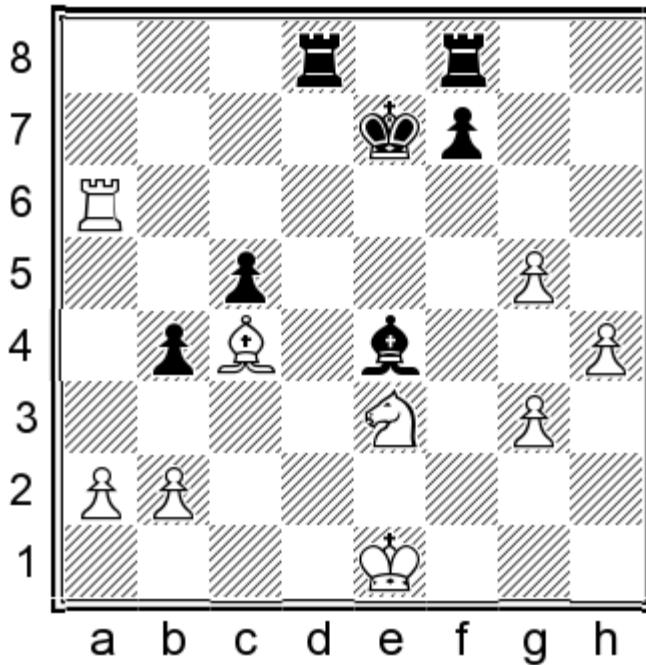
On the other hand, 26.  $\mathbb{R}xa6$  may lead to unnecessary complications if Black plays 26...  $\mathbb{R}a8$ , meeting 27.  $\mathbb{R}f6$  with 27...  $\mathbb{R}b1$ . True, White wins after 28.  $\mathbb{Q}f5+$   $\mathbb{Q}d7$  29.  $\mathbb{Q}d5$ , if we can believe our silicon friend: 29...  $\mathbb{R}a5$  30.  $\mathbb{Q}xf7$   $\mathbb{Q}xa2$

31.♕e6+ ♜xe6 32.♖xf8 ♜a1+ 33.♔f2 c4 34.♗d4. Is it so, dear reader? Verify this on your own.

However, Torre preferred

**26...♝bd8**

and here, Polugaevsky missed a unique opportunity to create an everlasting masterpiece of the art of chess –



– by passing up his chance to play the shattering 27.g6!.

Black loses immediately with 27...fxg6 28.♖e6+. Hardly better is 27...♜xg6 28.♗d5+ ♔d7 (Black probably needs to play 28...♝xd5 here, but of course that's no help) 29.♕b5+ ♔c8 30.♕c6 ♜xd5 (finally!) 31.♜a8+ ♔c7 32.♕xd5 and wins.

*Rybka* and *Fritz* both see 27...♜a8 as Black's best chance. However, Black cannot hold this position either: 28.♜xa8 ♜xa8 29.♕xf7 Δ g3-g4, h4-h5, ♕e1-f2-g3f4(h4), and g4-g5+- . With a knight and three pawns (and what pawns!) for the rook, White simply must win.

After mistakes by both sides, the game ended in victory for Polugaevsky on move 40 as Torre's flag fell.

An afterword to this game:

Let's dot all the i's:

- 1) The idea bearing the stamp of genius, 17.h4 and 18.f4 – that was correct.
- 2) After 17...♜h6, Black's position was probably lost, while after 17...b4 18.♜d6 ♜xe7 (with Black engaging a radical version of the Petrosian Algorithm), he still had a chance to survive.
- 3) Diagnosis of the position after 16...a6: a radical version of the Tal Algorithm.
- 4) With 17.h4, Polugaevsky transformed "Tal" into the TCP Algorithm.
- 5) The idea of restricting the h8-rook's mobility (an idea emanating from "Petrosian") is a supplement to the idea of attacking selected empty squares. These two ideas are actually two in one – see below.

An afterword to Chapter 4 – remember: this chapter is called "The Second-Pass Evaluation."

Propositions:

- 1) The "second-pass evaluation" is not some overcomplicated (supernatural?) chess phenomenon. It's a technical,

methodical means which came to the unified theory of chess from practice.

- 2) The second pass need not be just “loud,” as in Game 116. It also knows how to talk to us even in a “whisper” – see Games 119 and 120.
- 3) “Selected” empty squares of the chessboard are squares from “Tal” (we attack such squares!) and at the same time, from “Petrosian” (we play to restrict the enemy pieces).
- 4) “Petrosian” is almost foreign to moves such as 1. $\mathbb{Q}e3-f5$  in Game 116. And “Tal” would hardly get Polugaevsky’s idea on the first try.
- 5) With icy equanimity, “Capablanca” watches the ideological warfare of the “Tal” fanatics against the “Petrosian” partisans. It stays above the fray, and it does not separate, it unifies. “Capablanca” looks on the position as a unified whole...

# Chapter 5

## Selected Examples

In this chapter, you will encounter five treasures of the art of chess.

Three nominations:

- A) the best attack of the twentieth century;
- B) the best strategic attack in the post-Capablanca era;
- C) the three best games of the computer chess age (irrational chess).

For (A), I quickly decided on the game Serper – Nikolaidis. Isn't that because it was played in my hometown? Was I being objective?

That's not for me to judge. See for yourself – present any sort of counter-example. You, dear reader, have that opportunity... Perhaps you will find something no less notable, maybe even in this very book – there are 125 annotated examples, and 125 not commented by me. Go to it!

With regard to nominations for (B), I admit that I was totally non-objective: I like Karpov a lot! I consider him one of the most elegant of the elegant strategic chessplayers. He's a gifted, intuitive player...

From the games of the twelfth World Champion, I have selected a treasure forgotten by Karpov himself. Karpov forgot to include his game with Miles in his collected games (see *My Best Games (100 Victories in 30 Years)*, Moscow, Astrel AST, 2002)! Of course, I hastened to correct this oversight.

For (C), without thinking too hard I limited my consideration to a very narrow circle of nominees: the trio of post-Karpov world champions. My subjectivity is obvious here – so go ahead and protest! Find 10, 20, or 50 (who will find more?) counter-examples. The more, the better; the gladder you will make me... Why?

Because then and only then will I know that you really – not in words, but in deeds – have absorbed my simple arithmetic of the game of chess. And only then will I understand that you're ready to storm the heights of modern "higher mathematics" – the first step is behind you, and before you there lies... the chess abyss!

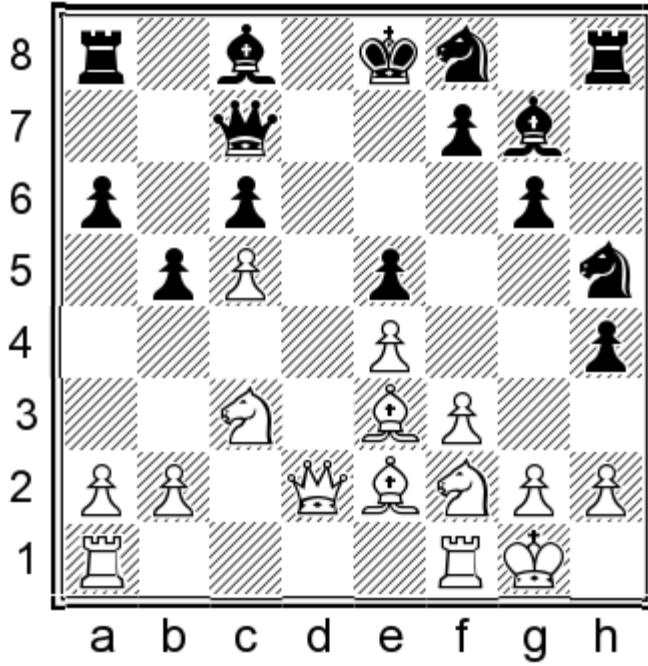
How does a strong modern grandmaster, armed to the teeth with chess arithmetic, beat another strong grandmaster, also armed with the latest discoveries of chess knowledge?

Answer: by injecting into the chess system the "gene" of irrationality. By, Caissa permitting, moving stepwise from the simple to the complex – that is, from order into chaos. And chaos is the element in which the goddess of the chess universe resides...

Our age is the age of the predominance of chaos over order. We chessplayers hungrily colonize hitherto inaccessible areas of the chess abyss – thanks to powerful computer programs! They are the locomotives of progress.

Are you ready?

No. 121: Serper – I. Nikolaidis  
St. Petersburg 1993



Position after 15...Qf8

The parameters of the position are (we are playing White):  $m = 1$ ,  $t = 45/35 = \sim 1.29$ , a small “plus” in the safety factor.  
Diagnosis: the Tal Algorithm.

#### 16.a4

In order to sacrifice on d5. The alternative would be 16.b4  $\Delta$  17.a4 $\pm$ .

#### 16...b4 17.Qd5 cxd5 18.exd5 f5

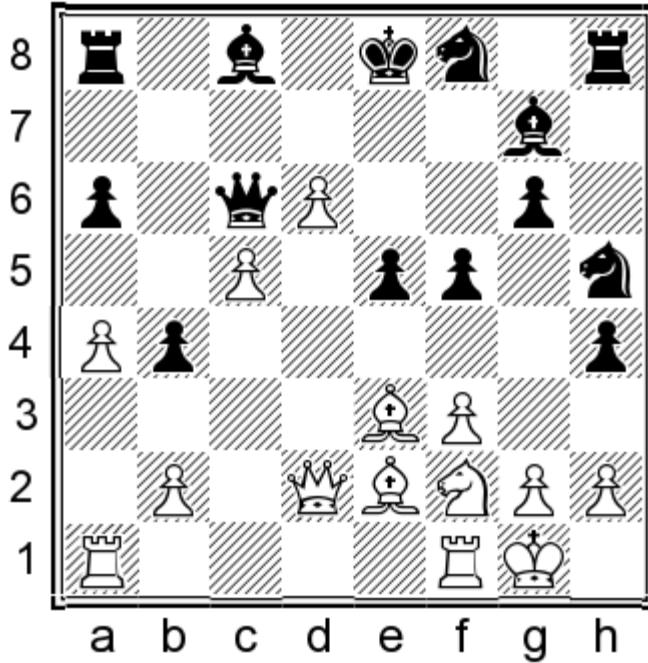
A mistake. 18...h3, ignoring White’s threat of invading on d6 with a knight, was stronger. The line runs 19.Qe4 hxg2 20.Qd6+ Wxd6 (20...Qd8!?) 21.cxd6 gxf1W+ 22.Qxf1 Qd7 23.Ec1 0-0, with a complicated and approximately equal position.

Another interesting variation after 18...h3 goes 19.d6 Wd8 20.c6 hxg2 21.Efd1 Qe6 22.Wxb4 Qd7 23.cxd7+ Qxd7 24.Qxg2. Here Black probably has full compensation for the pawn, as his king feels more comfortable.

Nor does White gain anything from 19.gxh3 or 19.g3.

#### 19.d6 Wc6

The decisive error. Other bad moves are 19...Wd7, or 19...Wb7 20.c6+; however, 19...Wa5 would have allowed him to carry on the fight. For example, 20.Qc4 f4 21.Wd5 Ea7 22.Qd2 Qe6 23.Wc6+ Qd7 24.Wb6 Wxb6 25.cxb6 $\pm$ .



**20.♗b5**

A brilliant way to continue the attack! White wins in all variations.

**20...axb5 21.axb5 ♕xb5**

Or 21...♕b7 22.c6 ♕b8 (22...♕xb5 23.d7+) 23.b6+- (Serper).

**22.♖xa8 ♕c6 23.♖fa1**

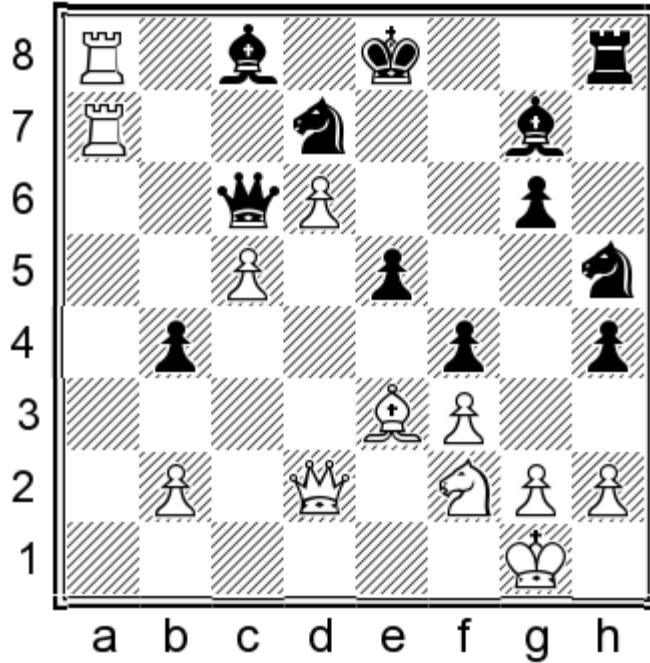
White also wins with 23.♖a7 ♜e6 24.♖d3.

**23...f4 24.♖1a7**

Black is no better off after 24.♖1a6 ♕xa6 25.♖xa6 ♜xa6 26.c6 ♜c8 27.♗b6+-.

**24...♝d7**

One possible line (Serper) was: 24...fxe3 25.♕d5!! exf2+ 26.♔xf2 ♕xd5 27.♖xc8#.



**25.Qxc8+**

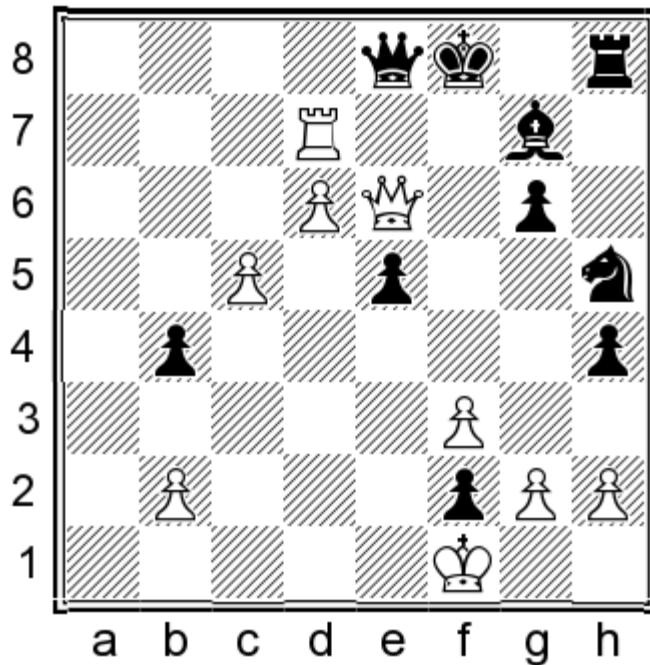
A new and crushing wave of the attack. Serper is outstanding – this is his true element, and he is truly terrifying in it!

**25...Qxc8 26.Qd5 fxe3 27.Qe6+ Qf8 28.Qxd7**

*Fritz* and *Rybka* unanimously prefer 28.Qe4, followed by 28...e2 29.Qf2 Qhf6 30.Qe1+- . Ingenious – but superhuman!

**28...exf2+ 29.Qf1 Qe8**

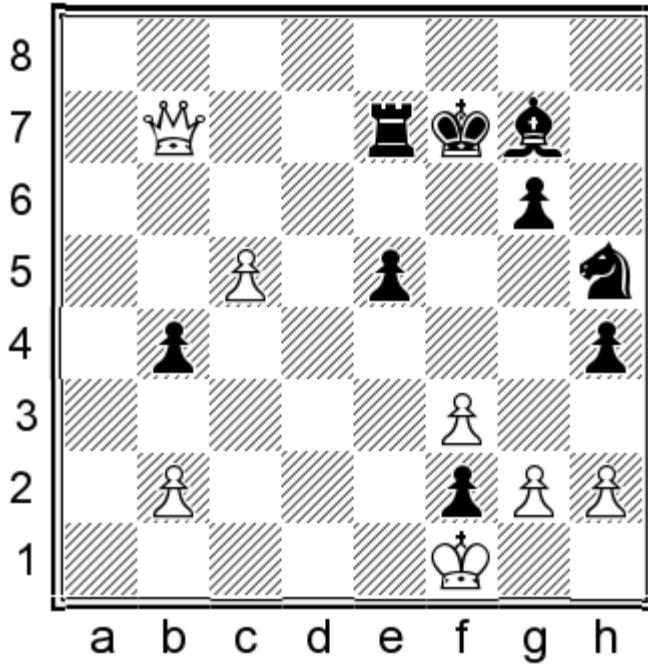
Serper's variations are pretty: 29...Qa6+ 30.Qxf2 Qe2+! 31.Qxe2 Qf4+ 32.Qf1 Qxe6 33.c6 Qg8 34.Qe7!+-; 29...Qg3+ 30.hxg3 Qxd7 31.Qxd7 hxg3 32.Qe7+ Qg8 33.Qe8+ Qh7 (33...Qf8 34.Qxg6+ Qg7 35.Qxg3+-) 34.d7+-.



**30.♕f7+**

Are words enough to express my boundless admiration?

**30...♚xf7 31.♛c8+ ♚e8 32.d7 ♕f7 33.dxe8♛+ ♜xe8 34.♛b7+ ♚e7**



**35.c6**

This pawn has a brilliant career ahead!

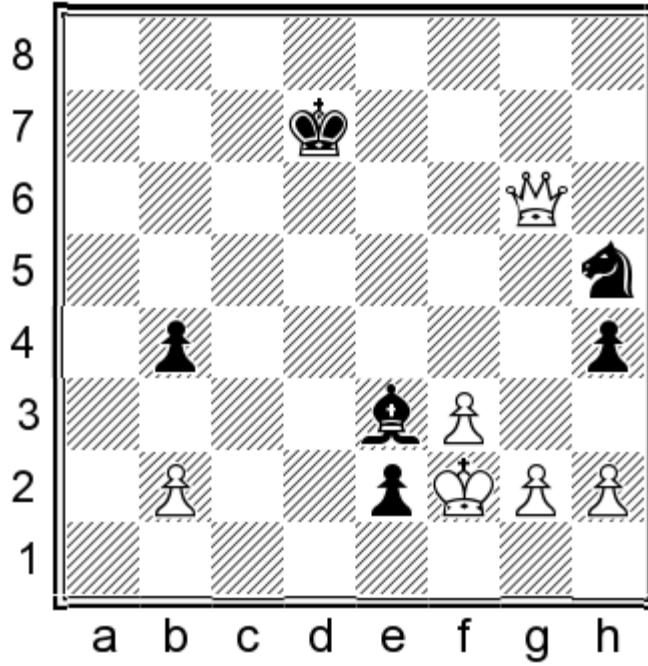
**35...e4 36.c7**

Of course not 36.fxe4, when 36...♜xb7 37.cxb7 ♔e5-+ is sobering.

**36...e3 37.♛d5+ ♔f6 38.♛d6+ ♔f7 39.♛d5+ ♔f6 40.♛d6+ ♔f7 41.♛xe7+**

The final blow. Previous to this, White had sacrificed a knight, bishop, rook, another bishop, another knight, and another rook. In other words, in this game, White sacrificed the entire set of pieces!

**41...♔xe7 42.c8♛ ♔h6 43.♛c5+ ♔e8 44.♛b5+ ♔d8 45.♛b6+ ♔d7 46.♛xg6 e2+ 47.♛xf2 ♔e3+**



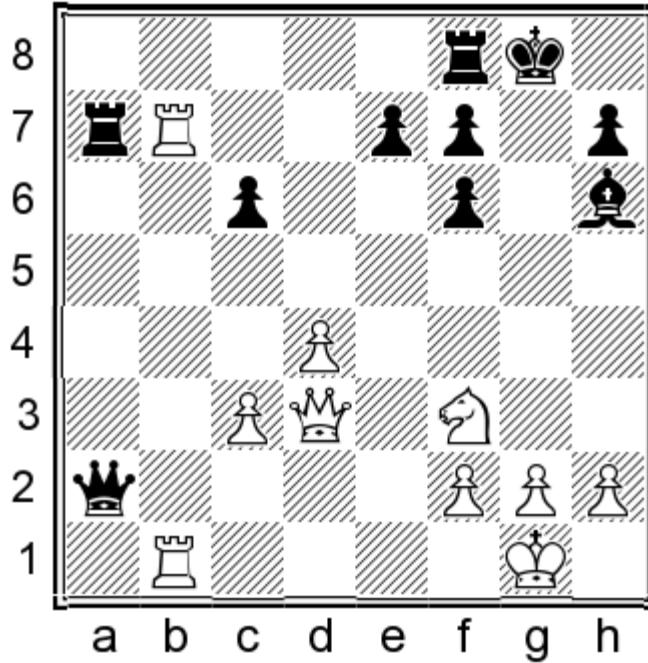
**48.♔e1**

Black resigned. **1-0**

I hope that someday (and why not now?) grateful chessplayers will call this attack the most beautiful of the Twentieth Century...

### No. 122: Karpov – Miles

Oslo 1984



*Position after 17...♝xa2*

The parameters of the position (we are playing White) are:  $m = 1$ ,  $t = 46/38 = \sim 1.21$ , approximate parity in the safety factor,  $\Delta k < 0$ , and  $\Delta(17\dots \mathbb{W}xa2) = 0.20$ .

Diagnosis: the Capablanca Algorithm.

### 18.g3

A straightforward increase in  $\Delta(\text{move})$ ; but with this, White considerably increases both the third and the fourth factors of his position.

### 18...e6 19.†g2 †a3

He didn't need this! Better was 19...†xb7 20.†xb7 †d5 ( $\Delta 21\dots c5$ ) 21.c4 †d6± (Karpov).

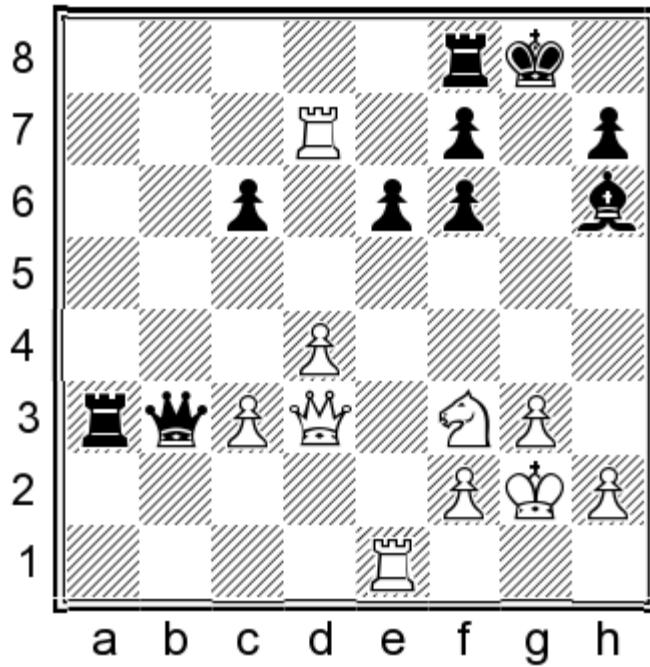
### 20.†d7 ♜e3

Spectacular, but ineffective. Black is also worse after 20...†xc3 21.†xc3 †xb1 22.†xc6  $\Delta d5$ .

### 21.†f1 ♜h6 22.†e1 †b3

Clearly, Black proceeds in “Tal” style – attacking the target on c3. Does he have a right to do this?

You know the answer!



The parameters of the position are:  $m = 1$ ,  $t = 48/37$ , and a “plus” in the third factor.

The diagnosis is unanimous – “Tal”!

### 23.d5

This move gives rise to primordial horror: it is pretty, and it's in “Tal” style! It satisfies every requirement of the position, and Miles deserves to be punished!

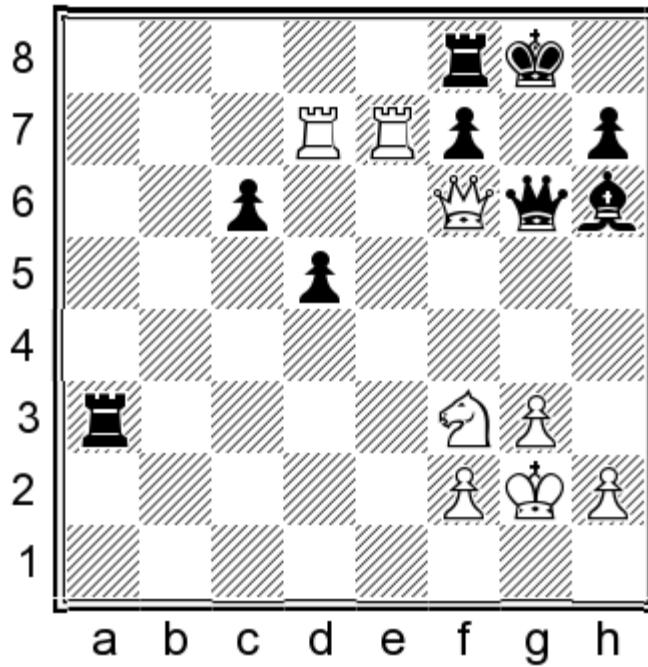
### 23...exd5

If 23...cxd5, then 24.†xe6, etc.

**24.♘f5 ♘xc3 25.♗ee7**

Now the threat is the crushing 26.♗e5.

**25...♘d3 26.♗xf6 ♘g6**



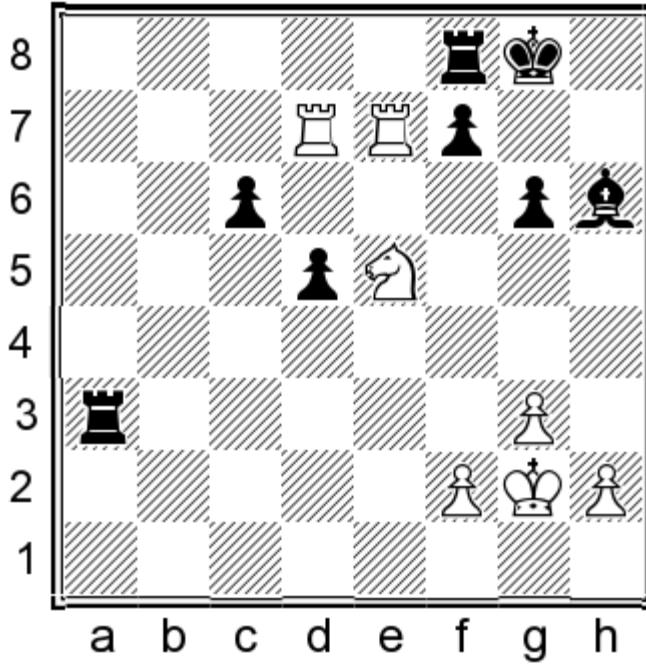
**27.♘xg6+**

Right! “Tal” has almost run out, and the “Capablanca” that replaces it welcomes exchanges.

**27...hxg6**

After 27...fxg6 28.♗e5 (Karpov), White wins.

**28.♗e5**



Let's examine this position from Black's viewpoint:  $m > 1$ ,  $t = 32/25 = 1.28$ , inferiority (by how much?) in the safety factor,  $\Delta k \ll 0$ , and  $\Delta(28.\mathbb{Q}e5) = \sim -1.12$ .

Diagnosis (for Black): "Capablanca"? CP Algorithm?

Obviously, Black must play carefully.

### 28... $\mathbb{Q}g5$

Loses. The bishop should have huddled together with the king: 28... $\mathbb{Q}g7$  – a recommendation by the then-World Champion. Here are some possible variations:

- a) 29. $\mathbb{Q}xf7$   $\mathbb{R}a2$  30. $g4$   $d4$  31. $g5$   $d3$  32. $\mathbb{Q}g3$   $\mathbb{E}e2$  (32... $d2??$  33. $\mathbb{Q}h6+$   $\mathbb{Q}xh6$  34. $gxh6+-$ ) 33. $\mathbb{Q}h6+$   $\mathbb{Q}xh6$  34. $\mathbb{E}h7=$  (Karpov);
- b) 29. $\mathbb{Q}xg6$   $\mathbb{Q}f6$  30. $\mathbb{Q}xf8$   $\mathbb{Q}xe7$  31. $\mathbb{Q}e6\pm$  (Karpov); however, in the tempo endgame coming up, it looks like Black can draw: 31... $fxe6$  32. $\mathbb{E}xe7$   $c5$  33. $\mathbb{E}xe6$   $c4$  34. $\mathbb{E}c6$   $\mathbb{E}c3$  35. $h4$   $d4$  36. $\mathbb{E}c8+$   $\mathbb{Q}h7$  37. $\mathbb{E}c7+$   $\mathbb{Q}g8$  38. $g4$   $d3$  39. $\mathbb{E}d7$   $\mathbb{E}c2$  40. $h5$   $d2$  41. $g5$   $c3$  42. $h6$   $\mathbb{E}c1$  43. $\mathbb{E}d8+$   $\mathbb{Q}h7$  44. $\mathbb{E}d7+$   $\mathbb{Q}g8$  45. $\mathbb{E}d8+=$ ;
- c) 29. $\mathbb{Q}xc6!?$   $\mathbb{Q}f6$  30. $\mathbb{E}e2$   $\mathbb{E}c8$  31. $\mathbb{Q}b4\pm$  (Karpov).

In this last variation, White has good winning chances.

The most favorable scenario for White is: two rooks + knight + the f-, g-, and h-pawns against two rooks, bishop, and the f- and g-pawns. I should add that the d-pawn is doomed, and we have good chances to win it while retaining the minor pieces.

Now for the most favorable scenario for Black. Here it is: rook + the f- and g-pawns versus rook and three white pawns on the kingside.

In the former case, White wins; while in the latter case, it's a draw!

There is a third, intermediate, and the most probable scenario: a four-rook ending with f- and g-pawns for Black and f-, g-, and h-pawns for White. The question is: is this a winning ending?

There is no answer: it's a playable position!

After the game move, however, Black should lose.

**29.♕xf7 ♕xf7 30.♘xf7 ♖f6**

In order to keep the knight off e5, but...

**31.♘h6+ ♔h8 32.♖d6 ♔g7 33.♘f7+ ♔g8**

33...♔h7 holds out a little longer.

**34.♘g5**

Threatening 35.♖d8+ ♔f8 36.♘e6.

**34...♜a8**

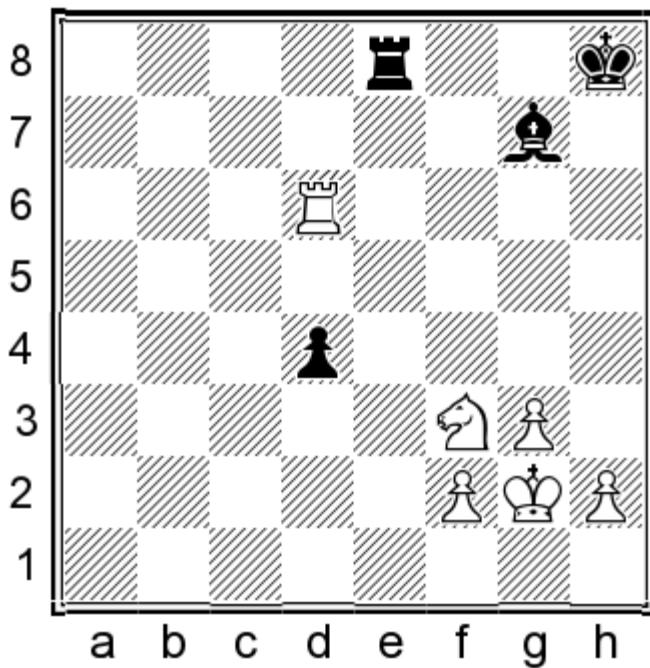
Defending the eighth rank.

**35.♖xc6 d4 36.♖xg6**

The black pawns fall one after the other.

**36...♔h8 37.♖d6 ♜e8 38.♘f3**

The d-pawn will fall, too, because he cannot play 38...♜e4 in view of 39.♖d8+ ♔h7 40.♘g5+. The d-pawn is the fifth consecutive one (!! ) on the martyrs' list of soldiers.

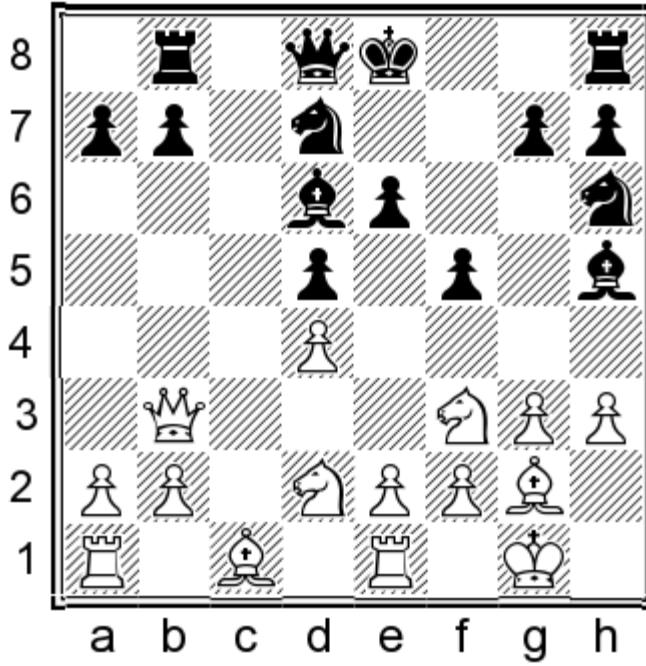


Final position. Black resigned. **1-0**

This seemingly simple game is one of the most elegant played by the twelfth World Champion. Karpov is truly the Capablanca of our day!

**No. 123: Kramnik – Beliavsky**

Belgrade 1995



Position after 11... $\mathbb{Q}h5$

We have White. The parameters of the position (except the third one) are:  $m = 1$ ,  $t = 35/45 = \sim 0.78$ ,  $\Delta k = 0$ , and  $\Delta(11\dots\mathbb{Q}h5) = -0.20$ .

The third parameter: White is better (by how much?). He has a “plus” in terms of the kings, and a “plus” because of the loose e6-pawn (second-pass assessment). Curiously, this non-vacant square e6 is the intersection of the X-rays from the queen at b3 and the rook on e1.

Notice! Non-linear, non-proportional effects are possible. The position can hold a great (very great) potential for attack. Diagnosis: the spectrum from the right-sided “Capablanca” to the radical “Tal.”

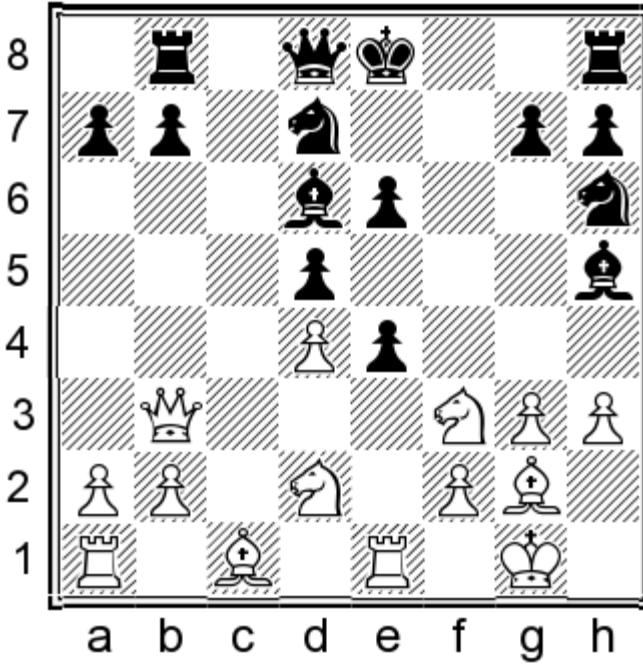
## 12.e4

Kramnik considers that after this move, Black “surprisingly loses” (V. Kramnik and Y. Damsky, *Breakthrough*). And this categorical verdict of the fourteenth World Champion is endorsed by both *Rybka* and *Fritz*. Bravo!

## 12...fxe4

12...dxe4 loses to 13. $\mathbb{Q}g5$ , while after 12... $\mathbb{Q}xf3$  13. $\mathbb{Q}xf3$  fxe4 14. $\mathbb{Q}xe4$  dxe4 15. $\mathbb{W}xe6+$   $\mathbb{W}e7$  (15... $\mathbb{Q}e7$  16. $\mathbb{Q}h5+-$ ) 16. $\mathbb{Q}xe4$   $\mathbb{Q}d8$  17. $\mathbb{W}b3$  Black is defenseless, for example 17... $\mathbb{W}f8$  18. $\mathbb{Q}g5+$   $\mathbb{Q}f6$  19. $\mathbb{Q}e6$  ( $\Delta$  20. $\mathbb{Q}xd6+$   $\mathbb{W}xd6$  21. $\mathbb{Q}f4+-$ ) 19...b5 20. $\mathbb{Q}c1$   $\mathbb{Q}b6$  21. $\mathbb{Q}xh6$  gxh6 22. $\mathbb{W}c2$   $\mathbb{Q}c5$  23. $\mathbb{Q}e3+-$ .

How did the game go?



### 13.Qg5

“I don’t remember the details anymore, but it seems that, during the game, first I looked at the ‘normal’ 13.Qxe4, but then found a more perfect continuation. It was just this that my opponent wasn’t expecting” (Kramnik).

### 13...Qf7

“On 13...Qxg5 14.Qxe4 Qe7, White has either 15.Qg5! Qf6 (after 15...Qf8, there follows 16.Qxd5! exd5 17.Qxd6#!) 16.Qxf6+ gxf6 17.Qxh6 and the attack now continues for free; or 15.Qxd6+ Qxd6 16.Qf4, picking up both the rook on b8 and the pawns on d5, e6, and b7” (Kramnik).

After 13...Qe7 White also wins with either 14.Qxe6 (Kramnik) or 14.Qdxe4 (*Rybka*): 14...dxe4 15.Qxe6 Qf7 16.Qxe4 Qf8 17.Qf3 Qxf3 18.Qg5+.

### 14.Qdxe4 dxe4 15.Qxe6 Qxe6

Otherwise – let’s say, after 15...Qe7 or 15...Qg8 – White takes the e4-pawn with the rook and Black is defenseless. Please verify this for yourself!

### 16.Qxe6+ Qe7

Or 16...Qe7 17.Qf4 Qc8 18.Qxe4 Qf8 19.Qb3+- according to Ftáčník in *Megabase*.

### 17.Qxe4 Qd8 18.Qd5

Black resigned, as the ending after 18...Qf6 19.Qxe7 Qxd5 20.Qe6 offers no hope of salvation. **1-0**

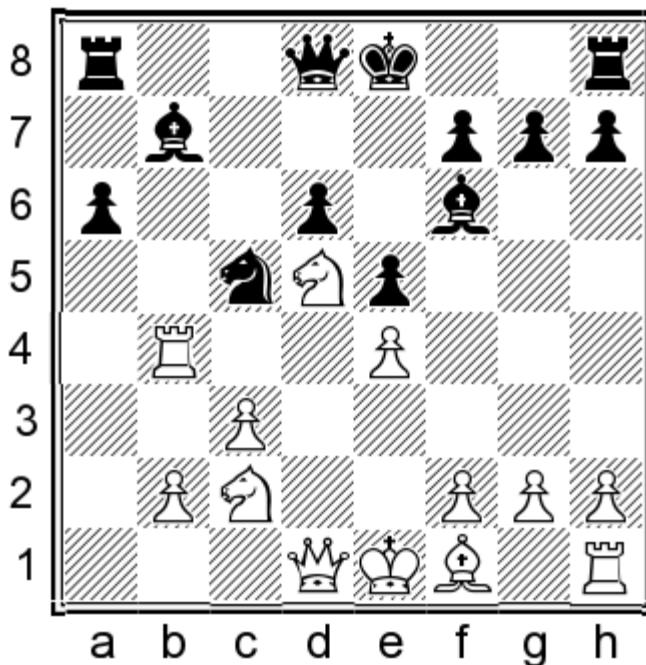
It is amazing that with such a starting value in the “t” parameter (~0.78), Black’s position was hopeless. The outcome was decided by a pair of Tal-type blows. Why was this so?

The answer is obvious: these were all intrigues by the unpredictable third parameter! It’s definitely not good to take it lightly...

A rhetorical question: can we ever restrain this strong-willed parameter?

### No. 124: Kasparov – Shirov

Horgen 1994



Position after 16... ♜c5

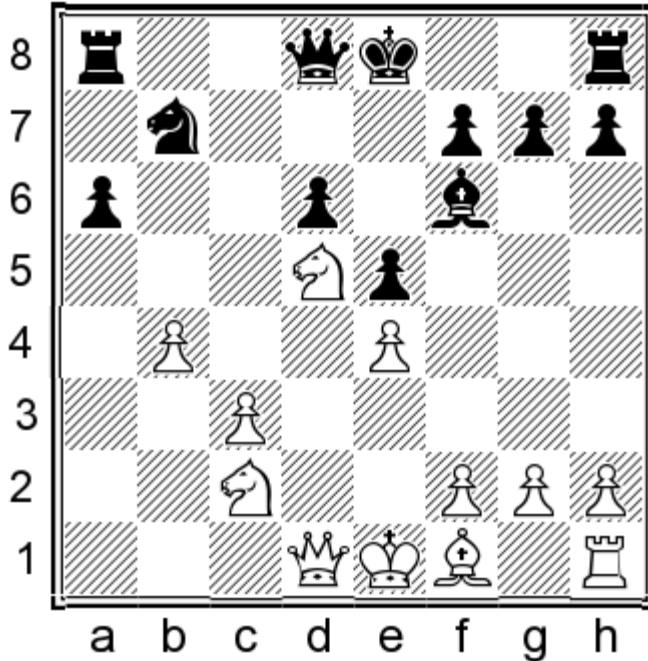
The parameters of the position (we are playing White) are:  $m = 1$ ,  $t = 43/32 = \sim 1.34$ , a “micro-plus” in the safety factor of the position.

Diagnosis: the Tal Algorithm. To add to this: our “Tal” has chances of being radical – the third factor drives it there.

**17.♜xb7**

The radical and, of course, not unquestionable solution. Kasparov sacrifices rook for bishop in order to clear the b4 square for the pawn. A “normal” treatment of this not-too-complicated position is also possible: 17.♝ce3 Δ 18.♝c4, when White is slightly better.

**17...♝xb7 18.b4**



There was a reason for the exchange sacrifice. His compensation (partial? full? excessive?) is the bad knight on b7.

The parameters of the position, from Black's perspective, are:  $m > 1$ ,  $t = 25/36 = \sim 0.69$ , and a "micro-minus" because of the king (first pass) plus a "micro-minus" in the b7-knight (second pass),  $\Delta k < 0$ , and  $\Delta(18.b4) = \sim -0.25$ .

The diagnosis is: the Petrosian Algorithm (the dynamic branch? the strategic branch?).

The standard question is: what should we do?

The no less standard answer: play according to the requirements of the Petrosian Algorithm.

Getting somewhat ahead of myself, I note that Shirov at first plays practically flawlessly. Let us see...

### **18...Bg5**

This move I have no quarrel with – the bishop evades the white knight's fire, which means that Black can now, at any time he wants, busy himself with improving his queen's position. The queen is obligated (consider it an order!) to leave the d8 square in order to resolve the problem of the b7-knight – ...Nb7-d8-e6.

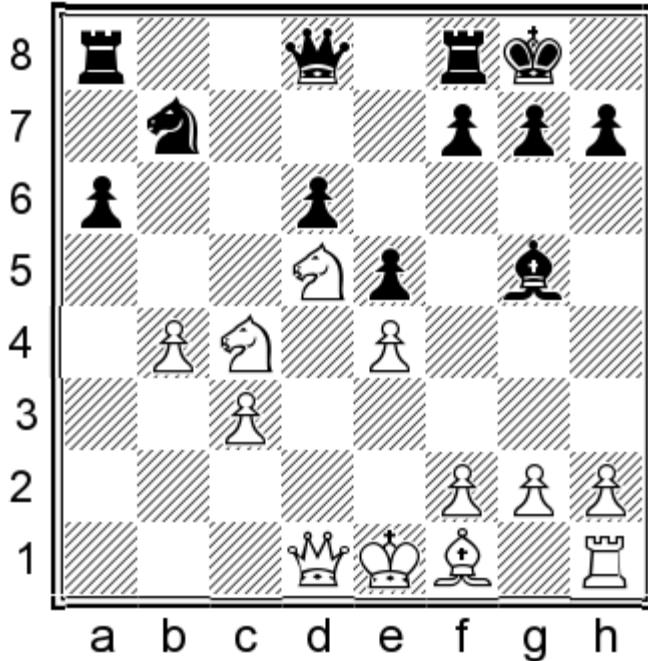
### **19.Na3**

The knight is "elevated" to the c4 square – shooting for the target on d6.

### **19...0-0**

Now the black king also feels safe. The further from a knight on d5, the more peacefully he sleeps.

### **20.Nc4**



**20...a5**

The benefits of this move are more than evident: after the exchange on b4, the total mobility of the black pieces grows considerably, as does the compactness of his position.

Its drawback is clear, too: the b-pawn becomes passed! In addition, after ...a6-a5 and ...a5xb4, White can stop thinking about the a5 and c5 squares and push his pawn to b6. True, with this the black knight is liberated, but look at that pawn on b6!

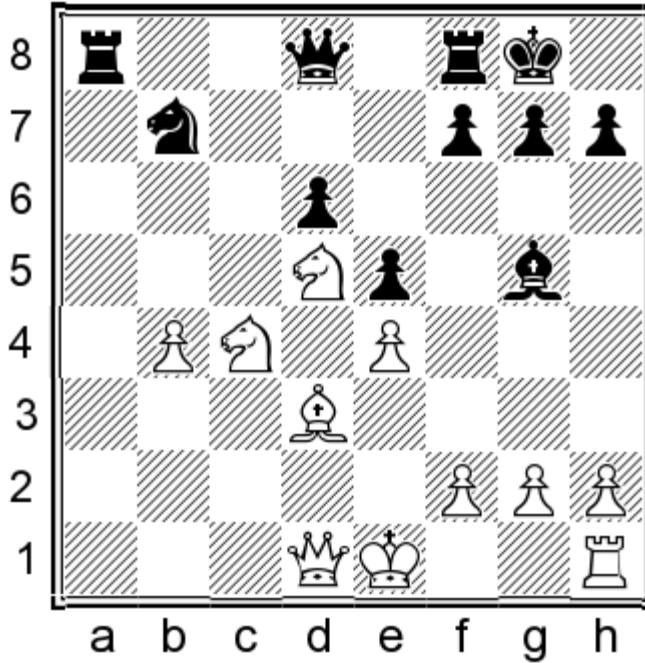
Then the question becomes: wouldn't it have been better for Shirov to delay ...a6-a5 – maybe with 20...♝a7 Δ ...♛d8-d7(b8), ...♝b7-d8?

I cannot answer that, because then Black risks dropping the a-pawn.

**21.♕d3**

Aimed at preventing a possible ...f7-f5. But 21.♕e2 looks no worse – trading the e4-pawn for the f5-pawn is a double-edged sword. And from e2 the bishop could go to g4. On the other hand, the white queen's path to h5 would be blocked!

**21...axb4 22.cxb4**



The parameters of this position (for Black) are:  $m > 1$ ,  $t = 35/42 = \sim 0.83$ , parity, or a “micro-minus” (the knight at b7) in the third factor of the position,  $\Delta k > 0$ , and  $\Delta(22.cxb4) = \sim -0.55$ .

Diagnosis: the CP Algorithm or even the left side of “Capablanca.” Let me add that Black’s bailiwick is on the left side, not the right side, of the spectrum of all chess positions, and therefore he does not have the right even to think about “Tal.” Here, for him, “Tal” would be a crime!

I consider my emotions here to be quite valid, considering that Shirov stepped over the invisible line...

## 22... $\mathbb{W}b8$

He needed to put the rook on a7 without delay and then play ... $\mathbb{W}h8$  (or maybe leave it on g8), followed by ... $\mathbb{W}d8-d7-e8$ , ... $\mathbb{Q}g5-h6$ , ... $\mathbb{Q}d8-e6$ , and ... $g7-g6$  with ... $f7-f5$  (or leaving these pawns alone). Black is compact, and he has lots of choices for defense. He is relegated to playing a waiting game, but it seems to me that he would have good prospects for survival!

Don’t torture yourself with such questions during the game! Play the position, strive within the limits of your own strength not to offend the gods of chess... And then Caissa will smile upon you!

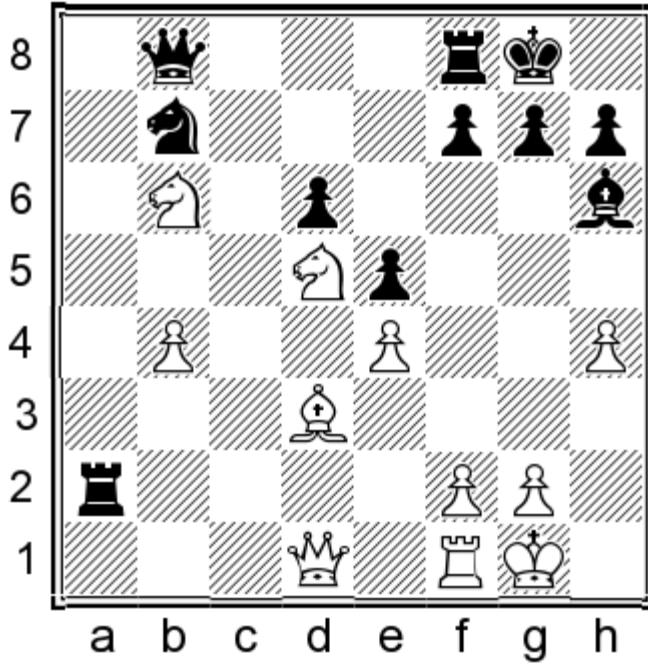
## 23.h4

White is not banned from “Tal” or the right-sided “Capablanca”!

## 23... $\mathbb{Q}h6$ 24. $\mathbb{Q}cb6$ $\mathbb{E}a2$

To parry the straightforward 25. $\mathbb{Q}d7$  with the threat of mate on f2 after 25... $\mathbb{W}a7$ .

## 25.0-0



**25...♝d2**

A serious tactical, but also strategic, error – Black is not allowed to play according to “Tal”! He has to glue the queen to the king at once with 25...♛e8 (26.♝b3 ♛a7).

**26.♝f3**

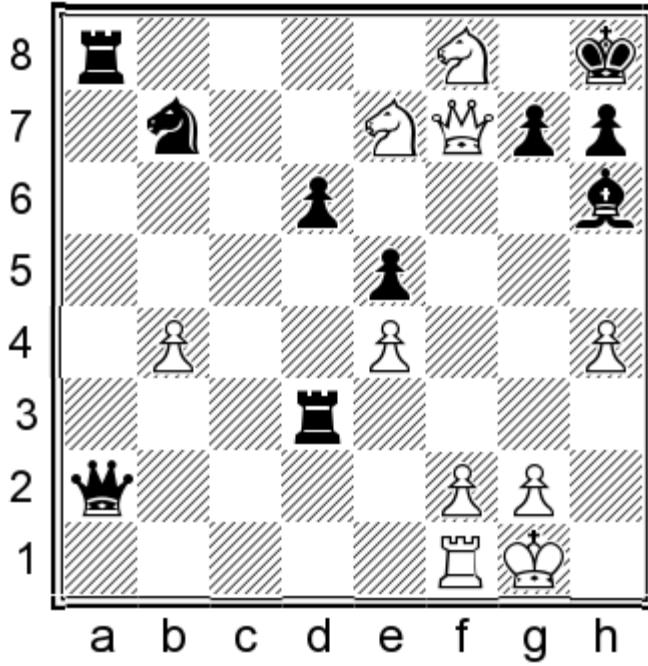
Returning the favor! The “unexpected” 26.♝b1 (*Rybka*) 26...♛a7 27.♞c4 ♜a2 28.♞c3 wins a rook for the knight. Alas, spots appear on the sun too!

**26...♛a7**

No argument here.

**27.♞d7 ♞d8**

But with this move, I have a thousand arguments. Shirov probably had a hallucination. The cool-headed *Rybka* tiptoes along a narrow path to the draw: 27...♜a8 (fearlessly!) 28.♞e7+ ♔h8 29.♛xf7 ♜xd3 30.♞f8 (is that it?) 30...♛a2 (you’ve got to be kidding!):



Position after 30...  $\mathbb{W}a2$  (analysis)

Here, perpetual check starting with 31. $\mathbb{Q}$ (either)g6+ is probably the proper outcome for such a wild encounter...

After the text, however, there is no hope for Black. Kasparov concludes the game in outstanding fashion – on practically every move, he plays *Rybka's top line!*

**28.  $\mathbb{Q}xf8$   $\mathbb{Q}xf8$  29.  $b5$   $\mathbb{W}a3$  30.  $\mathbb{W}f5$**

Getting out of the pin. Among other things. White threatens 31.  $\mathbb{W}d7$  with a crush.

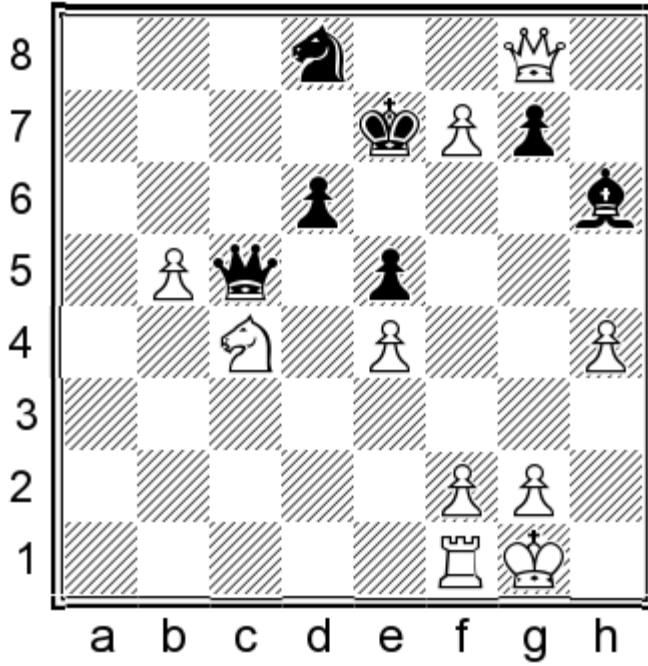
**30...  $\mathbb{Q}e8$  31.  $\mathbb{Q}c4$   $\mathbb{Q}c2$  32.  $\mathbb{W}xh7$**

The bishop is defended indirectly.

**32...  $\mathbb{Q}xc4$**

Shirov was probably in serious time pressure at this point.

**33.  $\mathbb{W}g8+$   $\mathbb{Q}d7$  34.  $\mathbb{Q}b6+$   $\mathbb{Q}e7$  35.  $\mathbb{Q}xc4$   $\mathbb{Q}c5$**



**36.¤a1**

Quite elegant.

**36...¤d4 37.¤a3 ¤c1 38.¤e3**

Black resigned. **1-0**

How was this example instructive? Kasparov played a totally correct exchange sacrifice to complicate the struggle. In other words, higher chess forces allow us – sometimes – to transform, without harm to ourselves, a rational position into an irrational one. And precisely here lies hidden the sometimes inaccessible “higher mathematics” of chess!

Thus, we may (we must!) talk about two opposing currents – from the simple to the complex, and from the complex to the simple. From the TCP Algorithm to “Tal,” “Capablanca,” and “Petrosian” – and the reverse!

We stabilize the material factor... What do we get?

We have the TC (CP) algorithm!

We neutralize the time factor, and what do we get?

We have no “Tal”! What’s left? “Capablanca” is left.

The highest type of chess symmetry is the TCP Algorithm. Turning off, in sequence, the material factor and the factor of chess time, we gradually move from chaos to *Zugzwang*. *Zugzwang* is the highest point of the Capablanca Algorithm...

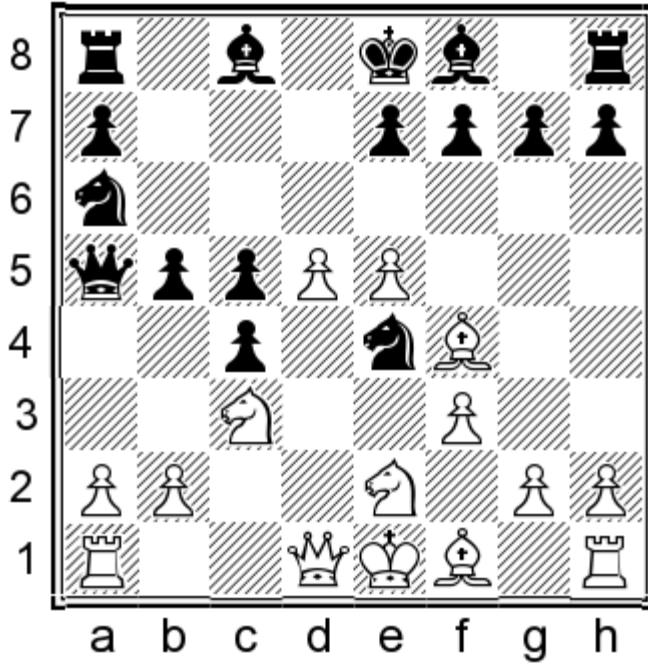
Chaos → Type I critical positions → Type II critical positions → *Zugzwang*. Flowing from the complex to the simple.

And flowing backwards! The flow, accumulating force and power, a crushing torrent!

I believe in the unified and indivisible nature of the game of chess... How about you?

**No. 125: Gelfand – Anand**

Linares 1993



*Position after 9.f3*

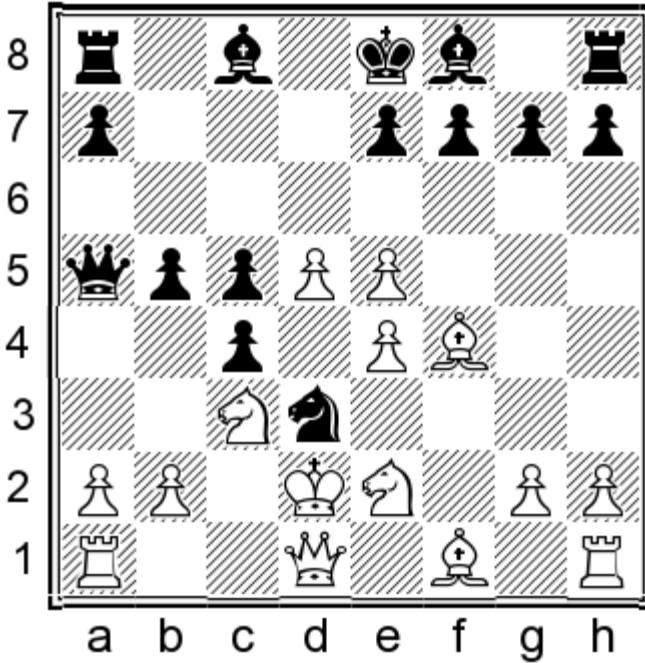
The parameters of Black's position are:  $m > 1$ ,  $t = 36/32 = \sim 1.12$ , better (by how much?) in the safety factor,  $\Delta k > 0$ , and  $\Delta(9.f3) = \sim 0.17$ .

Diagnosis: The TC Algorithm? “Tal”?

**9...♝b4**

At that time – that is, at the dawn of the encroachment by powerful chess engines into the lives of professional chessplayers – this move was called an opening novelty. A “Tal”-style move, almost trivial – a temporary (but is it?) piece sacrifice.

**10.fxe4 ♛d3+ 11.♔d2**



In this position, we have:  $m \ll 1$ ,  $t = 36/29 = \sim 1.24$ , an uncertain value in the safety factor (somewhere between a tiny and a solid plus),  $\Delta k < 0$ , and  $\Delta(11.\mathbb{Q}d2) = \sim 0.07$ . I would add (this has a direct bearing on the first factor) that Black has the possibility, with 11... $\mathbb{Q}f2$ , of changing  $m \ll 1$  to  $m > 1$ .

Our parameters have become very fluid – compare them with our starting position. The first, second, third, and fourth parameters have fluctuated wildly – a sure sign that the position is starting to fly out of control, becoming chaotic and irrational...

Our diagnosis: an expanded version of the TC Algorithm. Our scope is the entire right half of the unified spectrum of all chess attacks and defenses.

## 11...g6

A splendid move that makes an indelible impression. Anand tears away the grubby sort of “Tal” – 11... $\mathbb{Q}f2$ , etc. – preferring to expand the TC Algorithm to the TCP Algorithm!

11... $\mathbb{Q}f2$  and 11...g6 – these are, correspondingly, the first and second lines from *Rybka* (13 ply) and *Fritz* (18 ply). Check it out. And go further. Don’t be surprised to find surprises...

Chess is boundless, and the position after 11...g6 is boundless in its complexity!

## 12.b3

Anand considers this move unfortunate, and he is most likely right.

It would be interesting to examine some other moves: 12.a4, 12.d6, 12.g3!? (Anand’s marks), 12. $\mathbb{Q}e3$  (Gelfand and Anand), 12. $\mathbb{Q}g3$  (Ftáčník)...

Our silicon friends add two more possible moves, recommending 12. $\mathbb{Q}e3$  (*Rybka*) and 12.a3 (*Fritz*). What else is there?

There followed:

12... $\mathbb{Q}g7$  13.bxc4  $\mathbb{Q}xf4$  14. $\mathbb{Q}xf4$   $\mathbb{Q}xe5$  15. $\mathbb{Q}fe2$  b4 16. $\mathbb{Q}a4+$   $\mathbb{Q}xa4$  17. $\mathbb{Q}xa4$   $\mathbb{Q}xa1$  18. $\mathbb{Q}xc5$  0-0 19. $\mathbb{Q}d3$  a5 20.g3  $\mathbb{Q}g7$  21. $\mathbb{Q}g2$   $\mathbb{Q}a6$  22.c5  $\mathbb{Q}ac8$  23.c6  $\mathbb{Q}fd8$  24. $\mathbb{Q}c1$   $\mathbb{Q}h6+$  25. $\mathbb{Q}ef4$   $\mathbb{Q}xd3$  26. $\mathbb{Q}xd3$  e5 27. $\mathbb{Q}c4$  exf4 28. $\mathbb{Q}e1$  fxg3 29.e5  $\mathbb{Q}f4$  30.hxg3  $\mathbb{Q}xg3$  31. $\mathbb{Q}e3$   $\mathbb{Q}f4$  32. $\mathbb{Q}e4$   $\mathbb{Q}h2$  33. $\mathbb{Q}h3$   $\mathbb{Q}c7$  34. $\mathbb{Q}e2$   $\mathbb{Q}g3$  35. $\mathbb{Q}e3$   $\mathbb{Q}f4$  36. $\mathbb{Q}e4$  g5 37. $\mathbb{Q}c5$   $\mathbb{Q}e7$  38. $\mathbb{Q}d4$  f6 39.d6  $\mathbb{Q}xe5+$  40. $\mathbb{Q}xe5$   $\mathbb{Q}xd6+$  0-1



## Chapter 6

### Positions for Self-Study

You will find the simplest examples at the beginning of this chapter; the most complex, at the end. From the simple to the complex!

The method is the same, operating in every position without exception. It selects one from the three fundamental and the three mixed algorithms, our old acquaintances...

For the sake of simplicity in defining the diagnosis, I have designated all six algorithms as follows: T, C, etc. Such “novelties” allow me to save many kilograms of ink and paper! “Compactness” is our motto...

...You are presented with a position. Your actions?

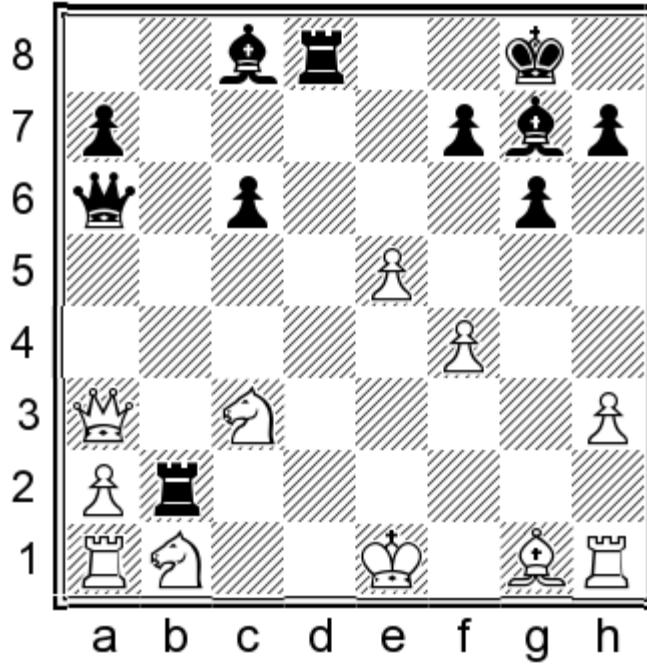
It is necessary to start out with a medium level of chess aggressiveness, anticipating the process of searching for the strongest move (see the Algorithm Drift Chart). Then you define “m” and “t” for the study position, etc. The output of this process consists of the necessary algorithm and the move found with its help. Examine the opponent’s reply and then search for a move once again; by now you know which algorithm to use, and continue in this vein through to the end of the game. Of course, if there is only one reasonable move (for example, the only possible recapture), you don’t need to use the method.

I’m not afraid to remind you, dear reader, one more time: the algorithms drift fairly frequently! Drift is a normal phenomenon, and therefore, for the last time, I recommend that you regularly review your diagnosis. Regularly! Especially in complex positions.

Good luck!

**No. 126: Olszewski – S. Savchenko**

Cappelle-la-Grande 2008



Position after 21.  $\mathbb{W}a3$

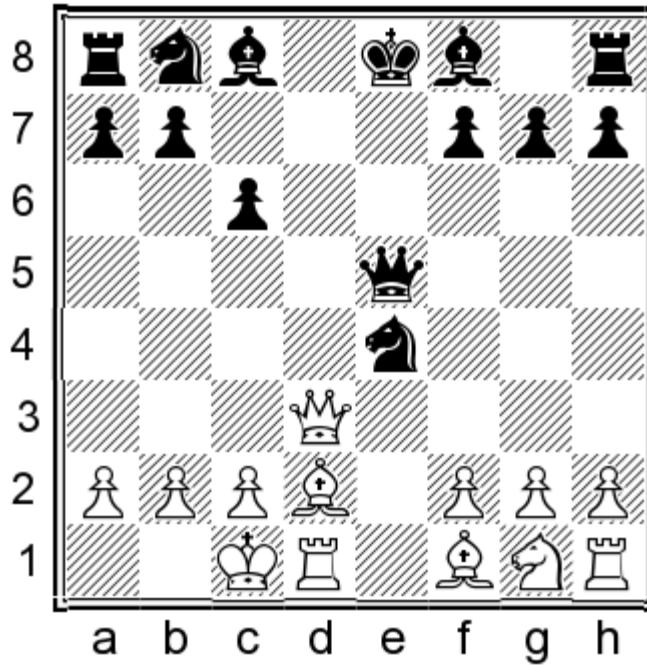
Show/Hide the answer

$m < 1$ ,  $t = \sim 1.82$ , large “+”, ... T

21...  $\mathbb{E}d1+$  22.  $\mathbb{Q}xd1$   $\mathbb{W}f1\#$

### No. 127: Réti – Tartakower

Vienna 1910



Position after 8... ♜xe4

Show/Hide the answer

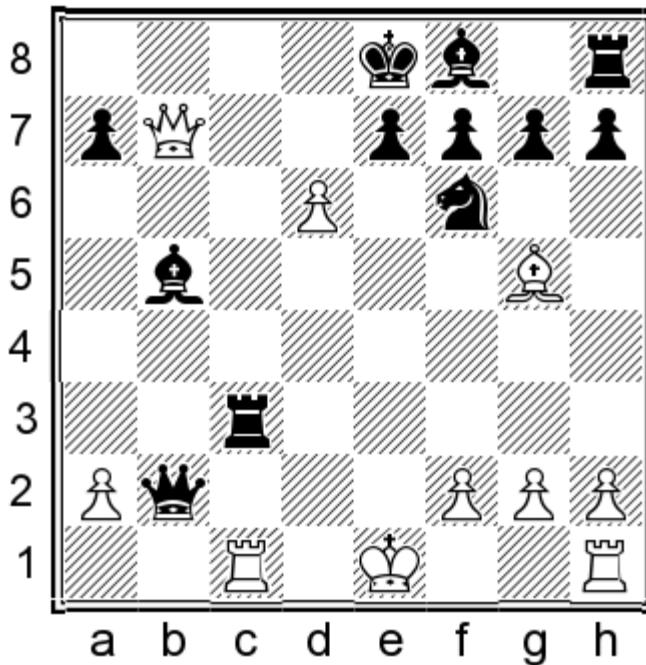
m << 1, t = ~0.84, “+”, ...T

9. ♖d8+ ♔xd8 10. ♖g5+ 1-0

---

No. 128: I. Zaitsev – NN

Simultaneous exhibition, USSR 1970



Position after 13... ♕xc3

Show/Hide the answer

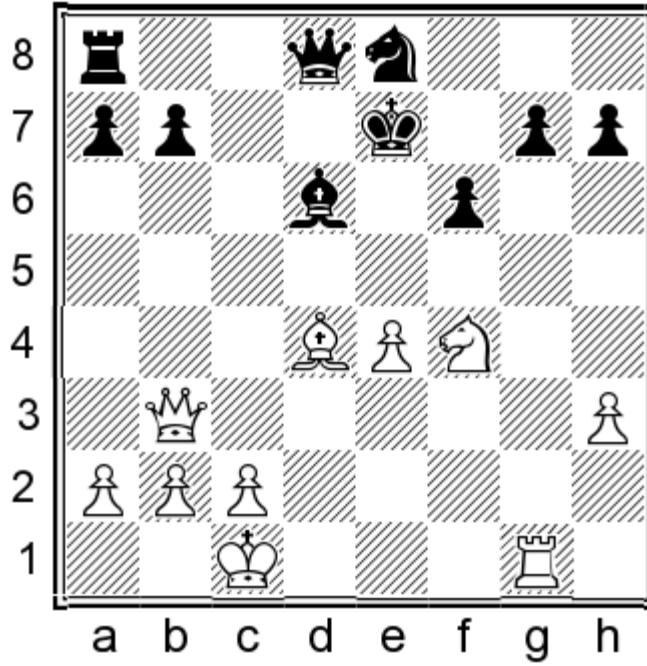
m << 1, t = ~0.78, ?... TCP

14. d7+ ♜xd7 15. ♖c8+ ♕xc8 16. ♖xc8#

---

No. 129: Korchnoi – Geller

USSR Championship, Kiev 1954



Position after 24... ♔e7

Show/Hide the answer

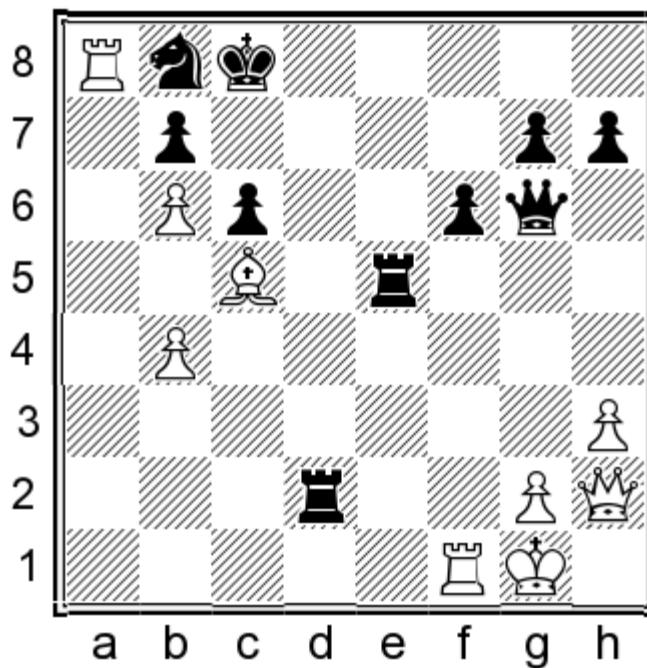
m = 1, t = ~1.85, “+”, ... T

25. ♕xf6+ 1-0

---

No. 130: Alekhine – Reshevsky

Kemeri 1937



Position after 34... $\mathbb{E}d2$

Show/Hide the answer

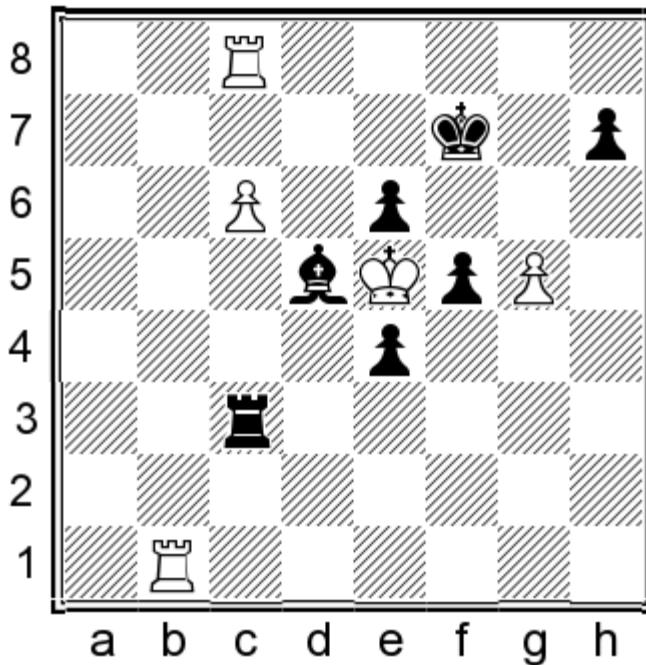
m = 1, t = ~0.77, ?... TCP

35. $\mathbb{E}xb8+$   $\mathbb{Q}xb8$  36. $\mathbb{W}xe5+$  1-0

---

No. 131: Smyslov – Flohr

USSR Championship, Moscow 1949



Position after 51... $\mathbb{E}c3$

Show/Hide the answer

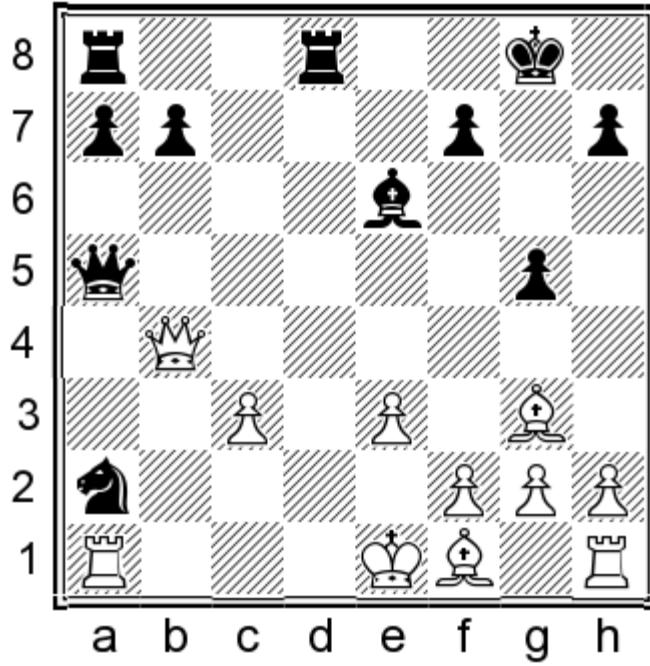
m = ~1, t = ~1, “+” ... T

52.g6+ hxg6 53. $\mathbb{E}b7\#$

---

No. 132: Šubă – Portisch

Thessaloniki Olympiad 1984



Position after 20. Wb4

Show/Hide the answer

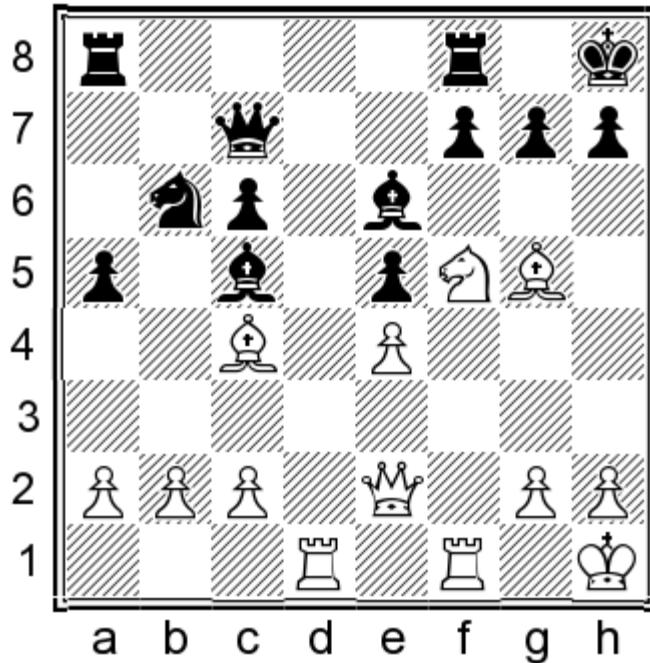
m = 1, t = ~1.07, “+” ... T

20... Ed1+ 0-1

---

No. 133: Stein – Portisch

Stockholm Interzonal 1962



Position after 18... ♜b6

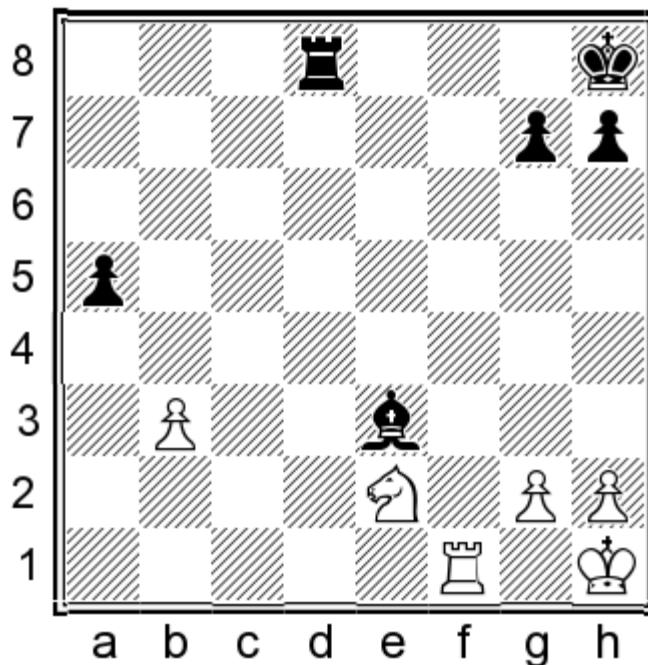
Show/Hide the answer

m = 1, t = ~1.30, “+”... T

19. ♜xg7 ♜xc4 20. ♜f6 ♜e7 21. ♜f3 1-0

No. 134: Adams – Karjakin

European Club Championship, Kemer 2007



Position after 34. ♜h1

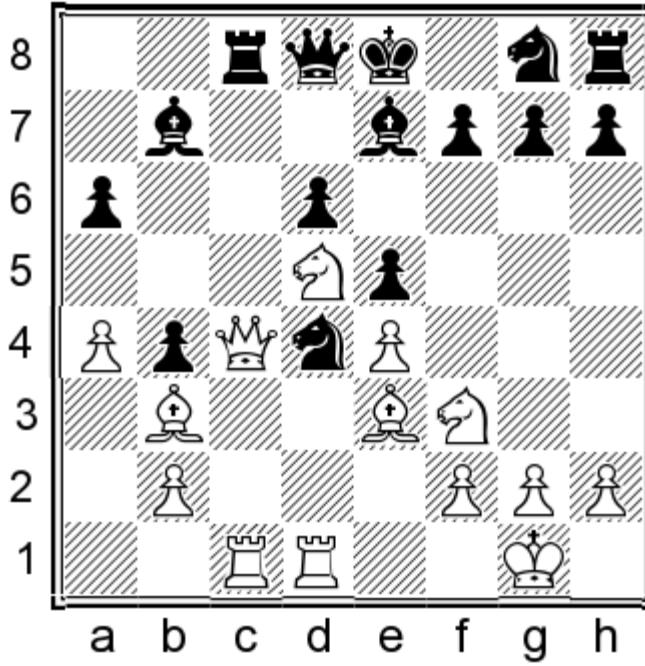
Show/Hide the answer

m = 1, t = 1.25, “≈”, Δk < 0, Δ(34. ♜h1) = ~0.83 C

34... ♜g8 35. h4 ♜d3 36. ♜f5 ♜d2 37. ♜f3 ♜xf3 38. gxf3 ♜f7 39. ♜g2 ♜e6 40. ♜d4+ ♜e5 41. ♜c2 h5 42. ♜f2 ♜b4 43. ♜e2 ♜e7 44. ♜e3 ♜d8 45. ♜g2 ♜d4 46. ♜d2 g5 47. hxg5 ♜xg5+ 48. f4 ♜d8 49. ♜e3 h4 50. ♜e2 h3 51. ♜f3 h2 52. ♜f5+ ♜c3 53. ♜g2 ♜xb3 54. ♜d4+ ♜c4 0-1

No. 135: Oliver – Bennett

Aberder 1984



Position after 16...  $\mathbb{Q}d4$

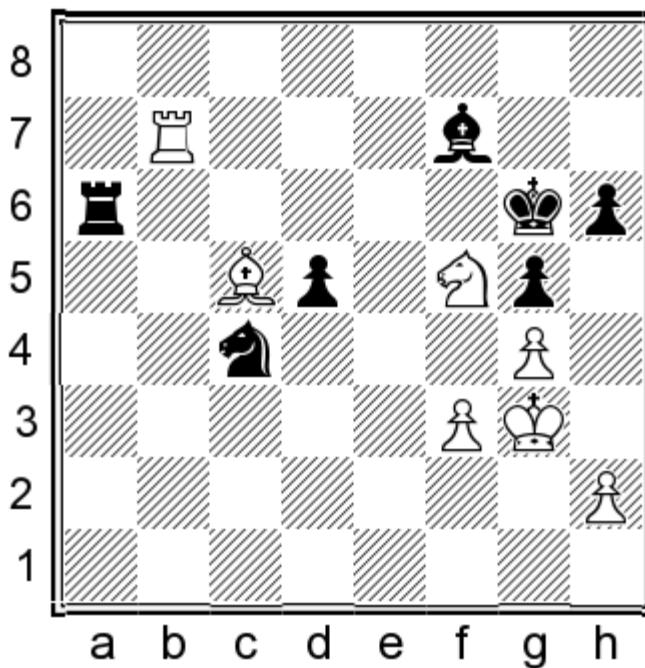
Show/Hide the answer

$m < 1$ ,  $t = \sim 1.36$ , “+” ... T

17.  $\mathbb{Q}c7+$   $\mathbb{Q}d7$  18.  $\mathbb{W}e6+$   $f \times e6$  19.  $\mathbb{Q}xe6+$   $\mathbb{Q}xe6$  20.  $\mathbb{Q}xe5\#$

### No. 136: Kasparov – Petrosian

Nikšić 1983



Position after 47...  $\mathbb{Q}a6$

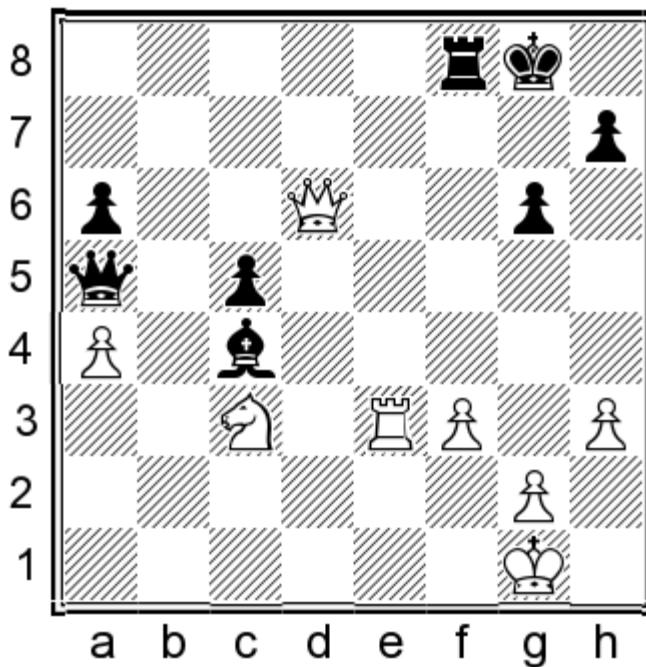
Show/Hide the answer

m = 1, t = ~1.33, “+” ... T

48.h4 gxh4+ 49. $\mathbb{Q}xh4+$   $\mathbb{Q}g7$  50. $\mathbb{Q}f5+$   $\mathbb{Q}g6$  51. $\mathbb{Q}d4$  1-0

No. 137: Sakaev – Kurnosov

Russia Cup (Final) 2006



Position after 34...  $\mathbb{Q}c4$

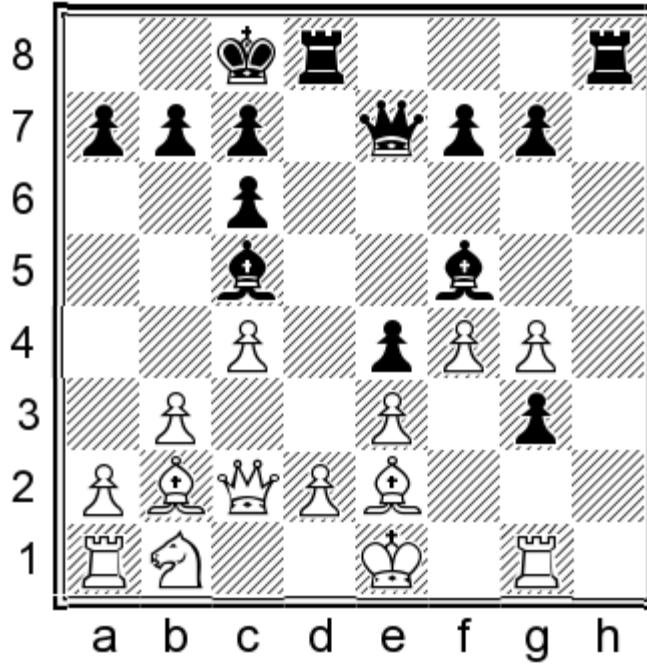
Show/Hide the answer

m = 1, t = ~1.38, small “+” ... T

35. $\mathbb{Q}h2$   $\mathbb{Q}f7$  36. $\mathbb{Q}e4$   $\mathbb{W}xa4$  37. $\mathbb{Q}f6+$   $\mathbb{Q}g7$  38. $\mathbb{Q}d7$   $\mathbb{Q}c8$  39. $\mathbb{W}f6+$   $\mathbb{Q}g8$  40. $\mathbb{Q}e7$   $\mathbb{W}b3$  41. $\mathbb{Q}e5$   $\mathbb{Q}f8$  42. $\mathbb{Q}xf7$  1-0

No. 138: Larsen – Spassky

USSR – Rest of the World, Belgrade 1970



Position after 14. E.g1

Show/Hide the answer

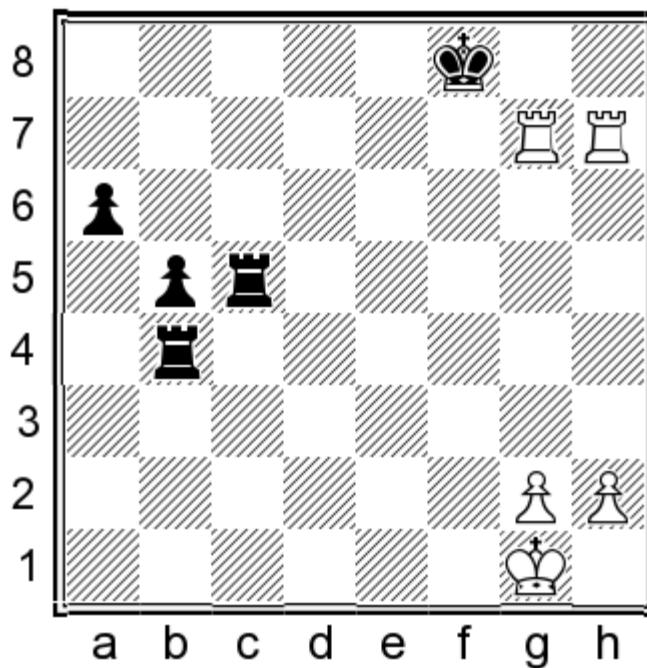
m < 1, t = ~1.58, “+” ... T

14... E.h1 15. E.xh1 g2 16. E.f1 Wh4+ 17. Ed1 gxf1W+ 0-1

---

No. 139: P. Benkő – R. Byrne

U.S. Championship, New York 1967



Position after 39... $\mathbb{Q}f8$

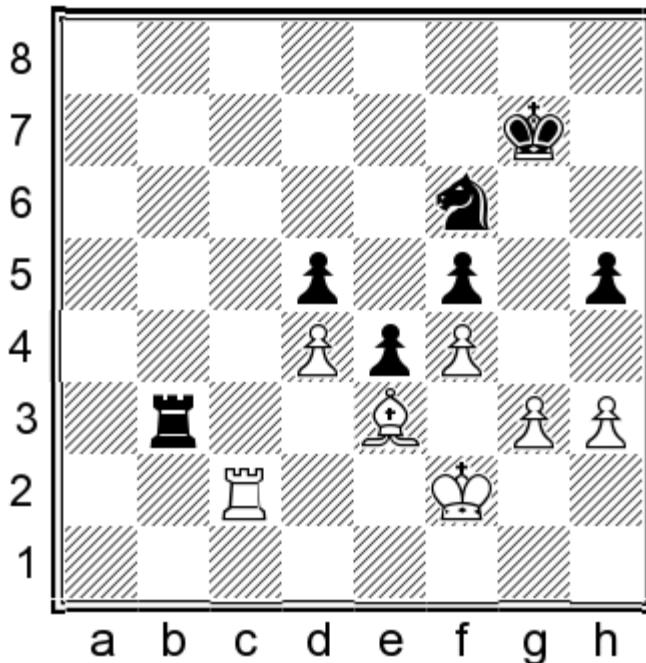
Show/Hide the answer

m = 1, t = ~0.96, “+”,  $\Delta k >> 0$ ,  $\Delta(29... \mathbb{Q}f8) = 0.40$  TC

40.h3  $\mathbb{E}c6$  41. $\mathbb{E}a7$   $\mathbb{Q}g8$  42. $\mathbb{E}hg7+$   $\mathbb{Q}f8$  43. $\mathbb{E}af7+$   $\mathbb{Q}e8$  44. $\mathbb{E}a7$   $\mathbb{Q}f8$  45. $\mathbb{E}gf7+$   $\mathbb{Q}g8$  46. $\mathbb{E}fb7$   $\mathbb{E}f4$  47. $\mathbb{Q}h2$   $\mathbb{E}f2$  48.h4  $\mathbb{E}ff6$  49. $\mathbb{Q}h3$   $\mathbb{E}c3+$  50.g3  $\mathbb{E}cc6$  51.h5  $\mathbb{E}f1$  52.g4  $\mathbb{E}f4$  53. $\mathbb{E}a8+$   $\mathbb{E}f8$  54. $\mathbb{E}xf8+$   $\mathbb{Q}xf8$  55.g5 a5 56.h6  $\mathbb{Q}g8$  57. $\mathbb{Q}g4$   $\mathbb{E}c8$  58. $\mathbb{Q}h5$  1-0

No. 140: Von Brühl – Philidor

London 1783



Position after 35... $\mathbb{E}c2$

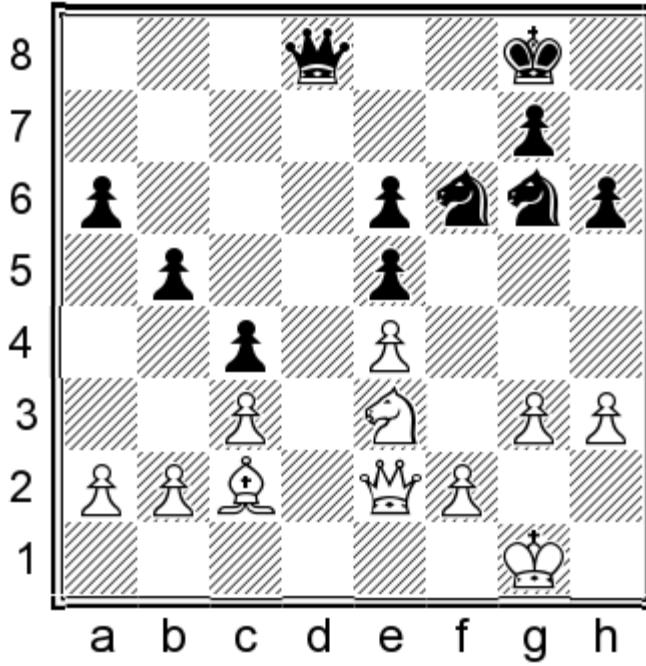
Show/Hide the answer

m = 1, t = 1.20, “≈”,  $\Delta k < 0$ ,  $\Delta(35... \mathbb{E}c2) = 1.00$  C

35...h4 36. $\mathbb{E}c7+$   $\mathbb{Q}g6$  37.gxh4  $\mathbb{Q}h5$  38. $\mathbb{E}d7$   $\mathbb{Q}xf4$  39. $\mathbb{Q}xf4$   $\mathbb{E}f3+$  40. $\mathbb{Q}g2$   $\mathbb{E}xf4$  41. $\mathbb{E}xd5$   $\mathbb{E}f3$  42. $\mathbb{E}d8$   $\mathbb{E}d3$  43.d5 f4 44.d6  $\mathbb{E}d2+$  45. $\mathbb{Q}f1$   $\mathbb{Q}f7$  46.h5 e3 47.h6 f3 0-1

No. 141: Fischer – O’Kelly

Buenos Aires 1970



Position after 26...  $\mathbb{W}xd8$

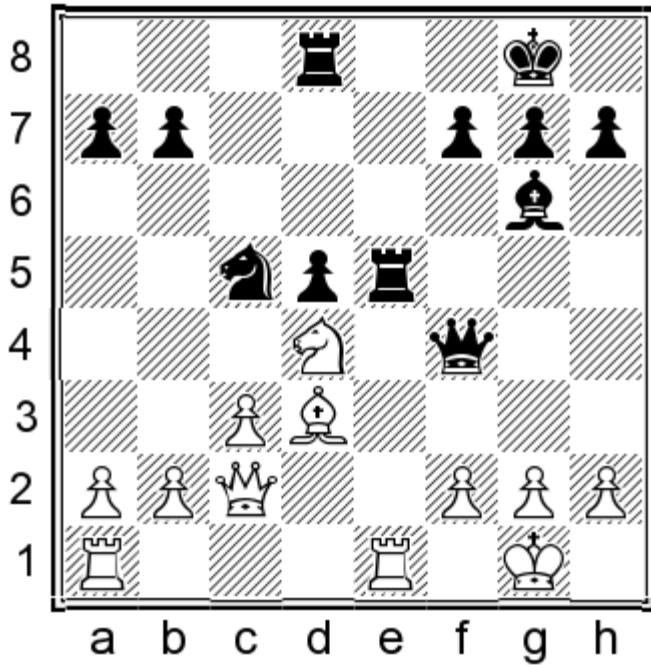
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.94$ , “=”,  $\Delta k > 0$ ,  $\Delta(26\dots \mathbb{W}xd8) = -0.45$  C

27.b3 cxb3 28.  $\mathbb{Q}xb3$   $\mathbb{Q}f8$  29.c4  $\mathbb{W}d7$  30.  $\mathbb{W}c2$   $\mathbb{W}b7$  31.cxb5 axb5 32.  $\mathbb{Q}g4$   $\mathbb{Q}6d7$  33.  $\mathbb{W}d3$   $\mathbb{W}c6$  34.  $\mathbb{W}e3$   $\mathbb{Q}f7$  35.  $\mathbb{Q}xe5+$   $\mathbb{Q}xe5$  36.  $\mathbb{W}f4+$  1-0

### No. 142: Morozevich – Gelfand

European Club Championship, Fügen 2006



### *Position after 20...♞c5*

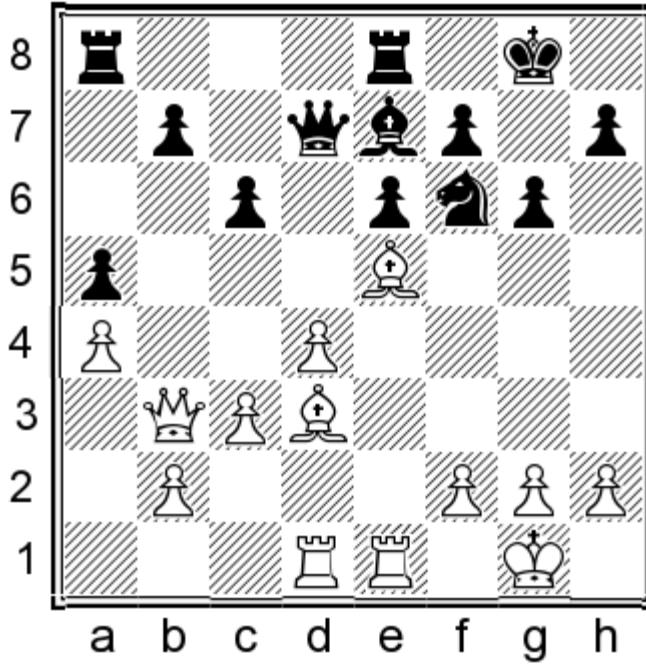
### Show/Hide the answer

$m = 1$ ,  $t = \sim 0.85$ , small “-”,  $\Delta k > 0$ ,  $\Delta(20\ldots c5) = \sim -0.58$  CP

21.  $\mathbb{Q}xg6$   $hxg6$  22.  $g3$   $\mathbb{W}f6$  23.  $\mathbb{Q}xe5$   $\mathbb{W}xe5$  24.  $\mathbb{Q}d1$   $\mathbb{E}e8$  25.  $\mathbb{Q}d2$   $\mathbb{W}f6$  26.  $\mathbb{Q}g2$   $\mathbb{E}e5$  27.  $\mathbb{Q}f3$   $\mathbb{Q}e4$  28.  $\mathbb{Q}e2$   $\mathbb{Q}f5$  29.  $\mathbb{Q}d3$   $\mathbb{Q}h7$  30.  $\mathbb{W}e3$   $\mathbb{W}a6$  31.  $\mathbb{Q}d4$   $\mathbb{E}f6$  32.  $f3$   $\mathbb{Q}c5$  33.  $a3$   $\mathbb{Q}e6$  34.  $\mathbb{Q}d2$   $\mathbb{Q}xd4$  35.  $\mathbb{W}xd4$   $\mathbb{E}e6$  36.  $\mathbb{Q}f2$   $\mathbb{W}b6$  37.  $\mathbb{W}xb6$   $\mathbb{Q}xb6$  38.  $\mathbb{Q}e3$   $\mathbb{Q}d6$  39.  $\mathbb{Q}d4$   $b6$  40.  $\mathbb{Q}e2$   $g5$  41.  $b4$   $f6$  42.  $\mathbb{Q}e7$   $a6$  43.  $\mathbb{Q}a7$   $b5$  44.  $\mathbb{Q}c5$   $\mathbb{E}e6$  45.  $\mathbb{Q}xd5$   $\mathbb{E}e3$  46.  $\mathbb{Q}d4$  1-0

## No. 143: Adams – Rozentalis

Belgrade 1999



Position after 19...  $\mathbb{W}d7$

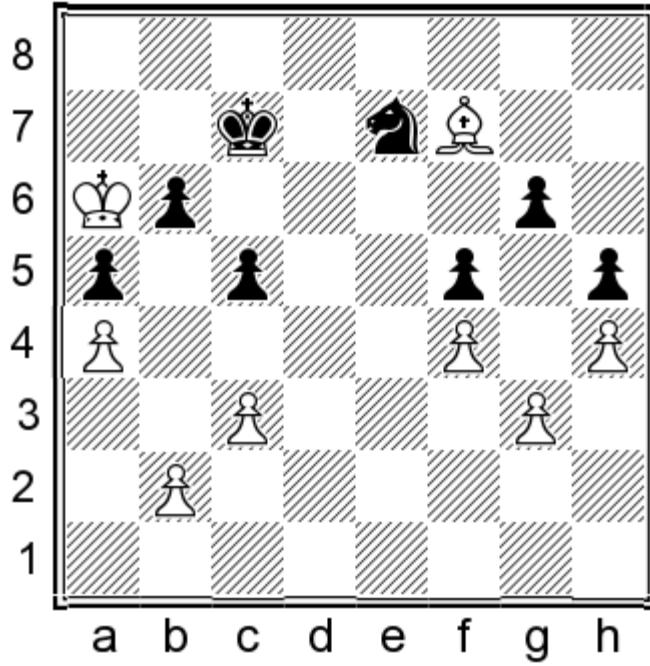
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.29$ , “micro-plus” ...T

20.h4  $\mathbb{Q}g4$  21.h5  $\mathbb{Q}xe5$  22.dxe5  $\mathbb{W}c8$  23. $\mathbb{B}e3$   $\mathbb{Q}g5$  24. $\mathbb{B}h3$   $\mathbb{W}c7$  25. $\mathbb{B}e1$   $\mathbb{B}ad8$  26. $\mathbb{W}c2$   $\mathbb{B}e7$  27. $\mathbb{B}e4$   $\mathbb{B}ed7$  28. $\mathbb{B}g3$   $\mathbb{Q}h6$  29.hxg6 hxg6 30. $\mathbb{B}h4$   $\mathbb{Q}g7$  31.f4  $\mathbb{Q}f8$  32. $\mathbb{Q}h2$   $\mathbb{B}d5$  33. $\mathbb{B}h7$   $\mathbb{B}8d7$  34. $\mathbb{Q}xg6$  fxg6 35. $\mathbb{W}xg6$   $\mathbb{B}f7$  36. $\mathbb{W}h5$   $\mathbb{Q}xe5$  37. $\mathbb{W}h6+$   $\mathbb{B}g7$  38.fxe5  $\mathbb{W}xe5$  39. $\mathbb{W}xg7+$  1-0

#### No. 144: Fischer– Taimanov

Candidates’ Match (4), Vancouver 1971



Position after 60... ♜e7

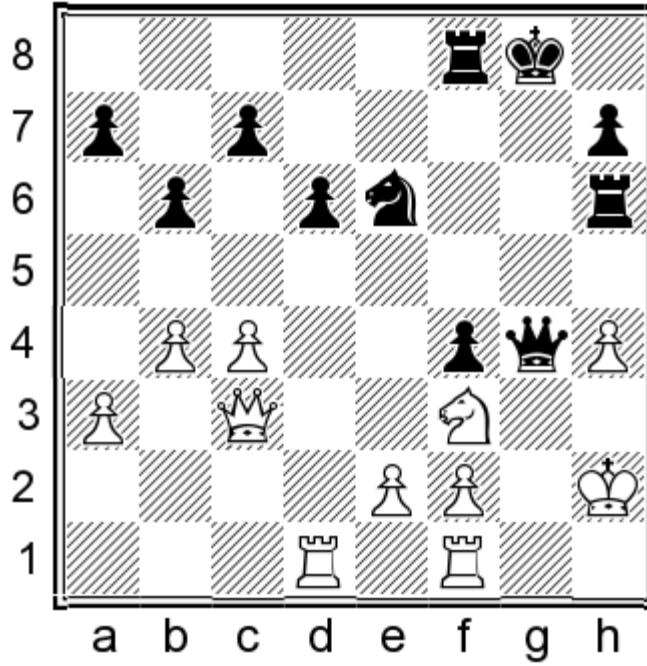
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.08$ , “=”,  $\Delta k \ll 0$ ,  $\Delta(60... \text{Qe7}) = \sim 0.88$ . C

61.♕e8 ♕d8 62.♕xg6 ♔xg6 63.♔xb6 ♔d7 64.♔xc5 ♔e7 65.b4 axb4 66.cxb4 ♔c8 67.a5 ♔d6 68.b5 ♔e4+ 69.♔b6 ♔c8 70.♔c6 ♔b8 71.b6 1-0

### No. 145: Miles – Korchnoi

Wijk aan Zee 1978



Position after 29. ♔h2

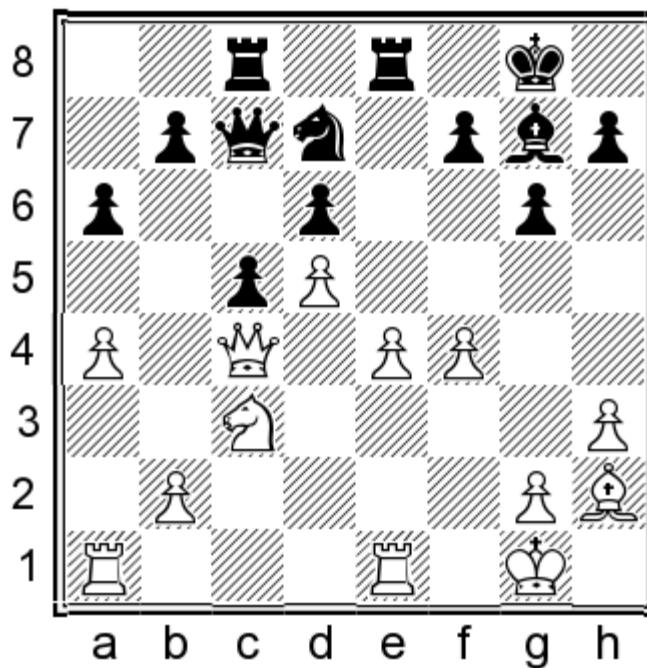
Show/Hide the answer

m = 1, t = ~0.90, “+” ... T

29... ♗g5 30. ♗xg5 f3 31. ♘xf3 ♖xh4+ 32. ♘h3 ♖xg5 0-1

### No. 146: Donner – Tal

Zürich 1959



Position after 19.  $\mathbb{E}fe1$

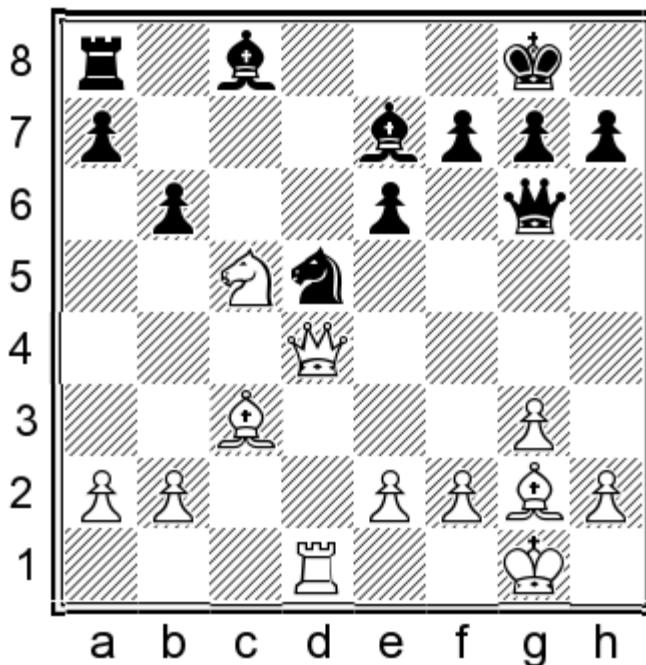
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.95$ , “=”,  $\Delta k > 0$ ,  $\Delta(19. \mathbb{E}fe1) = \sim -0.62$  C

19...  $\mathbb{W}b6$  20.  $\mathbb{E}ab1$   $\mathbb{W}b4$  21.  $\mathbb{E}f1$  c4 22.  $\mathbb{E}e2$  b5 23. axb5 axb5 24.  $\mathbb{E}h1$   $\mathbb{Q}xc3$  25. bxc3  $\mathbb{W}xc3$  26.  $\mathbb{E}xb5$   $\mathbb{W}d3$  27.  $\mathbb{W}e1$  c3 28.  $\mathbb{E}b1$   $\mathbb{Q}c5$  0-1

No. 147: Keres – Levenfish

USSR Championship, Leningrad 1947



Position after 22...b6

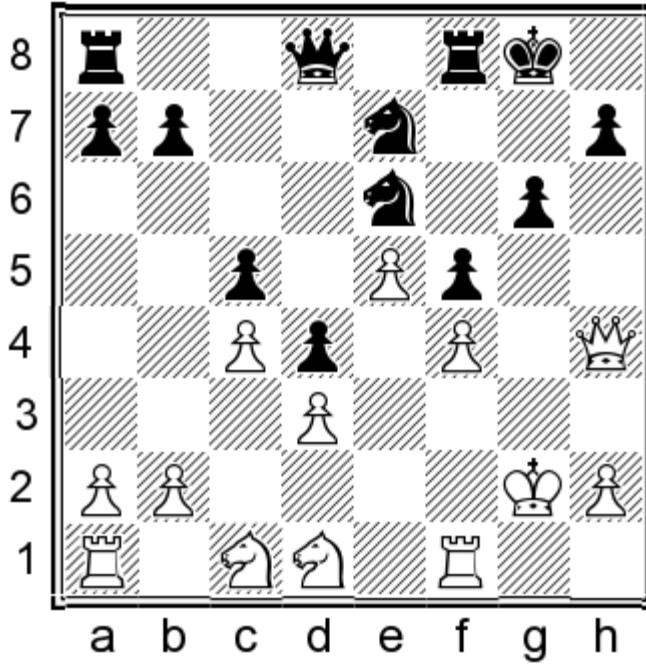
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.33$ , small “+” ... T

23.  $\mathbb{Q}xe6$   $\mathbb{Q}xe6$  24.  $\mathbb{Q}xd5$   $\mathbb{E}d8$  25. e4  $\mathbb{Q}g4$  26.  $\mathbb{E}d3$   $\mathbb{Q}h8$  27.  $\mathbb{W}e5$   $\mathbb{Q}f6$  28.  $\mathbb{W}c7$   $\mathbb{E}d7$  29.  $\mathbb{W}c6$   $\mathbb{Q}h3$  30.  $\mathbb{Q}e6$  1-0

No. 148: J. Bednarski – Korchnoi

Bucharest 1966



Position after 20. ♔xg2

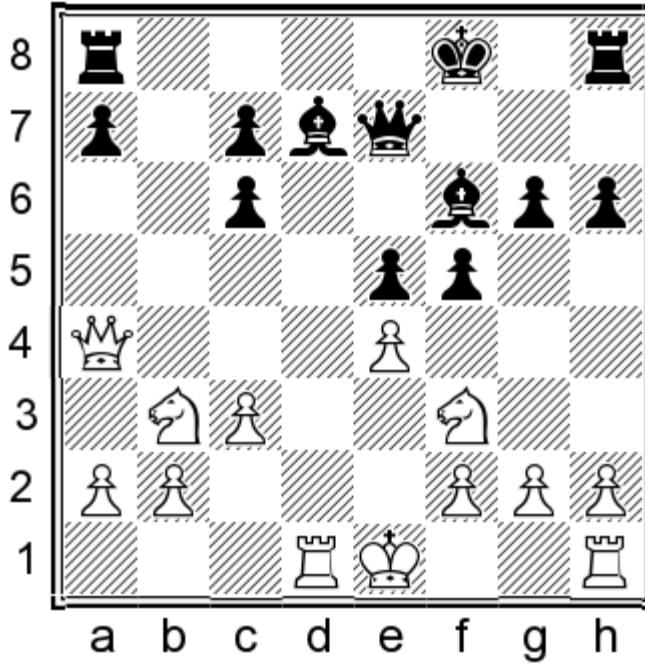
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.94$ , small “+”,  $\Delta k = 0$ ,  $\Delta(20. \ddot{\text{Q}}xg2) = \sim -0.08$  TC

20...g5 21.fxg5 ♦g6 22.♔g3 f4 23.♔g4 ♦xg5 24.h4 ♦f7 25.h5 ♦fxe5 26.♕e6+ ♔g7 27.♔h1 ♔g5+ 28.♔f1 f3 29.♔g1 ♔g2+ 30.♔xg2 fxg2+ 31.♔g1 ♦f3+ 32.♔xg2 ♦f4+ 33.♔xf3 ♦xe6+ 0-1

### No. 149: Petrosian – P.M. Nielsen

Copenhagen 1960



Position after 15...  $\mathbb{W}e7$

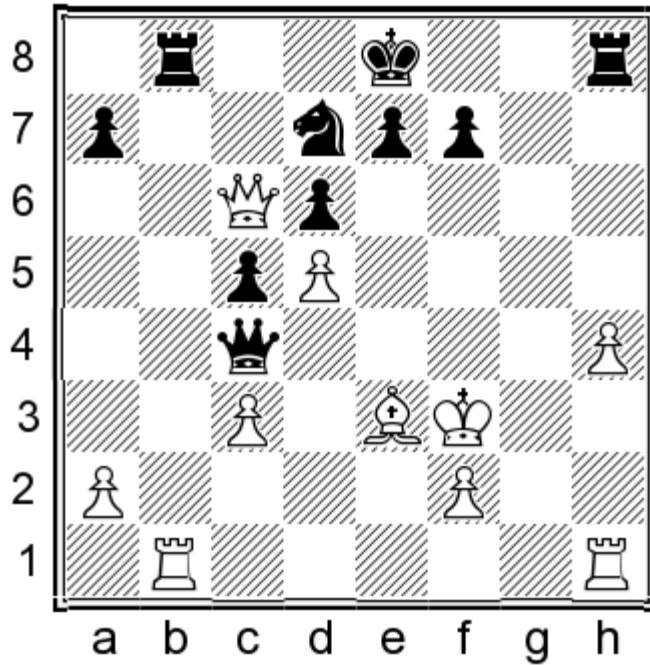
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.30$ , “ $\approx$ ” ... T

16.  $\mathbb{Q}c5$   $\mathbb{Q}e8$  17.  $b4$   $\mathbb{Q}g7$  18.  $0-0$   $\mathbb{Q}f8$  19.  $\mathbb{W}a6$   $fxe4$  20.  $\mathbb{Q}d2$   $e3$  21.  $\mathbb{Q}de4$   $exf2+$  22.  $\mathbb{Q}xf2$   $\mathbb{Q}g5$  23.  $\mathbb{Q}xf8$   $\mathbb{Q}xf8$  24.  $\mathbb{Q}xg5$   $hxg5$  25.  $\mathbb{W}b7$  1-0

No. 150: P. Blechschmidt – Flohr

Zwickau 1930



Position after 26. ♔f3

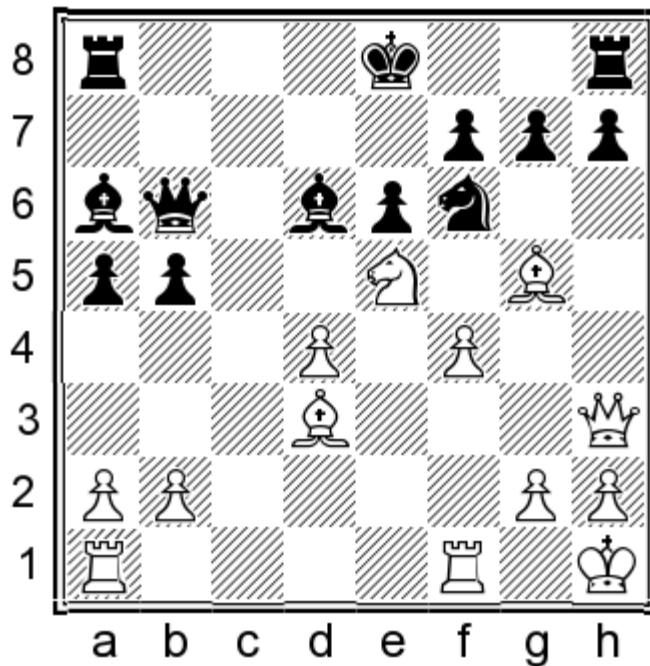
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.95$ , “+”,  $\Delta k > 0$ ,  $\Delta(26. \ddot{\text{Q}}f3) = -0.70 T$

26...f5 27. ♕xb8+ ♔f7 28. ♕d4 ♖e5+ 29. ♕xe5 ♖e4+ 30. ♕g3 ♖g4+ 31. ♕h2 ♖xh4#

### No. 151: Stefanova – Pähtz

Russian Club Championship, Dagomys 2006



Position after 18... ♜f6

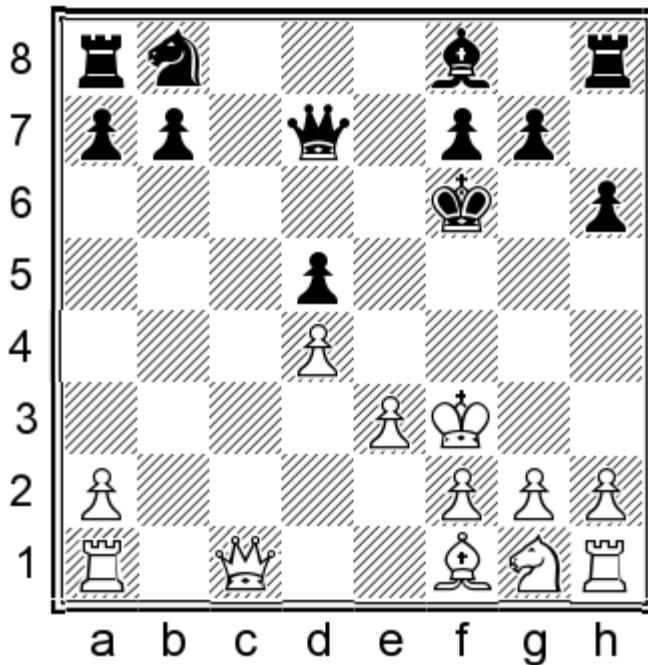
Show/Hide the answer

m = 1, t = ~1.22, “+” ...T

19. ♜g6 ♜xe5 20.fxe5 fxe5 21.exf6 0-0 22.f7+ ♜h8 23. ♜f4 h5 24. ♜e7 ♜c7 25. ♜h4 ♜b7 26. ♜e1 ♜c6 27. ♜g5 ♜h7 28.h3 1-0

### No. 152: Smyslov – Pachman

Moscow Olympiad 1956



Position after 15... ♜xf6

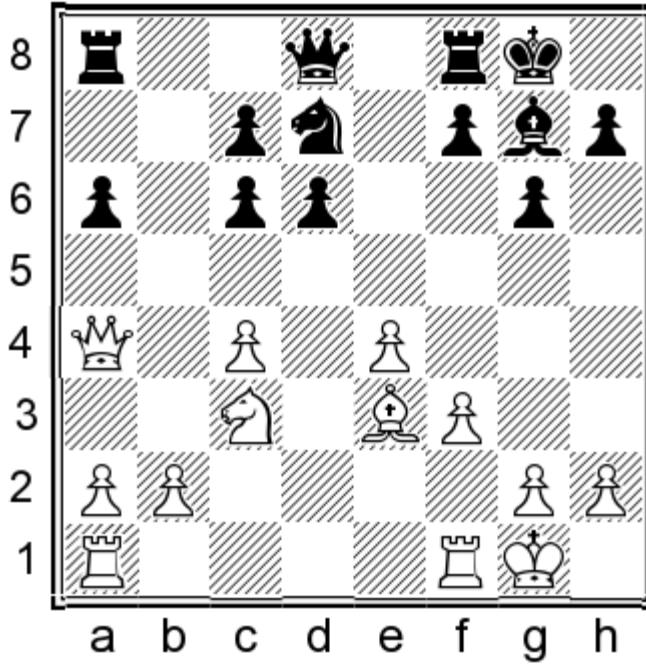
Show/Hide the answer

m = 1, t = ~0.91, “~”, Δk = 0, Δ(15... ♜xf6) = ~-0.08 C

16.g3 ♜f5+ 17. ♜g2 ♜d6 18. ♜d1 g6 19. ♜d3 ♜e6 20. ♜b1 ♜c6 21. ♜xb7 ♜ab8 22. ♜xb8 ♜xb8 23. ♜e2 ♜g7 24. ♜a4 ♜e7 25. ♜b1 ♜xb1 26. ♜xb1 ♜b8 27. ♜c2 h5 28. ♜b5 ♜c7 29. h4 a6 30. ♜b7 1-0

### No. 153: Adams – Hort

European Team Championship, Haifa 1989



Position after 14.  $\mathbb{W}a4$

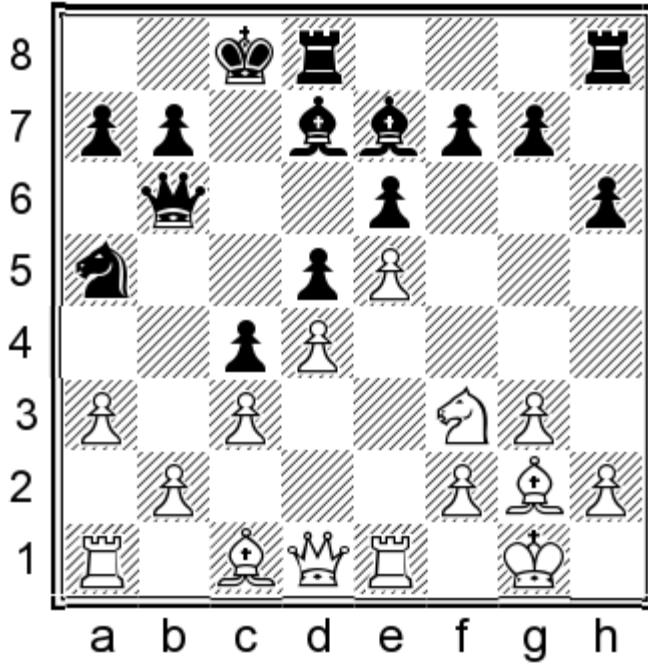
Show/Hide the answer

$m = 1$ ,  $t = 0.69$ , “=”,  $\Delta k > 0$ ,  $\Delta(14. \mathbb{W}a4) = \sim -0.46$  CP

14...  $\mathbb{Q}xc3$  15.  $bxc3$  c5 16.  $\mathbb{W}c2$   $\mathbb{W}e7$  17.  $\mathbb{Q}ae1$   $\mathbb{Q}fe8$  18.  $\mathbb{Q}h6$  f6 19. f4  $\mathbb{W}f7$  20.  $\mathbb{W}d3$   $\mathbb{Q}e7$  21. f5 g5 22. h4 g4 23.  $\mathbb{W}d5$   $\mathbb{W}xd5$  24.  $cxd5$   $\mathbb{Q}ae8$  25.  $\mathbb{Q}f4$   $\mathbb{Q}e5$  26.  $\mathbb{Q}e2$   $\mathbb{Q}h8$  27.  $\mathbb{Q}ff2$   $\mathbb{Q}f7$  28.  $\mathbb{Q}f4$   $\mathbb{Q}xe4$  29.  $\mathbb{Q}b2$   $\mathbb{Q}c4$  30.  $\mathbb{Q}b7$   $\mathbb{Q}e7$  31. h5 h6 32.  $\mathbb{Q}b3$  a5 33.  $\mathbb{Q}h2$  a4 34.  $\mathbb{Q}b8+$   $\mathbb{Q}g7$  35.  $\mathbb{Q}d2$   $\mathbb{Q}g5$  36.  $\mathbb{Q}f4$  g3+ 37.  $\mathbb{Q}xg3$   $\mathbb{Q}e4+$  0-1

No. 154: Clarke – Petrosian

Munich Olympiad 1958



Position after 15.  $\mathbb{Q}e1$

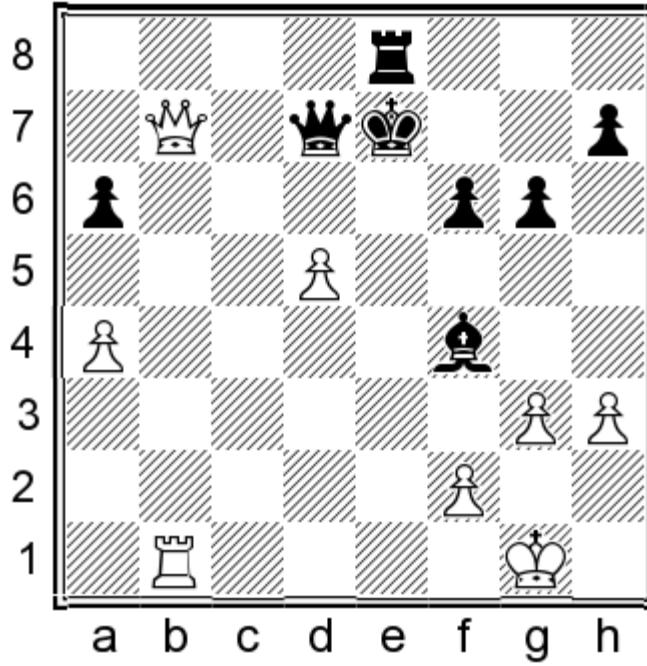
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.26$ , “=”,  $\Delta k = 0$ ,  $\Delta(15. \mathbb{Q}e1) = 0.20$  TC

15...  $\mathbb{W}b3$  16.  $\mathbb{W}e2$   $\mathbb{Q}a4$  17.  $\mathbb{Q}e3$   $\mathbb{Q}b8$  18.  $\mathbb{Q}ad1$   $\mathbb{W}c2$  19.  $\mathbb{Q}d2$   $\mathbb{W}f5$  20.  $\mathbb{Q}f1$   $g5$  21.  $h3$   $h5$  22.  $\mathbb{Q}h2$   $\mathbb{Q}dg8$  23.  $g4$   $\mathbb{W}g6$  24.  $\mathbb{Q}f3$   $hxg4$  25.  $\mathbb{Q}xg4$   $\mathbb{Q}c6$  26.  $f3$   $\mathbb{Q}d8$  27.  $\mathbb{Q}f2$   $\mathbb{Q}e7$  28.  $\mathbb{Q}e1$   $\mathbb{Q}h6$  29.  $\mathbb{Q}f1$   $\mathbb{Q}gh8$  30.  $\mathbb{Q}g3$   $\mathbb{Q}xh3$  31.  $\mathbb{Q}xh3$   $\mathbb{Q}xh3$  32.  $\mathbb{W}g2$   $\mathbb{W}h7$  33.  $\mathbb{Q}e3$   $\mathbb{Q}g6$  34.  $\mathbb{Q}g4$   $\mathbb{Q}f4$  35.  $\mathbb{Q}xf4$   $gxf4$  36.  $\mathbb{Q}f1$   $\mathbb{Q}g3$  37.  $\mathbb{Q}f2$   $\mathbb{W}h3+$  38.  $\mathbb{Q}e2$   $\mathbb{Q}g2$  39.  $\mathbb{Q}g1$   $\mathbb{Q}xf2+$  40.  $\mathbb{Q}xf2$   $\mathbb{W}h7$  41.  $\mathbb{Q}h1$   $\mathbb{W}g6$  0-1

No. 155: Capablanca – N. Zubarev

Moscow 1925



Position after 33... ♕xf4

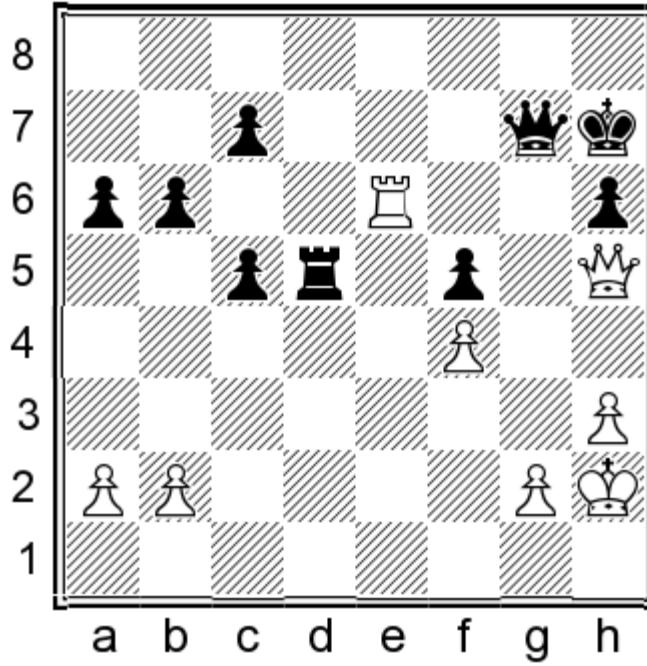
Show/Hide the answer

m < 1, t = ~1.18, “+” ...T

34.♕e1+ ♔e5 35.d6+ ♔e6 36.♗b3+ ♔f5 37.♗d3+ ♔g5 38.♗e3+ ♔f5 39.♗e4+ ♔e6 40.♗c4+ ♔xd6 41.♗d1+ ♔e7  
42.♗xd7+ ♔xd7 43.♗xa6 ♗b8 44.♗a7+ ♔c6 45.♗xh7 ♗b2 46.♗xg6 1-0

### No. 156: Morphy – Löwenthal

Match (14), London 1858



Position after 32...  $\mathbb{Q}d5$

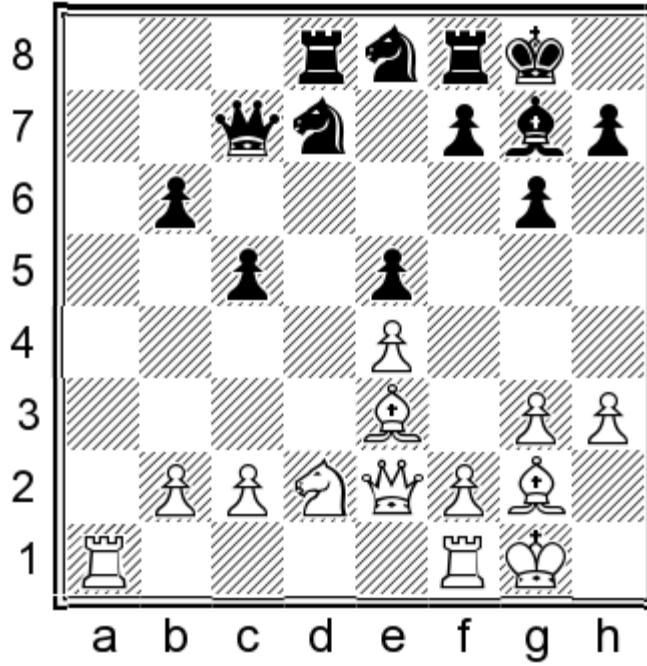
Show/Hide the answer

$m < 1$ ,  $t = 1.10$ , small “+”,  $\Delta k < 0$ ,  $\Delta(32\dots \mathbb{Q}d5) = 0.15$  TC

33.b3 b5 34. $\mathbb{Q}xa6$   $\mathbb{Q}d6$  35. $\mathbb{W}xf5+$   $\mathbb{W}g6$  36. $\mathbb{W}xg6+$   $\mathbb{Q}xg6$  37. $\mathbb{Q}a5$   $\mathbb{Q}b6$  38.g4 c6 39. $\mathbb{Q}g3$  h5 40. $\mathbb{Q}a7$  hxg4 41.hxg4  $\mathbb{Q}f6$  42.f5  $\mathbb{Q}e5$  43. $\mathbb{Q}e7+$   $\mathbb{Q}d6$  44.f6  $\mathbb{Q}b8$  45.g5  $\mathbb{Q}f8$  46. $\mathbb{Q}f4$  c4 47.bxc4 bxc4 48. $\mathbb{Q}f5$  c3 49. $\mathbb{Q}e3$  1-0

### No. 157: Fischer – Ibrahimoglu

Siegen Olympiad 1970



Position after 17...axb6

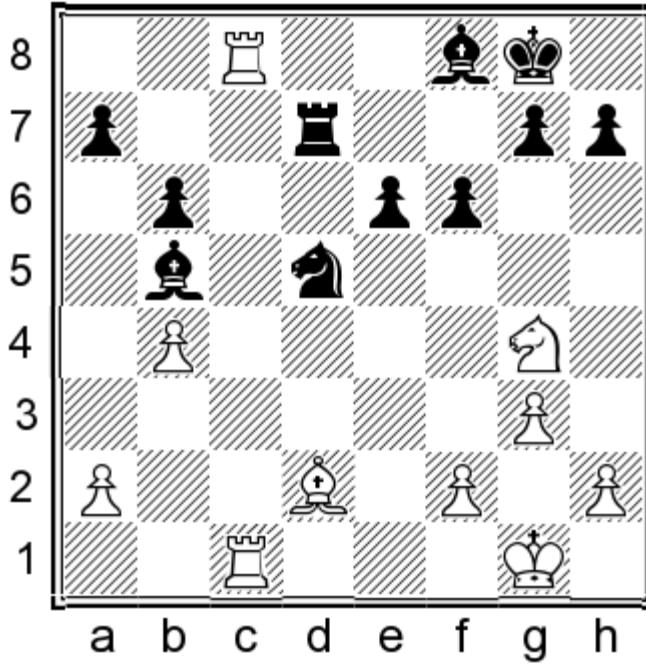
Show/Hide the answer

m = 1, t = ~1.88, “+” ... T

18.♘b1 ♘b7 19.♘c3 ♘c7 20.♘b5 ♘c6 21.♘xc7 ♘xc7 22.♗b5 ♘a8 23.c3 ♘xa1 24.♗xa1 ♘b8 25.♗a6 ♘f8 26.♗f1 ♘g7  
27.♗a4 ♘b7 28.♗b5 ♘b8 29.♗a8 ♘d6 30.♗d1 ♘c6 31.♗d2 h5 32.♗h6+ ♘h7 33.♗g5 ♘b8 34.♗xb8 ♘xb8 35.♗f6 ♘c6  
36.♗d5 ♘a7 37.♗e8 ♘g8 38.♗xf7+ ♘xf7 39.♗xd6 1-0

No. 158: Ponomariov – Topalov

Sofia 2005



Position after 23...  $\mathbb{Q}d7$

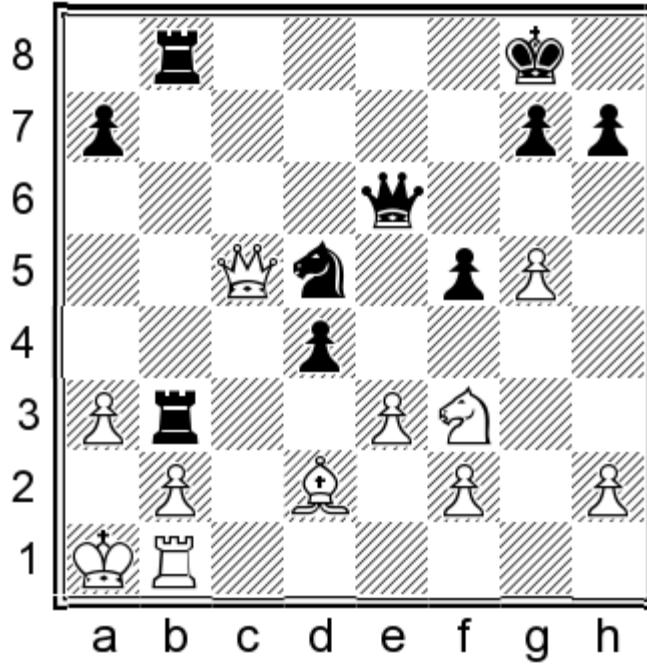
Show/Hide the answer

$m > 1$ ,  $t = \sim 1.38$ , small “+” ... T

24.  $\mathbb{Q}h6+$   $gxh6$  25.  $\mathbb{Q}xh6$   $\mathbb{R}f7$  26.  $\mathbb{R}d8$   $\mathbb{Q}e7$  27.  $\mathbb{R}c7$   $\mathbb{Q}g6$  28.  $\mathbb{R}cc8$   $e5$  29.  $f4$   $\mathbb{Q}d7$  30.  $\mathbb{R}a8$   $\mathbb{Q}h3$  31.  $\mathbb{Q}f2$   $b5$  32.  $\mathbb{R}db8$   $exf4$  33.  $gxf4$   $\mathbb{Q}d7$  34.  $h4$   $\mathbb{Q}c6$  35.  $h5$   $\mathbb{Q}xa8$  36.  $hxg6$   $hxg6$  37.  $\mathbb{R}xa8$   $f5$  38.  $\mathbb{Q}g3$   $a6$  39.  $\mathbb{Q}h4$   $\mathbb{R}g7$  40.  $\mathbb{Q}g5$  1-0

### No. 159: Gelfand – Kramnik

Berlin 1996



Position after 26. Wxc5

Show/Hide the answer

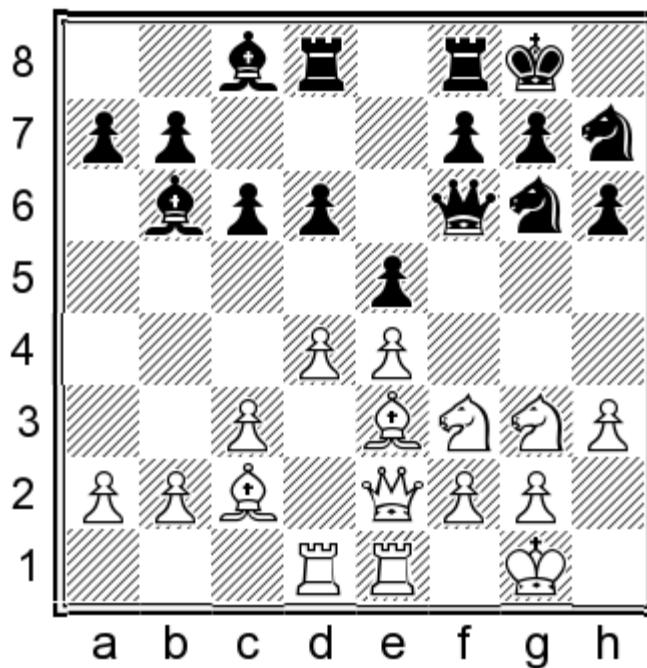
m > 1, t = ~1.28, “+” ... T

26... Qc3 27. Qxd4 Bxb2 28. Bxb2 Wa2+ 0-1

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No. 160: Gipslis – L. Dobrovolsky

Bardenov 1991



Position after 17.  $\mathbb{Q}c2$

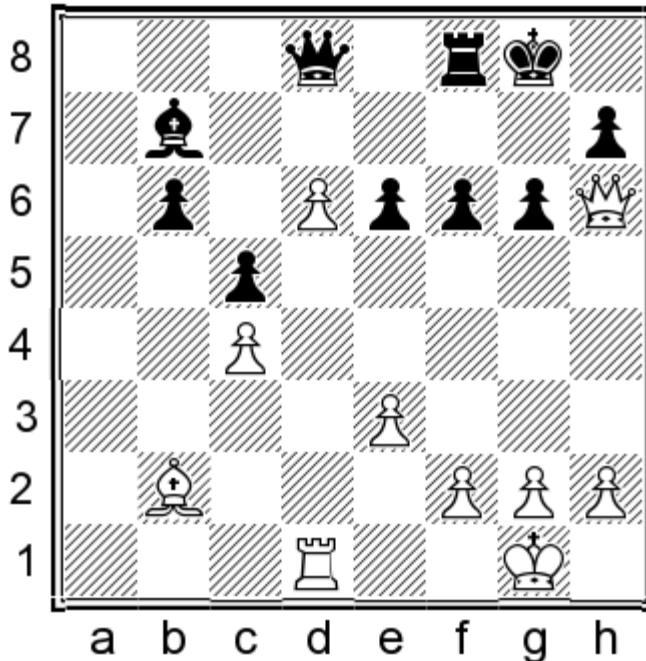
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.76$ , “micro-plus”,  $\Delta k = 0$ ,  $\Delta(17. \mathbb{Q}c2) = \sim -0.12 C$

17...  $\mathbb{Q}g5$  18.  $\mathbb{Q}xg5$   $hxg5$  19.  $dxe5$   $dxe5$  20.  $\mathbb{Q}xb6$   $axb6$  21.  $\mathbb{W}e3$   $b5$  22.  $\mathbb{Q}f1$   $g4$  23.  $hgx4$   $\mathbb{Q}xg4$  24.  $\mathbb{E}xd8$   $\mathbb{E}xd8$  25.  $g3$   $\mathbb{Q}f4$  26.  $\mathbb{Q}h2$   $\mathbb{W}g5$  27.  $\mathbb{Q}h1$   $\mathbb{E}d6$  28.  $f3$   $\mathbb{Q}h3$  29.  $\mathbb{E}g1$   $\mathbb{Q}d3$  30.  $\mathbb{W}a7$   $\mathbb{W}d2$  31.  $\mathbb{Q}xd3$   $\mathbb{E}h6$  32.  $g4$   $\mathbb{Q}xg4$  33.  $\mathbb{E}g2$   $\mathbb{Q}xf3$  34.  $\mathbb{Q}f1$   $\mathbb{W}f4$  35.  $\mathbb{W}g1$   $\mathbb{Q}xe4$  36.  $\mathbb{Q}e2$   $\mathbb{E}g6$  37.  $\mathbb{Q}f1$   $\mathbb{W}d2$  38.  $b4$   $\mathbb{W}xa2$  0-1

No. 161: Taimanov – Averbakh

Candidates’ Tournament, Zürich 1953



Position after 26...f6

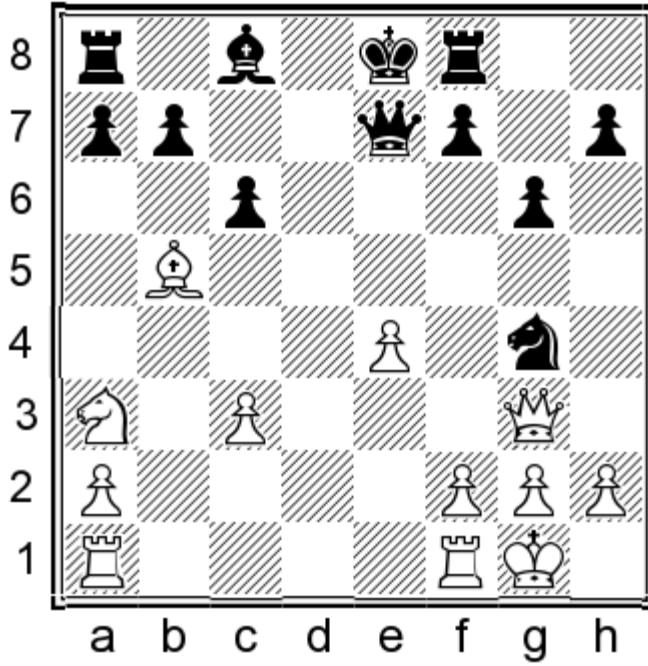
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.46$ , “+” ... T

27.  $d7$   $\mathbb{Q}c6$  28.  $h4$   $\mathbb{Q}xd7$  29.  $h5$   $gxh5$  30.  $e4$   $e5$  31.  $f4$   $exf4$  32.  $\mathbb{E}d6$   $\mathbb{W}e8$  33.  $\mathbb{Q}xf6$   $\mathbb{E}f7$  34.  $\mathbb{E}d5$  1-0

No. 162: Fischer – Celle

Simultaneous exhibition, USA 1964



Position after 15...c6

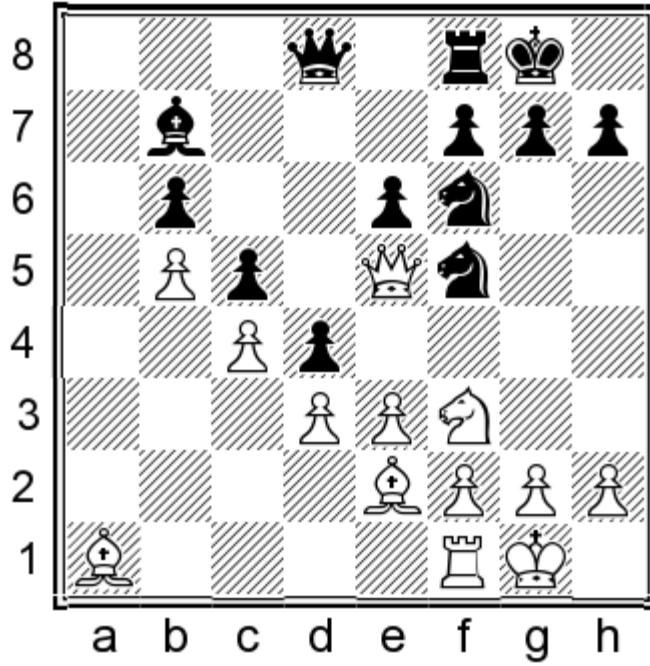
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.97$ , small “+”,  $\Delta k < 0$ ,  $\Delta(15\dots c6) = \sim 0.33$  TC

16.  $\mathbb{Q}c4$   $\mathbb{W}e6$  17.  $\mathbb{B}ad1$   $cxb5$  18.  $\mathbb{W}c7$   $\mathbb{Q}d7$  19.  $\mathbb{Q}d6+$   $\mathbb{W}e7$  20.  $\mathbb{Q}f5+$   $gxf5$  21.  $exf5$   $\mathbb{B}ac8$  22.  $\mathbb{B}xd7+$   $\mathbb{W}xd7$  23.  $f6+$   $\mathbb{Q}xf6$  24.  $\mathbb{B}e1+$   $\mathbb{Q}e4$  25.  $\mathbb{B}xe4+$   $\mathbb{Q}f6$  26.  $\mathbb{W}xd7$   $\mathbb{B}fd8$  27.  $\mathbb{W}g4$  1-0

No. 163: Timman – P. Nikolić

Belgrade 1987



Position after 16...d4

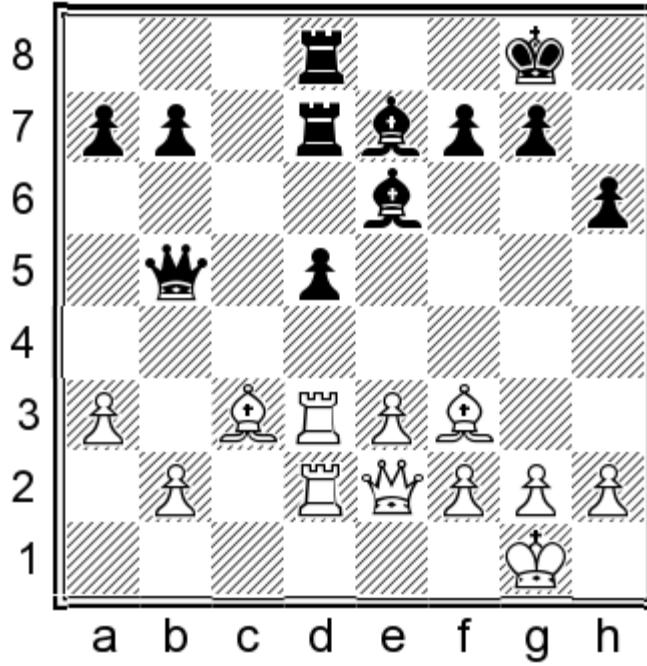
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.91$ , “=”,  $\Delta k = 0$ ,  $\Delta(16\dots d4) = \sim 0.08$  C

17.exd4 ♜d7 18.♗f4 ♜xf3 19.♗xf3 ♜xd4 20.♗xd4 cxd4 21.♗xd4 ♜c5 22.♗xd8 ♜xd8 23.♖a1 ♜f8 24.♖a6 ♜xa6  
25.bxa6 ♜d7 26.♗f1 ♜a7 27.♗b7 ♜e7 28.♗e2 ♜d6 29.d4 ♜c7 30.♗d3 ♜xb7 31.axb7 ♜xb7 32.♗c3 ♜c6 33.♗b4 f6  
34.g3 h5 35.f4 g5 36.fxg5 fxg5 37.h3 ♜b7 38.♗b5 ♜c7 39.g4 h4 40.c5 bxc5 41.dxc5 e5 42.♗b4 1-0

### No. 164: Karpov – Spassky

Montréal 1979



Position after 24...  $\mathbb{W}b5$

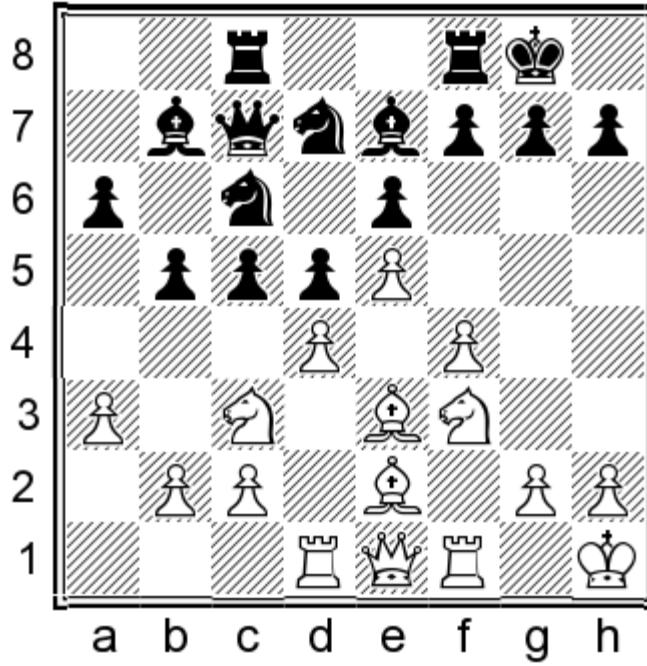
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.66$ ,  $\Delta k > 0$ ,  $\Delta(24\dots \mathbb{W}b5) = 0.00$  P

25.  $\mathbb{W}d1$  b6 26. g3  $\mathbb{Q}f8$  27.  $\mathbb{Q}g2$   $\mathbb{Q}e7$  28.  $\mathbb{W}h5$  a6 29. h3  $\mathbb{W}c6$  30.  $\mathbb{Q}h2$  a5 31. f4 f6 32.  $\mathbb{W}d1$   $\mathbb{W}b5$  33. g4 g5 34.  $\mathbb{Q}h1$   $\mathbb{W}c6$  35. f5  $\mathbb{Q}f7$  36. e4  $\mathbb{Q}g7$  37. exd5  $\mathbb{W}c7$  38.  $\mathbb{Q}e2$  b5 39.  $\mathbb{Q}xe7$   $\mathbb{Q}xe7$  40. d6  $\mathbb{W}c4$  41. b3 1-0

No. 165: Karjakin – Carlsen

Wijk aan Zee 2010



Position after 14.  $\mathbb{W}e1$

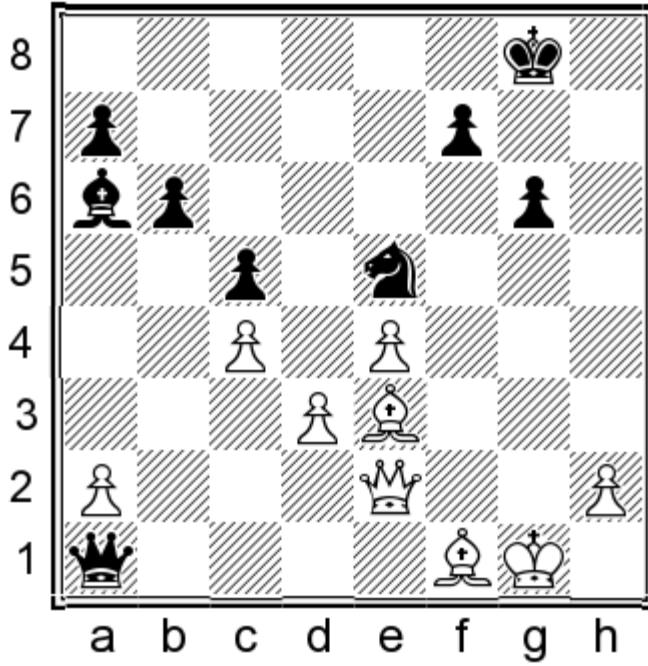
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.05$ , “ $\approx$ ”,  $\Delta k > 0$ ,  $\Delta(14. \mathbb{W}e1) = \sim -0.00$  C

14...cxd4 15.  $\mathbb{Q}xd4$   $\mathbb{Q}xd4$  16.  $\mathbb{Q}c5$  17.  $\mathbb{W}h4$   $\mathbb{Q}xd4$  18.  $\mathbb{Q}xd4$  f6 19.  $\mathbb{Q}d3$  h6 20. exf6  $\mathbb{Q}xf6$  21. f5  $\mathbb{Q}cf8$  22.  $\mathbb{Q}g1$   $\mathbb{Q}c5$  23. fxe6  $\mathbb{Q}xe6$  24.  $\mathbb{Q}g4$   $\mathbb{Q}f4$  25.  $\mathbb{W}g3$   $\mathbb{W}e7$  26.  $\mathbb{Q}xf4$   $\mathbb{Q}xf4$  27.  $\mathbb{Q}e2$   $\mathbb{Q}f1$  28.  $\mathbb{Q}d4$   $\mathbb{Q}xg1+$  29.  $\mathbb{Q}xg1$   $\mathbb{Q}e8$  30. h4  $\mathbb{W}e1+$  31.  $\mathbb{Q}h2$   $\mathbb{W}xg3+$  32.  $\mathbb{Q}xg3$   $\mathbb{Q}f7$  33.  $\mathbb{Q}f2$   $\mathbb{Q}f6$  34. g3  $\mathbb{Q}c8$  35. c3  $\mathbb{Q}g4$  36.  $\mathbb{Q}c2$  g5 37. hxg5+ hxg5 38.  $\mathbb{Q}b3$   $\mathbb{Q}e5$  39.  $\mathbb{Q}c2$   $\mathbb{Q}f8+$  40.  $\mathbb{Q}g2$   $\mathbb{Q}d7$  41.  $\mathbb{Q}f3+$   $\mathbb{Q}f6$  42.  $\mathbb{Q}b3$  g4 43.  $\mathbb{Q}d4$   $\mathbb{Q}e5$  44.  $\mathbb{Q}c2$  a5 45.  $\mathbb{Q}d1$   $\mathbb{Q}e4$  0-1

No. 166: Hübner – Karpov

Baden-Baden 1992



Position after 43.  $\mathbb{W}e2$

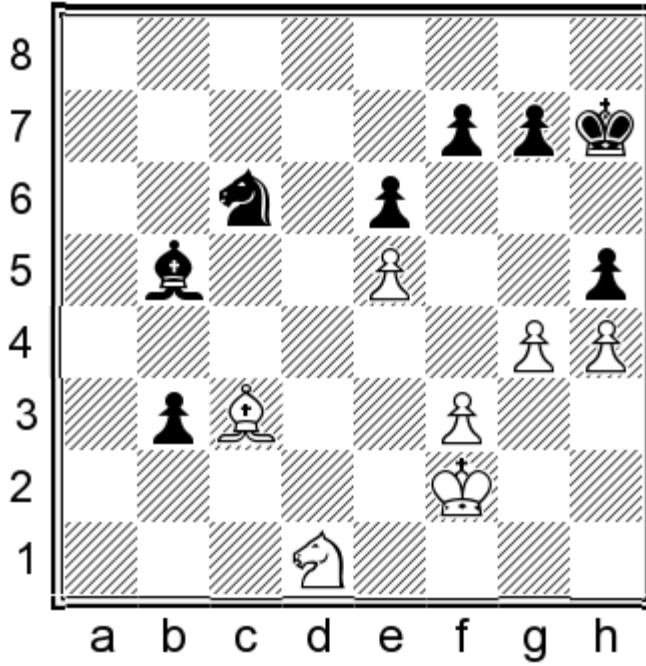
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.04$ , “=”,  $\Delta k > 0$ ,  $\Delta(43. \mathbb{W}e2) = \sim 0.89$  C

43...b5 44.  $\mathbb{Q}xc5$  bxc4 45. dxc4  $\mathbb{Q}xc4$  46.  $\mathbb{W}f2$   $\mathbb{Q}g4$  47.  $\mathbb{W}f4$   $\mathbb{Q}xf1$  48.  $\mathbb{W}xf1$   $\mathbb{W}xa2$  49.  $\mathbb{W}f4$   $\mathbb{W}b1+$  50.  $\mathbb{Q}g2$   $\mathbb{W}c2+$  51.  $\mathbb{Q}h3$   $\mathbb{W}xc5$  52.  $\mathbb{Q}xg4$   $\mathbb{W}d4$  53.  $\mathbb{Q}f3$  a5 54.  $\mathbb{W}c7$  a4 55.  $\mathbb{W}a5$   $\mathbb{W}d3+$  56.  $\mathbb{Q}f4$  a3 57. h4  $\mathbb{W}h3$  58.  $\mathbb{Q}e5$   $\mathbb{W}e6+$  59.  $\mathbb{Q}d4$  a2 60. h5  $\mathbb{W}f6+$  61. e5  $\mathbb{W}f2+$  0-1

### No. 167: Van Wely – Ponomariov

World Cup, Khanty-Mansiysk 2005



Position after 40. ♜c3

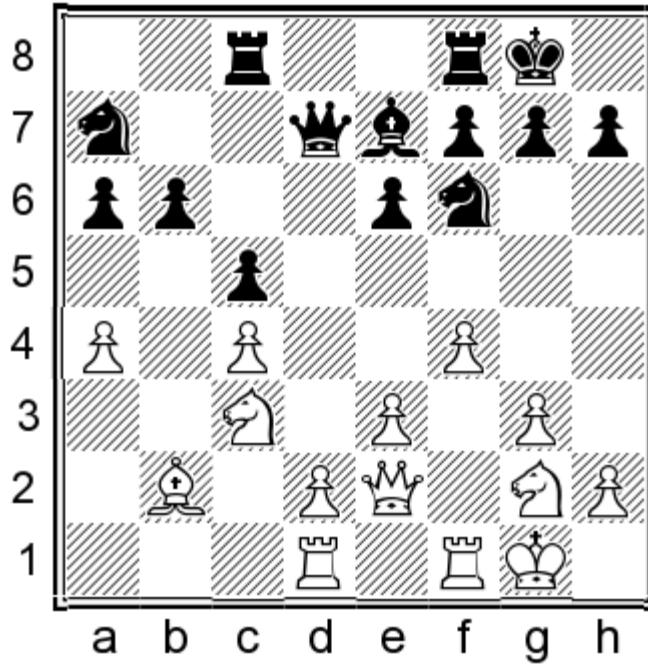
Show/Hide the answer

$m > 1$ ,  $t = \sim 1.41$ , “≈” ... T

40...g5 41.hxg5 hxg4 42.fxg4 ♜g6 43.♗g3 ♜xg5 44.♕d2+ ♜g6 45.♕c3 ♜e2 46.♗b2 ♜e7 47.♗a4 ♜d5 48.♗b2 ♜d3 49.♗d4 ♜c2 50.♗b2 ♜g7 51.♗d4 ♜f8 52.♗f2 ♜e7 53.♗e2 ♜d7 54.♗d2 ♜c6 55.♗b2 ♜f4 56.♗e3 ♜d3 57.♗d4 ♜b5 58.♗b2 ♜b4 59.♗d2 ♜c6 60.♗c3 ♜c5 61.♗a4+ ♜d5 62.♗e3 ♜d1 63.g5 ♜h5 64.♗b2 ♜g6 65.♗b6+ ♜c5 66.♗c8 ♜b4 67.♗d6 ♜d3 68.♗d4+ ♜d5 69.♗b5 ♜c4 70.♗d6+ ♜b4 71.♗xf7 ♜e1 72.♗d2 ♜f3+ 0-1

Show in Quiz Mode

No. 168: G. Shcherbakov – V. Loginov  
Chigorin Memorial 1998



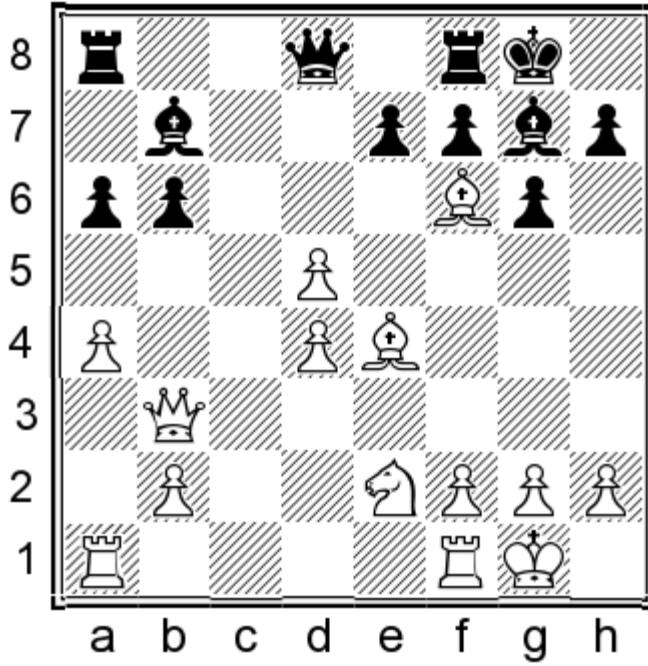
Position after 16... Wd7

Show/Hide the answer

m = 1, t = ~0.89, “=”, Δk = 0, Δ(16... Wd7) = ~0.21 C

17.g4 Qe8 18.f5 Qf6 19.fxe6 fxe6 20.g5 Qxg5 21.Qxf8+ Qxf8 22.Qe4 Qh6 23.a5 bxa5 24.Qxc5 We7 25.Qf1+ Qg8 26.Wg4 Qc7 27.Qe4 Qe8 28.Qd4 Qc7 29.Qc5 Qxc5 30.Qxc5 Qc7 31.Qe4 Qc6 32.Qf6+ Qh8 33.Qd5 exd5 34.Wc8+ Qe8 35.cxd5 Qd8 36.Wxd8 1-0

No. 169: Steiner – Flohr  
Hastings 1932/33



Position after 16.  $\mathbb{Q}xf6$

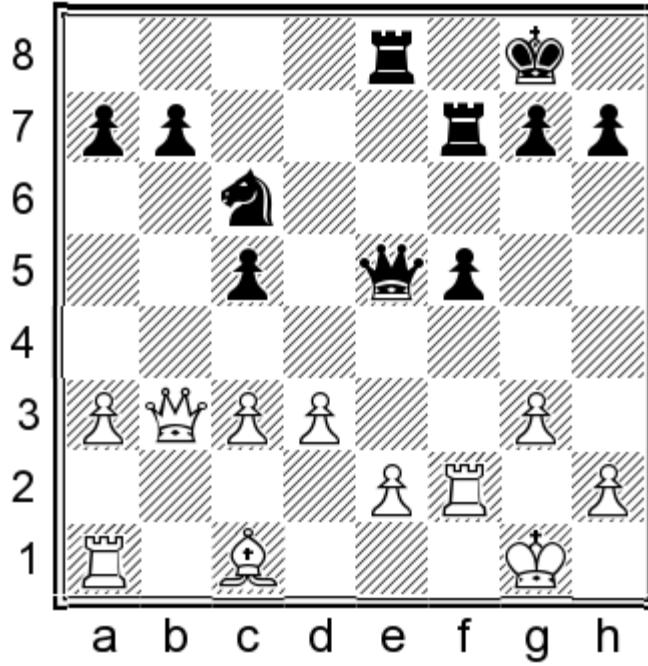
Show/Hide the answer

$m \ll 1$ ,  $t = \sim 0.54$ , “+”,  $\Delta k >> 0$ ,  $\Delta(16. \mathbb{Q}xf6) = \sim 0.87 P$

16...exf6 17.  $\mathbb{Q}ac1$   $\mathbb{W}d6$  18.  $\mathbb{Q}c2$   $\mathbb{E}ad8$  19.  $\mathbb{Q}f3$  f5 20.  $\mathbb{Q}d1$   $\mathbb{E}fe8$  21. g3  $\mathbb{E}e7$  22.  $\mathbb{Q}c3$   $\mathbb{E}de8$  23.  $\mathbb{Q}e2$   $\mathbb{Q}f6$  24.  $\mathbb{Q}xe7$   $\mathbb{E}xe7$  25.  $\mathbb{Q}a2$  a5 26.  $\mathbb{W}b5$  h5 27. b4 h4 28.  $\mathbb{Q}g2$  hxg3 29. hxg3 f4 30. g4 f3 31.  $\mathbb{Q}xf3$   $\mathbb{W}f4$  32.  $\mathbb{W}d3$   $\mathbb{Q}xd4$  33.  $\mathbb{W}xd4$   $\mathbb{W}xf3$  34.  $\mathbb{Q}c3$  axb4 35.  $\mathbb{W}xb4$   $\mathbb{Q}xd5$  36.  $\mathbb{Q}xd5$   $\mathbb{W}xd1+$  37.  $\mathbb{Q}h2$   $\mathbb{E}e6$  38.  $\mathbb{Q}e3$   $\mathbb{W}d6+$  39.  $\mathbb{W}xd6$   $\mathbb{E}xd6$  40.  $\mathbb{Q}c4$   $\mathbb{E}c6$  41.  $\mathbb{Q}e5$   $\mathbb{E}c3$  42.  $\mathbb{Q}d7$   $\mathbb{E}b3$  43. g5 f5 44.  $\mathbb{Q}f6+$   $\mathbb{Q}f7$  45.  $\mathbb{Q}d5$   $\mathbb{Q}e6$  46.  $\mathbb{Q}f4+$   $\mathbb{Q}d6$  47.  $\mathbb{Q}xg6$   $\mathbb{E}b4$  48.  $\mathbb{Q}g3$   $\mathbb{E}g4+$  49.  $\mathbb{Q}f3$   $\mathbb{E}xg5$  50.  $\mathbb{Q}f4$   $\mathbb{E}g1$  51.  $\mathbb{Q}d3$   $\mathbb{E}a1$  52.  $\mathbb{Q}b2$   $\mathbb{Q}d5$  53.  $\mathbb{Q}f4$   $\mathbb{Q}d4$  0-1

### No. 170: Vaganian – Chernin

European Team Championship, Naberezhniye Chelny 1988



Position after 19...  $\mathbb{Q}f7$

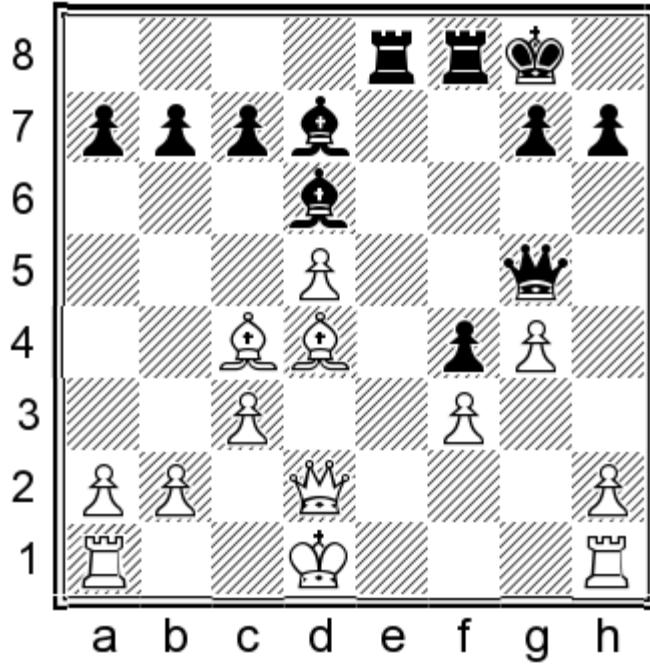
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.97$ , “ $\approx$ ”,  $\Delta k > 0$ ,  $\Delta(19... \mathbb{Q}f7) = \sim -0.27$  C

20.g4  $\mathbb{Q}a5$  21. $\mathbb{W}a4$   $\mathbb{Q}c6$  22. $\mathbb{B}d2$   $\mathbb{E}e6$  23. $\mathbb{B}af1$   $\mathbb{E}g6$  24.g5  $\mathbb{E}e6$  25.e4 g6 26. $\mathbb{W}b3$   $\mathbb{Q}a5$  27. $\mathbb{W}c2$  c4 28.exf5 gxf5 29.d4  $\mathbb{W}e4$  30. $\mathbb{W}xe4$   $\mathbb{E}xe4$  31. $\mathbb{B}xf5$   $\mathbb{E}g4+$  32. $\mathbb{B}h1$   $\mathbb{E}xf5$  33. $\mathbb{B}xf5$   $\mathbb{Q}c6$  34. $\mathbb{B}c5$   $\mathbb{E}e4$  35. $\mathbb{B}xc4$   $\mathbb{B}f7$  36. $\mathbb{B}c5$   $\mathbb{B}g6$  37. $\mathbb{B}g1$   $\mathbb{E}e2$  38. $\mathbb{B}f4$   $\mathbb{Q}e7$  39. $\mathbb{B}f1$   $\mathbb{B}b2$  40. $\mathbb{B}e1$   $\mathbb{Q}f5$  41.d5  $\mathbb{Q}h4$  42. $\mathbb{B}d1$   $\mathbb{Q}g2$  43. $\mathbb{B}d2$   $\mathbb{B}f5$  44.d6+ 1-0

### No. 171: Kranzl – Blatný

Vienna 1991



Position after 18.g4

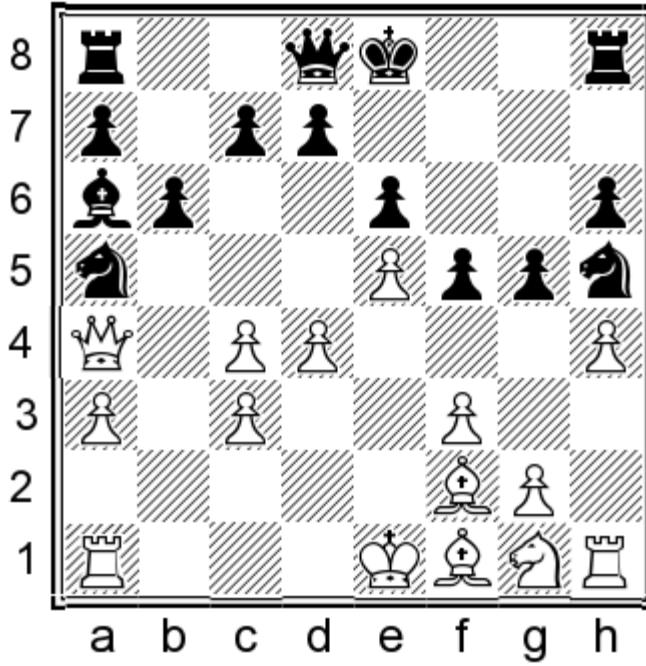
Show/Hide the answer

$m < 1$ ,  $t = \sim 1.30$ , small “+” ... T

18... $\mathbb{Q}e3$  19.h4  $\mathbb{Q}e7$  20. $\mathbb{Q}xe3$  fxe3 21. $\mathbb{Q}g2$  b5 22. $\mathbb{Q}d3$   $\mathbb{Q}e5$  23. $\mathbb{Q}e4$  b4 24. $\mathbb{Q}c1$   $\mathbb{Q}f4$  25. $\mathbb{Q}c2$   $\mathbb{Q}a4$  26. $\mathbb{Q}e1$  bxc3 27.b3  $\mathbb{Q}d4+$  28. $\mathbb{Q}c1$   $\mathbb{Q}b5$  29. $\mathbb{Q}b1$   $\mathbb{Q}xe4$  30.fxe4  $\mathbb{Q}d2$  31. $\mathbb{Q}e2$   $\mathbb{Q}d1+$  32. $\mathbb{Q}c1$   $\mathbb{Q}d3+$  33. $\mathbb{Q}ec2$  e2 0-1

No. 172: Bannik – Petrosian

Moscow 1961



Position after 13.h4

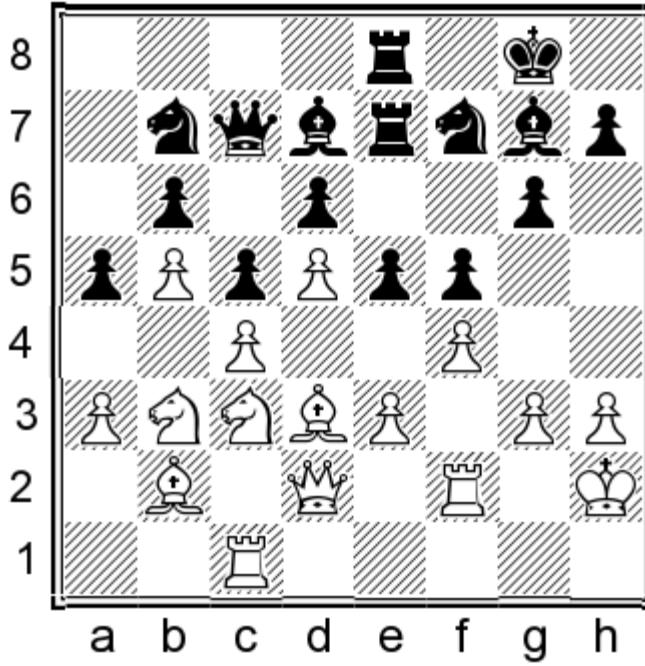
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.03$ , “≈” or ?,  $\Delta k > 0$ ,  $\Delta(13.h4) = \sim -0.07$  C? TCP?

13...g4 14.fxg4 fxg4 15.♗c2 ♗e7 16.♗e4 ♜b7 17.♗xg4 ♗f7 18.♘h3 ♘g8 19.♗e2 0-0-0 20.♗e3 ♘g4 21.♗e2 ♘e4 22.♗d3 ♘g8 23.♗g1 ♘f5 24.♗e3 ♜g3 25.♗f3 ♘xe5 26.0-0-0 ♜xf3 27.dxe5 ♘xd3 28.♘xd3 ♜e2+ 29.♗d2 ♜xg1 30.♗xg1 ♘g4 31.♗d4 ♜b3+ 0-1

### No. 173: Savon – Bukić

Debrecen 1970



Position after 24...a5

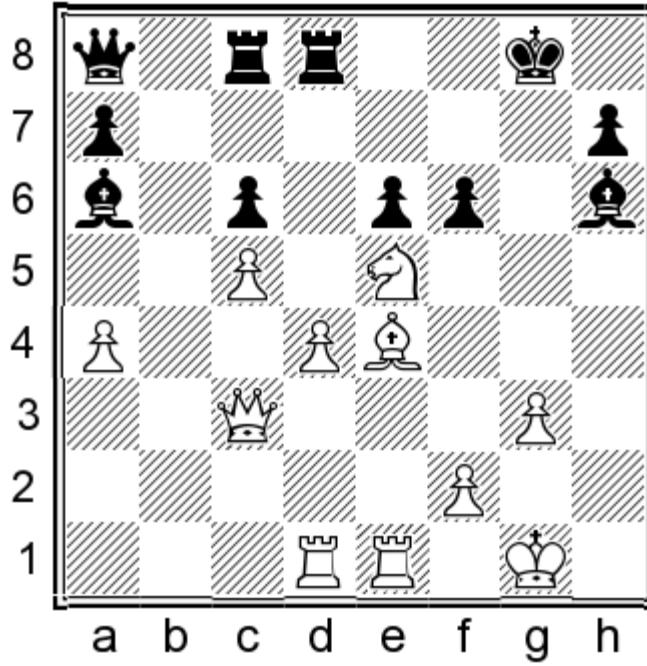
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.32$ , “micro-minus”,  $\Delta k = 0$ ,  $\Delta(24\ldots a5) = \sim 0.44$  C

25.  $\mathbb{Q}a4$   $\mathbb{W}d8$  26.  $\mathbb{E}g1$   $\mathbb{Q}h6$  27.  $\mathbb{Q}a1$   $\mathbb{E}f7$  28.  $\mathbb{Q}c2$   $exf4$  29.  $exf4$   $\mathbb{Q}xb2$  30.  $\mathbb{Q}xb2$   $\mathbb{Q}f8$  31.  $\mathbb{Q}a4$   $\mathbb{Q}g8$  32.  $\mathbb{E}e1$   $\mathbb{Q}f6$  33.  $\mathbb{E}fe2$   $\mathbb{E}fe7$  34.  $\mathbb{E}xe7$   $\mathbb{E}xe7$  35.  $\mathbb{E}xe7$   $\mathbb{Q}xe7$  36.  $\mathbb{Q}e1$   $\mathbb{W}c7$  37.  $\mathbb{Q}f3$   $\mathbb{Q}d8$  38.  $\mathbb{W}e2+$   $\mathbb{Q}f8$  39.  $\mathbb{W}b2$   $\mathbb{Q}e7$  40.  $\mathbb{Q}g5$   $\mathbb{Q}f7$  41.  $\mathbb{W}e2+$   $\mathbb{Q}f8$  42.  $\mathbb{W}e6$  1-0

### No. 174: Karpov – Adorján

European Team Championship, Lucerne 1989



Position after 32... ♕xh6

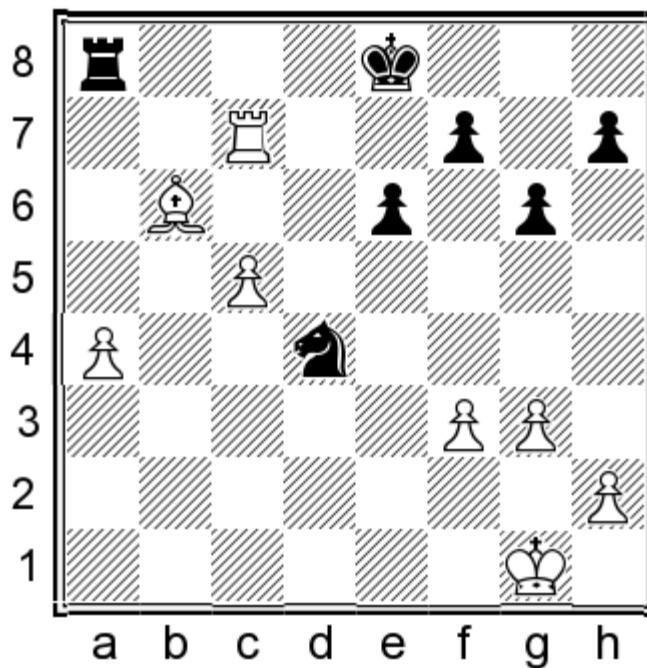
Show/Hide the answer

m = 1, t = ~1.75, “+” ... T

33.♕b3 ♜e8 34.♗g4 ♜g7 35.♗g2 f5 36.♗xh6 ♜xh6 37.♕xf5 exf5 38.♕f7 1-0

### No. 175: Kramnik – Lékó

Tal Memorial 2007



Position after 48... ♜d4

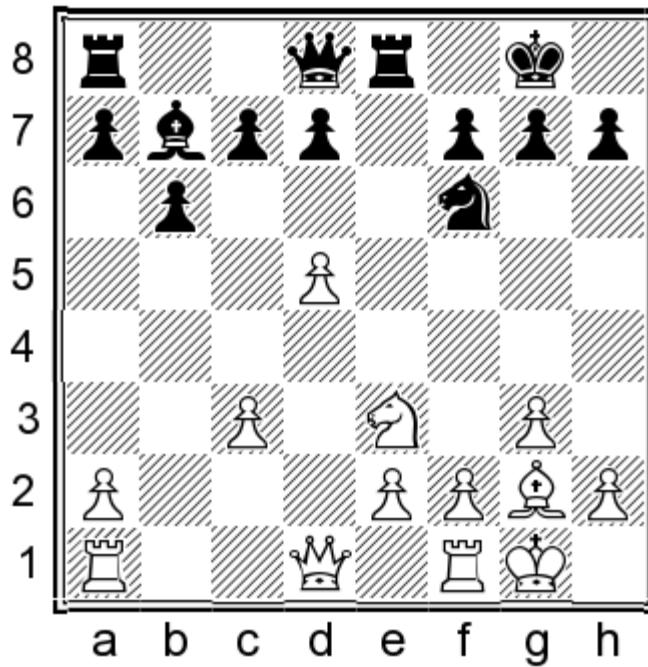
Show/Hide the answer

$m > 1$ ,  $t = \sim 0.86$ , small “-”,  $\Delta k \ll 0$ ,  $\Delta(48... \text{ ♜d4}) = \sim 1.45 \text{ C? TC?}$

49.a5 ♜xf3+ 50.♔f2 ♜xh2 51.c6 ♜g4+ 52.♔f3 ♜f6 53.♕b7 ♜d5 54.♔e4 ♜b4 55.c7 ♜c8 56.♔d4 ♜d7 57.♔c5 ♜c6 58.a6 h5 59.a7 f5 60.a8♛ ♜xa8 61.c8♛+ ♜xc8 62.♔xc6 1-0

No. 176: Razuvayev – Tiviakov

Rostov-on-Don 1993



Position after 15.bxc3

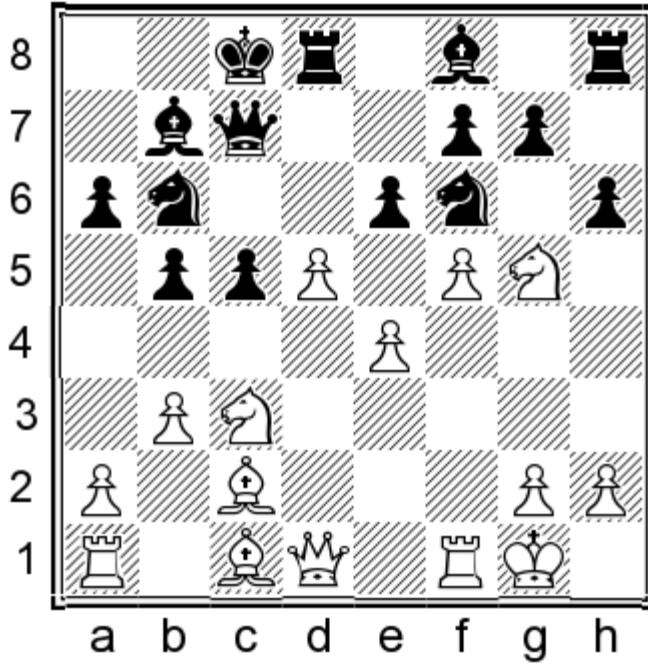
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.03$ , “=”,  $\Delta k \gg 0$ ,  $\Delta(15.bxc3) = \sim -0.31 \text{ C}$

15... ♜xe3 16.fxe3 d6 17.♗d4 ♜d7 18.♗f4 ♜e7 19.♗af1 ♜e5 20.♗e4 ♜f8 21.♗d3 ♜c8 22.♗e4 g6 23.♗f6 ♜g7 24.c4 ♜d7 25.h4 ♜xf6 26.♗xf6 ♜xf6 27.♗d4 ♜e8 28.♗f2 ♜g7 29.♗e1 f6 30.♗d2 ♜g4 31.e4 ♜e5 32.♗c3 ♜e7 33.♗a3 a5 34.♗b2 ♜f7 35.♗c2 ♜e5 36.♗a3 ♜f8 37.♗a4 ♜g4 38.♗d3 ♜e7 39.c5 dxec5 40.♗b5 ♜d6 41.♗c6 ♜d8 42.♗c2 ♜c8 43.♗a8 g5 44.♗c6 gxh4 45.gxh4 ♜h5 46.e5 fxe5 47.♗a4 e4 48.♗b3 ♜b7 49.♗c3 ♜xd5 50.♗f6+ ♜d7 51.a4 ♜c6 52.♗e7 ♜b7 53.♗c3 ♜c6 54.♗b2 c4 55.♗c3 ♜c8 56.♗f6 ♜c5 57.♗h6 ♜e7 58.♗xh7 ♜d5+ 59.♗d4 c3 60.♗xe4 ♜b4 61.♗g6 ♜xa4 62.h5 c2 63.♗xc2 ♜xc2 64.♗f7 a4 65.h6 a3 0-1

No. 177: Morozovich – Korneev

Pamplona 2006



Position after 16...h6

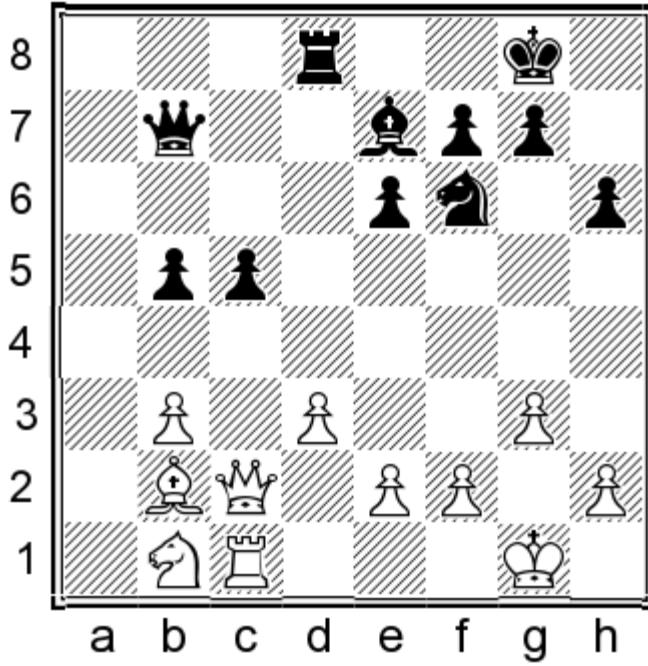
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.95$ , “ $\approx$ ”,  $\Delta k < 0$ ,  $\Delta(16\dots h6) = 0.20$  C

17.  $\mathbb{Q}xf7$   $\mathbb{W}xf7$  18.  $fxe6$   $\mathbb{W}c7$  19.  $\mathbb{Q}f4$   $\mathbb{Q}d6$  20.  $\mathbb{Q}xd6$   $\mathbb{W}xd6$  21.  $\mathbb{Q}f5$   $\mathbb{W}c7$  22.  $a4$   $b4$  23.  $a5$   $bxcc3$  24.  $axb6$   $\mathbb{W}xb6$  25.  $\mathbb{Q}h1$   $\mathbb{Q}he8$  26.  $\mathbb{W}f1$   $\mathbb{Q}b8$  27.  $\mathbb{Q}d1$   $\mathbb{Q}a7$  28.  $h3$   $\mathbb{W}b4$  29.  $\mathbb{Q}a1$   $\mathbb{Q}xe4$  30.  $\mathbb{Q}xe4$   $\mathbb{W}xe4$  31.  $\mathbb{Q}f7$   $\mathbb{W}xd5$  32.  $\mathbb{Q}xa6+$   $\mathbb{Q}b8$  33.  $\mathbb{Q}f4+$   $\mathbb{Q}d6$  34.  $\mathbb{Q}xb7+$   $\mathbb{Q}xb7$  35.  $\mathbb{Q}xd6$   $\mathbb{W}xb3$  36.  $\mathbb{Q}f7+$  1-0

No. 178: Bareev – Shirov

Madrid 1994



Position after 26. ♜b1

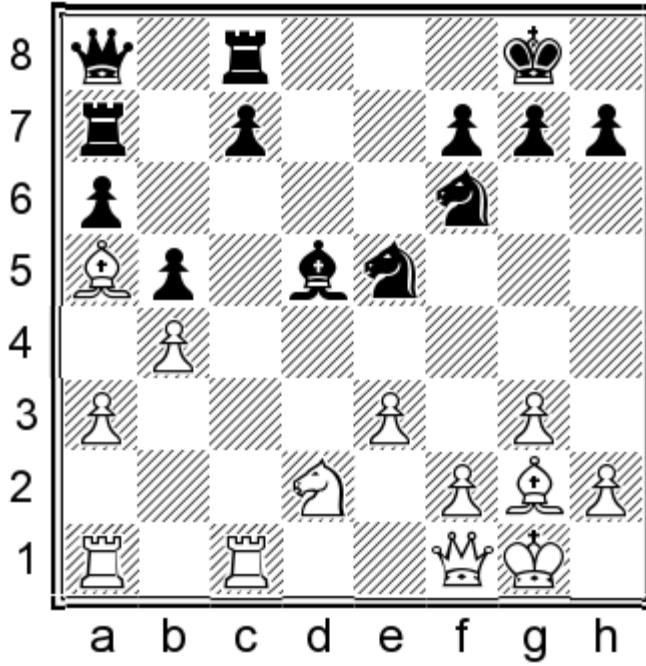
Show/Hide the answer

m = 1, t = ~1.56, small “+” ... T

26... ♜d5 27. ♜d1 ♜g5 28. h4 ♜e3 29. ♜d2 ♜d4 30. ♜e4 ♜b6 31. ♜c1 f5 32. ♜c3 ♜d6 33. ♜g2 ♜e5 34. ♜xd5 ♜xb2 35. ♜e7+ ♜f7 36. ♜c6 ♜d5+ 37. e4 ♜xc6 38. ♜xb2 fxe4 39. d4 e3+ 40. ♜g1 ♜f3 41. ♜f1 ♜g8 0-1

### No. 179: Kramnik – Anand

Wijk aan Zee 2007



Position after 21...  $\mathbb{Q}xe5$

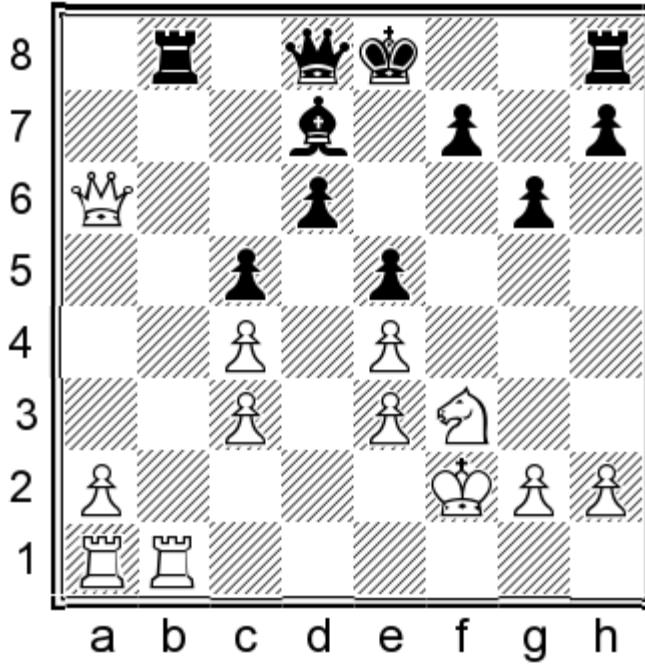
Show/Hide the answer

$m = 1$ ,  $t = 1.00$ , “micro-minus,”  $\Delta k = 0$ ,  $\Delta(21\dots \mathbb{Q}xe5) = \sim -0.08$  CP?

22.f3  $\mathbb{Q}c4$  23. $\mathbb{Q}xc4$   $\mathbb{Q}xc4$  24. $\mathbb{W}f2$   $\mathbb{Q}e8$  25.e4 c6 26. $\mathbb{B}d1$   $\mathbb{B}d7$  27. $\mathbb{B}xd7$   $\mathbb{Q}xd7$  28. $\mathbb{B}d1$   $\mathbb{W}b7$  29. $\mathbb{B}d6$  f6 30.f4  $\mathbb{B}e6$  31. $\mathbb{B}d2$   $\mathbb{B}e7$  32. $\mathbb{W}d4$   $\mathbb{Q}f8$  33. $\mathbb{W}d8$   $\mathbb{B}d7$  34. $\mathbb{B}xd7$   $\mathbb{W}xd7$  35. $\mathbb{W}xd7$   $\mathbb{Q}xd7$  36.e5 fxe5 37. $\mathbb{Q}xc6$   $\mathbb{Q}f6$  38. $\mathbb{Q}b7$  exf4 39.gxf4  $\mathbb{Q}d5$  40. $\mathbb{Q}f2$   $\mathbb{Q}xf4$  41. $\mathbb{Q}e3$  g5 42. $\mathbb{Q}xa6$   $\mathbb{Q}f7$  43.a4  $\mathbb{Q}e7$  44. $\mathbb{Q}xb5$   $\mathbb{Q}xb5$  45.axb5  $\mathbb{Q}d7$  46. $\mathbb{Q}e4$   $\mathbb{Q}e2$  47. $\mathbb{Q}b6$  g4 48. $\mathbb{Q}f2$   $\mathbb{Q}c3+$  49. $\mathbb{Q}f5$   $\mathbb{Q}xb5$  50. $\mathbb{Q}xg4$   $\mathbb{Q}e6$  51. $\mathbb{Q}g5$   $\mathbb{Q}f7$  52. $\mathbb{Q}f5$   $\mathbb{Q}e7$  53. $\mathbb{Q}c5+$  1-0

### No. 180: Akopian – Shirov

World Cup, Khanty-Mansiysk 2007



Position after 19.dxc3

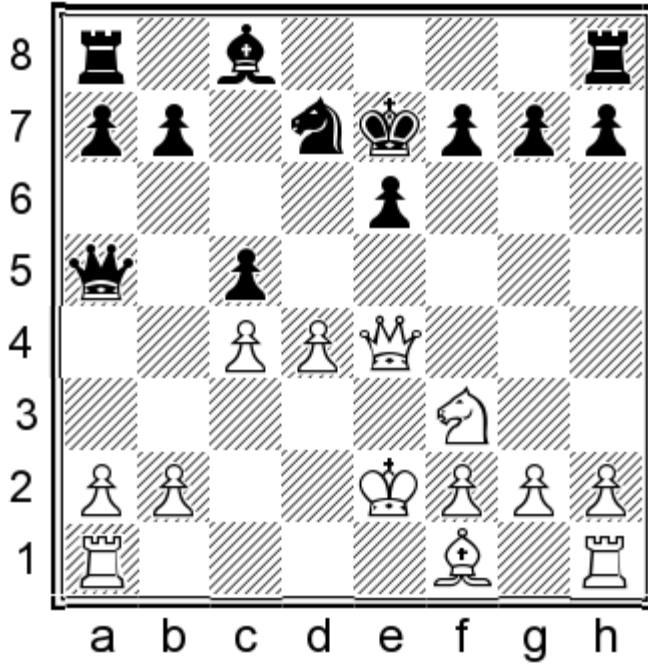
Show/Hide the answer

$m < 1$ ,  $t = \sim 0.86$ , “ $\approx$ ”,  $\Delta k < 0$ ,  $\Delta(19.dxc3) = \sim -0.57$  C

19... $\mathbb{Q}e7$  20. $\mathbb{Q}d2$   $\mathbb{B}a8$  21. $\mathbb{W}b7$   $\mathbb{W}a5$  22. $\mathbb{W}b2$   $\mathbb{B}hb8$  23. $\mathbb{W}c2$   $\mathbb{B}xb1$  24. $\mathbb{Q}xb1$   $\mathbb{B}b8$  25. $\mathbb{Q}d2$   $\mathbb{W}a4$  26. $\mathbb{B}c1$   $\mathbb{W}xc2$  27. $\mathbb{B}xc2$   $\mathbb{Q}a4$  28. $\mathbb{Q}b3$   $\mathbb{Q}c6$  29. $\mathbb{Q}d2$   $\mathbb{Q}a4$  30. $\mathbb{Q}b3$   $h5$  31. $\mathbb{Q}e1$   $h4$  32. $\mathbb{Q}d2$   $\mathbb{Q}c6$  33. $\mathbb{Q}d3$   $f5$  34. $\mathbb{exf5}$   $gxf5$  35. $\mathbb{B}f2$   $\mathbb{Q}e6$  36. $\mathbb{Q}e2$   $\mathbb{B}a8$  37. $\mathbb{Q}e1$   $\mathbb{B}a4$  38. $g3$   $hxg3$  39. $hxg3$   $\mathbb{Q}e4$  40. $\mathbb{B}h2$   $\mathbb{B}xc4$  41. $\mathbb{Q}d2$   $\mathbb{B}a4$  42. $\mathbb{Q}c1$   $c4$  43. $\mathbb{Q}a1$   $\mathbb{B}a8$  44. $\mathbb{B}d2$   $\mathbb{B}g8$  45. $a4$   $\mathbb{B}xg3$  46. $\mathbb{Q}c2$   $\mathbb{Q}xc2$  47. $\mathbb{B}xc2$   $\mathbb{B}xe3$  48. $a5$   $\mathbb{Q}d7$  49. $a6$   $\mathbb{Q}c7$  0-1

### No. 181: Kramnik – Gelfand

Dortmund 2007



Position after 12... ♕xe7

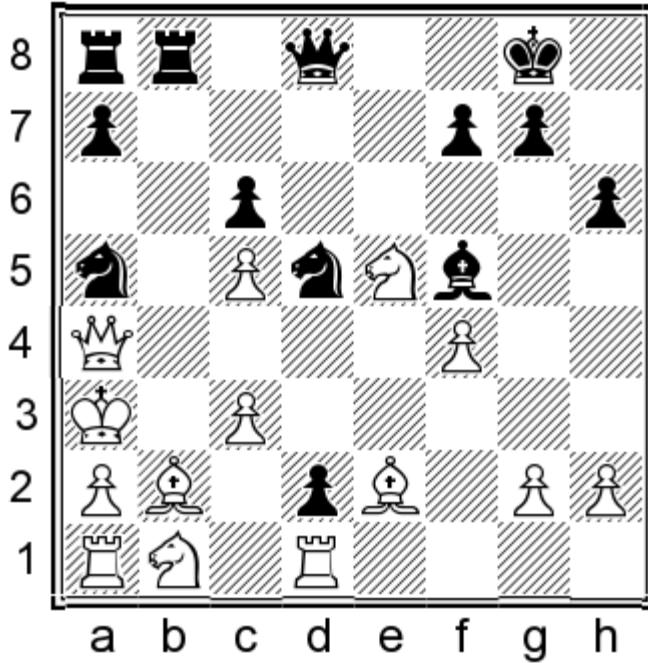
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.03$ , small “-”,  $\Delta k = 0$ ,  $\Delta(12\dots \text{Qxe7}) = \sim 0.15$  CP

13.g3 cxd4 14.♗g2 ♖f6 15.♘xd4 ♘d8 16.♗f4 ♖d7 17.♗e5 ♖e8 18.♖hd1 ♗b6 19.b3 ♘xd1 20.♖xd1 ♘d8 21.♖xd8 ♗xd8 22.♗xb7 ♗a5 23.♗e3 ♗xa2+ 24.♔f1 ♗a5 25.♗f3 ♗b6 26.c5 ♖b5+ 27.♗g2 ♗c7 28.c6 a6 29.♗c5+ ♖e8 30.b4 ♖d5 31.♗xd5 exd5 32.♗xd5 ♖f8 33.f3 f6 34.♗d7+ ♖e7 35.♗g8 ♖d6 36.♗c5 ♗e7 37.♗c8 ♖xc6 38.♗xa6 ♗e3 39.♗d3+ ♗xd3 40.♗xd3 ♖e8 41.♗f2 ♖d5 42.♗f4+ ♖c4 43.♗e6 ♖xb4 44.♗xg7 ♖f7 45.♗f5 ♖c5 46.♗h6 ♖b3 47.♗g4 f5 48.♗f6 h6 49.♗e3 ♖d6 50.♗f4 ♖e6 51.♗g8 ♖c2 52.♗xh6 ♖f6 53.g4 fxg4 54.fxg4 ♖g6 55.♗f5 ♖d3 56.h4 ♖e2 57.h5+ ♖h7 58.♗g5 ♖d3 59.♗h4 ♖g8 60.♗d6 ♖g7 61.g5 ♖c2 62.♗c4 1-0

No. 182: Fomenko – L. Gadchenko

USSR 1967



Position after 22...Qd1

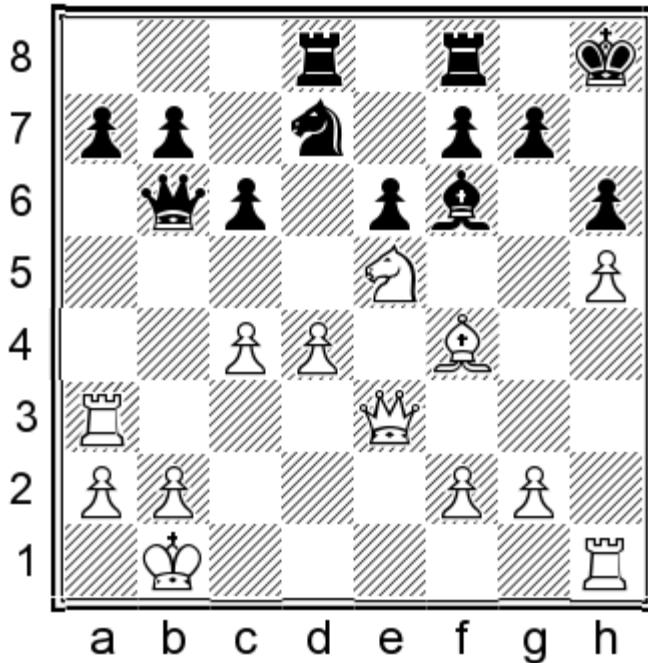
Show/Hide the answer

$m \ll 1$ ,  $t = \sim 1.26$ , a great “+” ... T

22...Qc2 23.Qxc2 Qb3 24.Qc4 Qxa1 25.Qxd2 Qb6 0-1

### No. 183: Akopian – Bareev

Enghien-les-Bains 2003



Position after 22.  $\mathbb{W}e3$

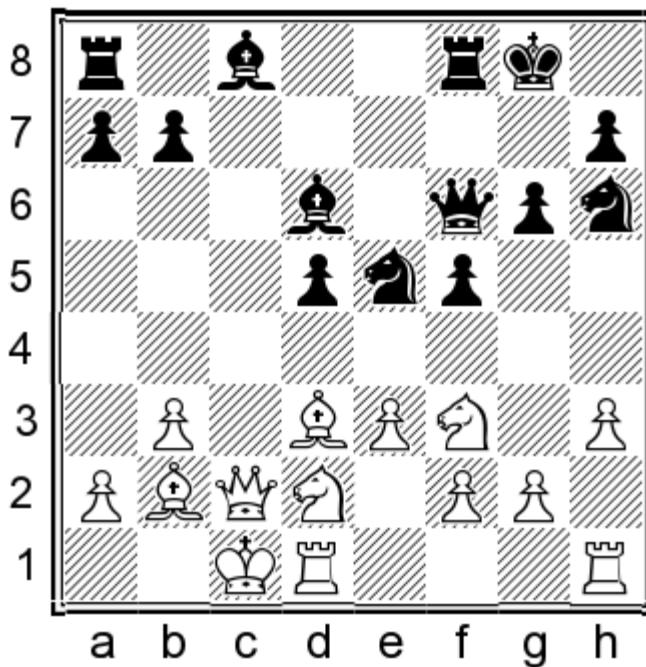
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.62$ , small “-”,  $\Delta k >> 0$ ,  $\Delta(22. \mathbb{W}e3) = \sim -0.77 P$

22...c5 23.dxc5  $\mathbb{Q}xc5$  24.  $\mathbb{Q}xh6$   $\mathbb{Q}xe5$  25.  $\mathbb{W}xe5$  f6 26.  $\mathbb{W}e3$   $\mathbb{E}d7$  27.  $\mathbb{Q}f4$  e5 28. h6 g6 29.  $\mathbb{Q}g3$   $\mathbb{E}fd8$  30. h7  $\mathbb{E}d2$  31.  $\mathbb{Q}xe5$   $\mathbb{W}e6$  32.  $\mathbb{Q}xf6+$   $\mathbb{W}xf6$  33.  $\mathbb{W}c3$   $\mathbb{W}xc3$  34.  $\mathbb{E}xc3$   $\mathbb{E}xf2$  35.  $\mathbb{E}c2$   $\mathbb{E}dd2$  0-1

No. 184: Capablanca – Baca

La Habana (blindfold) 1912



Position after 13...cxd5

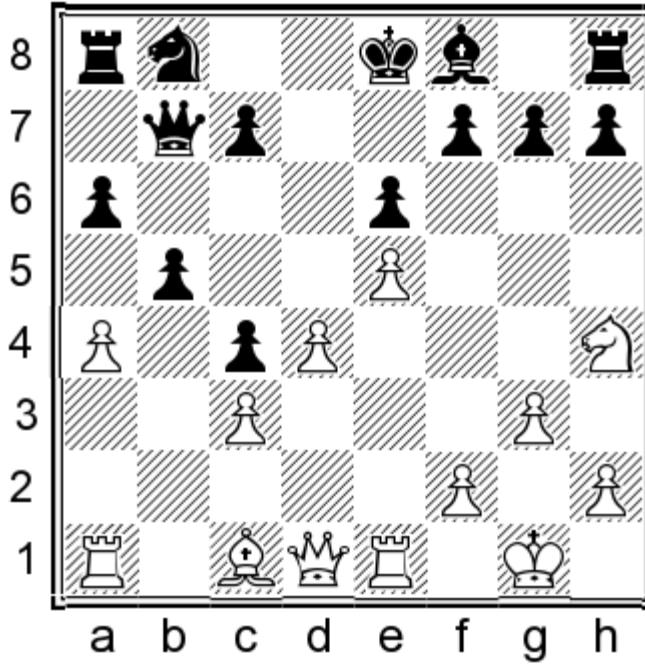
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.15$ , “micro-plus”,  $\Delta k > 0$ ,  $\Delta(13...cxd5) = \sim -0.29 TC$

14.  $\mathbb{Q}c4$  dxc4 15.  $\mathbb{Q}xc4+$   $\mathbb{Q}hf7$  16.  $\mathbb{E}xd6$   $\mathbb{W}xd6$  17.  $\mathbb{Q}xe5$   $\mathbb{Q}e6$  18.  $\mathbb{E}d1$   $\mathbb{W}e7$  19.  $\mathbb{E}d7$   $\mathbb{Q}xd7$  20.  $\mathbb{Q}xd7$   $\mathbb{E}fc8$  21.  $\mathbb{W}c3$   $\mathbb{E}xc4$  22. bxc4  $\mathbb{Q}d6$  23.  $\mathbb{W}h8+$   $\mathbb{Q}f7$  24.  $\mathbb{Q}e5+$   $\mathbb{Q}e6$  25.  $\mathbb{W}xa8$  1-0

No. 185: Gligorić – Buljovčić

Novi Sad 1979



Position after 14... Wb7

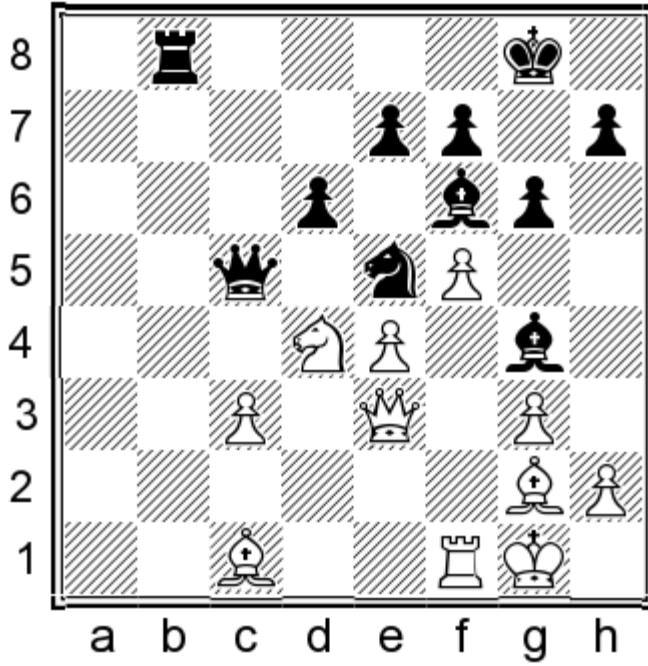
Show/Hide the answer

$m < 1$ ,  $t = \sim 1.06$ , small “+”,  $\Delta k < 0$ ,  $\Delta(14... Wb7) = \sim 0.32$  TC

15.d5 Wxd5 16.Wxd5 exd5 17.axb5 Qd7 18.bxa6 Qc5 19.Qe3 Qxe3 20.Qxe3 0-0 21.Qa5 c6 22.Qf5 Qf8 23.a7 g6 24.Qd4 c5 25.Qb5 Qec8 26.e6 fxe6 27.Qxe6 d4 28.Qe7 1-0

No. 186: Shevelev – Mikhalevski

Israel Open Championship 1999



Position after 26.  $\mathbb{W}e3$

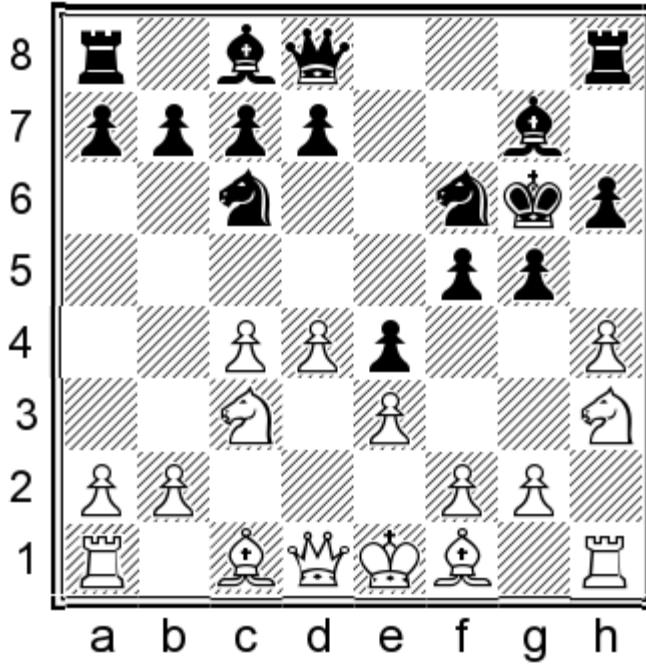
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.48$ , “micro-minus”,  $\Delta k >> 0$ ,  $\Delta(26. \mathbb{W}e3) = \sim -0.09$  TC

26...h6 27.  $\mathbb{Q}c2$   $\mathbb{Q}e2$  28.  $\mathbb{B}e1$   $\mathbb{Q}d3$  29.  $\mathbb{W}xc5$   $dxc5$  30.  $\mathbb{B}xe2$   $\mathbb{B}b1$  31.  $fxg6$   $fxg6$  32.  $\mathbb{Q}f1$   $\mathbb{B}xc1$  33.  $c4$   $\mathbb{Q}g7$  34.  $h4$   $h5$  35.  $\mathbb{B}d2$   $\mathbb{Q}e5$  36.  $\mathbb{Q}f2$   $\mathbb{Q}g4+$  37.  $\mathbb{Q}e2$   $\mathbb{Q}c3$  38.  $\mathbb{B}d1$   $\mathbb{B}xc2+$  39.  $\mathbb{Q}d3$   $\mathbb{B}f2$  40.  $\mathbb{Q}xc3$   $\mathbb{Q}e3$  41.  $\mathbb{B}d7$   $\mathbb{Q}xf1$  42.  $\mathbb{B}xe7+$   $\mathbb{Q}f6$  43.  $\mathbb{B}c7$   $\mathbb{Q}xg3$  44.  $\mathbb{B}c6+$   $\mathbb{Q}g7$  45.  $e5$   $\mathbb{B}e2$  46.  $e6$   $\mathbb{B}e3+$  47.  $\mathbb{Q}d2$   $\mathbb{B}e5$  48.  $e7$   $\mathbb{B}xe7$  49.  $\mathbb{Q}d3$   $\mathbb{B}e5$  0-1

No. 187: Rohde – Zs. Polgár

Reshevsky Memorial 1992



Position after 10... ♕g6

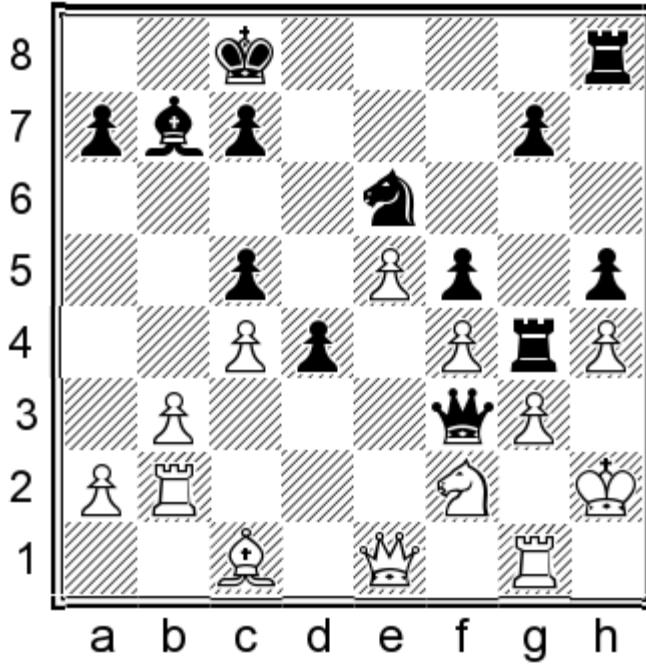
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.12$ , “+”,  $\Delta k = 0$ ,  $\Delta(10\dots \dot{\square}g6) = \sim -0.25$  TC? T?

11.f3 ♕e7 12.fxe4 ♜xe4 13.♘xe4 ♜xe4 14.♗d3 ♜xg2 15.♗xf5+ ♜xf5 16.♗f1+ ♜e6 17.♗h5 ♜e5 18.dxe5 ♜xe5  
19.♗f7+ ♜d6 20.♗f6+ ♜c5 21.b4+ ♜xb4 22.♗d2+ ♜a3 23.c5 d5 24.cxd6 ♜g3+ 25.♗f2 ♜h1+ 26.♗e2 ♜g4+ 27.♗d3  
♗d1 28.♗c1+ ♜a4 29.♗c4+ ♜a5 30.♗d2+ 1-0

### No. 188: Gunsberg – Chigorin

Match (6), La Habana 1890



Position after 32.  $\mathbb{Q}f2$

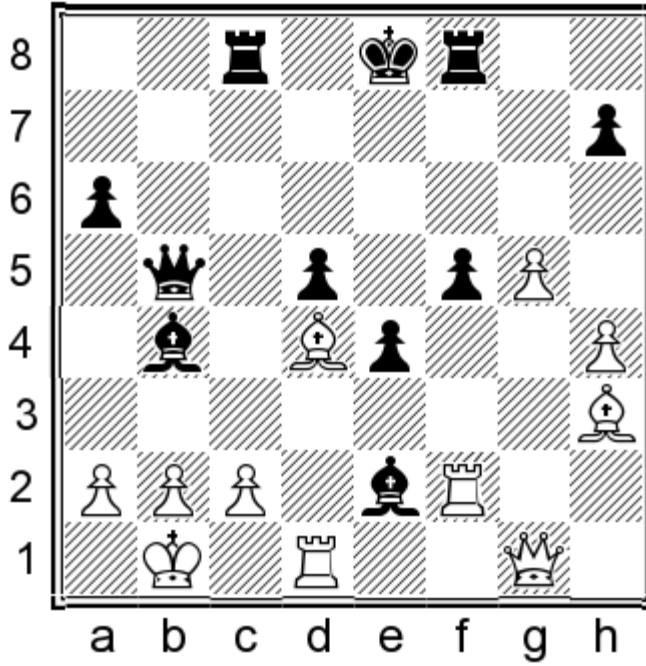
Show/Hide the answer

m = 1, t = ~1.54, "+" ...T

32...g5 33.  $\mathbb{Q}xg4$  hxg4 34.  $\mathbb{W}f1$   $\mathbb{Q}xh4+$  35. gxh4 g3+ 36.  $\mathbb{Q}xg3$   $\mathbb{W}xf1$  37.  $\mathbb{Q}g1$   $\mathbb{W}f3$  38. fxg5  $\mathbb{Q}f4$  39.  $\mathbb{Q}xf4$   $\mathbb{W}xf4+$  40.  $\mathbb{Q}h3$   $\mathbb{Q}f3$  41.  $\mathbb{Q}f2$   $\mathbb{Q}g4+$  42.  $\mathbb{Q}g2$   $\mathbb{W}e4+$  43.  $\mathbb{Q}h2$   $\mathbb{W}e3$  44.  $\mathbb{Q}gg2$  d3 45. g6  $\mathbb{W}xe5+$  46.  $\mathbb{Q}g3$   $\mathbb{W}d4$  47.  $\mathbb{Q}d2$   $\mathbb{W}f6$  48.  $\mathbb{Q}gxd3$   $\mathbb{W}xh4+$  49.  $\mathbb{Q}g1$   $\mathbb{W}g5$  50.  $\mathbb{Q}g2$   $\mathbb{W}xg6$  51.  $\mathbb{Q}f2$   $\mathbb{W}f6$  52.  $\mathbb{Q}d5$   $\mathbb{W}h4+$  53.  $\mathbb{Q}g1$  f4 54.  $\mathbb{Q}gd2$   $\mathbb{W}e1+$  55.  $\mathbb{Q}h2$   $\mathbb{Q}f3$  0-1

No. 189: Ehlvest – Ftáčnik

World Open 1991



Position after 30... ♕e2

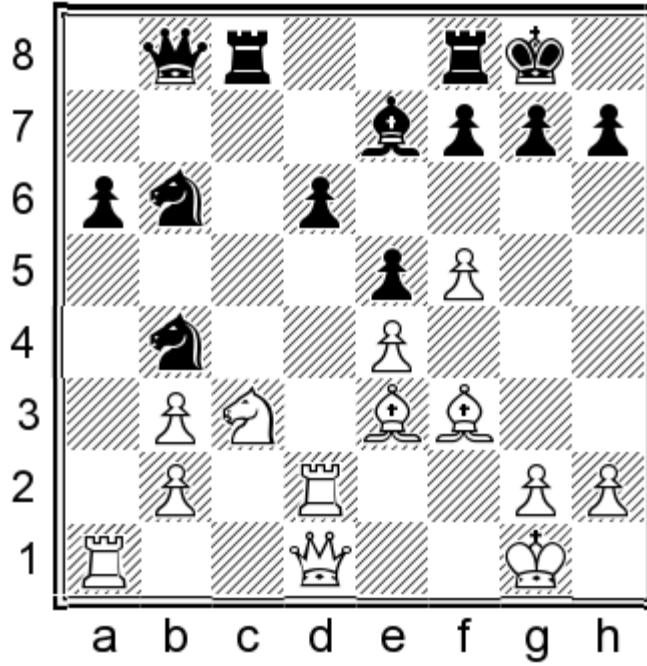
Show/Hide the answer

m = 1, t = ~0.87, ? ... TCP

31. ♔f1 ♕xc2 32. ♕xe2 ♕xe2 33. g6 hxg6 34. ♕xg6+ ♔d7 35. ♕h5 ♕xb2+ 36. ♕xb2 ♕b7 37. ♔c4 ♔c3 38. ♕h7+ ♔c8  
39. ♕xb7+ ♔xb7 40. ♕xd5+ 1-0

No. 190: Alekseev – Mamedyarov

Dortmund 2007



Position after 20... ♜xb6

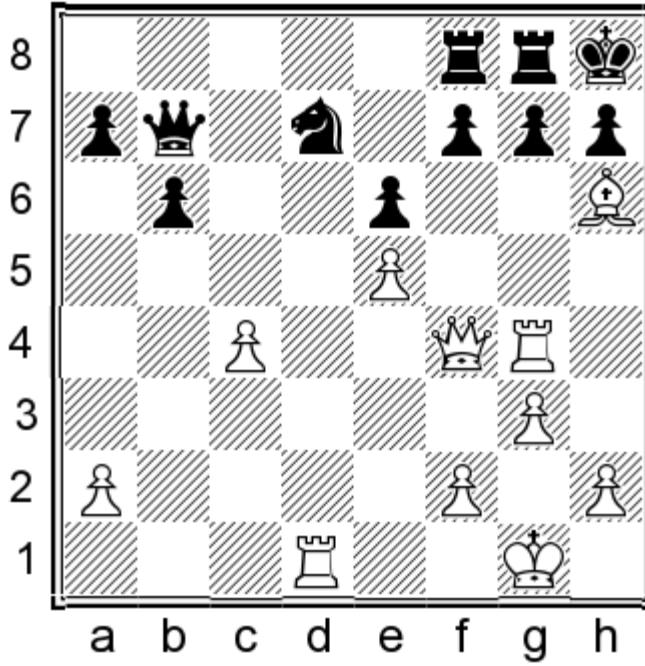
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.26$ , “=”,  $\Delta k < 0$ ,  $\Delta(20... \text{Qxb6}) = \sim 0.15 \text{ TC}$

21. ♜h1 ♜c6 22. ♜e2 ♜b7 23. ♜f1 ♜fc8 24. ♜g4 ♜d7 25. ♜c4 ♜f6 26. ♜f3 h6 27. ♜f2 ♜xc4 28. bxc4 ♜xc4 29. ♜h4 ♜d4 30. ♜ad1 ♜c6 31. ♜xf6 ♜xf6 32. ♜d5 ♜g5 33. ♜xd4 ♜xd4 34. ♜a3 ♜c6 35. ♜c3 ♜b5 36. b4 ♜e2 37. ♜d3 ♜a2 38. ♜f1 h5 39. g3 f6 40. ♜g1 h4 41. ♜f2 ♜a1+ 42. ♜g2 ♜h7 43. gxh4 ♜f4 44. ♜h3 ♜h8 45. ♜e7 1-0

No. 191: P. Nikolić – Tukmakov

Wijk aan Zee 1984



Position after 26... ♕af8

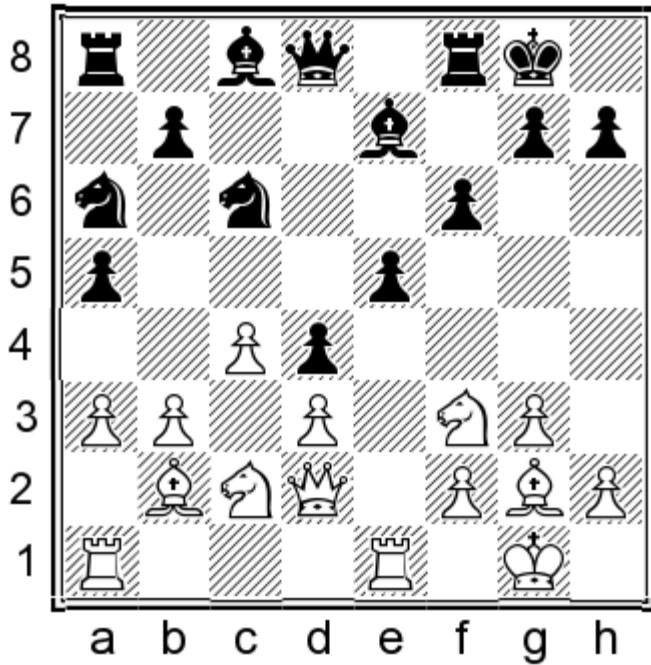
Show/Hide the answer

m = 1, t = ~1.31, “+” ... T

27. ♜xg7 ♜xg7 28. ♜xg7+ ♔xg7 29. ♜g5+ ♔h8 30. ♜e7 ♜e4 31. ♜xd7 ♜e1+ 32. ♔g2 ♜e4+ 33. f3 ♜c2+ 34. ♔h3 ♜f5+ 35. ♔h4 ♔g7 36. ♜d4 ♜c8 37. ♜f4 ♜xe5 38. ♜xf7+ ♔g8 39. f4 1-0

### No. 192: Lautier – Kotronias

Sochi 1989



### *Position after 15... ♟a6*

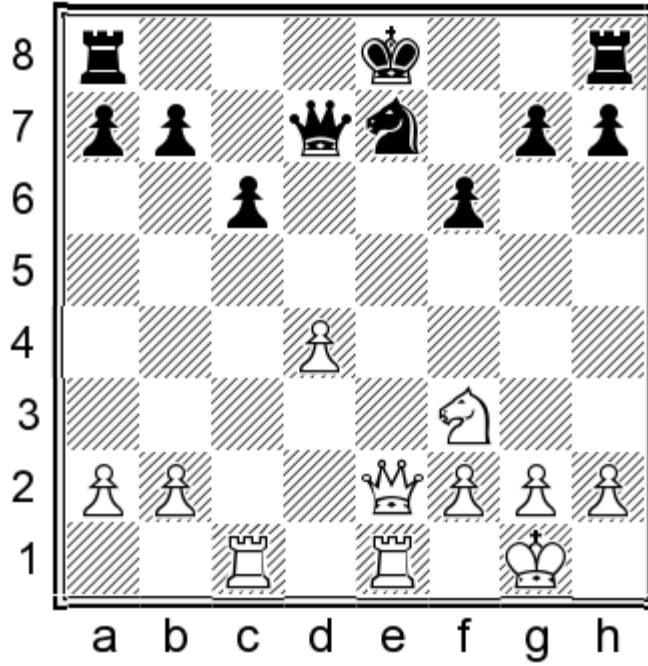
### Show/Hide the answer

$m = 1$ ,  $t = \sim 1.16$ , “ $\approx$ ”,  $\Delta k > 0$ ,  $\Delta(15\dots\text{a}6) = \sim -0.07$  TC

16.b4 axb4 17.axb4 ♜cxb4 18.♘fxd4 exd4 19.♗a3 ♜xc2 20.♗xe7 ♜xe7 21.♗xe7 ♜xa1 22.♗a5 ♜b3 23.♗d5+ ♔h8  
 24.♗f7 ♜g8 25.♗e8 ♔e6 26.♗xg8+ ♜xg8 27.♗xe6 ♜ac5 28.♗b6 h6 29.♔h3 ♜e8 30.♗f5 ♔g8 31.♗g6 ♜c8 32.♗g2 ♔h8  
 33.♗f5 ♜e8 34.♗g4 ♜e5 35.♗d8+ ♔h7 36.f4 f5 37.fxe5 fxg4 38.♗d6 ♜xd3 39.e6 ♜e1+ 40.♗f1 ♜f3 41.e7 ♜bd2+  
 42.♔e2 ♜e4 43.♗f4 1-0

## No. 193: Steinitz – Von Bardeleben

Hastings 1895



Position after 16...c6

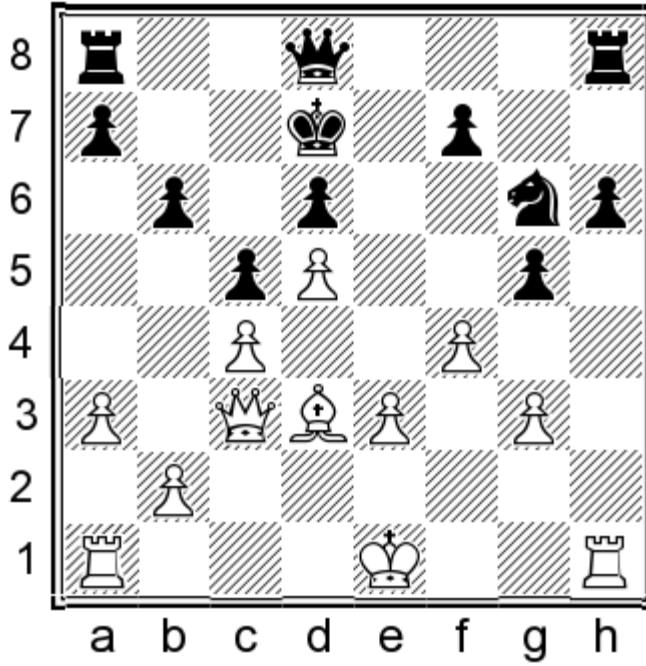
Show/Hide the answer

m = 1, t = ~1.27, small “+” ... T

17.d5 cxd5 18.Qd4 Qf7 19.Qe6 Bhc8 20.Wg4 g6 21.Qg5+ Qe8 22.Bxe7+ Qf8 23.Bf7+ Qg8 24.Bg7+ Qh8 25.Bxh7+ 1-0

No. 194: Beliavsky – Christiansen

Groningen 1992



Position after 19... ♔d7

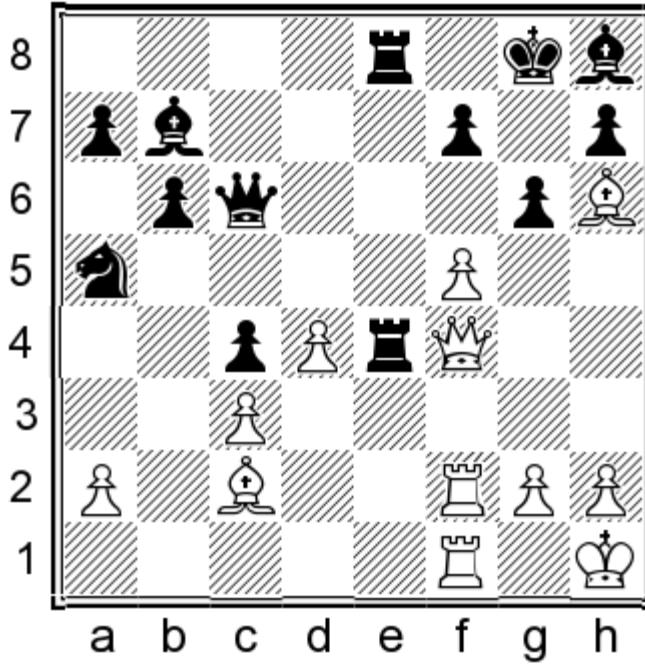
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.39$ , small “-”,  $\Delta k < 0$ ,  $\Delta(19\dots \hat{\square}d7) = \sim 0.33$  C

20.b4 gxf4 21.gxf4 ♖h4 22.bxc5 bxc5 23.♖b1 ♕g8 24.♔f1 ♔e8 25.♔h7 ♕f8 26.♔b7 a6 27.♕b2 ♕c8 28.♔f2 ♕a8  
29.♕g1 ♕c8 30.♔c2 1-0

### No. 195: Geller – Smyslov

Candidates’ Match (5), Moscow 1965



Position after 24...  $\mathbb{E}xe4$

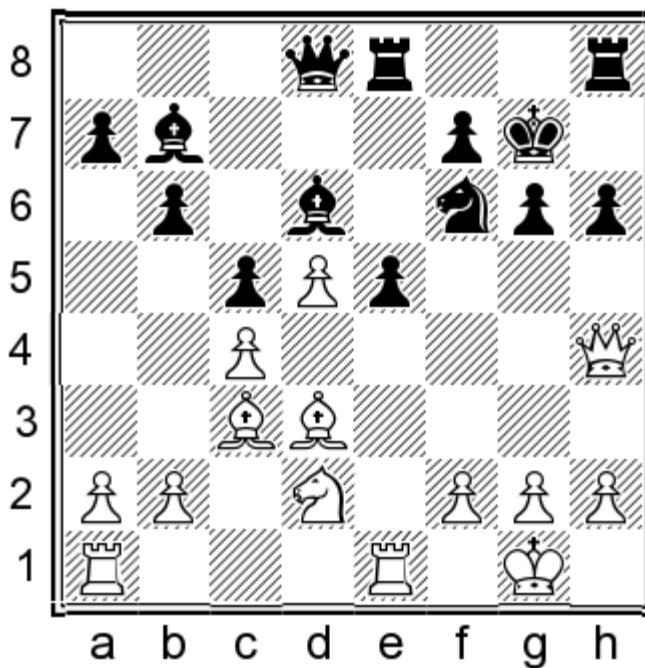
Show/Hide the answer

$m \ll 1$ ,  $t = \sim 1.05$ , large “+” ... T

25.fxg6 f6 26.  $\mathbb{W}g5$   $\mathbb{W}d7$  27.  $\mathbb{Q}g1$   $\mathbb{Q}g7$  28.  $\mathbb{E}xf6$   $\mathbb{E}g4$  29.  $gxh7+$   $\mathbb{Q}h8$  30.  $\mathbb{E}xg7+$   $\mathbb{W}xg7$  31.  $\mathbb{W}xg4$  1-0

### No. 196: Lékó – Bareev

Elista 2007



Position after 21... $\mathbb{W}d8$

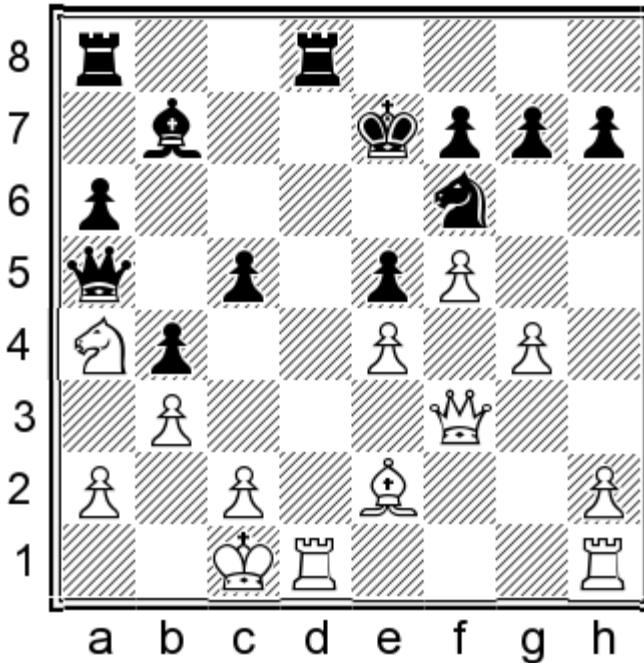
Show/Hide the answer

m = 1, t = ~1.26, small “+” ... T

22. $\mathbb{Q}c2$   $\mathbb{Q}c8$  23. $\mathbb{Q}a4$  g5 24. $\mathbb{W}g3$   $\mathbb{Q}h5$  25. $\mathbb{W}f3$  g4 26. $\mathbb{W}d1$   $\mathbb{E}e7$  27.h3  $\mathbb{Q}f6$  28.hxg4  $\mathbb{Q}xg4$  29.f3  $\mathbb{Q}c8$  30. $\mathbb{E}e3$   $\mathbb{Q}h5$  31. $\mathbb{W}e1$  f6 32. $\mathbb{W}h4$   $\mathbb{Q}f4$  33. $\mathbb{Q}e4$   $\mathbb{E}f7$  34.g3  $\mathbb{Q}g6$  35. $\mathbb{W}h5$   $\mathbb{Q}b8$  36. $\mathbb{Q}c2$  f5 37.f4  $\mathbb{E}e8$  38. $\mathbb{Q}f2$   $\mathbb{E}f6$  39. $\mathbb{E}ae1$  e4 40. $\mathbb{Q}xe4$  fxe4 41. $\mathbb{Q}xe4$  1-0

No. 197: Svidler – Kasimdzhanov

Wijk aan Zee 1999



Position after 18...c5

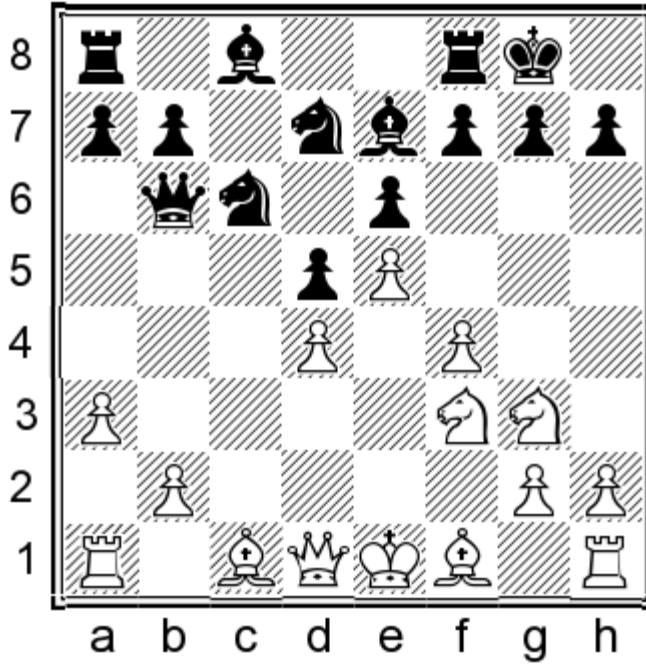
Show/Hide the answer

m = 1, t = ~1.03, “+” ... T

19.g5  $\mathbb{Q}xe4$  20.f6+  $\mathbb{Q}f8$  21. $\mathbb{Q}d3$   $\mathbb{E}d4$  22. $\mathbb{E}de1$   $\mathbb{Q}d6$  23. $\mathbb{W}h5$  e4 24.g6 fxg6 25. $\mathbb{W}xh7$  gxf6 26. $\mathbb{E}hg1$  g5 27. $\mathbb{E}xg5$  fxe5 28. $\mathbb{E}f1+$   $\mathbb{Q}e8$  29. $\mathbb{W}g7$   $\mathbb{Q}d8$  30. $\mathbb{E}f8+$   $\mathbb{Q}e8$  31. $\mathbb{W}xb7$   $\mathbb{E}c8$  32. $\mathbb{W}f7$  1-0

No. 198: Kengis – Djurhuus

Gausdal 1991



Position after 11...Qg3

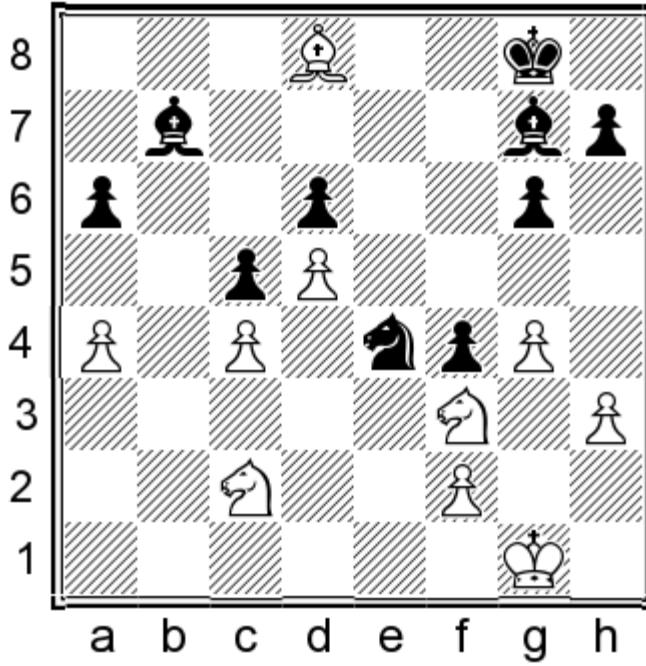
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.21$ , small “+”,  $\Delta k > 0$ ,  $\Delta(11...Qg3) = \sim -0.20 T$

11...f6 12.Qd3 fxe5 13.fxe5 Qdxe5 14.dxe5 Qxe5 15.Qe2 Qd7 16.Qxe5 Wf2+ 17.Qd2 Wac8 18.Wb3 Qg5+ 19.Qd3 Wf4 20.Qf3 We8 0-1

### No. 199: Gelfand – Topalov

Moscow Olympiad 1994



Position after 33.bxc4

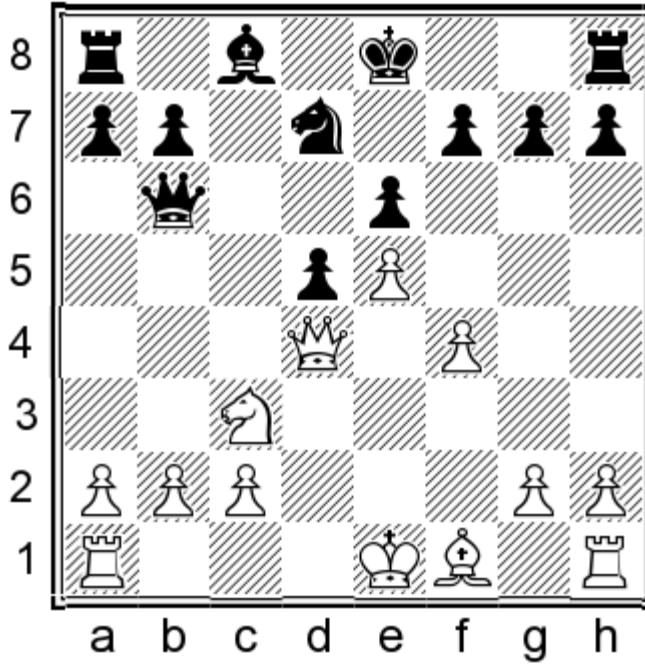
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.96$ , “ $\approx$ ”,  $\Delta k = 0$ ,  $\Delta(33.bxc4) = -0.60$  C

33... $\mathbb{Q}c8$  34.a5 h6 35. $\mathbb{Q}f1$   $\mathbb{Q}f7$  36. $\mathbb{Q}e2$   $\mathbb{Q}e8$  37. $\mathbb{Q}c7$   $\mathbb{Q}d7$  38. $\mathbb{Q}b6$   $\mathbb{Q}e7$  39. $\mathbb{Q}d2$   $\mathbb{Q}c3+$  40. $\mathbb{Q}f3$  g5 41. $\mathbb{Q}e4$   $\mathbb{Q}d7$  42. $\mathbb{Q}xc3$   $\mathbb{Q}xc3$  43. $\mathbb{Q}e2$   $\mathbb{Q}f6$  44. $\mathbb{Q}a3$   $\mathbb{Q}a4$  45. $\mathbb{Q}b1$   $\mathbb{Q}c2$  46. $\mathbb{Q}d2$   $\mathbb{Q}c3$  47. $\mathbb{Q}f3$   $\mathbb{Q}b4$  48. $\mathbb{Q}c7$   $\mathbb{Q}d7$  49. $\mathbb{Q}b6$   $\mathbb{Q}b3$  50. $\mathbb{Q}d3$   $\mathbb{Q}e8$  51. $\mathbb{Q}c7$   $\mathbb{Q}e7$  52. $\mathbb{Q}b6$   $\mathbb{Q}d7$  53. $\mathbb{Q}g1$   $\mathbb{Q}e1$  54.f3  $\mathbb{Q}a2$  55. $\mathbb{Q}e2$   $\mathbb{Q}b4$  56. $\mathbb{Q}d3$   $\mathbb{Q}b1+$  57. $\mathbb{Q}e2$   $\mathbb{Q}c3$  58.h4 gxh4 59. $\mathbb{Q}h3$   $\mathbb{Q}e5$  60. $\mathbb{Q}f2$   $\mathbb{Q}g6$  0-1

No. 200: Shirov – Bareev

Wijk aan Zee 2003



Position after 11...  $\mathbb{W}b6$

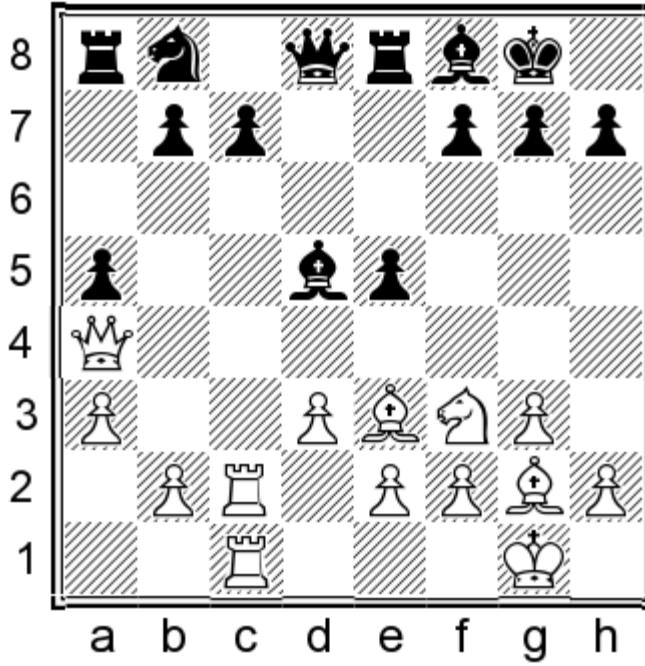
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.34$ , “=” ... T

12.  $\mathbb{W}d2$   $\mathbb{W}xb2$  13.  $\mathbb{E}b1$   $\mathbb{W}a3$  14.  $\mathbb{Q}b5$   $\mathbb{W}xa2$  15.  $\mathbb{Q}d6+$   $\mathbb{Q}f8$  16.  $\mathbb{E}d1$   $\mathbb{W}b2$  17.  $\mathbb{Q}e2$   $\mathbb{W}b6$  18.  $c4$   $d4$  19.  $\mathbb{Q}f3$   $a5$  20.  $0-0$   $d3+$  21.  $\mathbb{Q}h1$   $\mathbb{W}d4$  22.  $\mathbb{Q}b5$   $\mathbb{W}c5$  23.  $\mathbb{W}xd3$   $g6$  24.  $\mathbb{Q}d6$   $\mathbb{Q}b6$  25.  $\mathbb{E}b1$   $\mathbb{Q}g7$  26.  $\mathbb{E}b5$   $\mathbb{W}c7$  27.  $\mathbb{W}d4$   $\mathbb{Q}d7$  28.  $f5$   $gxf5$  29.  $\mathbb{Q}xf5+$   $exf5$  30.  $e6+$   $\mathbb{Q}e5$  31.  $\mathbb{E}xe5$   $f6$  32.  $\mathbb{E}xf5$   $\mathbb{E}f8$  33.  $\mathbb{Q}d5$   $\mathbb{W}e7$  34.  $\mathbb{E}h5$   $\mathbb{Q}h8$  35.  $\mathbb{Q}e4$   $\mathbb{Q}xe6$  36.  $\mathbb{E}xh7+$   $\mathbb{W}xh7$  37.  $\mathbb{Q}xh7$   $\mathbb{Q}xh7$  38.  $\mathbb{W}e4+$  1-0

### No. 201: Botvinnik – Portisch

Monte Carlo 1968



Position after 15... ♦b8

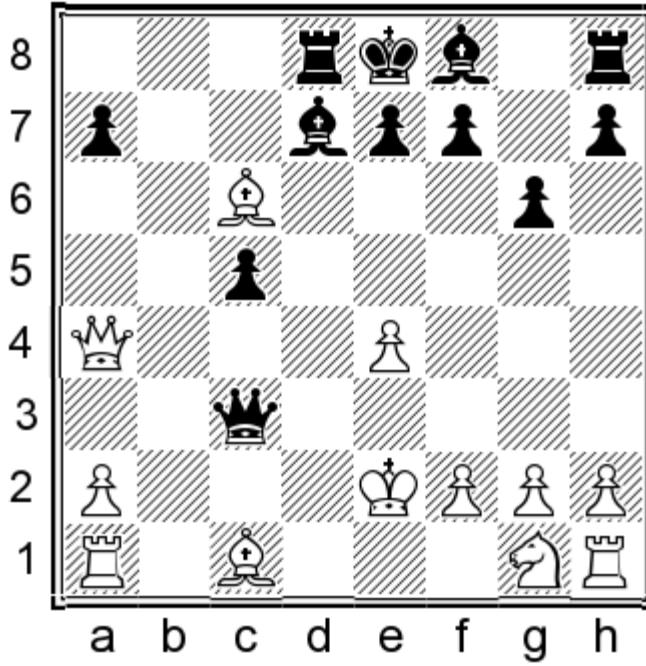
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.29$ , “=”,  $\Delta k > 0$ ,  $\Delta(15\dots ♦b8) = \sim 0.36$  T? TC?

16. ♜xc7 ♜c6 17. ♜1xc6 bxc6 18. ♜xf7 h6 19. ♜b7 ♜c8 20. ♜c4+ ♜h8 21. ♜h4 ♜xb7 22. ♜g6+ ♜h7 23. ♜e4 ♜d6 24. ♜xe5+ g6 25. ♜xg6+ ♜g7 26. ♜xh6+ 1-0

No. 202: Yusupov – Morenz

Graz 1981



Position after 12...  $\mathbb{Q}d8$

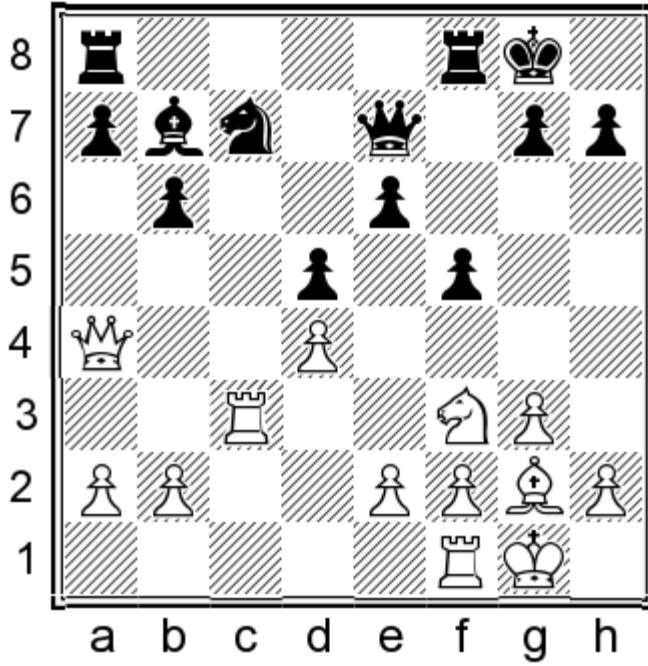
Show/Hide the answer

$m >> 1$ ,  $t = \sim 0.97$ , ?... TCP

13.  $\mathbb{W}b3$   $\mathbb{W}xa1$  14.  $\mathbb{Q}b2$   $\mathbb{W}b1$  15.  $\mathbb{Q}f3$   $\mathbb{W}xh1$  16.  $\mathbb{Q}e5$   $e6$  17.  $\mathbb{Q}xd7+$   $\mathbb{Q}xd7$  18.  $\mathbb{W}b8+$   $\mathbb{Q}d8$  19.  $\mathbb{W}b5+$   $\mathbb{Q}e7$  20.  $\mathbb{W}b7+$   $\mathbb{Q}f6$  21.  $\mathbb{W}xf7+$   $\mathbb{Q}g5$  22.  $\mathbb{Q}f3+$  1-0

### No. 203: Beliavsky – Bareev

USSR Championship, Minsk 1987



Position after 16...  $\mathbb{Q}xc7$

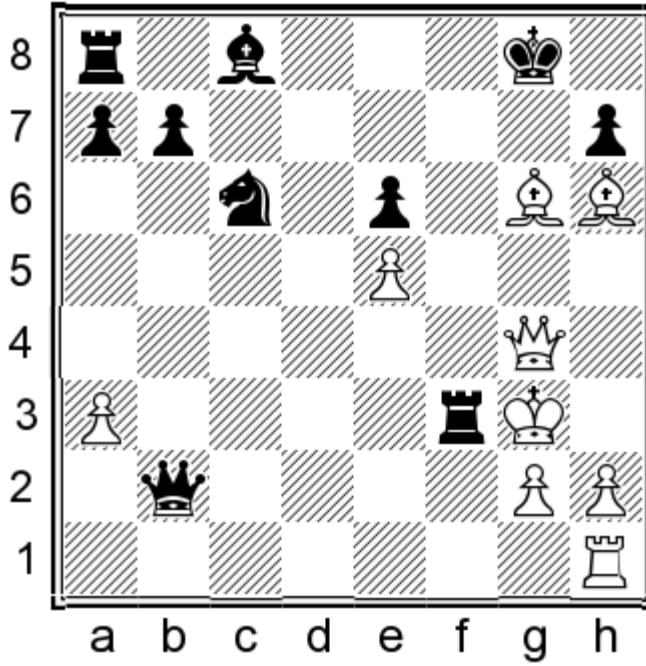
Show/Hide the answer

$m = 1$ ,  $t = \sim 1,16$ , “ $\approx$ ”,  $\Delta k = 0$ ,  $\Delta(16... \mathbb{Q}xc7) = \sim 0.15$  C

17.h3  $\mathbb{E}fc8$  18.g4 g6 19.gxf5 gxf5 20. $\mathbb{Q}e5$   $\mathbb{Q}e8$  21. $\mathbb{E}g3+$   $\mathbb{Q}h8$  22. $\mathbb{Q}h2$   $\mathbb{Q}f6$  23. $\mathbb{E}g1$   $\mathbb{E}c7$  24. $\mathbb{Q}f3$   $\mathbb{Q}c6$  25. $\mathbb{W}b3$   $\mathbb{E}g8$  26. $\mathbb{Q}h5$   $\mathbb{W}f8$  27. $\mathbb{E}xg8+$   $\mathbb{Q}xg8$  28. $\mathbb{W}g3$   $\mathbb{Q}b5$  29. $\mathbb{W}h4$   $\mathbb{Q}f6$  30. $\mathbb{Q}f7$  1-0

No. 204: Khodos – Asaturian

USSR 1970



Position after 21...  $\mathbb{Q}xf3+$

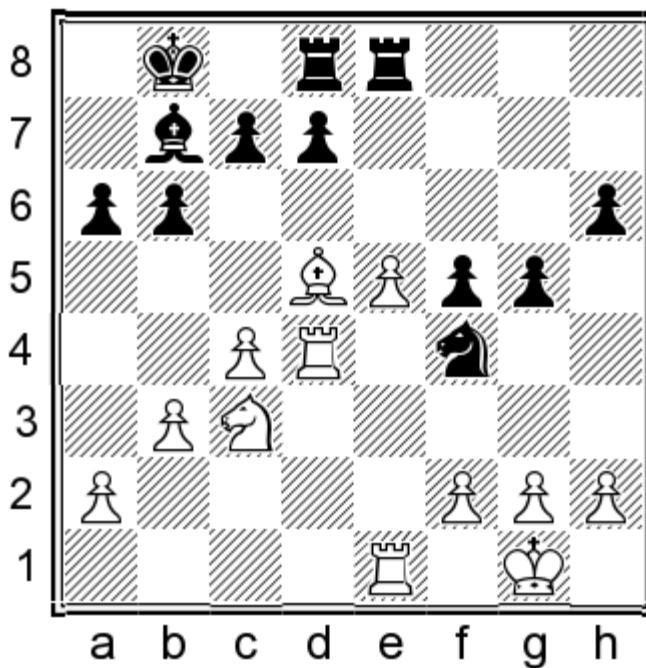
Show/Hide the answer

A special case, where the king is in check. TCP

22.  $\mathbb{Q}h4$   $\mathbb{W}xe5$  23.  $\mathbb{Q}e8+$   $\mathbb{Q}h8$  24.  $\mathbb{W}xf3$   $\mathbb{W}f5$  25.  $\mathbb{W}xf5$   $exf5$  26.  $\mathbb{E}e1$   $\mathbb{Q}g8$  27.  $\mathbb{Q}g5$   $\mathbb{Q}d8$  28.  $\mathbb{Q}f6$   $a5$  29.  $\mathbb{Q}f7+$  1-0

### No. 205: Bacrot – Morozevich

Biel 2003



Position after 21.  $\mathbb{Q}xd4$

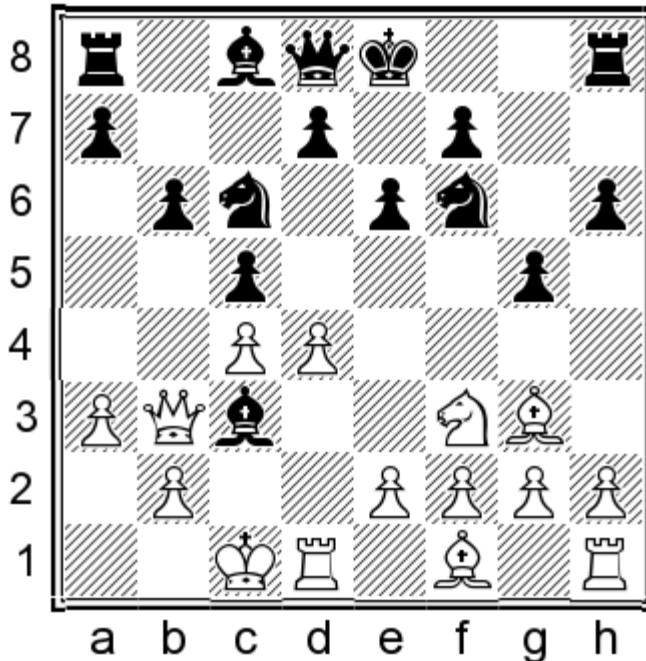
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.76$ , “ $\approx$ ”,  $\Delta k > 0$ ,  $\Delta(21. \mathbb{Q}xd4) = -0.25$  C

21...c6 22.  $\mathbb{Q}f3$   $\mathbb{Q}c7$  23.  $\mathbb{Q}f1$   $\mathbb{E}e6$  24. g3  $\mathbb{Q}g6$  25.  $\mathbb{Q}h5$   $\mathbb{Q}xe5$  26. f4 gxf4 27. gxf4 c5 28.  $\mathbb{E}d2$   $\mathbb{Q}f3$  29.  $\mathbb{Q}xf3$   $\mathbb{Q}xf3$  30.  $\mathbb{E}xe6$  dxe6 31.  $\mathbb{E}xd8$   $\mathbb{Q}xd8$  32.  $\mathbb{Q}a4$   $\mathbb{Q}c7$  33.  $\mathbb{Q}f2$   $\mathbb{Q}c6$  34.  $\mathbb{Q}c3$   $\mathbb{Q}d6$  35.  $\mathbb{Q}e3$  e5 36.  $\mathbb{Q}e2$   $\mathbb{Q}d7$  37. a3  $\mathbb{Q}e6$  38.  $\mathbb{Q}g3$  a5 39. a4  $\mathbb{Q}d7$  40.  $\mathbb{Q}e2$   $\mathbb{Q}c6$  41.  $\mathbb{Q}c3$   $\mathbb{Q}e6$  42.  $\mathbb{Q}e2$   $\mathbb{Q}e4$  43.  $\mathbb{Q}c1$  exf4+ 0-1

No. 206: P.-H. Nielsen – Hraček

Germany 2000



Position after 10...  $\mathbb{Q}xc3$

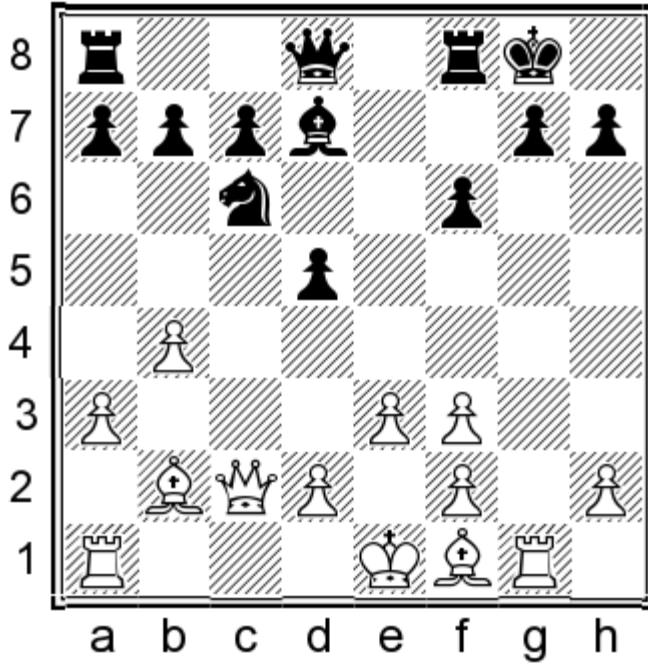
Show/Hide the answer

$m \ll 1$ ,  $t = \sim 0.84$ , “ $\approx$ ”,  $\Delta k = 0$ ,  $\Delta(10... \mathbb{Q}xc3) = \sim -0.27$  C

11. d5 exd5 12. cxd5  $\mathbb{Q}xd5$  13.  $\mathbb{E}xd5$   $\mathbb{Q}g7$  14. h4 g4 15.  $\mathbb{Q}e5$   $\mathbb{Q}xe5$  16.  $\mathbb{Q}xe5$  0-0 17.  $\mathbb{Q}xg7$   $\mathbb{Q}xg7$  18.  $\mathbb{W}g3$  f5 19. e4  $\mathbb{Q}b7$  20.  $\mathbb{E}d6$   $\mathbb{W}e7$  21.  $\mathbb{Q}b5$   $\mathbb{E}ad8$  22.  $\mathbb{E}hd1$   $\mathbb{Q}c6$  23. exf5  $\mathbb{Q}xb5$  24.  $\mathbb{W}xg4+$  1-0

No. 207: Bareev – Rozentalis

European Team Championship, Pula 1997



Position after 13...f6

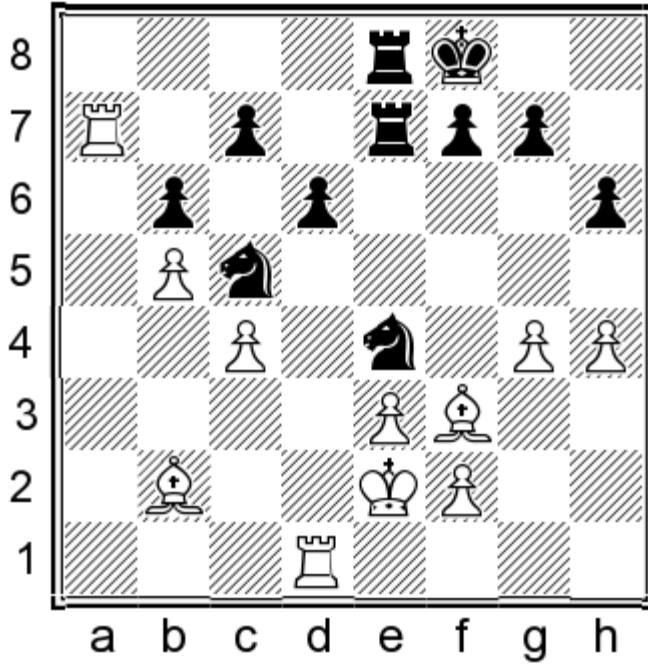
Show/Hide the answer

m = 1, t = 1.50, "+" ... T

14.♗d3 h6 15.♗h7+ ♖h8 16.♗xg7 ♖xg7 17.♗g6+ ♖h8 18.♗xh6 ♖e7 19.♗g6+ ♖g8 20.♗e2 ♖g7 21.♗h5 ♖fd8 22.♗g1 ♖f8 23.♗g3 ♖e7 24.♗f5 ♖f7 25.♗xf6+ ♖xf6 26.♗h7+ ♖f7 27.♗g7 ♖e8 28.♗g6 ♖xg7 29.♗xg7+ ♖e6 30.♗h7 ♖e7 31.f4 ♖b5+ 32.d3 ♖f8 33.♖e5+ ♖d7 34.f5 ♖ae8 35.f6 ♖c8 36.♗xd5+ ♖d6 37.♗g6 ♖e6 38.♗f5 ♖fxf6 39.♗xe6+ ♖xe6 40.h4 ♖e7 41.♗c5 a6 42.♗xc7+ ♖f6 43.♗d8+ ♖f7 44.♗d2 ♖f5 45.♗c7+ ♖e7 46.♗f4 ♖e6 47.e4 ♖d4 48.♗h6+ ♖d7 49.♗f6 1-0

No. 208: Kramnik – Ulybin

Halkidiki 1992



Position after 35... ♔f8

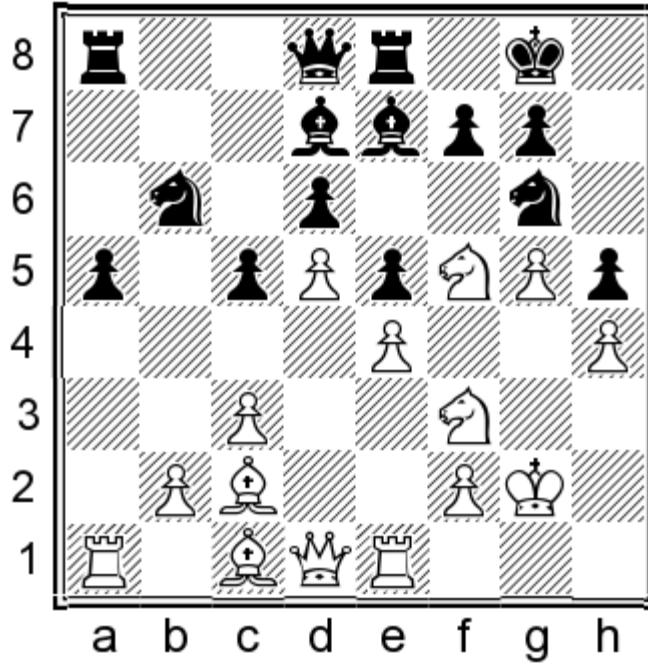
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.29$ , small “-”,  $\Delta k < 0$ ,  $\Delta(35\dots \hat{Q}f8) = \sim 0.82$  C? CP?

36.g5 hxg5 37.hxg5 ♖xg5 38.♗c6 ♕c8 39.♕h1 ♔g8 40.♖aa1 ♖ce6 41.♖h4 f6 42.♖g1 ♔f7 43.♗d5 ♔e8 44.♖h8+ ♖f8  
45.f4 ♖ge6 46.♔f3 f5 47.♗g6 ♖c5 48.♖xg7 ♕f7 49.♖xf8 1-0

### No. 209: Stein – Spassky

USSR Championship, Yerevan 1962



Position after 24...h5

Show/Hide the answer

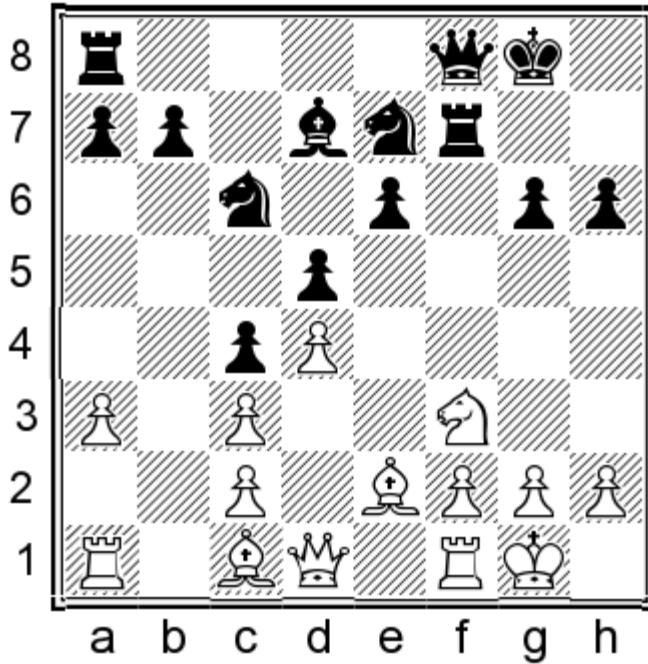
m = 1, t = ~1.35, “≈” ... T

25.♘h2 ♖xf5 26.exf5 ♘xh4+ 27.♔h3 ♖xg5 28.♖xg5 ♕xg5 29.♗g1 ♔f6 30.♕xh5 ♘xd5 31.♕xh4 ♘f4+ 32.♔g4 ♕xh4+ 33.♔xh4 f6 34.c4 ♘f7 35.♗g4 ♕ab8 36.♗gb1 ♔h8 37.♗f3 g6 38.♗h4 gxf5+ 39.♗xf5 ♘e6 40.♗xa5 ♕bg8+ 41.♗f3 ♕g5 42.♗g3 f5 43.♗a6 1-0

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Show in Quiz Mode

No. 210: Ponomariov – Ivanchuk  
Linares 2002



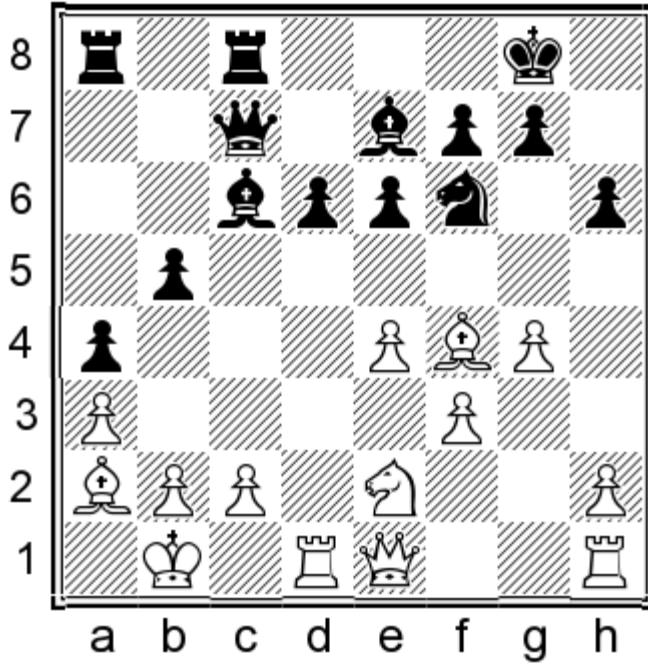
Position after 16...Qd7

Show/Hide the answer

m = 1, t = ~0.71, small "+", Δk > 0, Δ(16...Qd7) = ~-0.43 CP? C?

17.Qe1 g5 18.g3 Qf5 19.Qg2 Wg7 20.f4 Qd6 21.We1 b5 22.fxg5 Wxf1+ 23.Qxf1 hxg5 24.Qe3 Wf8 25.Qg2 a5 26.Qd2 Wg6 27.Qg4 Wf5 28.We3 Qg7 29.Wb1 Qh7 30.a4 bxa4 31.Qc1 Wf7 32.Qa3 Wxc2 33.Qc1 Wf5 34.Qh3 Qe4 35.Qe5 Wf2+ 36.Wxf2 Wxf2 37.Qxd7 Wa2 38.Qc5 Qd2 39.Qg2 a3 40.Qf8+ Qh6 41.Qe1 e5 42.dxe5 g4 43.e6 Qf3+ 44.Qxf3 gxf3 45.Qf1 1-0

No. 211: Gavrikov – Tukmakov  
Yerevan Zonal 1982



Position after 19...Qa2

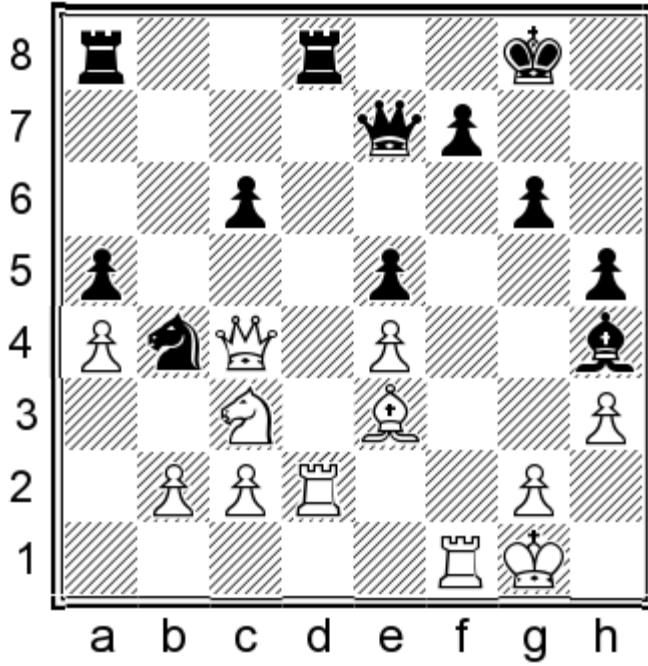
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.86$ , “+”,  $\Delta k < 0$ ,  $\Delta(19...Qa2) = \sim 0.21$  C? TC?

19...b4 20.axb4 Qxe4 21.fxe4 Wxc2+ 22.Qa1 a3 23.Qb1 Wxe4 24.Qd2 Qd5 25.Qc1 Wxe1 26.Qxe1 Qf6 27.Qd1 Qc2 28.Qd3 Qb6 29.Qc1 Qc4 30.b5 Qa5 0-1

### No. 212: Karpov – Spassky

Candidates’ Match (9), Leningrad 1974



Position after 23...  $\mathbb{Q}fd8$

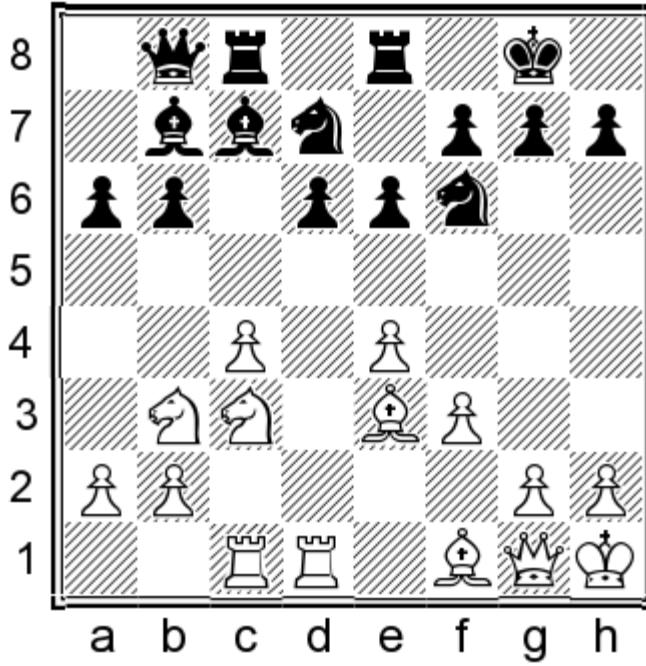
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.27$ , “micro-plus” ... T

24.  $\mathbb{Q}b1$   $\mathbb{W}b7$  25.  $\mathbb{Q}h2$   $\mathbb{Q}g7$  26.  $c3$   $\mathbb{Q}a6$  27.  $\mathbb{E}e2$   $\mathbb{E}f8$  28.  $\mathbb{Q}d2$   $\mathbb{Q}d8$  29.  $\mathbb{Q}f3$   $f6$  30.  $\mathbb{E}d2$   $\mathbb{Q}e7$  31.  $\mathbb{W}e6$   $\mathbb{E}ad8$  32.  $\mathbb{E}xd8$   $\mathbb{Q}xd8$  33.  $\mathbb{E}d1$   $\mathbb{Q}b8$  34.  $\mathbb{Q}c5$   $\mathbb{E}h8$  35.  $\mathbb{E}xd8$  1-0

No. 213: Taimanov – Yusupov

USSR 1982



Position after 18.  $\mathbb{W}g1$

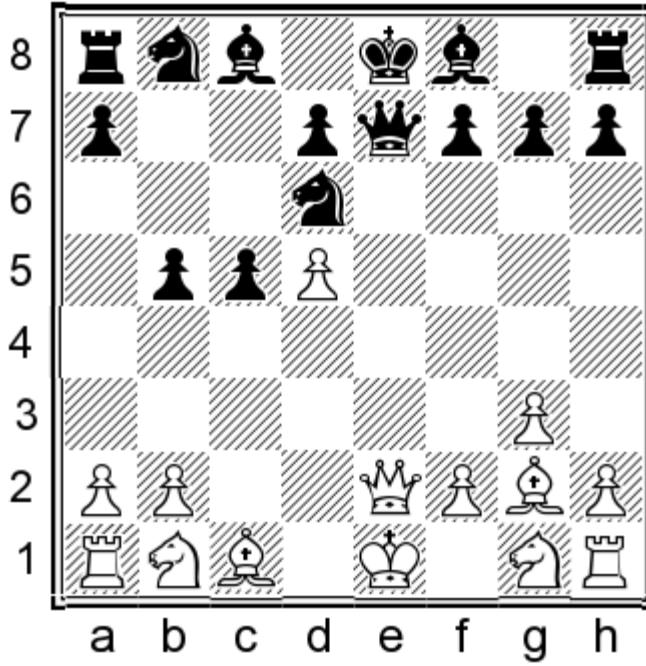
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.72$ , “ $\approx$ ”,  $\Delta k > 0$ ,  $\Delta(18.\mathbb{W}g1) = \sim -0.13$  CP

18...  $\mathbb{Q}h8$  19.  $\mathbb{B}c2$   $\mathbb{B}g8$  20.  $\mathbb{B}cd2$   $g5$  21.  $\mathbb{Q}d4$   $\mathbb{B}g6$  22.  $\mathbb{Q}c1$   $\mathbb{B}cg8$  23.  $\mathbb{Q}d3$   $\mathbb{W}f8$  24.  $\mathbb{B}e1$   $g4$  25.  $f\text{x}g4$   $e5$  26.  $\mathbb{Q}e3$   $\mathbb{Q}xg4$  27.  $\mathbb{Q}d5$   $\mathbb{Q}d8$  28.  $\mathbb{Q}f2$   $\mathbb{Q}h4$  29.  $\mathbb{B}ee2$   $\mathbb{Q}xe3$  30.  $\mathbb{Q}xe3$   $\mathbb{Q}xf2$  31.  $\mathbb{W}xf2$   $\mathbb{Q}xe4$  32.  $\mathbb{Q}f5$   $\mathbb{Q}c5$  33.  $\mathbb{Q}g3$   $\mathbb{Q}a8$  34.  $\mathbb{B}d1$   $\mathbb{Q}e6$  35.  $\mathbb{W}xb6$   $\mathbb{Q}f4$  36.  $\mathbb{B}f2$   $\mathbb{W}h6$  37.  $\mathbb{Q}g1$   $\mathbb{W}h4$  38.  $\mathbb{W}b3$   $\mathbb{B}h6$  39.  $\mathbb{B}xf4$   $exf4$  40.  $\mathbb{W}c3+$   $f6$  41.  $\mathbb{Q}f5$   $\mathbb{B}xg2+$  42.  $\mathbb{Q}xg2$   $\mathbb{W}xh2+$  0-1

No. 214: Kramnik – Alekseev

Tal Memorial 2007



Position after 8... ♜d6

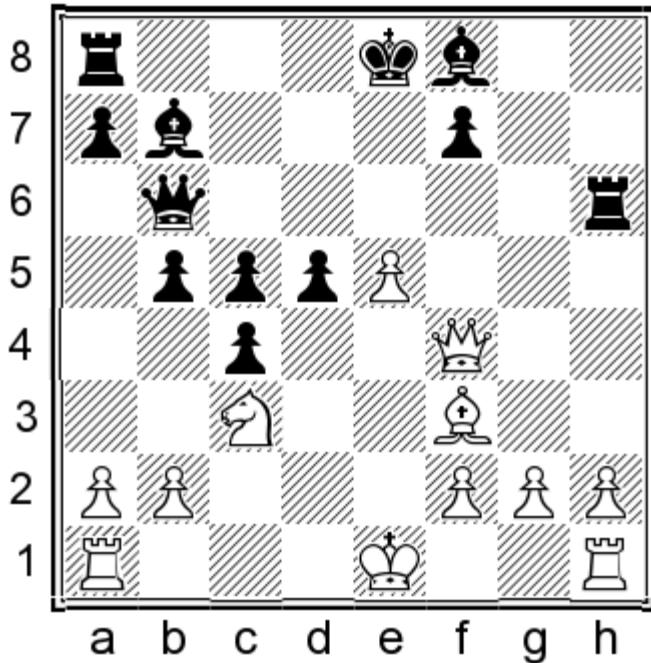
Show/Hide the answer

$m < 1$ ,  $t = 1.24$ , “ $\approx$ ”,  $\Delta k < 0$ ,  $\Delta(8\dots \text{d}6) = \sim -0.07 \text{ TC}$

9. ♜e3 b4 10. ♜xc5 ♜xe2+ 11. ♜xe2 ♜a6 12. ♜xd6 ♜xd6 13. ♜d2 ♜b8 14. ♜c4 ♜e7 15. d6 ♜f6 16. ♜f4 ♜c5 17. 0-0 ♜a6 18. ♜d5 0-0 19. ♜xf6+ gxf6 20. ♜d5 ♜a4 21. ♜fc1 ♜fe8 22. ♜e3 ♜b6 23. ♜c7 ♜xd6 24. ♜d1 ♜h8 25. ♜f5 ♜b6 26. ♜xf7 ♜xb2 27. ♜xd7 ♜e1+ 28. ♜g2 ♜f1+ 29. ♜f3 ♜e2+ 30. ♜f4 ♜b8 31. ♜c4 1-0

### No. 215: Starke – Junge

Germany (corr.) 1942-44



### *Position after 17. ♕f3*

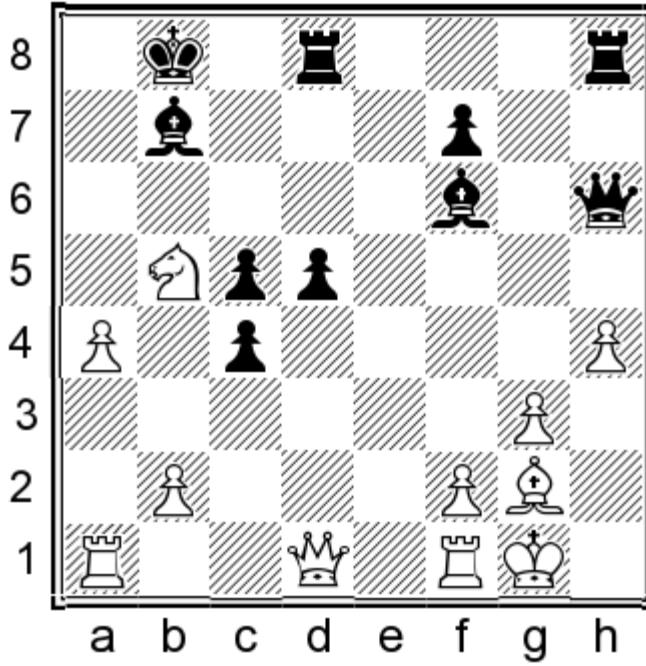
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.83$ , small “-”,  $\Delta k > 0$ ,  $\Delta(17.8f3) = \sim 0.33$  P

17... $\mathbb{Q}d8$  18. $\mathbb{Q}d1$  d4 19. $\mathbb{Q}xb7$   $\mathbb{W}xb7$  20. $\mathbb{Q}e4$   $\mathbb{Q}g7$  21.0-0  $\mathbb{W}e7$  22. $\mathbb{Q}fe1$   $\mathbb{Q}e6$  23. $\mathbb{W}d2$   $\mathbb{Q}xe5$  24.f4  $\mathbb{Q}e6$  25.f5  $\mathbb{Q}h6$  26.f6  
 $\mathbb{Q}e3+$  27. $\mathbb{Q}xe3$  dxe3 28.fxe7  $\mathbb{Q}xd2$  29. $\mathbb{Q}xd2$   $\mathbb{Q}d6$  30. $\mathbb{Q}f1$  exd2 31. $\mathbb{Q}e2$  b4 32. $\mathbb{Q}xd2$   $\mathbb{Q}xd2+$  33. $\mathbb{Q}xd2$   $\mathbb{Q}xe7$  34. $\mathbb{Q}e3$  a5  
35.a4 f5 36. $\mathbb{Q}d2$  f4 0-1

## No. 216: Kasparov – Ivanchuk

Linares 1994



Position after 21... ♕f6

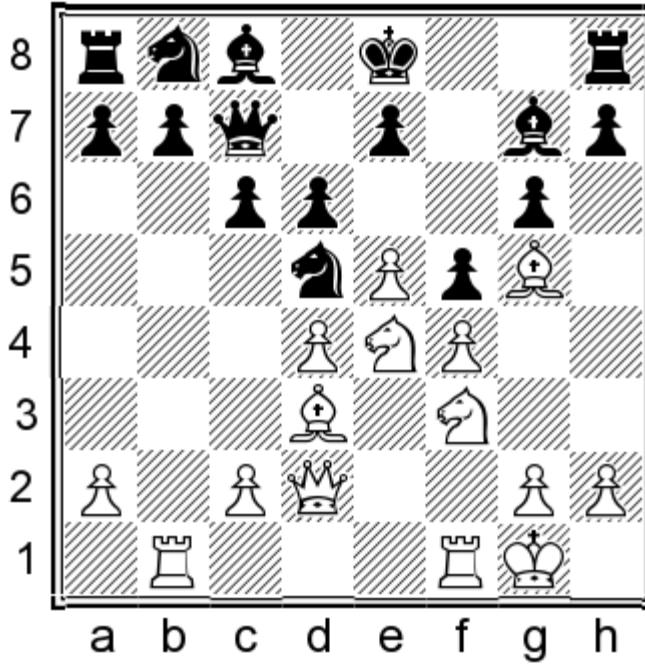
Show/Hide the answer

m > 1, t = ~1.03, ? ... TCP

22.♕e1 ♜xh4 23.♕a5 ♜e7 24.♕c7+ ♜a8 25.♕a5+ ♜b8 26.♕c7+ ♜a8 27.♖fe1 ♜d6 28.♕b6 ♜b8 29.a5 ♜d7 30.♕e8 ♜h2+ 31.♔f1 ♜xg2+ 32.♔xg2 d4+ 33.♕xb7+ ♜xb7 34.♕xh8 ♜xb5 35.a6 ♜a7 36.♕f8 ♜xb2 37.♕xf7+ ♜a8 38.a7 c3 39.♕f8 1-0

### No. 217: Dreev – Minasian

European Championship, Warsaw 2005



Position after 12...f5

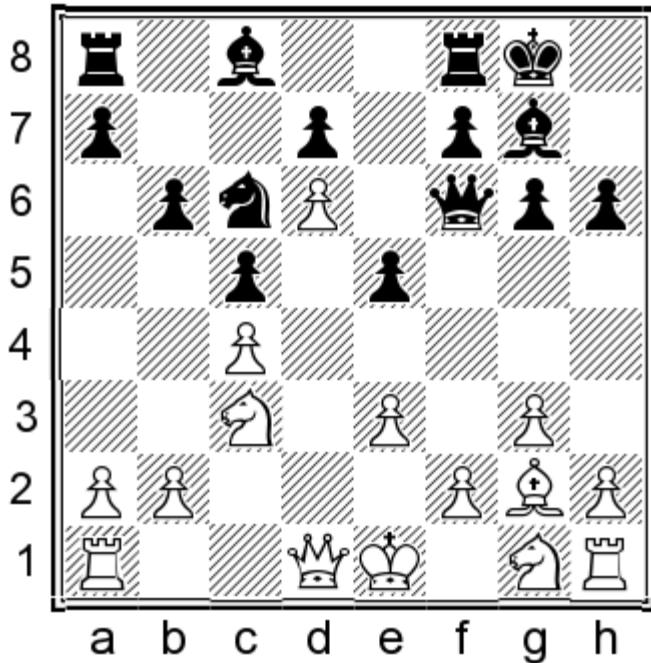
Show/Hide the answer

m < 1, t = ~1.49, small “+” ... T

13.♕xe7 ♕xe7 14.♗xd6+ ♔f8 15.♗g5 b6 16.♗b4 h6 17.♗b3 ♗d5 18.♗gf7 ♔e6 19.♗xh8 ♕xh8 20.c4 ♗e7 21.g4 ♗d7 22.♗a3 c5 23.d5 ♗xd5 24.cxd5 ♕xd5 25.♗bd1 1-0

No. 218: Euwe – Najdorf

Candidates’ Tournament, Zürich 1953



### *Position after 10...b6*

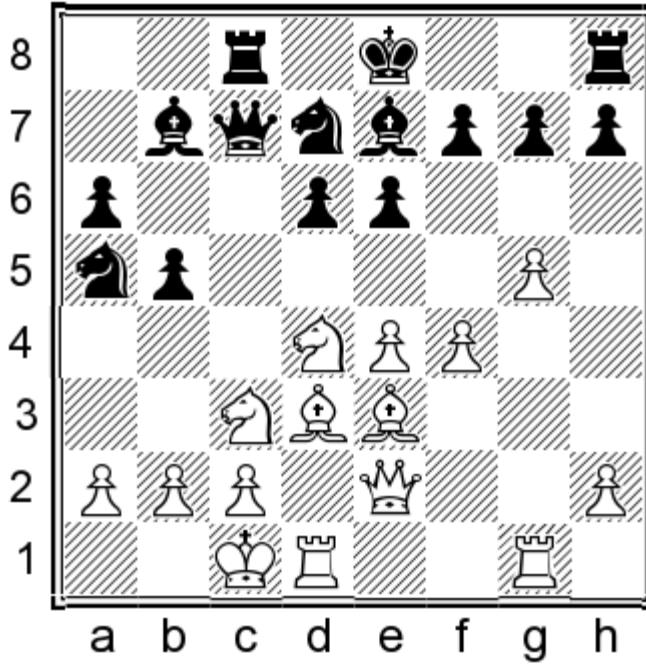
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.43$ , “ $\approx$ ” ... T

11.♕d5 ♔h8 12.♗e4 ♕d8 13.h4 f5 14.♗g5 ♔b7 15.g4 e4 16.♗e2 ♔xb2 17.♗f4 ♕f6 18.gxf5 ♔xa1 19.♗xg6+ ♔g7  
 20.♗xe4 ♔c3+ 21.♔f1 ♕xf5 22.♗f4 ♔h8 23.♗xc3 ♕ae8 24.♗ce2 ♕g8 25.h5 ♕g5 26.♗g3 ♕xg3 27.fxg3 ♕xe3 28.♔f2  
 ♕e8 29.♔e1 ♕xe1 30.♕xe1 ♔g7 31.♕e8 ♕c2+ 32.♔g1 ♕d1+ 33.♔h2 ♕c2+ 34.♔g2 ♕f5 35.♕g8+ ♔f6 36.♕h8+ ♔g5  
 37.♕g7+ 1-0

## No. 219: Sax – Vavra

Varna 1972



Position after 16...  $\mathbb{Q}d7$

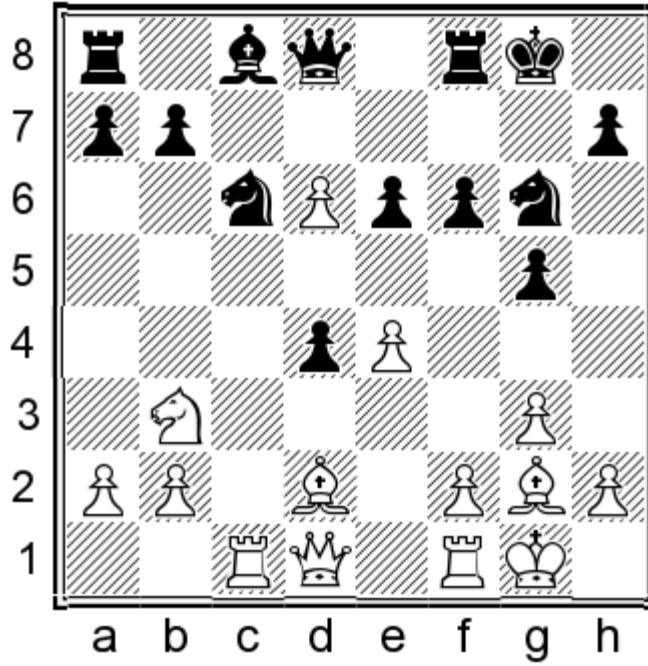
Show/Hide the answer

$m = 1$ ,  $t = 1.05$ , small “+”,  $\Delta k < 0$ ,  $\Delta(16\dots \mathbb{Q}d7) = \sim 0.33$  TC

17.g6 hxg6 18.  $\mathbb{Q}xg6$  e5 19.  $\mathbb{Q}xg7$  exd4 20.  $\mathbb{Q}xd4$   $\mathbb{Q}c4$  21.  $\mathbb{Q}dg1$   $\mathbb{Q}f6$  22. e5 dxe5 23. fxe5  $\mathbb{Q}d7$  24. e6  $\mathbb{W}f4+$  25.  $\mathbb{Q}b1$   $\mathbb{W}xd4$  26. exd7+  $\mathbb{Q}xd7$  27.  $\mathbb{Q}f5+$   $\mathbb{Q}c7$  28.  $\mathbb{W}xe7+$   $\mathbb{Q}b8$  29.  $\mathbb{Q}xc8$   $\mathbb{W}xc8$  30.  $\mathbb{W}xf7$   $\mathbb{Q}d6$  31.  $\mathbb{W}d7$   $\mathbb{W}c5$  32.  $\mathbb{Q}d1$  b4 33.  $\mathbb{Q}xd6$  1-0

### No. 220: Adorján – Hulak

Toluca Interzonal 1982



Position after 19...f6

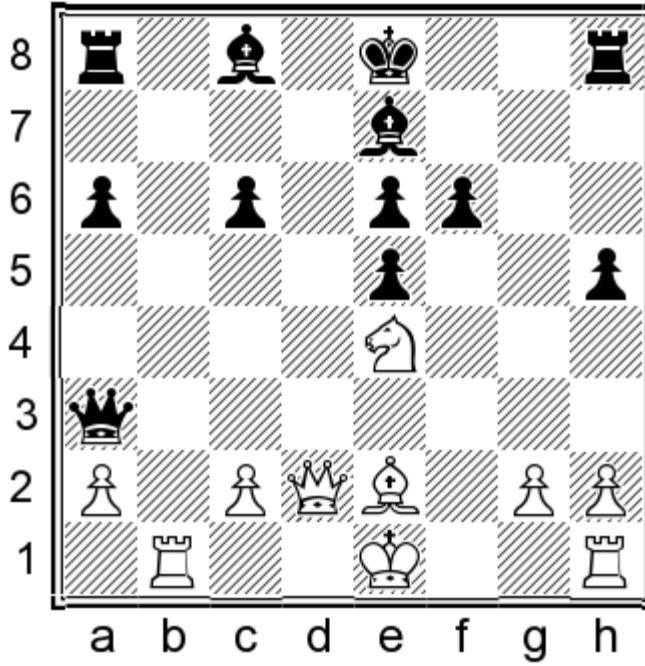
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.12$ , “micro-plus”,  $\Delta k < 0$ ,  $\Delta(19\dots f6) = 0.00$  TC

20.e5 ♜gxe5 21.♗c5 ♜xd6 22.f4 ♜d7 23.fxg5 ♜xc5 24.gxf6 e5 25.♖h5 ♜f7 26.♘h6 ♜e6 27.♘e4 ♜f8 28.♗g5+ ♔h8  
29.♗g7+ 1-0

No. 221: Ibraev – Kokarev

St. Petersburg 2003



Position after 16...h5

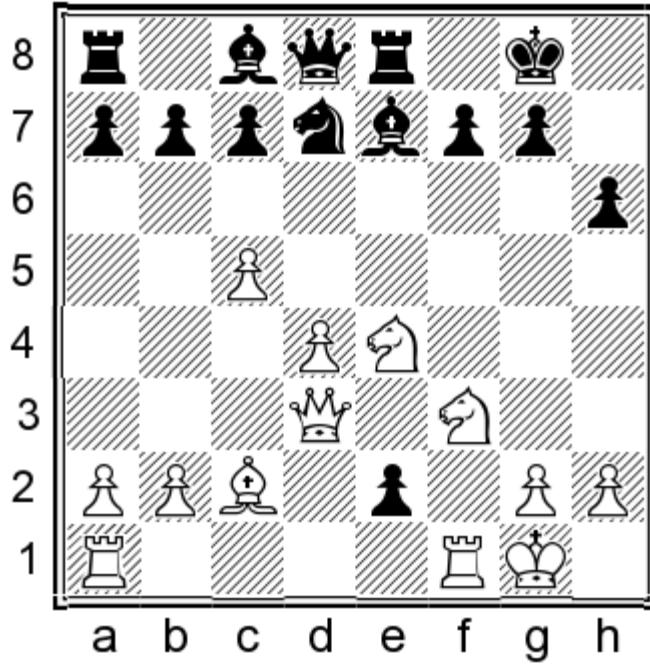
Show/Hide the answer

$m < 1$ ,  $t = \sim 1.51$ , “+” ... T

17.  $\mathbb{E}f1$  f5 18.  $\mathbb{E}f3$   $\mathbb{W}xa2$  19.  $\mathbb{E}fb3$  fxe4 20.  $\mathbb{W}c3$   $\mathbb{Q}d8$  21.  $\mathbb{W}xc6+$   $\mathbb{Q}e7$  22.  $\mathbb{W}xa8$   $\mathbb{W}xc2$  23.  $\mathbb{W}a7+$   $\mathbb{Q}d7$  24.  $\mathbb{E}b7$   $\mathbb{Q}a5+$  25.  $\mathbb{Q}f1$   $\mathbb{E}d8$  26.  $\mathbb{E}d1$   $\mathbb{Q}d2$  27.  $\mathbb{E}c7$   $\mathbb{E}f8+$  28.  $\mathbb{Q}g1$   $\mathbb{Q}e3+$  29.  $\mathbb{W}xe3$   $\mathbb{W}xc7$  30.  $\mathbb{W}g5+$  1-0

No. 222: Spassky – Bronstein

USSR Championship, Leningrad 1960



Position after 14...e2

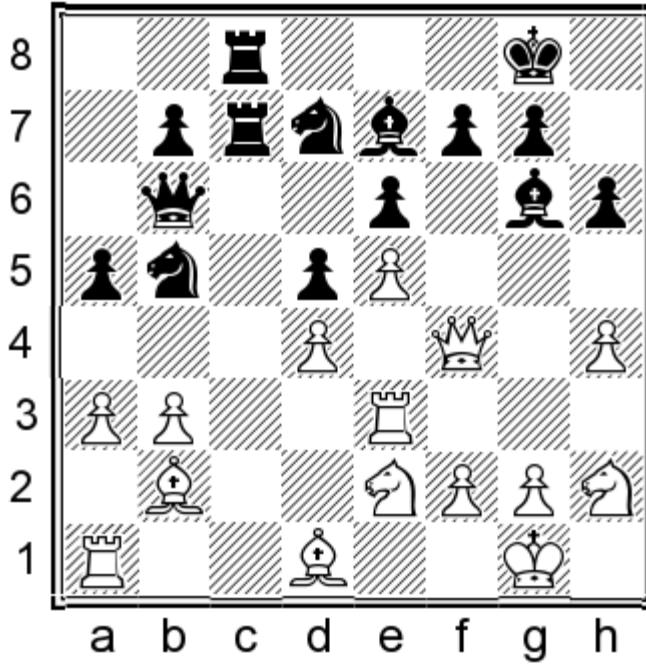
Show/Hide the answer

$m < 1$ ,  $t = \sim 1.47$ , “+” ... T

15.  $\mathbb{Q}d6$   $\mathbb{Q}f8$  16.  $\mathbb{Q}xf7$   $exf7\mathbb{W}+$  17.  $\mathbb{Q}xf1$   $\mathbb{Q}f5$  18.  $\mathbb{W}xf5$   $\mathbb{W}d7$  19.  $\mathbb{W}f4$   $\mathbb{Q}f6$  20.  $\mathbb{Q}3e5$   $\mathbb{W}e7$  21.  $\mathbb{Q}b3$   $\mathbb{Q}xe5$  22.  $\mathbb{Q}xe5+$   $\mathbb{Q}h7$  23.  $\mathbb{W}e4+$  1-0

### No. 223: Shirov – Karpov

Las Palmas 1994



Position after 23...Qh2

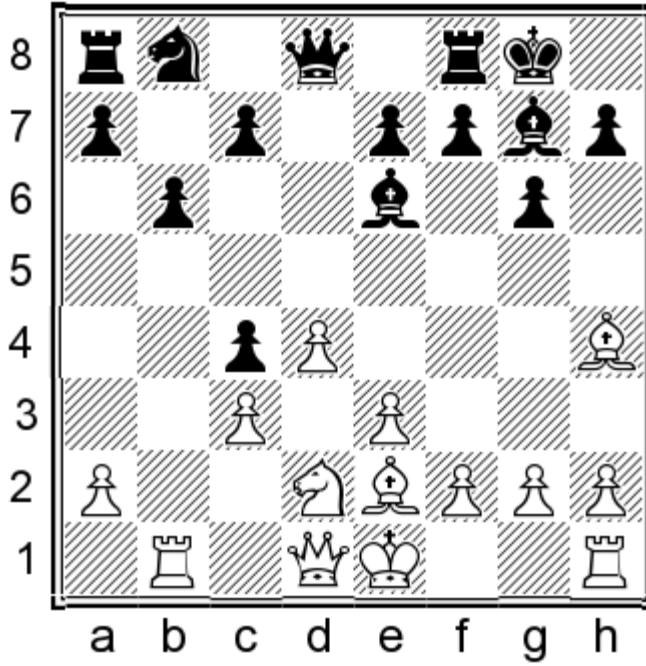
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.43$ , small “-”,  $\Delta k > 0$ ,  $\Delta(23...Qh2) = \sim -0.07$  C? CP?

23...Rc6 24.Qg4 Rd8 25.Rh3 Rf8 26.a4 Ra3 27.Qxa3 Qxa3 28.Rg3 h5 29.Qe3 Rb2 30.Ra2 Rc1 31.Qg5 Rb4 32.Qf4 Rxе3 33.fxe3 Rc1 34.Qxg6 Rxd1+ 35.Qh2 fxg6 36.Qxg6 Re7 37.Rf2 Rxh4+ 38.Rh3 Rxf2 0-1

### No. 224: Moiseenko – Svidler

Russian Club Championship, Dagomys 2005



Position after 11. ♔e2

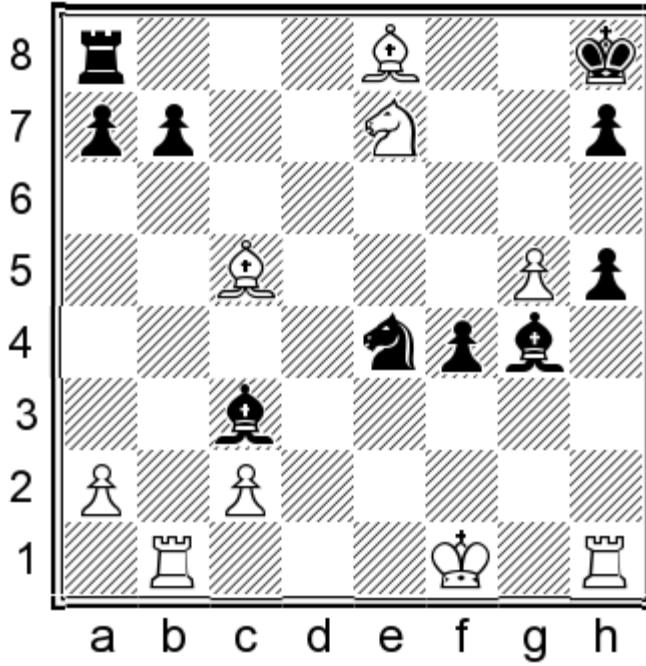
Show/Hide the answer

$m > 1$ ,  $t = \sim 0.82$ , “≈”,  $\Delta k < 0$ ,  $\Delta(11. ♔e2) = \sim -0.07$  CP

11...c5 12. ♕f3 cxd4 13.cxd4 ♗d7 14. ♗xa8 ♘xa8 15.0-0 c3 16. ♕f3 ♖c8 17. ♘a4 ♗f6 18. ♘fc1 ♗d5 19. ♘c2 a5 20.a3 ♘a6 21. ♘g3 ♘h6 22. ♘e1 b5 23.e4 b4 24. ♗e5 ♘d2 25. ♘f1 ♘b5 26.a4 ♘b7 27. ♘f3 ♘h6 28.h4 ♗b6 29.d5 ♘d7 30. ♘a1 ♗xa4 31. ♘d4 ♘b6 32. ♘b3 ♘b5 33. ♘fb1 ♗c5 34. ♘xc5 ♘xc5 35. ♘e5 ♘c8 36. ♘d1 a4 37.d6 b3 38.d7 ♘xd7 39. ♘d3 ♘b5 40. ♘h3 ♘e6 0-1

No. 225: Lasker – Napier

Cambridge Springs 1904



Position after 24...Bg4

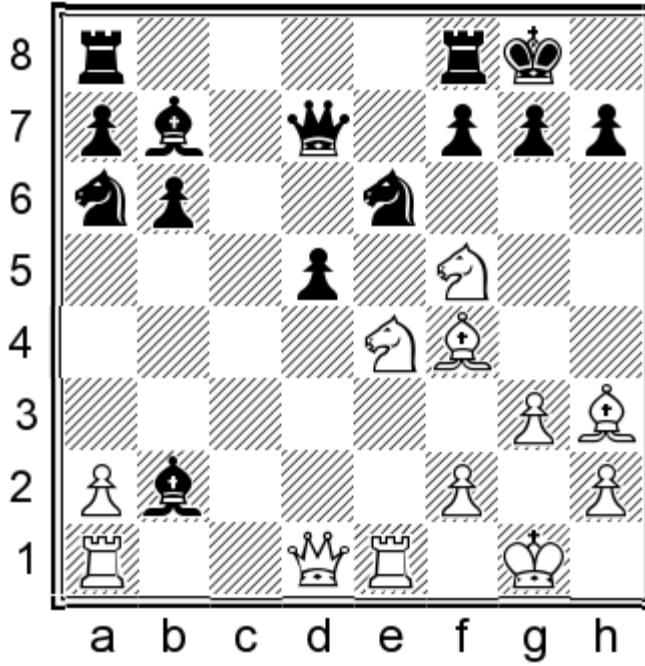
Show/Hide the answer

m >> 1, t = ~1.14, ? ... TCP

25.Qxh5 Qxh5 26.Qxh5 Qg3+ 27.Qg2 Qxh5 28.Qxb7 a5 29.Qb3 Qg7 30.Qh3 Qg3 31.Qf3 Ra6 32.Qxf4 Qe2+ 33.Qf5 Qc3 34.a3 Qa4 35.Qe3 1-0

**No. 226: Sandipan – Tiviakov**

Ottawa 2007



Position after 17... ♕xb2

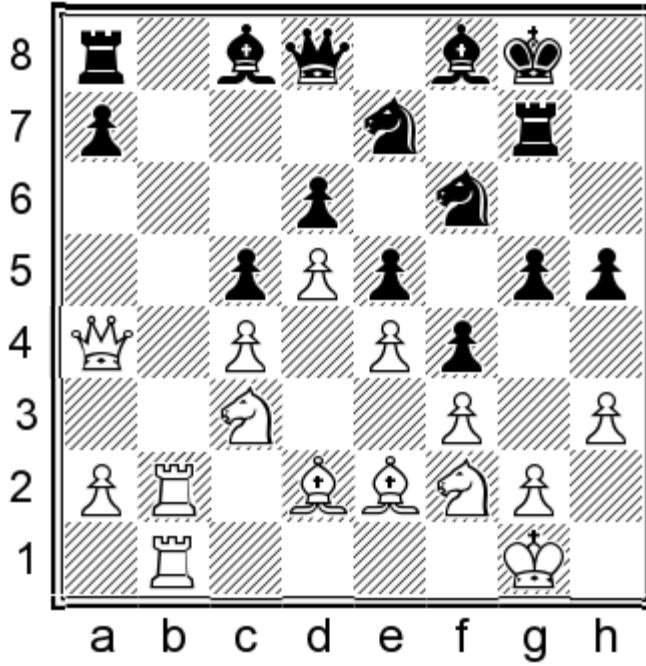
Show/Hide the answer

$m < 1$ ,  $t = \sim 1.11$ , “+” ... T

18.♕b1 ♜c8 19.♗g5 ♜f6 20.♗h5 ♜xg5 21.♗xg5 ♜e8 22.♗f6 gxf6 23.♗h6 ♜ac5 24.♗bd1 ♜b7 25.♗d4 ♜e4 26.♗exe4 dxе4 27.♗xf6 ♜c7 28.♗h6+ ♜f8 29.♗h8+ ♜e7 30.♗f5#

No. 227: Yermolinsky – A. Shashin

Leningrad 1980



Position after 20...Bg7

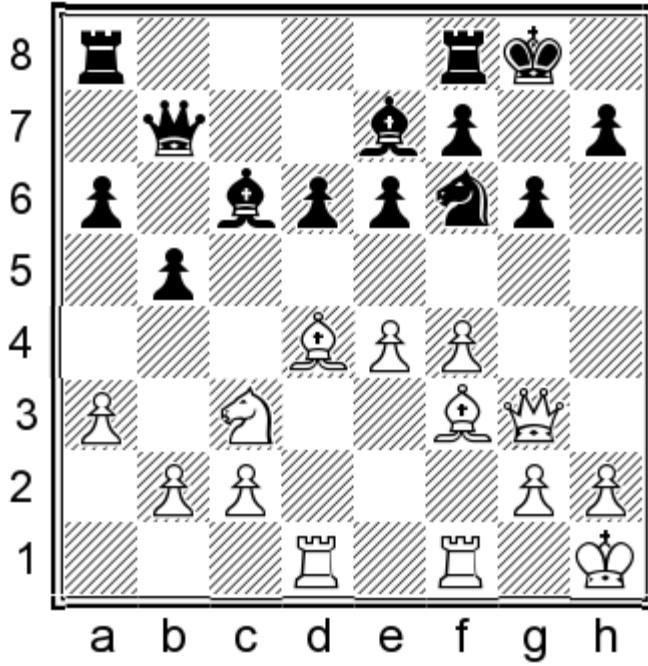
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.33$ , “-”,  $\Delta k = 0$ ,  $\Delta(20...Bg7) = \sim 0.13$  C? CP? P?

21.Qcd1 Qd7 22.Wa6 We8 23.Qa5 Qg6 24.Qc7 Qc8 25.Wa5 g4 26.fxg4 hxg4 27.hxg4 Qh4 28.Qb8 Wg6 29.Qxa8 Qxg4 30.Qxg4 Qxg4 31.Qxf8+ Qh7 32.Qxd6 Qh5 33.g4 Qxg4 34.Qh8+ Qxh8 35.Wd8+ Qh7 36.Wxh4+ Qh5+ 37.Qg4 1-0

### No. 228: Karpov – Hübner

Bad Kissingen 1980



Position after 16... Wb7

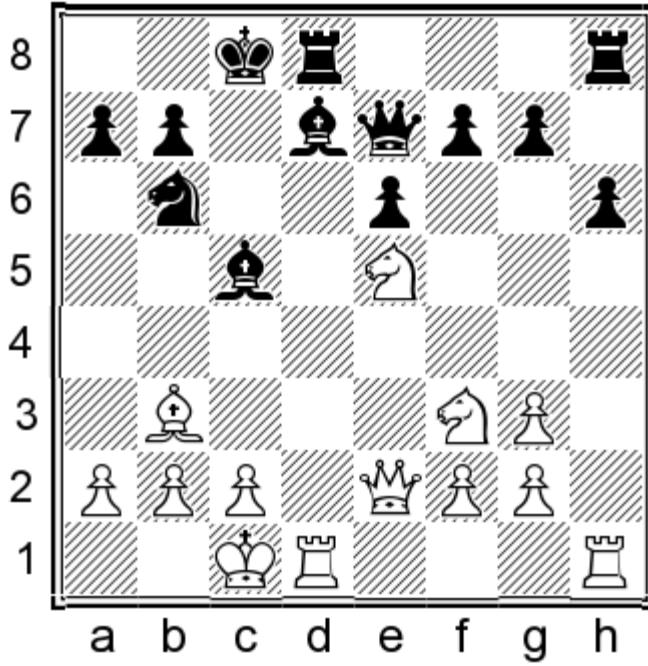
Show/Hide the answer

m = 1, t = ~1.17, “+” ... T

17.f5 e5 18.Qe3 b4 19.axb4 Wxb4 20.Qg5 Wxb2 21.Qd3 Wxc2 22.Qd1 Wb2 23.Qxf6 Qxf6 24.Qxd6 Qb5 25.Qf2 Wc1 26.Qxf6 Qac8 27.Qc2 Wa1 28.fxg6 hxg6 29.Qd6 Qc7 30.Wxe5 Qfc8 31.Wd5 Qg7 32.Wd4+ Qh7 33.Qxb5 1-0

### No. 229: Kasparov – Karpov

Linares 1992



Position after 16...0-0-0

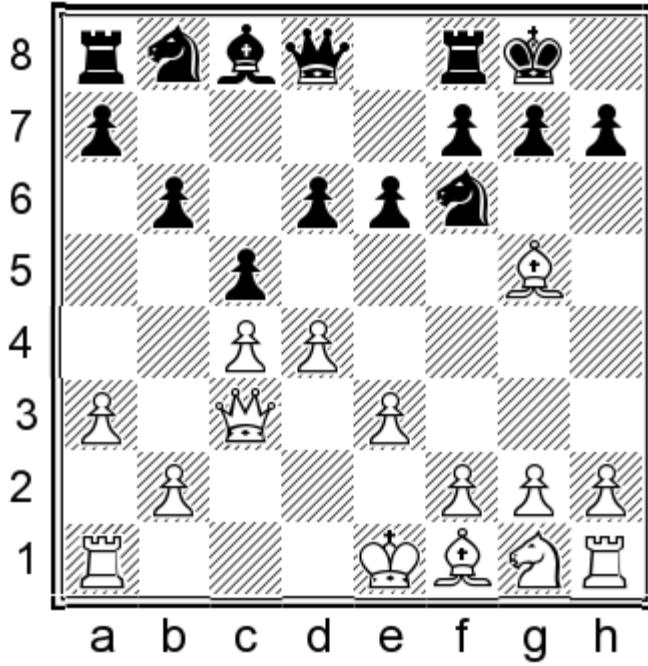
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.42$ , “ $\approx$ ”,  $\Delta k > 0$ ,  $\Delta(16\ldots 0-0-0) = \sim 0.08 T$

17.  $\mathbb{E}h5 \mathbb{Q}e8$  18.  $\mathbb{E}xd8+$   $\mathbb{Q}xd8$  19.  $\mathbb{W}d2+$   $\mathbb{Q}d6$  20.  $\mathbb{Q}d3 \mathbb{W}c7$  21.  $g4 \mathbb{Q}c8$  22.  $g5 \mathbb{Q}f8$  23.  $\mathbb{E}h4 \mathbb{Q}b8$  24.  $a4 \mathbb{Q}e7$  25.  $a5 \mathbb{Q}d5$  26.  $\mathbb{Q}b1 \mathbb{Q}d8$  27.  $a6 \mathbb{W}a5$  28.  $\mathbb{W}e2 \mathbb{Q}b6$  29.  $axb7 \mathbb{Q}xg5$  30.  $\mathbb{Q}xg5 \mathbb{W}xg5$  31.  $\mathbb{E}h5 \mathbb{W}f6$  32.  $\mathbb{E}a5 \mathbb{Q}c6$  33.  $\mathbb{Q}c5 \mathbb{Q}xb7$  34.  $\mathbb{Q}xb7 \mathbb{Q}xb7$  35.  $\mathbb{W}a6+ \mathbb{Q}c6$  36.  $\mathbb{Q}a4+ \mathbb{Q}d6$  37.  $\mathbb{W}d3+ \mathbb{Q}d5$  38.  $\mathbb{W}g3+ \mathbb{W}e5$  39.  $\mathbb{W}a3+ \mathbb{Q}c7$  40.  $\mathbb{W}c5+ \mathbb{Q}d8$  41.  $\mathbb{E}xa7$  1-0

### No. 230: Kasparov – Panno

Buenos Aires 1997



Position after 8...d6

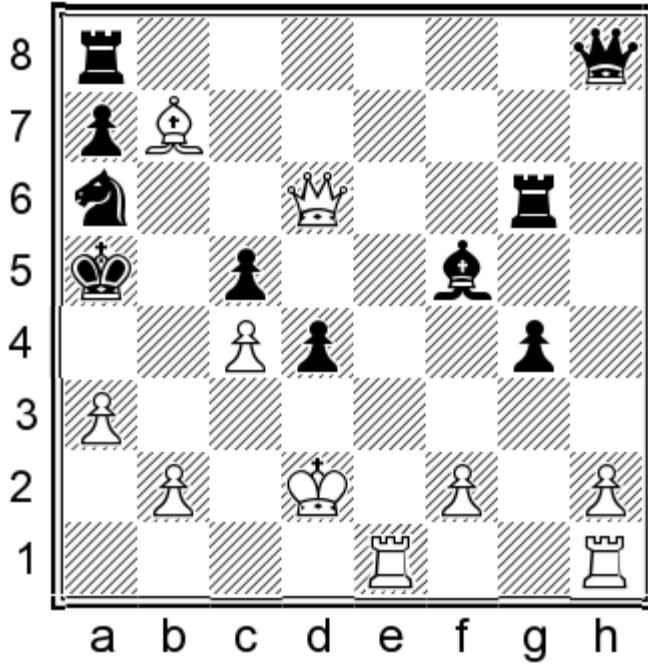
Show/Hide the answer

$m = 1, t = \sim 1.33, \approx, \Delta k = 0, \Delta(8\dots d6) = \sim 0.33$  TC

9.dxc5 bxc5 10.0-0-0 ♜e4 11.♗d3 ♜xf2 12.♗xd8 ♜xd3+ 13.♗xd3 ♜xd8 14.♗e4 d5 15.cxd5 ♜b7 16.♗e2 ♜d7  
17.dxe6 ♜xe4 18.e7 ♜e8 19.♗xd7 f6 20.♗g3 ♜g6 21.h4 h6 22.h5 ♜h7 23.♗h4 ♜f7 24.♗c4 ♜xe7 25.♗xe7+ ♜xe7  
26.♗xc5 ♜d6 27.b4 ♜e8 28.♗d2 ♜e5 29.♗xe5 ♜xe5 30.a4 ♜g8 31.b5 ♜b3 32.a5 ♜c4 33.b6 axb6 34.axb6 ♜d5 35.e4  
♜b7 36.♗e3 ♜c6 37.♗f5 ♜xe4 38.g4 1-0

No. 231: Kopylov – Korolev

corr. 1983



Position after 29...Bg6

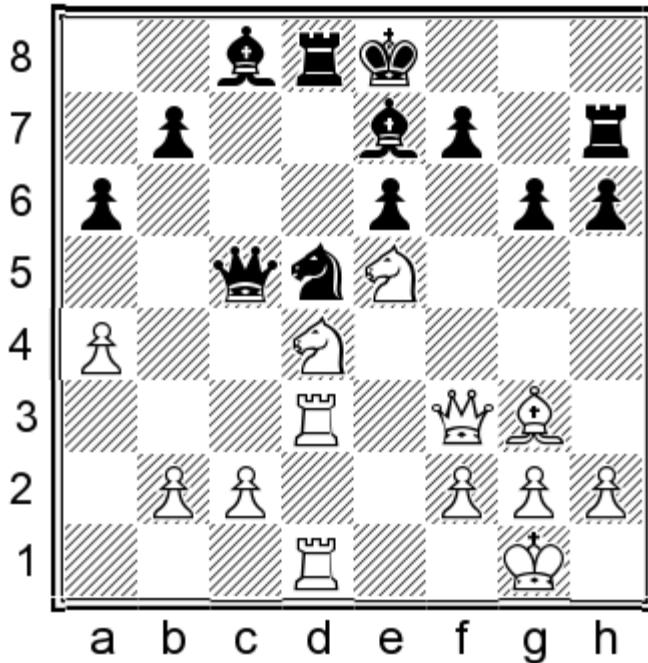
Show/Hide the answer

m < 1, t = ~1.24, “+” ... T

30.b4+ ♕a4 31.♕c6+ ♕b3 32.♗g3+ ♕b2 33.♗b1+ ♕xb1 34.♗xb1+ ♕xb1 35.♗b3+ ♕a1 36.♗c1 1-0

### No. 232: Gufeld – Bagirov

Tallinn 1981



Position after 26... $\mathbb{Q}c8$

Show/Hide the answer

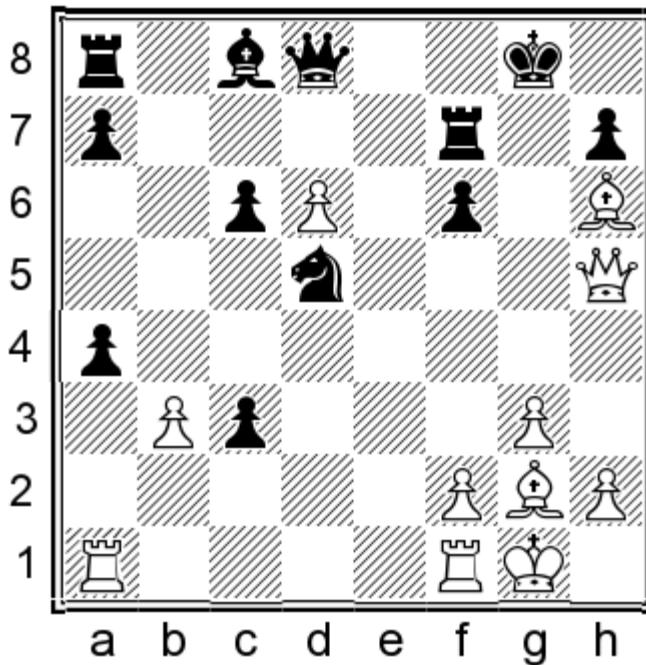
$m = 1$ ,  $t = \sim 1.16$ , small “+”,  $\Delta k < 0$ ,  $\Delta(26... \mathbb{Q}c8) = \sim 0.23$  TC? T?

27.c3 a5 28. $\mathbb{Q}b5$  g5 29.c4  $\mathbb{Q}f4$  30. $\mathbb{Q}xd8+$   $\mathbb{Q}xd8$  31. $\mathbb{Q}xf4$  gxf4 32. $\mathbb{Q}d3$   $\mathbb{Q}b6$  33. $\mathbb{Q}d6+$  1-0

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### No. 233: Nesis – Boey

corr. 1986



Position after 25...bxa4

Show/Hide the answer

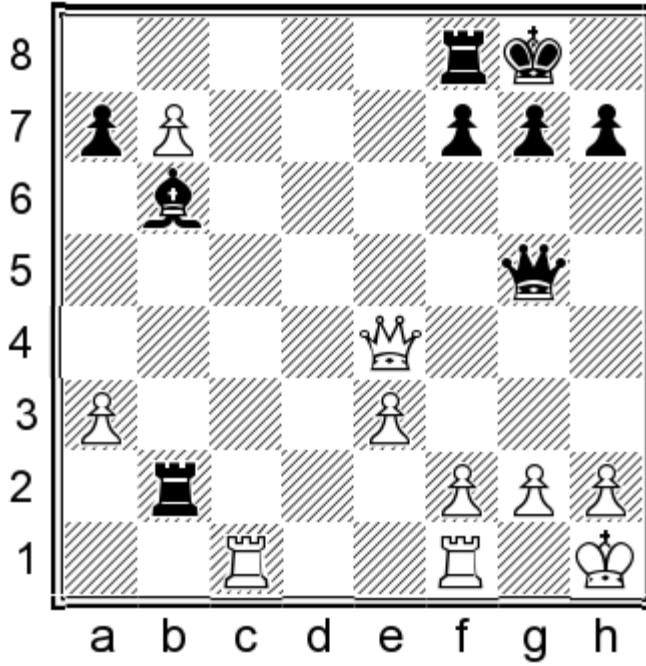
$m < 1$ ,  $t = \sim 1.22 \dots$  T

26. $\mathbb{Q}fe1$  axb3 27. $\mathbb{Q}xd5$  cxd5 28. $\mathbb{Q}e7$   $\mathbb{Q}e6$  29. $\mathbb{Q}xe6$  b2 30. $\mathbb{Q}ae1$  c2 31. $\mathbb{Q}e7$   $\mathbb{Q}xe7$  32. $\mathbb{Q}xe7$  1-0

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### No. 234: Mikhalkishin – Kasparov

USSR Championship, Frunze 1981



Position after 23.  $\mathbb{Q}ac1$

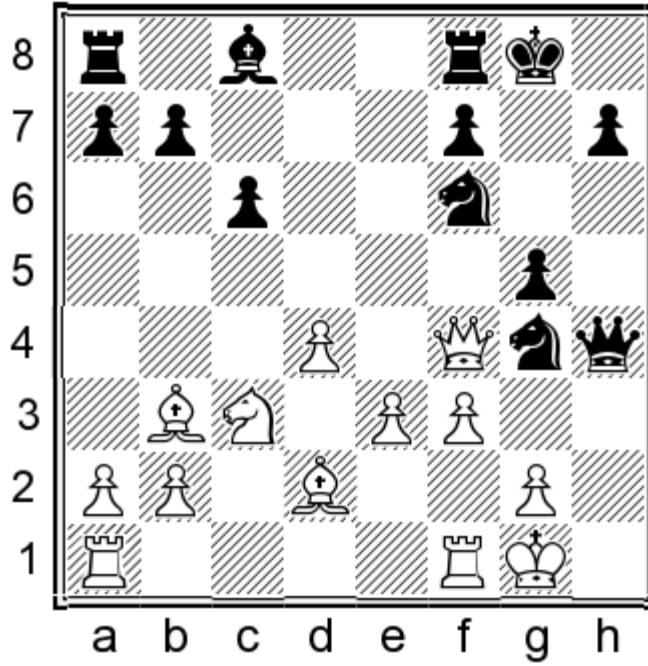
Show/Hide the answer

$m > 1$ ,  $t = 1.00$ , “ $\approx$ ”,  $\Delta k \gg 0$ ,  $\Delta(23. \mathbb{Q}ac1) = \sim 0.07$  C

23...  $\mathbb{Q}a5$  24.  $\mathbb{Q}c8$   $\mathbb{W}b5$  25.  $\mathbb{Q}fc1$   $\mathbb{W}xb7$  26.  $\mathbb{W}e8$   $\mathbb{W}xc8$  27.  $\mathbb{W}xc8$   $\mathbb{Q}d2$  28.  $h3$   $h6$  29.  $\mathbb{W}c4$   $\mathbb{Q}xc1$  30.  $\mathbb{W}xc1$   $\mathbb{Q}xf2$  31.  $\mathbb{W}c7$   $a6$  32.  $\mathbb{W}a7$   $\mathbb{Q}f6$  33.  $a4$   $\mathbb{Q}d8$  34.  $a5$   $\mathbb{Q}d1+$  35.  $\mathbb{Q}h2$   $\mathbb{Q}d2$  36.  $\mathbb{W}b8+$   $\mathbb{Q}h7$  37.  $\mathbb{W}b4$   $\mathbb{Q}ff2$  38.  $\mathbb{W}e4+$   $f5$  0-1

No. 235: Sakaev – Kobalia

St. Petersburg 1997



Position after 17...g5

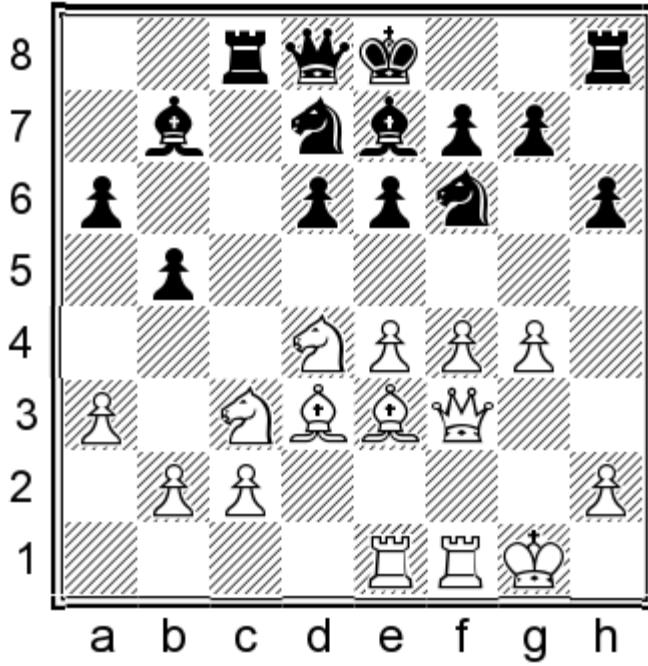
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.24$ , “-”,  $\Delta k > 0$ ,  $\Delta(17\dots g5) = \sim -0.08$  C? CP? P?

18.  $\mathbb{W}d6$   $\mathbb{Q}e8$  19.  $\mathbb{W}xf8+$   $\mathbb{Q}xf8$  20.  $f \times g4$   $f6$  21.  $\mathbb{Q}e4$   $\mathbb{Q}g7$  22.  $\mathbb{Q}d1$   $\mathbb{Q}e6$  23.  $\mathbb{Q}e1$   $\mathbb{W}h6$  24.  $\mathbb{Q}c3$   $\mathbb{W}g6$  25.  $\mathbb{Q}g3$   $\mathbb{W}d3$  26.  $\mathbb{Q}h2$   $\mathbb{Q}d8$  27.  $\mathbb{Q}e2$   $\mathbb{W}g6$  28.  $e4$   $\mathbb{Q}g8$  29.  $\mathbb{E}f2$   $\mathbb{Q}d6$  30.  $d5$   $\mathbb{W}h6+$  31.  $\mathbb{Q}g1$   $\mathbb{W}h4$  32.  $dxe6$   $\mathbb{W}xg3$  33.  $\mathbb{Q}d1$   $\mathbb{Q}f8$  34.  $\mathbb{Q}d3$  1-0

No. 236: Milos – J. Polgár

Match (4), São Paulo 1996



Position after 13.  $\mathbb{Q}ae1$

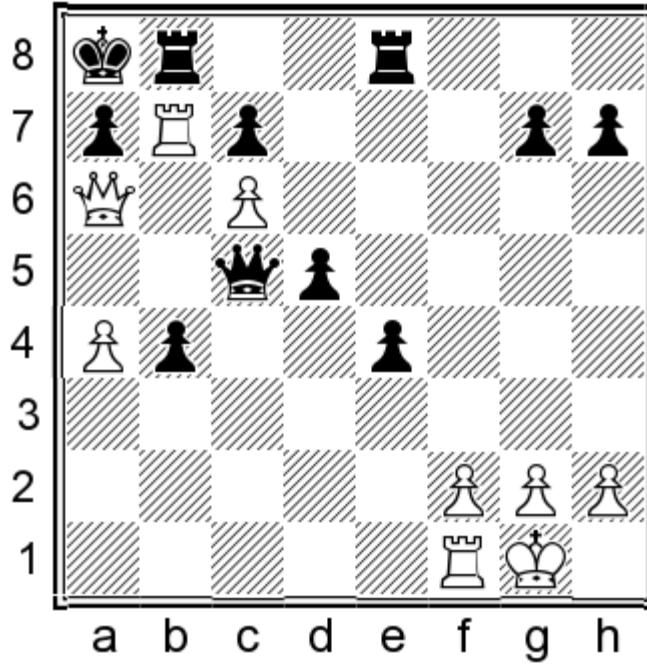
Show/Hide the answer

$m = 1, t = \sim 0.88, “-” \dots P$

13...g5 14.f5  $\mathbb{Q}e5$  15. $\mathbb{W}h3$   $\mathbb{Q}d7$  16. $\mathbb{Q}e2$  h5 17.fxe6+ fxe6 18.gxh5 g4 19. $\mathbb{W}g2$   $\mathbb{Q}xc3$  20.bxc3  $\mathbb{Q}xe4$  21. $\mathbb{W}f2$   $\mathbb{Q}xh5$  22. $\mathbb{Q}f4$  g3 23.hxg3  $\mathbb{Q}xf4$  24. $\mathbb{W}xf4$   $\mathbb{Q}h1+$  25. $\mathbb{Q}f2$   $\mathbb{Q}h2+$  26. $\mathbb{Q}e3$   $\mathbb{Q}g5$  27. $\mathbb{Q}xe4$   $\mathbb{Q}xf4$  28.gxf4  $\mathbb{Q}h3$  29. $\mathbb{Q}xe6$   $\mathbb{Q}xe6$  0-1

### No. 237: Capablanca – Raubitschek

New York 1906



Position after 26...  $\mathbb{W}c5$

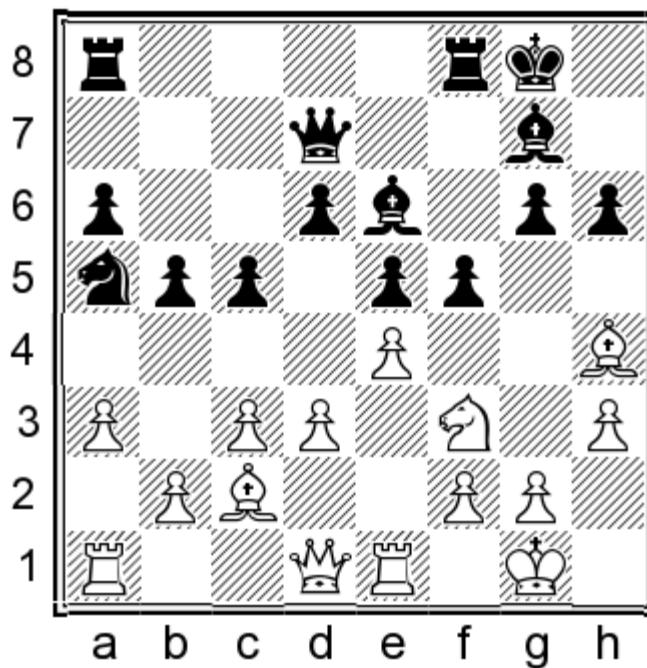
Show/Hide the answer

$m < 1$ ,  $t = 0.75$ , “+”,  $\Delta k < 0$ ,  $\Delta(26....\mathbb{W}c5) = \sim 0.80$  C? TC?

27.h3 d4 28. $\mathbb{Q}h2$  d3 29. $\mathbb{E}c1$   $\mathbb{W}xf2$  30. $\mathbb{E}f1$   $\mathbb{W}d4$  31. $\mathbb{E}f5$  e3 32. $\mathbb{E}xa7+$   $\mathbb{W}xa7$  33. $\mathbb{E}a5$  1-0

### No. 238: Tiviakov – Eljanov

Montréal 2007



Position after 18...f5

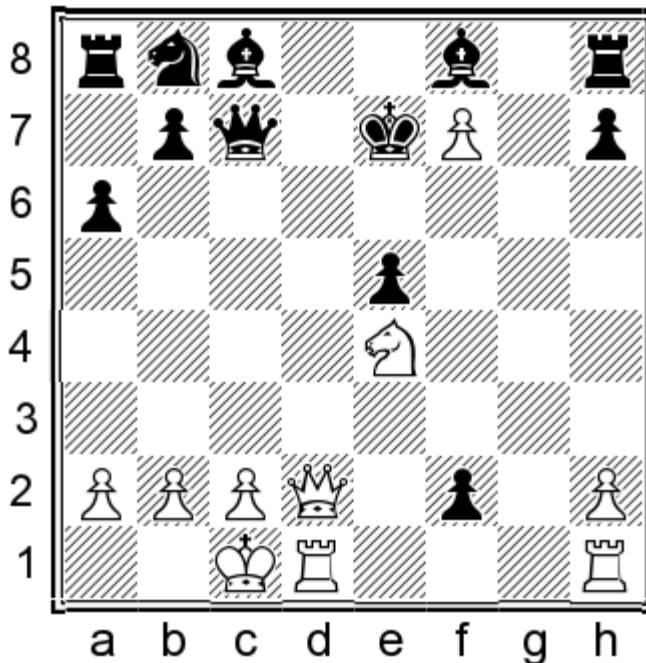
Show/Hide the answer

m = 1, t = ~0.83, “=”, Δk = 0, Δ(18...f5) = ~-0.47 C

19.d4 f4 20.dxe5 g5 21.exd6 gxh4 22.e5 ♜c6 23.b4 c4 24.a4 bxa4 25.♗xa4 ♕b7 26.♗xc6 ♕xc6 27.♗d4 ♕d7 28.♕f3 ♕h8 29.♖a5 ♕f7 30.♖c5 ♕a7 31.♕e4 ♕e8 32.♗f1 ♕d7 33.♗e2 ♕g8 34.♗a2 ♕h5 35.f3 ♕g5 36.♗xa6 ♕xh3 37.gxh3 ♕xe5 38.♗f5 ♕f6 39.♖aa5 1-0

No. 239: Astashov – Rogovoy

St. Petersburg 1997



Position after 20. ♕d2

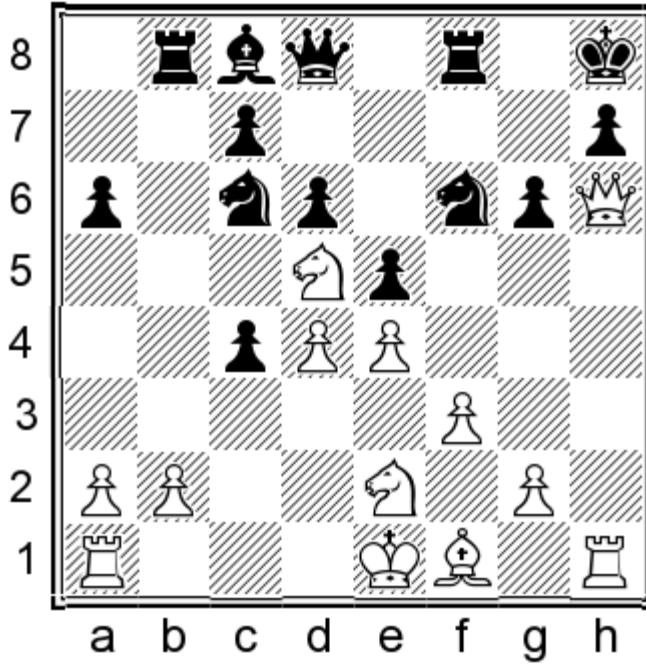
Show/Hide the answer

m >> 1, t = ~0.84, a big “-” ... P

20... ♕b6 21. ♜d6 ♜d7 22. ♜g5+ ♜f6 23. ♜d3 ♕b4 24. ♕xe5+ ♜e6 25. ♜hd1 ♜h6+ 26. ♜b1 ♕f4 27. ♕c5 f1♕ 28. ♜f5+ ♜xf7 29. ♕e7+ ♜g6 30. ♜h4+ ♜h5 31. ♕c5+ ♜g5 0-1

No. 240: Bagirov – Gufeld

Kirovabad 1973



Position after 15. Wh6

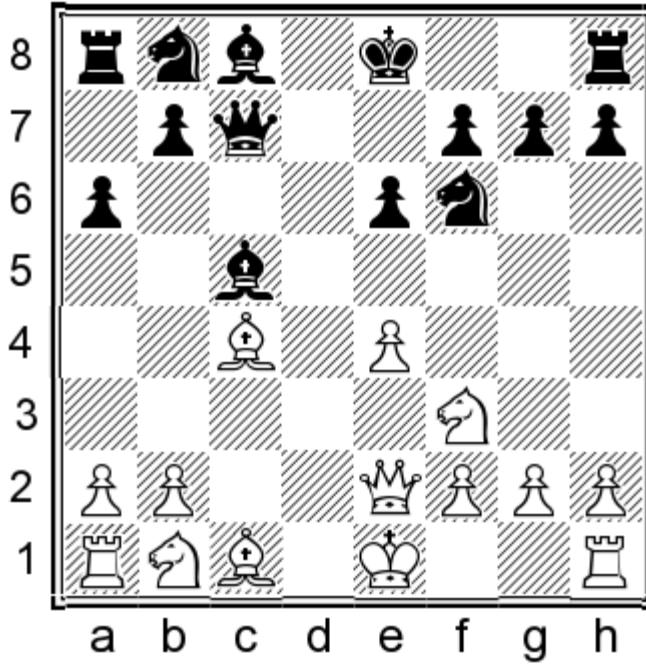
Show/Hide the answer

$m > 1$ ,  $t = \sim 0.78$ , “-”,  $\Delta k < 0$ ,  $\Delta(15. Wh6) = \sim -0.26 P$

15... ♜h5 16.g4 ♘xb2 17.gxh5 g5 18.♗g1 g4 19.0-0-0 ♘xa2 20.♗ef4 exf4 21.♗xf4 ♘xf4 22.♘xf4 c3 23.♗c4 ♘a3 24.fxg4 ♜b4 25.♗b1 ♘e6 26.♗xe6 ♜d3 27.♘f7 ♘b8+ 28.♗b3 ♘xb3+ 29.♗c2 ♜b4+ 30.♗xb3 ♜d5+ 31.♗c2 ♘b2+ 32.♗d3 ♘b5+ 0-1

### No. 241: Lputian – Dlugy

New York 1998



Position after 8...  $\mathbb{W}c7$

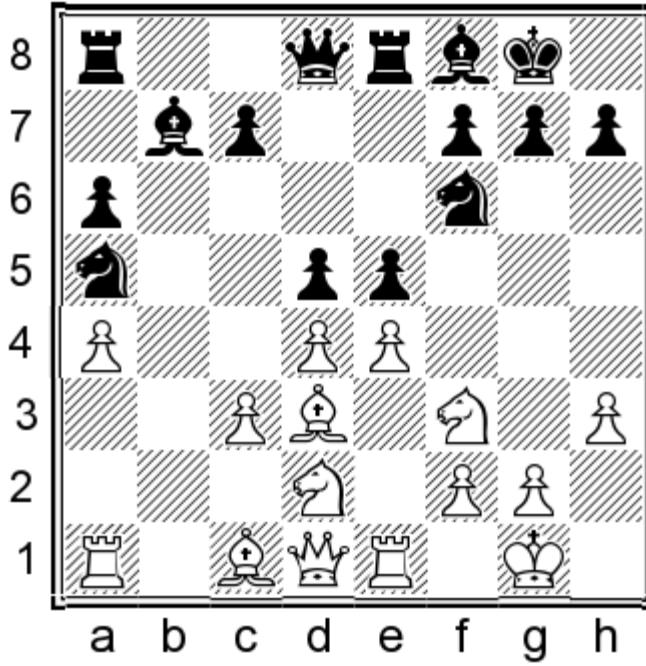
Show/Hide the answer

$m = 1$ ,  $t = \sim 0.89$ , “ $\approx$ ”,  $\Delta k < 0$ ,  $\Delta(8\dots \mathbb{W}c7) = \sim 0.00$  C

9.e5  $\mathbb{Q}g4$  10.0-0  $\mathbb{Q}xf2$  11.b4  $\mathbb{Q}h3+$  12. $\mathbb{Q}h1$   $\mathbb{Q}f2+$  13. $\mathbb{Q}xf2$   $\mathbb{Q}xf2$  14. $\mathbb{Q}bd2$   $\mathbb{Q}a7$  15. $\mathbb{Q}e4$  0-0 16. $\mathbb{Q}f6+$   $gxf6$  17. $exf6$   $\mathbb{Q}d7$  18. $\mathbb{Q}d2$   $\mathbb{Q}d8$  19. $\mathbb{Q}g5+$   $\mathbb{Q}f8$  20. $\mathbb{Q}f4$   $\mathbb{Q}c6$  21. $\mathbb{Q}d1$   $\mathbb{Q}xf6$  22. $\mathbb{Q}xd8+$   $\mathbb{Q}e8$  23. $\mathbb{Q}e5$  1-0

### No. 242: Sutovsky – Miton

Montréal 2007



Position after 15...d5

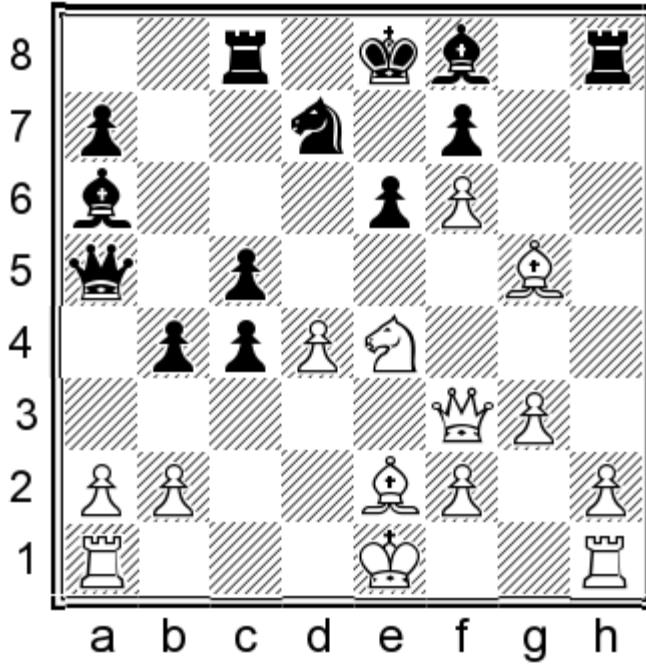
Show/Hide the answer

m = 1, t = ~1.06, “+” or ? (second-pass evaluation) ... T? TCP?

16.  $\mathbb{W}c2$  dx $e4$  17.  $\mathbb{Q}xe4$   $\mathbb{Q}xe4$  18.  $\mathbb{Q}xe4$  g6 19.  $\mathbb{Q}g5$   $\mathbb{W}d6$  20. dx $e5$   $\mathbb{W}e6$  21.  $\mathbb{Q}d4$   $\mathbb{W}d5$  22.  $\mathbb{Q}f6$  c5 23. c4  $\mathbb{Q}xc4$  24.  $\mathbb{Q}f3$   $\mathbb{Q}a5$  25.  $\mathbb{Q}h4$   $\mathbb{Q}g7$  26.  $\mathbb{Q}e4$   $\mathbb{W}d7$  27.  $\mathbb{Q}xe4$  28.  $\mathbb{W}c1$   $\mathbb{Q}xf3$  29.  $\mathbb{W}h6$  f5 30.  $\mathbb{W}xh7+$   $\mathbb{Q}f7$  31. gxf3  $\mathbb{Q}g8$  32.  $\mathbb{Q}f8+$  1-0

No. 243: Kramnik – Ehlvest

Riga 1995



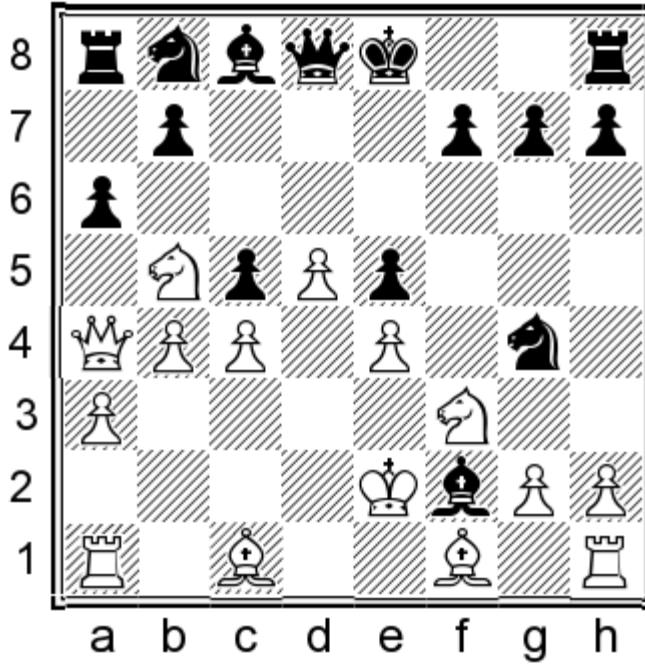
Position after 15...c5

Show/Hide the answer

m > 1, t = ~1.24, “+” ... T

16.d5 exd5 17.Qf5 dxе4 18.0-0-0 Qc7 19.Qg4 Qb5 20.Qxe4+ Qd8 21.Qxd7 Qxd7 22.Qhe1 Qh6 23.Qa8+ Qc8  
24.Qxd7+ Qxd7 25.Qd5+ 1-0

No. 244: Malaniuk – Ivanchuk  
USSR Championship, Moscow 1988



Position after 13. Wa4

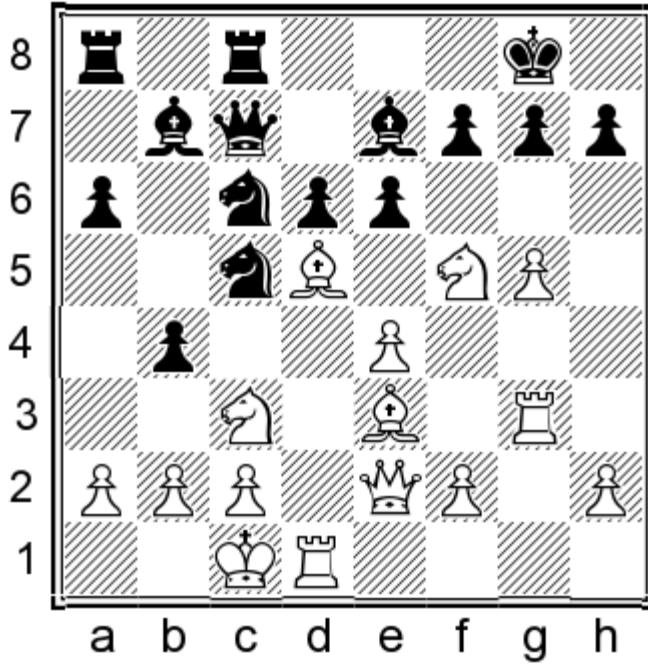
Show/Hide the answer

m = 1, t = ~1.24, “+” ... T

13...axb5 14. Wxa8 Qd4 15. Qxd4 cxd4 16. Wxb8 0-0 17. Qe1 Wh4+ 18. g3 Wf6 19. Qf4 g5 20. c5 exf4 21. Wd6 Wg7 22. Qd3 Qe5 23. Qd2 f3 24. Qxb5 g4 25. We7 Qg6 26. Wg5 h6 27. Wh5 d3 28. Qxd3 Qe8 29. h3 Qe5 30. hxg4 Qxh5 31. gxh5 Qe5 32. Qae1 Wg5+ 33. Qc2 f2 34. Qd1 We3 0-1

No. 245: Fedorov – Kobalia

Maikop 1998



Position after 16...b4

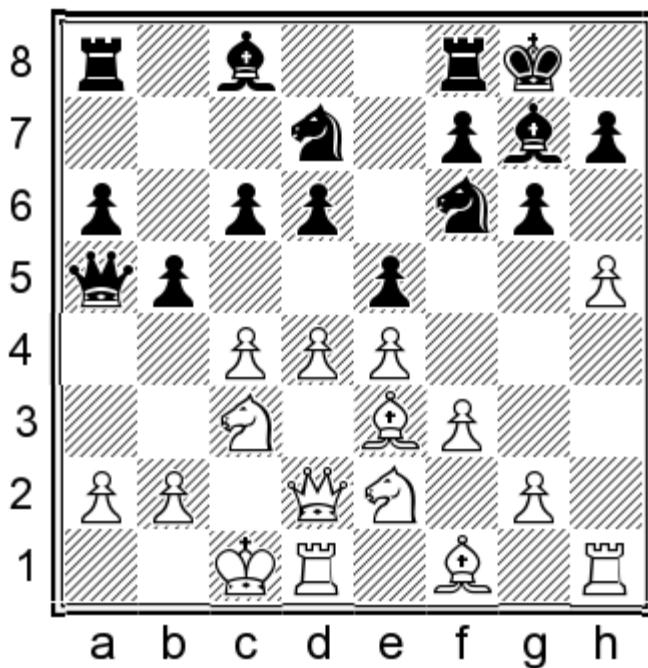
Show/Hide the answer

m = 1, t = ~1.32, ? ... TCP

17.♘xg7 ♔xg7 18.♗h5 ♜g8 19.♗xe6 bxc3 20.♗xf7 ♜a5 21.♗h3 ♔f8 22.♗f3 ♘e5 23.♗d5+ ♔g7 24.♗f7+ 1-0

### No. 246: Beliavsky – Timman

Linares 1991



Position after 11...  $\mathbb{W}a5$

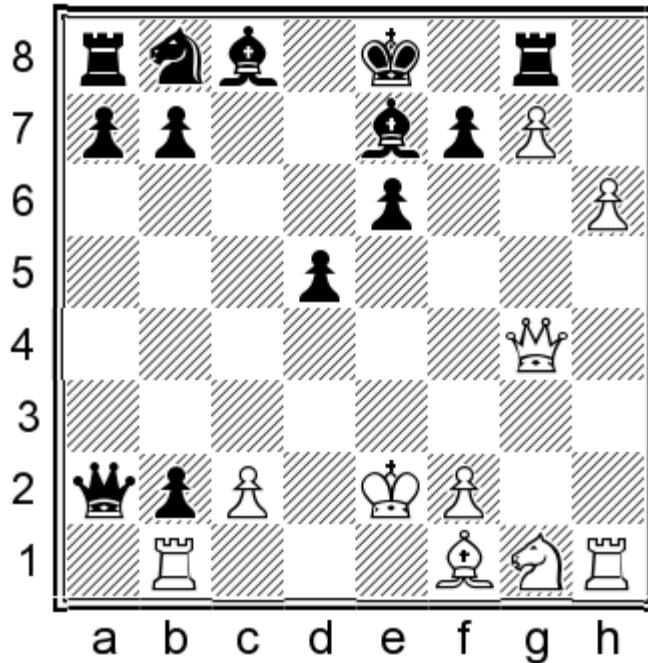
Show/Hide the answer

$m = 1$ ,  $t = \sim 1.09$ , small “+”,  $\Delta k < 0$ ,  $\Delta(11... \mathbb{W}a5) = \sim 0.06$  TC

12.  $\mathbb{Q}h6$   $\mathbb{Q}xh6$  13.  $\mathbb{W}xh6$  b4 14.  $\mathbb{Q}b1$   $\mathbb{W}xa2$  15.  $\mathbb{Q}g3$   $\mathbb{Q}b6$  16. c5  $\mathbb{Q}c4$  17.  $\mathbb{B}d2$   $\mathbb{Q}xd2$  18.  $\mathbb{Q}xd2$   $\mathbb{W}a1+$  19.  $\mathbb{Q}b1$   $\mathbb{Q}e6$  20.  $cxd6$   $\mathbb{W}a5$  21.  $\mathbb{W}g5$   $\mathbb{W}d8$  22.  $dxe5$   $\mathbb{Q}d7$  23.  $\mathbb{W}h6$  g5 24.  $\mathbb{Q}f5$   $\mathbb{Q}xf5$  25.  $exf5$  f6 26.  $\mathbb{Q}c4+$   $\mathbb{Q}h8$  27. e6  $\mathbb{Q}e5$  28.  $\mathbb{B}d1$   $\mathbb{Q}xc4$  29. e7  $\mathbb{W}e8$  30.  $\mathbb{W}xf8+$   $\mathbb{W}xf8$  31.  $exf8\mathbb{W}+$   $\mathbb{B}xf8$  32.  $\mathbb{B}d4$   $\mathbb{Q}e5$  33.  $\mathbb{Q}d2$   $\mathbb{Q}g7$  34.  $\mathbb{Q}e4$   $\mathbb{Q}f7$  35.  $\mathbb{Q}c5$   $\mathbb{B}a8$  36.  $\mathbb{B}xb4$   $\mathbb{B}a7$  37.  $\mathbb{B}d4$   $\mathbb{Q}e8$  38.  $\mathbb{Q}c2$  a5 39.  $\mathbb{Q}c3$   $\mathbb{Q}d8$  40.  $\mathbb{Q}e6+$   $\mathbb{Q}d7$  41.  $\mathbb{Q}c5+$   $\mathbb{Q}d8$  42.  $\mathbb{B}e4$  h6 43. b3  $\mathbb{B}a8$  44. g3  $\mathbb{B}b8$  45.  $\mathbb{B}xe5$   $fxe5$  46. f6  $\mathbb{Q}e8$  47. d7+  $\mathbb{Q}d8$  48.  $\mathbb{Q}d3$   $\mathbb{B}a8$  1-0

No. 247: Alekhine – NN

Moscow 1915



Position after 15...  $\mathbb{W}xa2$

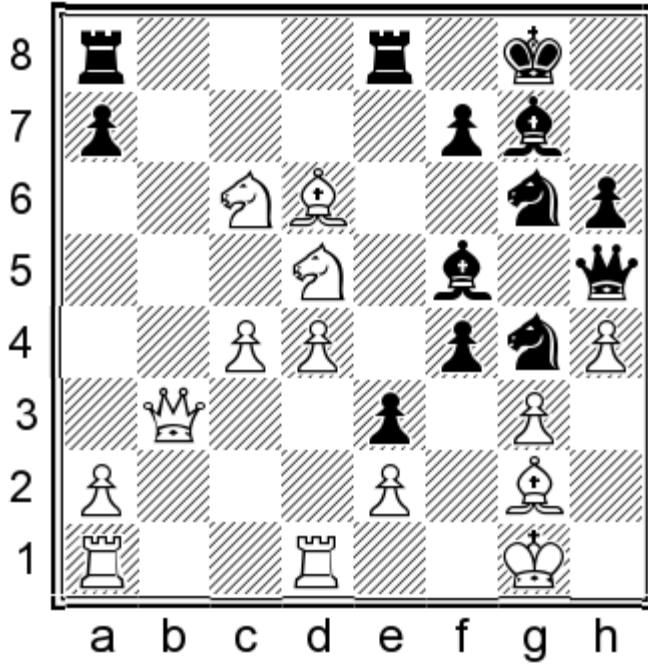
Show/Hide the answer

$m \ll 1$ ,  $t = \sim 1.18$ , ? ... TCP

16. h7  $\mathbb{W}xb1$  17.  $hxg8\mathbb{W}+$   $\mathbb{Q}d7$  18.  $\mathbb{W}xf7$   $\mathbb{W}xc2+$  19.  $\mathbb{Q}f3$   $\mathbb{Q}c6$  20.  $\mathbb{W}gxe6+$   $\mathbb{Q}c7$  21.  $\mathbb{W}f4+$   $\mathbb{Q}b6$  22.  $\mathbb{W}ee3+$   $\mathbb{Q}c5$  23. g8 $\mathbb{W}$  b1 $\mathbb{W}$  24.  $\mathbb{B}h6$   $\mathbb{W}xf1$  25.  $\mathbb{W}b4+$   $\mathbb{W}b5$  26.  $\mathbb{W}d8+$  1-0

No. 248: Ivanchuk – Yusupov

Match (9), Brussels 1991



Position after 23.h4

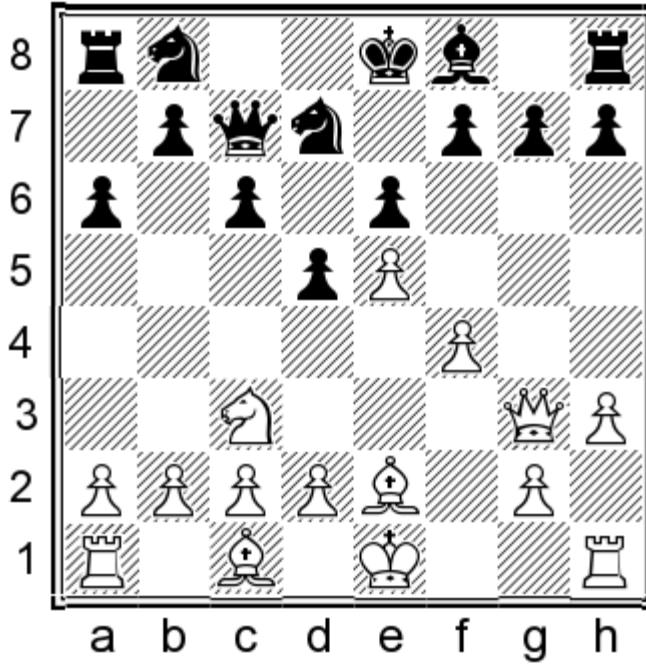
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$m < 1$ ,  $t = \sim 0.73$ , big “+” ... T

23... $\mathbb{Q}xh4$  24. $gxh4$   $\mathbb{W}xh4$  25. $\mathbb{Q}de7+$   $\mathbb{Q}h8$  26. $\mathbb{Q}xf5$   $\mathbb{W}h2+$  27. $\mathbb{Q}f1$   $\mathbb{E}e6$  28. $\mathbb{W}b7$   $\mathbb{E}g6$  29. $\mathbb{W}xa8+$   $\mathbb{Q}h7$  30. $\mathbb{W}g8+$   $\mathbb{Q}xg8$  31. $\mathbb{Q}ce7+$   $\mathbb{Q}h7$  32. $\mathbb{Q}xg6$   $fxg6$  33. $\mathbb{Q}xg7$   $\mathbb{Q}f2$  34. $\mathbb{Q}xf4$   $\mathbb{W}xf4$  35. $\mathbb{Q}e6$   $\mathbb{W}h2$  36. $\mathbb{E}db1$   $\mathbb{Q}h3$  37. $\mathbb{E}b7+$   $\mathbb{Q}h8$  38. $\mathbb{E}b8+$   $\mathbb{W}xb8$  39. $\mathbb{Q}xh3$   $\mathbb{W}g3$  0-1

No. 249: Spassky – Reshko

Leningrad 1959



Position after 9...a6

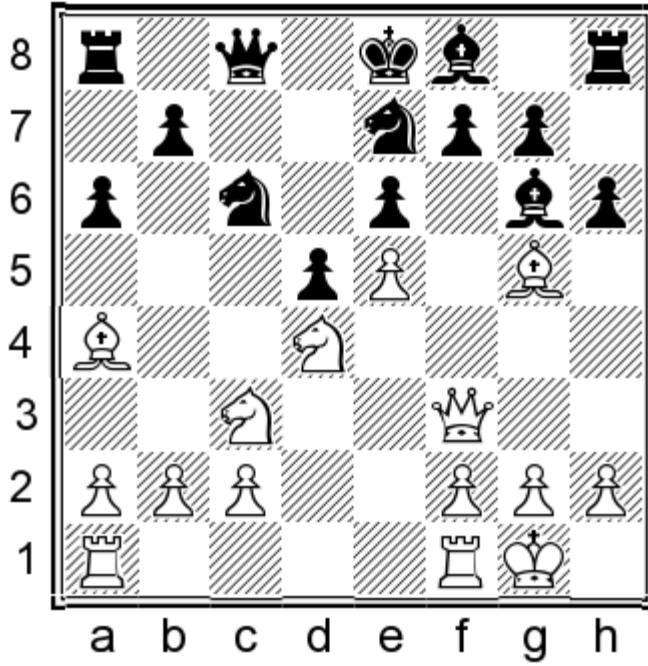
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m = 1, t = ~1.37, “≈” ... T

10.b4 c5 11.b5 c4 12.♗b1 d4 13.♘e4 axb5 14.0-0 ♜xa2 15.d3 ♜xc2 16.♗d1 ♜a2 17.f5 ♘xe5 18.fxe6 f6 19.♗xf6 gxf6 20.♘xf6+ ♖d8 21.♘d5 ♜d6 22.♘g5+ ♖c8 23.♘g4 ♘xg4 24.e7 ♘xe7 25.♘xg4+ ♖d7 26.♘xe7+ ♖c7 27.♘f4 ♘e5 28.♘g7 ♖b6 29.♘xe5 ♜f6 30.♘xd4+ 1-0

No. 250: Motylev – Bareev

Russian Championship, Moscow 2005



Position after 14...h6

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m = 1, t = 2.12, "+" ... T

15.♘f6 ♘b8 16.♗ad1 gxf6 b5 18.♘xb5 axb5 19.♘xb5 ♘xb5 20.♘xb5 ♘b7 21.c4 ♘e4 22.♗e2 ♘g8 23.f3 dxcc4 24.fxe7 ♘xe7 25.♗xc4 ♘d5 26.♗xd5 exd5 27.♗xc6 ♘xc6 28.♗xc6 ♘d6 29.♘b7 ♘g7 30.♗d1 ♘xb2 31.♗xd5 ♘e7 32.♗b1 ♘d4+ 33.♗f1 ♘c8 34.♗b7+ ♘d6 35.♘b3 ♘c1+ 36.♗e2 f6 37.♗h7 ♘g1 38.g3 ♘g2+ 39.♗d3 ♘g1 40.♗xh6 ♘e5 41.f4+ ♘f5 42.♘a4 ♘e6 43.♗e4 ♘xh2 44.♗b3+ ♘e7 45.♗f5 ♘xg3 46.♗xf6 ♘f2 47.♗e6+ ♘d7 48.♗e4 ♘h4 49.♗g6 ♘e7 50.♗f7 ♘a3 51.♗e6+ ♘d6 52.♗d4+ ♘c5 53.♗a4 ♘b2 54.f5 ♘h2 55.f6 ♘h6 56.♗f4 ♘d6 57.♗b3 ♘c3 58.♗f1 ♘d4 59.♗f5 ♘e5 60.♗f3 ♘d4 61.a4 ♘b2 62.♗c4 ♘c5 63.♗d3 ♘b4 64.♗b5 ♘h1 65.♗e6 ♘e1+ 66.♗d7 ♘d1+ 67.♗c8 ♘c1+ 68.♗b7 1-0