

**Alexander SHASHIN**

**BEST PLAY:  
A New Method  
For Discovering  
The Strongest Move**



# Table of Contents

Foreword by GM Alexander Morozevich .....	5
Introduction .....	7

## **PART I**

<b>A Universal Method for Discovering the Strongest Move</b> .....	9
Chapter 1. An Overview of Part I .....	11
Chapter 2. Tal's Algorithm, or the Algorithm for Attacking Material Chess Targets .....	15
Chapter 3. Capablanca's Algorithm, or the Algorithm for the Strongest Strategic Move .....	45
Chapter 4. Petrosian's Algorithm, or the Defensive Algorithm .....	79
Chapter 5. Mixed Algorithms, or the TC, CP, and TCP Algorithms for Discovering the Strongest Move .....	118
Chapter 6. The Algorithm Drift Chart and the Search for the Strongest Move .....	160

## **PART II**

<b>A Universal Method for Discovering the Strongest Move, in Practice</b> .....	169
Chapter 1. Simple Examples .....	171
Chapter 2. Medium-Difficulty Examples .....	206
Chapter 3. Complex Examples .....	258
Chapter 4. The Second-Pass Evaluation .....	323
Chapter 5. Selected Examples .....	338
Chapter 6. Positions for Self-Study .....	350
Solutions .....	382

# 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 “Morozovich 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, Morozovich 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.

## Best Play

---

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 1

## 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!

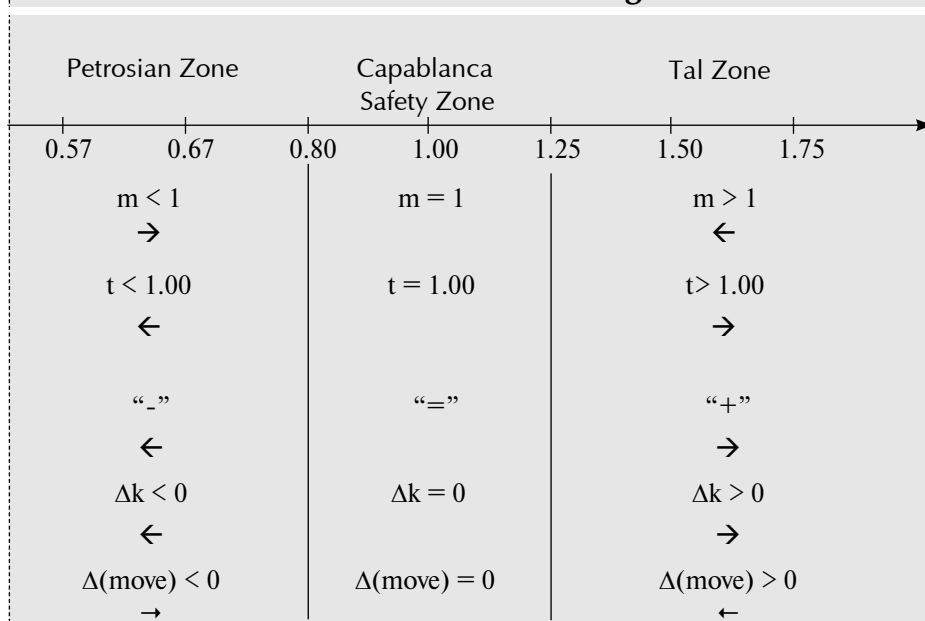
The five parameters of the chess position, the fundamental and non-fundamental algorithms, the Algorithm Drift Chart for searching for the strongest chess move — all this is our chess environment. We must live in this environment and make it our home.

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



*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 subse-

quent 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

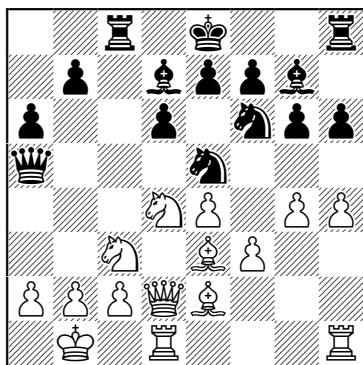
When attacking in “Tal style” the stronger side must:

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

will do humbly, without envy, but respectfully and with the greatest eagerness...

### No. 1: Tal – NN

Simultaneous exhibition, Stuttgart 1958



Position after 13... Nxe5

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...hxc5 15. hxc5

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...Rxc5

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...Qxd2

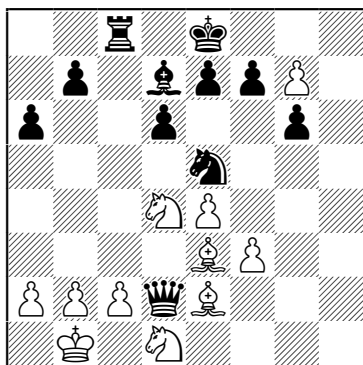
Shall we exchange queens?

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

There comes

#### 18. fxg7

(see diagram next page)



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...

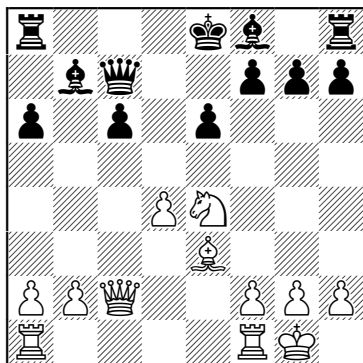
The squares e8, g5, h1, d1, d2, f6, and g7 – these are inner and outer squares of the rectangle d1-d8-h8-h1. The main events take place within this rectangle and on its perimeter. In other words, the rectangle d1-d8-h8-h1 is in fact, the area of attack – the sector where Tal tore apart his hapless opponent.

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. ♘c3 ♘c6 3. ♗f3 ♗f6 4. e3 e6 5. d4 d5 6. cxd5 ♗xd5 7. ♕c4 ♗b6 8. ♕b5 a6 9. ♕xc6+ bxc6 10. 0-0 ♕b7 11. ♗e4 ♗d7 12. ♗c2 ♖b6 13. ♗e5 cxd4 14. ♗xd7 ♗xd7 15. exd4 ♕e8 16. ♕e3 ♖c7.

We see that Black has already lost the right to castle after 14...♗xd7. 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.

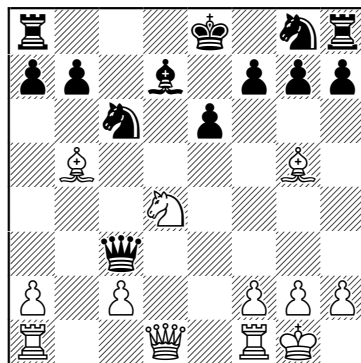
The position after 16...♖c7 yields a strong advantage for White.

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...♖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 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.

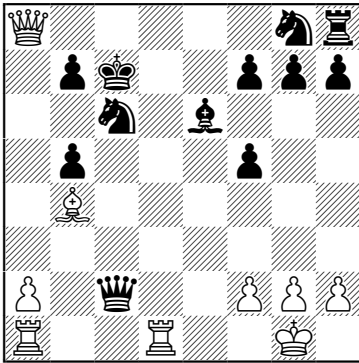
**14...a6 15.** ♙d2

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.

***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.**