Alexander SHASHIN

BEST PLAY:
A New Method
For Discovering
The Strongest Move

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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 pecularities 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 "Morozevich 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, Morozevich 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 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 Δ(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 Δk and Δ(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 factor is the factor of *safety* in a chess position;
> 4) Parameter Δk stands for the first of two *space* factors of a chess position; and
> 5) Parameter Δ(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 factor is the factor of *safety* in a chess position;

4) Parameter Δk stands for the first of two s*pace* factors of a chess position; and

5) Parameter Δ(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.
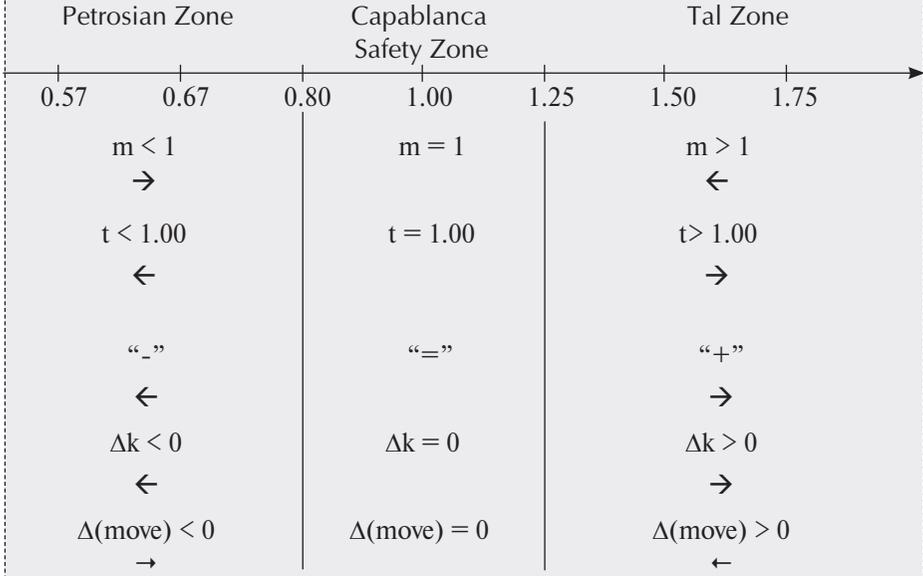
An Eastern saying goes: "A journey of a thousand miles begins with a single step." We will be taking that step very soon — the first step on the road to our dream, along the endless road of chess...

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)

Petrosian Zone	Capablanca Safety Zone	Tal Zone

0.57   0.67   0.80   1.00   1.25   1.50   1.75

m < 1	m = 1	m > 1
→		←
t < 1.00	t = 1.00	t > 1.00
←		→
"–"	"="	"+"
←		→
$\Delta k < 0$	$\Delta k = 0$	$\Delta k > 0$
←		→
Δ(move) < 0	Δ(move) = 0	Δ(move) > 0
→		←

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 Δk parameter: the factor of *compactness* in a chess position;
5)   the Δ(move) parameter: the factor of increased space *(spatial 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.