

Grandmaster Preparation

CALCULATION

By

Jacob Aagaard



Quality Chess
www.qualitychess.co.uk

Contents

	Key to Symbols used	4
	Foreword by Boris Gelfand	5
	Series Introduction	6
	Concentration, Concentration, Concentration	7
	Calculation Theory in 60 Seconds	11
1	Candidate Moves	15
2	Combinational Vision	43
3	Prophylaxis	77
4	Comparison	103
5	Elimination	123
6	Intermediate Moves	145
7	Imagination	163
8	Traps	199
9	Tests	220
10	Difficult Positions	251
	Name Index	298

Foreword

I have always liked books with challenging exercises. No matter what level you reach, it is important to keep your mind sharp and ensure that your calculation is as quick and precise as it can be. This can only be achieved by continuous practice.

After I told Jacob Aagaard that I had worked with his book *Practical Chess Defence*, he started to send me exercise positions, some of which can be found in the *Quality Chess Puzzle Book* (co-written with John Shaw) and now this book. I have enjoyed solving these positions over the last few years and found them helpful. I am sure the same will be true of the reader. There is no shortcut to the Grandmaster title, but there is a well-known route that many people have walked over the years. Jacob offers to guide you on part of this journey and I hope you will take him up on the offer.

Boris Gelfand

Winner of 2009 World Cup and 2012 World Championship Challenger

Series Introduction

Ever since I was a junior I have been a chess trainer. At times my dissatisfaction with the conditions for trainers has caused me to be a player as well; and not without some success. But at the end of the day I have had to accept that my destiny is not to feel comfortable on the stage, but rather in the anonymity of the locker room. I have always cared more for the results of my students than my own, just as I have always had lots of passion for training others, but none for training myself.

Over the years I have developed some of the skills necessary to become a decent trainer, not least of all the ability to earn a living by other means! Among other things this means I have become a chess writer. From the moment I started taking pride in my work, I have developed into a not entirely bad one, to the degree where I am finally comfortable enough to publish this series of books, which I have been dreaming about for years.

The series title *Grandmaster Preparation* is of course a little joke, as the five books originally planned do not include any coverage of the opening. But it is also a serious point at the same time. Grandmaster play does not occur in a vacuum, and it consists of much more than opening preparation, random intuition and even more random calculation. There are rules and methods that have been successful for many decades and will continue to be so in the future. One of my main objectives with this project has been to merge this classic understanding of chess with my own ideas and create a serious training plan for ambitious players.

This is the most ambitious project I have undertaken in my professional life, and there is no escaping the unavoidable imperfection of the execution. I hope the reader will forgive me in advance for any mistakes, but at the same time offer me the confidence to believe in most of what I claim throughout these books. They are heavily researched and based on my experience of working with close to a thousand individuals over the years: from my own daughters, who recently discovered the joy of capturing a piece, to friends who have been involved in World Championship matches. So, please develop your own understanding of chess by questioning everything I say, but at the same time, please never disregard anything I say as unfounded.

When I was a young man I had no access to a classical chess education, and many other grandmasters have had the same experience. It is my hope that this series will help to change this picture in the same way that Mark Dvoretsky's books have, and the way that Artur Yusupov's series of nine books (*Fundamentals*, *Beyond the Basics* and *Mastery*) have given juniors and amateurs a clearly-structured method of improvement.

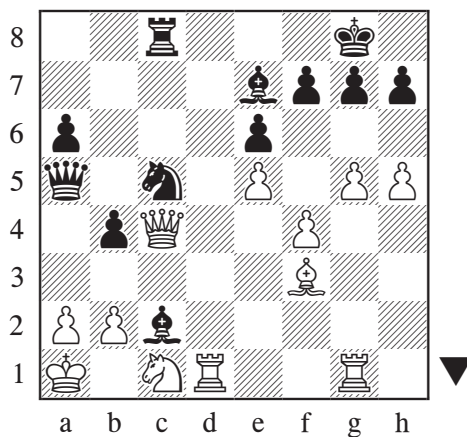
The ultimate goal for this series is to show a path towards playing chess at grandmaster level for those who do not have access to a good trainer. I have worked with some grandmasters who had the kinds of holes in their chess understanding that would baffle the average man on the street. Obviously they excelled in other aspects of the game simultaneously, but over time their weaknesses became obvious to their opponents and their results duly suffered. This series is meant to help those players as well.

Chapter 1

Candidate Moves

Pogos Nakhapetiane – Sergei Zhigalko

Olginka 2011



Black to play

Black had just given up the exchange to regain his earlier sacrificed pawn. Seemingly he was so glad about this that he failed to actually *look* at the position and the opportunities he has in it.

Alexander Kotov famously introduced the idea of candidate moves into chess literature in *Think Like a Grandmaster*. The idea is simple and powerful. Rather than calculating endlessly on his first genius inspiration, Kotov suggested that the strong chess player would instead apply a bit of structure to his thinking and look for options first.

Kotov then went from this sound position to a land of trees and mechanical thinking that no one has returned to with their sanity intact. We shall not repeat this mistake.

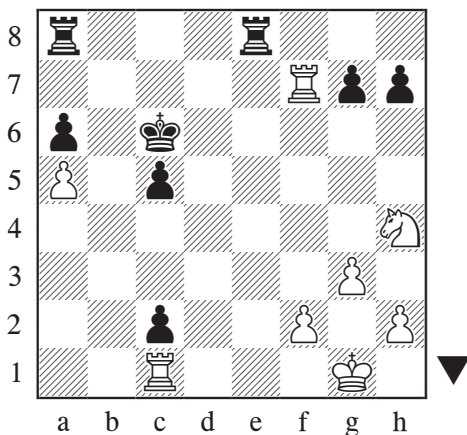
Instead we shall focus on **candidate moves and ideas** as a simple technique to become more creative. The idea is simple (as it should be). By focusing on looking for ideas that have not revealed themselves at once to our divine selves, we open up for our human ability to discover something new – in this case about the position right in front of us.

In my previous book on calculation, *Excelling at Chess Calculation*, I called the first chapter *Before you can think, you need to learn how to see*. This is what candidates are all about.

Let's start with a simple example.

David Berczes – Hans Tikkanen

Stockholm 2010



Black is a piece down and lost a long ending after 28...♖e2? 29.♗f3 ♜ae8 30.♔f1 without real counterplay. If Tikkanen had used this moment to look at the position instead of thinking, chances are that he would have seen a much better move.

28...♞e1†!

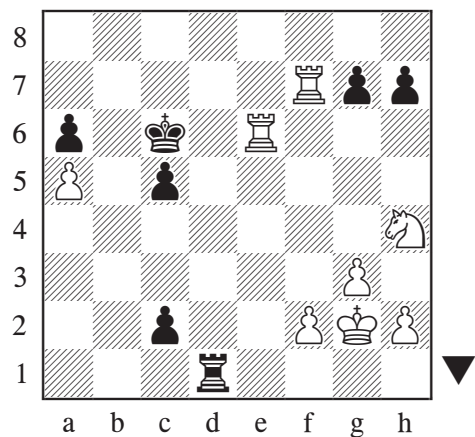
Quite a surprising move if you have not spent a few moments looking at it. But once you see it, the idea is obvious. White cannot prevent Black from making something of his only asset and promoting the pawn.

29.♞xe1 ♜d8!

A bit of accuracy. Obviously this decision can be classified as comparison, but in the end all calculation techniques are based on looking for moves we have not seen immediately.

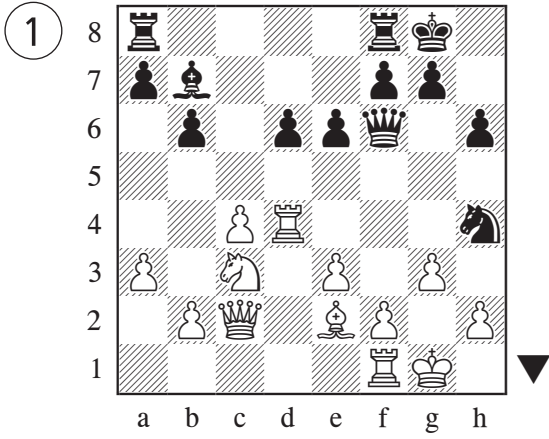
The point is of course that 29...♞b8? would land the rook on the wrong side of the pawn and allow White to eliminate it with 30.♞fe7! ♞b1 31.♞7e6† ♔c7 32.♞6e2, when the extra piece will guarantee him an extra point.

30.♔g2 ♜d1 31.♞e6†!

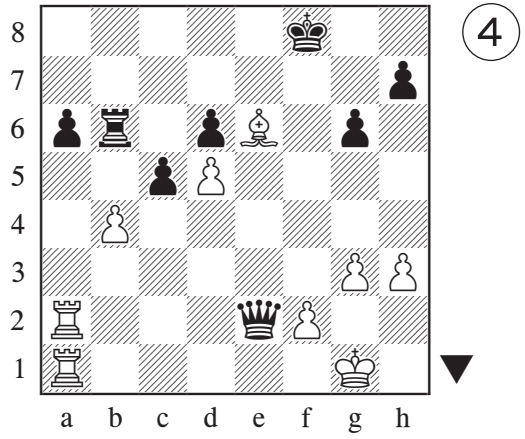


Black is now faced with a trickier decision, but no doubt it would be one Tikkanen would have been grateful to be allowed to make.

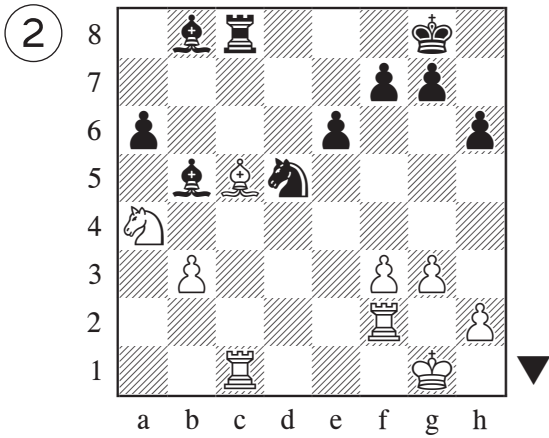
Golod – Gerzhoy, Philadelphia 2011



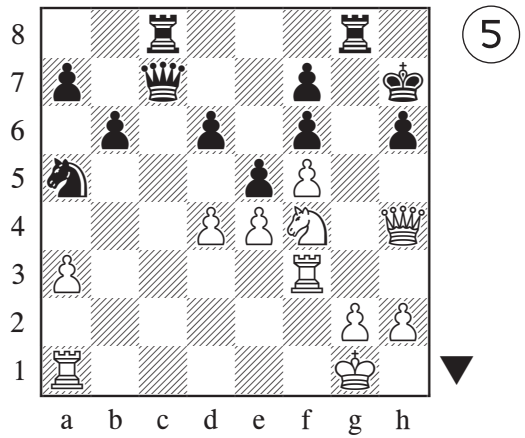
Navara – Ivanchuk, Wijk aan Zee 2012



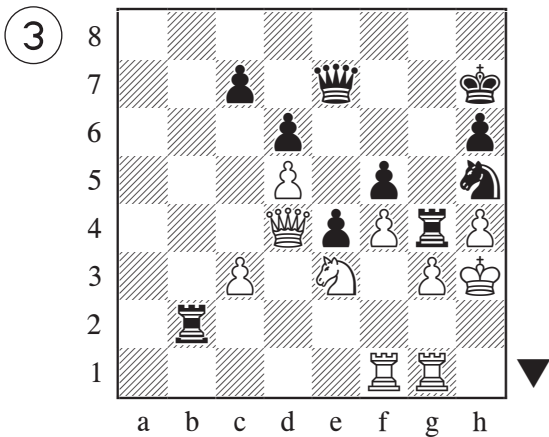
Romanko – Shulakova, Moscow 2012



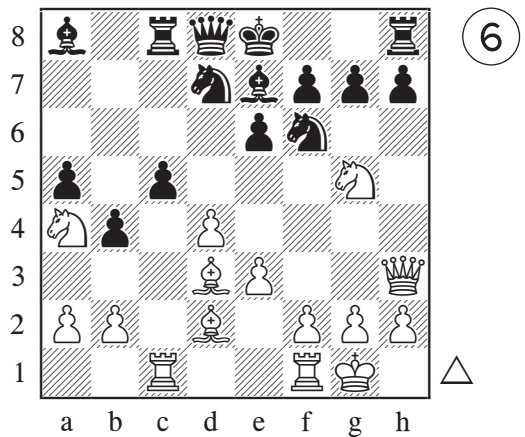
Nebolsina – N. Kosintseva, Moscow 2010



A. Hunt – Galdunts, Gold Coast 2000



Fressinet – Brunner, Mulhouse 2011



1. Golod – Gerzhoy, Philadelphia 2011

18...♖f3! White resigned. 0–1

2. Romanko – Shulakova, Moscow 2012

Black missed a direct win, after getting the first move right. 34...♙xa4 35.bxa4 ♙a7! It is important to throw in this move. In the game Black played 35...♗b4? and eventually only drew after 65 moves. White did not reply in the most accurate way here, as simply 36.♙d1! would have solved all of her worries at once and maybe even made Black's practical experience a bit troublesome. 36.♙fc2 ♗b4 This works now. Most likely Black overlooked the idea of ...♙xc5 and ...♗d3. 37.♙xa7 This is forced, but after 37...♗xc2 Black will win the game with perfect play.

3. A. Hunt – Galdunts, Gold Coast 2000

Sorry, I could not resist this one. 47...♙xh4†! Or queen takes first. 48.gxh4 ♖xh4† 49.♗xh4 ♙h2#

4. Navara – Ivanchuk, Wijk aan Zee 2012

Black is doing quite well, but how to make the most of it? 33...♖e4! That's how. White does not have time for 34.bxc5 because of 34...♙b1†. 34.♙xa6 34.♗h2 cxb4 35.♙xa6 does not work as a concept. After 35...♙xa6 36.♙xa6 b3 37.♙b6 ♖c2 Black just wins. 34...♙xa6 35.♙xa6 c4!? This is good enough, but there is no reason to decline the pawn. 35...cxb4 36.♙b6 ♖b1† 37.♗h2 b3 and Black wins. 36.♙c6 c3 37.♙c8† ♗g7 38.♙c7† ♗f6 39.♗h2 ♖d4 40.f4 Hoping... 40...g5 41.fxg5† ♗e5 0–1

5. Nebolsina – N. Kosintseva, Moscow 2010

White was no doubt hoping that ♙h3 would do the job. Or at least ♗h5xf6. But she was met with a cold shower... 22...♖c4! Threatening ...♖xd4†. 23.♙e1 After 23.♙d1 Black wins an important tempo with 23...♖c2!, so that after 24.♙df1 she has time to play 24...exf4+. 23...♖xd4† 24.♗h1 ♖d2 With the point 25.♙h3 ♖xf4!. 25.♗e2 ♙g4! 26.♖f2 ♙xe4 0–1

6. Fressinet – Brunner, Mulhouse 2011

White obviously has a fine position, but how is he to exploit it? 16.♙fd1 looks natural, but something more direct exists. 16.♙g6!! The bishop is mysteriously immune and Black is just lost. 16...0–0 17.♙xh7† ♗h8 18.dxc5 There are other good moves, but who is counting? 18...♗xc5 19.♗xc5 ♙xc5 19...♙xc5 20.♙c4! would also quickly spell T.H.E. E.N.D. 20.♙xc5 ♙xc5 21.♙g6† ♗g8 22.♙xf7†! The final trick. 22...♙xf7 23.♖h8†! 1–0