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Articles

## The Value of "Elementary" Endgame Knowledge

If you want to work on your endgame theory, it is vitally important to lay a solid foundation - to focus on the most important theoretical positions, ideas and technical tools. As a rule, this fundamental knowledge consists of a small number of fairly simple positions; but these positions must be understood completely and securely memorized.

Unfortunately, most players - even some very strong ones - have not done the proper homework, and as a result, their endgame understanding is chaotic and insecure. The consequences are sometimes tragic - as I propose to illustrate here.

First, let us examine one simple position, which is quite important, and should be counted as part of our basic endgame knowledge. (See Diagram)


Berger - Kotlerman Arkhangelsk 1948

## 1. Ke2 b3 2. Kd1 Kb4 3. Bh7 Ka3 4. Bg6

Now if 4... b2 (threatening 5...Ka2), then 5. Bb1! Kb3 6. Ke2.

## 4.... Kb2 5. Bf7!

Black threatened 5..Ka1 and 6..b2. By attacking the pawn at b3, White stymies this plan.

## 5. ... Ka2 6.. Ве6 Ka3

Now threatening 7...b2 8. Bf5 Ka2.

## 7. Bf5! Drawn.

And now, for a recent example from tournament play. (See Diagram)


The game concluded as follows: 1. Kc4?! Be7 2. Kb5 Kg7 3. Bd3 h6, Drawn.

Commenting on this endgame in Informant \#75 (No. 6 in the "Endgame" section) GM Marin awarded his move, 1 . Kc4, two question marks, suggesting instead the following plan, which he believes would lead to the win.

1. Kc6 Be7 2. b5 Bc5 3. Kd7 Bb4 4. e6 Bc5 5. Bd3 Be7 6. Be4 Bc5 7. f5 gf 8.
Bxf5 Be7 9. Kc6! (D. Rogozenko).
Evidently, at the board Marin failed to notice that he could attack the b6-pawn here, and Rogozenko showed him the "winning" move in the post-mortem.

## 9. ... Bxg5 (9...Bd8 10. Bxh7) 10. Kxb6 Ke7 11. Kc6 Bf4 12. b6 h5 13. Kb7 Be3 14. Kc7+-.

However, if Black plays 12... Kd8! (instead of 12...h5??), we get the Berger Kotlerman position, which is a draw - and which was obviously unknown to both Marin and Rogozenko. In fact, if Black wants to hold onto the h-pawn, he can do that too: 11... h5 12. b6 Kd8! 13. Kb7 Be3!, or 13. b7 Bf4 14. Kb6 Bb8!.

At Wijk aan Zee 1999, I had a conversation with Alexei Shirov, one of the strongest grandmasters in the world. At one point, we fell to discussing the following brilliant endgame, won by him the previous year. (See Diagram)


Topalov - Shirov Linares 1998

1. ... Bh3!!

This bishop sacrifice gains Black a vital tempo to break into the queenside with his king.
2. gh
2. Kf2 Kf5 3. Kf3 doesn't help, in view of $3 \ldots \mathrm{Bxg} 2+$ ! 4. Kxg2 Ke4-+.
2. ... Kf5 3. Kf2 Ke4! 4. Bxf6

After 4. Ke2 f5, Black has just too many passed pawns.
4. ... d4 (intending 5...a3-+) 5. Be7 Kd3 (now intending 6...Kc2 and 7...d3-+) 6. Bc5 Kc4! (6... Kc3? 7. Ke2) 7. Be7 Kb3 (or 7...Kc3), and White resigned.

Other continuations are insufficient. For example:
1... Kd6? 2. Kf2! (2. Bxf6 Kc5 3. Kf2 d4 4. Ke2 Kc4 5. Be7 Kc3 6. Kd1 doesn't lose, either) $2 . . . \mathrm{Kc} 53$. $\mathrm{Ke} 3=$.
1... Be4? 2. Kf2 Kf5 (intending 3...Bxg2!) 3. g3 a3 4. Ke3 Kg4 5. Bxf6 Kxg3 6. Kd2 Kf4 (if 6... d4 7. Bxd4 Kxh4, White's king gets to a1: 8. Kc1 g5 9. Bc 5 a 2 10. Kb2, after which he can just sac the bishop for the g-pawn) 7. Be7 a2 8. Bf6 Bf5 9. Bg7 Ke4 10. Ba1 d4 11. Bb2 d3 12. Bc3 Kf4 13. Bb2 Kg 4 14. Bf6 a1Q 15. Bxa1 Kxh4 - and this position, as we discovered in Berger-Kotlerman, is a draw.

I told him that the fact that this was the only solution added considerably to the combination's esthetic value. This interested Shirov - he had not known that there was only one winning line; in fact. he recalled his friend, GM Sutovsky, showing him some long winning variation in the postmortem. We set up the pieces, and it turned out that Emil had incorrectly evaluated the position resulting from the exchange of Black's a-pawn for White's h-pawn. Neither Shirov, nor Sutovsky, nor young GM Kasimdzhanov, observing our discussion, was aware of the Berger-Kotlerman endgame!

Here is a fragment from the book by Dvoretsky and Yusupov, Technique for the Tournament Player. (See Diagram)

Kharlov - Khenkin Copenhagen 1993


The game ended quite rapidly: $1 \ldots \mathrm{a}$ ? 2. Qa7+ Kh6 3. Qe3+Kg74. Qg5! (the move Black underestimated) 4... Qd4 5. c 7 ! $\mathrm{Bxg} 3+6 . \mathrm{Kxg} 3$, and Black resigned.

Analyzing the game afterwards, I asked Khenkin: Why not remove the chief enemy, the c6-pawn, immediately?

## 1. ... Qxc6! 2. Qxa7+

Nothing is changed by 2 . Qf7+ Kh6.
2. ... Qc7!

Attacking both the c4-bishop and the g3-pawn, thereby forcing the trade of queens:

## 3. Qxc7+ Bxc7

Trading down into an opposite-colored bishops endgame is a valuable defensive resource, which can sometimes help save a difficult position so this plan, of course, deserved close scrutiny. GM Khenkin feared that the endgame would be lost, since White is two pawns ahead. But in fact, what we have here is a rather simple draw, if we just keep our famous lodestar in front of us. If White gives up the g3-pawn, then we have the drawing position from Berger - Kotlerman. And if White pushes the pawn to g4, then Black answers $\mathrm{g} 6-\mathrm{g} 5$, and barricades all entry into his position against the

White king.
Here's a sample variation:

## 4. Kxh3 Kf6 5. Kg4 Bd6

While there's time, it's important to force the opposing pawn onto the color of his bishop.

## 6. b5 Bc7 7. Bd5 Ke7 8. Bc6 Kf6 9. Kf3 Ke7 10. g4 g5 11. Ke3 Bb6+ 12. Kd3 Kd6 13. Kc4 Ke5

And the draw is obvious - there's nowhere for White's king to get through.
Here's one more example of opposite-colored bishops with a similar pawn structure. (See Diagram)


## Cifuentes - Langeweg El Vendrell 1996

## 1. ... Ke5?!

Now here's a strange move! Common sense dictates that Black should have exchanged pawns on h4 (when behind in material, it's usually a good idea to trade off as many pawns as possible).

Cifuentes says that here too, Black's situation is bad, and provides the following variation as proof: 1... gh 2. gh Bb8 3. Kh3 Ba7 4. Kg4 Ke5 5. Kh5 (zugzwang) 5...Kd5 6. Bf5! (6. Kxh6? would be premature, in view of 6... Bxe3+ 7. Kg7 Ba7! 8. Bxe4+ Kxe4 9. h5 Kd5 10. h6 Kc6=) 6...Ke5 7. Kg6 Kd5 (7...h5 8. Bh3 Kd6 9. Bg2 Ke5 10. Kxh5 Kf5 11. Bxe4+!) 8. h5 Ke5 9. Bxe4! Kxe4 10. Kxh6 Bxe3+ 11. Kg6+-.

But Cifuentes' analysis is completely unconvincing. Why should Black allow the capture of his h-pawn? He could try 3... h5!? 4. Bxh5 Kc6, for example. But it's much simpler to set up an unbreachable fortress by giving up Black's main weakness - the e4-pawn - at once.

Let's play 3... Ke5 4. Kg4 Kf6! 5. Bxe4 Bc7, The h-pawn is now invulnerable (on 6. Kh5, Black replies 6... Kg7). So White must take his king to the queenside. But the most White can achieve there is the win of the bishop for his b- and e-pawns. And then Black's king reaches h8 with an elementary draw (the enemy bishop does not control the $h$-pawn's queening square). This resource only becomes available to Black after he trades pawns on h4.

Even after Cifuentes' 3... Ba7 4. Kg4 Ke5 5. Kh5, it's not too late to return to the right plan: 5... Kf6!, since after 6. Kxh6 (6. Bxe4 $\mathrm{Kg} 7=$ ) 6... Bxe3+ 7. Kh7 Bf4 8. Bxe4 Bb8, White cannot queen the h-pawn: 9. Bf3 Bc7 10. h5 Kg5 11. h6 Be5 12. Be2 Bb8 13. Kg7 Be5+.

Black probably refrained from exchanging pawns because Langeweg did not
want to free the g3 square for the White king. That the king cannot use the h3 square is seen from 2. Kh3 Kd6! 3. Kg4 Kc7 (3...gh) 4. h5 (4. hg hg 5. Вхе4 Вхе3=) 4... Вxe3 (4...Kxb7 5. Bxe4+ Kc7=) 5. Bxe4 Bd2 6. Kf5 g4!=

## 2. h5!? Kd5?

This looks like the fatal error! As Bologan pointed out, Black gets a simple draw with $2 \ldots$...g4!, followed by ...Bb8. Black's king easily defends the kingside pawns (3. Be8 Kf5); and the g3-pawn is lost whenever White's king abandons its protection.

## 3. g 4 !

After nailing down the kingside, White sends his king across the board, ties down his opponent, and finally penetrates the center, in order to win the weak h6-pawn.
3. ... Ke5 4. Kf2 Bb8 5. Ke2 Ba7 6. Kd2 Kd5 7. Kc3 (zugzwang) 7. ... Bb8 8. Bf7+ Kc5 9. Bg6 Kd5 10. Kb4! Bg3 11. Kb5 Bc7 12. Ka6 Bb8 13. Kb6 (and again, zugzwang) 13. .. Ke5 14. Kc6 Ke6

In light of White's terrible threat of Kd7-c8, the e4-pawn had to be given up anyway - but now this occurs in much worse circumstances.

## 15. Bxe4 Bg3 16. Bf5+ Ke7 17. Kb6 Bb8 18. e4 Kd6 (See Diagram)


19. e5+! Ke7
19... Kxe5 loses to 20. Kc6; and if
19...Kd5, then 20. Bc8 Kxe5 21. Kc6 Kf6
22. Kd7 Kf7 23. Kd8+-. Now visualize the same position, except without the g-pawns - Black simply takes on e5.
20. Вc2 Ke6 21. Bb3+ Ke7 22. Ba2 (22. Kc6?? Bxe5 23. Kd5 Kf6=) 22. ... Kd7 (Black was in zugzwang again) 23. Kc5! Bxe5 24. Kd5 Bf4 25. Ke4 Ke7 26. Kf5 Bc7 27. Kg6, and Black resigned.

Knowledge is, of course, a two-edged sword. Most often, it helps us; but there are in fact times when it can betray and disorient us as well. It's very dangerous to act "analogously", without getting into the concrete details of the situation as it stands on the board.

To illustrate this, let's first examine yet another practical endgame, a very important one for the theory of opposite-colored bishop endgames. (See Diagram)


## 1. ... Bg2?

Here is an instructive error - the White king should not have been allowed to get near the pawns. The draw becomes inescapable after 1... Kf5! 2. Bf8 g6 3. Kd4 Bg2 4. Kc5 Ke6! 5. Kb6 Kd7 6. b4 Ba8 7. b5 Kc8!= (but not 7... Bg2? 8. a8Q! Bxa8 9. Ka7 Bf3 10. Kb8+-, with the unstoppable threat of b5-b6-b7.)

## 2. Kf4!

In those cases where the opposite-colored bishop is blockading the passed pawn, the attacking side's plan consists of getting his king through to the pawn. But sometimes, this can only be achieved by means of a feinting attack on the other wing.
2. ... g6 3. g4!

The first step to "expanding the front" on the kingside. "Expanding the front" is a technique used in many types of endgame. Its point is the use of pawn exchanges to clear a path for the king to get to the other side of the board.
3. ... hg 4. Kxg4 Bh1 5. Kg5 Kf7 6. Bd4 Bg2 7. h4 Bh1 8. b4 Bg2 9. b5 Bh1 (See Diagram)


## 10. Bf6! Bg2

On 10... Be4, 11. Kf4 intending Ke5 is strong, as is 15 . b6, with zugzwang.
11. h5! (the second, and decisive step!) 11. ... gh 12. Kf5, and Black resigned.

On 12... Ke8, 13. Ke6 followed by Kd6-c7 wins. On the d8-h4 diagonal, White's bishop stops the h-pawn, while simultaneously depriving the hostile king of the e7 and d8 squares. (See Diagram)

## P. Wolff, 1986



After 1... fe? 2. Kxe4 Bc6+ 3. Kf4 Kd5 4. Bg 7 Kc 4 5. Ke3 Kb3 6. Kd2, the draw would be unavoidable - White's king successfully "defends the zone". So Black must enforce the exchange of pawns on f5.

## 1. ... Bc6! 2. ef+ gf!

On 2... Kxf5, Wolff - and later, Mednis note only that the position is drawn after 3. Ke 3 Kg 4 4. Kf2. At first, this annotation amazed me, for Black has at his disposal the standard plan of breaking through to the queenside with his king.
4... h5 5. Bg7 g5 6. hg Kxg5 7. Ba1 Kg4 8. Bg7 Be4 9. Ba1 d5 10. Bg7 Bf3! 11. Bal (11. Be5? Kf5 12. Bg7 Ke4-+) 11... h4 12. gh Kf4.

The only difference between this game and Euwe-Yanofsky is one pawn: in that game, it was on the b-file, here, it's on the d-file. Can this make a difference?

Yes - a huge one! When Black's king marches off to win the bishop for the a-pawn, White replies by attacking the d-pawn with his king. The bishop cannot simultaneously defend it and stop the h-pawn from the same diagonal ('the one-diagonal principle" is most important with opposite-colored bishops). He could do it, if the pawn could be brought to d3-but then his king could not get to b1.
13. Bb 2 Ke 4 (...d5-d4-d3 was threatened) 14. Ke1! Ke3 15. Bc1+! Kd3 16. Bb2 Kc2 17. Bg7 Kb1 18. Kd2 (18 Kf2) 18... a1Q 19. Bxa1 Kxa1 20. Kc3 Ka2 21. Kd4 Kb3 22. h5=; or 16... d4 17. Kf2! (17 Ba1? Ke3! 18. Bb2 d3 19. Bc1+d2+ 20. Bxd2 Kd3-+) 17... Bg4 18. Ke1 Bh5 19. Kf2 Kc4 20. Ke1 d3 21. Kd2=.

You can see that following the "known example" here will not bring us the desired result. The win is attained by another, much less obvious plan, found by Wolff. Having recaptured with the pawn on f4, Black must play ...f5-f4 at the right moment, and go after the h4-pawn with his king.

## 3. Ke3

On 3. Bb2?, Black can execute his plan at once: 3... f4! 4. gf Kf5-+. Also hopeless is 3. h5? h6! 4. Kc4 Bf3 5. Kb3 Bxh5 6. Kxa2 Bf7 7. Kb3 h5 8. Kc4 f4 9. gf h4 10. Bd4 h3 11. Bg1 Kf5+ 12. Kd3 Kg4 13. Bh2 (13. Ke2 $\mathrm{Kg} 3)$ 13... Kf3 14. f5 d5. Here, in fact, Black's bishop can fulfill all its responsibilities along the single diagonal a2-g8.

## 3. ... h5 4. Bb2 Ba4 5. Bc3 Bd1 6. Ba1 Bg4 7. Bb2

7. Kd4 f4! 8. gf Kf5 9. Kd5 Kxf4 10. Kxd6 Ke3, and Black carries out the main plan in such positions - getting his king to b1.
8. ... Kd5 8. Bf6 (8. Kd3 f4!!) 8. ... Kc4! (8... f4+?? 9. Kxf4) 9. Ba1 (See Diagram)

9. ... f4+!! 10. gf (10. Kxf4 Kd3-+) 10... Bf5!

A finesse pointed out by Nunn. The hasty $10 . .$. Kd5? allows White to hold the zone by pitching a pawn: 11. f5! Bxf5 12. Kf4=.

## 11. Kd2 Kd5 12. Ke3

We should also look at $12 . \mathrm{Kc} 1$, with the bishop at g7 (where White could have placed it on move 9). Then $12 \ldots \mathrm{Ke} 4$ ? would be a mistake, in view of $13 . \mathrm{Kb} 2 \mathrm{Be} 6$ 14. Bf8 d5 15. Kxa2 d4+ 16. Kb2 d3 17.

Kc 1 Ke 3 18. $\mathrm{Bb} 4=$. The winning line is $12 . . . \mathrm{Ke} 6!13 . \mathrm{Kb} 2 \mathrm{Bb} 1$ 14. Bf8 d5 15. Bg7 Kf5.
12. ... Ke6 13. Kf3 Bc2 14. Kg3 Kf5 15. Kf3 Bd1+ 16. Ke3 (16. Kg3 Ke4-+) 16. ... Kg4 17. Bf6 (17. Ke4 Bf3+ 18. Ke3 Bc6 19. Bf6 Bb7, and White’s in zugzwang) 17. ... Ba4 18. Ke4 Bc6+ 19. Ke3 Bb7 20. f5 Kxf5 21. Ba1 Kg4 22. Bf6 Bc6 23. Kf2 a1Q

The trade of pawns is enough to win; but perhaps it would have been more exact to have activated the d-pawn first: $23 . . . \mathrm{Kf} 4$ !? 24. Ke2 Ke4 25. Kd2 d5 26. Ba1 d4 27. Bb2 d3 28. Ba1 Bb5 29. Bg7 Kf5 30. Ba1 Kg4 31. Bf6 a1Q 32. Bxa1 Kxh4.
24. Bxa1 Kxh4 25. Bf6+ Kg4 26. Be7 d5 27. Bf6 h4 28. Be5 Kf5! (28... h3?? 29. Ke3=) 29. Bd6 Ke4 30. Be7 h3 31. Bd6 d4 32. Bc5 Kd3! 33. Kg3 Bd7 34. Kf2 Kc3 35. Bd6 d3 36. Bf4 Kc2 37. Ke1 d2+ (or 37...h2) 38. Bxd2 h2-+.

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