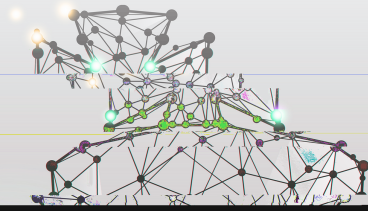




# Modern Chess Magazine

Issue 19

## Understand the French Isolani



## The Power of the Quiet Moves

Brilliant Missed Opportunities

Overlooking perpetual check

Typical Structures  
after 1.d4 d5

## Endgame Series 19

Opposite-colored Bishops  
Part 2

# CONTENTS

## 3 The Power of the Quiet Moves (GM Pavel Eljanov)

- 3 Ivanchuk,Vassily (2726) - Lei,Tingjie (2531) / Gibraltar Masters 16th (9) 31.01.2018
- 5 Khismatullin,Denis Rimovich (2653) - Eljanov,Pavel (2727) / EU-ch 16th Jerusalem (10) 06.03.2015
- 6 Meier,Georg (2650) - Eljanov,Pavel (2711) / Wch Rapid Riadh (9) 27.12.2017
- 7 Eljanov,Pavel (2741) - Shirov,Alexei (2679) / Douglas IoM op (6) 06.10.2016
- 8 Harikrishna,Pentala (2763) - Eljanov,Pavel (2765) / Gashimov Memorial (5) 30.05.2016
- 9 Carlsen,Magnus (2851) - Eljanov,Pavel (2765) / Norway Chess 4th (9) 29.04.2016
- 10 Maze,Sebastien (2615) - Rambaldi,Francesco (2556) / FRA-chT Top 12 (3.7) 28.05.2018
- 11 Eljanov,Pavel (2681) - Malakhatko,Vadim (2558) / Chigorin Memorial 20th (7) 02.11.2012

## 12 Endgame Series 19 Opposite-colored Bishops: Part 2 (GM Davorin Kuljasevic)

- 12 jTopalov,Veselin (2740) - Shirov,Alexei (2710) / Linares 15th (10) 04.03.1998
- 18 Volkov,Sergey (2612) - Tomashevsky,Evgeny (2701) / EU-ch 11th Rijeka (6) 11.03.2010
- 29 Andreikin,D..(2723) - Malakhov,V..(2702) / TCh-RUS Blitz 2015 (8.1) 10.05.2015
- 40 Anand,Viswanathan (2770) - Karpov,Anatoly (2735) / FIDE-Wch k.o. f (8.4) 06.01.1998
- 49 Exercise 1 - 5

## 51 Brilliant Missed Opportunities - Overlooking Perpetual Check (IM Yochanan Afek)

- 51 Introduction + Question 1 - 14
- 57 Test 1 - 14
- 63 Conclusion

## 64 Understand the French Isolani (GM Mihail Marin)

- 64 Kortschnoj,Viktor - Karpov,Anatoly
- 66 Karpov,Anatoly - Kortschnoj,Viktor / Moscow (m/18) 1974
- 69 Suetin,Alexey S (2400) - Uhlmann,Wolfgang (2525) / Barcza mem Debrecen (4) 1987
- 70 Pogats,Jozsef - Portisch,Lajos / HUN-ch 14th Budapest (16) 19.12.1958
- 72 Baches Garcia,Guillermo (2389) - Marin,Mihail (2548) / Andorra Erts (154)24.07.2012
- 73 Salazar Jacob,Hernan (2315) - Campora,Daniel Hugo (2415) / Santiago Santiago de Chile 1980
- 74 Gayson,Peter - Botterill,George Steven (2365) / BCF-ch Swansea 1987
- 74 Tomczak,Rafal (2339) - Jussupow,Artur (2570) / Warsaw AIG Life rapid 8th (6) 20.12.08
- 75 Panov,Vasily N - Bondarevsky,Igor / URS-ch10 Tbilisi 1937

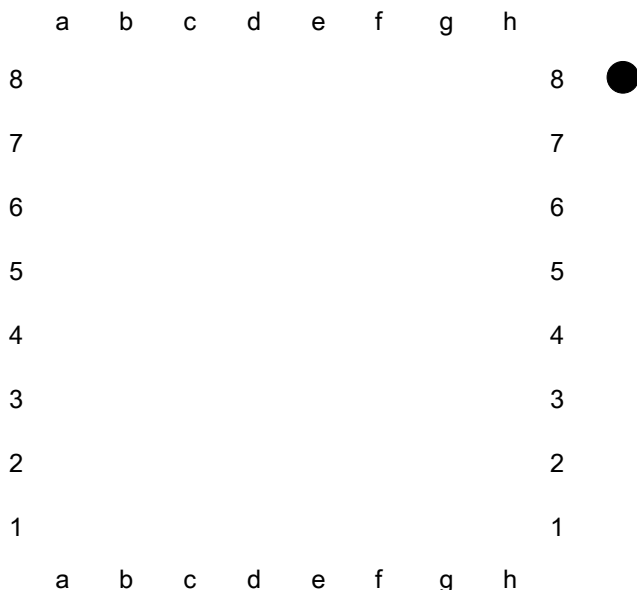
## 76 Typical Structures after 1.d4 d5 (GM Renato Quintillano)

- 77 Svane,Rasmus (2445) - Zieher,Hartmut (2300) / GER-ch 84th Saarbruecken (3) 08.09.13
- 80 Kovalyov,Anton (2617) - Shabalov,Alexander (2529) / Foxwoods op Mashantucket (6) 25.01.14
- 83 Nogueiras Santiago,Jesus (2556) - Pozo Vera,Sandro (2457) / CUB-ch KO 5th-6th (3.2) 11.04.2006
- 87 Giri,Anish (2714) - Wang,Yue (2697) / Beijing Sportaccord blitz (14) 13.12.11
- 91 Tregubov,Pavel V (2586) - Sychev,Klementy (2445) / RUS-chT rapid (5.5) 05.10.2016
- 95 Wacker,Peter (2312) - Stenzel,Thomas (2112) / Regionalliga Mittelrhein 1213 (9.1) 14.4.13
- 98 Nikolov,Momchil (2559) - Henris,Luc (2149) / Lille Luce op 7th (7) 13.04.2016

## The Power of the Quiet Moves

If you have not seen Ivanchuk's interview after the 9th round of the Gibraltar–2018 tournament then I strongly recommend to find it in YouTube (enough to google: "Ivanchuk Gibraltar r9")!

**Ivanchuk, Vassily** **2726**  
 **Lei, Tingjie** **2531**  
 Gibraltar Masters 16th (9) 31.01.2018

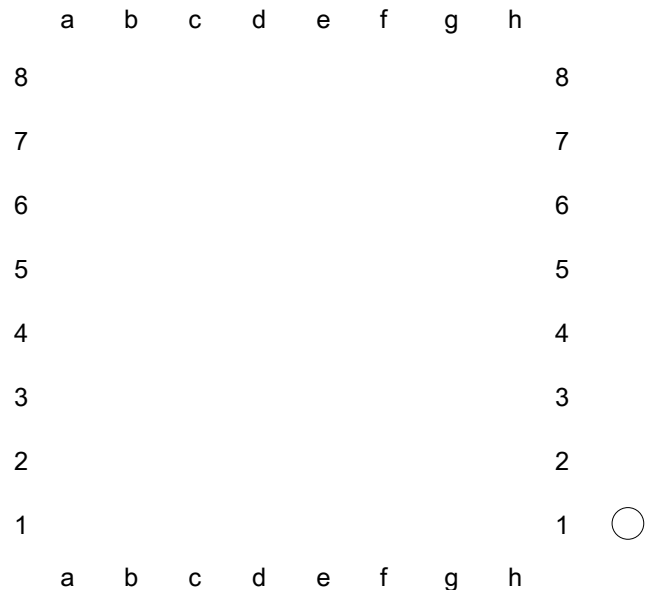


Vassily blindfolded and in a very entertaining way tells about his calculations in the game against Lei Tingjie. One of his thoughts interested me especially. Vasily said that "according to his experience the most difficult thing in chess is to see the moves with knights back". Let's see what he had in mind **14...Nxe4** was the critical move according to Vassily's calculations

[ The game went 14...Qxb2 15.Qd3 Na6 16.Rab1 Qa3 17.Bf3 Nb4 18.Qc4 Bd7 19.Ncb5 Qa5 20.Bf4

Bxb5 21.Nxb5 Nbd5 22.Bg3 Rac8 23.Qb3 a6 24.Na7 Rc3 25.Qxb7 Qc5 26.a4 h6 27.Qxa6± and Vassily successfully converted his advantage later ]

### 15.Nxe4 f5



**16.Nd2!** Vassily was very happy and proud after finding this move and having in mind another quiet and decisive move after the obvious question: what if rook takes?!

[ 16.Nxf5 Bxf5 17.Bxb6 Rxd1  
 18.Raxd1 it's a bit better way for white  
 comparing to what Vassily saw during  
 the game. But black is fine anyway  
 ( 18.Rfxd1 axb6 19.c3 Bxe4 20.Re1  
 Bxg2 $\bar{7}$  ) 18...axb6 19.Rfe1 Nc6 $\infty$  ]  
 [ 16.Ng3!? leads to a complicated play  
 and with some edge for white f4!  
 17.Ndf5 Qf6! 18.Bd4 Rxd4  
 19.Nxe7+ Qxe7 20.Qxd4 fxc3  
 21.Rfe1 Be6 22.hxc3 Nc6 23.Qe4  
 Re8 24.Rad1 $\pm$  ]

### 16...Rxd4?

[ better is 16...Qf6! here white has  
 only slight advantage 17.c3  
 ( 17.N2f3!? f4 18.Bc1 Nc6 19.c3  
 Qf7 20.Re1 $\pm$  ) 17...f4 18.Ne4 Qg6  
 19.Bd2 Nc6 20.Re1 Nxd4 21.cxd4  
 Rxd4 22.Qb3+ Qf7 ( 22...Be6  
 23.Nf6+ ) 23.Qxf7+ Kxf7 24.Bxf4 Bf5  
 25.Ng5+ Kf8 26.g3 $\pm$  ]  
 [ 16...Qxb2 17.N2f3 Qb4 18.c3 Qc4  
 19.Re1 $\uparrow$  ]  
 [ 16...f4 17.Nf5! fxe3 18.Nxe7+ Kh8  
 19.Nxc8 exf2+ 20.Rxf2 Rxc8  
 21.c3 $\pm$  ]

**17.Qe1!!** that's the point. In my opinion  
 this one is even tougher to find. Black is  
 unable to save a whole rook.

[ 17.Qe2? Qe6 ]

### 17...Nc6

[ 17...Qf6 18.Bxd4 Qxd4  
 19.Qxe7+- ]

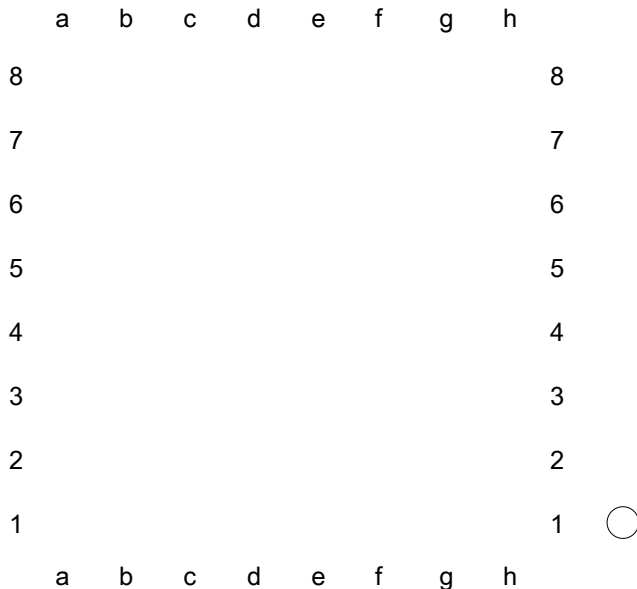
**18.c3+-** Vassily's thoughts are always  
 very original and deep, and I decided to  
 think over what he meant. In general,  
 chess is a more tactical game where a  
 clean and short calculation of moves is  
 the most important skill from my point of  
 view. But often, there are situations  
 when a straight-line play doesn't lead to

a goal where the usual patterns do not  
 work, and the chess player must look  
 more for quiet and subtle moves in  
 order to implement his plans or  
 neutralize the opponent's plans. Based  
 on my personal experience - very often  
 the unexpected and quiet moves with  
 the king (as well as knights moves back)  
 in the middlegame fall out of sight!  
 Apparently, since instinctively we are  
 inclined to use other pieces in the  
 middlegame, we often do not consider  
 moves with the king before the  
 endgame. Of course, the quiet moves of  
 other pieces could be powerful and  
 unexpected as well, but this article is  
 devoted more to the knight and the king!  
 In general, it's a special skill (and even a  
 gift) to see all the hidden possibilities of  
 pieces maneuvers. But in any case, a  
 knowledge of common ideas helps a lot  
 here. Because better knowledge of  
 standard plans, I believe, gives you a  
 better chance to intuitively find those  
 positions when it is necessary to look for  
 exceptions to the rules. I also believe  
 that resolving chess studies also helps  
 a lot in this and many other cases. It  
 develops an ability of finding non-  
 standard solutions and imagination  
 overall. There are a few not so difficult  
 studies I propose to solve. But in  
 general, it's easy to find much more in  
 chess books and different chess online  
 services. I like especially such  
 composers like Kasparian, Pervakov,  
 Bazlov, and Afek. But it's not the  
 complete list of composers whom I  
 admire.

**1-0**



□ **Khismatullin, Denis Rimovich** 2653  
 ■ **Eljanov, Pavel** 2727  
 EU-ch 16th Jerusalem (10) 06.03.2015



This position became famous! I'm not sad at all that I'm just co-author of such a masterpiece. I consider myself as worthy co-author as it was penultimate round of European Championship and we both tried hard to win this game to preserve chances in fighting for the podium. I could force a draw a lot of times before but all in all, there is nothing to regret. **44.Kg1!!**

Objectively, this move leads to just a slightly better endgame for White in case of best play. But who cares as it's practically impossible to perform for Black.

[ 44.f4+ Kh4 45.Qxd6 Qxd1+ 46.Kf2 Qe2+ 47.Kg1 Qxe3+ 48.Kh2 Qg3+ 49.Kg1= ]

**44...Qxd1+?** Black should have rejected the gift.

[ 44...Qxc6 45.Qxf7 Rf6 46.Qe7 Kh6 47.Rxd3+- should be winning for White. ]

[ 44...Rd5!! absolutely inhuman move. It turns out that one tempo and possibility to keep an eye on "c" passer is much more important than the rook! 45.Kh2! ( 45.Qxf7 Qxd1+ 46.Kh2 Rf5 47.Qe7+ Kh6 48.c7 Qc2 49.Qh4+ Kg7=; 45.Qe7+ Kh6 46.c7 Kg7!= and again the only way but enough for a draw ) 45...Kf6!!

Another king retreat and clearly the only path to save the game ( 45...Qxd1? 46.c7; 45...Qxc6? 46.Qg7!! ) 46.e4 ( 46.Qh8+ Ke7 47.e4 Rd6 48.Qe5+ Re6 49.Qc7+ Kf6 50.Qd8+ Kg7 51.c7 Rc6= ) 46...Rc5 47.Qd6+ ( 47.e5+ Kxe5 48.Re1+ Kd4 49.c7 d2 50.Qd6+ Kc4 51.Ra1 Kb5= ) 47...Kg7 48.Rxd3 Rxc6 49.Qe5+ Rf6□ 50.Rf3 Qc6□ 51.g3 h6 52.h4 b5! 53.Qb2 g5 54.h5 b4 55.g4 ( 55.Kg2 g4! 56.Rf4 Qc3≠ ) 55...b3 56.Kh3 Qe6 57.Rf5 Qb6 58.Kg2 Qe6 59.f3 Qb6 60.Rxf6 Qxf6 61.Qxb3 Qd4= This is a clearly drawish endgame despite the extra pawn. ]

[ 44...Rxc6 45.Qd8+ ( 45.Qxf7!? ) 45...Kh5 46.Rxd3+- ]

**45.Kh2** There is no rescue for Black now. **45...Rxc6**

[ 45...d2 46.Qxd6 Kh6 47.c7 Qc2 48.Qf8+ Kg5 49.f4+ Kf6 50.Qh8+ Ke7 51.Qd8+ Ke6 52.c8Q+- ]  
 [ 45...Rd5 too late 46.c7 Qc2 47.c8Q Qxc8 48.Qxc8 d2 49.f4+ Kf6 50.Qc6+- ]

**46.Qe7+ Kh6 47.Qf8+ Kg5 48.Qxf7!**



After the game Denis told me that only here he realized that's it was winning for White. At the beginning, he saw only perpetual. It does not detract his achievement of course as we are not engines and from a practical point of view his decision was brilliant in any case. **48...Rf6**

[ 48...Kh6 49.Qf8+ Kh5 50.g4+- ]  
**49.f4+ Kh6 50.Qxf6 Qe2 51.Qf8+ Kh5 52.Qg7 h6 53.Qe5+ Kh4 54.Qf6+ Kh5 55.f5 gxf5 56.Qxf5+ Kh4 57.Qg6**  
**1-0**

□ **Meier, Georg** 2650  
 ■ **Eljanov, Pavel** 2711  
 Wch Rapid Riadh (9) 27.12.2017



**17...Rb6!?**

[ 17...Nb6!? was also interesting, but I had in mind`a different setup ]

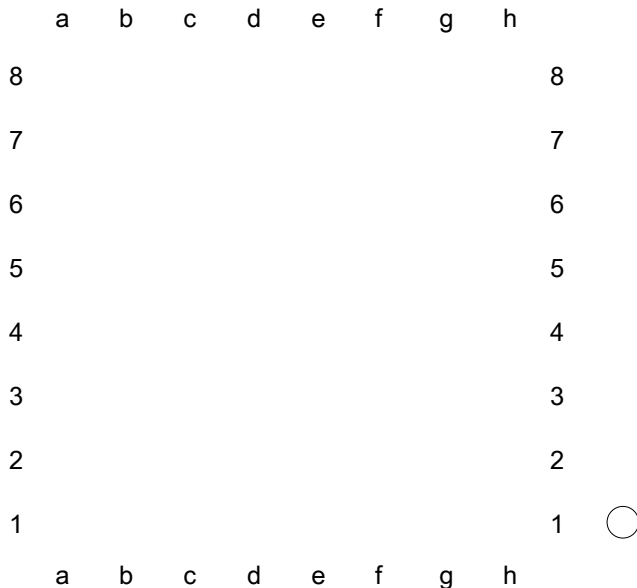
**18.Bf1**

[ 18.Qxd8 – was most precise way Rxd8 19.Rc7 Nc6 but Black's position is still to be preferred. ]

**18...Bxf1 19.Kxf1 Nb8!?** was totally unexpected for my opponent. There is no way to save the a6-pawn, and my knights are building up a strong teamwork. **20.Qxd8 Rxd8 21.Rc7 Nbc6 22.b3 Kf8 23.Rb7 Rxb7 24.axb7 Rb8 25.Ne1 Rxb7 26.Ke2 Ke8 27.Nc2 a5-+** Gradually, my position become technically winning, but I was unable to convert it in time trouble (time control was 15+10 sec).  
**1/2**

**Eljanov, Pavel** **2741**  

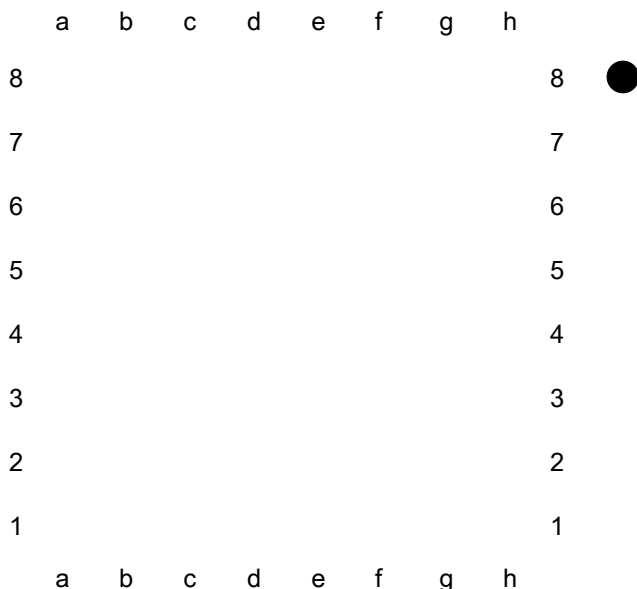
**Shirov, Alexei** **2679**  
 Douglas IoM op (6) 06.10.2016



Black's position looks OK at first sight. He is even leading in development with a good control of the central squares.

**13.Nb1!** but it turns out that after such a modest knight retreat it's not easy for Black at all to hold the center.

[and it's really important to note that the "typical" 13.c4?



is a positional mistake here d4! Black can sac a pawn 14.Bxb7 Rb8 15.Bg2 Nc5 and I would prefer black here as in return for the pawn he has a great control of dark squares and much more space. ]

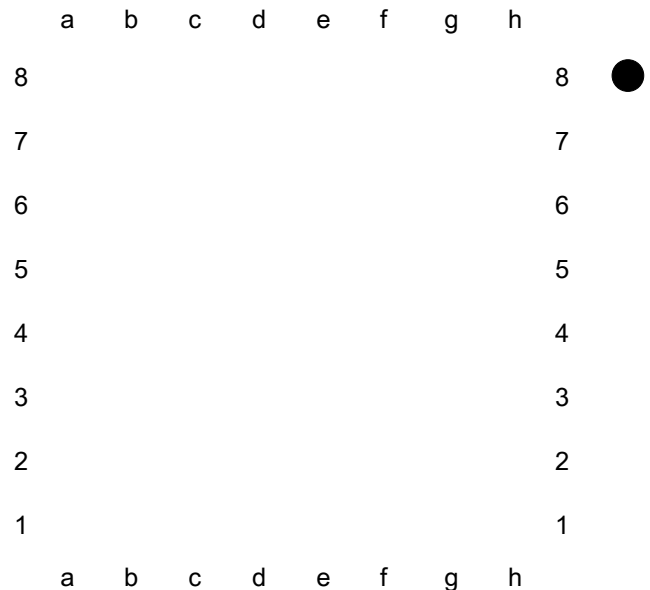
**13...Bb4** This looks artificial but I was unable to find a decent way how to neutralize White's play without many concessions.

[ 13...d4 14.Bxb7 Rb8 15.Bg2 Re8 16.Na3± ]

[probably the lesser evil was 13...Nc5 14.Nc3 d4 15.Nb5 Re8 16.c3↑ but black under serious pressure anyway ]

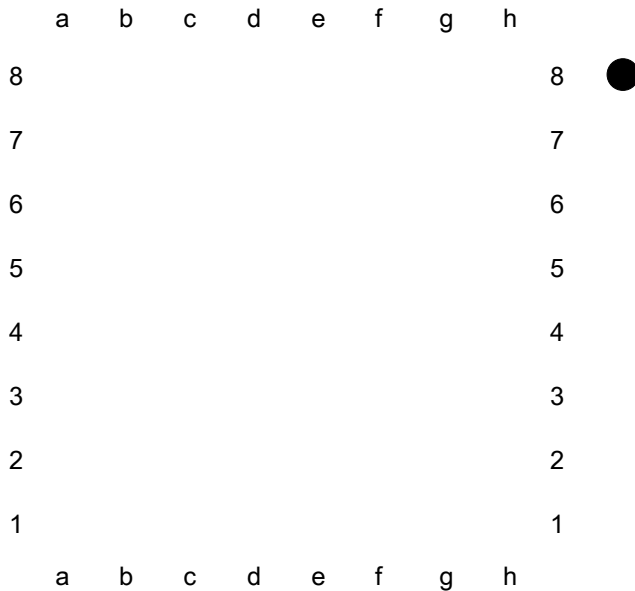
**14.c3 Bd6**

[ 14...Be7 15.Na3 Re8 16.Nb5 e4 17.Be3± ]



[ 14...Bc5 15.Na3 Re8 16.Nb5 h6 17.Re1 Qb6 18.Re2± ]

**15.Na3 Bxa3 16.Rxa3 Rc8 17.Rb3 b6  
18.Rb5 Nc5 19.d4±**



I won the game eventually without many troubles.

**1-0**

**Votava**



**1.Kg3! Rxb3+ 2.Kg2!** it's important to clear "b" file first **2...Rbb1 3.Ba5+! Ka6**  
[ 3...Kxa5 4.Ra2+ Kb5 5.Rb2+- ]  
**4.Bb6! Kxb6 5.Rb2+-**

**Pervakov**



**1.Bh7!! g3!**

[ 1...Bxd3 2.Bxd3 0-0+ 3.Kb7+- ]

**2.hxg3 Bh5 3.a6 Bg6 4.Bg8!! Kf8**

[ 4...Rxc8 5.a7+- ]

**5.Bh7!! Bxh7 6.a7!+-**

☐ **Harikrishna,Pentala**

**2763**

☒ **Eljanov,Pavel**

**2765**

Gashimov Memorial (5)

30.05.2016



**22...Kh8!** The only, but sufficient defence.

[ 22...Qxb2? 23.exf6 Qc3 24.Qg4+ Ng5 25.Rxh6 Qe3+ 26.Kh1 Nd5 27.h4+- ]

[ 22...fxe5? 23.Rf6! Qxb2 24.Rg4+- ]

**23.Bc1 Ng8! 24.Qg6**

[ 24.a4 Qxa4 25.Qg6 dxe5 26.Rxf6 Qa1 27.Rf1 Nd6 28.Rxh6+ Nxh6 29.Qxh6+ Kg8 30.Qg6+= ]

**24...dxe5 25.Rxf6** Once again, Pentala chooses the most tricky continuation.

[ 25.Bxh6 Nfxh6 26.Rxh6+ Nxh6 27.Qxh6+ Kg8 28.Qg6+ Kh8= ]

**25...Qb1 26.Rf1 Nd6!**

[ Unfortunately, I made a decisive mistake 26...exd4? 27.Bxh6 Qxf1+ 28.Kxf1 Nfxh6+ 29.Kg1 The exposed king doesn't allow Black to advance the kingside pawns. Rab8 ( 29...Rad8 30.Rxh6+ Nxh6 31.Qxh6+ Kg8 32.Qxa6 c3 33.Qc4+ Kh8 34.Qxc7+- ) 30.Rxh6+ Nxh6 31.Qxh6+ Kg8 32.Qg6+ Kh8 33.h3 d3 34.Qh6+ Kg8 35.Qxa6

**A) 35...Rf7** offered equally little hope: 36.cxd3 (Only not 36.Qxc4? d2 37.Qg4+ Kf8+- ) 36...c3 37.Qc4+-;

**B) 35...dxc2** 36.Qxc4+ Kh8 37.Qc3+ Kg8 38.Qxc2+- ]

**27.Rxh6+ Nxh6 28.Qxh6+ Kg8=**

Great example with a king and knight moves at the same time!

**1-0**

□ **Carlsen,Magnus**

**2851**

■ **Eljanov,Pavel**

**2765**

Norway Chess 4th (9)

29.04.2016

	a	b	c	d	e	f	g	h
8								8 ●
7								7
6								6
5								5
4								4
3								3
2								2
1								1
	a	b	c	d	e	f	g	h

I was under pressure in this game but here I wasted a chance to save the game. **27...Qa7!** no time for knight or king retreats here :)

[ 27...Ndf6? 28.Bxd6 Qxd6 ( 28...Nxd6 29.Ne5± ) 29.Qc8+ Kh7 30.Ne5 Qe7 (Black needs to control f7 as after 30...Nd2 31.Bd3 Nde4 White gets a decisive attack with 32.Nf7 Qe7 33.Qh8+ Kg6 34.Ne5+ Kh5 35.Be2+- ) 31.Qc6± ]

[ 27...Nf8? which is a second line of my engine but equally bad 28.Bxd6 Nxd6 29.Ne5± black is struggling ]

**28.Bxd6**

[ 28.Be1 Kf7 29.Nd2 Ke7 ]  
[ 28.Bd3 Bxb4 29.Qxe6+ Kh8 30.Qxd5 Nd6= ]

**28...Qa2!= 29.Bg2 Qa1+!**

[ 29...Qb1+! ]

**30.Bf1 Qb2**

[ 30...Qa2 ]

**31.Kh1 Nxf2+**

[ 31...Qxf2? 32.Bg2+- ]

**32.Kg2 Ne4+ 33.Kh3?! Ng5+ 34.Nxg5  
hgx5 35.g4**

[ 35.Qxd7 g4+ 36.Kh4 Qxh2+  
37.Kg5 Qh6# ]

**35...Qf2↑**

**1-0**

□ **Maze,Sebastien** **2615**  
 ■ **Rambaldi,Francesco** **2556**  
 FRA-chT Top 12 (3.7) 28.05.2018

	a	b	c	d	e	f	g	h	
8									8 ●
7									7
6									6
5									5
4									4
3									3
2									2
1									1
	a	b	c	d	e	f	g	h	

I was witnessing this game as I played for Nice Alekhine chess club as well as my teammate Francesko Rambaldi. Very important moment because an evaluation of this position depends on the possibility to execute g7-g5-advance.

**16...Kh8!!** great move and the only possibility to prepare g5. As we know

from the classical game Winter-Capablanca, 1919, this kind of structure with a trapped bishop on g3 are very strategically dangerous. In this particular case there is no exception. White is doomed to joyless defence

[ Francesko ruled out this continuation as he felt that it could be dangerous. He was partially right. White has compensation but it's only sufficient for a draw 16...g5!?

17.Bxg5 hxg5 18.Qxg5 Rg8!

19.Qh4+ Kg7

20.Rg1+ Kf8 21.Qh6+ Ke8

22.Rxg8+ Nxg8 23.Qh8 Kd7

24.Qh3+! Ke8 ( 24...Kc6?? 25.Ba4 + Kc5 26.f4+- ) 25.Qh8 Qf8

26.Rg1 Ne7 ( 26...Nh6 27.Qf6!

white threatening 28.Rg7 and there is no better way but comeback Ng8; 26...Ke7 27.Rg7 d5 28.exd5= )

27.Bxf7+! key point Kd7

( 27...Kxf7

28.Qh5+ Ke6 29.Qh3+= ) 28.Qf6

Bxf2 29.Rg2 Be3 30.Qe6+ Kd8

31.Qf6= ]

[ Francesko made a wrong choice.

Although he made a draw, his position was clearly worse later

16...Qd7? 17.Bxf6 Qh3 18.Qe2 gxf6

19.Rg1± ][ another way to prepare g5 has a drawback 16...Rg8 17.f4! that's

the drawback: black is unable to make a "fork" due to king's position

on h7 g5!( 17...exf4? 18.Qxf4 g5

19.Qf5+± )

18.fxg5 hxg5 19.Bxg5 Nxe4  
20.Rxe4 Qxg5 21.Qxg5 Rxg5  
22.Bxf7= ]

### 17.Rg1

[ 17.c3 g5 18.Bg3 ( 18.Bxg5 hxg5  
19.Qxg5 Rae8!-+ ) 18...Nh5+ ]

**17...Rg8!** now it's fine and just in time

### 18.c3

[ 18.f4 exf4 19.Bxf6 ( 19.Qxf4 g5  
20.e5 dxe5 21.Rxe5 Qd6-+ )  
19...Qxf6 20.c3 g5+ ]

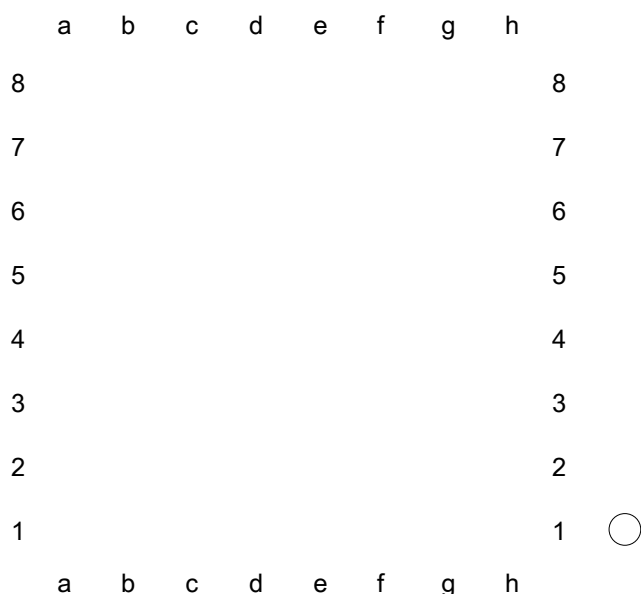
**18...g5 19.Bg3 Nh5+**

**1/2**

□ **Eljanov,Pavel** **2681**

■ **Malakhatko,Vadim** **2558**

Chigorin Memorial 20th (7) 02.11.2012



### 29.Rd7!

[no king retreats yet 29.Kh1? Rae8+ ]

**29...Qc5 30.Kh2!!** but now it's just in time! Unfortunately I was calculating

only forced lines and failed to find a win

[The game went 30.Qxe4?

I won later but it's objectively drawish

Qxe3+ 31.Qxe3 fxe3= ]

[ 30.Kh1 Qh5 ]

[ 30.Qh6 Rg8+ 31.Kh1 Qf5+ ]

### 30...Qg5

[ 30...Qf5 31.Qe7 Rg8 32.Rxf4+- ]

**31.Rg1 Rae8 32.Qd6+-**

**1-0**

## Endgame Series 19

### Opposite-colored Bishops: Part 2

Hello, Dear chess friends! You might remember that in the previous issue of Endgame Series we laid down the groundwork for a discussion of opposite-colored bishops endgames. In the current issue, we will examine somewhat more complex examples of such endgames. It may not be a bad idea to refresh your memory with the basic guidelines that we listed in the previous issue as you go through the new examples. I have mostly picked examples where the stronger side tries to win based on the principle of two weaknesses. In other words, it already has an outside passed pawn (the first weakness), but in order to win, it has to create and take advantage of the second weakness, usually a weak pawn on the other flank. Penetration of the king is often the guiding idea for the stronger side, and the defender does everything in his power to prevent it. In some of these examples, you will see

that it can be difficult for the weaker side to calculate or judge which pawns to exchange and which to leave on the board; whether to defend passively or actively, etc. Despite their drawish tendencies, it is not easy to defend endgames with opposite-colored bishops accurately in practice. For a start, I will let you marvel at one of the most beautiful endgame moves ever from the game Topalov–Shirov, 1998.

**Topalov, Veselin** **2740**  
 **Shirov, Alexei** **2710**  
 Linares 15th (10) 04.03.1998

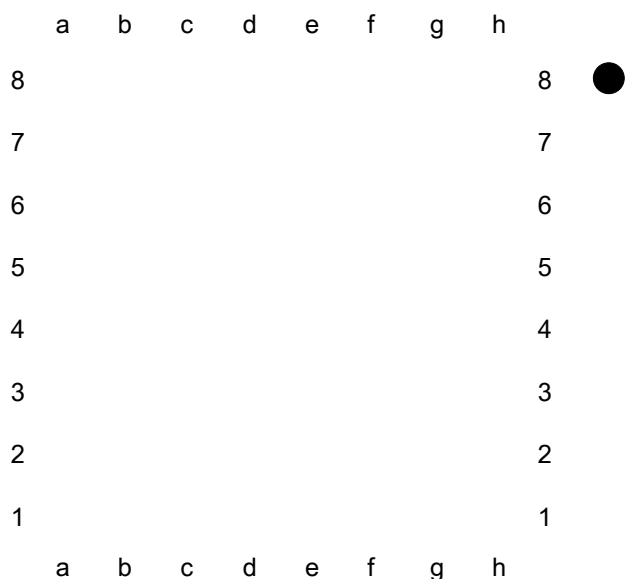
	a	b	c	d	e	f	g	h	
8									8 ●
7									7
6									6
5									5
4									4
3									3
2									2
1									1
	a	b	c	d	e	f	g	h	

Shirov's brilliance is both instructive and aesthetically pleasing. Shirov is up two pawns in this opposite-colored bishops endgame, but, as we know, sometimes this is not enough to win the game. In this case, the white bishop can control both passed pawns on the same diagonal (a1–h8). Another thing white has going for him is that these pawns are only 2 files apart, increasing his drawing odds. Therefore, black needs to



to penetrate with his king quickly. After analyzing the alternatives, Shirov comes up with an ingenious idea, which is also the only winning move: **47...Bh3!!** There are two points to this move: firstly – it opens up the route for the king: f5–e4–d3, etc. and secondly, it wins the crucial tempo by creating contact with the g2 pawn, so that white king is not in time to reach the critical e3 square. The difficulty with this move is that it requires a lot of imagination to come up with it in the first place, because how often do you put a piece on a square where it can directly be taken, without any "obvious" threat?

[Quieter alternatives miss the win by a tempo. GM Karsten Mueller analyzed king's breakthrough toward the kingside, starting with: 47...Be4 48.g3 Kf5 49.Kf2 a3 50.Ba1 Bh1 51.Ke3 Kg4 52.Bxf6 Kxg3 53.Ke2

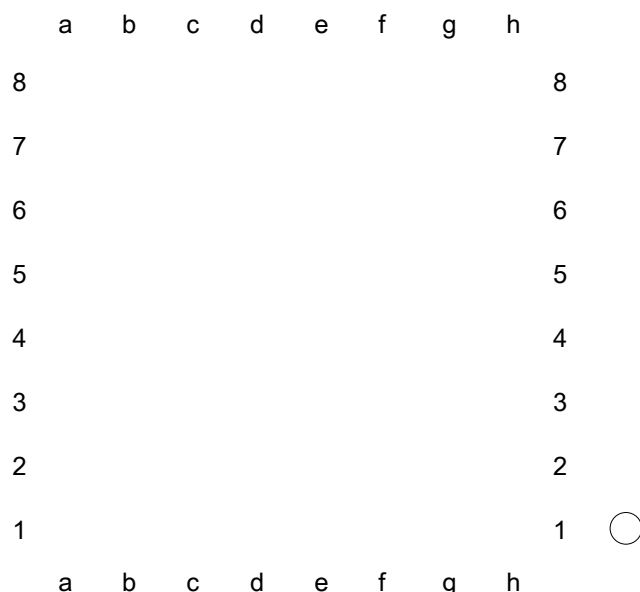


and now White can not successfully trade any of his passed pawns for White's h–pawn: a2 ( 53...d4

54.Bxd4 Kxh4 55.Bf6+ g5 56.Kd2= This would be winning for Black if his bishop was of the opposite color... ) 54.Ke3 Kg4 ( 54...a1Q 55.Bxa1 Kxh4



Black's pawns are only two files apart, the White king is positioned well, and it is not difficult for him to hold a draw. For example: 56.Bf6+ g5 57.Kd4 Kg4 58.Ke5 Kh5 59.Be7 g4 60.Bf6 g3 61.Kf4 g2 62.Bd4 Kh4 63.Bg1= ) 55.Ke2 Kf5 56.Ba1 Ke4 57.Kd2 d4 58.Bb2 Bf3 59.Ba1 d3 60.Bf6 Both passed pawns are safely blocked and Black's last attempt is to give up the a–pawn for White's h–pawn. First, he secures the d–pawn with bishop maneuver: Bg4 61.Ba1 Bf5 62.Bb2 Kf4 Now he proceeds with the plan. 63.Bc3 Kg4 64.Bf6 a1Q 65.Bxa1 Kxh4

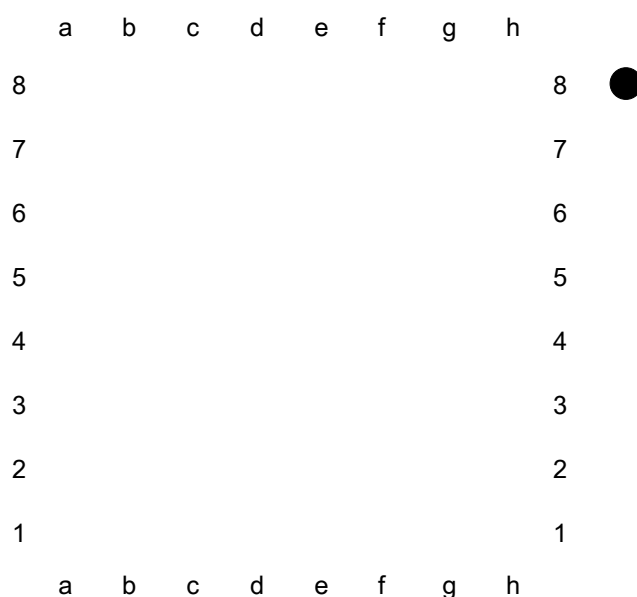


We saw that a similar endgame with the Black pawn on d5 is easily drawn. Naturally, with the same pawn on d3, white has to be more careful. GM Mueller shows how White holds this endgame with precise moves: 66.Bf6+ g5 67.Ke3 Kh5 68.Bc3 g4



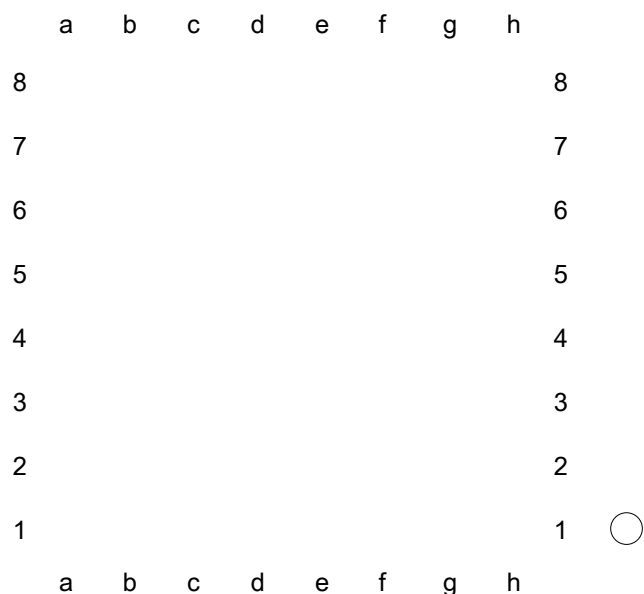
**A)** It would be a mistake to play 69.Kf4? instead, because of Kh4! 70.Be1+ ( 70.Kxf5 g3 71.Be1 Kh3 72.Ke4 g2 73.Bf2 d2-- ) 70...Kh3 and g4-g3 can not be stopped. 71.Ke3 g3 72.Kf3 g2 73.Bf2 Kh2--;

**B)** 69.Be1! Blocking both the pawn and Black king. 69...Kg5 70.Bg3

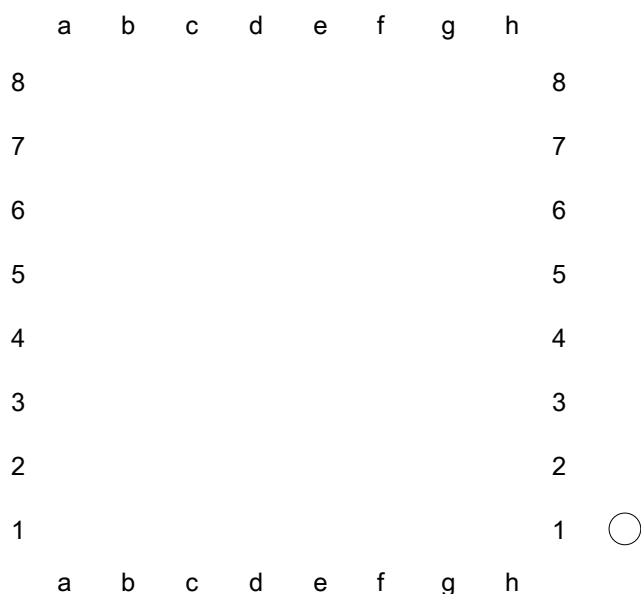


and this is a theoretical draw as we discussed in the previous issue. Black king can not break through when his pawns are only 2 files apart from each other, as the following variation illustrates: Kf6 71.Bh2 Ke6 72.Bg3 Kd5 73.Bf2 Kc4 74.Be1 Bc8 75.Ba5 Bb7 76.Kf4 Bf3 77.Ke3 Bg2 78.Kf4 Bh3 79.Ke3 g3 80.Kd2 Kd4 81.Bc7 g2 82.Bb6+ Ke4 83.Bg1= (Karsten Mueller) ]

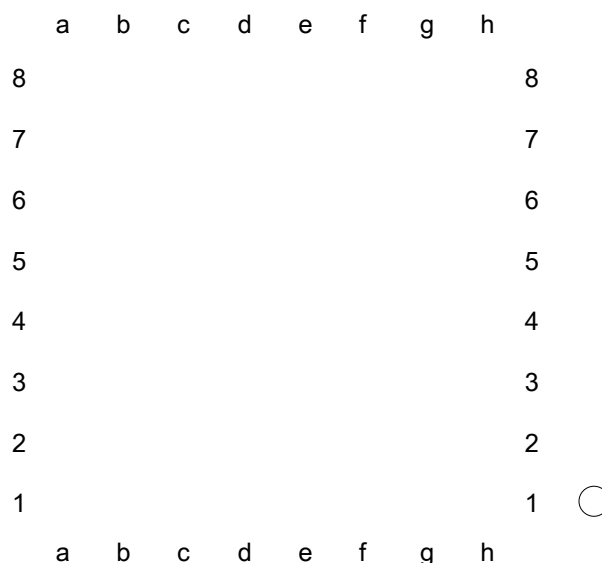
[ Another attempt for Black is to penetrate via queenside: 47...Kd6



48.Bxf6 Kc5 49.Kf2 d4 Cutting of White bishop. 50.Ke2 Kc4 ( 50...a3? is not good because of 51.Be7+ ) 51.Be7 Kb3 (or 51...Kc3 52.Kd1!) 52.Kd2 a3



53.Bc5! Only this move draws, keeping an eye on both pawns. ( 53.Bf6? loses because of Kc4 54.Kc1 Kc3 and a-pawn can not be stopped. ) 53...d3 54.Bd4 Ka2

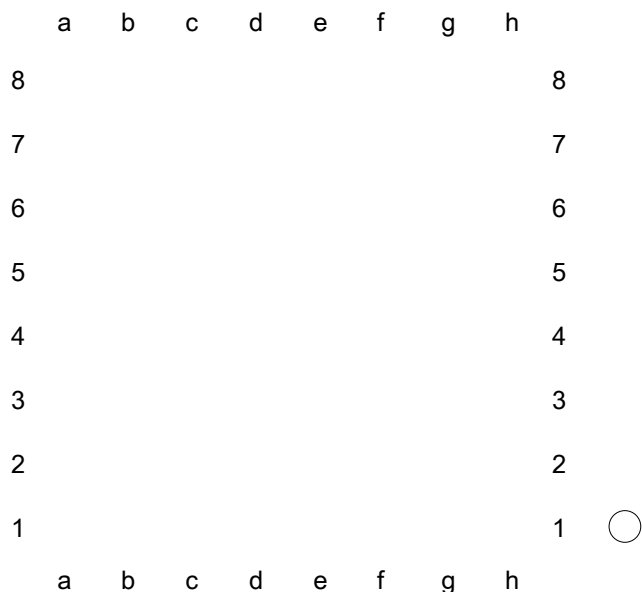


and now 55.Kc1! sets up the typical blockade. Compared to the game, we can see how Black's bishop is basically a useless piece as it can not help any of its passed pawns move forward. (White can not afford to get clever with 55.Bc5? because wins with a nice triangulation: Kb2 56.Bd4+ Kb1!+- stopping Kc1. ) The last thing Black can try is 55...d2+ 56.Kxd2 Kb1 57.Ke3 a2 when he does win the bishop but will have insufficient remaining material to win. 58.Kf4= ]

**48.gxh3** A significant detail about the bishop sacrifice is that after accepting it, White has doubled pawns, which means that he can not create a passed pawn of his own anymore!

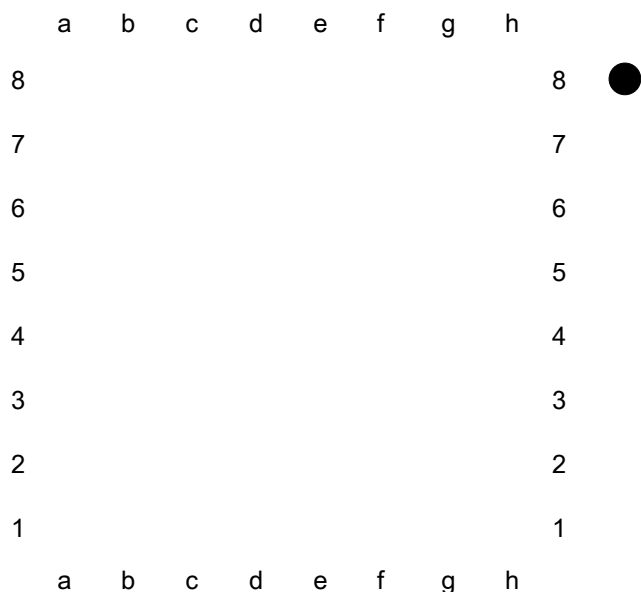
[ Unfortunately for White, he can not bring his king to the center in time:

48.Kf2 Kf5 49.Kf3

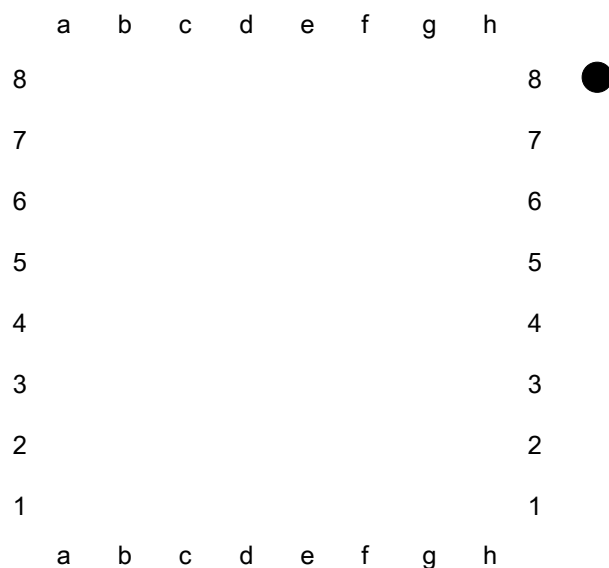


48.Bxf6 Kc5 49.Kf2 d4 Cutting of White bishop. 50.Ke2 Kc4 ( 50...a3? is not good because of 51.Be7+ ) 51.Be7 Kb3 (or 51...Kc3 52.Kd1!) 52.Kd2 a3

because of Bxg2+! which is one of the points of Shirov's combination. 50.Kxg2 Ke4-- (Shirov,A) and we can see how Black wins after: 51.Bxf6 d4 52.Be7 Kd3 53.Bc5 Kc3 54.Kf2 d3 55.Ke1 Kc2 56.Bb4 a3-- ] [There is one more possibility that is worth analyzing: 48.Kh2



Bg4! "Wasting" a tempo with the bishop like this was worth it because now White king is one file further away from the center. (because now 48...Kf5 might does not work due to 49.Kxh3 Ke4 50.g4! d4 51.Bb4 f5 52.g5! ≠



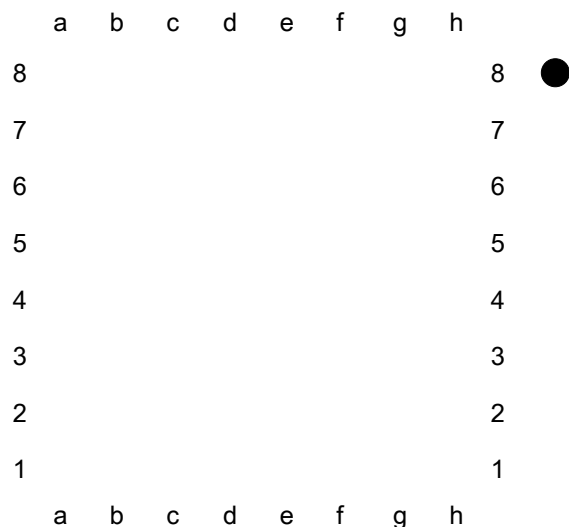
and White suddenly obtains counterplay with h4-h5 and g5-g5 pawn breakthrough. ) 49.Kg3 Kf5 50.Kf2 Ke4! and Black king reaches the critical squares first. 51.Bxf6 ( 51.Ke1 Kd3-- ) 51...a3 52.Ba1 d4 53.Ke1 Ke3-- ]

**48...Kf5**



Black king is headed toward the c2 square. If he could reach it, there would be nothing that White could do to stop Black's passed pawns. **49.Kf2 Ke4 50.Bxf6** White might as well take the pawn,

[since the endgame with 3 passed pawns against the bishop is absolutely hopeless for him: **50.Ke2**



**f5--+** (Shirov,A) ]

[or **50.Bb4 Kd3 51.Ba3 d4 52.Bb2 f5 53.Kf3 Kc4! 54.Ke2 d3+ 55.Kd2 f4 56.Be5 f3 57.Ke3 f2 58.Kxf2 Kb3--+** ]

**50...d4!** Naturally, we should cut off the bishop first.

[ **50...a3?**



would allow White to set up the blockade after **51.Ba1 Kd3 52.Ke1 d4 53.Kd1 Ke3 54.Ke1 d3 55.Bc3 a2 56.Be5 d2+ 57.Kd1=** ]

**51.Be7**

[Alternatively, **51.Bg5** is still met by **Kd3! 52.Ke1 Kc2--+** ]

**51...Kd3 52.Bc5**

[ **52.Ke1 Kc2--+** ]

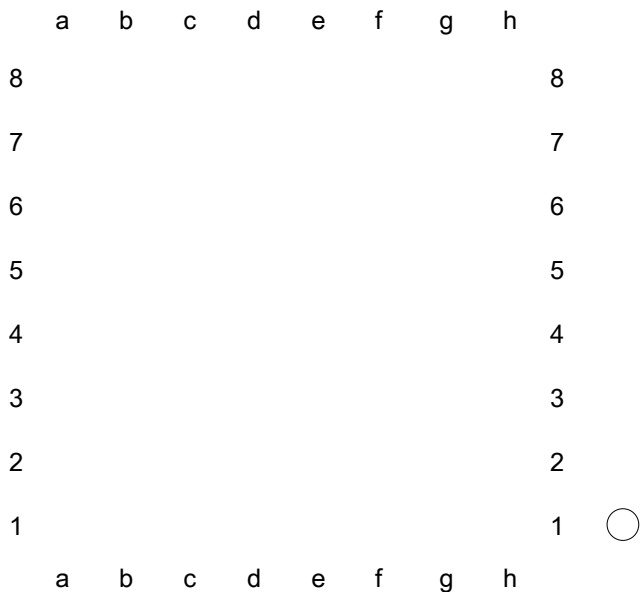


**52...Kc4!** All of this must have been foreseen by Shirov before he played **47... Bh3**. With this small detour, Black chases away White's bishop, so that his d-pawn is not hanging when he reaches for the c2 square.

[ **52...Kc3?** would be giving up the precious tempo and after **53.Ke2** black could even lose if he plays **d3+?** ( **53...Kc4** is still a draw. **54.Bd6 Kc3=** ) **54.Kd1+-** ]

**53.Be7 Kb3** and Topalov resigned, Shirov has shown how sometimes the bishop can be successfully sacrificed in such endgames and that pawns supported by an active king can win the fight against the bishop.

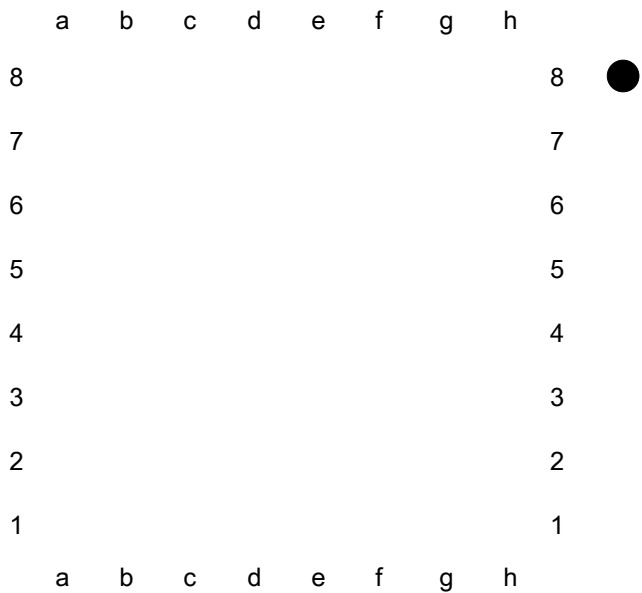
Now, let us take a look at several more "mundane" examples, which are nevertheless quite instructive. We start with the



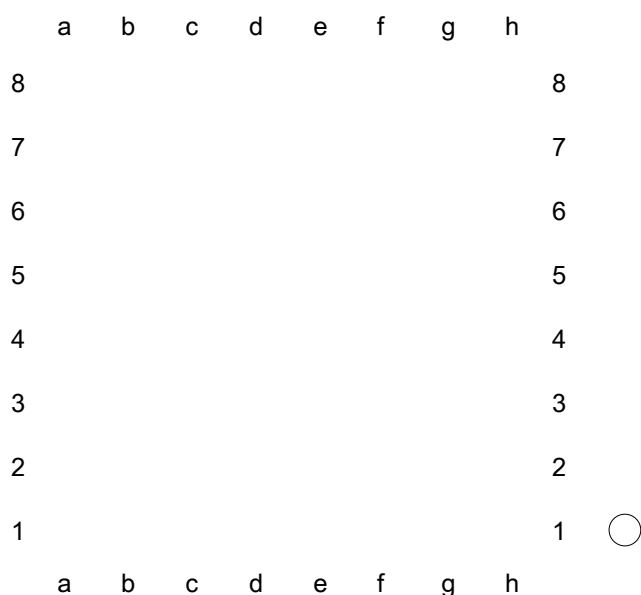
a3-+ ]

0-1

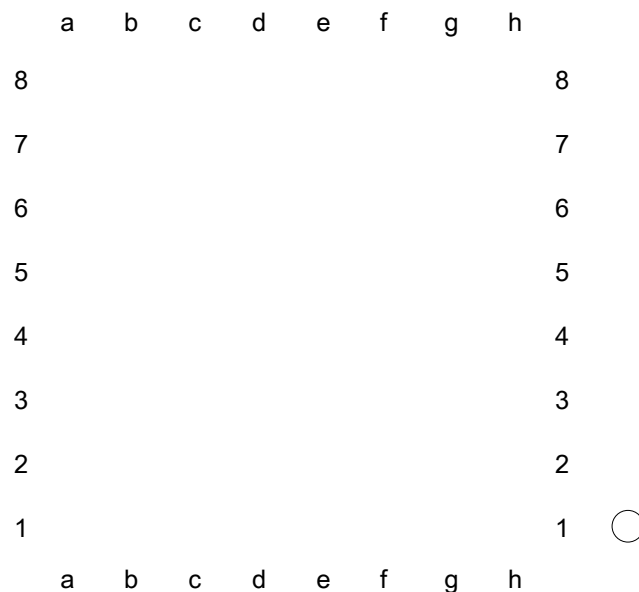
 **Volkov,Sergey** **2612**  
 **Tomashevsky,Evgeny** **2701**  
EU-ch 11th Rijeka (6) 11.03.2010



white gets a passed pawn of his own 40.b5 that ties down Black bishop as well. White should have sufficient counterplay for a draw. Below is a sample line: a3 41.Ke2 g5 42.b6 Bd5 43.Ke3 Kg6 44.g4 Kf7 45.Kd2 Ke8 46.Bf6 a2 47.Kc1 Kd7 48.Kb2 Kc6 49.Bxg5 Kxb6 50.Bf6 Kc5 51.h4 Kd6 52.g5 e5 53.h5 Ke6 54.Bh8 Kf5



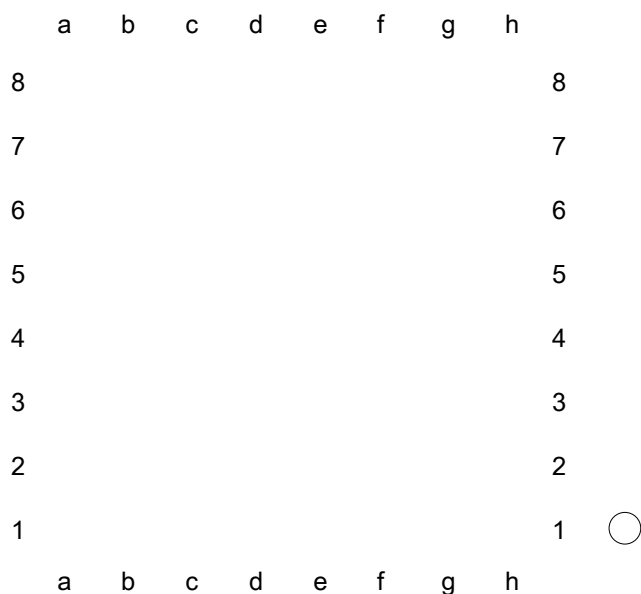
55.g6 hxg6 56.hxg6 e4 57.Bd4= ] [Secondly, there is a more modest move with the g-pawn: 37...g6!? Black does not want to leave the pawn exposed on g5 and plans to swing his king over to the queenside to support his pawns. White should, naturally, centralize his king as well: 38.Kf2 Ke7 39.Ke3 Kd7 40.Kd4 Bg2 ( 40...Kc6 41.Bf4 Kb6 42.h4 a5 43.Be5 is similar. ) 41.h4 Kc6



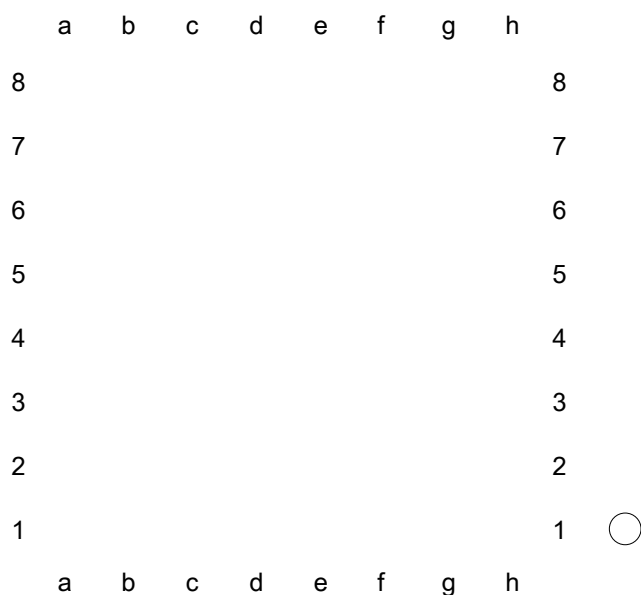
and now White should hold the defensive setup with full control over e5 square: 42.Bf4! The point is that this endgame is drawn even when black creates a passed pawn on the queenside, as we will see shortly. a5 43.Kc3 Bf1 44.Kd4 b4 45.axb4 a4 (Black also gets nowhere with 45...axb4 46.Be5 Kb5 47.Bf6 Ka4 48.Ke3 Kb3 49.Kd2 Ka2



50.Kc1= and White holds the blockade. ) 46.g4 Kb5 47.Kc3 h5 48.gxh5 gxh5

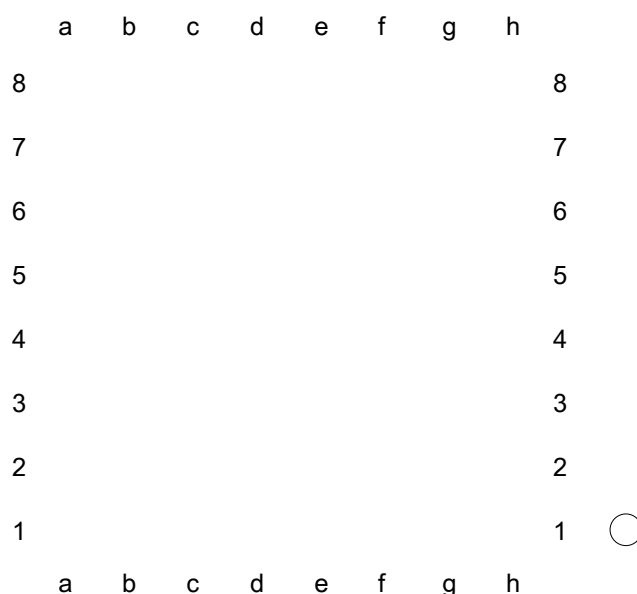


49.Be5! only like this can Black hold a draw. ( 49.Bc1? e5 should gradually lose as Black stretches White's defenses with the e-pawn. ) 49...Bc4 50.Bf4 a3 51.Be5 a2 52.Kc2 Kxb4 Black won the pawn back, and he is two pawns up again. He also has a passed pawn on the second rank, but to no avail – Black holds the blockade comfortably: 53.Kd2 Kc5 54.Ke3! Kd5



55.Kf4!= Black king "shall not pass". This is an important position to remember because the pawns are 3 files apart, which is normally winning. The problem for the stronger side is not only that there is only one defensive diagonal (a1–h8), but also that one of his passed pawns is on rook's file, which makes it impossible for the king to support it from the side. ]

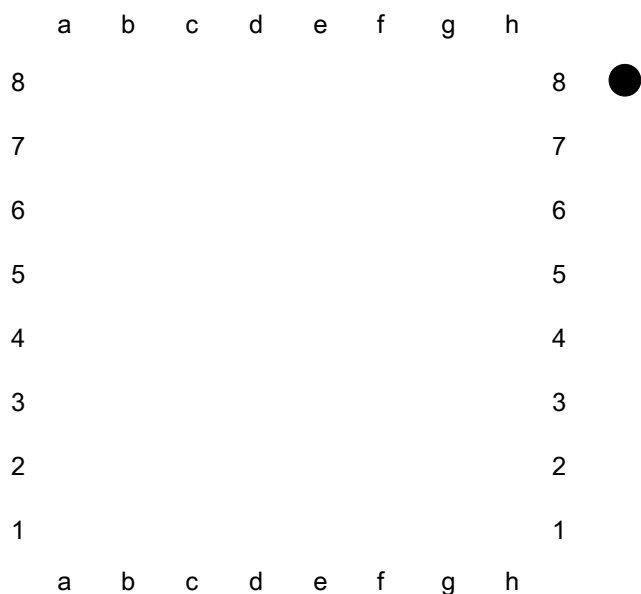
### 38.Bc3 Kg6



**39.g4!** In principle, the weaker side should avoid putting his pawns on the color of opponent's bishop. However, in this case, Volkov correctly judges that it would be more dangerous to let Black king penetrate via f5.

[In case of 39.Kf2 Kf5 40.Ke3 Black can first clarify the situation on the kingside with Bg2! 41.h4 gxh4 42.gxh4 h5 43.Be1 e5 44.Ba5





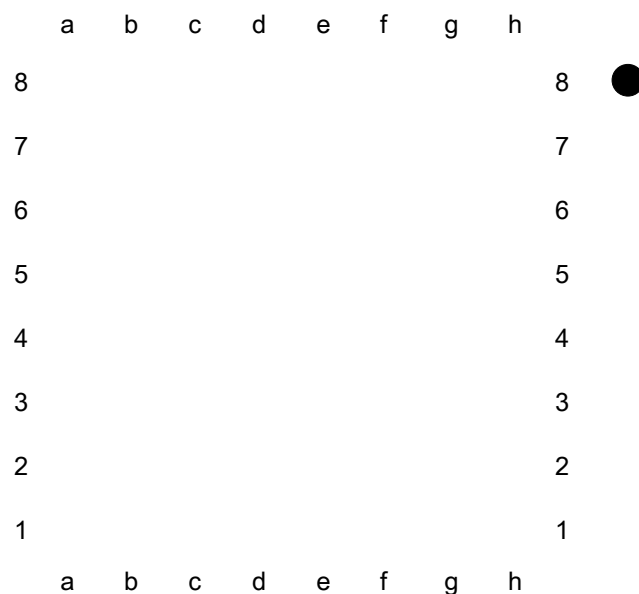
and then he wins by sending his king to the queenside: Ke6! 45.Bc7 Kd5

46.Kd3 Stopping Kc4, but not for too long. Bh3! This simple move puts white in a sort of a zugzwang. Both his king and bishop are on ideal squares and now one of them has to move.

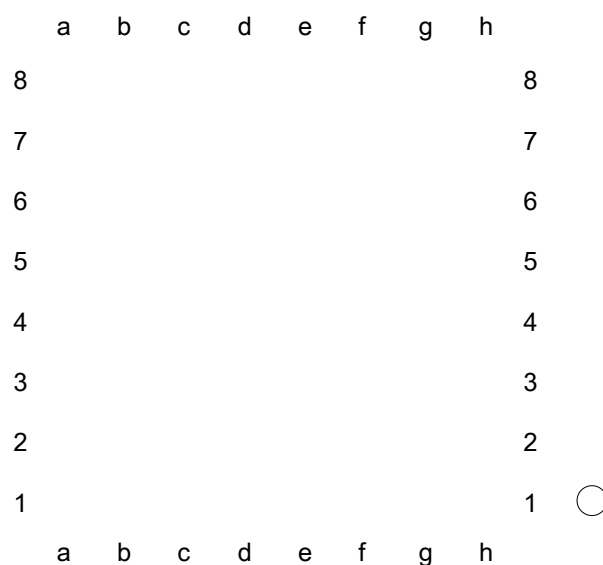
**A)** or 47.Ke3 Bf5 48.Bb8 (while

48.Bd8 allows Kc4-+ ) Now Black can move forward: 48...a5 49.Bc7 b4-+;

**B)** 47.Kc3 e4! Using white king's position on c3. Now e-pawn has to be blocked by the bishop: 48.Bf4 Bf1 49.Be3 ( 49.Bc7 e3-+ ) 49...a5 50.Bb6 ( Similar is 50.Kb3 Bc4+ 51.Kc3 b4+ 52.axb4 a4-+ )



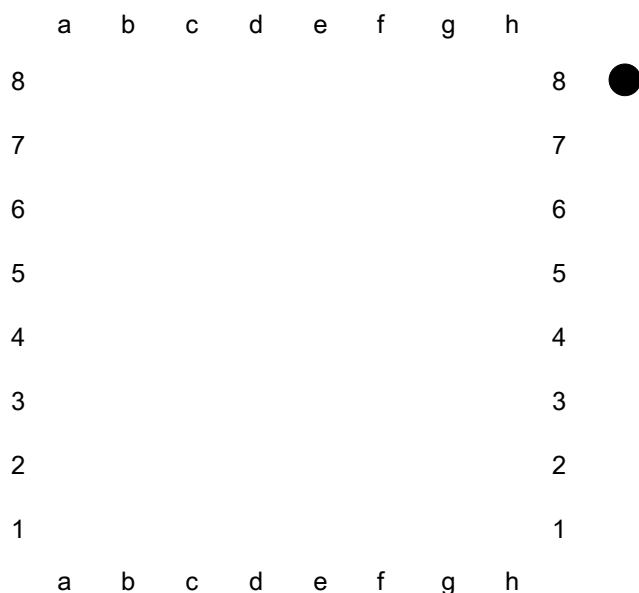
and now Black obtains another passed pawn with a typical breakthrough sacrifice: 50...b4+! 51.axb4 a4 Black's b-pawn is safely guarded by the bishop and Black wins technically by bringing his king to the kingside: 52.Bd4 Bb5 53.Bc5 Ke5 54.Be3 Kf5 55.Bd2 Kg4 56.Bg5 Kf3-+



**39...Bd5 40.Kf2 h5** Logically, this pawn should be pushed while the king is still on g6. **41.Bd4?!** It is tempting just to play "pass" moves as it seems that Black can not improve his position without the

help of his king.

[However, I see nothing wrong with  
41.gxh5+ Kxh5 42.Kg3



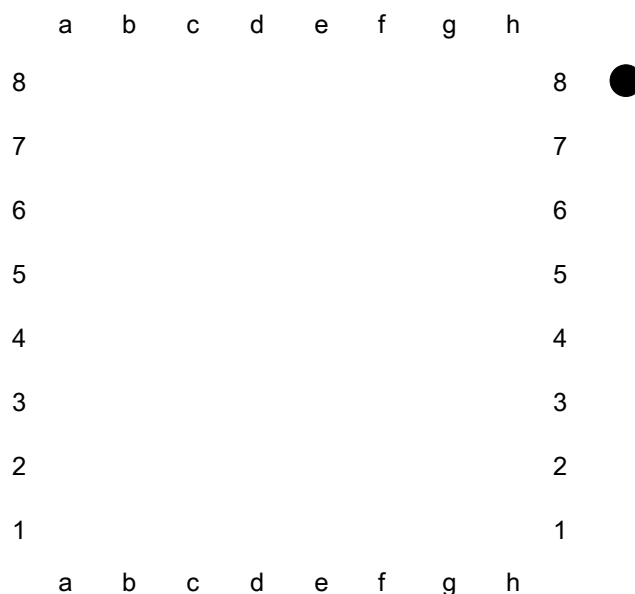
when it is hard to suggest a convincing way forward for white. Due to the weakness of g5 pawn, he can not bring his king to the queenside so easily. A sample line is: Kg6 43.Kf2 Kf5 44.Bd2 e5 45.Kg3 e4 46.Kf2 Be6 47.Ke3 Kf6 48.Bc3+ Kg6 49.Kxe4 Bxh3 50.Ke5 Bf5 51.Ba5 g4 52.Kf4 Bd7 53.Bc3 Kh5 54.Bd4 a6 55.Bf2 a5 56.Be1 b4 57.axb4 a4 58.Kg3= ]

**41...a6** Tomashevsky follows the golden endgame rule: "Do not hurry."

[Instead, 41...a5?! immediately would allow 42.Bc3 b4 43.axb4 a4 44.b5 with counterplay. ]

**42.Bc3 Bc4!?** A cunning move, as we will see shortly. **43.Bd4?**

[Again, there was nothing wrong with the exchange on h5: 43.gxh5+ Kxh5 44.Kg2 Kg6 45.Kf2 Kf5 46.Bd2 e5 47.Kg3 with draw as the most likely result. The weakness of his g5 pawn handicaps Black. ]



Tomashevsky's patient strategy has paid off. Volkov let down his guard for a second, thinking Black could not improve his position. **43...a5!** This is the right time for the long-awaited pawn break. **44.Bc3 b4 45.axb4 a4** This was the point of 42... Bc4 – the b-pawn is blocked. Black has definitely benefited from the pawn breakthrough as the passed pawn on the a-file will be a headache for White. **46.Bb2?**

A decisive mistake.

[Grandmaster Krasenkov analyzed in depth the drawing continuation 46.gxh5+ below: Kxh5 47.Bb2 , e.g. Kg6 ( 47...Kh4 48.Bc1 e5 49.Kf3 Bf1 50.Ke4 Bxh3 51.Kxe5 g4 52.Kd4 g3 53.Kc3 g2 54.Be3= ) 48.Kg3 Kf5 49.Kf3 Bf1! 50.Kg3 e5 ( 50...Ke4 51.Kg4 Kd5 52.Bc1 Kc4 53.Bxg5= ) 51.Bc1! e4 52.Kf2 Bxh3 53.b5 Kf6 54.Bb2+! Ke6 ( 54...Ke7 55.Bc1 ) 55.b6 Kd7 56.Bc1 g4 57.Ba3 with a curious position, in which the white king paralyses the black bishop and two pawns! Kc6

	a	b	c	d	e	f	g	h	
8									8
7									7
6									6
5									5
4									4
3									3
2									2
1									1
	a	b	c	d	e	f	g	h	

58.Bc5!= is now a reciprocal zugzwang! (M.Krasenkow) ]  
**46...h4!**

	a	b	c	d	e	f	g	h	
8									8
7									7
6									6
5									5
4									4
3									3
2									2
1									1
	a	b	c	d	e	f	g	h	

This is the point. Black fixes two white pawns on the light squares which gives him a great new target. I think that white underestimated this position as it seems like he always has sufficient counterplay

against g5 and h4 pawns. But more mutual weaknesses usually favor the attacker and we will see how Tomashevsky proves this point right.  
**47.Ke1 Kf7 48.Kf2 Bb5 49.Ke1**

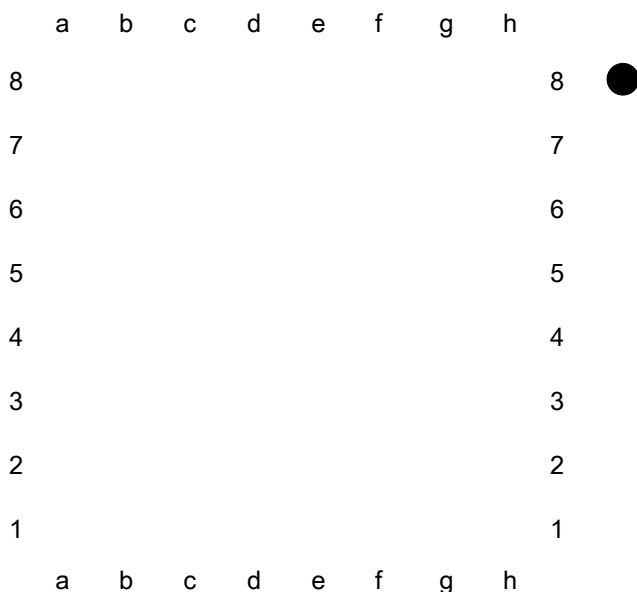
	a	b	c	d	e	f	g	h	
8									8
7									7
6									6
5									5
4									4
3									3
2									2
1									1
	a	b	c	d	e	f	g	h	

One of the problems for white is that he can not leave the f1 square undefended due to Bf1–Bxh3, etc. Black, on the other hand, needs to figure out how to break forward with his king.  
 Tomashevsky's solution is very elegant: **49...e5!** Another pawn sacrifice. **50.Bc1**  
 This is the most stubborn defense.  
 White will keep his king B3n e e



This endgame is trivially winning for Black as white king is tied to the defense of f1 square. Black simply marches his king forward and picks up everything in his way. 53.Bh8 Kd5 54.Kd2 Bf1 55.Kc1 Bxh3 56.Kb2 Bxg4-+ ]

**50...Kg6 51.Kf2 Kf6 52.Bb2 Ke6 53.Bc1**



**Kd5!?** Tomashevsky's move is natural, [although the most convincing way to victory was 53...e4! which we will actually analyze in the variation 55. Kf2! Kd5! ]

**54.Ke1**

[This time, the g5 pawn is the poisoned one. 54.Bxg5 Again, Black continues a3 55.Bc1 a2 56.Bb2 but here we have a new motive: e4!]



a b c d e f g h

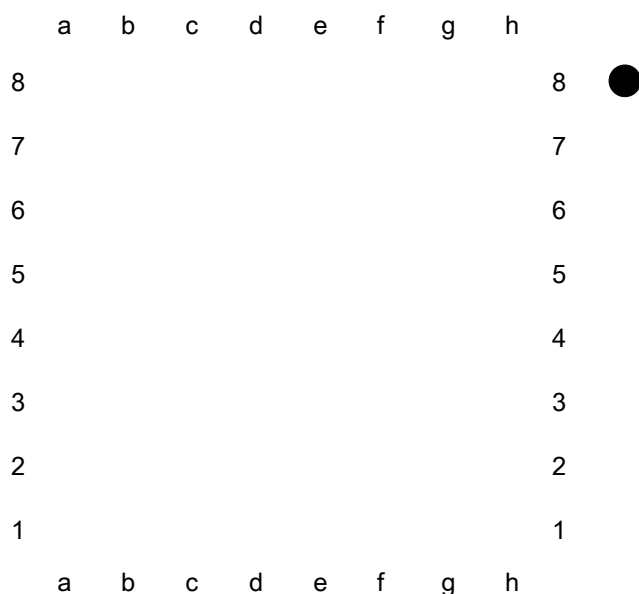
**A) 57.Ke3** would allow Bf1 and Black wins the pawn race after: 58.g5 Bxh3 59.g6 Be6 60.b5 h3 61.b6 h2 62.b7 h1Q 63.b8Q



a b c d e f g h

White king will find himself in the mating net after Qf3+ 64.Kd2 Qf2+ 65.Kc1 Qc5+! 66.Kd2 e3+ etc.; **B)** White can not use his passed pawn successfully, as we can see in the line: 57.g5 Bd7! 58.g6 (or 58.Kg2 Bf5 59.b5 Kc5--+) 58...Bxh3 59.g7 Be6--+;

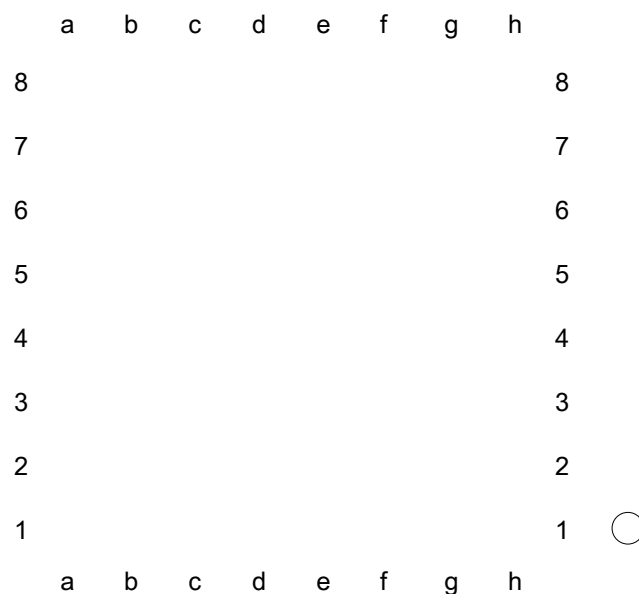
**C)** 57.Ba1 and here Black has a great winning motive, somewhat reminiscent of Bh3!! in Topalov-Shirov: 57...Bd7 58.Bb2



Bxg4! 59.hxg4 h3--+ and black's pawns are unstoppable. ]

**54...Ke4!** Tomashevsky chooses the most flexible route with his king, which testifies about his high class in the endgame.

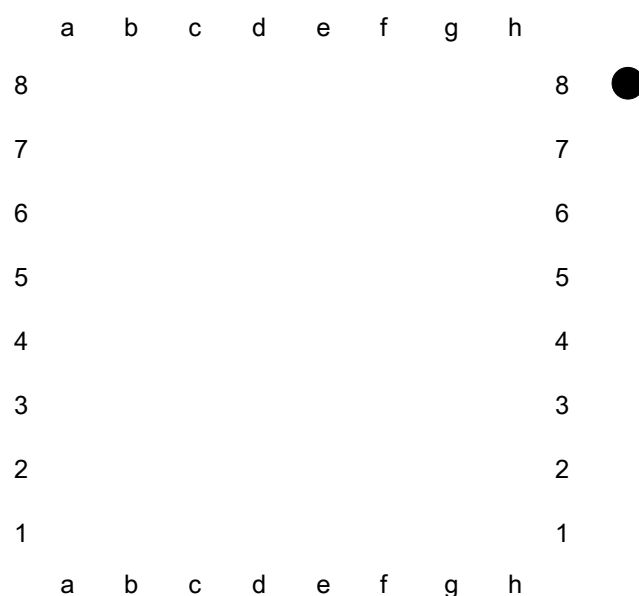
[It would be wrong to play the tempting 54...Kc4?



because it blocks the bishop's diagonal (Bb5-f1) and White gets an opportunity to "switch the workload" among his pieces with: 55.Kd1! Kxb4 ( 55...Kb3 56.Bxg5 a3 57.Bf6= ) 56.Bxg5 a3 57.Kc1= ]

**55.Bxg5** White goes down fairly easily after this move.

[ 55.Kd1



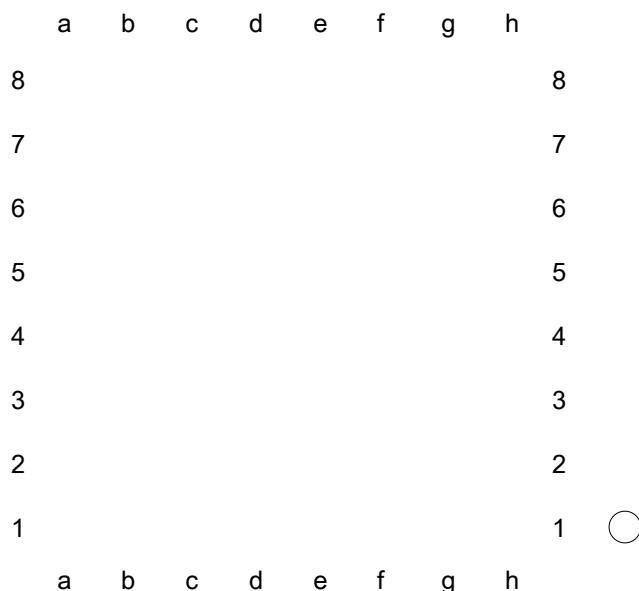
also does not work for White as Black can penetrate with his king: Kf3!

56.Bxg5 Kg3 57.Bf6 e4!

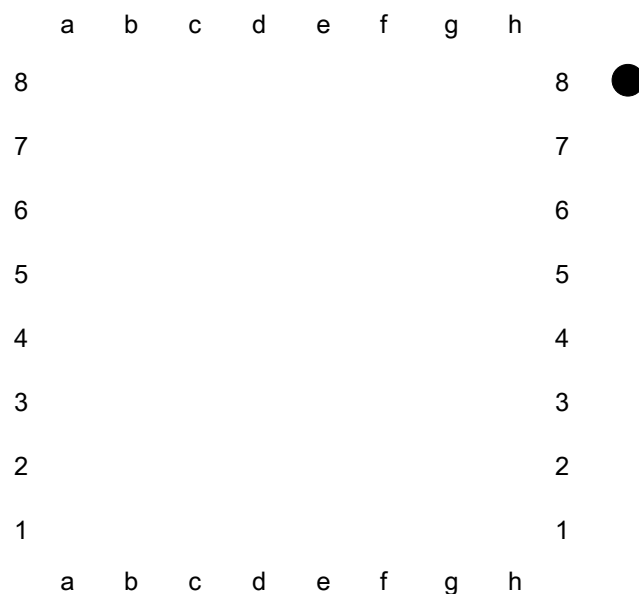
Black should, of course, keep as many pawns on the board as possible. 58.g5 Kxh3 59.g6 Kg4 60.g7 Bc4 and the pawn race, similar to one of the lines above, is won by black:

61.b5 h3 62.Be5 a3!-+ 63.b6 a2

64.b7 h2 65.b8Q h1Q+

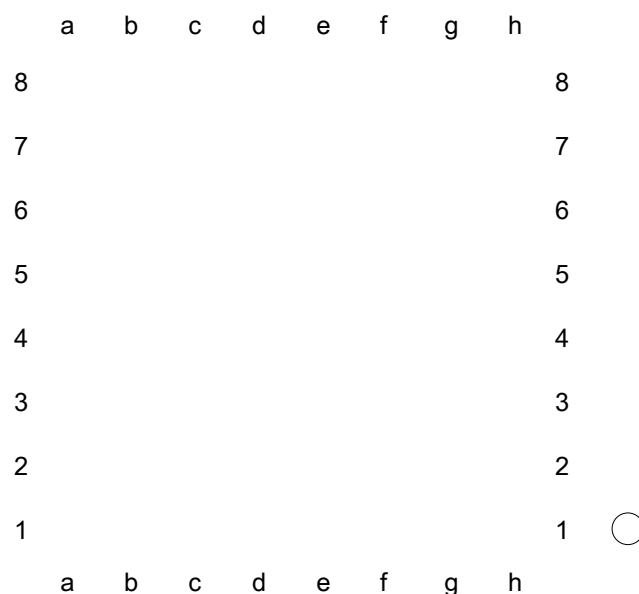


66.Kc2 Qg2+ 67.Kc1 Qf1+  
 68.Kc2 Qe2+ 69.Kc1 a1Q+  
 70.Bxa1 Qe1+ 71.Kb2 Qd2+  
 72.Ka3 Qa2+ 73.Kb4 Qb3+ wins  
 the queen and the game. ]  
 [However, a far more stubborn  
 defense was 55.Kf2!

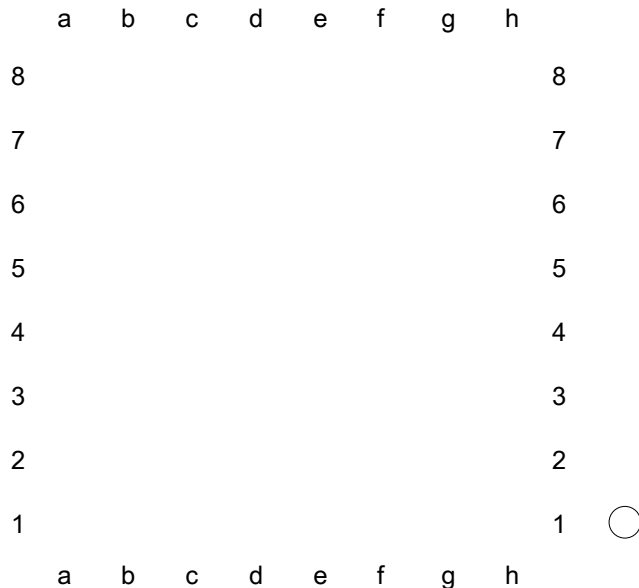


when, in fact, Black would need to "admit the mistake" and retreat with his king to e6! I will explain shortly why this paradoxical retreat is the only way forward for Black. Kd5!

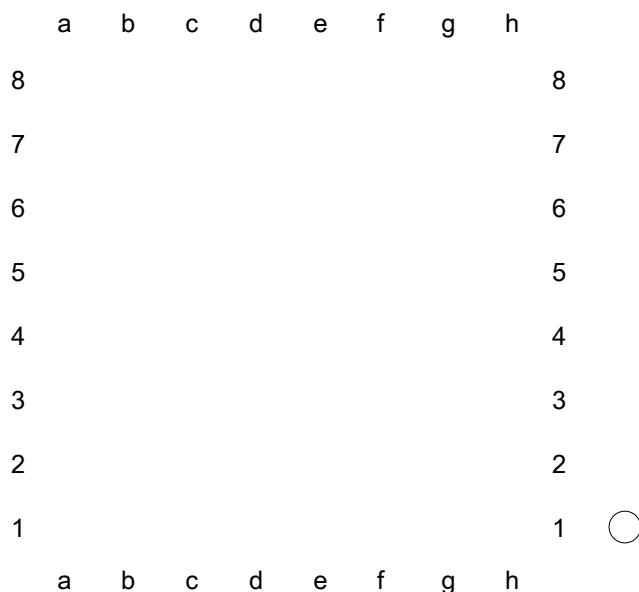
(Instead, the "natural" 55...Kd3  
 56.Ke1 Kc3



leads nowhere after 57.Bd2+! and if Kc2 then Black can finally take on g5:  
 58.Bxg5 a3 59.Bf6 e4 60.g5 Be8  
 61.g6 Bxg6 62.b5 Be8 63.b6 Bc6

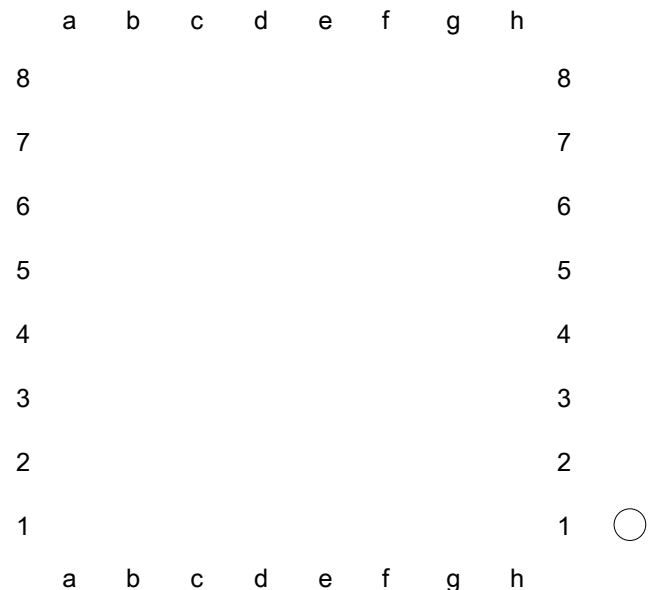


64.*Bxh4!*= and everything works out perfectly for the defender. ) 56.*Ke1* *Ke6!* 57.*Kf2* (We have seen in the analysis to 54.*Bxg5* why 57.*Bxg5* does not work: *a3* 58.*Bc1* *a2* 59.*Bb2* *Kd5* 60.*Kf2* *e4!*–+ etc. ) 57...*e4* 58.*Ke3* (In case of 58.*Ke1* Black has a nice winning idea *e3!* 59.*Bxe3* *a3* 60.*Bd4* *a2*–+ with a well-known winning position. ) 58...*Ke5!* ( 58...*Kd5* 59.*Kd2* )



A precise move, keeping options open for the king. 59.*Bb2*+ ( 59.*Kd2*

*Kf4!*–+ is the point. ) 59...*Kd5* 60.*Kd2* ( 60.*Kf2* *Ba6!*

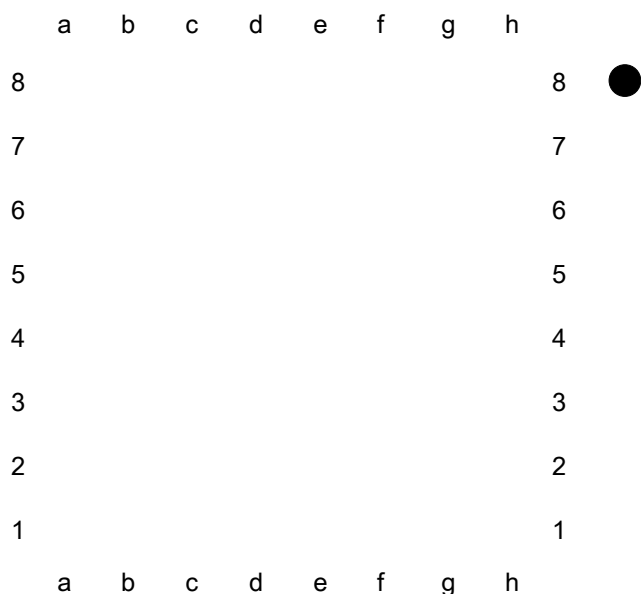


puts white in zugzwang. He can not keep control of all 4 squares: f1, e3, d4, and e3! ) 60...*Bf1* White king was finally out-maneuvred and black gets his bishop on the juicy f1 square. 61.*Bf6*



Now Black wins with a pretty combination with some study-like

motives: e3+! ( 61...Bxh3? 62.Bxg5 Bxg4 63.Bxh4 a3 64.Kc2= ) 62.Kxe3 a3 63.Bxg5 (White is one move too slow with 63.Kd2 a2 64.Kc2 Ke6! 65.Bd4 Bxh3 66.Kb2 Bxg4-+ )



and now, behold: 63...Ke6!! 64.Bh6 Kf6!-+ and a-pawn can not be stopped. ]

**55...a3 56.Bc1 a2 57.Bb2 Kf4 58.g5**



**Be8!** This is the ultimate precision that was required from Black.

[ 58...Kxg5? would throw away all of the good work from before: 59.Bxe5 Bd7 60.b5! Bxb5 ( 60...Bxh3 61.b6 Bg2 62.Kf2 Bb7 63.Kg1= ) 61.Kd1 Bd7 62.Kc2 Bxh3 63.Kb2= and white draws thanks to the wrong-colored bishop. ]

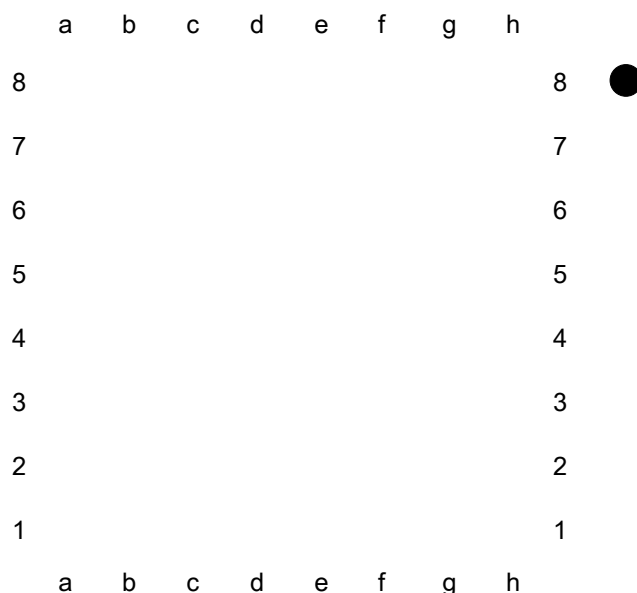
**59.Kf2**

[ Now the sacrifice 59.b5 does not work. Black keeps his e-pawn alive and after Bxb5 60.g6 e4 61.g7 Bc4!he wins easily. ]

**59...e4** The g5 pawn is hanging, practically forcing...

**60.Bf6**

[ 60.Bc1+



e3+! 61.Bxe3+ Ke4-+ ]



**60...e3+ 61.Ke2 Bb5+ 62.Ke1 Bd3!**



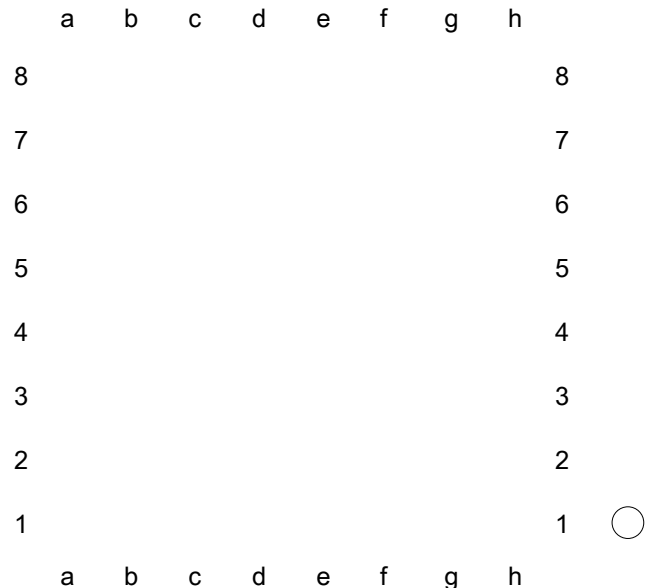
A nice maneuver to improve the bishop's position. White's position is hopeless. **63.Bd4 Kg3**

[ 63...Bf5 64.Ke2 Bxh3 was winning, too. ]

**64.g6 Bxg6 65.Ke2 Kxh3** Black will play Kg2 next, shielding the h-pawn and white will not be in time to hold both passed pawns. **66.b5 Be8 67.Kxe3 Kg2 68.b6 Bc6** White resigned. I think that the most useful takeaway from the previous example is the role that pawn sacrifices have in creating winning chances in opposite-colored bishops endgames. Tomashevsky sacrificed a pawn three times in the game and every time he did, his position improved. This is also a fundamental idea to have in mind when you are the weaker side in these endgames. Then, you can anticipate your opponent's most dangerous winning attempts and deal with them appropriately.

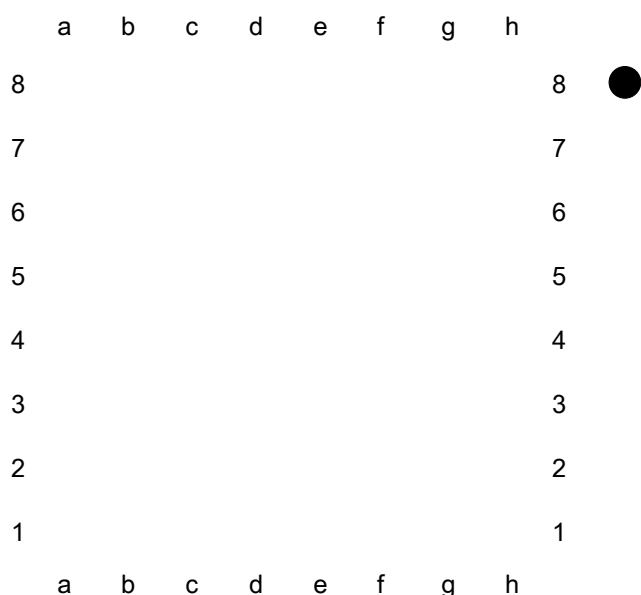
**0-1**

□ **Andreikin,D..** **2723**  
 ■ **Malakhov,V..** **2702**  
 TCh-RUS Blitz 2015 (8.1) 10.05.2015

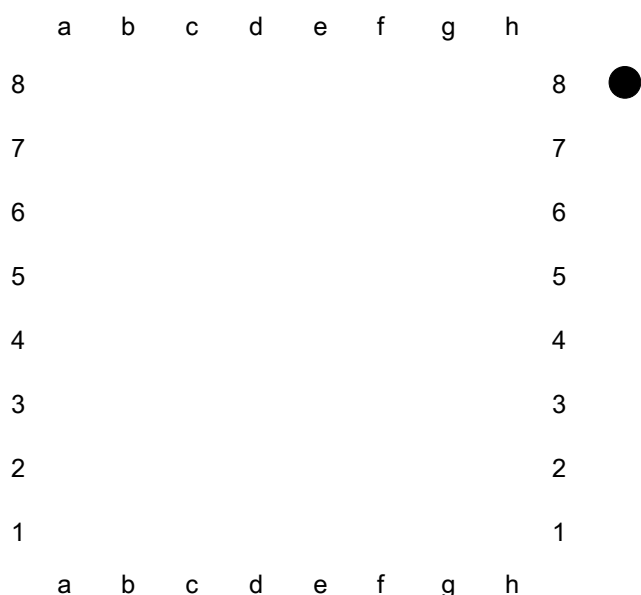


In the next example, we will see an endgame in which the defender made a similar principled mistake as Volkov did in the previous game, leaving a weak pawn on the color of opponent's bishop. If he had arranged his pawns on the color of his bishop instead, he would have held a draw easily. Black's advantage is minimal – only a pawn in a fairly symmetrical opposite-colored bishops endgame. If this was a classical or even rapid game, we would probably not have even talked about it as a strong player like Grandmaster Andreikin should be able to hold this position easily. However, this being a blitz game, he made a big principled mistake, but also an instructive one for our purposes. **25.c4** Not a bad move in itself – in fact it makes sense to trade a pair of pawns with the next c4-c5.

[ Even simple passive defense would work here: 25.c3



f5 26.f3 Bd5 27.a3 Kf7 28.Bf2 c5  
29.Be1 Ke6 30.Kf2 Bc6 Clearing the  
route for black king: d5–c4–b3 etc.  
31.Bd2!

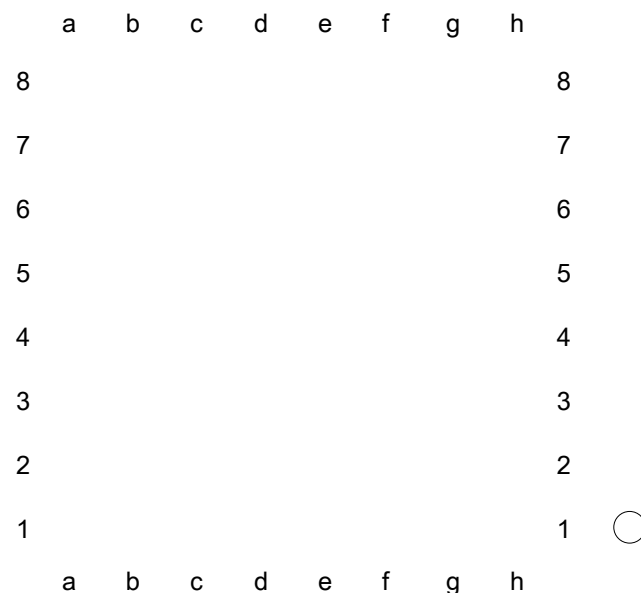


White is signaling that it is not going  
to be easy for Black to get his king to  
the queenside. f4 ( 31...g4 32.fxc4  
fxg4 33.Bf4 Kd5 34.g3 Ba4  
35.Ke3= ) 32.g3 fxc3+ ( 32...Ke5  
33.gxf4+ gxf4 34.Bc1= ) 33.Kxc3

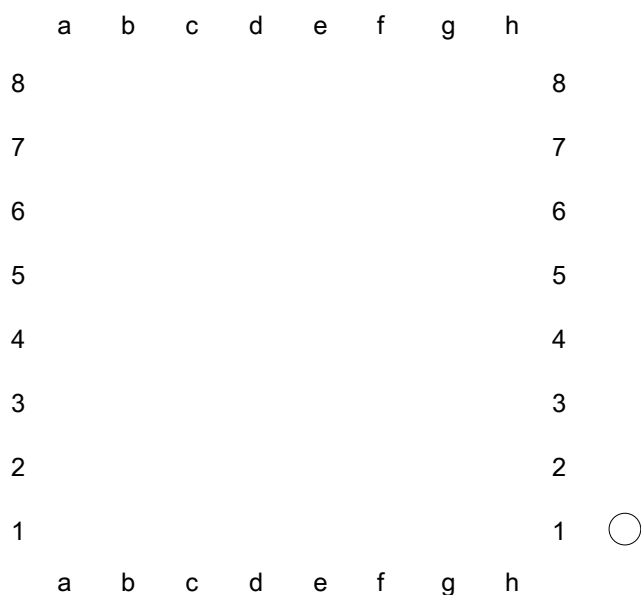


and similarly to Volkov–Tomashevsky,  
black has a g5 pawn to worry about.  
The last winning attempt, inspired by  
Tomashevsky's non-materialistic play  
in the previous game is Kd5!?

34.Bxc5 Kc4 35.Bf6 a5 Still, White  
draws by bringing his king back:  
36.Kf4 Kb3 37.Ke3 Kxa3 (or 37...d5  
38.Be7 d4+ 39.cxd4 c4 40.Bd8 a4  
41.Kd2 c3+ 42.Kc1 Bxf3 43.Ba5= )



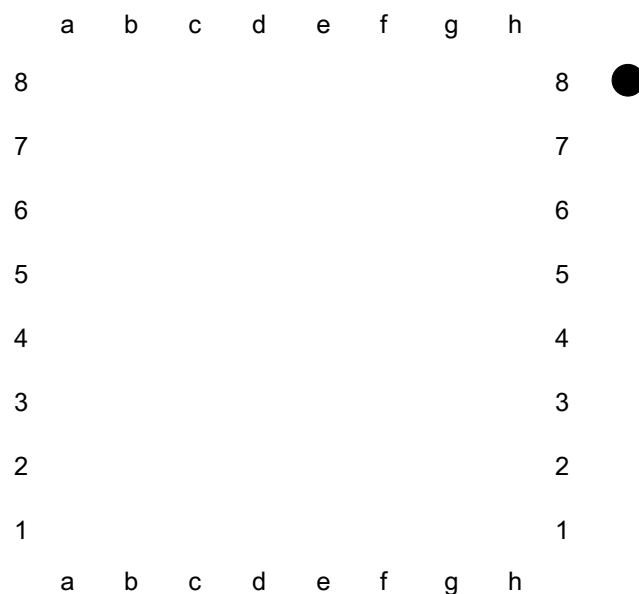
and now the precise move is 38.c4! fixing the pawn on d6. White can afford to lose both his remaining pawns if he wins the one on d6 as the resulting endgame is drawn: a4 ( 38...d5 39.cxd5 Bxd5 40.Be7 Kb4 41.Kd2 a4 42.Kc2= ) 39.Be7 Kb4 40.Kd3 a3 41.Kc2 Kxc4 42.Bxd6 Bxf3



43.Kb1= ]

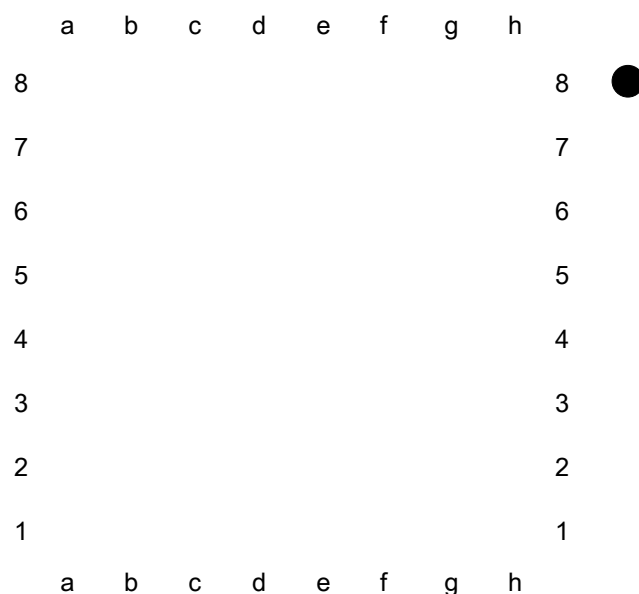
**25...f5 26.f3?** This is the real mistake. It looks like an automatic move, especially for a blitz game, but it allows black to fix his c-pawn on the light-square by force. In the previous example, white had similar problems with his pawns fixed on h3 and g4.

[ Instead, White should have completed his liquidation idea:  
26.c5

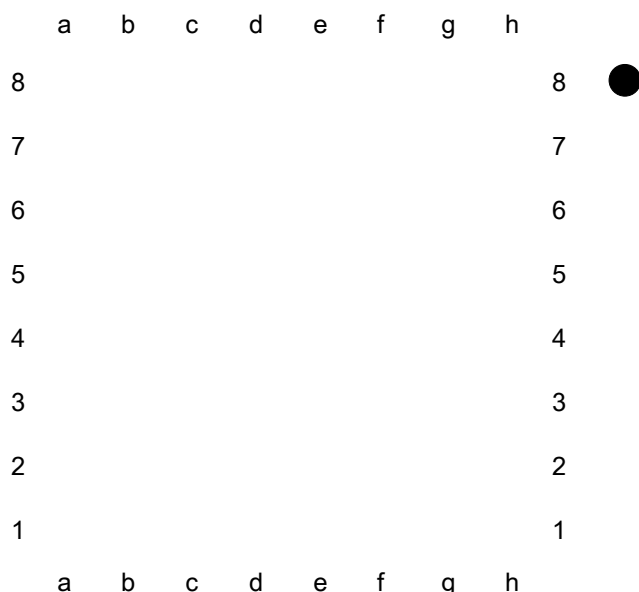


since after f4 he has the intermediate move 27.cxd6! cxd6 ( 27...fxg3?? 28.d7+- ) 28.Bh2 Now, the bishop does look ridiculous on h2, but this is only temporary as it will get out in about 2 or 3 moves. Kf7 29.f3 Bd5 30.a3 Ke6 31.Kf1 followed by Bg1, should be an easy draw. ]

**26...Bb1 27.a3 f4 28.Be1**

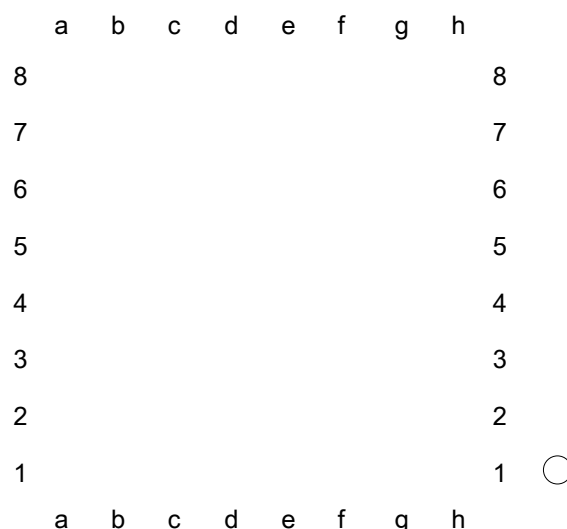


**c5!** A strong move that was maybe missed by white. Three of White's four pawns are fixed on the color of a Black bishop. Same is true for Black pawns with regard to a White bishop, but, as we explained in the previous example, this favors the attacking side. **29.Ba5 Kf7 30.Bd8**



**g4?!** A high-class idea by strong endgame player Vladimir Malakhov, only it does not fully work. We will come to the "why" part in just a second, but for now, it is important to understand that black can not defend all his pawns, so Malakhov decided to give up one of them in such a way that it doubles white's pawns. However, there was a stronger alternative.

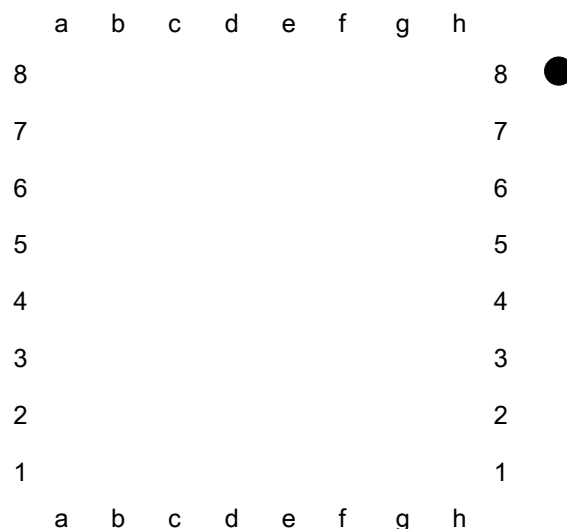
[ 30...Ke6!



Somewhat surprisingly, black obtains a winning position by giving up both g5 and f4 pawns! The point is that his connected pawns in the center will be stronger than white's kingside duo.

Let us see how: 31.Bxg5 Ke5

**A)** An interesting attempt to establish a blockade is 32.Kf2!? Ba2 33.g3 fxg3+ 34.Kxg3 Bxc4 35.f4+ Ke6 36.Bh6!



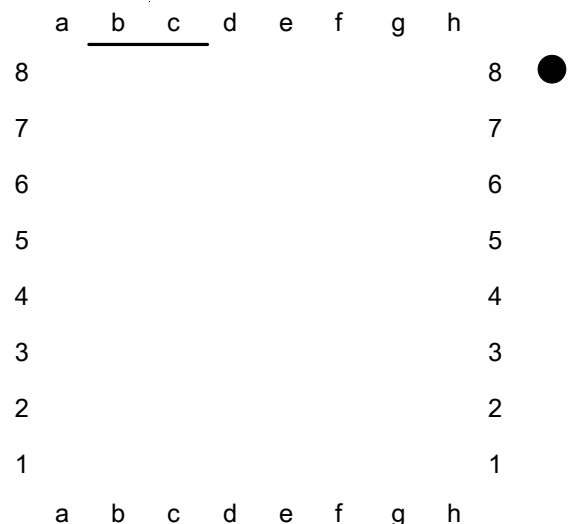
White is hoping to slow down black pawns by attacking them from behind. While black gets his pawns moving, white will bring his king to the center and stop them by

threatening to sacrifice the bishop, leaving black only with the rook pawn and the wrong-colored bishop (read: draw). Still, black can win with precise play: Bb5 37.Bf8 Bd3 38.Kg4



Bh7! The best diagonal for the bishop and White is in a small zugzwang.

**A1)** If the king goes forward 39.Kg5 then c4! threatens to promote. White can try to get back with the king by sacrificing a pawn: 40.f5+ (40.Bg7 is hopeless due to Kd5-- followed by Ke4, d5-d4 etc. )



which is met by 40...Ke5!! Not allowing Kg5-f4-e3.

(Instead, greedy 40...Bxf5?

41.Bg7 Bh7 allows White king to get back 42.Kf4= ) 41.Bg7+ Ke4

42.f6 Bg8-- and Black pawns will prevail.;

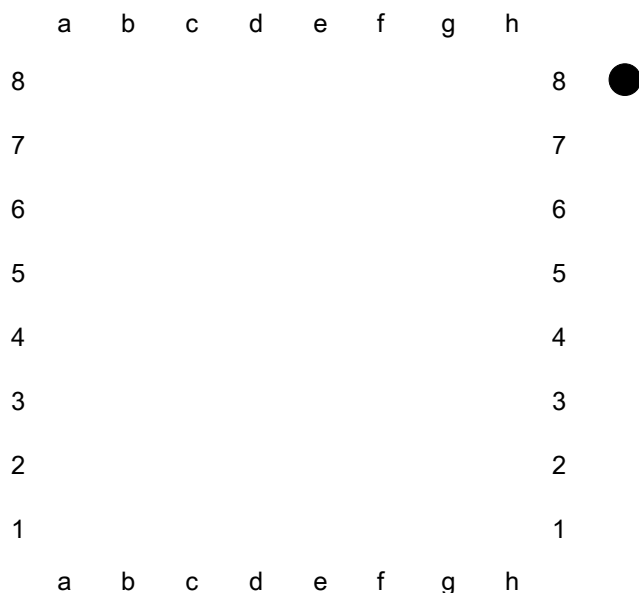
**A2)** 39.Kf3 on the other hand is too passive and loses eventually after Bf5 40.Ke3 Kd5 41.Be7 Kc6!-- similar to the mainline.; **A3)** 39.Bg7 Kd5 40.Bf8

(There is no use for 40.f5 Kc4 41.f6 Bg6 42.Kg5 Bf7-- + )

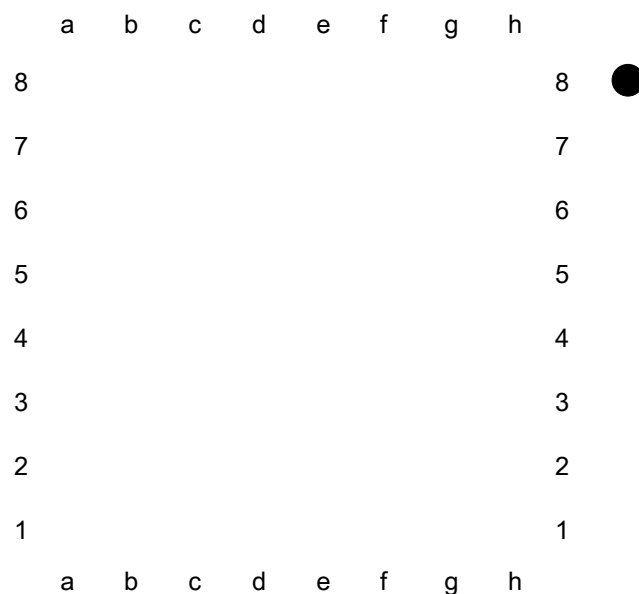


and here is an important maneuver worth remembering: 40...Kc6! Only like this can Black

start moving his pawns. 41.f5 d5 42.Kf4 d4 43.Ke4 Kb5 44.Bd6 ( 44.a4+ is also a possibility but does not change anything after Kc4 45.a5 a6 46.Be7 Bg8 47.Bf8 Bd5+ 48.Kf4 Bc6 49.f6 Be8 50.Ke4 Bg6+! kicking the king out of e4. 51.Kf4 Kd5-- followed by c5-c4, etc. ) 44...Kc4 45.Be7 It seems like White has achieved another annoying defensive setup. But Black can break it with the help of some nice tactical motifs. Firstly, he takes d5 square under control: Bg8 46.Bd8 (If white stays put with 46.f6 Bf7 47.Bf8 Black demonstrates a strong idea: a5! 48.Be7 d3 49.Ke3 Kc3! 50.Bxc5 d2-- and here we see the point of 47...a5 – there is no check on b4! ) 46...d3 47.Ba5



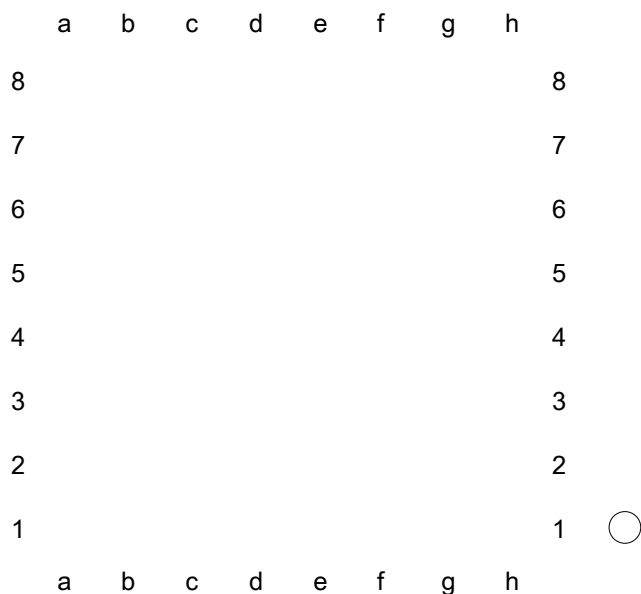
White played the only move, but it allows Black to win the crucial tempo with Kb5! 48.Bd2 c4 49.Bb4



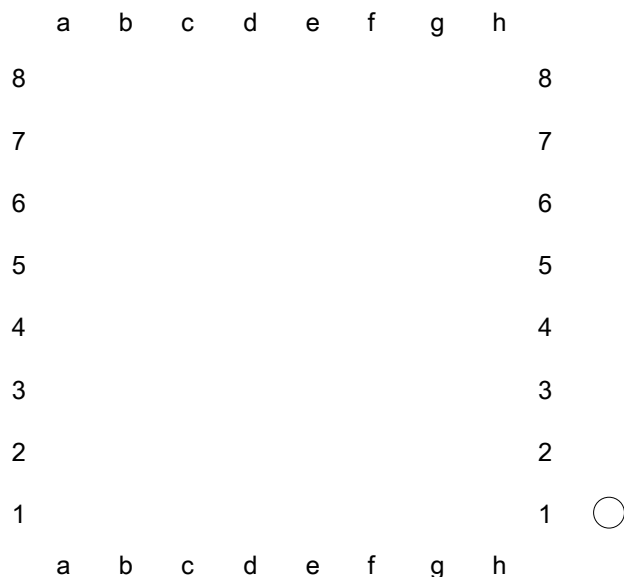
Now, White does hold the blockade on the dark squares, but he has another weakness on a3 and if black wins that pawn, he will have a winning position. Please note how White's passed pawn is virtually useless. Ka4 50.Ke3 a5 Again, this move is very important for Black. 51.Be7 Kb3 52.Kd2 and here Black finally seals the deal with Bh7! 53.Bd8 ( 53.f6 c3+ ) 53...a4 54.Ba5 Bxf5 55.Bb4



**B)** 32.Bh6 Ba2 33.Bg7+ Ke6  
( 33...Kf5 34.Bf8 ) 34.Bh6 Bxc4



**B1)** Taking immediately 35.Bxf4  
speeds up Black's pawns. After  
d5 36.Kf2 d4 37.g4 Bd3



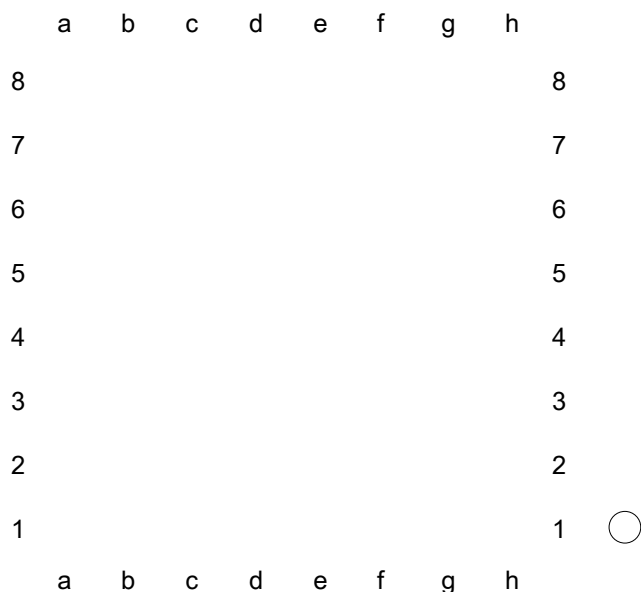
we have a pawn race of sorts, but Black is clearly ahead. The following variation confirms that Black's connected pawns are stronger: 38.Ke1 c4 39.Kd2 Bg6 40.Kc1 c3 41.Bg3 Kd5 42.Be1 Kc4 43.f4 Be4 44.f5 d3 45.f6 Bg6 46.g5



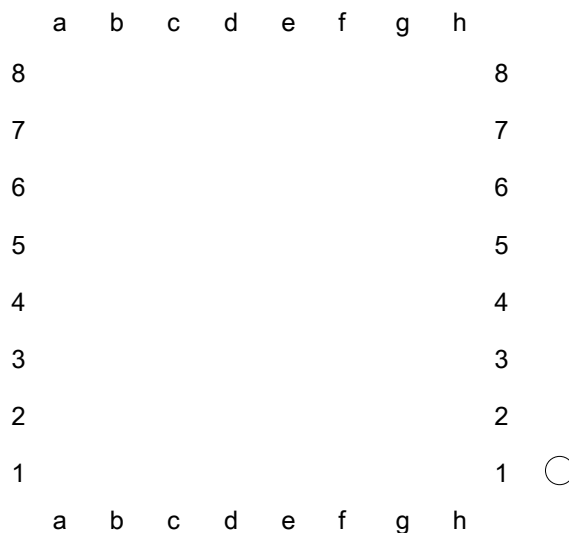
Kb3! puts White in zugzwang.  
(Just not 46...d2+? 47.Bxd2  
cxd2+ 48.Kxd2 Kb3 49.Kc1  
Kxa3 50.f7 Bxf7 51.Kb1=)  
47.a4 a5-+;

**B2) 35.Kf2!?** Probably the most

accurate move. 35...Bb5  
 ( 35...d5?? 36.Bf8= is the  
 point, of course. ) 36.Ke1 Ke5  
 ( 36...d5? is still premature.  
 White establishes the blockade  
 with 37.Bf8 c4 38.Bg7= )  
 37.Bg7+ Kd5 38.Bh6 Kc4!  
 No more beating around the  
 bush – Black needs to go  
 forward. 39.Bxf4 d5 40.Kd2  
 d4

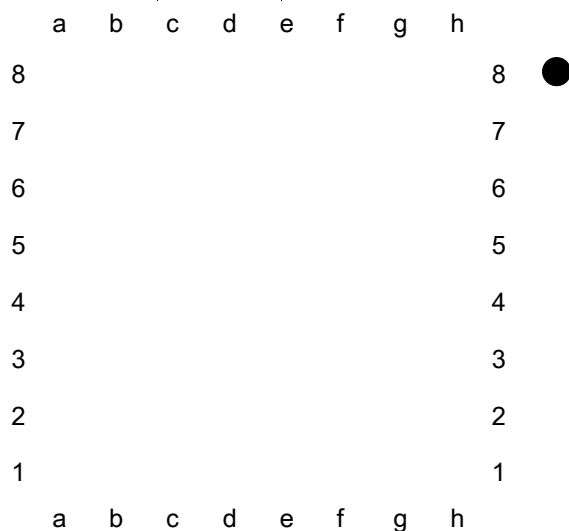


compared to the similar position  
 in 35. Bxf4 variation, here  
 White's king is placed better,  
 and he can try to meet Black's  
 pawn avalanche with an  
 attempt to sac the bishop on  
 c3. Thus, 41.Bb8 a6 42.Bc7  
 Kd5 43.Ba5 c4 44.Kc2 Ba4+  
 ( 44...c3?



45.Bxc3 dxc3 46.Kxc3=  
 is obviously White's  
 idea. )

**B2a) 45.Kb2**

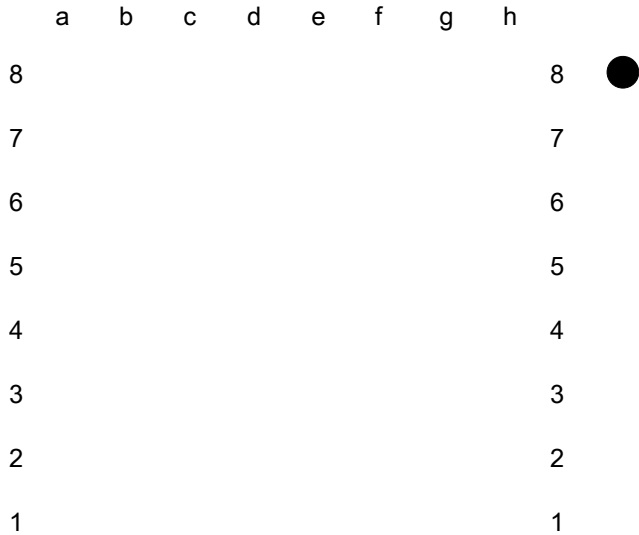


is also possible, taking away  
 the b3 square from Black king  
 while keeping c3 under control.  
 However, Black can create  
 another route for his king: Bd1!  
 46.Be1 Be2 47.Ba5 Bf1  
 48.g3 Bg2 49.f4 Bh3  
 By provoking White pawns to  
 move one rank forward, Black  
 cleared the e4 square for his

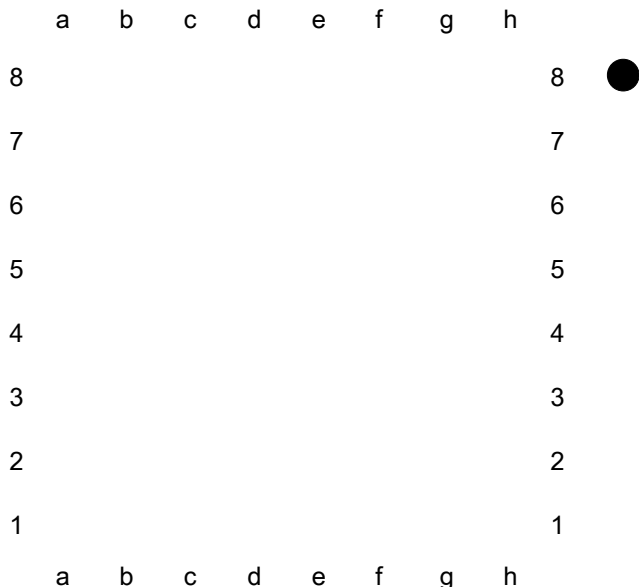


king. 50.Kc2 Bf5+ 51.Kb2  
(or 51.Kd2 Kc5--+  
as in the main line. )  
51...Ke4--+;

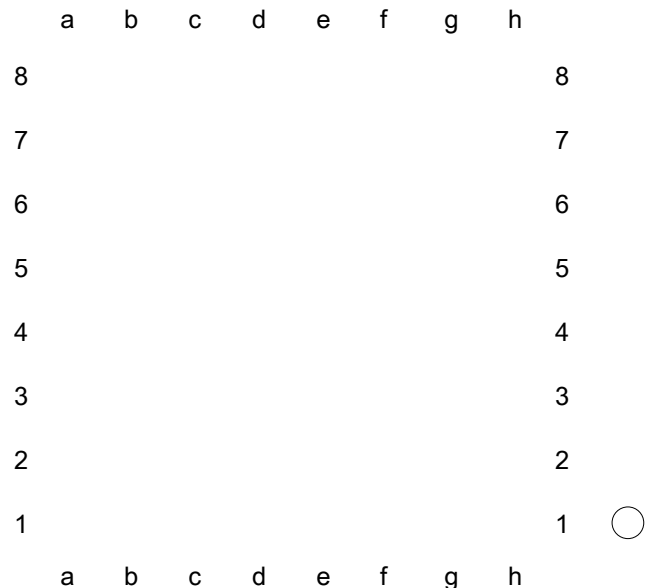
**B2b) 45.Kd2 Be8 46.g4**



It was high time for white to mobilize his kingside capital. But Black is just faster: Kc5! 47.f4 Kb5 48.Bb4 a5 49.Be7 Bc6! A precise and strong move. Black bishop will be placed excellently on e4; defending and attacking at the same time. 50.f5 ( 50.Bf6



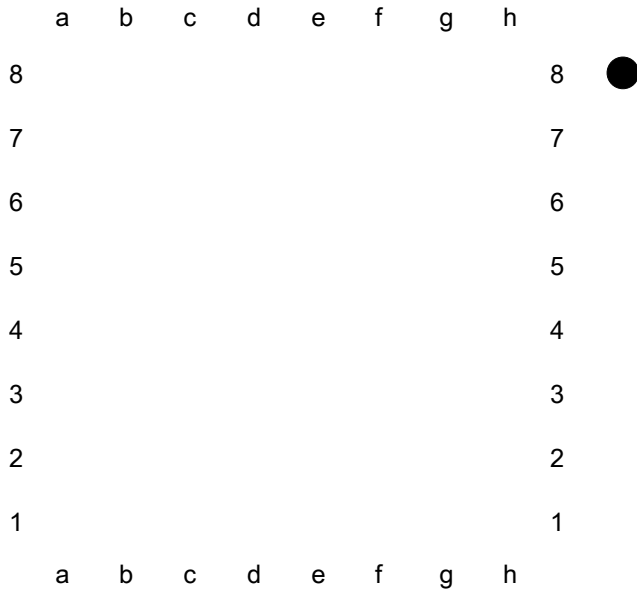
c3+ 51.Kd3 Be4+!  
52.Kxe4 c2--+ is the tactical point. ) 50...Be4 51.f6 This is White's only hope, but Black will get a winning queen's endgame after c3+ 52.Ke2 d3+ 53.Ke3 d2 54.f7 d1Q 55.f8Q Qd3+--+



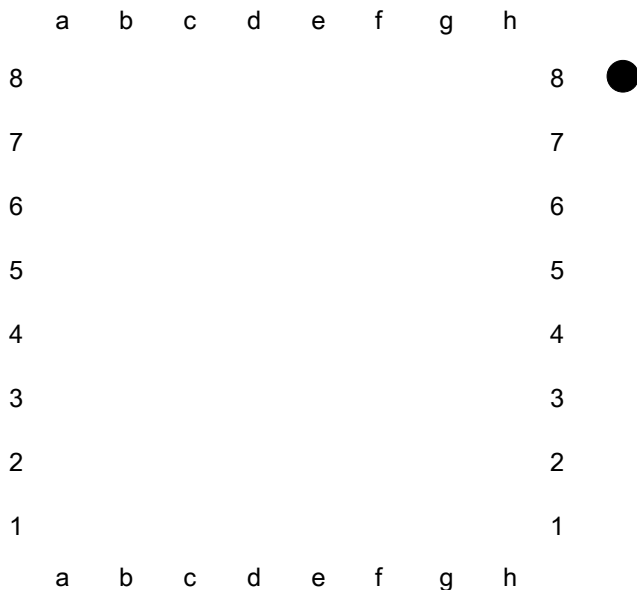
followed by some checks and c3--c2 at the right moment. ]

**31.fxg4 Bd3 32.Kf2?** Trying to snatch the f4 pawn, but this loses quickly.

[ In fact, White still had a way to save the game, with an incredibly strong resource: 32.Bc7!

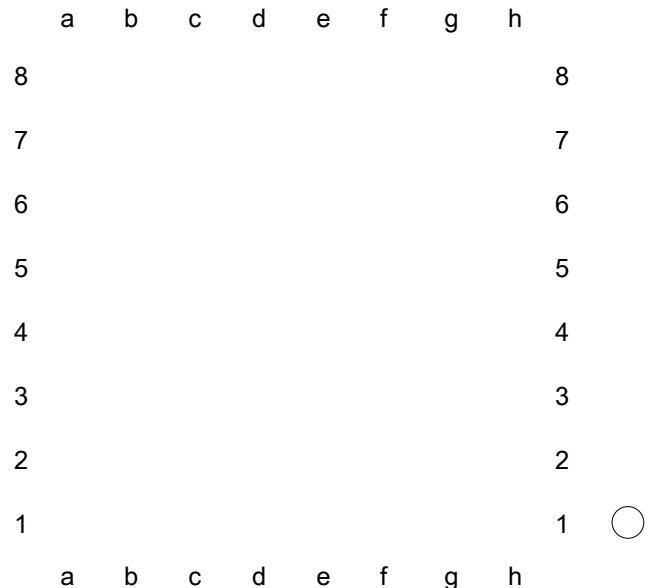


Ke6 33.g5! It is crucial that White can push this pawn all the way to g7 in order to tie down Black bishop. Bxc4 34.g6 Bd3 35.g7 Bh7 36.Kf2



and now it becomes clear why White did not have to go for the f4 pawn on the 32nd move. With the bishop on c7, the "x-ray" attacks it through the d6 pawn. Black has to play d5 (Otherwise, it is simply drawn: 36...c4

37.Ke2 c3 38.Ba5 c2 39.Kd2 Kf7 40.Bc3 Be4 41.Bd4 Bxg2 42.Kxc2=; or 36...Kd7 37.Bb8 a6 38.Ke2= ) 37.Bxf4 The material balance has been re-established, but just as in the game, Black's connected passed pawns are much more potent than White's doubled pawns. Here, however, White save the game thanks to an important tactical detail that will be revealed soon: d4 38.Ke2 c4



39.Bd2!= This move is the key! Black can not move his pawns forward because White can sacrifice the bishop and deflect Black's bishop with g8Q, entering the drawn endgame with the wrong-colored bishop. Here are some variations for illustration: Kd5 ( 39...c3 40.g8Q+! Bxg8 41.Bxc3 dxc3 42.Kd3= ) 40.Bb4 Kc6 41.g4 Kb5 42.g5 Ka4 43.g6 Bg8 44.Kd2 Kb3

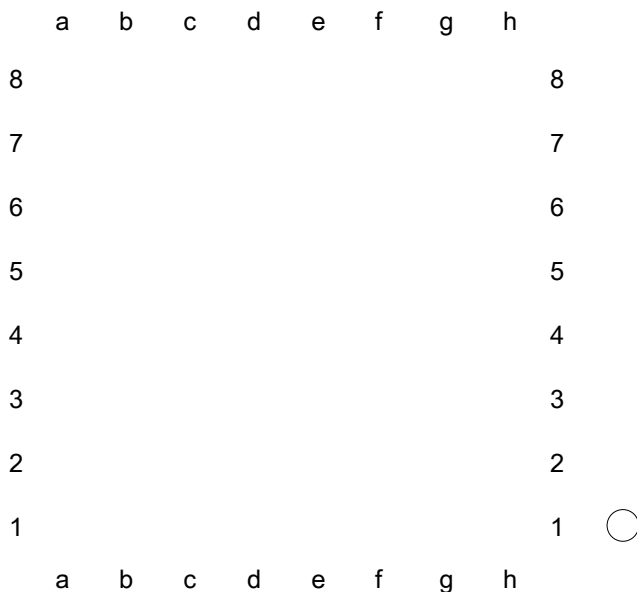
45.Bd6! c3+ 46.Kd3 c2 47.Bf4= ]



**32...Bxc4 33.Kf3 Ke6 34.Kxf4 d5**

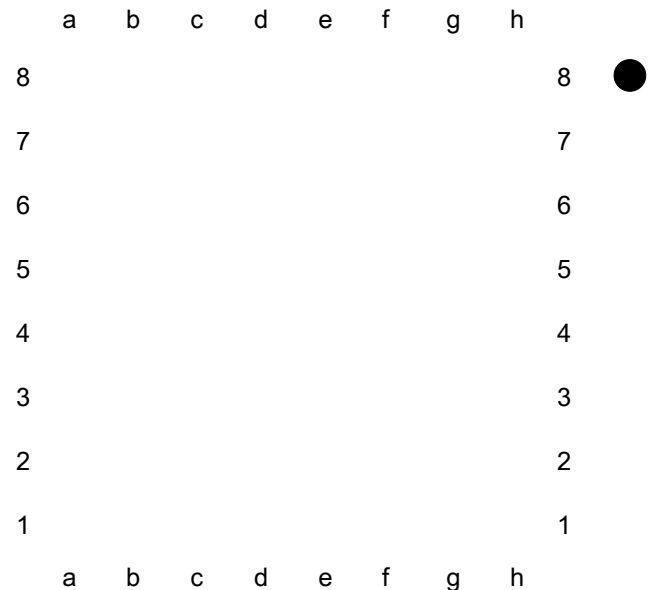
**35.Bc7** A pretty useless move.

[Somewhat better was 35.g5  
although after Bd3 36.Ke3 Bg6  
37.Bf6 Kd6 38.Bb2 Kc6 39.a4 Bc2



the result would be the same. For  
example: 40.Kd2 ( 40.g6 Bxg6  
41.Kf4 Bc2 42.a5 Kb5 43.Ke5 Bb3  
44.Bc3 Kc4 45.Bd2 d4-+; 40.a5 Kb5  
41.Bc3 Kc4 42.Be5 a6-+ ) 40...Bxa4

41.g6 d4 42.g7



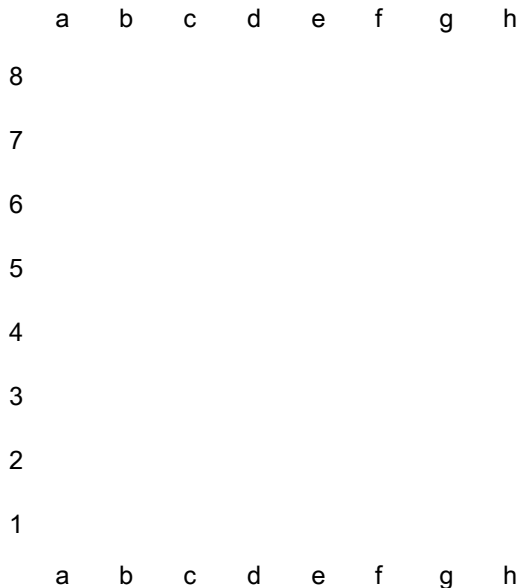
**Bb3-+ ]**

**35...d4 36.Bb8 a6 37.Ke4 Ba2  
38.Kd3 Kd5-+**



and the rest is a matter of technique.  
Black just needs to make sure that  
he does not allow white to give up  
the bishop for two central pawns.

**39.Kc2 Kc6 40.Be5 Bf7 41.g5 Kd5  
42.Bc7 Bg6+ 43.Kd2 c4 44.Ba5  
Kc5 45.a4**



**Bh7! Zugzwang. Nice. 46.Bd8 c3+  
47.Kc1 d3 and White resigned.  
0-1**

□ **Anand,Viswanathan** **2770**  
 ■ **Karpov,Anatoly** **2735**  
 FIDE-Wch k.o. f (8.4) 06.01.1998



Finally, let us take a look at an instructive endgame from the game between two ex-world champions: Anand and Karpov. Karpov has been recognized as one of the greatest masters of opposite-colored bishops endgames (a classic game of his that comes to mind is an "impossible" win against Kurajica with Black pieces). In this game, he also demonstrated a perfect technique. In Anand's defense, the endgame was probably lost even with the best defense. Black's outside passed pawn on the a-file is a tremendous asset, but it is not enough to win the game itself. Black is planning to win the h5 pawn, which would give him a potential to create another passed pawn (second weakness for White) on the other side of the board. However, Anand did not want to allow this and decided to sacrifice the c-pawn instead: **39.c6** Grandmaster Ftacnik awarded this move a question mark. Although it does make Black's job easier, the alternatives would probably not be enough to hold the position anyway.

[ Firstly, 39.f4 a4 40.Bb2 Bxh5 41.c6 Be8 42.c7

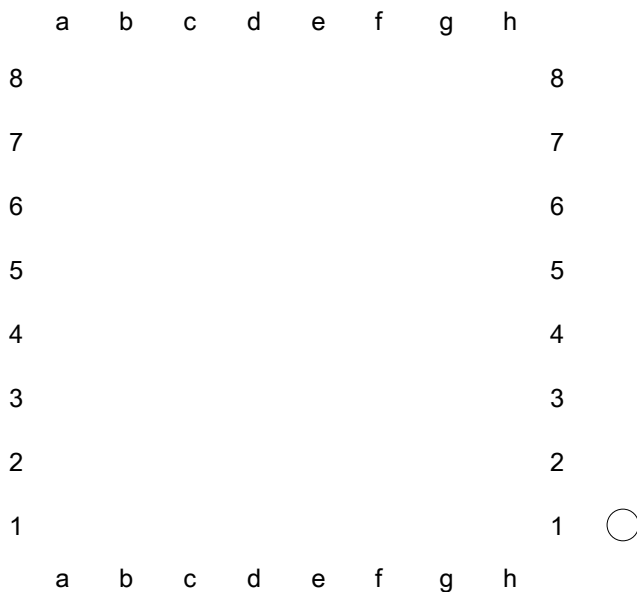


g3 square for his king anymore, so he has to allow 51.Ba3 Bb7+ 52.Ke3 Kg4-+;

**B)** It should also be noted that White can not win black bishop with 47.Kc5 Kg6 48.Kd6 because black pawns are stronger: h5 49.Ke7 h4 50.fxg5 h3 51.gxh3 f4-+;

**C)** 47.g3 Bb7! Accurate.

(The immediate exchange 47...gxf4 48.gxf4 opens up a corridor for White king: Ke8 49.Bd6 Kd7



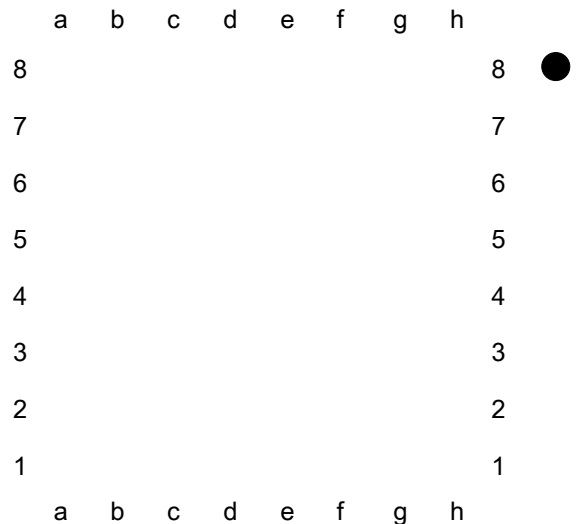
50.Ke3! and White draws by a single tempo: Kc6 51.Kf2 Kd5 52.Kg3 Kc4 53.Kh4 Kb3 54.Kh5 a3 55.Bc5 a2 56.Bd4 Kc4 57.Ba1 Kd5 58.Kxh6 Ke4 59.Kg5!= ) 48.Ke3



Now, only after the second weakness has been created, Black king approaches queenside: Ke8! 49.Ke2 (White is too slow to block black king in the center now:

49.Kd4 gxf4 50.gxf4 Kd7 51.Bd6 Kc6 52.Ke3 Kd5-+ ) 49...Kd7

**C1)** The other attempt is 50.fxg5 hxg5 51.Bc1



However, it does not save White after Ba6+!

**C1a)** or 52.Kf2 Kxc7 53.Bxg5 Kc6 54.Be7 Kd5 55.Ke3 ( 55.Bd6 Kc4 56.Ke1 Kb3-+ ) 55...Kxe5-+ and Black should

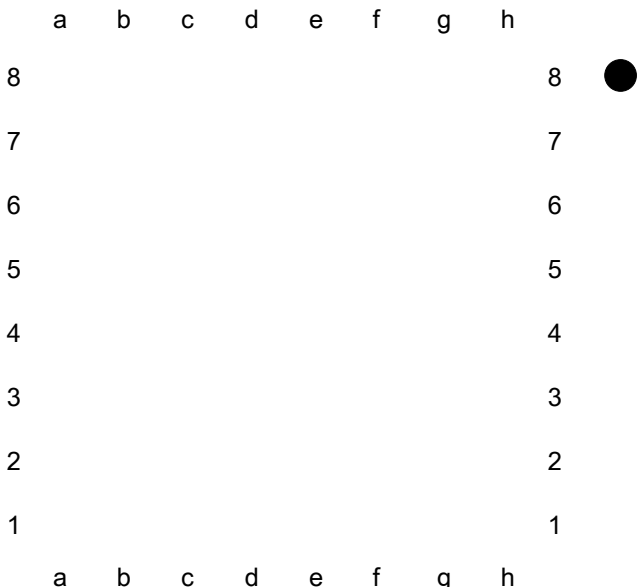
gradually convert his 2 extra pawns.;

**C1b) 52.Kd1 f4!**



A typical pawn breakthrough to create the second outside passed pawn (as in Volkov-Tomashevsky). 53.gxf4 g4+;

**C2) 50.Bd6 Kc6 51.Ke3 Kd5 52.Ba3 Kc4** Now White has the last attempt to achieve a draw: 53.Bf8 Kb3 54.g4! but this is met with gxf4+ 55.Kxf4

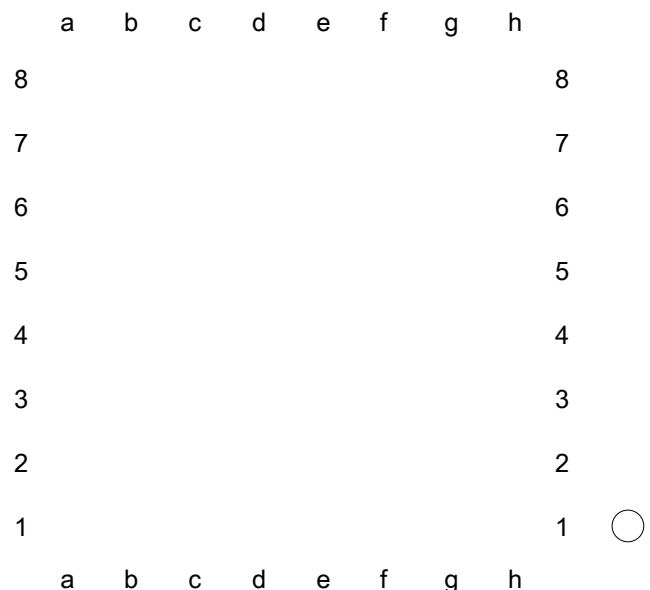


**Bc8!** An extremely strong idea worth remembering. As we explained in the previous issue, the bishop should be placed on the diagonal on which it simultaneously blocks opponent's passed pawn(s) and protects its own pawn(s). (It would be wrong to play

55...fxg4? 56.Kxg4 a3 57.Bc5 a2 58.Bd4= followed by Kh5, etc. ) 56.gxf5 exf5 57.Bxh6 a3-+ ]

[ The other, more flexible defensive possibility is 39.f3 preparing g2-g4.

**A)** It would be wrong not to take the pawn. After 39...Kg8 40.g4 fxg4 41.fxg4 a4 42.Bb2 Bc6 43.Kf2 Kf7 44.Ke3 Ke7 45.Kf2 Kd7 46.Ke3 Bd5



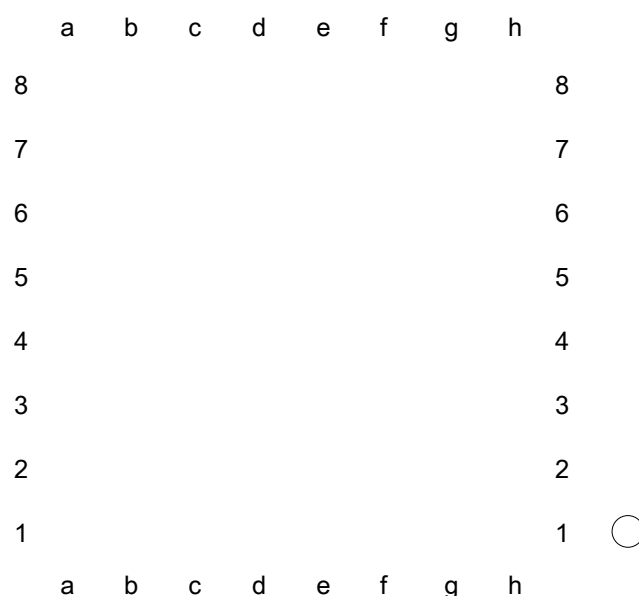
it might seem like Black is winning with Kc6–b5–c4, etc. since there is a second weakness on the kingside and White king can not leave f3 square. However, White is not the only one with weaknesses, as the next move shows: 47.Ba3!

White is ready to give up the c-pawn at the right moment and pick up kingside pawns with Bf8. Kc6 48.Ke2 Kb5 (The alternative is 48...Bc4+ 49.Ke3 Bb5 50.Kd2 Bf1 51.Ke3 Bh3 in order to lure White king as far away from a-pawn as possible: 52.Kf4 Still, after Kd5



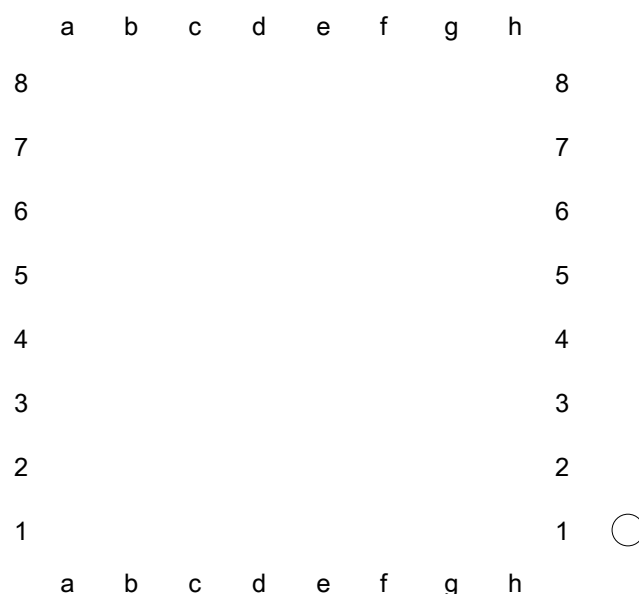
White is still in time with his idea: 53.c6! Kxc6 54.Bf8 Kb5 thanks to the well-known diagonal movement of the king: 55.Ke3 Kc4 56.Kd2 Kb3 57.Kc1 a3 58.Kb1= ) 49.Kd2! The king needs to stay close to the a-pawn. (It would be a mistake to guard kingside pawns with 49.Ke3 Kc4 as 50.c6 does not work now due to Bxc6 51.Bf8 Kb3–+ ) 49...Kc4 50.c6

## Bxc6



now White draws with 51.Kc2! Bf3 52.Bf8 Bxg4 53.Kb2 Bxh5 54.Bxg7 Kd5 55.Bxh6 Kxe5 and he can just give up his bishop for the e-pawn.;

**B)** 39...Bxh5 40.c6 Be8 41.c7 Bd7



Here White has several defensive setups, but I do not think that any of

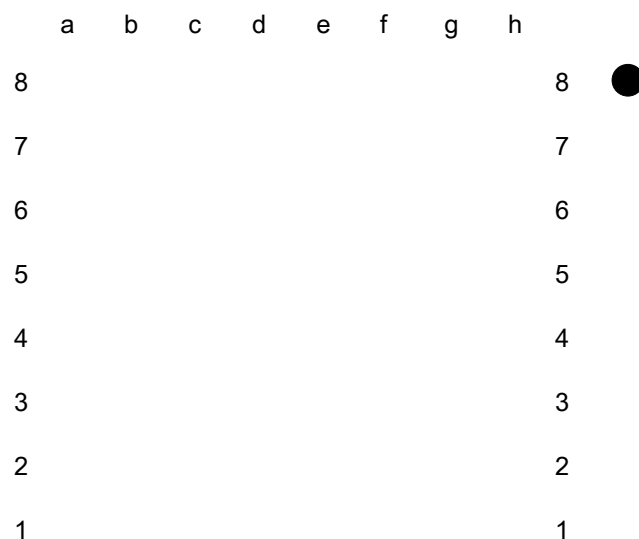


them can hold against the mix of plans: Kg6-f7-e8-d7-c6 and g7-g5 (-f5-f4).

**B1)** 42.g3 takes away penetration squares from Black king, but it is not a stable pawn structure. a4 43.Bc5 Kg6 44.Kf2 Kf7 45.Ke3 Bc8 46.Kd2 g5 47.Bd6 Bb7 48.Ke3 Ke8 49.Ke2



If white wants to keep his pawns like this, his king will remain passive. Kd7 50.Ke3 Kc6 and now after 51.g4 (In case of 51.f4 Kd5 52.Be7 gxf4+ 53.Kxf4 Kc4 54.g4 we have the well-known motive Bc8!-+ from 39.f4 line.; 51.Kd4 h5-+ ) 51...fxg4 52.fxg4 Kd5 53.Kd3

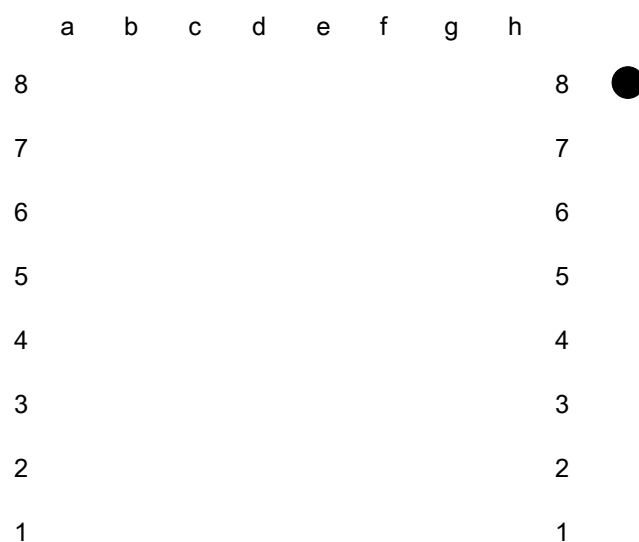


a b c d e f g h

Bc8-+ white is in zugzwang as Black king breaks in.;

**B2)** 42.f4 would lead to variations similar to analysis of 39. f4.;

**B3)** 42.Kf2 White does not touch his kingside pawns and accepts passive defense. 42...a4 43.Bc5



a b c d e f g h

but now black can use Karpov's idea from the game: f4! fixing white pawns on the light squares, as well as isolating the e5 pawn. This must be winning, just going by intuition. The

following variation confirms it:

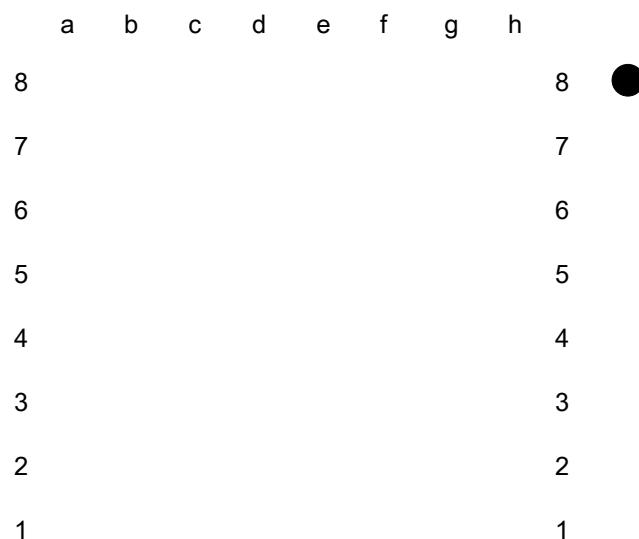
44.Ke2 Kg6 45.Kd2 Kf7

46.Ba3 Bc8 47.Kc3 (Passive defense

47.Bc5 Ke8 48.Bd6



fails to h5 49.Bc5 g5 50.Bd6 Kd7 51.Ke1 Bb7 52.Ke2 g4 53.Kf2 g3+ 54.Kf1 h4 55.Ke2 Ba6+ 56.Ke1 Kc8 57.Be7 Kxc7 58.Bxh4 a3-+ ) 47...Ke8 48.Kb4 The most active defense, which prevents the Black king from penetrating via d7 and c6. However, it should not be sufficient after Bd7 49.Bc1 g5 50.Bd2 h5 51.Bc1



h4! a strong move, preparing one of the breaks on the kingside. The game could continue 52.Bd2 Kf7 53.Kc3 Kg6 54.Kd3 Kh5 55.Bb4



h3! The final breakthrough. 56.gxh3 Kh4 57.Be7 Kxh3 58.Bxg5 Kg3 59.Ke4 and Black wins with Bc6+ 60.Kd4 Bb7!-+ ]

	a	b	c	d	e	f	g	h	
8									8
7									7
6									6
5									5
4									4
3									3
2									2
1									1
	a	b	c	d	e	f	g	h	

Kd5 51.Ke3!= with a drawing idea we have already seen. ]

**41.Bb2 Be8 42.Bc1**

	a	b	c	d	e	f	g	h	
8									8
7									7
6									6
5									5
4									4
3									3
2									2
1									1
	a	b	c	d	e	f	g	h	

realizes that the exchange of f–pawn for White's h–pawn will yield him a winning endgame.

[The alternative 40...Be8 41.g4 fxg4 42.fxg4 Ba4 43.Kg2 Bd1 44.Kg3 a4 45.Bc5 Kg8 looks like it is winning, but after 46.Kh4 Kf7 47.Bd6 Ke8 48.Kg3 Kd7 49.Kf4!

	a	b	c	d	e	f	g	h	
8									8
7									7
6									6
5									5
4									4
3									3
2									2
1									1
	a	b	c	d	e	f	g	h	

**a4!** A precise intermezzo.

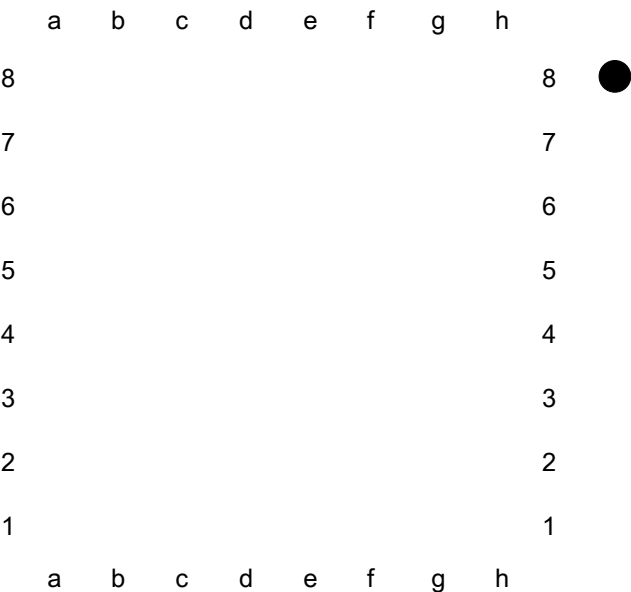
[The immediate 42...Bxh5?! 43.Bxf4 a4 44.Bc1 would put Black's winning chances in jeopardy as his passed pawn would be stopped on the fourth rank. ]

**43.Bxf4 a3 44.Be3 Bxh5**

it turns out that Black can not make progress as Kc6 is met by 50.Bf8

Black pawn will reach the second rank.  
 After that, Black will combine the familiar idea of king's penetration with the possibility of creating another passed pawn on the kingside, which would lure White king away from the center. **45.Kf2**

[In case of the aggressive 45.g4 a2  
 46.Bd4 Be8 47.f4

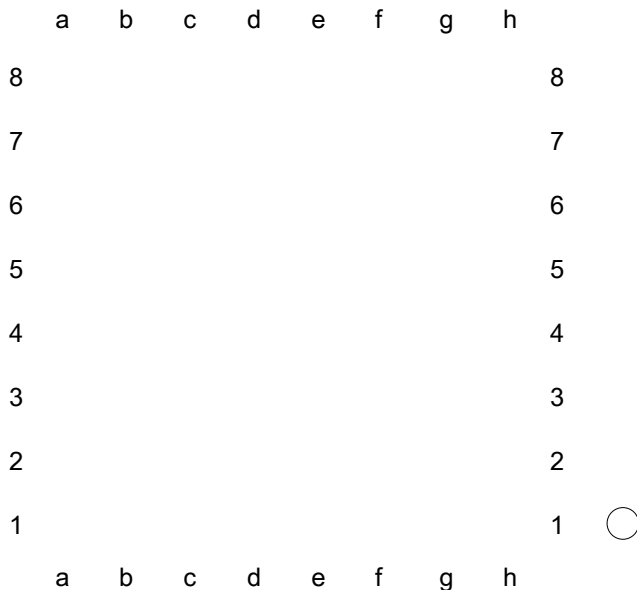


black proceeds to create the h–passer: g6! 48.Kf2 h5 49.Kg3 Ba4 50.Kh4 Kh6 51.Bc3 Bd1! 52.gxh5 gxh5–+ followed by king's march toward the center. ]

**45...Be8 46.Bd4 Bc6 47.Bc3 a2 48.g3**

[Completely passive defense: 48.Ke3

h 6 g 6 5 2 xg 3



and Black promote on the next move. We have just scratched the surface of this interesting and practically important type of endgame. I hope that the analysis provided in the last two issues of Endgame Series will be useful in improvement of your understanding of opposite-colored bishops endgames, and endgames in general. In addition, I would encourage you to solve practice exercises below. As usual, we will make several conclusions and rules of thumb, based on the presented material. They could guide you when you get such endgames in your own practice. Conclusions: 1. King's penetration is a crucial strategy for the stronger side and for that purpose he has to be ready to sacrifice pawns or even the bishop. 2. It is often difficult to win based on one weakness only (such as an outside passed pawn), so it may be necessary to create the second weakness, usually on the opposite flank. 3. Defender's chances increase if his bishop can block two passed pawns on a single diagonal. 4. Defender's chances improve if his king can prevent penetration of

opponent's king by moving diagonally, rather than vertically or horizontally. 5. "Two-on-one" pawn breakthrough sacrifice is a standard maneuver to create a passed pawn and improve winning chances. 6. In principle, the defender should avoid putting his pawns on the color of the opponent's bishop (there are exceptions, sometimes). 7. Mutual weaknesses and asymmetrical pawn structure usually favor the stronger side. 8. When the stronger side has a passed pawn on rook's file and a wrong-colored bishop, the defender should look for a way to get his king in the square of that pawn and try to liquidate into a B + 2p vs B endgame, which is drawn because the bishop can always be sacrificed for the second pawn. ]

## 0-1

### Exercise 1

**Anand – Karpov**

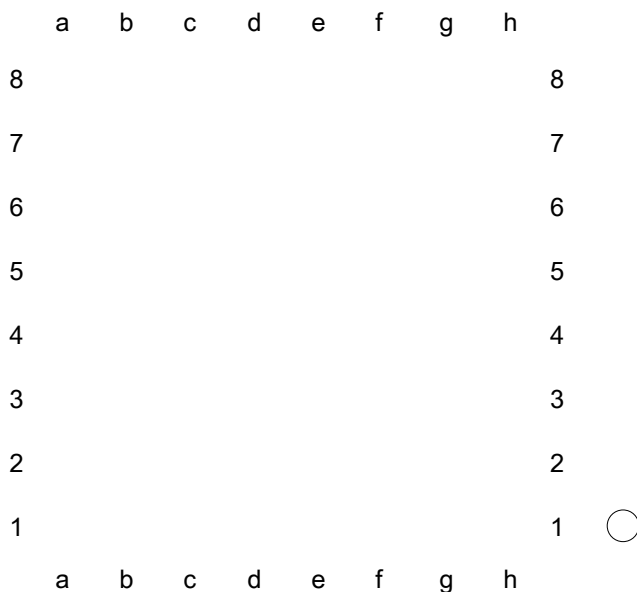


In a drawn position Anand played 70.Kf4 Bxh4 71.Bf5 with an apparent draw due to the wrong-colored bishop. Was his calculation correct? Black to move. Find the answer in the PGN and website versions of Modern Chess Magazine.

**Exercise 2****Tomashevsky – Franco Alonso**

White to move and win.

Find the answer in the PGN and website versions of Modern Chess Magazine.

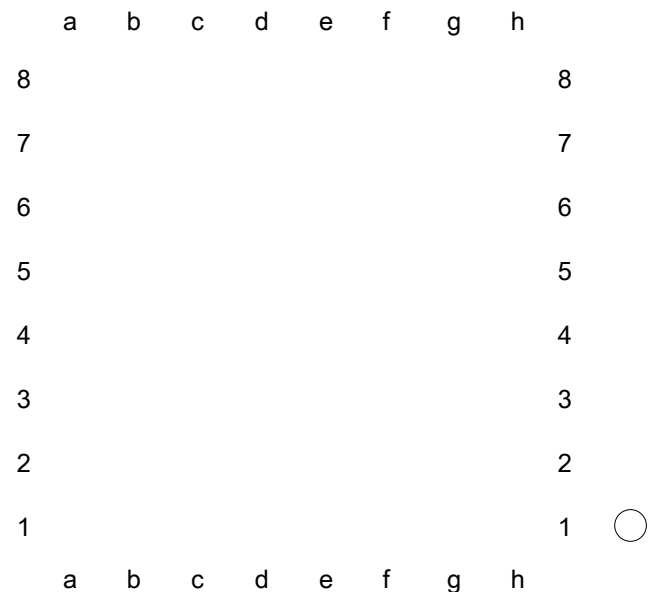
**Exercise 3****Lampert – Kasimdzhanov**

White to move and draw.

**Exercise 4****Martinovic – Stevic**

White to move and draw?

Find the answer in the PGN and website versions of Modern Chess Magazine.

**Exercise 5****A. Cheron**

White to move and win.

## Brilliant Missed Opportunities. Overlooking Perpetual Check

Move repetition is a common fashion of positional draw, preventing the stronger side from converting his material or evident positional advantage. Perpetual check is a particular case of a positional draw. The enemy king is chased by repeating checks from which he can find no hiding. The most frequent piece to inflict perpetual check is naturally the stronger one, the queen, as capable of covering, often on her own, a large part of the board. Nevertheless, the other pieces, except for the King and the pawn, have also starred in numerous combinations ending up in perpetual check. The perpetual check is a common defensive device that may be seen in two main forms: The much more common direct chase of the enemy king or alternatively the less common and more sophisticated one: Forcing the opponent to settle for a perpetual check as the only defence against one's threat(s).

Though a pretty common practice perpetual check has occasionally been overlooked, in the heat of the battle, even by experienced masters and grandmasters. Players. Here we present 14 a selection of competitive episodes in which brilliant opportunities to employ a perpetual check were missed. It's your task to improve on the masters! White, presumably in horrible time pressure, continued here:

**Braun,Arik** **2475**  
 **Siebrecht,Sebastian** **2487**  
 Introduction + Question 1



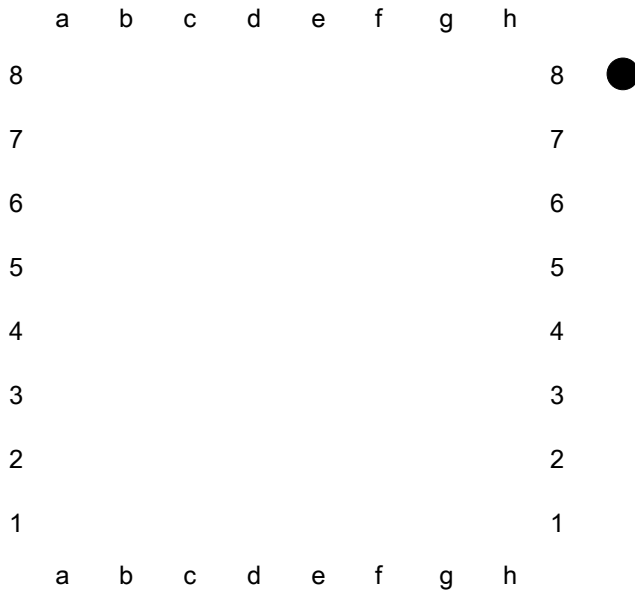
38...Qb5+?? 39.Kf3 Qxb1 40.Rd8#

In fact he had a narrow tactical escape which most of you would probably not have missed. Do you see it?

**1-0**

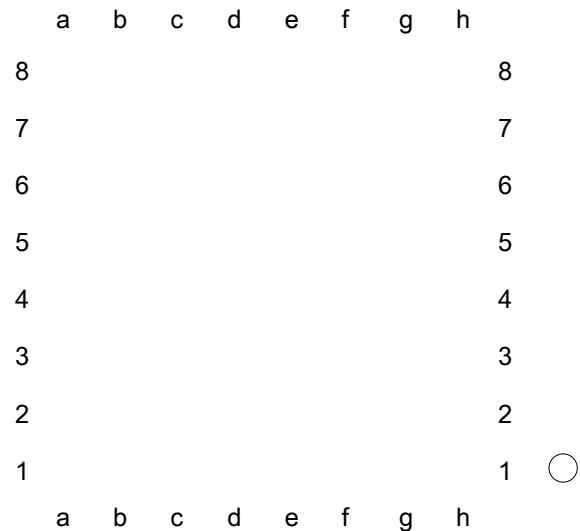
☐ Shirov,Alexei  
☒ Spraggett,Kevin  
 Question 2

2580  
 2540



White has created an immediate mating threat against which black comes up with the most direct defence. 33...Rh4? The black king is exposed to deadly threats on more than one open file: 34.Rf2+ Ke8 35.Qf1 Rf4 36.Rxf4 Bxf4 37.Qb5+ Kf8 38.Rf7+ Kg8 39.Rg7+ Kf8 40.Rf7+ Kg8 41.Rxf4 The time pressure is over and Black, a piece down and no counterplay whatsoever threw in the towel. Can you improve on the Canadian grandmaster?  
**1-0**

☐ Steinitz,William  
☒ Janowski,Dawid Markelowicz  
 Question 3



The first world champion was already far from his peak. In the following position, he saw a check: **42.Rxh6+** just to find out that after **42...Kg7** [ 42...Kg8 is equally good ) ] **43.Rh7+ Kf8 44.fxe5 Qc1+ 45.Qd2 Rb3+ 46.Bd3 Nf5+ 47.Ke2 Rb2** It's game over. What did he miss?  
**0-1**

☐ Burn,Amos  
☒ Chajes,Oscar  
 Question 4

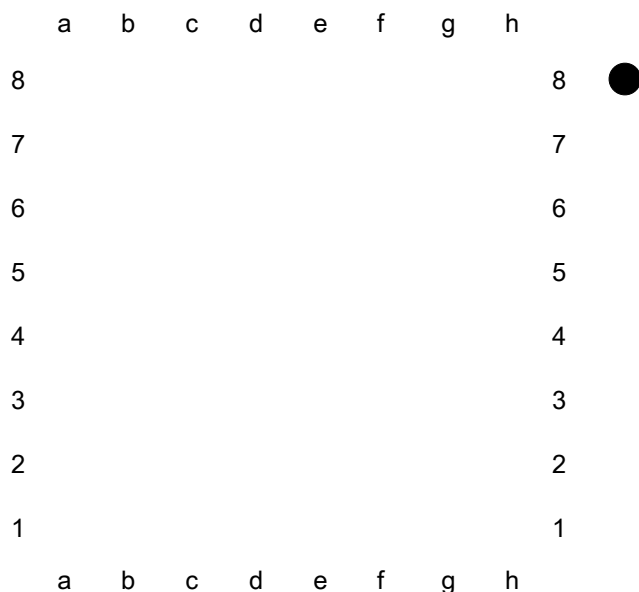




In this rare ending of 4 queens black tried to hold by 88...Qa3+? 89.Qdf3 Qh1+ 90.Kg3 Qd6+ 91.Qe5 Qe1+ 92.Kh3 but now had to settle for queen exchanges and as expected eventually lost. Could you suggest him a more promising saving option?

**1-0**

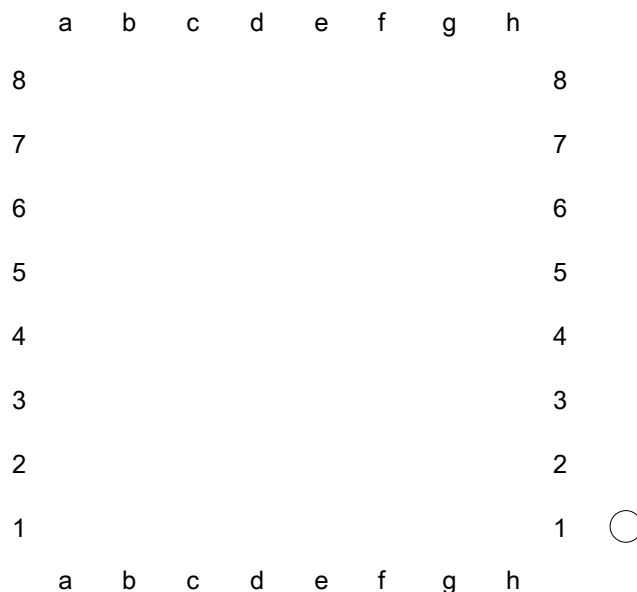
□ **Henrichs,Thomas** **2463**  
 ■ **Op den Dries,Johan** **2118**  
 Question 5



The knight pair seems helpless against the advanced passed pawn. Black went for the natural 38...Nf2+ 39.Kg2 Ne4 40.c7 Nd6 but had to lay his arms following 41.Rb8+ Kf7 42.Rd8 Was the situation indeed that hopeless?

**1-0**

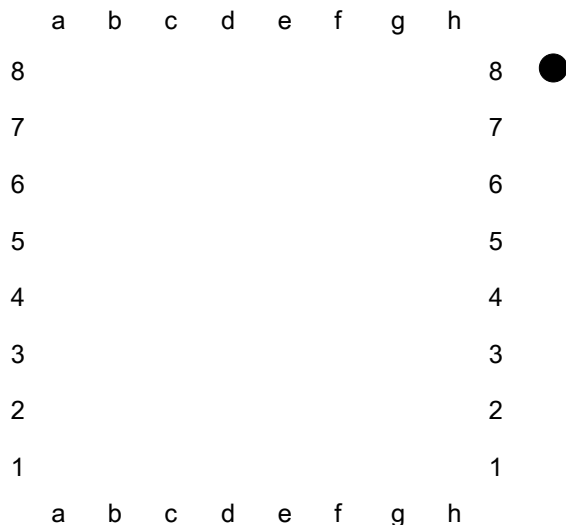
□ **Torbin,Kirill** **2337**  
 ■ **Yevseev,Denis** **2540**  
 Question 6



White, materially far behind, tries to take advantage of Black's weakened kingside's pawn formation. The game continued: 27.Qf4? Qe6 28.d5 cxd5 29.Bxd5 Qb6+ 30.Kh1 Bh3 31.Bxa8 Bxf1 32.Be4 Bh3 33.Qh4 Qe6 White's efforts meet a dead end, and he resigned. Was it indeed his best defensive attempt?

**0-1**

☐ **Leko, Peter**  
☒ **Krasenkow, Michal**  
 Question 7



The attacked knight should choose its flight **34...Nc2?** The wrong choice.

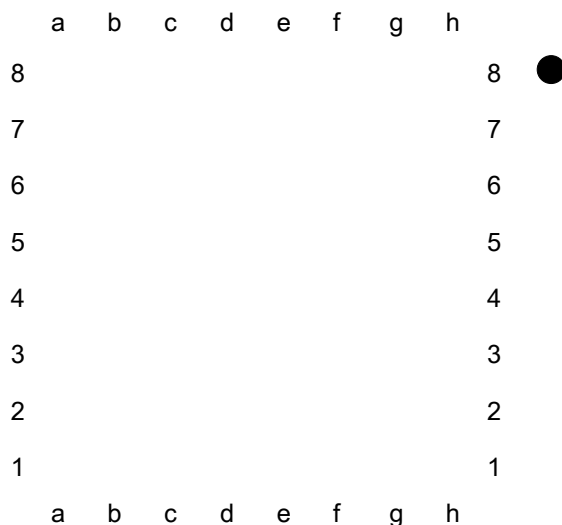
**35.Bc4+- Ne3**

[Or 35...Nd4 36.Nd8! h6  
37.Nxe6 Nxe6

38.c7! ]

**36.Bxe6+ Qxe6 37.Qf4 h6 38.Nc5  
Qe8 39.Nd3 Kh7 40.c7 Qe6 41.Qe5  
Qc6  
1-0**

☐ **Sagalchik, Gennadij**  
☒ **Kovalev, Andrei**  
 Question 8

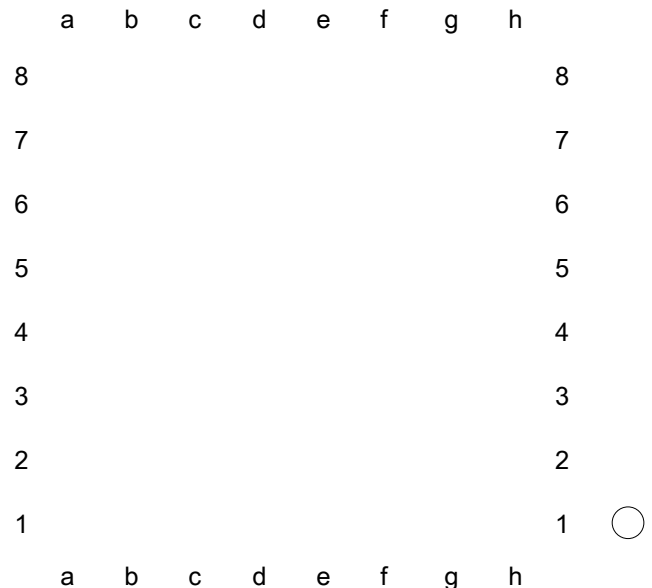


**2707**  
**2641**  
 Black faces a double lethal threat: mate or pawn promotion. Black went for the tricky pin: **36...Qe4 37.Bxg6**

[Attention! Not 37.e8Q? g5+ 38.Kg4 Nf2# ]

**37...Qd4 38.e8Q Bf6+ 39.Kg4 Ne5+  
40.Qxe5 Qd1+ 41.Kf5** Black resigned.  
Could you spot a better saving chance for him?  
**1-0**

☐ **Gagunashvili, Merab** **2580**  
☒ **Zelcic, Robert** **2540**  
 Question 9



White is materially in an inferior position, and his continuous attempts to trouble the black king led him to a lost position even if he eventually miraculously was saved. **38.Qg3+ Kc6 39.Rh7 a3  
40.Qd3 Qb6 41.Qc2+ Qc5 42.Qd2  
Ra7 43.Rxa7 Qxa7** Black has obtained an overwhelming advantage but later spoiled it into a drawing fortress position of a rook & 2 pawns vs. a queen and & a

pawn drawing on move 103. How could white save a lot of suffering and force a draw in the first place? .

1/2

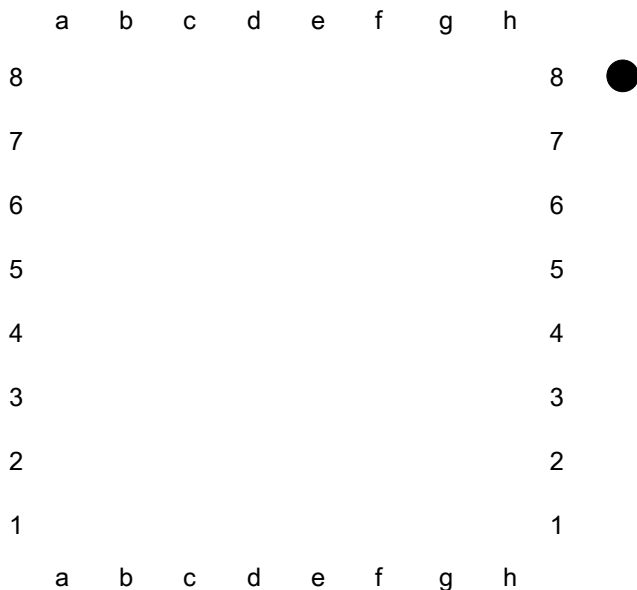
□ Ivanchuk, Vassily

2757

■ Kramnik, Vladimir

2810

Question 10



The former world champion, a pawn down and positionally inferior rushed to protect another attacked pawn but after

**35...Rc8? 36.Rh1+-** He is clearly worse.

With a pair of bishops, superior rooks and space advantage on both sides of the board his opponent won the game in a

dozen or more moves. And yet in the diagrammed position black could actively impose a forced draw! How? **36...Rc7**

**37.Bxe6 Rxe6 38.b5! Rb7**

**39.b6 c5 40.Rb1 Bf8 41.Qd5! Qb8**

**42.Rba1! Rd6 43.Ra8 Rxd5 44.Rxb8**

**Rxb8 45.exd5 Bd6**

[ 45...Rxb6 loses to 46.Ra8 Kg7

47.Rxf8 Kxf8 48.Bxc5+- ]

**46.Ra6 Rb7 47.Kf1** Can you propose Black a more active defensive resource in the initial difficult position?

1-0

□ Hamdouchi, Hicham

2588

■ Tiviakov, Sergei

2600

Question 11



White, an exchange down, seeks counterplay against the enemy king by an intuitive sacrifice. **26.Rxh5+? gxh5** Several lines are open to allow white attacking chances, however, those lines are open against his own king too.

**27.Qe4+ Kg8**

[ Naturally not 27...Kh8?? 28.Qxf4

Qc6+ 29.Kg1 Qe4 30.Qxe4 Rg8

31.Qxb7 Rxg4+ 32.Kf2 Rf8 33.Qe7

Kg8 34.b3 And white should win. ]

**28.Ne3**

[ Or 28.Qxf4 Qc6+ 29.Kg1 Qc5+

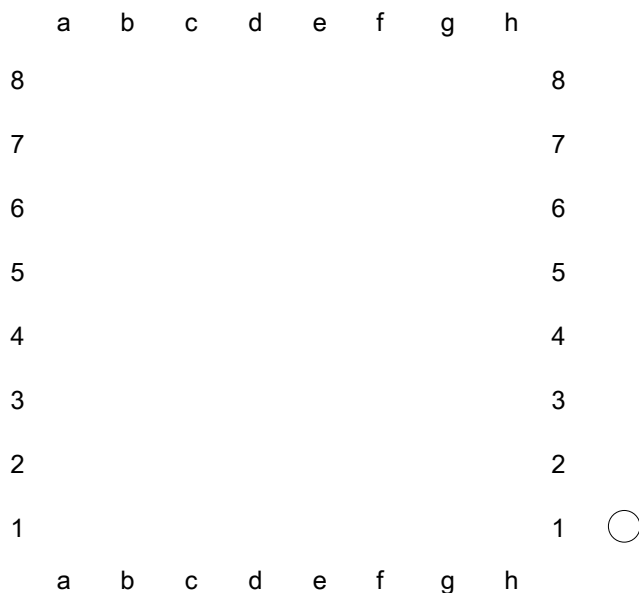
30.Kf1 Ra5+- And black 's kingside is under good control. ]

**28...Qxb2**

[The last hope 28...Qxe3? 29.Qg2+ has faded away. What did white wrong? How could improve on his own idea to save his day? ]

**0-1**

☐ **Barczay,Laszlo** **2415**  
☒ **Pokojowczyk,Jerzy** **2390**  
 Question 12



Black last move 23...f6!! has shocked white to such extent that he fell for the trap replying **24.Rd1?? g5+ 25.Kg4 h5+! 26.Kxh5 Qh7+ 27.Kg4 fxe5!** This "quiet" move opens up the last key file to avoid any king flight. **28.g3**

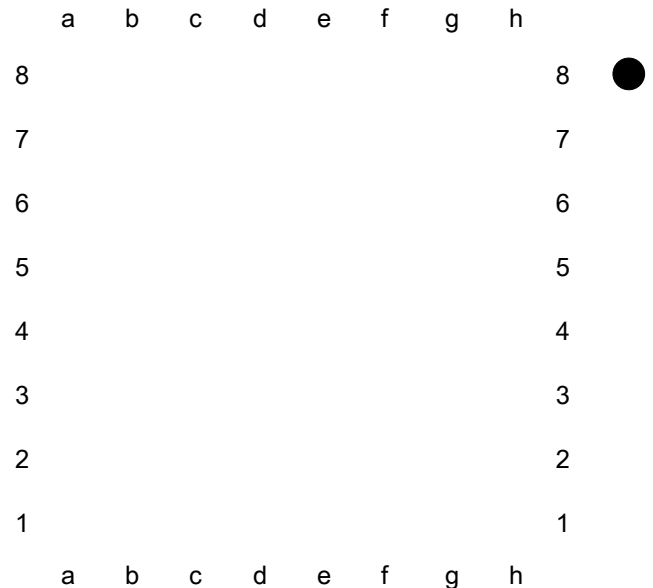
[No defence against the multiple mate threats, for instance 28.Bf2 Rf4+ 29.Kxg5 Rf5+ 30.Kg4 Qh5+ 31.Kg3 Rg5# ]

**28...Qf5+ 29.Kh5 Qh3+ 30.Kg6 Qh7+**

[White resigned, or else it's mate in two. 30...Qh7+ 31.Kxg5 Rf5+ 32.Kg4 Qh5# How should have white done better? ]

**0-1**

☐ **Palac,Mladen** **2495**  
☒ **Afek,Yochanan** **2325**  
 Question 13



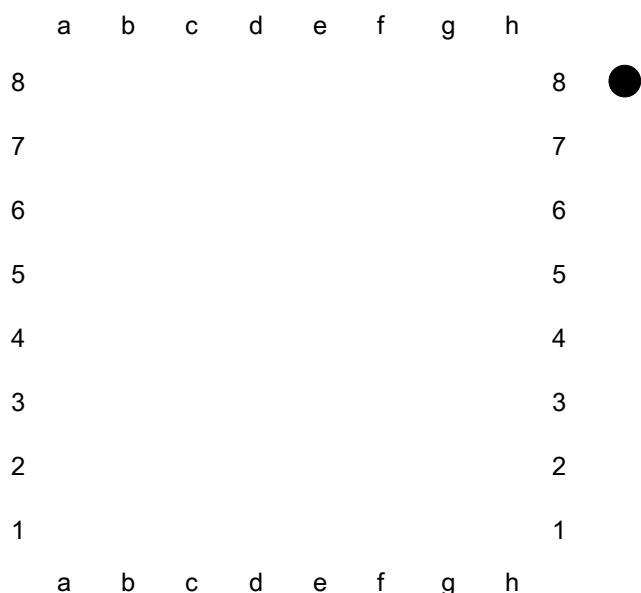
To conclude with here are 2 brilliant opportunities to force a superior opponent to inflict his own perpetual check. Sadly they were both missed in the moment of truth and yet I find them original and instructive. White's last move 30.Bxg5 threatens the terminating 31.Rh8+! Bxh8 32.Bh6+ etc. Horrified I delivered a desperate check 30...Rd1+?? 31.Rxd1 Qc7 32.Bh6 Bxh6 33.Qxh6+ Facing a mate in a few more moves I resigned here blowing away an IM norm I would have gained if I drew this last round game. Could I force that draw had I not panicked in the initial position?

**1-0**

□ **Giri, Anish**  
 ■ **Afek, Yochanan**

**2523**  
**2294**

Question 14



To conclude this test here is the critical position from my game against the would be Netherland's No.1 player. White's last move was 28. f5 and I saw no better than the unfortunate retreat: 28...Bh7?? after which I could not recover and even was mated in just 10 more moves:

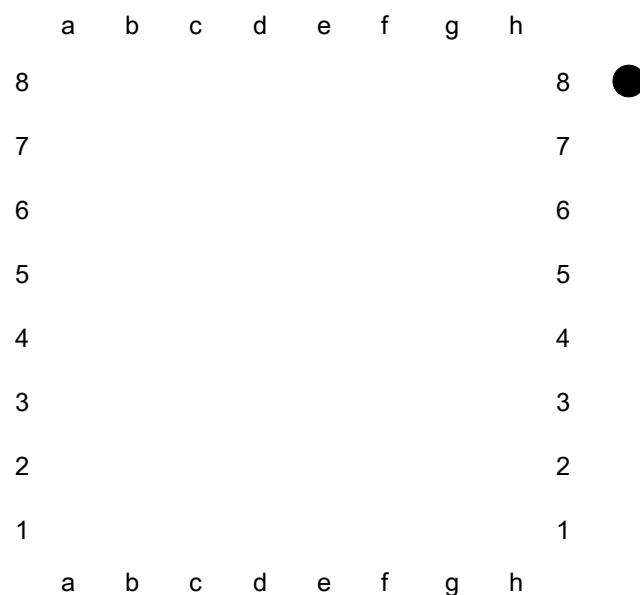
29.Qxf4 Qxf4+ 30.Nxf4 Nd7 31.Nce2 Nxe2 32.Bxe2 Rb8 33.g4 f6 34.g5 fxg5 35.Ne6+ Kf7 36.Rh1 Bg8 37.Rh6 b5 (?) Resignation was stronger, but that is how one surrender in the Netherlands sometimes. 38.Bh5# Not a very pleasant experience especially in view of the incredible alternative which was left behind the scenes. Would you look out for it ?

**1-0**

□ **Braun, Arik**  
 ■ **Siebrecht, Sebastian**

**2475**  
**2487**

Test 1



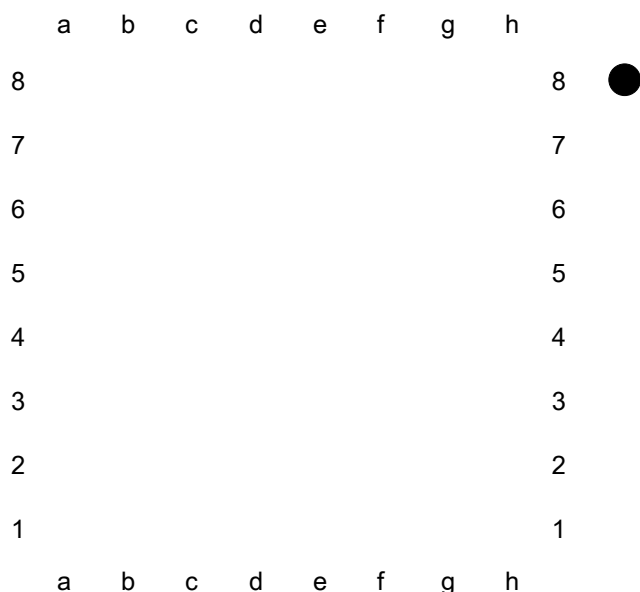
Can you find how Black could save the game? 38...Re1+!! 39.Kxe1 Qxb1+ 40.Rd1 Qe4+ 41.Kd2 Qd4+ forces perpetual check on the entire lower half of the board.

**1-0**

□ **Shirov, Alexei**  
 ■ **Spraggett, Kevin**

**2580**  
**2540**

Test 2



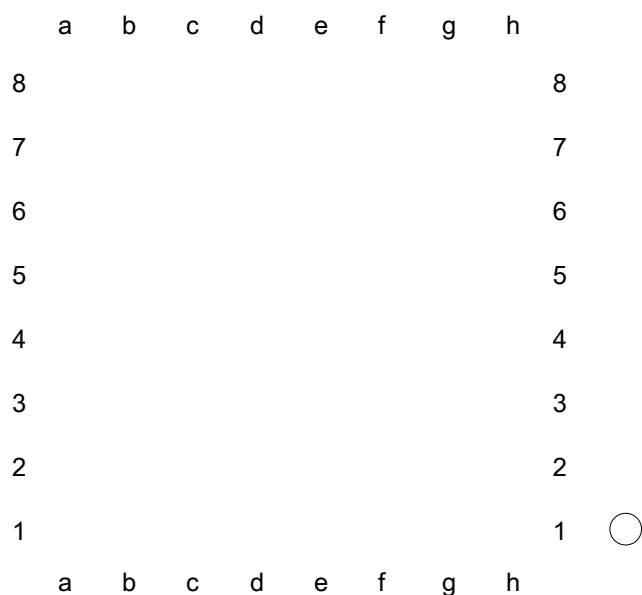
Can you find how Black could save the game? 33...Ra2+! The Canadian GM overlooked this 34.Kxa2 Qa6+ 35.Kb2 Qb5+ where the white king cannot escape the annoying checks since moving to the back rank would be met by Rf1+ for instance: 36.Kc2 Qa4+ 37.Kb1 Qb5+! 38.Ka2 Qa6+! etc.

**1-0**

□ **Steinitz, William**

■ **Janowski, Dawid Markelowicz**

Test 3



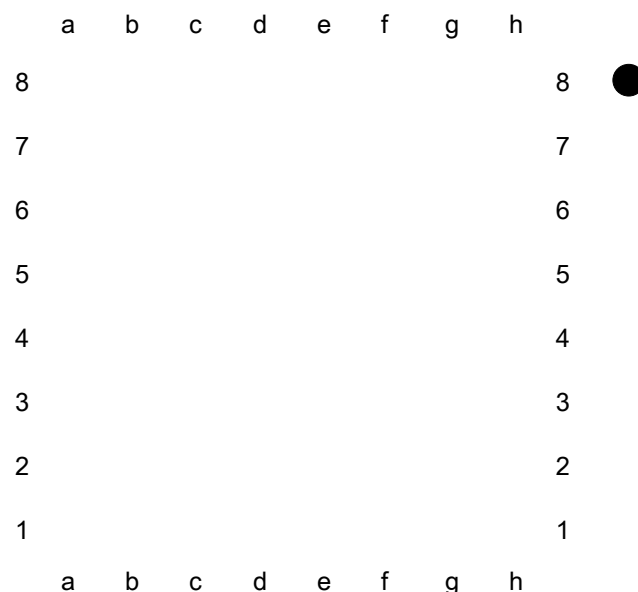
Can you find how White should continue? 4.fxe5!! This was the correct order of moves. Now the square c1 is temporarily covered! 42...Rb3 43.Rxh6+! Kg7 44.Rh7+ Kf8 45.Rh8+ Ke7 46.Rh7+ Ke6 47.Rh6+ It's perpetual check as by now 47...Kxe5?? is met by 48.f4#!

**0-1**

□ **Burn, Amos**

■ **Chajes, Oscar**

Test 4



Can you find how Black could save the game? **88...Qc3+!**

**89.Qdf3**

[ 89.Qef3? would be the wrong piece to the right square owing to: Qh1+ 90.Kg3 Qce1+ 91.Qf2 Qh4 + 92.Kf3 Qhxf2# ]

**89...Qh1+ 90.Kg3 Qg1+ 91.Kh3 Qh1+** and black draws despite his evident material inferiority.

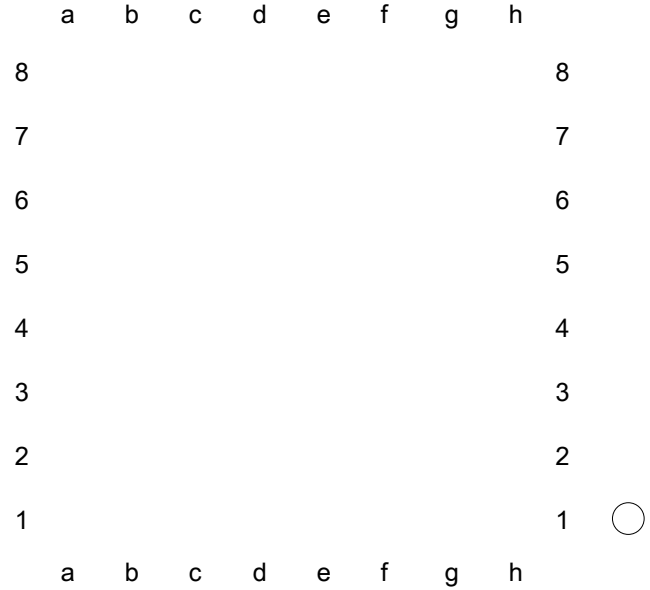
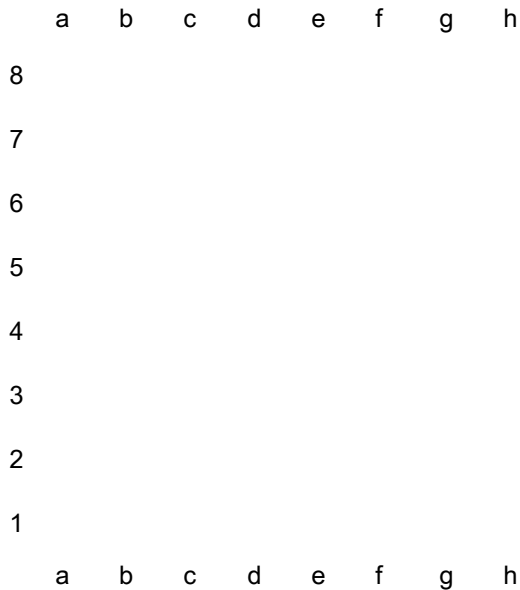
**1-0**

□ **Henrichs,Thomas**  
 ■ **Op den Dries,Johan**  
 Test 5

2463  
 2118

□ **Torbin,Kirill**  
 ■ **Yevseev,Denis**  
 Test 6

2337  
 2540



Can you find how Black could save the game? **38...Ne3!** The only way to insert harmony in the knight pair **39.c7**

[ Or 39.Kg1 Nd5 40.c7 Nxc7  
 41.Rb8+ Kf7 42.Rb7 Ke6  
 43.Rxc7 a5 44.Rc4 Nb2 45.Rc5  
 Kd6  
 46.Rxa5 Kc6 47.Kf2 Kb6 48.Ra8  
 Kb7 Positional draw! ]

**39...Nf2+ 40.Kg1 Nh3+ 41.Kh1 Nf2**  
 + with perpetual check  
**1-0**

**27.Bf8!!** The amazing move does the trick thanks to the threat 28. Qh6 mating. **27...Rxf8**

[ The only move to avoid losing:  
 27...Rxe4 still fails to 28.Qh6  
 Rxf8 29.Qxf8# ]

**28.Qh6 f5 29.Qf6+ Kg8 30.Qg5**  
 + Mission accomplished!  
**0-1**

□ Leko, Peter  
 ■ Krasenkow, Michal  
 Test 7

2707  
 2641

	a	b	c	d	e	f	g	h	
8									8 ●
7									7
6									6
5									5
4									4
3									3
2									2
1									1
	a	b	c	d	e	f	g	h	

The only way to save the day is sacrificial **34...Nxcg2!! 35.Kxcg2 Bd5+ 36.Bf3**

[ Black is not worse after 36.Kf2 Bxc6 with a double threat on both knight and White's last pawn. ]

**36...Qg5+ 37.Kf2 Bxf3 38.Kxf3 Qf5+** with perpetual check: **39.Ke2 Qe5+ 40.Kd2 Qb2+ 41.Ke3 Qe5+= 1-0**

□ Sagalchik, Gennadij  
 ■ Kovalev, Andrei  
 Test 8

2400

	a	b	c	d	e	f	g	h	
8									8 ●
7									7
6									6
5									5
4									4
3									3
2									2
1									1
	a	b	c	d	e	f	g	h	

Can you find how Black could save the game? **36...Nxf4!! 37.Qxf4+ Kh7**

**38.Bxc6+!**

[ 38.Qf7 Qe4+ 39.Bg4 d4 40.e8Q The alternative

41. even leaves black with a pawn up. 40...Qxe8 41.Qxe8 Bf6# ]

**38...Kxc6 39.Qg5+ Kf7 40.Qxd5+ Kxe7 41.Qxc5+ Kf7 42.Qh5+!** with a variety of repeated checks along the fifth rank!

**1-0**



□ **Gagunashvili, Merab**

**2580**

■ **Zelcic, Robert**

**2540**

Test 9



Can you find how White could force a draw? **38.Rxd5+!** White could force the draw with no need for any miracles by **38...Kxd5**

[ The alternative is: 38...Rxd5 39.Ra6+ Ke7 40.Ra7+ Rd7 41.Qh7 + Kd6 42.Qd3+ Ke7 43.Qh7+ with perpetual check. ]

**39.Qg5+!!** Deflecting the queen to the fifth rank **39...Qxg5** to allow the skewer **40.Rxa5+** And White draws a few moves later without too much trouble.  
**1/2**

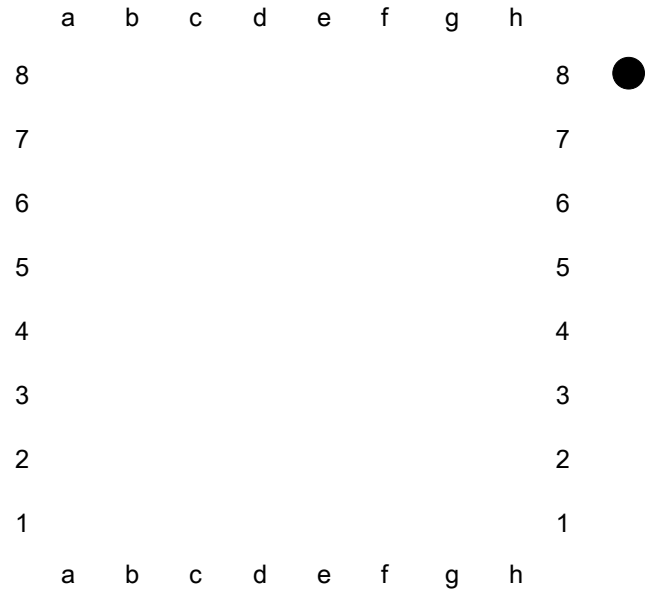
□ **Ivanchuk, Vassily**

**2757**

■ **Kramnik, Vladimir**

**2810**

Test 10



Try to find how Black could save the game? **35...Rxa6!** Kramnik could have forced a marvelous draw **36.Rxa6 Nf4+!! 37.Bxf4 exf4 38.Bxf7+ Kh8!**

**39.Qd3!**

[ The careless 39.Bxe8?? Qd2+ is even winning for Black: 40.Kf1 Bd4 ]

**39...Qxh4! 40.Bxe8 Qg3+ 41.Kf1 Qh3+** with perpetual check.  
**1-0**

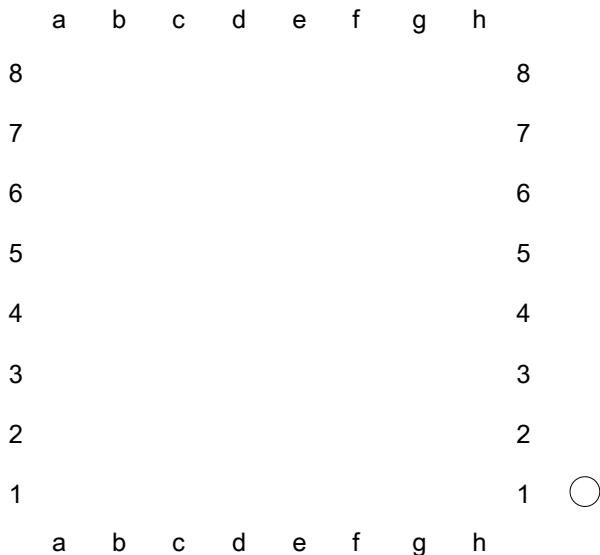
□ **Hamdouchi, Hicham**

**2588**

■ **Tiviakov, Sergei**

**2600**

Test 11



Can you find how White could save the game? 26.Ne5!! The more subtle way to carry out the rook sacrifice is to introduce it by the preliminary quiet sacrifice 26...dxe5 27.Rxh5+! Kg8 28.Qg5 forcing black to his own perpetual check against white's threat of mate in three.  
**0-1**

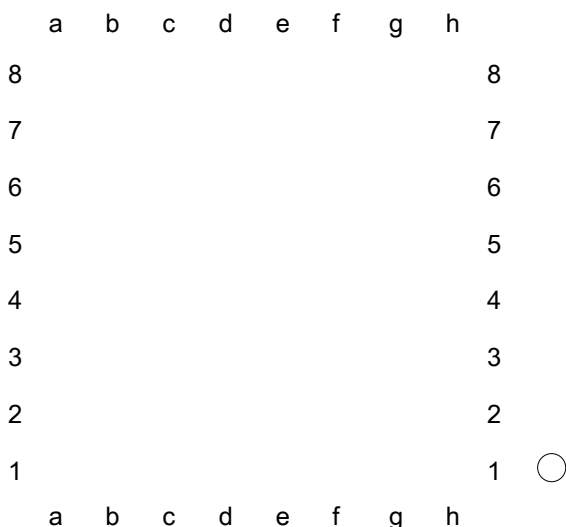
□ **Barczay, Laszlo**

**2415**

■ **Pokojowczyk, Jerzy**

**2390**

Test 12



How White could save the game?

24.exf6! is the correct move 24...Qxd4+ 25.Kg3 and black has no better than repeating checks by, for example, 25...Qe5+ 26.Kh3 Qh5+ etc.  
**0-1**

□ **Palac, Mladen**

**2495**

■ **Afek, Yochanan**

**2325**

Test 13



Can you find how Black could save the game? **30...Rd6!** Had I not panicked in view of the threat I might have noticed this saviour. Persuading White to force a perpetual check by: **31.Rh8+ Bxh8 32.Bh6+ Bg7 33.Bxg7+** [ 33.Qxg7+ Obviously leads the black king to safety following Ke8 34.Qg8+ Kd7-+ ] **33...Kg8 34.Bf6+ Kf8 35.Bg7+ Kg8** Positional draw by repeated checks!  
**1-0**

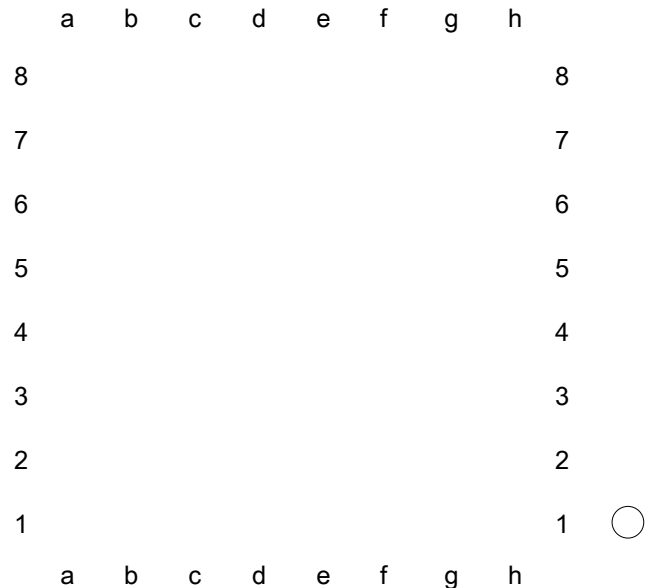


## Understand the French Isolani

The French Isolani is one of the structures that have intrigued me most since my early teenage years back in the '70s. I used to play 1.e4 and meet the French with 3.Nd2, when 3...c5 4. exd5 exd5 frequently gave me headaches and had Kortschnoj, a specialist of this line, as my greatest hero. Later, when I switched to 1.d4 I found the Queen's Gambit Isolani much easier to play against. Since I never again switched back to 1.e4, I did not ask myself whether this was due to my already better strategic skills or to specific differences between the two similar structures. At the moment of writing these lines, I believe that, while the former may have played a part, the latter is doubtlessly true. Since the French Isolani structure is an important part of the repertoire I built up in the theoretical databases, I find it useful to prove that even when things go relatively badly for Black, his Isolani is safer than in the closely related Queen's Gambit

structures. For illustrating how the minor differences change the evaluation from close to losing to equal I have chosen two games played between the same players featuring the same material. The first game became a classical model of how to exploit the relative weakness of the Isolani.

□ Kortschnoj, Viktor  
 ■ Karpov, Anatoly

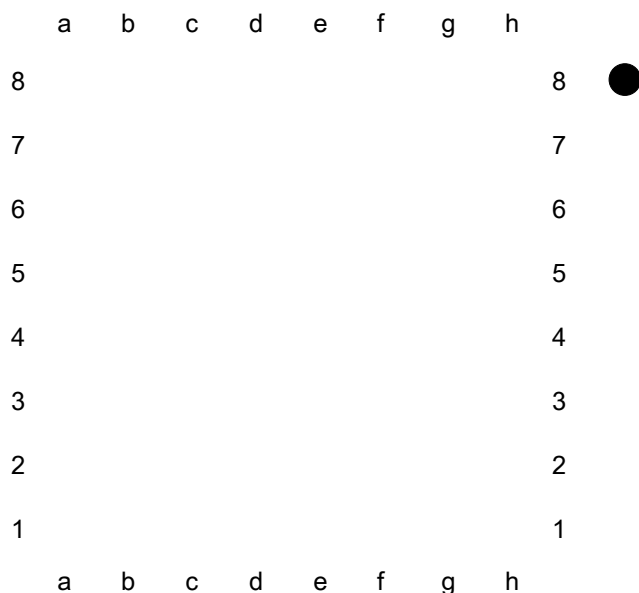


Caught by surprise in the opening, Kortschnoj allowed (actually even provoked) the exchange of almost all the minor pieces, which is precisely what the player with an Isolani should avoid. The next move, considered by Karpov a mistake, completed this unfavourable process, but as shown below it was hard to give Black a good advice already. **27.Bxd5**

[Karpov recommends 27.a3, preventing Black from winning a pawn with ...Nb4. But Kortschnoj probably felt that this would doom the d-pawn quicker than in the game:



**32...bxa4 33.Qa3 a5 34.Rxa4 Qb5  
35.Rd2**



White seems to have defended, but his coordination is awful, allowing Black to start an attack without inserting ...f7-f6.

**35...e5! 36.fxe5 Rxe5 37.Qa1 Qe8!**

Black has decisive threats against the weakened king and won quickly:

**38.dxe5 Rxd2 39.Rxa5 Qc6 40.Ra8+ Kh7 41.Qb1+ g6 42.Qf1 Qc5+**

**43.Kh1 Qd5+** Time has come to compare with a very similar game, played during the first official match between the same players, in which Kortschnoj had no problems defending his French Isolani.

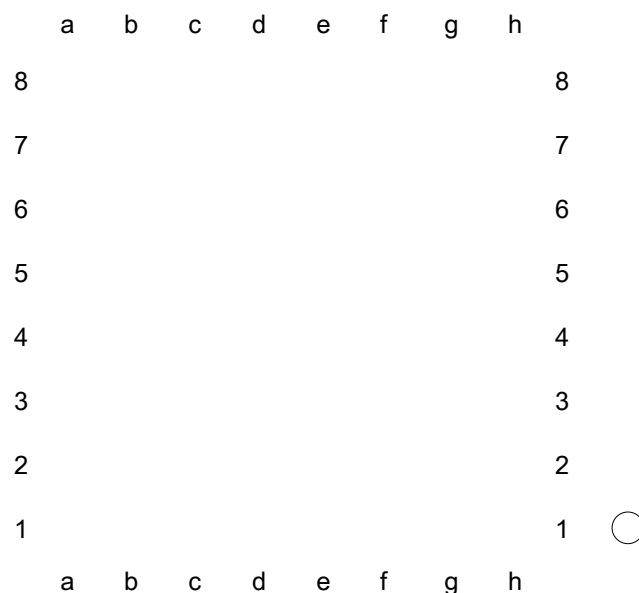
**0-1**

□ **Karpov, Anatoly**  
 ■ **Kortschnoj, Viktor**  
 Moscow (m/18)

1974

**1.e4 e6 2.d4 d5 3.Nd2 c5 4.exd5  
exd5 5.Ngf3 Nc6 6.Bb5 Bd6 7.0-0  
Nge7 8.dxc5 Bxc5 9.Nb3 Bd6  
10.Bg5 0-0 11.Re1 Qc7 12.c3 Bg4  
13.h3 Bh5 14.Be2 h6 15.Bxe7 Nxe7  
16.Nfd4 Bxe2 17.Qxe2 a6 18.Qf3**

**Rad8 19.Rad1 Rd7 20.Nf5 Nxf5  
21.Qxf5 Rfd8 22.Re3 g6 23.Qf3 Bf8  
24.Red3 Qc6**

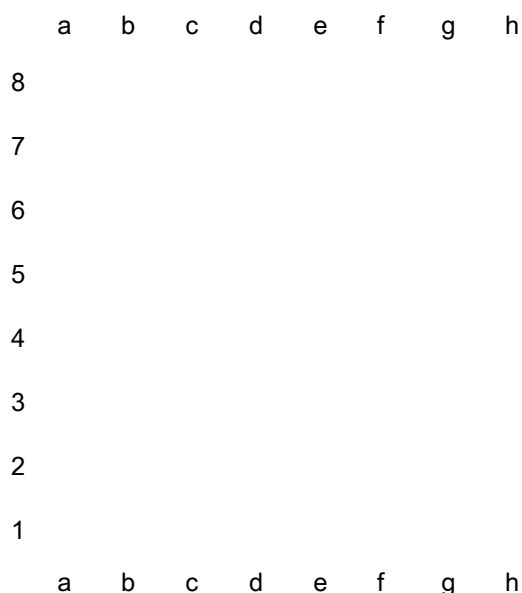


We have an identical material situation as in the previous game. The only important difference is that White has a pawn on c3 instead of e3. This implies a series of consequences: First of all, after the desirable minor piece exchange the Isolani undermining plan will be based on c3-c4. This allows Black to defend with ...b7-b5 which, unlike ...f7-f5 (similar to f2-f4 in the previous game) does not weaken the king. Secondly, the e-file is open, meaning that Black could get counterplay closer to the enemy king (unlike his hypothetical play along the c-file). Besides, a similar rook lift to the fifth rank with Rb4 above would be safer, as White would hardly consider weakening his king with f2-f4. Finally, after a2-a3 provoked by Black's next move, the queenside weakening will be more significant than with the pawn on e3. **25.Nd4 Qa4 26.a3 h5 27.R1d2 Bh6** With the actual material, we notice

a further positive aspect: the bishop can fight against the major pieces' tripling on the d-file. In the Queen's Gambit Isolani structure this would not be available.

## 28.Qd1

[In view of the next comment, 28.Re2 may be more consistent, even though White would have to work harder to reach the game position without minor pieces: Qc4 29.Rd1 Bg7 30.g3 b5 31.h4 ]



## 28...Qc4

[Botvinnik evaluates the position after 28...Qxd1+ 29.Rxd1 as slightly better for White. But actually exchanging major pieces is part of Black's defensive plan. The following analysis suggests the position is just equal.

Rd6 30.Kf1 Rb6 31.b4

(Another effect of the bishop's activity as there is no other reasonable way of defending b2. 31.Rb1

is too passive, of course. ) 31...Re8!?

( 31...a5 is premature due to 32.Nb3 axb4 33.cxb4!? keeping some

tension.; 31...Rbd6?! 32.Nb3

planning Nc5 leads to a position where the absence of the queen can be felt. If on the board, she could defend both d5 and b7 from c6. After the suggested move, White cannot approach with his king and has no effective plan against the Isolani as c3 is also weak. ) 32.Nb3 ( 32.Ne2 runs into Rbe6; Or if 32.h4 Bg7 33.Ne2 Rc6 the mutual weaknesses compensate for each other. ) 32...Rc8 33.h4 Bf8 34.Na5 Rc7 35.g3 Re6 ]

## 29.Re2 Qc7 30.Nc2 b5

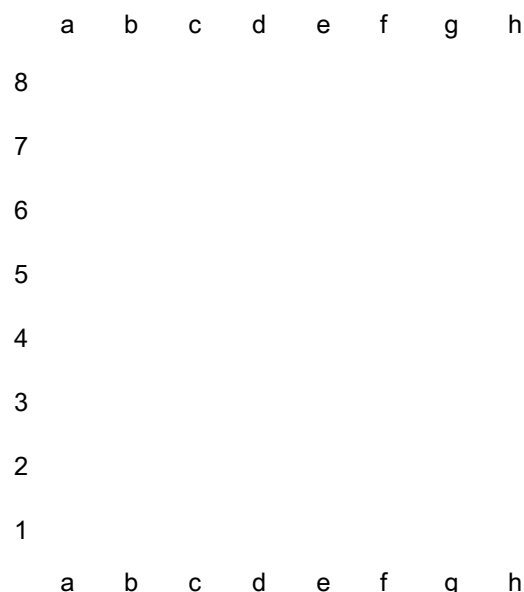
Taking measures against White's thematic c3-c4. 31.Ne3

[White does not achieve much with 31.Nb4 trying to prove the knight's superiority over the bishop. Qb7 32.Re5 Otherwise ...a6-a5. d4!

(But now 32...a5? is met with 33.Rexd5! ) 33.cxd4 Bg7

with preferable play already. We can notice that the bishop is very active, actually. ]

## 31...Qc5 32.Red2

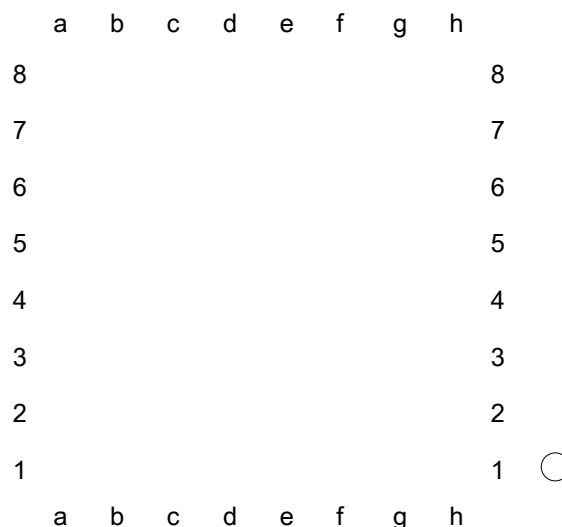


Black cannot avoid the minor pieces' exchange anymore. 32...Bxe3 33.Rxe3 Re7! Kortschnoj chooses a similar plan as in the previous example, intending to place one rook on the fifth rank. This is the most effective method now, as the e-file is closer to the enemy king.

[ 33...d4? would lose a pawn to 34.Red3± ]

[ But it is instructive to check what would happen if Black defends passively as in some cases he might not be in time to fight for the e-file: 33...Kg7 34.g3 Rd6!? 35.Red3

( The point behind Black's previous move is revealed after 35.h4 d4! 36.Red3 dxc3 37.Rxd6 Rxd6 38.Rxd6 c2= In this line it is essential that the d6-rook is hanging. This tactical operation would not work with the rook on d7. ) 35...R8d7 36.Rd4 Qc6 37.h4 Qc5 38.a4 This reduces the number of queenside pawns and Black's worries in general, but otherwise b2-b3 would not be possible. Qc6 39.axb5 axb5 40.R2d3 Qc5 41.Qd2 ( 41.b3 Re6! possibly followed by ...Qe7 would allow Kortschnoj's game regrouping. ) 41...Qc6 42.b3 Ra7 43.Rxd5 ( White also needs to be careful. If 43.c4? Ra1+ 44.Kh2 dxc4-+ ) 43...Ra1+ 44.Kh2 Rf1 45.Kg2 Rc1!= ]



### 34.Rxe7

[ 34.Red3 Re5 does not pose problems either: 35.g3 (Only not 35.h4? Qe7 attacking h4 and threatening ...Re1+. ) 35...Qe7 36.Kg2 Kg7 37.Rd4 Qe6 38.h4 Rd7 39.a4 Rd8 40.axb5 axb5 41.b3 Rc8! 42.R2d3 ( 42.Rxd5 Rxc3= is drawish. ) 42...Rd8!? 43.c4 (What else? If 43.Qf3 Re4= or 43...Rf5 and else Black could think of using the e-file with ...Re1 and if Qf3 then ...Re4. ) 43...bxc4 44.bxc4 dxc4= with an obvious draw. ]

### 34...Qxe7 35.g3

[ In the QG Isolani structure 35.Rxd5 would win a pawn but here Rxd5 36.Qxd5 Qe1+! 37.Kh2 Qxf2= retrieves it at once. ]

### 35...Qe6 36.h4 Kg7 37.Kg2 Qe4+ 38.Kh2 Qf5 39.Kg2 Qe4+ 40.Qf3=

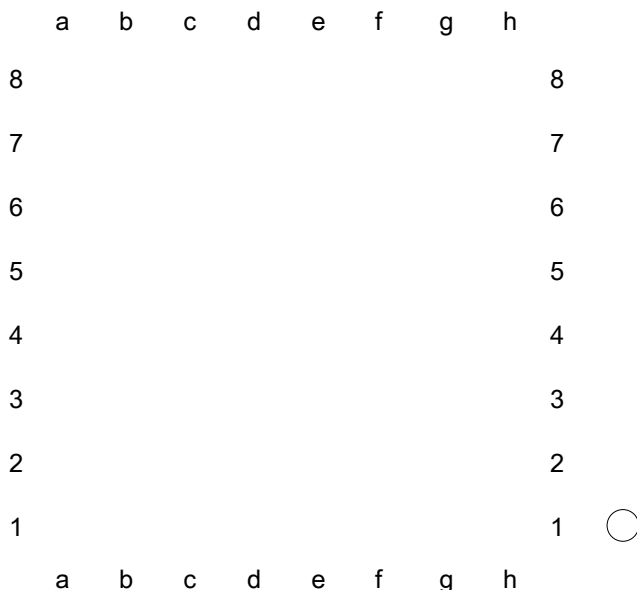
[ Botvinnik recommends 40.Kg1! giving the following line: Qe6 41.Rd4 Qc6 42.Qd2 Rd7 43.a4 Rd8 ( 43...bxa4 44.c4± ) 44.axb5 axb5 45.b3 Rc8 46.Rxd5 Qxc3 47.Qxc3+ Rxc3 48.Rxb5± ] [ 40.Kg1 But Black can avoid reaching this worse (even though most likely drawn) ending with: Re8! 41.Rxd5



( 41.Kh2 Re5= consolidates the pawn avoiding any further pin. )  
 41...Qe1+ Once again we notice that the control of the e-file is very useful.  
 42.Qxe1 ( 42.Kg2 Qxd1 43.Rxd1 Re2 44.Rb1 Rc2= does not offer White any winning chances either. )  
 42...Rxe1+ 43.Kg2 Re2 44.Rd6 ( 44.b4 Ra2= ) 44...Rxb2 45.Rxa6 Rb3=  
 with an obvious draw. ]

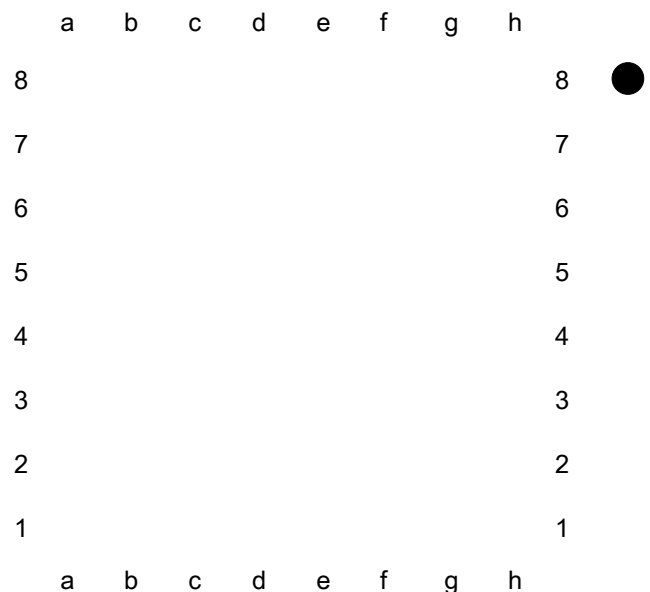
**40...Qxf3+ 41.Kxf3 Kf6 42.Kf4 Re8!**

[ 42...Re8 The simplest. In view of 43.Rxd5 Re2 44.Rd6+ Ke7 45.Rxa6 Rxf2+ 46.Ke3 Rxb2= the players agreed to a draw. ]



□ **Suetin,Alexey S** **2400**  
 ■ **Uhlmann,Wolfgang** **2525**  
 Barcza mem Debrecen (4) 1987

The control over the open e-file can be useful not only for defensive or counterattacking purposes as in the previous example but also for launching the own initiative. Here is an illustrative example of another great classical expert of this structure: **1.e4 e6 2.d4 d5 3.Nd2 c5 4.Ngf3 Nc6 5.exd5 exd5 6.Bb5 Bd6 7.0-0 Nge7 8.dxc5 Bxc5 9.Nb3 Bd6 10.Bg5 0-0 11.Re1 Bg4** A typical way of starting the fight against the blockade on d4. **12.Be2**



**Re8** To non-specialists this may look mysterious, as for the time being the knight blocks the e-file. But Black has several possible plans for his knight, depending on the ulterior course of the game so starting with the game move is the most flexible move order. **13.Nfd4 Bxe2 14.Rxe2 h6 15.Bh4 Qb6 16.c3**

**Nxd4 17.Nxd4 Nc6!** Everything becomes clear now. White cannot defend d4, b2 and the e-file simultaneously. **18.Nf5 Bf8 19.Rd2** Against the QG Isolani such a regrouping would be very effective. But in the French Defence, it allows Black to activate his rooks along the e-file, while the d5-pawn is basically taboo as ... Qxb2 would leave White with an annoying weakness on c3 (once again typical only for the French).

[White could have reached a draw by force with 19.Rxe8 Rxe8 20.Nxh6+ ( 20.Qd2 offers Black active play after Qa6 planning ...Re2. 21.Qxd5?! Re5 22.Qf3 Qb5 followed by ...Qxb2. ) 20...gxh6 21.Qg4+ Kh7 22.Qf5+ with a draw by perpetual. But an attacking player like Suetin probably thought it would be below his dignity level to play for a draw so soon. ]

**19...Re4 20.Bg3 Rae8 21.h3**

	a	b	c	d	e	f	g	h	
8									8
7									7
6									6
5									5
4									4
3									3
2									2
1									1
	a	b	c	d	e	f	g	h	

**d4!** Black's overall activity allows him to carry out the thematic Isolani break, thus not only solving all his problems

but also achieving at least some symbolic advantage. **22.Qf3**

[ 22.cxd4 Bb4 wins the exchange as moving with the rook loses to ...Re1. ]  
[Or if 22.Nxd4 Nxd4 23.Rxd4 ( 23.cxd4 Bb4 is less deadly now due to 24.f3 defending e1, but Black still retains a large advantage after Bxd2 25.fxe4 Be3+ 26.Kh2 Bxd4+ ) 23...Qxb2+ with the better structure and active play. ]

**22...dxc3 23.bxc3 Re1+ 24.Rxe1 Rxe1+ 25.Kh2 Qb1 26.Bc7 Qe4 27.Qxe4 Rxe4** Black has converted his initiative into a slightly better ending due to his better queenside structure and eventually won on move 60. **28.Bd6 Bxd6+ 29.Nxd6 Re7 30.c4 b6 31.Nb5 Kh7 32.Kg3 Na5 33.Rc2 a6 34.Nd6 Rc7 35.Kf4 Rc5 36.Ke4 Kg6 37.Kd3 f5 38.g4 fxg4 39.hxg4 Rc7 40.Ne4 Nc6 41.a3 Ne5+ 42.Kd4 Nxe4 43.Rb2 Rd7+ 44.Kc3 Kf5 45.f3 Ne5 46.Rxb6 Rd3+ 47.Kc2 Rxf3 48.Nd6+ Kf4 49.Rxa6 h5 50.c5 h4 51.Ra4+ Kg5 52.Re4 Nc6 53.a4 h3 54.Re1 Kh4 55.Ne4 g5 56.Nd2 Rf2 57.Kd3 h2 58.Ke3 Rxd2 59.Kxd2 g4 60.Re6 Kg5 0-1**

□ **Pogats,Jozsef**

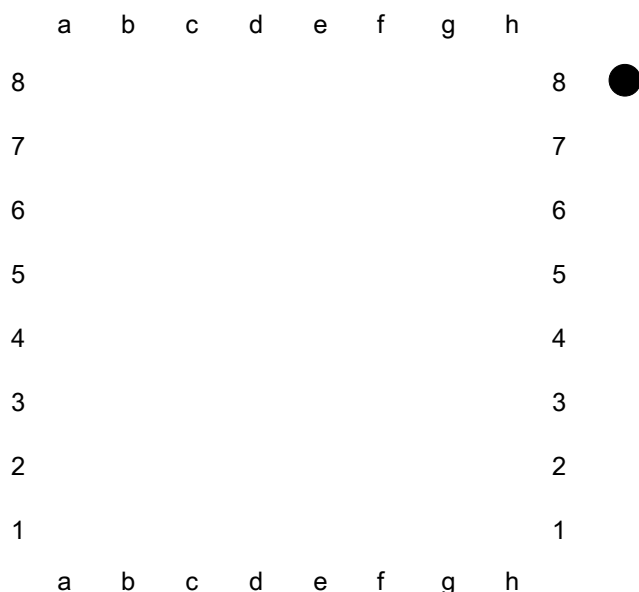
■ **Portisch,Lajos**

HUN-ch 14th Budapest (16) 19.12.1958

In the normal Isolani structure one of Black's main resources is placing a minor piece on e4, using the central pawn for supporting it. In the French

Defence this remains valid, but Black has an additional square on c4, as controlling it with b2–b3 would weaken the c3–pawn. Here is an example where Black made good use of both outposts:

**1.e4 e6 2.d4 d5 3.Nd2 c5 4.exd5 exd5 5.Ngf3 Nc6 6.Bb5 Bd6 7.0–0 Nge7 8.dxc5 Bxc5 9.Nb3 Bd6 10.Bg5 0–0 11.Qd2 Qc7 12.h3 h6 13.Be3 Bf5 14.c3**



**Be4** Black's pieces are quite active and apart from the obvious threat ...Bxf3 he may consider ...Nf5 and ...Ng6. This leaves White little choice. **15.Nfd4**

[Both 15.Be2 Nf5 16.Bc5 Bf4] [and 15.Nbd4 Ng6 followed by ...Nf4 offers Black the initiative. But the game move, preventing ...Ng6 in view of f2–f3 trapping the bishop, opens new horizons for the other knight. ]

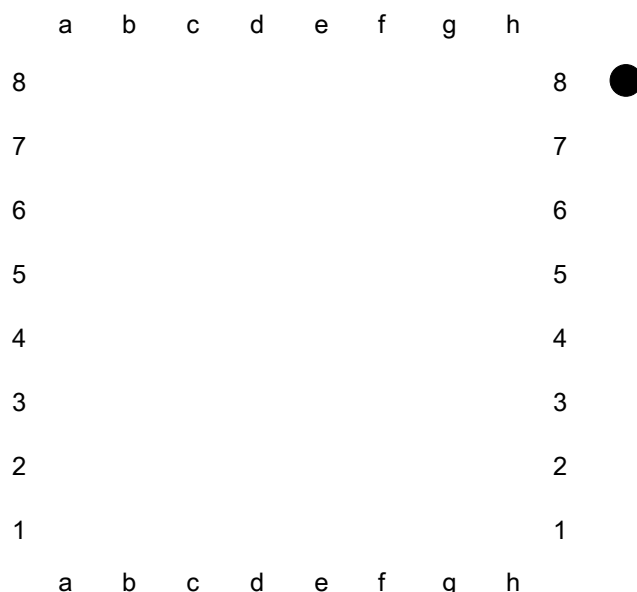
**15...a6 16.Be2 Ne5!** The knight is en route to c4. **17.f3** Consistent with the previous move, even though it weakens e3. The bishop is forced into passiveness but only temporarily.

[ 17.Bf4 would not have changed

much: **N7g6 18.Bg3 Nc4 19.Bxd6 Qxd6 20.Bxc4 dxc4 21.Ne2!?**

The only way of avoiding being pushed back completely. **Qc6 22.Nbd4 Qd5 23.f3 Bd3** ]

**17...Bh7 18.Bf4**



**N7g6 19.Bh2**

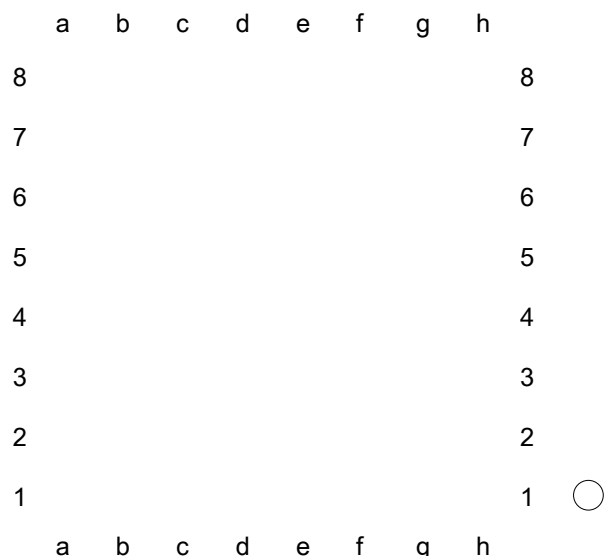
[More or less forced. With the kingside dark squares weak exchanging on e5 makes little sense, while 19.Bg3 Nxf3+ is good for Black, too. After the game move the similar trick does not work due to Nxf3 defending the bishop. ]

**19...Rac8 20.Rf2 Nc4 21.Bxd6 Qxd6 22.Bxc4**

[This yields Black a space advantage and conceals him the d3–square entirely, but after 22.Qc1 Nf4 Black's pressure would be overwhelming. ]

**22...dxc4 23.Nf5 Qf6 24.Nbd4**

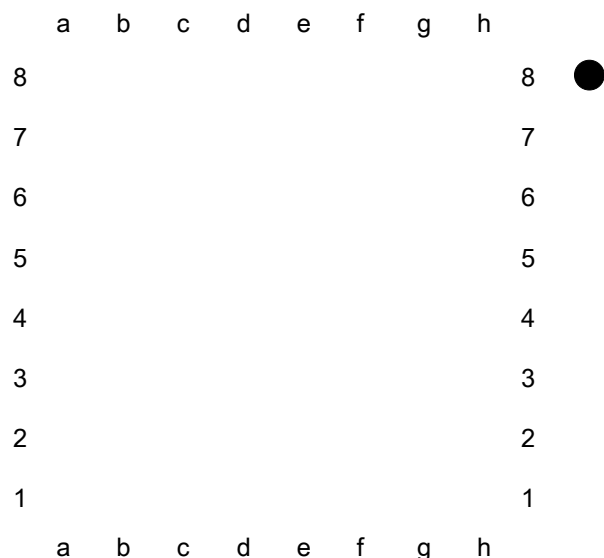
Unfortunately for him, White's initiative is only superficial as his f5–knight is unstable. **24...Ne5 25.Ne3 Nd3**



Black is completely dominating and the d4-knight cannot compensate for the passivity of the rest of the army. **26.Ng4 Qb6**

**27.Re2 Rfe8 28.b4 Rxe2 29.Qxe2 Nxb4 30.Re1 Bd3 31.Qe7 Nc2 32.Qd7 Rd8 33.Re8+ Rxe8 34.Qxe8+ Kh7 35.Qxf7 Nxd4 36.cxd4 Qxd4+ 37.Kh2 c3 38.f4 c2 39.Qc7 Bc4 40.Nf6+ Qxf6 41.Qxc4 Qc6 42.Qd3+ Kg8 43.Qb3+ Kh8**  
0-1

□ **Baches Garcia,Guillermo** 2389  
 ■ **Marin,Mihail** 2548  
 Andorra Erts (154) 24.07.2012



Black is very active and thought this was a good moment to exchange in the centre with 12...Nxd4 White did not like the prospect of defending a slightly worse symmetrical position after 13.cxd4 Qd6 and went for the principled 13.Nxd4 Was this a good decision?

\*\*\*No, it was not! 13...Rxe2! wins more or less by force. 14.Nxe2

[ The intermediate 14.f3 does not work: Qe7 15.fxg4 Qe4 16.Rf2 Re1+ ]

**14...Qe7 15.Re1**

[ A better practical chance would have been 15.Be3 Bxe3 16.fxe3 Qxe3+ 17.Rf2 Ne4 18.Qd4 Qxf2+ 19.Qxf2 Nxf2 20.Kxf2 Bxe2 21.Kxe2 f6+ even though Black has every reason to count on winning. ]

**15...Re8 16.Kf1**

[ I was slightly worried by 16.Bg5 Bxe2 17.Qd2 but it appears that after Qe4 18.Bxf6 ( 18.Rac1 Ng4-+; 18.h3 Re5-+ ) 18...gxf6 White is not in time to use the pin along the e-file while Black can start an attack along the g-file. 19.Rac1 Kh8 20.Rc2 ( 20.Qh6 Rg8 21.Qxf6+ Rg7 22.g3 Kg8 followed by ...Rg6-+ ) 20...Rg8 21.g3

Bxf2+! 22.Kxf2 Qf3+ 23.Kg1 Rxc3+  
24.hxg3 Qxc3+ 25.Kh1 Bf3+ 26.Qg2  
Qxe1+ wins. ]

**16...Ne4 17.Be3 Bxe3 18.fxe3 Qf6+  
19.Kg1 Qf2+ 20.Kh1 Qxe3 21.Qd4  
Nf2+ 22.Kg1 Nd3+ 23.Qxe3 Rxe3  
24.Red1 Bxe2 25.Rd2 h5 26.a4 Bg4  
27.a5 a6 28.Kf1 h4  
0-1**

□ **Salazar Jacob,Hernan** **2315**  
■ **Campora,Daniel Hugo** **2415**  
Santiago Santiago de Chile 1980



Black has done everything right, doubling rooks on the e-file and controlling the blocking square on d4. But he still needs a plan to increase his pressure. **23...g5!** A multi-purpose move, continuing the fight for the d4-square and aiming at clearing the f-file to create threats against f2. **24.h3**

[ 24.Rxd5 Re2+ ]

**24...h5 25.Nh2?!** This is too passive to be good.

[ 25.Nd4?! is premature: Nxd4 26.cxd4 ( 26.Rxd4 Re2+ ) 26...g4 27.h4 (White needs to keep the kingside blocked as after 27.hxg4 hxg4 followed by ...Kg7 and ...Rh8 Black's attack would be unstoppable. ) 27...Re2! 28.Rxe2 Qf3+ 29.Kg1 Rxe2 30.Qf1 Rxb2-+ ]

[A neutral move such as 25.Rc1 fails to keep troubles away: g4 26.Nd4 Nxd4+ 27.Rxd4? Re1! 28.Qxe1 Qf3+ 29.Kg1 Rxe1+ 30.Rxe1 gxh3-+ ]

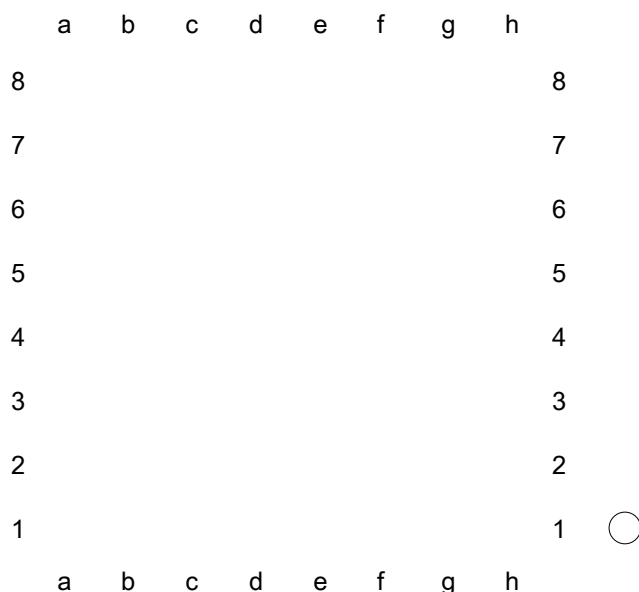
[The only surviving chance was 25.Kg1! removing the king from the exposed square. g4 26.Nd4 Nxd4 27.Rxd4 Rxd4 (The point is that 27...Re2 runs into 28.Rf4±) 28.Qxd4 Qxd4 29.cxd4 Re2 30.Rc1 with every chance to hold the rook ending. ]

**25...g4 26.hxg4 hxg4 27.Kg1**

[ 27.Nxg4 Qg5 28.Nh2 Re1! wins material as the rooks are hanging. The only way to limit the damage is 29.Qg4 Qxg4 30.Nxg4 Rxa1 31.Nf6+ Kf8 32.Nxe8 Kxe8 33.Rxd5+ ]

**27...d4-+ 28.Nxg4 Qg5 29.Rd3 Rxc4  
30.cxd4 Nxg3  
0-1**

□ **Gayson, Peter**  
 ■ **Botterill, George Steven** **2365**  
 BCF-ch Swansea **1987**



White tried to reduce Black's pressure with **28.Rd4** Was this a good idea?

\*\*\*Not quite as the queen and bishop are exposed: **28...Nh4! 29.Qg3**

[ 29.Qe2 Qg6 offers Black a winning attack: 30.g4 ( 30.Qf1 Nf3+; 30.g3 Rxe3 31.fxe3 Qxg3+ 32.Kh1 Qxh3+ 33.Qh2 Qf3+ 34.Kg1 Re6 ) 30...Rxd4 31.cxd4 Qe4-+ ]

[ 29.Qh5 R8e5 forces the queen back anyway, gaining an attacking tempo for Black. ]

**29...Qxg3 30.fxg3 Rxe3 31.gxh4 Rxc3 32.Rad1**

[ 32.Rxd5 Re2+ followed by ...Rcc2 is hopeless. ]

**32...Re2 33.h5 Rg3** and Black won.

**34.Kf1 Rg3 35.Rxd5 Ref2+ 36.Ke1 Rxa2 37.Rd8+ Kh7 38.Kf1 Raf2+**

**39.Ke1 Rb2 40.Kf1 Rh2 41.Kg1 Rxh3**  
**42.R8d7 Rg3+ 43.Kh1 Rbxb3 44.Rxf7**  
**Rg4 45.Rd8 Rh3#**  
**0-1**

□ **Tomczak, Rafal** **2339**  
 ■ **Jussupow, Artur** **2570**  
 Warsaw AIG Life rapid 8th (6) **20.12.08**



White tried questioning Black's stability in the centre with **16.Ng5** when Black correctly answered with **16...Nxd4**, the only move avoiding trouble. How should White deal with the tensioned situation? **17.Qxd4?** This loses material.

[ 17.cxd4 Rc2+ would also be unsatisfactory after the forced 18.Qe1 ]

[ The only move to keep White in the game was 17.Bg4!! Bxg2!?

(The most interesting continuation.

17...Nc6? leaves Black hanging:  
 18.Nxe4 dxe4 19.Bxc8+-; 17...f5  
 leads to simplifications and a probable  
 draw: 18.Nxe4 dxe4 19.Qxd4 fxg4  
 20.Qxd6= ) 18.Kxg2 Nf5 19.Qxd5  
 ( 19.Bxf5 Nh4+ retrieves the knight  
 with an advantage. ) 19...Rc5  
 20.Qxc5! ( 20.Qd2 Nxe3+  
 followed by ...Rxc5 is bad the same  
 as; 20.Bxc5 Nf4+ ) 20...Bxc5 21.Rxd8  
 Nxe3+ 22.fxe3 Rxd8 23.Nxf7 Rd2+  
 with interesting play and even  
 chances. ]

**17...Bc5 18.Qd2 Bxe3 19.Qxe3**  
**Bxg2!±** A small trick winning at least a  
 pawn. **20.Kxg2? Re8 21.Nxf7**  
 [ 21.Qd2 Rxe2-- ]  
**21...Rxe3 22.Nxd8 Nf4+ 23.Kg1**  
**Rxe2--**  
**0-1**

□ **Panov, Vasily N**  
 ■ **Bondarevsky, Igor**  
 URS-ch10 Tbilisi

1937

	a	b	c	d	e	f	g	h	
8									8
7									7
6									6
5									5
4									4
3									3
2									2
1									1 ○
	a	b	c	d	e	f	g	h	

Black is very active but the voluntary  
 retreat **16.Ne2?** made things worse.  
 Why? **16...Bxh3!** With the g1-a7  
 diagonal available to the other bishop  
 this sacrifice wins. **17.Bf4**

[ 17.gxh3 Rxe2! ( 17...Bxf2+  
 is also strong since 18.Kxf2 Qh2+  
 19.Kf1 Re3 or 19.Kf3 Re3!+ 20.Bxe3  
 Ne5#. ) 18.Rxe2 ( 18.Bxe2  
 does not change much: Qg3+ 19.Kh1  
 Qxh3+ 20.Kg1 Bxf2+ 21.Kxf2 Ne4+  
 22.Kg1 Qg3+ 23.Kh1 Nf2# )  
 18...Qg3+ 19.Kh1 Qxh3+ 20.Kg1  
 Ng4 21.Bf4 g5!-+ ]

**17...Qd7±**

[ This is strong enough but the  
 spectacular 17...Rxe2!! is even more  
 convincing: 18.Bxc7 Bxf2+ 19.Kh2  
 Rxe1 Now or on the next move White  
 has to return the queen, as 20.Qc2  
 Ne3 21.Qd2 allows Bxg2 threatening  
 ...Nfg4#. ]

**18.gxh3**

[ 18.Bxc4 dxc4 19.gxh3 Qxh3  
 20.Nbd4 Re4 also offers a decisive  
 attack. ]

**18...Qxh3 (Δ...Nxb2) 19.Bxc4 Qg4+**  
**20.Kf1**

[ 20.Bg3 Rxe2! ]

**20...Bxf2**

[ 20...Qf3! is even stronger: 21.Nbd4  
 Bxd4 22.Qxd4 Rxe2 23.Bg3  
 ( 23.Rxe2??? Qh1# ) 23...Rxb2  
 White has no time to save the c4-  
 bishop due to the threat ...Qh1#. ]

**21.Kxf2 Ne4+ 22.Kf1 Qf3+ 23.Kg1**  
**Qf2+ 24.Kh1 Re6 25.Bxd5 Qf3+**  
**26.Kh2 Rg6 27.Bxf7+ Rxf7 28.Qd8+**  
**Rf8 29.Qd5+ Kh8 30.Ng3 Qf2+**  
**0-1**

7 \ S L F D O 6 W U X  
G G

Dear Reader,

In this article, I deal with some of the most important structures which arise after 1.d4 d5. In particular, I examine the following openings: Tarrasch Defense, Semi-Tarrasch Defense, Chigorin Defense, Albin Counter-Gambit, and Baltic Defense. Every structure is presented in the following way:

- ([SODQDWLRQ RI WKH PDLQ  
ORGHO JDPH  
- 7HVW

Below, you can take a look at the coverage of the following structure:

5VTWEVWTG

C D E F G H I J

C D E F G H I J



FWLXUHVW\DIWCHUWUXFW  
7DUUDVFK 'HIHQVH LQ ZKLFK  
UHIUDLQHG IURP WDNLQJ RQ  
%ODFN GLG QRW WDNH RQ G  
ZRXOG KDYH ERWK OHG WR  
TXHHQ SDZQ SRVLWLRQV %C  
FORVH WKH FHQWUZHWWR  
NHHS WKH G SDZQ VDIH DQC  
UHDFK DQ HGGJDPH LQ ZKLF  
TXHHQVLGH PDMRULW\ ZRXO  
:KLWH V KDV WZR GLIIHUHQV  
VWUXFWXUH 3OD\ 1H VL  
WUDGH NQLJKWV LQ WKH FH  
SDZQ ZRXOG EH XQGHU WRR  
7KHQ QH[W 1[F ZKLFK RQO\  
LPSURYH KLV VWUXFWXUH E  
ZKLFK RYHUSURWHFWV G DC  
ILOH %XW WKH SRLQW FRPH  
5LJKW DIWHU WKH H[FKDQJ  
FRQLQXHV ZLWK E E 7KL  
IRUFHV %ODFN WR SOD\F[E  
:KLWH RSHQV WJG KORQTVC  
RTGUUWTG QP VJG PGYN[ ET  
QP E 9JKVG ECP TGEQVWT  
RCYP CPF FGURKVG VJG RC  
GZRQUGF QP D 9JKVG CNUC  
QRGP C HKNG CV JKU FKURQ  
RTGUUWTG QP VJG C RCYP  
WUGHWN VQ MGGR CV NGCUV  
DQCTF VQ RWV RTGUUWTG Q  
RCYPU /KPQT RKGEGU GZEJ  
YGNEQOG GURGEKCNN[ QH V  
DKUJQRU CU VJG \$NCEM QP  
KORQTVCPV VQ RTQVGEV E  
KP UWEJ UVTWEVWTGU 6JKU  
CFXCPVCIG DGJKPF CZD CU  
VTCFG VJG FCTM USWCTGF D  
6JG NCUV QRGTCVKQP YQWN  
MPKIJV VQ E HTQO YJGTG K  
GZGTVU CP CPPQ[KPI RTGUU  
\$NCEM U SWGGPUKFG RTQX  
CPF NQPI NCUVKPI CFXCPVC



□ 5XCPG 4CUOWU

■ <KGJ\*CTVOWV

)'4 EJ VJ 5CCTDTWGEMGP

0H F E G F 0H

EZF GZF I 0E \$I

+H \$NCEM YCPVU VQ RNC[ VJKU OQXG KV

UJQWNF DG FQPG CU UQQP CU RQUUKDNG CU

QVJGTYKUG 9JKVG ECP RTGXGPV VJKU TGUQWTEG

=HQT GZCORNNG \$G

FZE ?

\$G 0G

C D E F G H I J

0ZE DZECZDQY 9JKVG E

RNC[ CICKPUV VJG E CPF C

C \$C

C D E F G H I J

0E E

VJKU OQXG KV

CU RQUUKDNG CU

TGUQWTEG

C D E F G H I J

# XGT[ KORQTVCPV RQUKVKQ

9JKVG #HVGTVJKU GZEJCPI

\$NCEM U IQQF DKUJQR CPF E

KORQTVCPV E USWCTG YJKE

UOCNN DWV RNGCUCPV4GFXC

3E \$C 4HE

=GXGP UKORNGT YCU \$Z

RTGXGPVKPI VJG KFGC VJC

VJG ICOG 4ZG 3ZG !

4ZC \$F 3C 4ZC

4HE

#U CHVGT E E KV KU JCTFGT3ZG \$ZG!V4G 4HE

RTGUUWTG CICKPUV VJG F RJKVG ECPV EQPVKPKG YKV

EJCPIGU VJG UVTWEVWTG KE QYKVT GQUKCT RNC[ CPF

PGY VCTIGVU KP \$NCEM U E CEXCPVCIG \$NCEM HCEGU

D + NKMG VJG OQXG QTF ETOKEG VJG RCUUKXG FGH

9JKVG KP VJKU ICOG NQPI CPF WPRNGCUCPV DV

= \$I YQWNF VTCPURQUO GOWTEGCKP V YQTM GK

NKPGU ? GZCORNNG 4E G E \$

EZD 4EE 3F EZZF

= 3C \$D \$D 4E ECD E 0E \$E \$H

CZD \$G 0ZE DZE) 03ZD CPF \$NCEM MFCFPHIGUG

-JGPMKP + 8KNCT .Q RDNH WKLQJV HDVLHU IRU

#PFQTTC QR UV NQLJKW KDV DFKLHYHG LW

CNUQ ICXG C V[RKECN GFIBXWQSTRYJKVRQ KP DQG WKH S

J !C[DG \$NCEM OKUGXCN  
OQXG CPF VJG CTKUKPI RQU

= I \$G -I YCU UV  
RNC[CDNG ?

IZJ 3I 3C 3ZJ \$G  
6JG OCKP RTQDNGO HQT \$NO  
CNOQUV RCTCN[\G\$FP!QY

= 3I 3F 3H J

\$ZE 3ZE \$D  
6JG DCF DKUJQR RTQVGEVU C IQQF RCYP I 3H  
\$E \$NCEM OCPCIGF VQ FGN YK\$ZH -I \$F  
JKU SWGGPUKFG RTQDNGOU CPF \$NCEM KU UVKNN WPF  
RTGUUWTG ?

= 0G YCU CP KPVGTGUVKPI QRVKQP  
VQQ 3E 4C \$NCEM ECP OQDKNK\G  
JKU HQTEGU QP VJG SWGGPUKFG\$DCPF 3C 4H J  
RTGRCTG VQ RWUJ C C WPF3DT DGVVGT  
EKTEWOUVCPEGU ? \$I 3I C0™p ÂAt•%og21 t„ñt„

DZC 4ZC 4ZC \$ZC 3  
9KVVJ QPN[ QPG YGCMPGUU TGOCKPKPI CPF  
YGNN RTQVGEVGF D[ VJG DKUJQR \$NCEM KU  
RTQDCDN[ CDNG VQ\$G SWCNK\G

= \$H 0G 3D 3H H  
3ZC ! 3ZH -J 3H  
\$I 0H -I 3ZG  
0ZE 4ZE 3G 3ZC  
3E 4D 3ZG -I

3G ?

\$D 3E # UVTCPIG OQXG  
YJKEJ ETGCVGU WPPGEGUUCT[ YGCMPGUUGU  
QP VJG FCTM USWCTGU QP VJG MKPIUKFG

= 0G YQWNF DG IQQF KPKVKCVKPI C  
IQQF FGHGPUKXG OCPGWXGT \$D J

H 0I EQXGTKPI E ?

4C -I 3C J 3C

9JKVG OCMGU GZEGNNGPV WUG QH VJG QRGP  
NKPGU +P CFFKVKQP VQ VJG C HKNG JG ECP  
CNUQ WUG VJG YGCMGPGF FCTM USWCTGU

3E \$F 3H 3D

#VVGPVKXG

= \$G 3D CPF 9JKVG KU NBUFE >

'ZGTEKUG

C D E F G H I J

C D E F G H I J

\*QYEC9JKVQD VCKE XQWTC DNG  
UVTWEVWTG!

)LQG WKH DQVZHU LQ WKH 3\*1 DQG  
ZHEVLWH YHUVLRQV RI 0RGHUO &KHVV  
0DJJ]LQH

2QUKVKQP

C D E F G H I J

C D E F G H I J

6JKU WPDCNCPEGF UVTWEV  
XCTKCVKQPU KP YJKEJ CHV  
\$NCEM QRVU HQT F ! KPUV  
CNNQYKPI 9JKVG VQ MGGR  
0C 6JG RQUKVKQP KU PQV  
VJQWIJ \$NCEM UCETKHKEG  
JCXG OQTG HTGGFQO HQT J  
OQTG URCEG KP VJG EGPVG  
YKVJ VJG OKURNCEGF 0C C  
VJG V[RKECN RNCPU VJCV Y  
CFXCPVCIG HQT 9JKVG CICK  
+UQNCPK +P VJG GPF 9JKV  
DGVVGT DWV KV KU KORQT  
VQ CXQKF VTQWDNG \$NCEM  
EGPVTCKN\CVKQP QH JKU H  
OG \$H QT \$H \$G 3F CPF  
VJG TQQMU VQ VJG EGPVTC  
CEVKXG RQUKVKQP +H 9JK  
OCPCIG VQ FGXGNQR JKU R  
VJG RCYP \$NCEM CEJKGXG  
EQORGPUCVKQP HQT VJG R  
OQTG 9KVJ UQOG ECTG CF  
YJGP TGSWKTGF 9JKVG EC  
FGXGNQROGPV RTQDNGOU \  
VJG OCVGTKCN CFXCPVCIG  
VKOG 1PG KORQTVCPV CFX  
016 2.#; G G CU CHVGT F  
\$NCEM YQWNF ETGCVG C FC  
RCUUGF RCYP \*G EQWNF H  
OG \$H HQT GZCORN 9JK  
HCEG VGTTKDNG RTQDNGOU  
FGXGNQRKPI VJG RKGEGU G  
SWGGPUKFG NGCFKPI VQ C  
FGXGNQROGPV QH CNN QH  
HKTUV UVGR HQT 9JKVG KU  
RCYP YKVJ C C CPF D D  
9JKVG JCU IQQF RNCPU CIC

\$NCEM U UGV WRU 0G \$H NQ\$OKPI HQT SWKEM EG  
 CVVTCEVKXG HQT \$NCEM PQY D VEGWUGT \$KVG D EZD  
 YGCMGPGF VJG E USWCTG \*QYQXGTIKXG VGDGVVGT EJCP  
 JCU \$D YKVJ VJG VJTGC V QH D JKV G QHVGT  
 YJKEJ VJG F RCYP KU JCP IKPL QT F ! KU CNUQ C FKTGE  
 KPETGCUKPI VJG EQPVTQN QXGT F CHVGT 4G 9JKVG K  
 KORQTVCPV VQ PQVG VJCV GXGPV JGP \$NCEM 3ZG 3C  
 OCPCIGU VQ RNC[ 0E VJG RCUGF RCYP \$G 4CF \$F 4ZF!  
 VJCV CTKUGU KU GCUKN[ DNQEMGF CPF CVVCEM GF 4ZG  
 CPF CNUQ GZEJCPIG UCETKHKEG KFGCU EQOG \$ZF 4ZG  
 EQPUKFGTCVKQP CU 9JKVG QDVCKP VJG KFKVKN VKXG RCU  
 EQORGPUCVKQP CPF C UVTQPI SWGGPUKZG \$F 3F 3  
 OCLQTKV[ UWRRQTVGF D[ VJG \$! & GOKT \$NCEM #FCOU 0  
 EJQQUGU VJG EGPVTCNK\CVKQ SWDFC QGCU (QH +/  
 \$G 3F VJGP DQVJ USWCTGU YJ \$G J9V K W KFKU C RCYP WR  
 DG WUGF D[ VJG MPKIJV VQ TQKFGEU QTG JCU IQQF RKGEC  
 QEEWRKGF CPF 9JKVG ECP EQPRKQ WGPYK VJMKPI KU YGCM  
 QT F CPF DTKPI VJG MPKIJV DCEM VQ VJG P QWIJ EQORG  
 ICOG YKVJ 0D F YKVJ C IQQF VJG GZEJCPIG?  
 KU KORQTVCPV HQT 9JKVG VQ VCMG UQOG ECTG  
 CPF RC[ CVVGPVKQP VQ JQY \$NCEM KU JOKPI VO  
 FGXGNQR VJG RKGEGU DWV KP VJG GPFM YKPPKPI VKOG  
 DGNKGXG VJKU UCETKHKEG KU GPVKTGNI UQWPF \$NCEM RI  
 9JKVG KU DGVVGT YKVJ EQTTGEV RNCL  
 VKOG VQ MGGR VJG EQPVT  
 CEVWCNN[ KU CP KORTQXG  
 HQT 9JKVG FZE 3D \$  
 \$G6JG E RCYP KU UKORN  
 JCTONGUU HQT 9JKVG GXG  
 HQNNQYU VJG MCFEG 4G  
 \$I 4ZE \$ZE C3ZKP 9JKV  
 JCU RCYPU WR QP DQVJ UK  
 SWGGPUKFG OCLQTKV[ UWF  
 \$I KU XGT UVTQPI \$BOT G  
 9JKVG KP VGP VQ  
 3H 3ZH IZH ) 4\$D  
 0E \$ZE FZE 3D  
 \$NCEM KU HQTEGF VQ CFXC  
 EJC V \$NCEM 9JKVG ECP EQPU  
 GZEJCPIG UCETKHKEG KFG  
 GXGP KUCG WKN[ CPF XGT  
 VQ VJG CFXCPVCIG 0E  
 \$ZE ! 3ZE 4ZG  
 D D C 0F

□ -QXC�[QX #PVQP  
 ■ 5JCDCNQX #NGZCPFGT  
 (QZYQQFU QR /CUJCPVWEMGV

0H 0H E G I E \$I 4ZE \$ZE C3ZKP 9JKV  
 F EZF GZF F \$G JCU RCYPU WR QP DQVJ UK  
 FZE F ! 0C \$H C ! KU XGT UVTQPI \$BOT G  
 6JKU KU UCHG CPF TGNKCDNG 9JKVG KP VGP VQ  
 RTQVGEV VJG RCYP HKTUV CPP 3C 3G \$H 4CF \$  
 QPN[ VJGP VQ UQNXG VJG FFXGNQR GPV ) 4\$D  
 RTQDNGO 0E \$ZE FZE 3D  
 = DF ETGCVGU UQOG \$NCEM KU HQTEGF VQ CFXC  
 EQORNKECVKQPU GZCEVN[ EJC V \$NCEM 9JKVG ECP EQPU  
 NQNMKPI GZEJCPIG UCETKHKEG KFG  
 = G ! KU PQV QPN[ DCF DWXGP KUCG WKN[ CPF XGT  
 NQUKPI FZG 3ZG 3ZF VQ VJG CFXCPVCIG 0E  
 4HZF \$E GZH 4ZH \$ZE ! 3ZE 4ZG  
 4CZF ? D D C 0F

0ZF 3ZF G 3F XGT[\*CXKPI VJG TQQM QP E OC  
 RTGEKUG 0G 3ZF 4G 4FHHGTGPEG PQY 9JKVG K  
 G 9JKVG GNMKOKPCVGV D V V C D P CPF  
 MGGRU VJG OCVGTKCN CFXCPVC 4CE EZF 3ZF  
 GZH \$ZE 4ZE 4ZE 4HED 4ZE 3ZF  
 4FE 0G. #OK ' 0E CPF 9JKVG KU IQK  
 \$GTGNQYKVUEJ # 0'& 5G G C  
 ? OCVGTKCN CFXCPVCIG  
 D 3F\$NCEM JCU EGPVTCNK\GE VJG 0D  
 RKGEGU DWV PQY VJG MPK J V \$ JCU PQ 0D  
 CEEGUU RQKPVU VQ TGCEJ 0E = UQ 9JKVG ECP  
 UKORN[ EQPVKPWG FGXGNQRKPI 4HG 3F#NTG CCF[ HTQC  
 QPVQ IQQF USV\$G TGU ! RQKPV YG ECP ECNN 9JKVG  
 6QQ UNQY YKPPKPI \*G KU WR C JGCN  
 =6JG FKTGEV I ! NQ C M P \$ G E M S W CTGU HQ  
 DGUV CVVGORV DWV KU \$ N K M B C P R W \$ F U Q O G T G U I  
 0F 0D 0EG 0F 0EKF DWV QDLGEVKXGN[ UR  
 \$GPLCOKP , 6QFQT QXJQ WNF EQPXGTV JKU CFXC  
 .QPFQP 2GCEG 4CF J 0J  
 0ZF GZF \$ZF = I 0HG  
 0ZI 3D CPF 9JKVG C  
 OCPCIGU VQ FGXGNQR VJG TGOCKPKPI  
 RKGEGU YKVJ CP GZEGNNGPV RQUKVKQP 4HF  
 I ! 0H 0ZF 0ZF C D E F G H I J  
 4HF \$H 4CE  
 = 4HG 4E ?  
 4E I \$F

C D E F G H I J

C D E F G H I J

C D E F G H I J

9JKVG U WUG QH DQVJ TQGMTRCEYVUTGQ  
 KORTQXG VJG RQUKVKQP KU XGT[ KPUVTWEVKXG  
 C CZD CZD 4C 4G C D E F G H I J  
 4C 3H 4D \$F 4C  
 4FG 4G 3I JZI JZI  
 4ZD \$ZH \$ZH I 0H 3J  
 \$ZE 4ZE -I 0I 4J  
 3I 4D 4ZD EZD 3H D  
 0G 3E

'ZGTEKUG

C D E F G H I J

C D E F G H I J

PVJKU RQUKVKQPF\$NCEM  
 VCEV\$XICU RKG E EUPOQ  
 UQN\$KUTQDNGO CPF MGGR  
 CFXCPVCIG!

)LQG WKH DQVZHU LQ WKH  
 YHUVLRQV RI ORGHUQ &KH

6JKUCN\$NCUUEKN UVTWEVV  
 KUQNC PK QP F 6JG DGUV  
 K\$KVVJ VJG DKU\$RQO PVIJGT  
 GZGT VU EQPUVQ\$VIRFGUU  
 RCYP 6C\$G\$TGC\$NFQ  
 C\$FQFGTP %JGUU CTVKENG  
 JQWQ RNC[ VJKU UVTWEVV  
 EXW LW LV DOZD\ V JRRG W  
 FRPPRQ LGHDV %ODFN VK  
 GHYHORS KLV SLHFHV DV  
 ,VRODQL KH KDV WZR RSH  
 URRNV VSDFH DQG PRUH  
 GHYHORS WKH SLHFHV ,W  
 %ODFN WR DYRLG H[FKDQJ  
 F\$QWUDOL]DWLRQ RU WR  
 WKH NLQJVLGH :KLWH RQ  
 VKRXOG KDYH D PRUH VWD  
 D\$SURDFK WLV HVVHQW  
 RV W\$H\$G\$ZHEWLV  
 LQ V\$FK VWUXFWXUH HV  
 NQLJKW WKDW EHFRPHV Y  
 :KLWH FDQ DOVR ILJKW IR

\$ JRRG VWUDWHJ\ LV □ D Q Q R W G K R C W U C P W R C I Q , G U  
 SURYRNH QHZ ZHDNQH ■ V Z H Q L G T C O S D C P N T Q  
 FDPS )RU WKLV UHDTV % Z \$ E R W K H U V T X D U H V  
 DURXQG WKH SDZQ F D Q D O V R E H X V H I X O  
 IRU WKH SLHFHV I F D O G H O H P D L O O \  
 WKH O D V W W Z R D V W K H I G H D L V W R K N N S U P Y R N  
 IXUWKHU FRPPLWPHQW K X G O O Q T G F N R V K Q E U Z H Q T 9  
 VWUXFWXUH ZLWK E G Z R U I d E , \$ I W O K H D W  
 F D V H : K L W H Z R X O G K D V E P R U H H Q W U \  
 SRLQWV DYDLODEOH IRU # P Q V J G T K P V G T G H V K P I U C  
 % O D F N V S R V L W L R Q Z R X O G F Z E E H \$ Z E P H O D F G U V C D N  
 X Q S O H D V D Q W \$ V D J H Q H U D O F Z E X O H \$ Z E 0 C \$ G  
 H [ F K D Q J H V D U H Z H O F R P H \$ G I R U W K H I L U V W  
 S O D \ H U Z K R L V O R R N L Q J I R U H Q G J D P H V  
 L Q Z K L F K W K H L V R O D Q L Z R X O G O H D Y H % O D F N  
 L Q D S D V V L Y H G H I H Q V H D O W K R X J K Z L W K J  
 D F F X U D W H S O D \ % O D F N V K R X O G E H R N L Q ●  
 P D Q \ R I W K H P : K L W H Z R X O G U H W D L Q  
 U H D V R Q D E O H F K D Q F H V \$ O V R K H U H W K H  
 G D U N V T X D U H G E L V K R S L V Y H U \ L P S R U W D Q W  
 I R U % O D F N : K L W H F D Q P D N H J U H D W X V H  
 R I W K H N Q L J K W V L Q W K H H Q G J D P H V E X W L W  
 L V D O V R S R V V L E O H W R J H W D Q D G Y D Q W D J H  
 Z L W K W K H E L V K R S S D L U G X H W R W K H  
 Z H D N Q H V V H V R Q W K H G D U N V T X D U H V  
 8 V X D O O \ : K L W H F D Q W U D G H T X H H Q V D V  
 W K L V Z R X O G G H F U H D V H % O D F N V F F K D H Q F I H V  
 R I F R X Q W H U S O D \ E X W L I % O D F N P D N H V  
 X Q Q H F H V V D U \ S D Z Q P R Y H V W R F U H D W H  
 Z H D N V T X D U H V W K H T X H H Q V E R X Q G C P H K U E N G C T C P I  
 X V H I X O W R W D N H D G Y D Q W P F G H U M C W K H T G Y C P V U V Q  
 E Q P V T Q N Q X G T V J G X G T [ K O  
 E U S W C T G U 6 J G H K T U V Q P C  
 K O R Q T V C P V D N Q E M C F K P I U S  
 K V Y Q W N F D G P K E G V Q N C P F

HTQO YJGTG KV YQWNF RWV H V W G V D R T U G U D V E T G T C P M  
 QP \$NCEM U R Q U S H V K Q R E KU C R C Y P W R ?  
 4G\$NCEM EQPVKPGWGU VQ FGX G N Q R S H V G KU UVKNN N  
 RKGEGU CEV K X G N K V G V T K G D E V Q P I G U 3G  
 HQTEG \$NCEM VQ IKXG VJG K O R Q T V E C F V Q G C P M E J C P I G U  
 USWCTGF DKU \$Z E D ?  
 = 3D !KU CP QRVKQP V \$Z C O X Q K B J K J G V J C U C R T C E  
 GZEJCPIG HQT PQY 9JKV G F X Q P W F I G Y K V J P Q T K U M U  
 CPUYGT YKVJ 0D MGG K K P Y J C F V C P K V G R N C [ G T U U J G  
 0E CV JKU FKURQUCN ? YJGP HKIJVKPI CICKPUV CP I  
 \$ZE#NVJQWIJ VJG MPKIJV Y C Z G V U G H V N \$ N C E M K U N Q  
 QP E VJG DKUJQR RCKT C H U T Q C I K R N C U Q P K V G G M K P I U K F  
 C P K E G R Q U K V K Q P 4G 0K E G R T Q R J [ N C Z K U D [ V J G %  
 6JG PGZV UVGR KU VQ RT G R T Q T V G E F U V J G U G E Q P F T C P I  
 \$J VQ FQWDNG TQQMU QP I V J G E  
 = 4CE NQQMU IQQF VQ 3G T G X G P V 4G F # R B C T G P V N [  
 DWV 9JKVG ECP UVKNN H \$ N C E M M Q T U C F Q K P I Y G N N C P F J  
 CFXCPVCIG \$F ! K P K V K C V K X G E Q O K P I Q P V J G  
 # 0ZF 3ZF 4ZE P Q Y 9 J K V G O C F G C X G T [ K P U  
 4ZE 4E 4ZG ! F G E K U K Q S Z G 3ZG  
 0G 4ZE 3ZE J = FZG ! 4E ?  
 \$ZJ \$ZJ 3ZJ ) 3ZC 3H  
 9JKVG MGGRU VJG DGV VGT R Q U K V K Q P G H I J  
 DGUKFGU VJG KUQNC PK JG ECP YQTM  
 YKVJ VJG SWGGPUKFG OCLQTKV[ PQY  
 \$ 0G \$G CHVGT URGPFKPI  
 C VGORQ QP \$F G 9JKVG KU HKPCNN[  
 TGCF[ HQT OF J ! 2KIWUQX '  
 .RWVKCP 5 %JKIQTKP  
 /GOQTKCN 3C \$J  
 \$ZJ 3ZJ 3D 3F  
 4GF 4GF )?-I  
 \$J -GGRKPI VJKU DKUJQR CNUQ NQQMU  
 NKMGC EQTTGEV BGEKUSGP  
 4CF 0F  
 = 3C !KU PQV QPN[ K P V G T G U V K P I D W V H I J  
 CNUQ RTQXQECVKXG CU KV VGORVU \$NCEM VQ  
 RWUJ F ! YJGP JG YQWNF UWFFGPN[  
 HKPF JKOUGHN KP C NQU B J R O U N G V K Q P U S H M C E T M Y K V J C  
 0ZF 0ZF 3ZF 4ZF 3G !  
 \$ZG/KPFNKP # 0QXK=M / 4H YCU RQUUKDN[ VJ  
 /CEECDKCJ )/ \$ YKVJ CP CNOQUV HQTEGF U



3ZG FZG 4E 4E ! 5NQYN[ DWV UVGCFKN[ 9JKV  
 D 4 E 4ZE 4Z 4E 4E 4E 4E 4E 4E  
 4ZE \$ZE -H -G -H -H 4E 4 F  
 YKVJ CP GPFICOG VJCV W4ZVZCNN[4ZBQWNF 4E  
 DG WPRNGCUCPV HQT \$NCEVKEVKQPH C \$H 4 E  
 OCP[ YGCM PGUUGU QP V JGVWCTMY 9JKVG UJQWNF CXO  
 USWCTGU DWV VJGTG CTJKEJTCQEMK UQGVVGT VJCP  
 JQNF \$WV IQKPI KPVQ U WJKEQPKGPFCCOEXGN\$GRNCEG  
 KU C FKHHKEWNV FGEKU KQE VGGOCMGGZKWTWBGRCYPU  
 ICOG ? VJG UCOG USWCTG CU VJG D  
 4E 4F 3H KU KU C O OFFXN KU CDNG UVT CVGI[ DWV  
 ICOG QP JQY YGNN VKOGF KEQT VJCV YCU UVTQPIGT  
 GZEJCPIGU ECP [KGNF CP CF=X+CPVCLG 60E -F -F  
 CTKUKPI GPFICOG KU PQVCDNKVGCURBEGVQGRNQWRGF V  
 CU 9JKVG 3ZH )GZH RCYP # PKEG EQPEGRV VQ  
 C D E F G H I J VJCV VJG F USWCTG KU IQ  
 MPKIJV HQT VJG OQUV RCT  
 GURGEKCNN[ FWTKPI VJG C  
 VJG HGYGT RKGEGU CTG N  
 KP VJG GPFICOG VJG OQTO  
 DG VJCV VJG MKPI UJQWNF  
 USWCTG ?  
 -F 4E  
 = H ! ?  
 4G +P VJG GPF 9JKVG  
 VJG EJCPEG VQ KORTQXG JK  
 \$NCEM KU JQNFKPI \$WV CU  
 UWEJ GPFICOGU CNYC[U RTG  
 RTCEVKECN EJCPEGU HQT VJ  
 CPF VJG FGHGPUG KU C FKH  
 LQD \$F 4G \$G 4E  
 9JKVG JCU VJG QRGP E HKN G4EVP#GT EQ4EVTQDN J 4C  
 JG ECP DTKPI VJG MKPI VQ VJG IDOG WUCZD 4ZD -  
 H -H CPF VJG OF KU C OQ\$PVVQWNF IKXG FTCYKPI E  
 RTQVGEVKPI VJG KORQTVCP\$NCEMSWCTG  
 \$NCEM U RQUKVKQP KU WPRNGCUCPV #DKBJ UJWHHNKI  
 QHVGP NGCFU VQ HWT VJG TDKWPEMHQT KPYUWNEG 9JKVG  
 GPFICOGU 4D UQOGVJKPI4I #U KV YCU UCH  
 = J ! FQGUP V RTGXG FVVG9FKVHGREBNTOPSWKTGU C M  
 H JZI JZI CPF PQYWEKUECUGU  
 UGTKQWU VJTGCV 4ZI ! =-J 4G YCU C UCHGT QRV  
 D I H 4DF D \$E 4G 4ZG -ZG F

0E \$E 4E -F  
 = 4D I ! JZI 0ZF C D E F G H I J  
 -ZF HZI CPF 9JKVG JCU UQOG  
 EJCPEGU KP VJKU TQQM GPFICOG ?  
 4G I \$NCEM UJQWNF VT[ UQOGVJKPI  
 CEVKXG QT 9JKVG YQWNF LWUV RNC[ -G F  
 YKVJ CP CNTGCF[ ENGCT CFXCPVCIG  
 = 4F -E -E 4G  
 \$NCEM KU KP C UQTV QH \WI\YCPI F  
 -D 0D -E 4G  
 -E \$H 0G YKPPKPI VJG  
 RCYP ?  
 HZI HZI JZI 4ZI H  
 4I 4G !  
 = -E 4H ? C D E F G H I J  
 4ZI 4ZJ 4H 4J 6J E RCYP KU NQUV VJG MKP  
 4H \$NCEM U RQUKVKQP UG000U DVKNKONDKVSHKU QXC  
 WPRNGCUCPV CU VJG \$E KU PQV \$RNCWRI F V DG DGV  
 OWEJ FWG VQ VJG RTGUUWTFG QP D -Z G WVE -G 4Z  
 YKVJ EQTTGEV RNC[ JG UJQWNF DG CDNGFVQ D H 4  
 JQNF F 0F \$J 4H 4I 4H H -C -G 4  
 -E !6JG FGEKUKXG OKUVCMG 4I ?  
 = +V YCU KORQTVCPV HQT \$NCEM VQ RNC[ 4ZD 0I  
 CEVKXGN[ YKVJ -F -D 4ZD H \$H -G \$E 4  
 VCMKPI CFXCPVCIG QH JKU DGVVGT  
 EQQTFKPCVGF RKGEGU CPF VJG RCUUGF  
 RCYP 0E -F 0ZC 4H  
 -G 4C 0E 4C -H 2GTEKUG  
 4C DGE CWUG QH VJG RCUUGF RCYP  
 QP F VJG 9JKVG MKPI ECPPQV D IQE UG HCTH I J  
 CPF VJG TGUWNV UJQWNF DG C FTCY  
 CNTGCF[ ?  
 = -D YQWNF DG DGVVGT VQQ ?  
 0E 4E 0G 0QY \$NCEM U  
 RQUKVKQP DGEQOGU TGCNN[ FKHHKEWNV  
 = 0ZDYCU CINC

\$NCEWRUNC [GGFV Q QP WTJCN  
 E USWCTGTGRFSTHMPQ  
 KORTQXG RKGGEYJQW NKV  
 RNC[!

)LQG WKH DQVZHU LQ WKH 3-1 DQG  
 ZHEVLWH YHUVLRQV RI 0RGHU & KHV  
 0DJJDLQH

C D E F G H I J

C D E F G H I J

5VTWEVWTG

C D E F G H I J

C D E F G H I J

\$ VLPLODU VWUXFWXUH W  
 EXW WKLW RQH DULVHV IU  
 GZLWK WKH ,VRODWHG 3DZC  
 :KLWH GHYHORSV WKH OLJ  
 ELVKRS RQ WKH GLDJRQDC  
 RLVKRS RQ WKH GLDJRQDC  
 QRW SXWWLQJ SUHVVXUH  
 JLYHV WKH DGGLWLRQDO  
 %E [F IRU :KLWH DQG ZH  
 W\SLFDO VWUXFWXUH ,Q  
 FDVH :KLWH ZDLWHG IRU D  
 WDNLQJ RQ F EXW HYHQ  
 PRYH WKH H[FKDQJH LV D  
 :KLWH V JRDO LQ VXFK SR  
 HVWDEOLVK D ILUP FRQWU  
 F DV ZHOO DV WR EXLOG  
 SUHVVXUH DJDLQVW WKH S  
 %ODFN KDV VRPH YXOQHU  
 LQ KLV FDPS WKH LGHDO  
 LV WR NHHS ERWK NQLJKW  
 ZKLOH H[FKDQJLQJ DW OH  
 %ODFN V \*HQHUDOO\ WKH  
 11 [ 1% XVXDOO\ JLYHV EH  
 FKDQFHV WR :KLWH DV W  
 ELVKRS LV QRW DEOH WR  
 F DQG WKH NQLJKWV FDC  
 FKDQJH WKH SRLQW RI SU

☐ )KTK #PKUJ

☒ 9CPI ;WG

\$GKLPKPI 5RQTVCEEQTF DNKV

F 0H E G 0H F 0  
 EZF EZF ! 3ZF GZF S  
 = G !RTQOKUGU C UOCNM  
 HQT 9JKVG ?

\$G  
 = 0E KU DFCGQ \$ZH  
 G  
 = 0EUGG O UO QRTGGEKUG OQXG  
 QTFGT 3C 4FVTC PURQUGU  
 VQ VCGG  
 4F 9JKVG U FGXGNQROGPV CKOU VQ MGGR  
 F WPRG GUUWTG UKPLUW WJG XGT  
 PRYHV  
 = \$F KU C KBTGTGUVKPI JOQXG  
 RNC [G] KUKR?GCPW  
 0E 3C \$G  
 = 3D 3DNGCFU VQ UOOG  
 GSWCN GPFICOGU YKVJ UOOG UOCNN  
 EJCPEGU HKVGT  
 \$D !  
 = \$GKU VJG OQXGP

C D E F G H I J

C D E F G H I J

2NC[GF QPN[ VYKEG DWV  
 OQXG CU CHVGT VJG GZEJ  
 VJG CTKUKPI UVTWEVWTG  
 UNKIJVN[ HCXQWTC DNG HQ  
 OQXG  
 = 0OKU VJG QPN[ YC[ VO  
 VCKOU VQ MGGR  
 \$ZE XGT C \$F 4E  
 0CLGT 2KPMCU -  
 5YKFPKEC QR  
 JOQXG \$J 0E 3DUVKNN QH  
 UQOG KFGCU HQT 9JKVG  
 C ! (QTEKPI OCVVGTU  
 DWV RTQDCDN[ PQV C IQQ  
 UOOG UOCNN  
 = DGVVGT YCU VQ MGGR F  
 4HF 4F 4CE 4H  
 YKVJ C NQV QH RNC[ CJG  
 KORQTVCPV VJKPI HQT \$N  
 CU OCP[ RKGEGU CU RQU  
 DQCTF CU JG ECP VJGP N  
 CPF F[PCOKE KFGCU CPF  
 WPRNGGBEFCO?GU  
 \$ZE DZE 3E #HVGT VJG  
 GZEJCPIG 9JKVG TGITQWR  
 KP QTFGT VQ HKIJV HQT V  
 USWCTGU F CPH EF6JUKU  
 PCVWTCN OQXG KU VJG DG  
 \$NCEM U RTQDNGOU  
 = \$NCEM UJQWNF JCXG RN  
 YKVJ \$I 4F ! \$ZH  
 IZH 4HF 4HF 4CE  
 CPF VJG RQUKV KQP NQQI  
 DCNCPEGF CU 9JKVG U Y

VJG MKPIUKFG RTGXGPV	UKQNTQDKVG JCU C PKEG RC
GZRNQKVKPI \$NCEM U S	WGGGPKFKGWNPNCRNCEGF MPKI
GCU[ YC[ ?	= 4F YQWNF DG OQTG R
0C 3C 6FKPIU CTG CNTG	SDQ!QY \$NCEM KU FQQOG
NQQMKPI WPRNGCUCP\$FH	QRC\$NCKEM FGHGPUG
=CHVGT 4CE 9JKVG	JCU VJG3ZC YCU VJG QPN[ E
KPVGTGUVKPI KFGC G	!MGR HQTJWKPI 0ZF 4Z
YGNN DGE CWUG KP VJG	GPF \$NCEM FVKNM FJC DCD
C YGCM PGUU VQ YQTT[ C	DQW M G3 EJJQWNFP V HQTIGV
FZG \$ZH \$ZH	C DNKV\ ICOG UQ KPUVGCF
HZG 3ZG GZF \$ZF	HQTEKPI XCTKCVKQPU 9JKV
EZF 3ZE 4ZE	E QPKQNKFCVG JKU RQUKVKQ
0H CPF \$NCEM U RQUK	WNO PKPU UVTQPI CPF RTCEVK
WPRNGCUCPV ?	=DWV YKPPKPI OCVGTKCN
\$ZH	RQUUKDNG 0ZF 4ZF
=CU VJKU YCU C DNKV\ I	COZE9JKVGE \$ZD ?4ZF
RTQDCDN[ FKFP V NKM	G VJG \$QVKNVKQUPVCSHMOETM KU P
0ZE \$ZE 3ZE 4CE	OCVGTKCN CP[OQQT3D 4E
CU \$NCEM IGVU EQWPVG	TREC[ D4WHF I J C D
3D KU UVKNN DGVVGT	\$HQT 9JKEVG3BZC 4F
3ZG 4G 3C 0G	C D E F G H I J
4Z? ?	
C D E F G H I J	
C D E F G H I J	
C D E F G H I J	
#PQVJGT IQQF GZEJCP	IG 5NQYN[ KPETGCUKPI VJG RT
YKPPKPI VJG E US\$ZC	HTG SWGGPUKFG #HVGT VJKU V
0E6JKU IKXGU \$NCEM C	EJFQRCPCDGV\$NCEM KU UQNK



DGYDQFH DQG WKH EHVW DPH WVK\$ZRWKHV WKH EH  
LV 1H IROORZHG E\ I I %ODFXULQJWVKMDNH RQ D  
FHQWHU DQG UHVWULFW\$QHVERXWK %DDEQVW WKH H  
PLQRU SLHFHV ZLWK D WPKLO/OSEXHWQWV :KLWH IU  
SOHDVDQW DGYDQWDJH F,RQQRVWLHDDGKQJR\$MW SRVL  
WR FUHDWH D SDVVHG SDEQVZLWWDQG G[SORLW WK  
WKHQ LW LV LPSRUWDQW\$HWRUEGLQXUMKWKQWE WKDN  
DGYDQFH G G LV DOVR SODVHLEVDKH ZIRRON V RQ WKH  
WKH SDZQ ZRXOG EHFRP\$DYLMLQJ IRU G G ZKHQ I  
GDQJHURXV DQG %ODFN FHRXVGDKOLYHG SLHFHV ZLO  
SUREOHPV \$QRWKHU SRVTX\$UQVWDQ\$LEMKF WVKH DFW  
SDZQ VWLOO RQ G LV 1GGHFTX\$MVKZDRRH SUHYHQ  
SUHVXUH IRU :KLWH LQDWKRFLOQWHDG\$ZLWK K K I  
\$QRWKHU FRPPRQ DQG PSURISK\ODFWLF K K SURV  
DJJUHVVLYH LGHD IRU :KLWHYHQWLVCH VRPH VDFULI  
WKHPDWLF SDZQ VDFULI\$QHWZLWVRQJGWHUP %ODF  
DQG DIWHU H[G E\ %ODFRUJKLWVDERXW KLV TXHHQ  
DQVZHUV ZLWK H H SUZHSIDFKLQV WVKHELJJHVW WU  
PDQHXYHU 1G I DQG WVKRHEQRW PDQDJH WR H[S  
FUHDWLQJ DWWDFNLQJ L\$QXWHZLVKWHRQ %ODFN NH  
OLNH 4G I DQG H H 7WVKH SOLDEHLW DQG DW VRPH  
H[FHSWLRQDOO\ VWURQJP\$KHHQW%GDSFNZQV ZLWK EH  
SODFHV WKH NQLJKW RQLQ\$SKM\H\$GDDPZH\SOVR L  
WR VXSSRUW WKH NLQJVL\$GHDDQWVDRNU LDWWDFNV L  
DGYDQFLQJ WKH K SDZQ ZLWRIKWHQ %ODFN SLHFHV  
ZKLFK JLYHV :KLWH PDQRW\$D\$VLEDDQWKH ZHDNHQHG  
SRVVLELOLWLHV )RU %ODFN FHQM\HSLWU LQ :KLWH  
KDYLLQJ OHVV VSDFH %ODFN PDQDJHV WR  
H[FKDQJH D SDLU RI SLHFHV LQ WKH YHU\  
ILUVW PRYHV 7KHQ KH FRQWLQXHV ZLWK 8  
TXLFN GHYHORSPHQW DQG SODEXVNDQCPKLV  
UHPDLQLQJ SLHFHV RQ JR\$R\$EJTXDURKF  
ZKLFK LV DQ LQGLFDWLRQ WKDW KLV SRVLWLRQ  
LV QRW UHDOO\ FUDPSHG \$JDLQVW WKH  
SRVLWLRQDO SODQ RI D D UHFHQW

= 6JGTG U C HCOQWU IC OG=YJK4EJG 4E \$D 4G  
 KNNWUVTVCVGU 9JKVG U C VJGUE DGB P EWJGP DGB P QRVK  
 RTGVV[ YGNN 0E NGXGN ?  
 4CF \$D 4HG 0C GZF \$ZKVG JQRGU VQ  
 4E F 0C \$F UQOG RTGUUWTG KP VJG EG  
 VTCPURQUGU VQ \$FJG 4EG ZV KUJQR CPF CHVGT CP GX  
 F GZF G 6JKU V[ R KEDONK B OY P V TQPI RCUUGF P  
 UCETKHKEG IKXGU XGT[ IKQF GCVVCEMKPI  
 RTQURGEVU VQ 9JKVG \* G JCU GZF SCUGN GOM GJCTONGUL  
 0F H QT 0I GXGP G G YCHWBF 4E \$D 0E CPF  
 NGCXG \$NCEM U MKPI OQT BCGZPRKW P QV FCPIGTQWUJ  
 \$NCEM VTKGF VQ HQTEG GZE 0EPIGU YKVJ  
 0E 3H 0D !DWV VJGP = \$ZJEQWTUG \$ZF !KU  
 -ZJ 0I -I J CHVGT GZF \$NCEM KU P  
 2QNWICGXUM[ . 6CN / 745 RTGXGPV VJG CFXCPEG F  
 (KPCN ICXG 9JKVG BCGP DGEQOGU XGT[ CPPQ  
 RQYGTHWN C VVCEM KP 0Z \$NCEM U GUE VQR # PKEG ENC  
 J -ZJ I -I 3H QH VJKU KU VJG HCOQWU I  
 -J 3J -ZI 3J -H 2GVTQUKCP HTQO VJG  
 3H ? %JCORKQPUJKR /CVEJ ?  
 3H 6JG F USWCTG KU XGT[

C D E F G H I J

KP UWEJ RQUKVVKQPU CU CH  
 QP F 9JKVG YQWNF DG CDN  
 VJG RCYP QPG UVGR CJGCF  
 VJG VJTGCV QH \$ZHKU OQXG  
 NQQMU RTGVV[ PCVWTCN DV  
 UNKIJVN[ WPRNGCUCPV GPF  
 = 3D HKIJVKPI HQT VJ  
 UJQWNF DG DGVVGT ?  
 0F # OQXG VJCV RWVU UQ  
 RTQDNGOU HQT \$NCEM  
 = 4HG #NUQ ICXG C VKP  
 HQT 9JKVG KP C TCRKF ICC  
 \$ZF 4HG GZF 3F  
 3G 0F 0I 0H 0G  
 0ZG 3ZGG 3WCPI .KGO  
 -TCXVUKX / 9QTN

C D E F G H I J

6JG OQUV UQNKF XCTKCVKQP ?  
 4CF \$D 5JKVG VTKGU VQ \$Z5KORNKH[KPI KPVQ CP  
 DTGCM KP VJG EGPVGT KOKB FHKVZGN J KVP G JCU C UOCN  
 CXQKFU IKXKPI \$NCEM VKOG=VQ FG XG YCQRCV JG JGT QRV  
 RKGEGU CHVGT HQT GZCORN 4



0H 4HG J ! 9JKVG JCU0EQOG-F 9DKVG UVKNN M  
 KFGCU QP VJG MKPIUKFGU Q2TG DCFXCP \$NCE WJCPMU VG  
 KU HKPG DWV RTCEVKE KFKONCZD XG ZFQ UJQY 4CD  
 JQY IQQF 9JKVG U RQUKVKQP TGCNN[ KU ? 4G -E  
 GZF 303QY CHV3ZG 0ZG 0ZD 4ZD -D 0ZF  
 0E  
 C D E F G H I J  
 = 4ED 4ZC 4ZC  
 4C 4C 0ED 4D  
 0F -G D 3 4ZD  
 0ZD ?  
 0ZD 4ZD -2FKVG OKUU  
 C PKEG CNVGTPCVKXG  
 = 4D YCU XGT[ CPPQ[KF  
 0H 0E -E 0H  
 -G 0F -F -E 0F  
 -F 4F -E -G D  
 4F -D 4F -C  
 9JKVG UJQWNF DG YKPPKPI  
 4ZD ) 9DKVG UVKNN JC  
 EJCPEGU DWV QDLGEVKXGN  
 6JG VGCO F 0E EQPUKFGTCDN[ TGUVTKEVU  
 \$NCEM U RQUKVKQP VJWU IKXKPI 9JKVG IDKV KPCCEWTC  
 CFXCPVCIG KP VJKU GPFICOG 4C YQWNF DG RTQRJ[  
 H \$TKPIKPI VJG MKPI VQ VJG CEVKQP I CPF \$NC  
 4HG -H -H 4F D CNYCU KP C UQTV QH <WIV  
 \$NCEM VTKGU VQ OCMG WUG QH JKU SWGGTUKFG 4D  
 OCLQTKVQ \$WV VJKU IKXGU 9JKVG C 4D -F 4D  
 IQQF EJCPEG QH ETGCVKPI UQOG? RTGUUWTG  
 CPF QRGP NKPGUCVJGT4C 4H6QQ RCUUKXG CHVGT  
 4GE I5KPEG \$NCEM U RQUKVKQP KU C JCU RTQDNGOU CICKP  
 DKV RCTCN[GF 9JKVG VCMGU VKOG VQ OCMG 4D YCU VJG TKIJV Y  
 KORTQXGOGPVU CPF UGKIG TQQM GPFICOGU KV KU XGT  
 VJG MKPIUKFGIVQQ -G ! VJG TQQM CU CEVKXG CU R  
 0QY 9JKVG VJTGCVGPU VQ OCMG UGKIG VJG 9JKVG M  
 KORTQXGOGPVU CU JKU KFGC KU VQ -F 4EXC 4ZC 4F  
 VJG MKPI D[ KPXCFCPI \$NCEM U SWGGPUKFG 4D -E  
 6JKU RTCEVKECNN[ HQTEGU \$NCEM VQ VJG VJG  
 QPN[ TGUQWTEG CXCKNCDNG TQQM CEVKXKV[ ?  
 > QVWHDG 5D ZRXOG 4C KDYH  
 SUHYHQWHG WKL V LGHD= ZLWK YGU PGGFGF RTGU  
 SURVSHFWV @ TQQM KP KVU KFGCN RQUK

'ZGTEKUG  
4C  
Y K P P C P D ? E F G H I J

,V WKHUH VRPH ZD\ WR ILJK\  
DGYDQWDJH DV :KLWH"

)LQG WKH DQVZHU LQ WKH 3  
YHUVLRQV RI ORGHUQ &KHVV

5D|T W Q V E K P I C

C      D      E      F      G      H      I      J

6JKU UVTWEVWTG CTKUGU H 9Q6MGTG 20GKPTNKP G  
 QH VJG %JKIQTKP &GHGPUG 67GYPJNGU 6\$NDCCEMU  
 IKXGU WR VJG DKUJQR RCHG IKRFGNVMKTR HQT VVGNTJGKP  
 SWKEM FGXGNQROGPV CPF RTGUUWTG  
 CICKPUV 9JKVG U EGPVGT 6JKU QRGPKPI  
 TGR TG 0600BNGZ UVT CVGIKE FDCVNEG! 0H \$I  
 KP YJKEJ UQOG ETKVKECN RZFKPSZHUJQWNF 3ZG G  
 EQPUKFGTGFJCV 9GKDVGUJQR VJG %JKIQTKP &GHGPUG  
 RCKT YJKEJ UGCPDWNJF WQGM GFKCVG RTGUUWTG CICK  
 HQT YC[U QH QRGPKPI VJG 0FSD\$NCEM UJQWNF RCTV  
 \*QYGXGTKORQWACPV VJG DKUJQR RCKT VQ EQPVKPWG  
 JGECTGNGUUN[ CFXCPEGU FGXGNQROGPV CPF VQ MGGR  
 RCYPU VJKUKYKGNMTGSWONTGU CEV KXS\$ \$ZE DZE  
 VJCV \$NCEM YKNN NQXG 6JKU RQUKVKQP KU OPG QH  
 MPKIJVU YJQ YORNE NGCFF VJG RQPKPI CPF OWEJ FGRGPF  
 CPGNKCDNG RQUKVKQP #E0000P KEGC  
 HQT 9KVG UGSWGPEG H 9JKVG U RQUKVKQP CV HKTU  
 G G ECRVWTKPIJQR RQUGR ITGCV CPF GCU[ VQ RNC[ YK  
 CPMGGRKPI C JGONDKIN GPF RGPVTCN RCYPU UWRRQTVG  
 RCYP EGPVTG 9KVJ VJG RCKT CPF ORGP NKPGU HQT  
 CPEUVTQPI EGPVGT 9JKVG CRRGCTCPEGU ECP DG FGEG  
 OC[ NQGMHGEWKCM HK\$TWV JGJKPF KP FGXGNQROGPV C  
 JCUUNKIJVN[ FCOYPI GFVTW EFXCPEGU D[ VJG RCYPU YQ  
 CPKU WUWCNKPF BGXGNQROGPV GCM USWCTGU KP JKU ECOI  
 \*CXKPIKPKBF PCVWTCNNYQWNF DG OQTG VJCP INCF  
 UJQWNHNDQCM VKXG RNC[ VJG VJG HKTU#PVKEKRCVKPI  
 RNCEG WUKPIRCKG DQUBDQCGVU  
 CVVCEMKPCFVTGEVHKNRGU = GZF ! +U VJG UGEQPF  
 HQT VJG TQQMU 1HVGP 9JKVG VQ DGCJFQVU + FQP  
 UCETKHKEG RCYP HQT GZCORNQCEVQCU + VJKPM VJC  
 HKPKUJ VJG FGXGNQROGPVEGBVTQNPV GDUKQP KU KP \$  
 RQUUKDNG CPF VQ VCMG VJG KPVKCVKRNCC[GF TGE  
 'XGP IQKPUKPGGPFICYOGU 4CRRQTV DWV CHVGT 4D  
 CRCYP FQYP 9JKVTGGKCKEDNG\$VQ0IG 0CMCOWTC \*  
 VJG OCFAVQCWJG RTGUUWTGCRHQJKU4 5JCTL CJ (-  
 RKGEGU CICKPUV \$NCEM U HQTEGU +H\$NCEM\*  
 OCPCIGU UVQR 9JKVG U KPVKCVKRNCC GZEGNNGPV EQC  
 VJGP JG DQKPNF DWV CU VJG RCYP UCETKHKEG ?  
 ICOGUWQYK KQVFCU[ VCUM = 0IG ! KU UKORN[ DCF C  
 E 3F F 0D 4D

9JKVG DGEQOGU XGT[ C E V K X G O G O D G T V J C V 9JKVG K  
 = 0H ! KU UKOKNCT V G X G N O R O G P E / 3H 3C !  
 3F F 0G ?4D \$NCEM U CVVGORV QH EQWP  
 \$I SWGGPUKFG KU WUGNGUU C  
 = VJG OQXG QTFGT 4D V J C P H K P G H K P K U J K P I V J G P  
 GZH G KU OQUV QH V G P E U K K K P E K P I F V J G C R C Y P  
 RTQDCDN[ OQUV RTGEKUG = D E W G T O Y C U 0I G ! J  
 3H 0I J 4F 0EZG FZG 0ZG 3ZC  
 J 0IG 3ZH \$ZH \$ZC 3F 4CF J !  
 3C \$I YG TGCEJ VJG U O G G V J K U K U V J G U Q T V Q H  
 RQUKVKQP CU KP VJG I C O G J K V K V E C W H C E G D G K P I D G  
 IKXKPI CEVKXG EJCPEGU H C K \$ N Q R M G P V ?  
 0IG 7 D W C N N [ V J K U K \$ Z C H I Q Q F  
 OQXG CU KV HQTEGU UQOG = E Q O O 3 Z C O G Y K P W K P G R C Y P  
 \$NCEM U RQUKVKQP SWGGP KU OKURNCEGF PQY  
 = H GZH? \$I \$ZE 0J 0C  
 6JG HQNNQYKPI KFGC KU XGT J P K E G C R F 0G J  
 UJQWNF DG TGO G D G G Z H I K X G U C R N G C U C P V K P K V K  
 G V J G M K P I U K F G ?  
 = ! Y C U C N U Q K P V G T G U V K P H ? - J ! 0I !  
 GZH 0ZH 3ZH 3ZE  
 0ZF 4ZE 0G -J 0Z  
 \$ZC 4ZC 4ZE F  
 0I 0C \$ZE  
 \$E )GTUJQP # 2K  
 \$C[GTP EJ+ \$CPM \*QH  
 3ZC 4D 3E  
 FZE YKVJ C VGEJPKECNM  
 RQUKVKQP ?  
 \$I 2TGXGPVKPI 0H !  
 \$NCEM UJQWNF RNC[ CU CEV  
 CPF VT[ VQ OCMG WUG QH JI  
 NGCF 1VJGTYKUG 9JKVG U  
 YQWNF DGEQOG G XKFGPV &  
 RQUKVKQP NQQMU C DKV UE  
 JG ECP QDVCKP CP CFXCPVC  
 OQXG 3F  
 6JKU KU VJG TKIJV RNCP VQ = R P V V G K P V G U G Z H ! R N C [ G  
 RCYPU KP OQXGOGPV YK V J K P W Q N C E M P U J C P F U C H V C  
 YGCM USWCTGU KP JKU E C O R E G O Q Y \$ J J G 3 Z C O E \ C M /  
 RQUKVKQP UGGOU VQ QHHGT C I T C N K V R \$ V G P V K C O N T U C Y  
 VQ 9JKVG U DKUJQR RCKT D W L F G V H K U G K O R R C M C P R #

?  
0ZF6JG DGUV RTCEVKECN 3D CYP 9JKVG KU HKIJV  
= H 3E -J 3ZE\$HCEM U KPKVKCVKXG 3C  
JZI 3ZC -G ?  
UGGOU ENGCTN[ DGVVGT HQT 9JKVG KPI CICKP KPVQ  
= 3ZC NGCFU VQ C HQT 9JKVG XCTKCVKQP  
GZH 4CG \$G YJKEJ KU 4CF \$G 0ZG ?  
DGVVGT HQT 9JKVG HQT GZCORNG 4ZH  
3F H 3ZH  
4H 4DG 0EG F C D E F G H I J  
3C \$ZCPF VJG RCUUGF RCYP  
IKXGU C PKEG CFXCPVCIG HQT 9JKVG ?  
3E # PGEGUUCT[ KPVGTGFKCVG  
EJGEM VQ VCMG QP F YKVJ VJG RCYP  
-J EZF 3C !  
= H TGICKPU VJG RKGEG DWV 9JKVG KU  
GPLQ[KPI JKU CFXCPVCIG CHVGT  
HZI JZI E 4D 3ZC  
F 4CE 3E 3C 4C  
3F H D 3C 4E G  
VJG EGPVTCN RCUUGF RCYPU CTPG ECNYG[UH I J  
UVTQPIGT CPF XGT[ RQY 9JKVG KU DGVVGT 9JKVG  
-G !JGTG YCU PQ PGEGUUCT[ VQZI JZI ?  
NGCXG VJG MKPI KP UWEJ C F ZG 3ZG F H HZI JZ  
RQUKVKQP 9JKVG KU UKORN[ C RKGEG V  
=C OWEJ DGVVGT CPF HQT 9JKVG HQT 9JKVG DWV U  
3D UQNXG JKU RTQDNGOU CPF  
# 3ZC \$ZE 3H DOG 4JI 4H 4D  
\$F 0J ! H = 4DG ?  
HZI JZI E 4DD 3J -H 3I  
\$ 3ZD 4ZD H 3F !!# JWIG DNWPFGT  
HZI JZI 9JKVG U GFIG KU 4JKV H VJG TKIJV OQX  
VJG SWGUVKQP JGTG \*GKJ 9JKVG UVTQPSZH 3ZE  
EGPVTG CPF VJG RCYPU O4ZG ?  
CFXCPEG CV CP[ OQOGPV 3ZG 3ZG4ZG 4IF  
(WTVJGTOQTG 9JKVG HCP GZGTV C-H 4F  
CPPQ[KPI RTGUUWTG C4CKPUV \$XCEM U E  
SWGGPUKFG 1PG RQUUKDNCE 4E ...%o^ €D RPS  
EQPVKPVKVP EQWNF DG E 4E e -uE 4E  
0G G 4CE 4DE D  
4E ?  
H G !

J -J -G 4F -G 4F  
4F 4G -F 4GG -E

'ZGTEKUG

C D E F G H I J

C D E F G H I J

6JKU RQUKVKQP CTKUGU  
&GHGEBU VJG UGEQPF  
RNC[GF NKPG HQT \$NCEM  
XCTKCVKQP (KPF VJG DG  
)LQG WKH DQVZHU LQ WKH  
ZHEVLWH YHUVLRQV RI  
0DJD]LQH

5VTWEVWTG

C D E F G H I J

C D E F G H I J

F6JKU UVTWEVWTG KU EJCTC  
#NDKP U %QWPVGT )CODKV  
VQ ETGCVG UQOG YGCMGPGU  
SWGGPUKFG D[ OGCPU QH C  
KU CEVWCNN[ KP HCXQWT H  
CU VJG RTGUGPEG QH VJG R  
ETCORU \$NCEM U RQUKVKQP  
CVVCEM VJG E RCYP CU YG  
RQVGPVKCNN[ #PQVJGT KOR  
VJCV VJGTG KU CNYC[U C 9J  
F GZGTVKPI RTGUUWTG QX  
OCMKPI \$NCEM U RQUKVKQP  
GURGEKCNN[ VJG MKPIUKFG  
CFXCPVCIGU 9JKVG CNUQ J  
OCLQTKV[ VJCV ECP DG WUG  
URCEG KP VJG EGPVGT KP U  
\$NCEM JCU PQ TGCN EQORGI  
QH VJGUG 9JKVG CFXCPVCIG  
QRVKQP KU VQ NQQM HQT C  
JG JCU PQ TGCN EJCPEG CU  
HOTEVJG%JKIOTKP  
OQVQGHVGP GPFICOGU CPF  
WRKPHV RCUKXG CPF WPR  
CICKPUV VJG OCKP  
DLCGEVKXGN[KV KU HCKT V  
RNCI KU OQTG PCVWTCN CPF  
CFXCPVCIG  
RGHUQ &KHVV

☐ 0KMQNQX /QOEJKN  
☒ \*GPTKU .WE  
.KNNG .WEG QR VJ

F F 0H  
= VJG EQOOQP OQXG QTFGT  
FZG F 0H 0E C ?  
0E E G !  
= \$I KU VJG %JKIOTKP  
FZG F #COQXG VJCV PQV  
RTGXGPVU VJG EJGEM QP D  
RTGRCTGU VQ HQNNQY YKVV  
YGCMGPKPI VJG F RCYP

= G YQWNF DG RGTHGEV KCH\$NTOEWO FKH PQW PVGTR  
 JCXG \$D \$F FZG YKVJHCNDOVTUG 9JKVG KU UVK  
 CP GCUKGT ICOG ? VJKVJG GPFICOG RHTGCKFG  
 0IG TKUM CFXCPVCIG CPF KU X  
 = C 6JGTG U PQ VKOG VQ TWRQR 9JKVG U  
 GZRCPUKQP QP VJG SWGGPUKFG \$ZF 0ZE G 0  
 UKPEG VJG EJGEM YCU RTGXGPVSGF PQY? KU WPRNG  
 D 0I \$D C \$NCEM ?  
 =CP[YC[ CHVGT 0EZG 0DZG KVG JCU OQTG VJCP  
 0ZG G \$G \$ZF 0ZE VQ ETGCVG RTQDNGOU HQT  
 3E 0F \$F VJG OCKP KUUWG KU VJCV U  
 9JKVG U CFXCPVCIG KU CNUVQVXG TU QTV QH RNC[ VJCV  
 RNGCUCPV ? CTG NQQMKPI\$FQT

C D E F G H I J

= C !UGGOU PCVWTCN  
 9JKVG U SWGGPUKFG RCYP  
 UQOG RTGEKQWU VKOG  
 0H \$D J  
 9JKVG OCMGU CP KPUVTWE  
 UVTCVGIKECN RNWUUGU J  
 \$ZH 0ZH 0I 0J  
 \$ZC 0ZH -F 0  
 \$ZE 0ZI 0E -G  
 \$D \$NWGDCWO / 6T  
 \$WPGUNKIC  
 \$NCEM KU XGT[ ETCORG  
 MKPIUKFG CPF 9JKVG JCF  
 EQOHQTVCDNG CFXCPVCIG

C D E F G H I J

6JKU KU RNC[GF VQ HQTEG UQOG CEXCPEGU KP  
 9JKVG U RQUKVKQP DWV CNUVQVXG TU QTV QH RNC[ VJCV  
 RTGEKUG YC[ VQ RNC[ DGHQTEG VCMKPIOP G KV  
 KQV GPQWIJ VQ DSWOENXG  
 3ZF &GURKVDG RQJG  
 OQUV RNC[GF QRVKQP + VJKPM SEVJG  
 GPFICOGU VJCV CTKUG D[ HQTEG CTG OWEJ \$G 4HE  
 GCUKGT HQT 9JKVG YKVJ C IQQF RTGUUWNTG \$F \$I  
 CICKPUV \$NCEM U SWGGPUKFG CPEF PO TKUM  
 = 0ZG KUKK PQXG 0ZG  
 G \$G \$ZF 0ZE 3E VTQWDNG  
 0F KU UKOKNCDG QDWV JGTG E UGGOU CNUQ PCVW  
 \$NCEM OECVCKH VJG TKQF VJG E RCYP DZE  
 OKURNCEGPBQOG ICOGU %F " SUHYHQWLQJ E E  
 UJQY VJCV YKQVDSWTFG\$NCEM

\$G 5EQVV ) -G E  
 .CTUGP # \*CUVKPIU /CUVGTU QRG YCU C DGVVGT O  
 PF 9JKVG YQWNF JCXGD 0F 0F 0ZF  
 RTGUGT~~CF~~CPVQVJTQWIJEZF -F 0E 0F  
 0E 0ZE \$ZE -J CPF 9JKVG MGGRU VJG CFX  
 \$G)? C 4ZC 0ZC  
 = H \$G 0G ! 4C 0D 4C \$E -E  
 VJKU OCPQGWXTG YCU VQOKVNDYQOG RTGUUWTG HQT  
 0F 4HE E DZE \$ZECNVJQWIJ KV UGGOU VJCV  
 \$E 0H 0D 0D \$DRNC[ \$NCEM UJQWNE JQNF  
 2GTCNVC ( 2GTG\ %CPRZDCTEQ / 4C  
 +DGTQCOGTKECP EJ )RZE UZE  
 ? = \$ZE 4JD 4ZC 4  
 \$E \$D6JGTG U PQ GCU[ \$ZCVQ 4ZD \$E 0F \$Z  
 EQPVKPWG \$NCEM U FGXGNQRHGPV  
 = H \$F \$F \$G 0D -G 4JE  
 0E \$E 4F CPF \$NCEM KUD E F G H I J  
 WPFGT CPPQ[KPI RTGUUWTG ?  
 \$ZD CZD \$NCEM JCU  
 UGTKQWU RTQDNGOU YKVJ VJG D RCYP 0QY  
 CPF CHVGT VJG HQTEGF E E JG KU CNUQ  
 ETGCVKPI YGCMPGUUGU QP VJG SWGGPUKFG  
 0F  
 = E 4QFTKIWG\  
 .QRG\ 4 4GXKNNC 4KQ (  
 '52 EJ6 %'%.7\$ &KX (KPCN  
 2GTOCPGPEKC DZE  
 DZE 0D9JKVG GUVCHDKTOJGU  
 DNQEMCFG CICKPUV \$NCEM U SWGGPUKFG  
 RCYPU CUKWCDNG CFXCPV CIG 0F  
 4HE 4HF 0E \$H ENGCT VJCV 9JKVG KU DGVVGT  
 0ZH C ? \$ZH DNQEMKPI DWV CNUQ UQQP G  
 = -GKDRVKQP -G F CICKPUV \$NCEM U SWGGPUKF  
 DZE DZE\$ZHC XGTGNN FKUVCPV RCUUGERQYTRJU CN  
 VKOGF GZEJCMVG MGGRU VJG VYOC CFXCPV\$NCEM U KGHGPTUG  
 MPKIJVU VQ GZRNQKV VJG WPRNGCDEPHKEWNV HTQO P  
 Q\$NCEM U SWGGPUKFG CPF VJG DKUJQB 4JE 0F \$H 0F \$Z  
 YKND WUCFKW HKIJV \$ZH RCYP 0F  
 \$F 4JE 4JE 0D 9JKVG JCU 0ZF6JG NCUV GZEJCPIG NGH  
 CXGT[ PKEG CFXCPVCIG JGTG 5JD K"V 1F @  
 UGGOU WPNKMGMKNDNCEM .H 1F 7KH SDZQ LV  
 YKVJUVCPP VJGRTKPEUTVTCGKPF DQG DOVR LV WKH JDPH



4 Z D	4 Z D	4 Z D	0 Z D	4 C
4 C	0 G	G	4 C	- F
- E	0 E	0 F	E	0 G
0 E	4 C	C	0 G	H 4 D
H	H Z G	H Z G	0 E	4 D 0 G
4 Z E				

'ZGTEKUG

C D E F G H I J



C D E F G H I J

,Q WKL V SRVLWLRQ IURP WKH \$OELQ V  
 &RXQWHU \*DPELW %ODFN GLG QRW IRUFH  
 :KLWH WR FRPPLW KLV VWUXFWXUH ZLWK  
 D 1RZ KH WULHG LW D EXW  
 :KLWH UHSOLHG ZLWK WKH VLP SOH  
 DQG WKH JDPH ZHQW D[E  
 D[E 5[D %[D F 1G  
 4J " %ODFN ZDQWV DW WKH VDPH WLPH  
 FUHDWH LGHDV OLNH %K DQG SUHSDUH WR  
 GHYHORS WKH %I %XW KH LV EHKLQG LQ  
 GHYHORS PHQW DQG :KLWH KDV D QLFH  
 ZD\ WR WDNH DGYDQWDJH RI LW +RZ"

)LQG WKH DQVZHU LQ WKH 3\*1 DQG  
 ZHEVLWH YHUVLRQV RI ORGHUQ &KHVV  
 ODJD]LQH