



## Clash of the Computer Titans

The computer programs [Rybka](#) and [Zappa](#) played a match in Mexico City alongside the human world championship in September 2007. It was won by Zappa 4½-3½. I want to look at two instructive endgames that show fortresses are still a difficult theme for computers (and humans too, of course).

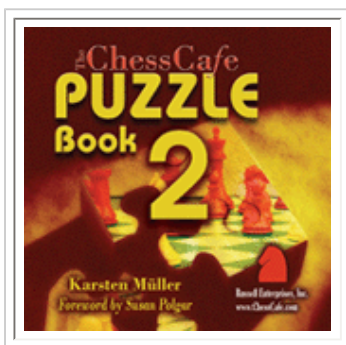
### 81.01 Rybka - Zappa

Clash of the Computer Titans, Mexico City 2007

## COLUMNISTS

### Endgame Corner

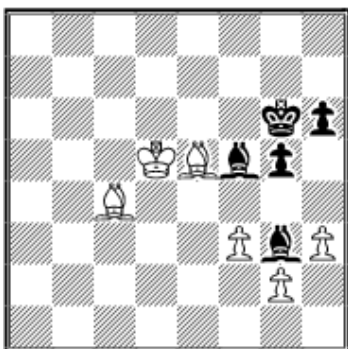
Karsten Müller



## CHESSTHEATRE

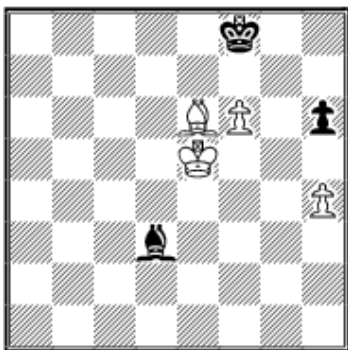
Play through and download the games from [ChessCafe.com](#) in the [DGT Game Viewer](#).

[The Complete DGT Product Line](#)



#### 57...Be1?!

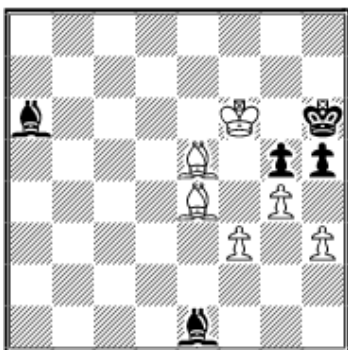
As fighting against the bishop-pair is always difficult, I prefer the exchange: 57...Bxe5 58.Kxe5 Bc2 59.Bd5 Kg7 60.g3 Bd3 61.f4 gxf4 62.gxf4 Bf1 63.h4 Bh3 64.Be6 (64.f5 Bxf5 65.Kxf5 Kh8 is an immediate draw of course.) 64...Bf1 65.f5 Bd3 66.f6+ Kf8



White cannot penetrate into Black's camp.

#### 58.g4 Bc2

58...Bc8? 59.Kd6 Bb7 (59...Ba5 60.Ke7 Bb4+ 61.Ke8 h5 62.Bd3+ Kh6 63.Kf7+-) 60.Ke6 h5 (60...Bxf3? 61.Bd3+ Be4 62.Bxe4#) 61.Bd3+ Kh6 62.Be4 Ba6 63.Kf6



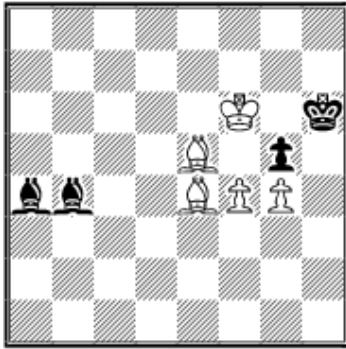
Now White's bishops control better diagonals than Black's. This makes the difference to the game and White wins, e.g. 63...Bf1

A) 63...hgx4 64.hgx4 Bc4 (64...Bb5 65.Bd5 Be8 66.Ke7 Bg6 67.Kf8+-) 65.Bd6 Bc3+ 66.Kf5 Bd2 67.Bf8+ Kh7 68.Kf6+ Kg8 69.Bh6+-.

B) 63...Bc4 64.Bd6 Bc3+ 65.Kf5 Bd2 66.Bf8+ Kh7 67.Kf6+ Kg8 68.Bh6+-; 64.Bd5 Bxh3 65.Be6 hgx4 66.fxg4 Bg2 (66...Bxg4 67.Bxg4 Bb4 68.Kf7 Bc5 69.Bg7+ Kh7 70.Bf5#) 67.Kf7 Be4

68.Kg8 Bh7+ 69.Kh8 Bb4 70.Bg7+ Kg6 71.Bf5+-.

59.Ke6 h5 60.Bd5 hxg4 61.hxg4 Ba4 62.Be4+ Kh6 63.Kf6 Bb4 64.f4

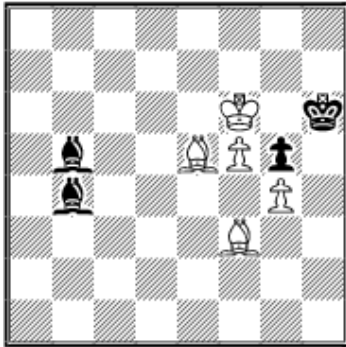


**64...Bd2!**

The only defense against the mating attack. 64... gxf4?? 65.Bxf4#.

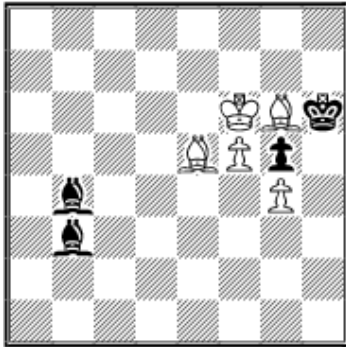
**65.Bg6**

65.f5? Bd1 66.Ke7 Bxg4 67.f6 Bh5=; 65.Bf3 Bb5 (65...Bxf4? 66.Bxf4 gxf4 67.g5+ Kh7 68.g6+ Kh6 69.Bd5 Bc2 70.g7 Bh7 71.Kf7 Kg5 72.Be4+-) 66.f5 Bb4



And I could not find a win for White.

**65...Bb3 66.f5 Bb4!**



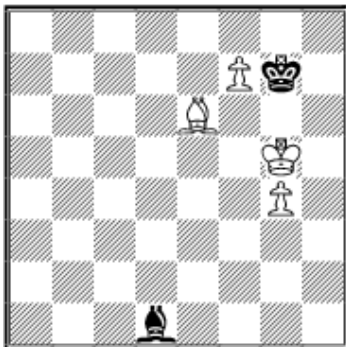
Black's bishops are very well placed and White must regroup.

**67.Bf7 Bc2 68.Bd4 Bd1 69.Bh5 Bb3 70.Ke5**

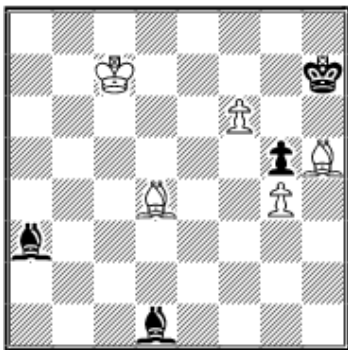
White's bishop h5 can not break free, e.g. 70.Bf7 Bd1 71.Bg6 Bf3 72.Ke6 Be2 73.Kf7 Bc4+ 74.Ke8 Bb5+ 75.Kd8 Ba5+ 76.Kc8 Be2 and 77.Bh5 is forced.

**70...Bc4 71.f6 Ba3 72.Bb6 Bb2+ 73.Kf5 Bd3+ 74.Ke6 Bc4+ 75.Ke7 Ba3+ 76.Kd7 Bb5+**

The immediate 76...Kh7!? comes strongly into consideration: 77.Be3 (77.Bc7 Kg8 78.Bd6 Bxd6 79.Kxd6 Kf8 80.Bg6 Be2 81.Bf5 Kf7 82.Ke5 Bd1 83.Be6+ Kg6 84.f7 Kg7 85.Kf5 Be2 86.Kxg5 Bd1=

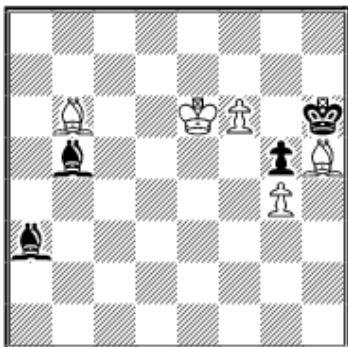


White can not break the blockade.) 77...Kh6 78.Kc6 Bb2 79.Kc5 Bb3 80.Bd4 Ba3+ 81.Kb6 Bd1 82.Kc7 Kh7



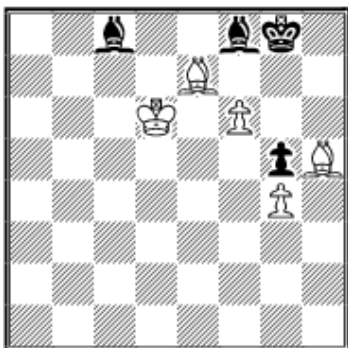
Black seems to be defending, e.g. 83.f7 (83.Kd8 Ba4 84.Be5 Kg8) 83...Ba4 84.Be5 Bf8.

**77.Ke6**

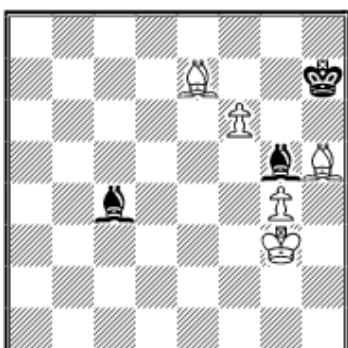


**77...Bc4+?**

Drives White's king to f5, where it wants to go anyway. The last chance was 77...Kh7!, when I could not find a win because of the many fortresses lurking about, e.g. 78.Kf5 (78.Be3 Kh6 79.Kd5 Bd7 80.Bb6 Bf8 81.Bd8 Kh7 82.Be7 Kg8 83.Kd6 Bc8)



78...Bd3+ 79.Kxg5 Bc1+ 80.Kh4 Kh6 81.Bd8 Bc4 82.Be7 Bg5+ 83.Kg3 Kh7



And in both cases the defense seems to hold.

**78.Kf5 Bd3+**

78...Ba6 79.Bd8 Bc8+ 80.Ke5 Bb2+ 81.Kd5 Kh7 82.Be7+-.

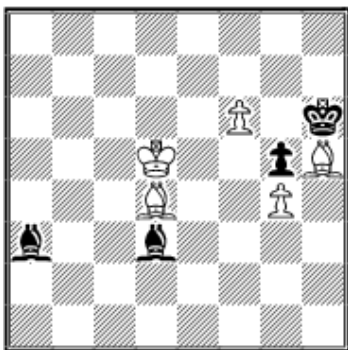
**79.Ke5 Bb2+**

79...Bc4 80.Bd8 Bb2+ 81.Kf5 Bd3+ 82.Ke6 Bc4+ 83.Ke7 Ba3+ 84.Kd7 Bb5+ 85.Kc8 Ba6+ 86.Kc7

Bb4 87.Be7 Ba5+ 88.Kd6 Bc8 89.Kc5+-.

79...Kh7 80.Be3 Kh6 (80...Bb2+ 81.Ke6 Bc4+ 82.Kf5 Bc3 83.Bxg5 Bd3+ 84.Ke6 Bc4+ 85.Ke7 Bb4+ 86.Ke8 Bb5+ 87.Kd8 Bc3 88.f7 Ba5+ 89.Ke7 Bb4+ 90.Kf6 Bc3+ 91.Ke6 Bc4+ 92.Kd7 Bb5+ 93.Kc8 Bb4 94.Bd2 Ba3 95.Kd8 Bc5 96.g5 Bd3 97.Bf4 Bb4 98.Kd7 Kg7 99.Bd6+-) 81.Kd5 Be2 82.Bb6 Bd1 83.Bd8 Bb3+ 84.Ke5 Bc1 (84...Bb2+ 85.Kf5 Bc2+ 86.Ke6 Bb3+ 87.Ke7 Ba3+ 88.Kd7+-) 85.Be7 Bf4+ 86.Ke4 Bc2+ 87.Kd4+-.

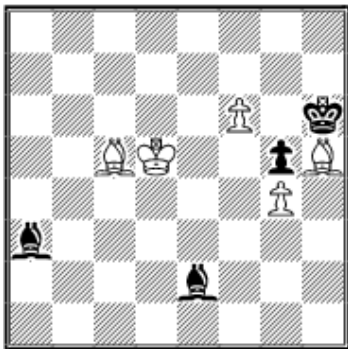
**80.Bd4 Ba3 81.Kd5**



**81...Kh7**

Now the retreat comes too late to construct a fortress. But the alternatives do not help either:

81...Be2 82.Be5 the immediate (82.Bc5?



This is refuted by 82...Bxg4 83.Bxg4 Bxc5 84.Kxc5 Kg6=) 82...Kh7 83.Bd6 Bc4+ 84.Kc6 Bb2 85.f7 Bxf7 86.Bxf7 Kg7 87.Bc4 Kf6 88.Kd5+--.

81...Bg6 82.Bxg6 Kxg6 83.Ke6 Bb4 84.f7 Bf8 85.Bf6 Ba3 86.Be7+--.

**82.Be3 Bc2**

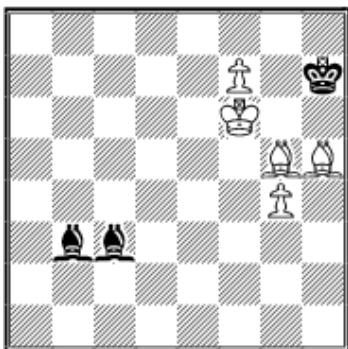
82...Kh6 83.Bc5 Bxc5 (83...Bb2 84.f7+-- 84.Kxc5 Be2 85.Kd6 Bxg4 86.Bxg4 Kg6 87.Ke7+--.

82...Be2 83.Bxg5 Kg8 84.Bh6 Kh7 85.Bf4 Kg8 86.Ke6 Bc4+ 87.Kd7 Bb5+ 88.Ke6 Bc4+ 89.Ke5 Be2 90.Kd5 Bd1 91.Ke6 Bb3+ 92.Kd7 Bd1 93.Ke8 Ba4+ 94.Kd8 Bd1 95.Bh6 Kh7 96.Bg5 Bb4 97.f7 Ba5+ 98.Kc8 Bb4 99.Bf6 Be2 100.Bc3 Bc5 101.Kd8 Bd1 102.Bf6 Be2 103.Be7+--.

**83.Bxg5 Bb3+ 84.Ke5 Bd1 85.Ke6 Bb3+ 86.Kd7 Ba4+**

86...Kg8 87.Bf4 Bd1 88.Ke8 Ba4+ 89.Kd8 Bd1 90.Bh6 Kh7 91.Bg5 Bf8 92.Ke8 Bc5 93.f7 Ba4+ 94.Kd8 Bb6+ 95.Ke7 Bc5+ 96.Kf6 Bd4+ 97.Ke6 Bb3+ 98.Kd7 Ba4+ 99.Kd6 Bc3 100.Be7+--.

**87.Kd8 Bb4 88.f7 Ba5+ 89.Ke7 Bb4+ 90.Ke6 Bb3+ 91.Kf6 Bc3+**



**92.Kf5!**

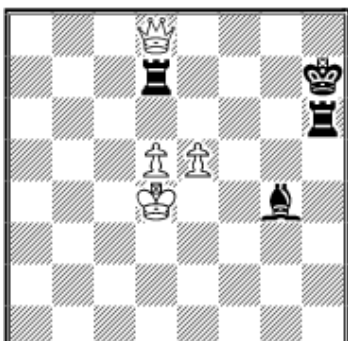
The king heads for c8 to escape the checks.

**92...Bc2+ 93.Ke6 Bb3+ 94.Kd7 Ba4+ 95.Kc8 Bb4 96.Bd2 Bc5 97.g5 Bc2 98.Kd7 Ba4+ 99.Kd8 Bc2 100.Bf4 Kg7 101.Be5+ Kh7 102.Bf6 Bg6 103.Be7 Bb6+ 104.Kd7 Bxf7 105.Bxf7 Kg7 106.Ke6 Bd4 107.Be8 Bb2 108.Bf6+ Kf8 109.Bxb2 Kxe8 110.g6 1-0**

In the next example Rybka fails to defend a fortress:

### 81.02 Rybka - Zappa

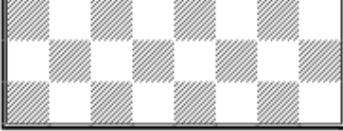
Clash of the Computer Titans, Mexico City 2007



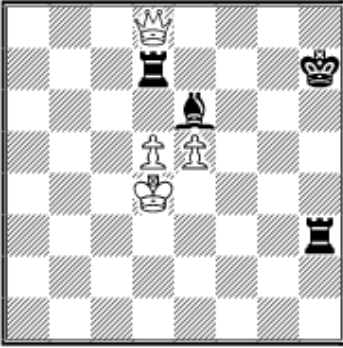
The pawnless endgame two rooks + bishop vs. queen is won, so White must use the pawns.

**128.Qe8?**

This allows Black to establish a firm blockade on the light squares. After 128.Qg5, White can either achieve e5-e6 or give perpetual check: 128...Be6 (128...Rg6 129.Qh4+ Kg7 130.Ke4 Ra7 (130...

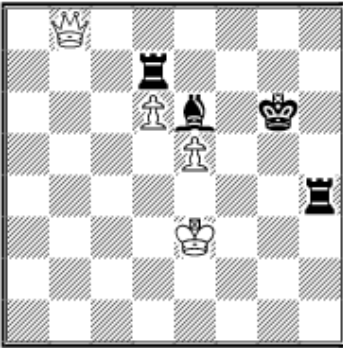


Bd1 131.e6=) 131.Qd8 Bh3 132.e6=) 129.Kc3 Rg7 (129...Rxd5 130.Qe7+ Kh8 131.Qf8+ Kh7 132.Qe7+ Kg8 133.Qg5+=) 130.Qd8 Rh3+ 131.Kd4 Rd7



132.Qe8 Rxd5+ 133.Ke4 Rh4+ 134.Kf3=.

**128...Kg7 129.Qb8 Be6 130.d6 Rh4+ 131.Ke3 Kg6**



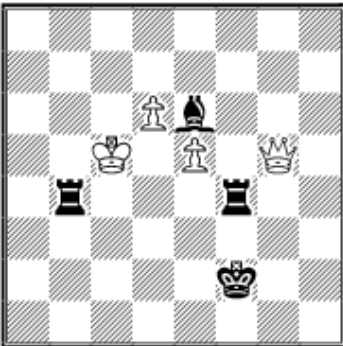
White has no real activity left, so Black will win in the long run.

**132.Qf8**

132.Qb1+ Bf5 133.Qb5 (133.Qg1+ Rg4 134.Qa1 Rh7 135.Qa6 Rh3+ 136.Kf2 Rf4+ 137.Kg2 Bd3 138.d7+ Bxa6 139.d8Q Bf1+ 140.Kg1 Rg3+--+) 133...Ra7 134.Qd5 Ra3+ 135.Kf2 Rh2+ 136.Kg1 Rc2 137.Qd4 Rb3--.

132.Qa8 Rf7 133.Qg2+ (133.Qd8 Rb4 134.Qh8 Kg5 135.Qg8+ Kf5 136.Qh8 Rb3+ 137.Kd4 Kg4+) 133...Rg4 134.Qa8 Kf5 135.Qh8 Rfg7 136.Qh5+ R4g5 137.Qh2 Rg3+ 138.Kd4 R7g4+ 139.Kc5 Rc3+ 140.Kb6 Rb4+ 141.Ka5 Rb8 142.Qh7+ Kf4 143.Qh4+ Ke3--.

**132...Rf7 133.Qd8 Rb4 134.Qe8 Kf5 135.Qh8 Rb3+ 136.Kd4 Kg4 137.Qg8+ Kf3 138.Qa8+ Kg3 139.Qg8+ Kf2 140.Qg5 Rb4+ 141.Kc5 Rff4**

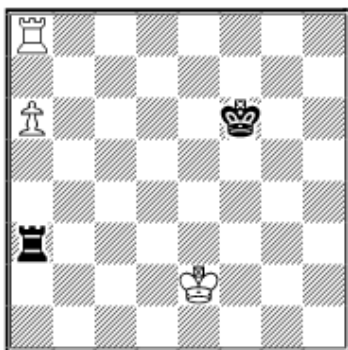


White first loses the pawns and then the game.

142.d7 Bxd7 143.Qh5 Rfc4+ 144.Kd6 Rd4+ 145.Ke7 Bg4 146.Qh2+ Kf3 147.e6 Re4 148.Qh1+ Kf4 149.Qc1+ Kf5 150.Qf1+ Ke5 151.Qa1+ Rbd4 152.Qg1 Bxe6 153.Qg5+ Bf5 154.Qg3+ Kd5+ 155.Kf6 Rf4 156.Qb3+ Kc6 157.Kg5 Bd7 158.Qc2+ Rc4 159.Qg2+ Kc5 160.Qg1+ Kd5 161.Qg2+ Ke6 162.Qg3 Rf8 163.Qh3+ Ke7 164.Qe3+ Kf7 165.Qf2+ Kg8 166.Qa2 Be6 167.Qa1 Rg4+ 168.Kh6 Rc8 169.Qa6 Bd7 170.Qa2+ Rcc4 171.Qa7 Rcd4 172.Qa2+ Kf8 173.Qb3 Ke7 174.Qa3+ Rb4 175.Qe3+ Kf6 176.Qf3+ Rgf4 177.Qc3+ Rbd4 178.Qf3 Rxf3 179.Kh7 Bf5

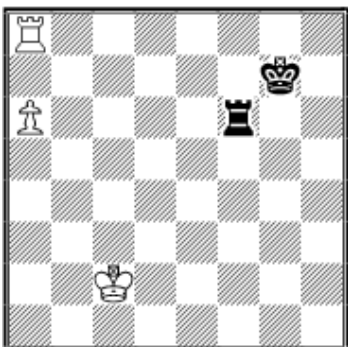
**+ 180.Kh8 Rd8# 0-1**

**Solutions to last month's exercises**

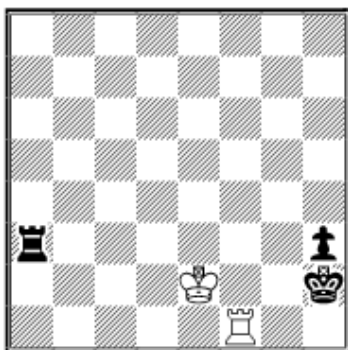


**E80.01 *B.Itkis (2429) – G.Szabo (2512)***  
XXII Felix Cup Felix Spa 2007

Black employed Vancura's defensive method to save the draw: **53...Kg7!?** 53...Ke7? loses to the following old trick: 54.a7 Kd7 55.Rh8 Rxa7 56. Rh7+-, **54.Kd2 Rf3 55.Kc2 Rf6**



Black has reached the standard Vancura setup and draws easily "by the book." **56.Kb3 Rf3+ 57.Kc4 Rf4+ 58.Kd5 Rf5+ 59.Ke4 Rf6 60.Ke5 Rb6 61. Ra7+ Kg6 62.Kd5 Rf6 1/2-1/2**



**E80.02 *M.Bijaoui (2388) – A.Payen (2378)***  
TCh-FRA Top 16 Gonfreville l'Orcher 2007

White's king must join the forces that imprison Black's monarch. **71.Rf2+?** 71.Kf2 Ra8 (71...Ra2 + 72.Kf3 Rg2 73.Ra1 Rg1 74.Ra8 Rf1+ 75.Ke2 Rf7 76.Rg8=) 72.Kf3 Rf8+ 73.Ke2 Rxf1 74.Kxf1 Kg3 75.Kg1=, **71...Kg3 72.Rf8 h2 73.Rg8+ Kh3 74.Kf2 74.Rh8+ Kg2 75.Rg8+ Rg3-+. 74...Ra2+ 75.Ke1 0-1**

[TOP OF PAGE](#)

[HOME](#)

[COLUMNS](#)

[LINKS](#)

[ARCHIVES](#)

[ABOUT THE CHESS CAFE](#)

[\[Chess Cafe Home Page\]](#) [\[Book Review\]](#) [\[Columnists\]](#)  
[\[Endgame Study\]](#) [\[The Skittles Room\]](#) [\[Archives\]](#)  
[\[Links\]](#) [\[Online Bookstore\]](#) [\[About ChessCafe.com\]](#) [\[Contact Us\]](#)

© 2007 CyberCafes, LLC. All Rights Reserved.

"**ChessCafe.com**®" is a registered trademark of Russell Enterprises, Inc.