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## COLUMNISTS

## Endgame <br> Corner

Karsten Müller

The Chess Cafe is pleased to welcome German grandmaster Karsten Müller as one of its regular columnists. Müller was born in Hamburg in 1970 and has played for the Hamburger SK team in the German Bundesliga since 1988, with an overall score for the 12 years of $861 / 2 / 159$, achieving a GM norm in the 1997-98 season. His third place finish in the 1997 German Championship together with his second place finish in the 1998 Hamburg Championship earned the grandmaster title. He has been a regular contributor to ChessBase Magazine since 1997 and is the co-author, with IM Frank Lamprecht, of the outstanding book Secrets of Pawn Endings (Everyman 2000). Away from the chessboard he is a mathematician and currently working at Hamburg University undertaking research towards his doctorate.

We hope you enjoy Karsten's new Chess Cafe column, Endgame Corner...

## All Rook Endings Are Drawn

You are certainly aware of the old aphorism by Dr.Siegbert Tarrasch. It certainly contains a lot of truth, but matters are of course not that easy and sometimes it only seems to apply when you are one or two pawns up. Nevertheless, a drawish tendency is inherent in many rook endings and in my first Chess Cafe column I want to look at Rook and h- and f-pawn vs Rook. The general result is a draw, which has baffled me ever since I got to know it. Before we dive into the jungle, I want to give three positions with Rook+f-pawn vs Rook (See Diagram):


### 1.01 Philidor Position +/=

The Philidor position is one of the most important of endgame theory and the defensive method is certainly worth knowing as it applies also to the other pawns on the 5th rank: 1...Rb6! and White can't make any progress as his King has no shelter after 2.f6 Rb1 3.Kg6 $\operatorname{Rg} 1+=$

White to move wins as follows:
1.Kg6! Kg8 (1...Rb1 2.Ra8+Ke7
3.f6+ Ke6 4.Re8+ Kd7 5.f7 +-) 2.f6 Rd8 3.Rg7+ Kf8 4.Rh7 Kg8 5.f7+ Kf8 6.Rh8+ +-

If Black to move misses Philidor's set up, active defense with 1...Rb1?! is possible as well, but passively waiting on the eighth rank is fatal, as White wins with $2 . \mathrm{Kg} 6$ ! similar to the White to play case of the first diagram. So the general principle that active play is crucially important in rook endings is valid here as well. After 2.Kg6 Rf1! the Rook moves behind the pawn to make his advance more difficult. After 3.Kf6, another important moment arises. To which side shall Black's King go? To the long or the short side of the pawn? 3...Kg8! (3...Ke8? loses as the checking distance of Black's Rook is much too short. White can gradually force the advance of his pawn: 4.Ra8+ Kd7 5.Rf8! Rh1 6.Kg7 Rg1+7.Kf7 Rh1 8.f6 Rh7+ 9.Kg8 Rh1 10.Ra8 Rg1+ 11.Kf8 Rf1 12.f7 Rg1 and White has reached a Lucena-type position and wins by building a bridge: $13 . \mathrm{Ra} 4 \mathrm{Rg} 2$ 14.Rd4+ Kc7 15.Ke7 Re2+ 16.Kf6 Rf2+ 17.Ke6 Re2+ 18.Kf5 Rf2+ 19.Rf4 +-) 4.Ra8+ Kh7 5.Rf8

Ra1! and the reason for going to the short side is revealed: the checking distance of the Rook is great enough now. After 6.Re8 we have reached the next position (See Diagram):


### 1.02 After Kling and Horwitz 1851 =/=

Black can still draw comfortably by the following method: 1...Rf1! 2.Rf8 Ra1 3.Re8 Rf1 4.Ke6 Kg7 and White can't make progress. If Black plays less accurately with 1...Ra6+?!, the position remains drawn, but great care is required: 2.Kf7 Ra7+ 3.Re7 Ra8 4.f6 Ra1 (4...Kh6!? draws as well.) 5.Re6! and we have reached Chéron's position (1.03), which is of crucial importance for the ending Rook $+\mathrm{h}-$ and f-pawn vs Rook (See Diagram):


### 1.03 Chéron 1926 +/=

1...Ra8! only establishing a last rank defense secures the draw 2.Re8 (2.Ke7 Kg6 3.f7+ Kg7! 4.Ra6 Rb8 =) 2...Ra7+ (2...Ra6 is playable as well. All other moves lose.) 3.Re7 Ra8 4.Re6 Kh6 5.Re1 Ra7+! 6.Re7 (6.Kf8 Kg6! 7.Rf1 Rf7 +=) 6...Ra8 7.Re6 Kh7 =

White to move wins, but he has to act very precisely: 1.Kf8! Kg6 (1...Ra8+ 2.Re8! Ra6 [2...Ra7 3.Re7+ +-] 3.f7 Ra7 4.Rd8 Kg6 5.Rd6+! Kh7 6.Ke8+-; 1...Ra2 2.f7 Ra8+ 3.Re8!+- [3.Ke7? Kg7! =] ) 2.f7+!
Kh7 3.Rf6 Re1 4.Rf2 Re3 5.Rh2+ Kg6 6.Kg8 +-
With h- and f-pawn, a third rank defense like Philidor's in the first diagram is not enough to reach a draw (See Diagram):

1.04 Maizelis, Shakhmaty, September 1939 +/-

White to move wins relatively easily: 1.f6 Ra1 2.Rg7+ Kh8 (2...Kf8 3.h6 and the h-pawn runs through.) 3.Kg6 Rg1+ 4.Kf7 Ra1 5.Rg8+ Kh7 6.Re8 Ra7+ 7.Kf8 followed by f 7 and White wins the Lucena-type position.

With Black to move, much more care is required: 1...Ra1!? 2.h6 Rg1+ (2...Ra6 3.f6 Ra1 4.Rb8+ Kh7 5.f7 Rf1 6.Rb7! [6.f8Q? Rxf8 7.Rxf8 stalemate.] 6...Kh8 7.Kg6 Rg1+ 8.Kf6 Rf1+ 9.Ke7 Re1+ 10.Kd8 Rf1 11.Ke8 Rf5 12.Rb5 +-)

## 3.Kf6 Ra1

There are two major alternatives:
(A) 3...Rh1 4.Rg7+ Kf8 (4...Kh8 5.Re7 Rxh6+ 6.Kf7! Ra6 7.f6! Kh7 8.Kf8+! Kg6 9.f7! Ra8+ 10.Re8 Ra7 11.Re6+!+-) 5.Kg6 Rg1+ 6.Kh7 Rf1 7.Ra7 Rg1 (7...Rxf5 8.Kg6!+-) 8.f6 Rg2 9.Rg7 Rf2 10.Kg6 Rf1 11.h7 Rg1+ 12.Kf5 Rh1 13.Ke5+- (after 13.Rg8+ Kf7 14.h8Q?? is a fatal error: Rxh8 15.Rg7+ [15.Rxh8 stalemate] 15...Kf8! 16.Kg6 Rh1 $=$, but 14.Ra8 still wins.);
(B) 3...Rf1 4.Rg7+ Kh8 (4...Kf8 5.Rg5 Rh1 6.Kg6 Kg8 7.f6 Rh2 8.f7+ Kf8 9.h7 +-) 5.Re7 Kg8 6.Re8+ Kh7 7.Ke6 Ra1 (7...Kxh6 8.f6! Re1+ 9.Kf7 Ra1 10.Rh8+ Kg5 11.Kg7! +-) 8.f6 Ra6+ 9.Kf5 Ra5+ 10.Re5 +-
4.Re7 Ra2 (4...Rh1 5.Ke6 Rxh6+ 6.f6! +-) 5.Ke5 Re2+ 6.Kd6 Rd2+ (6...Rf2 7.Re8+ Kh7 8.Ke6 +-) 7.Ke6 Re2+ 8.Kd7 Rd2+ (8...Rf2 9.Re8+ Kh7 [9...Kf7 10.h7 +-] 10.Ke6 +-) 9.Ke8 Rf2 10.Re5 Kh7 (10...Rf1 11.Ke7 +-) 11.Kf7 (11.Ke7? Kxh6! 12.Kf7 Ra2 13.f6 Ra8 14.Re6 Kh7 = and we have reached the Black-to-play case of the third diagram) 11...Kxh6 12.Re6+! Kh7 13.f6! Ra2 14.Kf8! +-(White-to-play case of the third diagram).

But starting from a normal position, the attacker is usually not able to confine the defending King to the back rank. The following defensive effort by endgame virtuoso Vassily Smyslov is so impressive that Mark Dvoretsky thinks that for a practical player, it is enough to study it to understand the whole ending with h - and f-pawn and Rook vs Rook (See Diagram):

1.05 S.Gligoric - V.Smyslov, Moscow 1947 =/=

Black's Rook occupies a good position on b5 as it hinders the advance of White's King: 1.Rg6+ (After 1.f5 Black can give checks from behind: 1...Rb1 2.h6+ Kh7 3.Kg5 Rg1+ 4.Kf4 Rf1+5.Ke5 Re1+ 6.Kf6 (A) The immediate 6...Kxh6? runs into 7.Kf7+! Kh7 8.Ra2 Rh1 [8...Kh6 9.f6 Rb1 10.Rh2+! Kg5 11.Kg7 +-] 9.f6 +-;
(B) $6 \ldots . . \mathrm{Rb} 1!$ 7.Re6 Kxh6 =) 1...Kf7! 2.Rg5 Rb1! the southwest corner is the right place for the Rook. It can give check from the side or behind depending on White's winning attempts. 3.Rc5 (3.h6 Ra1! [3...Rg1+? 4.Kf5 Rh1 5.Rg7+ +-] 4.h7 [4.Rh5 Kg8 5.h7+ Kh8 6.f5 Ra4+ 7.Kg5 Ra6 =] 4...Rg1+ 5.Kf3 Rh1 6.Ra5 Kg6 7.Ra7 Kf5 =) 3...Kf6 4.Rc6+ Kg7! this decision is of crucial importance. (After 4...Kf7? Black's King is driven to the back rank: $5 . \mathrm{Kg} 5 \mathrm{Rg} 1+6 . \mathrm{Kf} 5$ Rh1 7.Rc7+ +- [compare 1.04] ) 5.Kg5 Rg1+! 6.Kf5 Ra1 7.Rc7+ Kh6 8.Re7 Rb1 9.Re8 Kg7 10.Re5 Ra1 11.Rd5 Rf1 (11...Rb1 =) 12.Rd4 Ra1 13.Rd6 Ra5+ 14.Kg4 Ra1 (14...Rb5!? 15.Rg6+ and the position after 1.Rg6+ arises again.) 15.Re6 Rg1+ 16.Kf5 Ra1 17.h6+ Kh7! now Black's King has to go on the h -file to take the h -pawn when the appropriate time arrives. 18.Rd6 Ra2 19.Kg5 Rg2+ 20.Kf6 Kxh6! 21.Ke7+ Kh7 (21...Kg7 22.f5 Re2+ 23.Re6 Rf2! 24.f6+ Kg6! [24...Kg8? 25.Re5 +-] 25.Rd6 [25.f7+ Kg7! =; 25.Re1 Ra2 26.Rg1+ Kh7 27.f7 Ra7+! =] 25...Rf1 =) 22.f5 Re2+ 23.Re6 Ra2 24.f6 Ra8! 25.Kf7 Kh6 26.Re1 Ra7+! 27.Re7 Ra8 (27...Ra1 28.Kf8 Kg6! 29.f7 Kf6! 30.Kg8 Rg1+! =) 28.Rd7 Kh7 29.Rd1 Ra7+! 30.Ke6 Ra6+ 31.Rd6 Ra8 32.Rd4 Kg8 33.Rg4+ Kf8 1 12 $2^{1 / 2}$

In the next position White has managed to penetrate one step further, but with accurate play it is still drawn (See Diagram):

1.06 A.Ivanov (2395) - A.Vitolinsh (2430)

URS-FL Frunze 1979 =/=
72.Ke6!? (72.Kf7 Kxh6 73.Re2 Rb7+ 74.Re7 Rb8 75.f6 Kh7 =) 72...Rb6+? allows White's King to penetrate to f 7 with decisive effect. (72...Kxh6! was called for: 73.f6 Rb6+! 74.Kf7 [74.Ke7 Rb7+ =] $74 \ldots$ Kh7 $=$; 72 ...Re1+? is wrong as well: 73.Kf7 Rf1 74.f6 Kxh6 75.Re2 Kg5 76.Kg7 +-) 73.Kf7 Ra6 (73...Kxh6 74.Re6+! +-; 73...Rxh6 74.f6 +-; 73...Rb7+ 74.Kf8 Kxh6 75.Re6+! +-) 74.Re1 Ra8 (74...Ra7+ 75.Kf8! [Maizelis] 75...Kxh6 76.Re6+! Kg5 [76...Kh7 77.Re7+ +-] 77.f6! Kf5 78.Rd6 Ke5 79.Rb6 +-) 75.f6 Ra7+ 76.Re7 Ra8 77.Re8 Ra7+ (77...Ra6 78.Ke7 (A) $78 \ldots$...Kg6 (A1) 79.Rg8+?! Kf5 80.h7 [80.f7? Ra7+ 81.Ke8 Ra8 +=] 80...Ra7+ 81.Kf8 Rxh7 82.Rg7! Rh8+ 83.Ke7! Ra8 84.f7! Ra7+ 85.Kd6! Ra6+ 86.Kc5 Rf6 87.Kd5! Kf4 88.Rg1 Ke3 89.Re1+ Kd2 90.Re7! +-; (A2) 79.h7 Ra7+ 80.Ke6 Ra6+ 81.Kd5 Kxh7 82.f7! +-; (B) 78...Ra7+ 79.Ke6 with transposition into the game after 78.Ke6)
78.Ke6 Ra6+ 79.Kf5 Ra5+ 80.Re5 Ra1 81.f7 Rf1+ 82.Ke6 Kg6 (See Diagram):


At first sight it seems that Black can hold on, but the strike 83.Rg5+!! clarifies the situation: 83...Kxg5 84.h7 Re1+ (84...Rf6+ 85.Ke7 Kg6 86.h8Q Rxf7+ 87.Ke6 +-) 85.Kd7 Rd1+ 86.Ke8 Re1+ 87.Kf8 Rh1 88.Kg7 1-0

I want to end this article with one recent example and two exercises (See Diagram):

1.07 J.Timman (2635) - N.Short (2655), El Escorial cf 1993 =/=
66.Rf4 (66.Re4?! Rxf2+ =)
66...Ke5 67.Kg2 Ra1 68.Rf8 Ke6
69.h4 Ke7 70.Rf4 Ra8 71.Kh3 Rh8 72.Kg4 Rg8+ 73.Kh5 Ke6 74.Kh6 (74.f3!?) 74...Ke5 75.Ra4 (75.Rf3 Rh8+ 76.Kg5 Rg8+ 77.Kh5

Rh8+ and White can't make progress.) 75...Rg2? (75...Kf6 76.Ra6+ [76.Rf4+ Ke5 77.Rf7 Ke6 78.Rf3 Rh8+ 79.Kg5 Rg8+ 80.Kh5

Rh8+ 81.Kg4 Rg8+ 82.Kh3 Rh8 =] 76...Kf7 [76...Kf5? 77.h5 Rh8+ 78.Kg7 Rxh5 79.Ra5+! Kg4 80.f3+! Kh4 81.Rxh5+! Kxh5 82.Kf6! +-] 77.Ra3 Rg6+! [77...Rb8 78.Kh7+-; 77...Rg2 78.Rf3+ +-; 77...Rh8+ 78.Kg5 Rg8+ 79.Kf5 Rg2 80.Ra7+ Kg8 81.f4 +-; 77...Kf6 78.Rf3+ +-] 78.Kh5 Rf6 79.f3 Rf5+ 80.Kg4 Rb5 = (Ftacnik in MEGABASE 99] )
76.f3 Rg3 77.Re4+ Kf5 78.Re8 Rg6+ 79.Kh7 Rf6 80.Kg7 Rg6+ 81.Kh7 Rf6 82.Re7! Ra6 (82...Kf4 83.Kg7 +-) 83.Rf7+ Ke6 84.Kg7 Ra1 85.Rf6+1-0 as White wins with his h-pawn for a change.

## Exercises

(Solutions next month)


E1.01 I.Bondarevsky - I.Kan, URS-ch11 Leningrad 1939

Can White to move save the postion? What about Black to move? (See Diagram):


# E1.02 A.Kotov - S.Flohr, URS-ch19 Moscow 1951 

How to asses the position with Black to move?

Sources:
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