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## COLUMNISTS

## The Instructor

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## Control Work

The well-known Thompson Endgame database (popular known as the Nalimov Tablebases) is a great help in analyzing endgames. When there are no more than six pieces and pawns on the board, the computer instantly gives its evaluation of the position and any of your possible moves. The use of endgame tablebases has made our impressions of several theoretical endgames much more accurate, leading to new, interesting and instructive positions.

Some time ago, I gave a chess seminar in Arizona, USA, where one of the participants showed me an endgame he had played. After the class, I analyzed the endgame with the aid of my computer program, and saw that it contained some difficult and instructive tasks. In trying to solve them, a player can train his calculating technique, and also practice and expand his knowledge of rook endings.

As is usual in my publications, a question mark alongside the diagram means that the position is an exercise (whether easy or - in most cases - difficult) you should solve for yourself.

## Casella - Anderson

Los Angeles, 2002


On the other hand, even a good knowledge of theory is no guarantee of success when attempting to figure out a position over-the-board. There's a great difference between "knowing" and "understanding." It's not enough to just soak up knowledge - it's also important to train yourself in using that knowledge in a practical setting. Towards this end, honest trainers or book authors repeatedly
present appropriate exercises.

The complex of exercises contained in the endgame we are about to examine may be used as a "control task" for training in this area of rook endgames. I should add that these exercises are intended for high-rated players.

White has a choice to make among three possibilities:

- He can cut off the opposing king on the c-file by 57 Rc3;
- He can protect his pawn by 57 Ra 2 , threatening to take the h-pawn with his king;
- He can play 57 Ra4, intending to capture the pawn with his rook.

57 Rc3? is the easiest to dispose of: after 57...Kb5! (Black prevents White from attacking the pawn by Rc4) 58 Rc2 Rh7, I can't see how White can improve his position (the Rc2-f2-f4 maneuver involves a considerable loss of time, compared to the immediate attack on the pawn from our starting position).

The only winning move is $\mathbf{5 7}$ Ra2!


Now if $57 \ldots$ Rg8, the most exact move is 58 Rc2! (a standard technique, cutting the king off along a file - it's important to keep the enemy king as far away from the pawn as possible). Conversely, 58 Kxh 4 doesn't throw the win away, either.

Here, as also in many other cases, I will omit the complex analysis needed to illustrate the computer's assessment of the position. We have no need to burden our text with a myriad of technical variations - especially when the reader can obtain them for himself, if he so desires, by consulting an endgame database. We shall examine only the most important variations, discussing the ideas and techniques hidden therein.
$57 \ldots \mathrm{Kc} 5$ is hopeless: $58 \mathrm{Kxh} 4 \mathrm{Rh} 7+!$ ( $58 \ldots \mathrm{Kd} 559 \mathrm{~g} 4!+-$ ) 59 Kg 5 Rh 2 ( $59 \ldots$ Rg7+ 60 Kf5+-).


The g-pawn's advance may be secured in several different ways, such as: 60 Kf5 Kd6 61 Ra6+ Ke7 62 g4+-, or 60 Rf2 Kd4 61 Rf4 +Ke 562 g4+-.

Here, it's a good idea to keep in mind the "Lucena position," which White will be aiming for in this and in many other variations. If you can keep the enemy king away from the squares in front of the knight's pawn, and get your own king
there, usually the win is achieved without difficulty. Black's king prevents its own rook from bothering the opposing king from the flank. And the flank attack is in fact the main method of defense against a well-advanced passed pawn with its king beside it. With a central or a bishop's pawn, salvation is frequently achievable by placing the king on the "short side" and attacking with the rook from the "long side." You will find more on this subject in my Endgame Manual, in the very first sections of the chapter on rook endings.

Black's most stubborn defense is $\mathbf{5 7} . .$. Rh7 58 Ra4 Kc6

White's task would be easier after $58 . . . \mathrm{Kc} 559 \mathrm{Rxh} 4 \mathrm{Rg} 7$ (other rook retreats change nothing).


Of course, making this decision doesn't require the accurate calculation of all variations (nor would this be possible). It's enough to uncover the main lines, compare them with what would happen with a different try, and (with the understanding that one's analysis is not exhaustive and may contain errors) decide which path offers the best prospects.

## 57 Ra3-a4?

This was played in the game. Black has three replies, each sufficient to draw. Let's examine one of them.

## 57...Kc6!? 58 Rg4


1...?

A rather difficult question: where should the rook retreat?
$58 \ldots \mathrm{Ra}$ ? is easily dismissed, owing to 59 Rg6+ Kd5 (the king cannot go to the seventh rank) $60 \mathrm{Kxh} 4+-$, with a fatal horizontal cutoff of the enemy king. To prevent this, the rook must go either to e7 or to f7 - but which?

After 58...Re7? 59 Kxh 4 Kd 7 , the only winning move is 60 Kh 5 !

$60 \ldots$ Ke8 allows a decisive horizontal cutoff of the king by 61 Rf4, when the g-pawn marches swiftly forward. Meanwhile, 60 Kg5? Ke8! allows Black to save himself, since White no longer has $61 \mathrm{Rf} 4 \mathrm{Rg} 7+$.

And on $60 \ldots$...Re2 61 Kg 6 Ke 762 Kg 7 !, Black's king is denied access to the saving corner, and after $62 \ldots$ Ke6, its mobility will be still further restricted by the rook: 63 Rg 5 !. There could follow 63...Ra2 64 g 4 Rg2 65 Kh6 Rh2+ (65...Kf7 66 Rg7+! Kf8 67 g5, followed by Ra7, Kg6 and Ra8+) 66 Rh5 Rg2 67 g5 Kf7 68 Rh1 (just not 68 Kh 7 ? $\mathrm{Rg} 1=) 68 \ldots \mathrm{Kg} 869 \mathrm{Ra} 1+-$, when the king is driven from its corner, leading to the winning Lucena position.

To gain the draw, Black must make two accurate moves in a row. We have already found the first of these through the method of exclusion.

## 58...Rf7!! 59 Kxh4



The king must be brought closer. We can rule out $59 \ldots \mathrm{Kd} 5$ ?, because of $60 \mathrm{Rg} 6!+-$. But making the correct choice between the two remaining moves is not the easiest of tasks.

It turns out that the "golden mean" is correct here. On 59...Kd7? 60 Kg 5 !, Black cannot save himself if White plays the best line; for example: $60 \ldots \mathrm{Rg} 7+61 \mathrm{Kh} 5 \mathrm{Rh} 7+62 \mathrm{Kg} 6$ +-, or $60 \ldots$...Rf8 61 Kh6! Ke6 62 Rg7! Kf6 63
Kh7! +-, followed by g2-g4. The toughest line is $60 \ldots$...Ke6!? 61 Re4+! Kd5 62 Re2 Rf8!

1.?

Black has resorted to a technique we have already seen, namely: maximizing the distance between his rook and the pawn. He sees that the careless 63 g 4 ? $\mathrm{Rg} 8+$ leads to a well-known theoretically drawn position. When a bishop's or a center pawn has reached the fourth rank, cutting off the black king two files away assures the win; with a knight's pawn; however, given the proper placement of Black's pieces (rook on the eighth, king at d5 or d6), it's a draw.

The only winning line is 63 Ra 2 ! Rg8+ (everything else loses much more quickly) 64 Kf6+-. But I am unable to demonstrate the winning method here it's far too complex. The computer gives a mate in 63 !

So, how are we to see that $\mathbf{5 9} \ldots \mathbf{K d 6 !}$ is the strongest move here in a practical game? By the comparison method! We need to see that it gives Black additional defensive resources that are not available after $59 \ldots \mathrm{Kd} 7$.

Thus, on 60 Re 4 , Black has the attractive reply $60 \ldots \mathrm{Kd} 5=$. On the other hand, this isn't that important, since $60 \ldots$ Rh7+ is also sufficient to draw, regardless of whether the king is on d 6 or d 7 .

What is far more important is that, on $\mathbf{6 0 ~ K g 5}$, Black can forestall the rook transfer to e2 by $\mathbf{6 0} \ldots \mathrm{Ke5!}$ ( $60 \ldots \mathrm{Rf} 8$ is also possible: $61 \mathrm{Kh} 6 \mathrm{Ke} 5!62 \mathrm{Rg} 7 \mathrm{Kf} 4$ $63 \mathrm{~g} 3+\mathrm{Kf} 3!64 \mathrm{~g} 4 \mathrm{Rh} 8+!65 \mathrm{Kg} 5 \mathrm{Kg} 3=)$.

But with the king at d 7 , the only other choice, Ke 8 , is meaningless: after $59 \ldots$ Kd7? 60 Kg 5 ! $\mathrm{Ke} 8,61 \mathrm{Re} 4+$ ! decides: if then $61 . . . \mathrm{Kf8}, 62 \mathrm{Rf} 4$.

Thus, we have dealt with $57 . . . K c 6!?$, more or less. It's easy to see that $\mathbf{5 7} .$. . Kc5!? isn't bad either: we get the same 58 Rg4 Rf7!! 59 Kxh4 (on 59 Rg 6, Black defends the pawn by either $59 \ldots$ Rh7 or $59 \ldots$ Rf4) 59...Kd6! $=$.

The actual game featured a different defensive method - and a safer one, since Black did not need to find either study-like or "only" moves.

## 57...Rg7-g3+! 58 Kh3-h2



## 58...Rg3-d3!?

Curiously, other rook retreats along the rank lose. However, he could have played $58 \ldots$ Kc5 59 Rxh4 Rg8!? (59...Rd3!?), having in mind the variation 60 Rh 6 Kd 561 Kh 3 Ke 5 $62 \mathrm{~g} 4 \mathrm{Kf4}$ ! $=$.

50 Ra4xh4 Kb6-c6!?
Black didn't play 59...Kc5, evidently fearing he would be cut off on the rank after 60 Rh6. But if we continue this variation, we see that the draw isn't lost yet: 60...Kd5 61 g3 Ke5 62 Kh3 Kf5 63 Kh4 Rd4+! 64 Kh5 Rg4! 65 Rf6+ Kxf6 66 Kxg4 Kg6 =.

Black would have had an interesting problem to solve after $\mathbf{6 0} \mathbf{R h} 3!$ ?

1...?

In order to choose the only correct square to retreat the rook, Black has to guess what the idea was behind White's last move. It turns out that he still wants to cut Black off on the rank, but in a rather more favorable situation: first, he gets the enemy rook off d3, where it restrains the advance of the white king and pawn.
60...Rd2? 61 Rh6! Kd5 62 Kh3 Ke5 63 g4

Kf4 64 Rh5!+-;
60...Rd8? 61 Rh6! Kd5 62 Kh3 Ke5 63 g4+-.

The only way to cross up the enemy's plan is by $\mathbf{6 0} . .$. Rd6!!. After $\mathbf{6 1} \mathbf{R h 8}$ (61 g4 Rg6 $62 \mathrm{Kg} 3 \mathrm{Kd} 6=; 61 \mathrm{Re} 3 \mathrm{Rh} 6+62 \mathrm{Kg} 3 \mathrm{Kd} 5$ =) 61...Kd5 62 Re8 Rh6+, the distance between rook and pawn is just right for a successful frontal attack: three open ranks. Recall that with a knight's pawn, cutting off the black king by two ranks is insufficient to win.

## 60 Rh4-e4

Here White could also have tried 60 Rh 3 , but Black would have had a wide choice by comparison with the position where his king was on c5, since White would no longer be threatening to cut his king off on the rank.


Of course Black can't play $60 \ldots$...Rd8? (or $60 \ldots \mathrm{Rd} 7$ ?), in view of $61 \mathrm{Rc} 3+$ !, when the king can't go to the d-file because of the rook exchange, while on b5 he would be too far away from the pawn.
$60 \ldots \mathrm{Rd} 2$ ? would be a mistake: 61 Re 3 Kd 6 (61...Kd5 $62 \mathrm{Kh} 3+-) 62 \mathrm{Kh} 3 \mathrm{Ra} 263 \mathrm{~g} 4 \mathrm{Ra} 8$ 64 g 5 ! ( 64 Kh 4 ? Rh8+) 64...Ra4!? (once the pawn has crossed midboard, a frontal attack is useless) 65 g 6 Kd 766 g 7 Ra 867 Kh 4 Rg 8 68 Rg3 Ke7 $69 \mathrm{Kh} 5 \mathrm{Kf} 770 \mathrm{Kh} 6+-$. Note that the horizontal cutoff of the stronger side's king from its pawn, although it was of no use in this case, nevertheless is an important defensive resource, and should always be kept in mind.

Perhaps the simplest draw is by $60 \ldots$ Rd6! 61 Re3 Kd7 or $61 . .$. Rh6+.
$60 \ldots \mathrm{Rd} 5$ ! 61 Re 3 Kd 6 is also sturdy enough; for example, $62 \mathrm{Kh} 3 \mathrm{Rh} 5+63 \mathrm{Kg} 4$ $\operatorname{Rh} 8=$, or $62 \mathrm{~g} 4 \operatorname{Rg} 5(62 \ldots \operatorname{Re} 563 \mathrm{Rf} 3 \mathrm{Rg} 564 \mathrm{Kg} 3 \mathrm{Rg} 8!=$ is equivalent) 63 Kg 3 Rg 8 ! =

But $60 \ldots \mathrm{Rd} 4!?$ is less accurate: after 61 Re 3 :

1...?

Here $61 . . . \mathrm{Kd} 6$ ? no longer works: 62 Kh 3 and $63 \mathrm{~g} 4+-.61 \ldots \mathrm{Rg} 4$ ? also loses, to 62 Rd 3 Rg8 $63 \mathrm{~g} 3.61 \ldots \mathrm{Rh} 4+$ ! is necessary: 62 Kg 3 Rh8 63 Rd 3 Kc 5 ! = White's pawn is stuck on its starting square, and so cutting off the enemy king by three ranks is not enough to win.
60...Kc6-d5

Certainly not the only move here. Another decent line was $60 \ldots \mathrm{Rd} 8!?$.

61 Re4-e8 Rd3-a3 62 g2-g3

$1 .$. ?

This is the last time Black will have to be accurate in his defense. He cannot quietly wait for the king and pawn to advance, but must go over to the frontal attack at once.
62...Ra3-a7!

But not $62 \ldots \mathrm{Kd}$ ? 63 Kh 3 Kd 7 (here the king stands poorly, since it can't return to d5 in time) $64 \mathrm{Re} 4 \mathrm{Kd} 665 \mathrm{Kh} 4 \mathrm{Ra} 866 \mathrm{~g} 4+-$. This is a theoretically won position. It's very important that the rook defends the pawn, since this deprives the rook checks of their force. Kd5 can always be met by Re7. And you can learn the details if you go over the endgame Tal - Zaitsev in my Endgame Manual.

## 63 g3-g4

Otherwise, Black will prevent the advance of the pawn by a frontal attack.

## 63...Ra7-a3!

The horizontal cutoff of the king from the pawn, which failed to work in the previously examined variation, here spells salvation for Black. The rest is simple.

64 Kg2 (64 g5 Rb3 65 g6 Rb6 =) 64...Kd6 65 Kf2 Kd7 66 Re4 Rb3 67 g5 Rb5 68 Rg4 Ke7 69 Kg3 Kf7 70 g6+ Kg7 71 Kh4 Rb6 72 Kh5 Rb5+ 73 Rg5 Rb1 $1 / 2-1 / 2$

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