



## King-and-pawn Endings

by Alexander Baburin

It is my strong belief that good endgame technique can bring dividends to a chess player of any rank. Studying endgames will certainly improve one's chess understanding, enjoyment of the game, and, ultimately, increase one's rating. Further, I firmly believe that, when approached correctly, the study of endgames is not boring. Endgame technique is a fascinating part of chess. I have experienced the joy of endgame discoveries on many occasions and I can tell you the feeling is wonderful!

From my experiences as both a coach and a player, it is apparent that most amateurs are particularly weak in the endgame. Even those who realize this do little or nothing to better the situation.

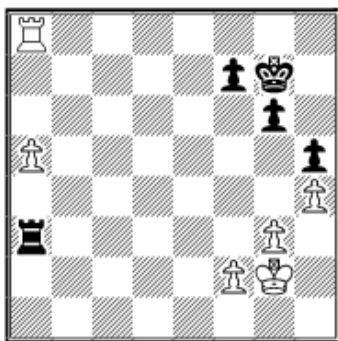
Why is this? One possible answer is that they don't know where to begin. How do you study endgames? This is not a simple question. Even if one knows how to approach the task, he or she may be put off by the amount of work required. After all, chess is just a hobby for most players and will always remain so. In other words, the problem is to acquire enough knowledge to win in the endgame without spending an inordinate amount of time on the subject.

Early in my chess career, I sought answers to these same questions. I hope to help you develop a better understanding of this stage of the game of chess. It is my hope that this will help you improve your endgame technique and score more victories in practical play.

Now let us begin our journey into the beautiful land of endgames. It is a land of precision and accuracy, where the limited number of actors on the chessboard does not signify boring play, but often leads to very inspiring and artistic decisions.

At a workshop that I held near San Francisco, the proper study of endgames came under discussion. A respected local master commented that Russians know exactly what they must learn about endings. On the other hand, Americans are usually left to their own devices once they start making progress in the game. True, there usually is a difference between an amateur player from the former USSR and his counterpart in the West and this difference lies mainly in the size of their endgame arsenals! My own interest in endgames started when I lost the following position:

*Artyukh-Baburin*, 1981



Black to play

(or White – it doesn't matter!)

I was a young up-and-coming Candidate Master and the game was adjourned in this position. I knew that such an ending should be drawn. I had about ten days to analyze, and spent a good many hours doing so. Nevertheless, I lost the game and this inspired me to work harder on endings (more on this ending later). Fortunately, one of my coaches, IM Oleg Chernikov, was a very good endgame player and I was able to learn a great deal from him.

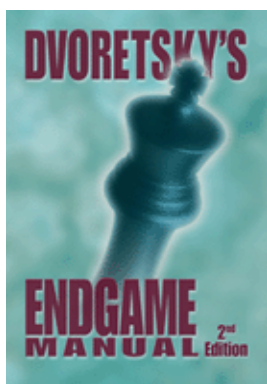
### School Days

At the same time, I was a student of GM Alexander Panchenko's school, in which endgames were the most popular subject. This school developed such strong grandmasters as Vadim Milov, Sergey Rublevsky, Ruslan Scherbakov, Maxim Sorokin, and Mikhail Ulybin. While a student, I began a notebook on endgame technique in which I entered interesting endings and analyses that I had culled from books and magazines. This method of study helped improve my play. I will use some of those endings as examples in this column.

Let us define the different types of endgames. Many positions have a definite assessment. Botvinnik called them "key endgames." The more one knows of such positions, the better one's endgame technique. Endgames that do not have a definite solution can be called practical endgames. And there are composed endgames or studies. Where should the study of endgame technique begin?

First, there are some positions and ideas that every player simply *must* know. Next, players should improve their technique in practical endgames. This can be achieved in several ways:

SKITTLES  
ROOM



1) Analyze your own endgames, particularly with a coach or a stronger player. This is a very valuable method, as your own games are usually the most interesting and important for you. This can be the force that helps you go through endgame books and other materials. You may need more encouragement at the initial stage.

2) Analyze how great players conducted their endings. You may wish to select one for a start and look how he played endings. The available choices are varied. Some recommendations: Lasker, Rubinstein, Capablanca, Alekhine, Smyslov, Fischer, Karpov, Kasparov and Ulf Andersson. The list can easily be extended.

3) Solve chess problems. This is particularly useful with certain types of endgames, for example, king-and-pawn endings.

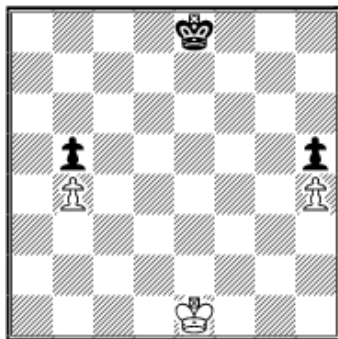
4) Analyze endgames from modern practice. Always go over endings published in recent magazines or books. Karsten Müller's excellent [ChessCafe.com](http://ChessCafe.com) column [Endgame Corner](#) is a very good source, and [Dvoretsky's Endgame Manual](#) may be the best out there. This will help you develop an interest in endgame play and will allow you to see how professionals approach endgame problems.

Let us begin with king-and-pawn endings. They are the basis for all endgame knowledge. Such endgames can be incredibly difficult to play, as they often require absolute precision in assessment and calculation. What follows is a list of themes and ideas that one should know about king-and-pawn endings in order to play them properly.

- Opposition
- Reserved tempo and triangulation
- Square of the pawn
- Outflanking and elbowing
- Locking up
- More active king
- Pawn race
- Transformation into a queen ending
- Passed pawn creation: breakthrough
- Passed pawn creation on opposite flanks: self-marching pawns
- Self-supporting pawns
- Stalemate
- Outside passed pawn
- Protected passed pawn
- Better pawn structure
- Corresponding squares

Of course, this is a rough list having mostly my own definitions. The point is not to spend too much time on theoretical discussions, but to start somewhere. For this type of endgame, I will make use of many studies.

#### Capablanca, 1921



White to play

**1.Ke2!**

White takes the distant opposition, which he can later convert into a short one. After 1.Kd2?, Black gets the opposition by playing 1...Kd8! 2.Ke3 Ke7 3.Ke4 Ke6= and White cannot penetrate into his opponent's territory.

**1...Kd8**

The more direct approach 1...Ke7 is hopeless because of 2.Ke3 Ke6 3.Ke4 Kf6 4.Kf4! Ke6 (4...Kg6 5.Ke5) 5.Kg5 Kd5 6.Kxh5 Kc4 7.Kg5 Kxb4 8.h5, winning.

**2.Kf3!**

Again, the careless 2.Ke3? would allow Black to gain the opposition and to save the game after 2...Ke7.

**2...Ke7 3.Ke3! Ke6 4.Ke4 Kf6 5.Kf4**

The immediate outflanking won't do, as after 5.Kd5? Kf5 6.Kc5 Kg4 7.Kxb5 Kxh4, both sides will promote their pawns simultaneously.

**5...Ke6**

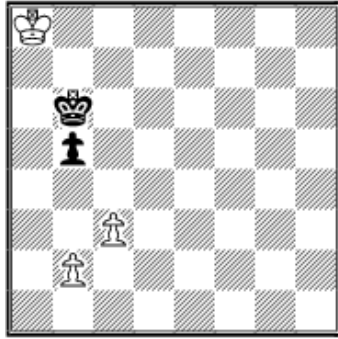
After 5...Kg6, White outflanks by playing 6.Ke5 and the h-pawn falls: 6...Kg7 7.Kf5 Kh6 8.Kf6 Kh7 9.Kg5 Kg7 10.Kxh5 Kh7 11.Kg5 Kg7 12.Kf5, winning.

**6.Kg5 Kd5 7.Kxh5 Kc4 8.Kg6 Kxb4 9.h5 1-0**

And White wins, as he queens sooner.

Grigoriev, a justly famous composer, specialized in king-and-pawn endgames.

**Grigoriev, 1930**



White to play

Here White needs to realize that Black threatens to play 1...b4, when 2.c4?? would be fatal because of 2...b3!, when Black wins. Thus, White must move the b-pawn.

**1.b3!**

After 1.b4?, Black gets the opposition by 1...Ka6 2.Kb8 Kb6 and holds the position easily.

**1...Ka5 2.Kb8!**

The impatient 2.Kb7? would result in a draw after 2...b4 3.c4 stalemate!

**2...b4!**

2...Kb6 is hopeless now because of 3.b4 (White uses a reserved tempo!); so Black needs to take this pawn move away from White.

**3.c4 Kb6**

Black finally has the opposition, but at a very high price. White now has a protected passed pawn and Black's king must stay within the square of the passed pawn. White exploits this fact.

**4.Kc8 Kc6 5.Kd8 Kd6 6.Ke8 Ke6 7.Kf8 Kf6 8.Kg8 Kg6**

The alternative 8...Ke5 9.Kf7 Kd4 10.Ke6 Kc3 11.c5 Kxb3 12.c6 Ka2 13.c7 b3 14.c8Q is also hopeless for Black.

**9.Kh8! Kf6**

Alas, Black's king could not go further away from the c4-pawn, so Black gives up the vertical opposition and gets the diagonal opposition instead.

**10.Kh7 Kf7**

Horizontal opposition.

**11.Kh6 Kf6 12.Kh5 Kf5 13.Kh4 Kf4 14.Kh3 Kf5**

Back to diagonal opposition.

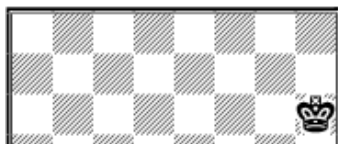
**15.Kg3 Kg5**

Yet another horizontal opposition – this is Black's last line of defense.

**16.Kf3 Kf5 17.Ke3 Ke5 18.Kd3 1-0**

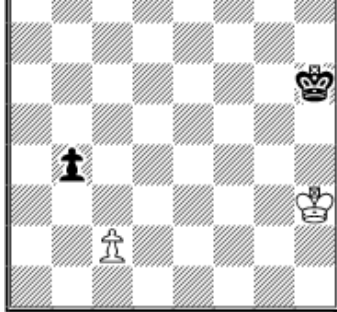
Black cannot keep the opposition and loses. This very instructive study shows many themes in one example.

**Bianchetti, 1926**



White to play

**1.Kh4!**

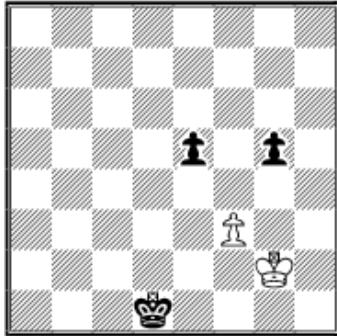


The simplistic approach 1.Kg4? will not succeed, because after 1...Kg6 2.Kf4 Kf6 3.Ke4 Ke6 4.Kd4 b3 5.cxb3 Kd6 6.Kc4 Kc6 7.Kb4 Kb6, Black has the opposition!

**1...Kg6 2.Kg4 Kf6 3.Kf4 Ke6 4.Ke4 Kd6 5.Kd4 b3 6.cxb3 Kc6 7.Kc4 Kb6 8.Kb4 1-0**

Now White has the opposition and wins upon 8...Kc6 9.Ka5.

**Neustadt, 1890**



White to play

This is yet another very useful study. White can survive, but must be careful, as not every move draws.

**1.Kh1!**

White must get the distant opposition. After the incorrect 1.Kf1? Kd2 2.Kf2 Kd3!, White can no longer keep the opposition and loses upon the further 3.Kg3 Ke3 4.Kg2 Ke2 5.Kg3 Kf1 – Outflanking – 6.Kg4 Kg2.

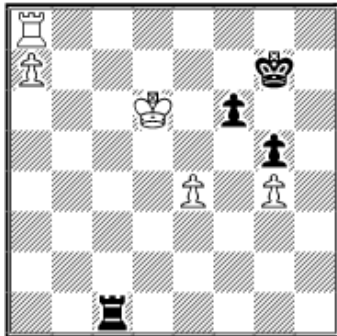
**1...Ke2 2.Kg2 Kd3 3.Kh3! Ke2 4.Kg2 Kd1 5.Kh1 g4**

The last try.

**6.Kg2!Kd2 7.fxg4 e4 8.g5 Draw**

Now, let's see how an understanding of certain ideas in king-and-pawn endings can help in other types of end-games. Our next position is a good example of how this knowledge can help to save some difficult positions.

**Benko-Gereben, Hungary 1951**



Black to play

Black must put the rook on the a-file, but should he do it immediately or after a check on d1? The answer to this question is absolutely critical to the result of the game.

**1...Ra1?**

Black chooses the wrong answer. The correct defense is 1...Rd1+ 2.Ke6 Ra1 3.Rd8 Rxa7 4.Rd7+ Rxd7 5.Kxd7 Kh7! (but not 5...Kf7, because of 6.Kd6 Kg6 7.Ke6 Kg7 8.Ke7 Kg6 9.Kf8 and White wins by outflanking). Now, Black has the distant opposition and therefore saves the game. This position is similar to the Neustadt study. The presence of the g5-pawn

does not change much.

**2.Rc8!**

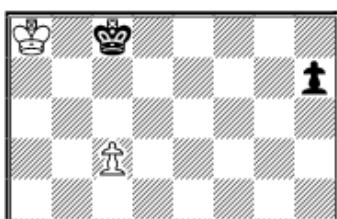
Perhaps Black expected only 2.Re8?, when 2...Ra6+ saves the game.

**2...Rxa7 3.Rc7+ Rxc7 4.Kxc7 1-0**

Now White has the distant oppositions and wins. Please, check it for yourself.

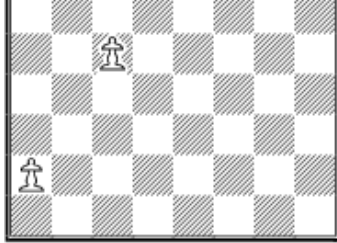
Let us examine two more studies in order to learn more about the basic ideas of king-and-pawn endings. This next study I believe to be truly wonderful.

**Gorgiev, 1930**



White to play

At first, it looks as if survival is impossible for White. If he simply plays 1.a4?, Black wins after the smart reply 1...h6!, as the following line shows: 2.a5 h5 3.c6 h4 4.a6 h3 5.a7 h2 6.c7 h1Q mate. If White decides



to play cleverly himself and tries 1.a3?, he would lose after 1...h5 2.a4 h4 3.a5 h3 4.a6 h2 5.c6 h1Q mate. Thus, White has to begin with his c-pawn and wait to see how Black will move his pawn.

**1.c6! h6**

Another move, 1...h5, leads to same result after 2.a4.

**2.a3 Kc7**

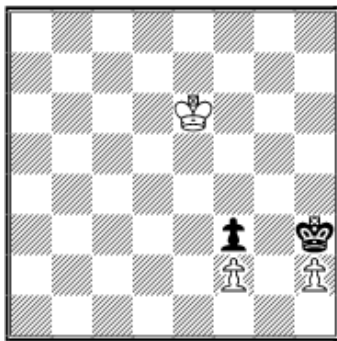
Or 2...h5 3.a4 h4 4.a5 h3 5.a6 h2 6.a7 h1R 7.c7 Kd7 8.c8Q+ Kxc8 stalemate.

**3.a4 Kxc6 4.a5 Kb5 5.Kb7 Kxa5 6. Kc6 h5 7.Kd5**

All of a sudden, White's king is in the square of the pawn! This was Réti's idea, first used in one of his studies.

Transformation from a king-and-pawn ending into a queen ending and the nuances related to such a metamorphosis are well illustrated in the following study.

**Moravec, 1925**



White to play

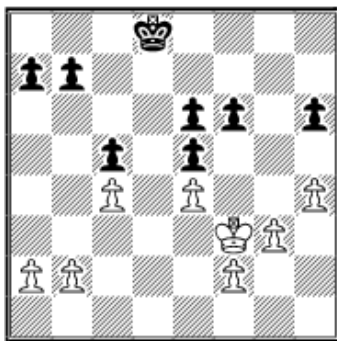
Black is going to capture both of White's pawns. Thus, White must head towards the enemy pawn, but which route should he choose? It's relatively easy to see what's wrong with 1.Kf5?, i.e., Black will queen with check, thanks to 1...Kg2 2.h4 Kxf2 3.h5 Kg1 4.h6 f2 5.h7 f1Q+, winning. The real temptation is for White is to relax, to think that the solution has been found, and to believe that he needs only to avoid the f-file by playing 1.Ke5. Unfortunately, after 1.Ke5? Kg2 2.h4 Kxf2, White again loses, in view of 3.h5 Kg1 4.h6 f2 5.h7 f1Q 6.h8Q Qa1+. This is a very harsh lesson for someone who stopped analyzing the position after having found 1.Ke5.

**1.Kd5!**

This is the correct answer. Now White survives after **1...Kg2 2.h4 Kxf2 3.h5 Kg1 4.h6 f2 5.h7**.

In conclusion, here is an example from my own practice that is a good illustration of how difficult king-and-pawn end-games can be and how much precision they require. The following position occurred in a training match versus SM Alan Stein, played in November 1997.

**Baburin-Stein, San Francisco 1997**



Black to play

Just before the diagrammed position arose in the game, two rooks were exchanged on the d8-square, and White played Kg2-f3. The ending is clearly in White's favor, because of his much better pawn structure. However, only detailed analysis can determine whether White wins or the game is a draw. Now, Black has a difficult task. What should he do about White's plan related to Kf3-g4-h5?

**1...Ke7!**

The only move: 1...f5? allows White's king to penetrate after 2.exf5 exf5 3.g4Q, while 1...h5? is not satisfactory either. Since White gets nowhere upon 2.g4? Ke7 3.gxh5 Kf7 4.Kg4 Kg7, he has to adjust his plan and first clear the path for his king by playing 2.Ke3! White then wins after 2...Ke7 3.f4 exf4+ 4.Kxf4 Kf7 5.e5 Kg6 6.exf6 Kxf6 7.g4, creating an outside passed pawn. Other third move options are bad for Black, too. On 3...Kd6 4.Kf3 f5 5.Ke3, Black will soon run out of moves and will have to take on e4 and f4, giving the white king a way in, and thus losing the game. After 3...Kf7 4.fxe5 fxe5 5.Kf3, White wins easily, e.g., 5...Kf6 6.g4 hxg4+ 7.Kxg4 Kg6 8.h5+ Kf6 9.Kh4 a6 10.a4 a5 11.b3 b6 12.Kg4 Kf7 13.Kg5 Kg7 14.h6+ Kf7 15.h7 Kg7 16.h8Q+ Kxh8 17.Kf6.

**2.Kg4 Kf7 3.Kh5**

Here 3.f4 does not work, as after 3...exf4 4.Kxf4 Kg6, Black is just fine.

**3...Kg7 4.g4 Kh7 5.a3**

White cannot win here, as he does not have a reserved tempo on the queenside. But Black suddenly gives him a helping hand:

**5...a5??**

As I remember, my opponent played this move without much thought, still having about four minutes remaining on the clock. The correct continuation is 5...a6, which saves the game after 6.b4 b6 7.bxc5 bxc5 8.g5 hxg5 9.hxg5 fxg5 10.Kxg5 Kg7 11.a4 a5 12.f3 Kf7 13.Kh6 Kf6. White may try 6.b3, but Black holds the position by playing 6...b5!, but not 6...b6?, which is fatal for Black, i.e., 7.b4 cxb4 8.axb4 Kg7 9.c5 bxc5 10.bxc5 Kf8 11.Kxh6 a5 12.g5.

**6.a4! Kg7 7.g5 hxg5 8.hxg5 fxg5 9.Kxg5**

Now White has the opposition and thus is able to outflank. More important, he has a reserved tempo (f2-f3), which will help him to regain the opposition later on.

**9...Kf7 10.Kh6**

Outflanking.

**10...Kf6 11.f3 Kf7 12.Kh7 1-0**

Yet another outflanking. Black resigned in view of 12...b6 13.b3 Kf6 14.Kg8 Kg5 14.Kf7.

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