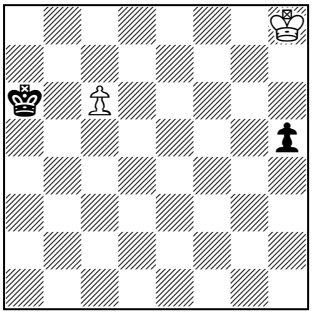
The Chess Endgame Studies of Richard Réti : Pawn studies

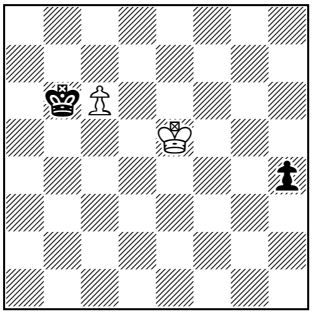
John Beasley, 14 January 2012, minor correction 2 March

1.1 (M 1)



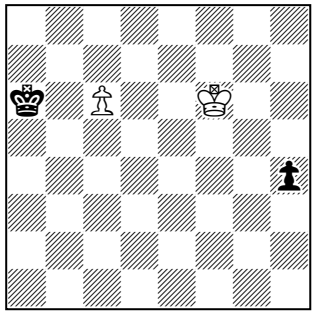
White to play and hold the draw

1.1a



1...Kb6, after 3 Ke5

1.1b



1...h4, after 2 Kf6

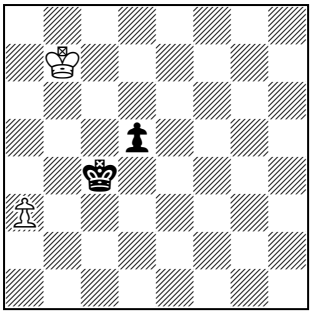
1.1 (*Deutschösterreichische Tages-Zeitung*, 11 September 1921) is Réti's most famous study. White's pawn is clearly dead, Black's is far out of reach, White must surely resign. But after **1 Kg7 Kb6 2 Kf6** Black's pawn must run, **2...h4,** and **3 Ke5** gives **1.1a**. Black can only run again, **3...h3**, and now **4 Kd6** rescues White's own pawn and ushers it through: **4...h2 5 c7 Kb7 6 Kd7** and both sides will promote. Alternatively, Black can play **1...h4**, when **2 Kf6** gives **1.1b**. If now 2...Kb6 then 3 Ke5 gives **1.1a** again; if instead **2...h3** then 3 Ke5 fails (3...h2 4 c7 Kb7 5 Kd6 h1Q), but **3 Ke6/Ke7** will see White's pawn safely home.

This study has been variously presented. I have always regarded 1...Kb6 as Black's most natural move (Mandler presents it as the main line, as does Golombek), but when Timothy Whitworth and I were writing *Endgame Magic* Timothy pointed out that the composer himself had given precedence to 1...h4, and he felt we should follow suit. Perhaps the best answer is to give them equal weight.

As regards the source, I cannot do better than repeat what Timothy and I wrote in *Endgame Magic*: "We owe this attribution, which we believe definitive, to Ken Whyld in the *British Chess Magazine* for February and June 1990, the latter issue quoting research in Vienna by Michael Ehn. The position was originally published anonymously, but Réti laid claim to it on page 171 of *Kagan's Neueste Schachnachrichten* 1922 (where it was shown with the Black pawn on h6 and with Black to move). He said that he had not published it himself at the time, although he had shown it in Viennese chess circles, because it was not enough that a study should have an interesting combination, it should also be difficult to solve. [...] It was inspired by a position in a game, Schlechter–Marco 1893 [see **1.1c** below], when White drew by 57 a4 Kb4 58 Kb6." Kalendovský reports the Schlechter-Marco game as having appeared in *Deutsches Wochenschach* in 1893 (page 344), and credits the first modern researcher to dig it up as H. Staudte in *Schach-Echo*, number 2 of 1968.

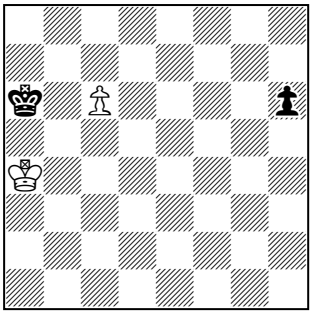
In respect of difficulty, I personally don't mind a study's being easy to solve provided that it is piquant, and this certainly qualifies.

1.1c



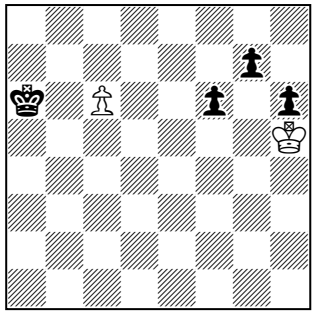
White to play move 57

1.2 (M 1a)



Black to play, White to draw

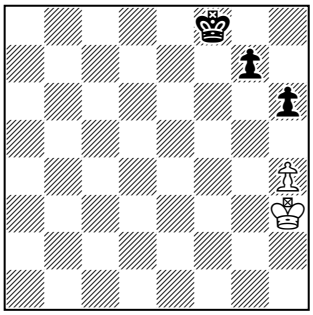
1.3 (M 1b)



White to play and hold the draw

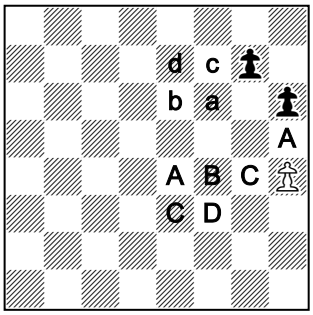
Réti returned to the idea several times. In **1.2** (*Kagan's Neueste Schachnachrichten*, 1922, seventeen pages on from **1.1**), **1...h5** (or 1...Kb6 2 Kb4 h5 3 Kc4 etc) **2 Kb4 Kb6** (2...h4 3 Kc5 h3 4 Kd6) **3 Kc4 h4 4 Kd5** with **4...h3 5 Kd6** or **4...Kc7 5 Ke4**. **1.3** (composed in 1928, and first published in Mandler's 1931 book), with its three united passed pawns, is perhaps even more striking than **1.1**: **1 Kg6**, with **1...Kb6 2 Kxg7 h5** (2...f5 3 Kf6 f4 4 Ke5 f3 5 Kd6) **3 Kxf6 h4 4 Ke5 h3 5 Kd6**, or **1...h5 2 Kxg7 h4 3 Kxf6** etc, or **1...f5 2 Kxg7 f4 3 Kf6 f3** (3...Kb6 4 Ke5) **4 Ke7/Ke6**. The positions with Q v Q + P can be quickly proved to be drawn.

1.4 (M 2, with Artur Mandler)



White to play and hold the draw

1.4a



Where the White king must go

1.4 (*Tijdschrift v. d. NSB*, 1921) was a joint composition with Artur Mandler. Mandler gave a detailed exposition both in his 1931 book and in his 1970 book *Studie*, and I repeat the latter as I translated it in *Depth and Beauty*. He looks first at what is going to happen later in the solution, then works out what the early moves have to be in order to create favourable conditions for it.

1) Black's move ...h5 comes into consideration only when the White king cannot reply by moving to g5. [Black will have to reply...g6 to defend the pawn on h5, his king being presumed to be already on f7 or perhaps h7, and now White will play Kf4 and Black cannot make progress even by taking the opposition.]

2) The White pawn can make the first pawn move if the White king is already on e5 or f5, or if its advance will leave White with the opposition. So as long as the pawns are in their present positions, Black cannot put the kings into opposition (either close or distant) because White will then draw by h5. [Suppose the White pawn advanced to h5, but the kings only on f4 and f6. If White is to play, Ke4 lets Black in at once, and Kg4 allows ...Ke5 turning White's position in the usual way; but Black to play cannot make progress.]

3) If Black plays ...g6 while his king is on the seventh rank, White must take up the distant opposition; if the Black king is on the sixth rank, White must take up the close opposition; if the Black king has reached the fifth rank, ...g6 is always a winning move. [Suppose Black's pawns on g6/h6. If Black has the opposition, close or distant, he will eventually be able to advance and turn White's position. If White has it, Black can take it by playing ...h5, but if the kings are on say e4 and e6 this will not help him. If they are on e3 and e5, it will.]

4) As long as the Black king has not reached the fifth rank, the opposition is harmful. If Black has it, White draws by h5; if White has it, Black wins by ...g6. If the Black king has reached f6, the pawns still being where they are, White must prevent its advance to the fifth rank. Which move is correct, Ke4 or Kg4? Only Ke4. If White plays Kg4, giving the king configuration g4/f6, Black wins by 1...Ke5 2 Kh5 Kf4 3 Kg6 Kg4 4 Kxg7 h5. But if the White king is on e4, White can meet ...g6 or ...Ke6 by Kf4. The squares **e4**/**f6** (**Aa** in diagram **1.4a**, ignoring h5 for the moment) and likewise **f4**/**e6** (**Bb** in **1.4a**) mutually correspond, and the side which has to move while the kings are in this position is in zugzwang: White to move loses, Black to move can only draw.

5) After 1 Kg3 (Kg4) Kf7, the White king cannot move to the f-file. 2 Kf3 and 2 Kf5 would allow Black to win by 2...g6, and 2 Kf4 by 2...Ke6. So, from the diagram position, the Black king can play to f6 without White's being able to play to e4 in reply. However, there is another square which corresponds to f6, and this is h5. If Black has to move in the position h5/f6, gaining the fifth rank does not help him: 1...Ke5 2 Kg6 Kf4 3 Kxg7 h5 4 Kf6! Kg4 5 Ke5 and draws. White to move in this position loses. So **f6** and **h5** are also corresponding squares.

6) **f7** and **g4** (**Cc** in **1.4a**, ignoring e3 for the moment) form a further pair of corresponding squares. If the kings are on these squares and White is to move, 1 h5 is met by 1...Ke6 2 Kf4 Kf6 (see point 2 above), 1 Kf5 and 1 Kf3 by 1...g6 (point 3), 1 Kf4 by 1...Ke6 (point 4), and 1...Kg3 by 1...Kf6, since the White king has access neither to e4 nor to h5 (points 4 and 5). If Black is to move, 1...g6 does not come into consideration (2 Kf3), nor does 1...Ke6 (2 Kf4). 1...Kg6 fails against 2 Kf4 Kh5 3 Kg3 g6 4 Kh3, and 1...Kf6 against 2 Kh5 (point 5).

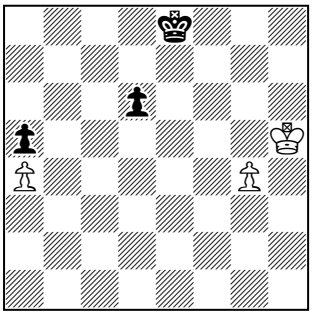
7) This has led us to the opening move. 1 Kg4 is met by 1...Kf7, but White must bring his king close enough to meet ...Kf6 by Kh5, and this leaves him no choice but 1 Kg3. Now White will meet 1...Kf7 by 2 Kg4.

8) After 1 Kg3 Ke7 2 Kf3 Kf6 3 Ke4 Kf7 the White king is out of range of g4. However, there is another square which corresponds to **f7**, and that is **e3**. From here, White preserves the options of playing Ke4 or Kf4 if the Black king returns to the sixth rank, and of taking the distant opposition if Black plays ...g6. On 4...Ke7, White keeps the distant non-opposition.

9) The solution therefore unfolds **1 Kg3 Ke7** (if 1...Kf7 then 2 Kg4 Kf6 3 Kh5 etc) **2 Kf3 Kf6** (2...Ke6 3 Kf4 Kf6 4 h5, 2...g6 3 Ke3) **3 Ke4 Kf7** (3...Ke6 4 Kf4, 3...Kg6 4 Kf4) **4 Ke3** and either **4...Ke7 5 Kf3** or **4...g6 5 Kf3**.

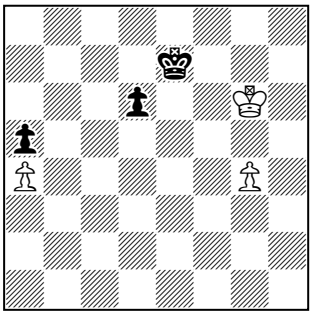
The computer had only a trifling comment to make on this impressive piece of analysis: at the end of the main line, with the kings on e3/e7, White needn't persist with the distant non-opposition, he can play h5 at once.

1.5 (M 3)



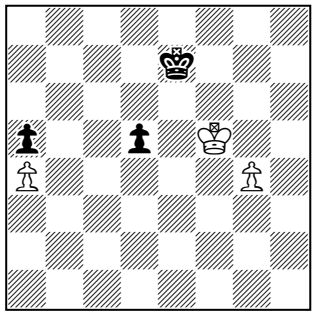
White to play and win

1.5a



1 Kg6, after 1...Ke7

1.5b



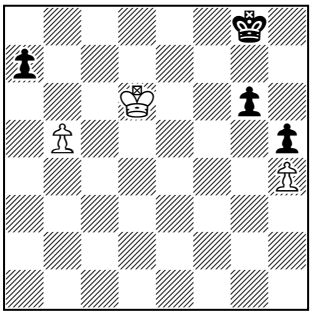
Main line, after 4 Kf5

1.5 (*Berliner Tagblatt*, 1923) was dedicated to the memory of Gyula Breyer. Try the obvious 1 Kg6, crowding Black as far as possible: no, 1...Ke7 (see **1.5a**) 2 Kf5 Kf7 3 Ke4 (or 3 g5 d5 4 Ke5 Kg6 5 Kxd5 Kxg5) Kg6 4 Kd5 Kg5 5 Kxd6 Kxg4, and Black will just have time to get back to the drawing square c8. White needs to gain a tempo, and paradoxically the way to do so is by losing one: **1 Kg5 Kf7** (if 1...Ke7 then 2 Kg6 at once) **2 Kf5 Ke7 3 Kg6**, giving **1.5a** with Black to play. If now 3...Ke6 then 4 g5 followed by 5 Kh7, and White will promote with check; if 3...Kf8 then 4 Kh7, and White will give check on g7 and then promote while the Black pawn is still at d3. Hence **3...d5**, and the natural move is **4 Kf5** (see **1.5b**). If now 4...Kf7 then 5 Ke5 Kg6 6 Kxd5, and White is a crucial tempo ahead of the drawing line 1 Kg6 Ke7 2 Kf5 Kf7 3 Ke4 Kg6 4 Kd5 Kg5 5 Kxd6 (Black has had to spend a tempo playing ...d5, and this has enabled White to capture the pawn by Ke5 and Kxd5 instead of having to go round via e4); if instead **4...Kd6** then **5 g5**, after which **5...Ke7 6 Ke5 Kf7 7 Kxd5** again leaves White a crucial tempo ahead of the previous drawing lines and 5...d4 6 Ke4 Ke6 7 Kxd4 is no better. By playing to reach **1.5a** with Black to move, White has sacrificed one tempo; but in the subsequent manoeuvrings, Black becomes two tempi worse off.

Breyer (1893-1921) was closely associated with Réti. Not only were they among the leaders of the so-called "hypermodern" school, but they were the producers of the short-lived Bratislava games-and-puzzles journal *Szellemi Sport*. In the English edition of *Modern Ideas in Chess*, where this journal is curiously mistitled, Réti names Breyer as its sole editor, but if I have interpreted the translations in my daughter's Hungarian dictionary correctly its masthead listed Breyer as "responsible editor" and Réti as "principal colleague". Many years ago, Bedrich Formánek sent me copies of the first five issues (1 April 1921, 15 April, 1 May, 1 June, 1 July), apparently all that there were, courtesy of the library of Bratislava University, but unfortunately 90 per cent of the text is in Hungarian, and the rest is in German which for me is little better. Any detailed account of it in English will therefore have to be left to somebody else.

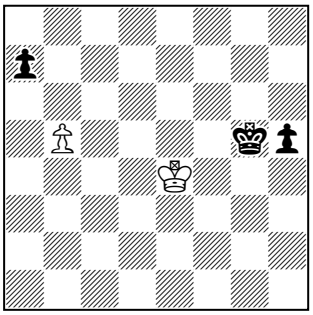
Szellemi Sport devoted a significant proportion of its space to chess, and in *Modern Ideas in Chess* Réti describes it as having contained the famous Breyer position in which White draws not by normal means but by playing a non-capturing piece move and then proving that fifty moves must have passed since the last capture or pawn move. However, I cannot find this in the five issues I have seen (I can understand the chess diagrams even if I cannot read the text), and in fact it seems first to have appeared after Breyer's death in T. R. Dawson's "Fairy Chess" column in the February 1922 issue of the *Chess Amateur*. Dawson, who described it as "the most glorious retro I have had the privilege of yet printing", said that it had been sent to him by "the Budapest circle" having been composed during the war. It was shown many years later that the position was slightly unsound, in that with a different approach in the play up to the diagram only 49 moves need have been played, but a simple change to the position allowed the crucial fiftieth move to be reinstated (*EG* 28, April 1972, quoting *Problem* 124-126, March 1969). Extreme retro tasks like this are often slightly unsound as originally published, and the generous and proper custom is to continue to credit the achievement to the first person to realise the essentials of the task even if his realisation is subsequently found to be faulty in minor detail.

1.6 (M 4)



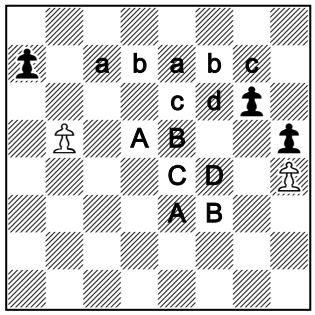
White to play and hold the draw

1.6a



1 Ke5, after 4/5...Kxg5

1.6b



Where the White king must go

1.6, composed in 1929, is another study that was first published in Mandler's 1931 book. When I was writing the endgame study column in the French composition magazine *diagrammes*, one of my solvers said that he preferred solving win studies to draws because he could look forward to a clear-cut climax; the play in a draw study (unless something like a snap stalemate was involved) often seemed to finish rather inconclusively. Réti's draw studies, in contrast, normally end in positions where the stronger side's inability to make further progress has become obvious.

Here, Black to play would win offhand by 1...g5. The threatened follow-up move 2...g4 would give him a protected passed pawn, so White must capture, 2 hxg5, and after 2...h4 the h-pawn is out of range. Can White ignore this and play 1 Kc6? No, there would follow 1...g5 2 Kb7 g4 3 Kxa7 g3, and Black will promote with check while White's pawn is still at b7. However, if Black's king were at f6 instead of g8, this line would work, because after 1 Kc6 g5 White could play 2 hxg5+, Black would have to spend a move getting his king out of check, and his eventual promotion would be on h1 instead of g1 (2...K~ 3-4 Kxa7 h3 5-6 b7 h1Q 7 b8Q). So as long as White's king is within reach of c6, the square f6 is unavailable to Black's king.

At present, however, Black's king is not on f6, and so White must play 1 Kd5 or 1 Ke5 to deal with the threat of ...g5. Without the pawns on b5 and a7, the position would now be a dead draw; White would simply mark time on e4 and f4, and Black could not make progress even by taking the opposition. With them, however, Black can hope to create an outside passed pawn on the h-file, and to gain sufficient time by diverting White's king to deal with it to be able to force the win on the other wing. If White plays 1 Ke5, he can indeed do this: 1...Kf7 2 Ke4 (if 2 Kf4 then 2...Kf6 at once, while if 2 Kd5 then 2...g5 3 hxg5 Kg6 4 Ke4 Kxg5 and we have **1.6a** as below) Ke6 3 Kf4 Kf6 4 Ke4 (if White retreats to the third rank, Black takes the opposition and turns White's position at once) g5 5 hxg5+ Kxg5 (see **1.6a**) 6 Kf3 Kf5 7 Kg3 Ke5 8-9 Kxh5 Kc5 10 Kg4 Kxb5, and if White plays 11-13 Kd1 to try and reach the drawing square c1 Black can play to b2 and hold him off.

So the move must be **1 Kd5**, when there might follow **1...Kg7 2 Ke4 Kf6 3 Kf4 Ke7 4 Ke3** or **1...Kf7 2 Ke5 Ke7 3 Kd5 Kd7** (if instead **3...Kf6** then **4 Kc6** etc as in our opening discussion) **4 Ke5 Kc7 5 Kd5** etc. All this is summarized in diagram **1.6b**, and we see that if the Black king is on e6 or f6 White must take the close opposition on the fourth rank, whereas if Black is on e7 or f7 White must take either the *non*-opposition on the fifth rank or the distant opposition on the third. But once White has played to one of the squares marked in diagram **1.6b** he can continue to do so indefinitely (unless Black moves to f6 when White is on d5, in which case Kc6 forces the draw at once), while typical consequences of failing to do so have been seen in the various lines which followed 1 Ke5.

And we may notice the curiously two-edged nature of the pawns on b5 and a7. Without them, the position would be hopelessly drawn. Their presence gives Black reason to hope for a win, but by poisoning the square f6 against the Black king they enable White to hold out after all.