

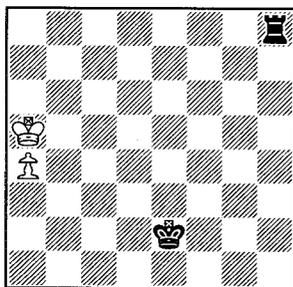
3. Rook studies

[It is noticeable that whereas most study composers are tempted by the easy rewards offered by the minor pieces, Mandler concentrates on the rook. Although it is much the most frequent protagonist in over-the-board endings, the rook is generally regarded as unpromising material for studies; rook studies may be deep and difficult, but they are unlikely to be entertaining. A reading of this chapter may correct this impression. Play with rooks can at least as subtle as play with other pieces, and more than one ending depends on reciprocal zugzwang: a climax perhaps more surprising here than in any other ending, because it might seem that the rook's freedom of movement puts any such ideas out of court. Mandler divides his rook studies into four groups: (a) rook against pawns, (b) studies with wPg6 and bPg7, (c) studies with wPe6/g6 or e7/g6 and perhaps also bPg7, and (d) other studies.]

A. Rook against pawns

My simplest rook study

3.1 (S359, RP10)
Revue FIDE 1959



White to move and draw

The natural opening move is 1 Kb6, covering the advance of the pawn right up to the seventh rank, but this is insufficient to draw. Play continues 1...Kd3 2 a5 Kc4 3 a6 Rh6+ 4 Kb7 Kb5 5 a7 Rh7+ 6 Kb8 Kb6 and Black wins. We now realize that while the move 1 Kb6 has permitted the rapid advance of the pawn, it has done nothing to prevent the approach of the Black king, which is attacking the pawn as early as the fourth move.

The White king must obstruct his

adversary. So we try 1 Kb4 Kd3 2 a5 Kd4 3 a6 Rb8+ 4 Ka5 Kc5 5 a7 Rh8, but again Black will win.

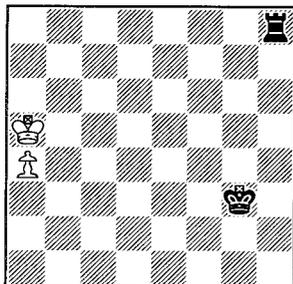
Correct is to start by choosing the middle way, 1 Kb5, and only after 1...Rh5+ to play 2 Kb4. Now 2...Kd3 3 a5 Kd4 4 a6 leaves the rook without a check from above, and after 4...Rh7 5 Kb5 Kd5 6 Kb6 the draw is assured. If instead 4...Rh8 5 Kb5 Rb8+, White must of course play not 6 Ka5 on account of 6...Kc5 etc, but 6 Kc6.

If Black plays 1...Rb8+, the White king must go once more to the c-file: 2 Kc6 Ra8 3 Kb5 Kd3 4 a5 Kd4 5 a6/Kb6 draw. The a-file is again the wrong choice: 2 Ka6 Kd3 3 a5 Kc4 4 Ka7 Rb1 5 a6 Kc5/Kd5 and the Black king has arrived in time.

If Black plays 1...Kd3 2 a5 Rh5+, White again comes down to the fourth rank, 3 Kb4, and we have transposed into the play after 1...Rh5+.

If we shift the Black king to g3, as in diagram 3.1a on the next page, we have quite a different situation:

3.1a

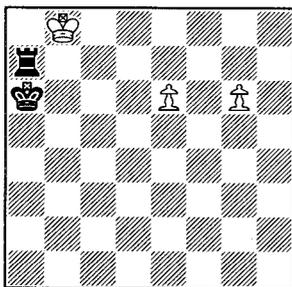


Now the drawing move is **1 Kb6**. This time White must meet **1...Rb8+** by **2 Ka7**, not **2 Kc6**, because the latter is answered by **2...Ra8** driving the White king back to b5. There follows **3 Kb5 Kf4 4 a5 Ke5 5 Kb6 Kd6** and again Black has arrived too soon: **6 a6 Rb8+** etc. But after **2 Ka7** White draws: **2...Rb1 3 a5 Kf4 4 a6 Ke5 5 Ka8 Kd6 6 a7**. The Black king has not been able to reach b6 in time.

The king marches from one wing to the other

3.2 (S360, RP4)

Československý šach 1960



White to move and draw

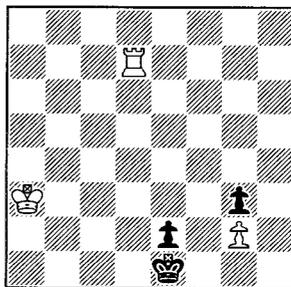
1 Kc8. If Black now plays **1...Re7**, White replies **2 g7 Rxc7 3 Kd8** with an easy draw. Black therefore tries **1...Kb6**. Now **2 g7** fails against **2...Kc6 3 Kd8 Kd6 4 Ke8 Rxc7** etc. Correct is **2 Kd8 Kc6**

3 Ke8 (3 e7? Ra8 mate) **Kd6 4 e7** (a decisive sacrifice, crystal clear) **Rxe7+ 5 Kf8 Ke6 6 g7 Rf7+ 7 Kg8 Rf1** (7...Kf6 8 Kh8 Rxc7 stalemate) **8 Kh7 Rh1+** (8...Kf6 9 g8N+) **9 Kg8** (9 Kg6? Rg1+ 10 Kh7 Kf7) **Kf6 10 Kf8 Ra1 11 g8N+** and draws.

A careless first step would give the enemy king a shelter

3.3 (S361)

Československý šach 1950



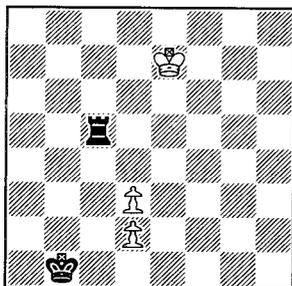
White to move and draw

The move **1 Kb3** would be a decisive mistake: **1...Kf2 2 Rf7+ Kxc2 3 Re7 Kf2 4 Rf7+ Ke3 5 Re7+ Kd2 6 Rd7+ Kc1 7 Rc7+ Kb1 8 Re7 g2** and Black wins. By his first move, White has allowed the Black king to find shelter from the rook's checks on b1.

Correct is **1 Kb2** followed as before by **1...Kf2 2 Rf7+ Kxc2 3 Re7**, and if now **3...Kf2** then **4 Rf7+ Ke3 5 Re7+ Kd3 6 Rd7+ Kc4 7 Rc7+ Kd4 8 Rd7+ Kc5 9 Rc7+ Kd5 10 Re1** (10 Rd7+? Kc6/Ke6 and wins) **Kd4 11 Kc2** and draws. Alternatively, **3...Kf3 4 Kc2/Kc3** (now **4 Rf7+?** fails to **4...Kg4** and either **5 Re7 g2 6 Kc2 Kf4** or **5 Rg7+ Kf5) g2 5 Kd3! Kf4** (5...g1Q **6 Rf7+** and **7 Rg7+)** **6 Rf7+ Ke5 7 Rg7 Kf6 8 Kxe2 Kxc7 9 Kf2** draw. The finish is dramatic.

A sudden transition from urgency to tempo play

3.4 (S362, RP2)
Prager Prese 1932



White to move and draw

In this five-man study we encounter a position of reciprocal zugzwang, together with the theme of transition from urgent manoeuvring to tempo play.

Black threatens ...Rd5. White must prevent this, which limits his choice of first move to Kd6 or Ke6. 1 Kd6 has the advantage of attacking the Black rook, but this advantage means little; even after 1 Ke6 the Black king will not be able to make two moves in succession, because the White pawn will attack the rook. The disadvantage of 1 Kd6 is seen after 1...Rc8, when 2 d4 is met by 2...Rd8+ forcing the White king to come down to the fifth rank. After the correct move **1 Ke6** this continuation is no longer effective, because White can meet 1...Rc8 2 d4 Rd8 by 3 d5 and the pawn is one rank further forward. And if 1...Kc2 White plays 2 d4 and thereby gains an important tempo, leading for example to 2...Rc6+ 3 Ke7 Kd3/Rc8 4 d5 and so on.

Black therefore plays **1...Rc6+**, and White again has to decide whether to put his king on to the d or the e file. The moves 2 Kd7/Ke7 are ruled out by 2...Rc2. And once again the occupation of the d-file (2 Kd5) is faulty, though this time not on account of 2...Rc8, which is

refuted as in the main line, but because of 2...Rc2 3 d4 Rxd2 4 Kc5 (again the White king is held down to the fifth rank) Kc2 5 d5 Kd3 6 d6 Ke4 7 Kc6 Ke5 with a Black win.

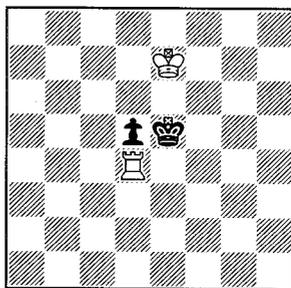
So White plays **2 Ke5** (2...Kc2 3 d4 Rc8 4 d5 etc), and he meets 2...Rc8 by **3 d4**. But his position still seems hopeless. Black can again prevent the White king from advancing beyond the fifth rank, by 3...Re8+ and 4...Rd8(+), and we already know that the resulting position is bad for White. What can we do now?

At this point we must appeal to a study by Réti, on which the present study was based.

A four-man study featuring reciprocal zugzwang

3.5 (S363, RP3)
by Richard Réti
Tijdschrift 1922,

Münchener Neueste Nachrichten 1928



White to move and win

This study is unsound according to normal criteria. However, Réti deliberately chose the present setting, even though conventionally sound alternatives were available, because of its simplicity and charm. He was not worried about the inaccuracy at move 1, because in his opinion White's first and second moves should be treated as a unit, and no other realization was as cogent as

this little four-man position.

Why does 1 Rd1 not work? Because Black replies 1...d4, and we have a position of reciprocal zugzwang.

In order not to have to move in this position, White starts by playing **1 Rd3** or **1 Rd2**, and only after **1...d4** does he play **2 Rd1!** On 2...Kd5 there follows 3 Kd7, with 3...Ke5 4 Kc6 Ke4 5 Kc5, or 3...Kc5 4 Ke6, or 3...Ke4/Kc4 4 Kd6, and White wins in each case.

Conversely, after 1 Rd1? Black draws by 1...d4, with 2 Kd7 Kd5 3 Kc7 Kc5, or 2 Kf7 Ke4 3 Ke6 d3, or 2 Rd2 Ke4 3 Kd6 Ke3 4 R-- d3, or 2 Rh1 d3.

It is a magical setting of reciprocal zugzwang and tempo play using only four men.

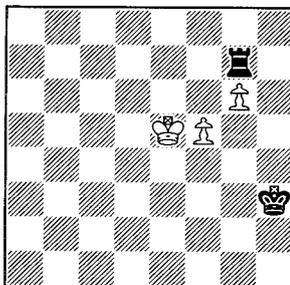
Now let us return to study 3.4. After **1 Ke6 Rc6+ 2 Ke5 Rc8 3 d4 Re8+** we follow the example of Réti and play **4 Kd5! Rd8+ 5 Kc4! Kc2 6 d5**. If instead Black tries 4...Kc2, we naturally reply 5 Kc6 Kd3 6 d5 Kd4 (6...Rc8+ 7 Kd7 Rh8 8 d6, but not 7 Kb7 on account of 7...Rd8) 7 d6 Ke5 8 d7.

The pawn on d2 normally vanishes in the course of the play, but it is needed if Black tries to tempo by playing 5...Kc1 (6 d5 Kc2 7 d3/d4). But even the presence of this pawn doesn't help White if he chooses the wrong line: 1 Kd6? Rc8 2 d4 Rd8+ 3 Kc5 Kc2 4 d5 Kd3 5 d6 Ke4 6 d4 Kf5 7 Kc6 Ke6 8 d5+ Kf7 9 d7 Ke7 10 d6+ Ke6.

An ingenious rook manoeuvre

3.6 (S364)

Revue FIDE 1961



White to move and win
(a) diagram, (b) kK on h4

There are two obvious lines of attack here, 1 f6 and 1 Kf6, and an alert solver is bound to ask himself why a move which works in one part does not also work in the other. He cannot therefore miss the ingenious manoeuvring by the Black rook which is an integral part of the study.

In the diagram position, 1 f6? fails as follows: 1...Rxf6 2 f7 Rg5+ 3 Ke4 Rg4 4 Ke3 Rg3+ 5 Ke2 Rg2+ 6 Kf1 Rg4 7 f8Q Rf4+ 8 Qxf4 stalemate. Correct is therefore **1 Kf6**, and if 1...Rg8 then either 2 Kg5 or 2 Kf7.

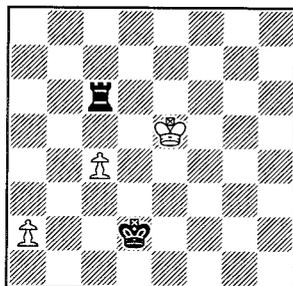
With the Black king on h4, **1 f6** is correct: **1...Rxf6 2 f7 Rg5+ 3 Ke4 Rg4+ 4 Ke3 Rg3+ 5 Ke2!** (5 Kf2 Rg5 6 f8Q Rf5+) **Rg2+ 6 Kf1** and White wins. Conversely, 1 Kf6? Rg8 2 Kf7 (2 g7 Kg4) Ra8 3 g7 Kg5 4 f6 Kf5.

[Mandler doesn't mention 2 Kf7 in part (a), giving only 2 Kg5 (which is of course sufficient), and I have slightly altered his text so as to bring out the differentiation after it.]

Two similar barriers

3.7 (S365)

Revue FIDE 1958, version



White to move and draw
(a) diagram, (b) wPa2 on a3

In these two studies, the White king joins forces with his pawns to create a barrier to delay the Black king. In part (b), the barrier is one rank higher than in (a).

Which move is correct, 1 Kd4 or 1 Kd5? One works in one case, the other in the second. By finding where the difference lies, the solver arrives at the correct solutions.

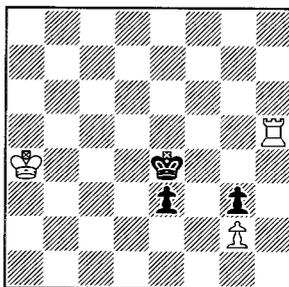
In the diagram position, **1 Kd4 Rd6+ 2 Kc5** and White draws, for example 2...Rd8 3 Kb6 etc, or **1...Kc2 2 c5** and the White king can keep the Black at bay thanks to the fact that the pawn on a2 covers b3. 1 Kd5? would be faulty, because after 1...Rc8 2 c5 Kc3 3 a3 Kb3 the Black king has managed to cross the third rank in good time: 4 c6 Ka4 5 Kd6 Kb5 6 a4+ Kb6 7 a5+ Ka7 8 Kd7 Kb8 and Black wins.

With the pawn on a3, this procedure is not possible: 1 Kd4? Kc2 2 c5 Kb3 3 Kd5 Rc8 4 Kd6 Ka4 5 c6 Kb5 and Black wins as above. But perhaps we can try to construct the same barrier, but one rank higher? We can indeed: **1 Kd5 Rc8 2 c5 Kc3 3 c6** and the task is accomplished.

White gradually strengthens the attack, and Black the defence

3.8 (S367, RP21)

Československý šach 1950



White to move and win

White may be a rook up, but he has to proceed very circumspectly in order to clinch the win.

Let us start by trying some rook moves. After 1 Rh8 e2 2 Kb3 Kc3 we see that Black has not only held the draw, he is even going to win: 3 Re8+ Kf2 4 Rf8+ Kxg2 5 Re8 Kf2 6 Rf8+ Ke3 7 Re8+ Kd2 8 Rd8+ Kc1 9 Rc8+ Kb1 10 Re8 g2 etc. We know most of this from study 3.3.

All right, try 1 Rh1. But after 1...Kd3 2 Kb3 e2 3 Ra1 Kd2 White is again lost.

We have been playing 2 Kb3 automatically, as if no other move came into consideration. But this move is not good.

So let's try again: 1 Rh1 Kd3 2 Kb5(?) e2 3 Kc5 Kd2 4 Kd4 e1Q 5 Rxe1 Kxe1 6 Ke3 and White wins. It seems as if we are on the right path. But we still need to look at the variation 1 Rh1 e2 2 Kb5 Kc3, and here 3 Kc4 is not good enough, for example 3...Kf2 4 Kd3 Kxg2 5 Re1 Kf3 6 Rxe2 g2 and Black draws.

Where did White go wrong? He should have played 2 Kb4, instead of Kb5, so as to have Kc3 available at move 3: 1 Rh1 e2 2 Kb4 Kc3 3 Kc3 Kf2 4 Kd2

Kxg2 5 Rh8 and White wins.

If White can sharpen the attack, Black can sharpen the defence. After 1 Rh1 e2 2 Kb4 he interpolates 2...Kd3, and only after 3 Kc5 does he play 3...Ke3. Now the White king has been prevented from reaching c3 in time. And at first sight it appears that 4 Ra1/Rb1 do not help, because there follows 4...e1Q 5 Rxe1+ Kf2 and Black will draw after any rook move. But White need not move the rook; he can play 6 Kd4 Kxe1 7 Ke3, with an easy win.

However, Black has another trick up his sleeve. He can revert to his original first move, 1...Kd3, and then answer 2 Kb4 with 2...Ke2! Now 3 Kc3 is met by 3...Kf2 4 Kd3 Kxg2 5 Rh8 (5 Ra1 Kf2!) Kf2 6 Rf8+ Ke1 with a draw.

But this need not alarm us. We simply interchange White's first and second moves, and play 1 Kb4 e2 2 Rh1 Kd3 3 Kc5 etc. We must just be careful, if Black plays 1...Kd3, to play not 2 Rh1 (on account of 2...Ke2) but 2 Kc5, ready to meet 2...Ke2 by 3 Kd4.

So the solution unfolds **1 Kb4 e2 2 Rh1 Kd3** (2...Ke3 3 Kc3 Kf2 4 Kd2 Kxg2 5 Rh8 etc) **3 Kc5 Kd2** (3...Ke3 4 Ra1/Rb1 and either 4...Kf2 5 Kd4 etc or 4...e1Q 5 Rxe1 Kf2 6 Kd4) **4 Kd4**.

At the start, the White king had a choice between three apparently equivalent moves. We have established that only 1 Kb4 wins. Nor perhaps is it without interest that even the two remaining moves are not truly equivalent; 1 Kb5 does at least hold the draw, whereas 1 Kb3 loses.

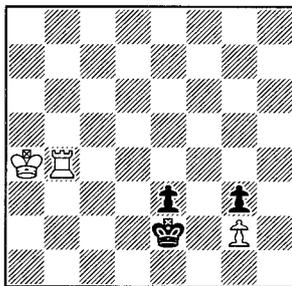
[Readers who are following this study with the aid of a computer may find themselves a little confused when they get to paragraph 5, 1 Rh1 Kd3 2 Kb5 etc. The computer gives 2...Ke2 as a draw in this line as well, so 1...Kd3 is in fact a good move, and it is not immediately obvious why Mandler should abandon it and transfer his attention to 1...e2. All becomes clear three paragraphs later.

The computer's speed, and its infallibility within its calculation horizon, are invaluable, but it is also interesting to see how a human analyst sorts out the true trails from the false and gradually arrives at the same conclusion.]

Something quite simple for a change

3.9 (S368)

FIDE Revue 1956



White to move and draw

The diagram recalls study 3.3. Would it not be possible to draw by the same means? In that study, the Black e-pawn was already on the second rank, so it would appear to be a simple matter to achieve the same end here where the pawn is only on the third rank. But the truth is that whereas Black is only one tempo behind his position in study 3.3, White is two tempi behind, albeit less obviously: his king is on the fourth rank and so requires two moves rather than one to attain the second rank and deny the Black king a shelter, while the rook must use a move to get to the seventh or eighth rank and so place itself at a sufficient distance to keep checking.

In fact the way to draw is much simpler. White must start by choosing between 1 Kb3 and 1 Kb5. 1 Kb5 is easily refuted by 1...Kf2. Correct is **1 Kb3**, meeting 1...Kf2 by 2 Rf4+ Kxg2 3 Kc2 Kh3 4 Kd3 g2 5 Rf8 etc.

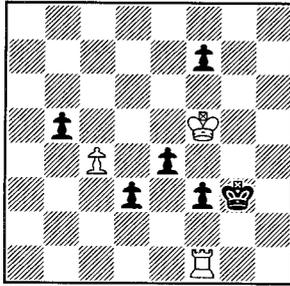
But what do we do after **1...Kd3**? Now

it seems that the rook must be on the seventh or eighth rank or the king on the second, in order to allow White to draw as in the previous study. But in fact the play is quite different. Correct is **2 Rd4+**. Black must take the rook, and the capture leaves him without a win: **2...Kxd4 3 Kc2 Kc4 4 Kd1 Kd3 5 Ke1 e2 stalemate.**

The White king staggers out of one check into another

3.10 (S370)

Rudé právo 1958



White to move and win

1 Kxe4 (1 cxb5? e3!) **f5+** **2 Kxd3**. The move **2 Ke3?** would give Black an important tempo by **2...f4+**, and would forfeit the win: **3 Kxd3 Kg2 4 Rxf3** (other rook moves are met by **4...bxc4+**, and **4 cxb5** by **4...Kxf1**) **Kxf3 5 cxb5 Kg2 6 b6 f3 7 b7 f2. 2...bxc4+**. Now **2...Kg2** does not draw, because Black lacks the tempo **f5-f4** in comparison with the preceding line: **3 Rxf3 Kxf3 (3...bxc4+ 4 Ke2** with a simple win) **4 cxb5 f4 5 b6 Kg2 6 b7 f3 7 b8Q** etc. **3 Ke3**. One move ago, we could not allow the move **...f4+**; now, we want to provoke it, because it will block a crucial square against Black's king. **3 Kd2** at once is defeated by **3...c3+ 4 Ke1 c2 5 Rg1+ Kf4 6 Kf2 Ke4. 3...f4+ 4 Kd2 c3+**. Every White move so far has exposed him to check. **5 Ke1 c2 6 Rg1+ K-- 7 Kf2** and wins.

B. Rook studies with wPg6 and bPg7

In the next two sections, we examine rook studies with two particular pawn configurations: (a) a White pawn on g6 facing a Black on g7, and (b) a White pawn on e6 or e7 and a second one on g6, sometimes also with a Black pawn on g7. It is a matter of systematic examination, of studies as the fruit of analysis. There are composers who disdain this way of working, and attach value only to "goal-inspired" or "artistic" studies. These are compositions where the solver does not need to subject the position to a fundamental analysis, but rather to seek out ideas and manoeuvres which are not natural to it and which the composer has in a sense forced into it. Some regard composition in this style as in some way a higher artistic activity, and they look down on analysts and the "analysis-inspired" studies they produce.

The majority of composers are capable of working in either mode, though most find themselves more at home in one than in the other. So let us be glad that both kinds of composition give artistic satisfaction, and let us look on both without prejudice.

Analysis-inspired and goal-inspired studies cannot always be differentiated at first sight, but studies of the first kind usually employ less material, they are more difficult to solve, and often they make a contribution to endgame theory. The theme of a goal-inspired study is usually presented more incisively, and an idea which cannot be realised in a simple form can sometimes be mastered by using additional material.

Richard Réti expresses himself on the question thus (*Sämtliche Studien*, 1931, p. 10): "There are two ways to compose studies. A) We can take a simple and interesting position, discover what lies behind it, and present this in a refined form: artistic, economical, and clear. B) We can start from a predetermined

climax, say a mate, stalemate, or reciprocal zugzwang, and compose a lead-in to it. The second way of working does not greatly appeal to me, though I have sometimes indulged in it."

[If Mandler were writing today, he would be even more distressed at the small number of analysis-inspired studies that are published. Yet I have not personally found that composers and commentators look down on them, quite the reverse in fact, and I suspect that the reason for their paucity is quite different: it is that this mode of composition is so difficult that few have the knowledge, ability, and perseverance required to succeed in it. My own studies have been almost entirely goal-inspired, and while none is a masterpiece they have at least given a certain amount of pleasure to my friends. But if I were asked to produce the sort of thing that Mandler achieves so splendidly in the next twenty pages, I would not even know how to start.

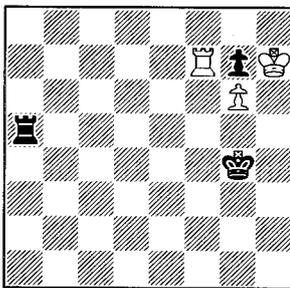
At a technical level, there was a translation difficulty here. Mandler's actual terms translate as "analytic" and "combinational", but "combinational study" is not a term we use in English and it could be argued that studies are necessarily combinational whatever the reasons that have prompted their creation. My terms "analysis-inspired" and "goal-inspired" are undesirably clumsy, but they do encapsulate the distinction that Mandler is making.

It should also be noted that Mandler quotes Réti in Czech, and that it is Mandler's quotation which I have translated here. However, Chris Feather has kindly given me a direct translation of Réti's original German, and I am glad to say that the two are not significantly at variance.]

Start with the move that
will be needed anyway

3.11 (S371)

Československý šach 1950



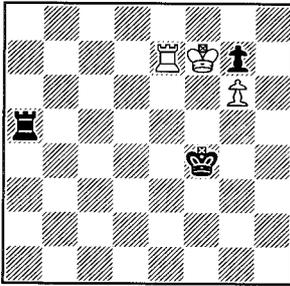
Black to move and draw

Black cannot save his own pawn, so he must go after White's. To do this, he must play 1...Kg5/Kh5 followed by 2...Ra6, or perhaps the other way round. It is not obvious at first sight which of the king moves is better, but ...Ra6 will be needed in any case. In such a case, we shall not normally go far wrong if we start by playing the move which will definitely be needed, and put off the choice between the other moves until later.

In fact we have here 1...Kg5? 2 Rxc7! Ra6 3 Rb7 and wins, or 1...Kh5? 2 Kxc7 Ra6 3 Rf5+ (2...Rg5 3 Rf6). But after 1...Ra6 we have 2 Kxc7 Kg5 drawing, or 2 Rxc7 Kh5. If 2 Rb7 then again 2...Kg5 (2...Kh5? 3 Rb5+, 2...Kf5? 3 Rxc7).

A very similar case

3.12 (S372)
Revue FIDE 1956



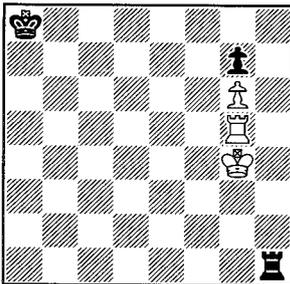
Black to move and draw

The solution to this study is similar, but the motivation for the moves is different.

1...Kf5? 2 Rb7!; 1...Kg5? 2 Kxg7!
 1...Ra6! 2 Kxg7 Kf5, 2 Rb7 Kg5
 3 Rb5+ Kh6.

A mating attack

3.13 (S373, RP22)
Československý šach 1950



White to move and win

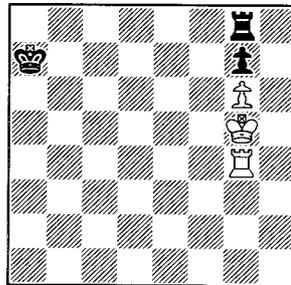
1 Rd5 Rg1+ (there is no other way of meeting the threats ...Rd8+ and ...Rd7)
 2 Kf5 Rf1+ 3 Ke5 Re1+. It appears that White cannot now play 4 Kd6 on account of 4...Rg1. However, White continues 5 Kc7 and threatens mate. There follows 5...Rc1+ 6 Kd7 Re1 7 Rd6

and White will win the Black pawn, for example 7...Kb8 8 Kd8 (threat 9 Rd7) Rg1 9 Ke8 etc.

White protects his pawn by a mating attack, and this pawn then secures him the victory.

White's first move deliberately loses a tempo

*3.14 (S374, RP23)
Československý šach 1950



White to move and win

The natural first move is 1 Rf4. Correct is however 1 Re4. Why?

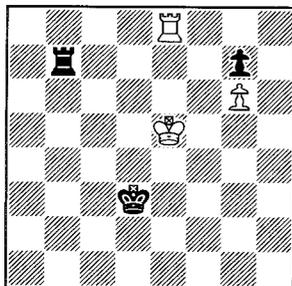
Let us try 1 Rf4. Play continues 1...Kb6 2 Rf7 Kc6 3 Kf5 Kd6, and White has to move. If he tries 4 Ra7, Black replies 4...Rf8+ (5 Ke4 Ke6, or 5 Kg5 Rf1/Rg8). White wins only if he can reach the position after 3...Kd6 with Black to move: in other words, he must lose a tempo. This is done by playing 1 Re4 Kb6 2 Re7 Kc6 3 Kf5 Kd6 4 Rf7. Now the "unwelcome obligation to move" rests on Black, and he loses: for example, 4...Kd5 5 Rd7+ Kc7 6 Ke6 etc.

But cannot Black lose a move in reply? No, because he cannot afford to let the White king attain the e-file.

If instead 1 Rd4? then 1...Kb6 2 Rd7 Kc6 and the rook must make a decision. If it moves to f7, Black can play 3...Kc5 followed by 4 Kf4 Kd5 or 4 Kf5 Kd6 (of course 3...Kd5 also works), and if it goes to e7 or a7 Black replies 3...Kd6.

A win that is harder than it seems

3.15 (S378, version)
Práce 1952, version



White to move and win

If White tries 1 Ke6 threatening 2 Re7, Black can reply 1...Ke4. 2 Re7 can now be met by 2...Rb6+ 3 Kf7+ Kf5 with a draw. Better is 1 Rf8, with the continuation 1...Ke3 2 Rf7 Rb5+ 3 Ke6 and wins. But the win is not as simple as it appears. Black can continue 3...Ke4, and White must not capture at once since 4 Rxg7 Rb6+ 5 Kf7 Kf5 is only a draw. Instead, he must play 4 Ra7/Rc7, and now the threat of Kf7 and Kxg7 leaves Black helpless.

But Black can strengthen the defence. He interpolates 1...Re7+, and now neither 2 Kd6 works (2...Ra7 3 Ke6 Ke4) nor 2 Kf5 (2...Kd4 3 Rf7 Re5+). White must play 2 Kd5, and if 2...Ke3 then 3 Rf7. But the win is still far from easy. Black plays 3...Re8, and the pawn will remain taboo for some time. Its immediate capture is refuted by 5...Kf4. Correct is 4 Kd6, and the threat of exchange forces the Black rook to leave the e-file. Relatively best is 4...Re8. We know that White cannot continue 5 Ke6 at once on account of 5...Rc6+ 6 Kf5 Rc5+ 7 Kg4 Rc4+ 8 Kg3 Ke4 etc, hence 5 Kd7, and only after 5...Ra8 does he play 6 Ke6. Now that the rook is on the a-file, the check on the rank leads nowhere (the previous line 6...Ra6+

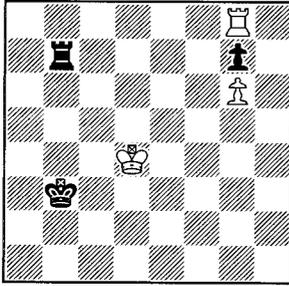
7 Kf5 Ra5+ 8 Kg4 Ra4+ 9 Kg3 Ke4 now loses to 10 Rf4+), and after 6...Ke4 7 Rb7 Rf8 White can at last take the pawn: 8 Rxg7 Kf4 9 Rf7+ and the rooks will be exchanged.

[This was originally set with the White rook on h8 and the Black on c7, with the additional point that an immediate 1 Rf8 would fail (1...Rc6 2 Kf5 Ke3 3 Rf7 Rc5+ 4 Kg4 Rc4+ 5 Kg3 Ke4 6 Rxg7 Kf5) and White had to play 1 Re8 first. This threatened 2 Ke6, intending 3 Re7 and if 2...Ke4 then 3 Kd6+ and 4 Kxc7, so Black apparently had to play 1...Ra7/Rb7 and we had the diagram position. But the computer has shown that 1...Rc5+ gives Black a draw: 2 Kd6 Kd4 3 Re7 Rf5 4 Kd7 (4 Rxg7 Rf6+) Rg5 5 Re6 (5 Rxg7 Ke5) Kd5 6 Ke7 Rf5 and Black will hold out, or 2 Ke6 Ke4 3 Kf7+ (3 Re7 Rc6+ 4 Kd7+ Kd5 5 Rxg7 Re6) Kf5 4 Kxg7 Rc6, or 2 Kf4 Rc4+ 3 Kf5 (3 Kf3/Kg3 Rc6) Rc5+ 4 Re5 Re7 and 5 Re8 will be met by a further check on c5. There are several lines where White wins the pawn, but none where he wins the game.

So this important introductory move must be left off, and it is a very moot point whether Mandler would have wanted the study to be presented in its present truncated form. My feeling is that he might well have preferred to suppress it, but the win from this position is referred to in the next study, and it is easier to present it as a separate preliminary item than to blend the necessary analysis into the later text.]

Something which we have already met
appears as a try

3.16 (S382, RP35)
Československý šach 1954



Black to move and draw

After 1...Kc2 2 Ke5, the solver will probably start by playing 2...Kd3. But in this position we know that 3 Rf8 wins for White (see the preceding study).

Surprisingly, 2...Kd3 would succeed if the White king had already reached on e6. In that case, 3 Rf8 could be answered by 3...Ke4.

The solution therefore unfolds 1...Kc2 2 Ke5 Re7+ (an improbable continuation) 3 Kd5 (3 Kf5 Kd3 4 Rf8 Kd4) Ra7 (not 3...Rb7 4 Rd8 Kd3 5 Kc6+) 4 Ke6 Kd3.

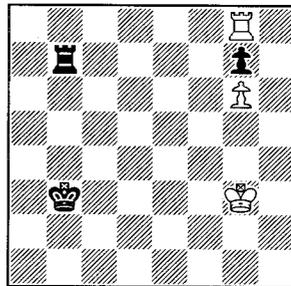
This is one of those studies which are easier to solve than to explain satisfactorily.

[In his text to this study in *64 studii z oboru věžových a pěšcových koncovek*, Mandler addresses the question as to whether a “try”, a study which is hidden within another and is encountered only if the solver of the latter goes down a false trail, can be regarded as of equivalent value to a study presented in the normal way. This question has attracted much attention in the problem field, where composers in the so-called “modern” style expect solvers to go to considerable trouble to seek out moves which do not in fact solve the problem. As regards

studies, Mandler says Yes, a study which appears only as a “try” within another study can be regarded as a fully-valued component of the latter provided that there is no risk that the solver will overlook it, though he will have nothing to do with the so-called “try” which the solver sees only after the composer’s commentary has explicitly drawn his attention to it. But this is a composer’s viewpoint, and the general enthusiast looks at things a little differently. In a “try”, White plays plausibly but wrongly, and Black defeats him by playing well. In the actual solution, White plays correctly, and Black fails; but unless White plays *better* in the actual solution than Black has done in refuting the try, the solver or reader is left with a feeling of anticlimax. In theory, it is entirely possible for a study “White to play and win” to contain one or more high-quality internal studies “Black to play and draw” which come into effect if White makes the appropriate wrong move. In practice, the feat is extremely difficult to bring off, and truly satisfying examples are rare.]

The White king must
choose the middle way

3.17 (S383, RP34)
Československý šach 1954



White to move and win
(a) as set, (b) with wK on e3

It is obvious that the White king must

approach the pawns. Which square should he choose?

In (a), the natural move would seem to be 1 Kf4. But there follows 1...Kc4 2 Rf8 Kd5 3 Rf7 Rb1 4 Rxc7 Ke6, and we see that we have made a wrong choice. White needs to play 5 Rf7 to keep the Black king from the pawn, and this fails on account of 5...Rf1+.

Nor is 1 Kh4 correct. Black refutes this by playing 1...Kc4 2 Rf8 Kd5 3 Rf7 Kc6.

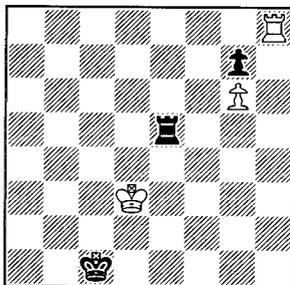
Correct is 1 Kg4 Kc4 2 Rf8 Kd5 3 Rf7, when 3...Rb1 4 Rxc7 Ke6 5 Rf7 and 3...Kc6 4 Rxb7 both win.

In (b), where the White king is on e3, he must again take the middle way. We have just seen that 1 Kf4 fails, and we know from the preceding study that 1 Kd4 Kc2 is drawn. This leaves only 1 Ke4, and play continues 1...Kc4 2 Rc8+ Kb5 3 Ke5/Kd5 or 1...Kc3 2 Rf8 Re7+ 3 Kd5 etc.

[Mandler later added a third part to this, leaving the White king on e3 and moving the Black to c2 (*Revue FIDE* 1956), with the intention that White can now play to the discredited square f4 because the Black king is too far away from the pawns for the previous refutation to work. But while it is true that the alternative king moves 1 Ke4 and 1 Kd4 do not work, White has an alternative and not uninstructional win by 1 Rc8+, pushing the Black king still further form the scene of action. Moving to the b-file is clearly bad, hence 1...Kd1, and now comes 2 Kf4 Ke2 3 Rf8 Rb4+/Rb6 4 Kg5 Rb5+ 5 Rf5 Rb8 6 Rf7 Rg8 7 Kf4 and so on.]

The logical approach

3.18 (S384, RP13)
Československý šach 1956



White to move and win

Sometimes, a chess problem can be solved by logic. We shall see an example later (study 3.29) where successive trials gradually lead the solver to the right path. Here also we shall see "Probespiel", "Plan", and "Vorplan". These German terms are in common use because the Germans take a particular delight in such scientific dissection, particularly in the field of problems. But the logic often serves more to explain the solution once it has been found than to take the solver down the logical yet difficult path towards it. This is certainly true of the present study. Hardly anyone will find the solution by actually applying the logic, but I shall try to explain logically how a solver could arrive at it.

It is clear that White must capture the Black pawn. In itself, this is very easy; after 1 Rc8+ and 2 Rc7 the pawn is duly lost. But this is not enough to win the game. After 1 Rc8+ Kd1 2 Rc7 Ke1 3 Rxc7 Black will continue 3...Kf2 4 Rf7+ Kg3 5 g7 Rg5 6 Ke4 Kg4 7 Rf1 Kh3 with a draw.

From this trial play ("Probespiel") it should be possible to obtain a clue which will direct us towards the true procedure. This may not be easy, because the solver will discern several possible clues, and he

will have to decide which of them point to fundamental obstacles and which to difficulties that can be removed by better play.

In the trial which we have just seen, Black had the advantage that his king could proceed without interruption to the g-file whereas the White king was prevented by the Black rook from crossing the e-file. This is the stumbling block. To overcome it, we must lure the Black rook away from the e-file. This will be our "Vorplan" (foreplan). Our ultimate objective is of course to capture the Black pawn under more favourable conditions.

If we play **1 Rc8+ Kd1 2 Rf8 Ke1 3 Rf4**, we achieve the aim of diverting the Black rook, which must leave the e-file because of the threat **4 Re4+**. But alas Black has **3...Rg5**, and there can no longer be any talk of a White win.

So before we proceed to our "Vorplan" (to expel the Black rook from the e-file) we must first force it to move to a rank from which it cannot retreat to the g-file. Only the seventh rank fulfils this requirement. We have therefore two foreplans, firstly to lure the Black rook to the seventh rank, and then to lure it away from the e-file.

The first move is therefore **1 Rg8**, forcing the reply **1...Re7**. This procedure may seem pointless, for instead of capturing the Black pawn by **1 Rc8+** and **2 Rc7** we force Black to defend it. But we know why we have lured the Black rook to an apparently favourable square. In a few moves its defensive possibilities will be limited. **2 Rc8+ Kd1 3 Rf8 Ke1 4 Rf4**. All according to plan. The Black rook must now quit the e-file, and relatively best is **4...Rc7**. If Black plays **4...Ra7/Rb7**, White will have the choice of **5 Rf7** and **5 Ke4**, but with the rook on the c-file **5 Ke4** is met by **5...Rc6 6 Kf5 Ke2 7 Kg5 Ke3 8 Rf7 Rc5+ 9 Kg4 Rc4+ 10 Kg3 Ke4** (this move is unplayable with the rook on the a- or b-file)

11 Rf4+ Kd5 12 Rxc4 Kxc4 or **7 Re4+ Kf3 8 Re7 Rc5+ 9 Ke6 Rc6+ 10 Kf7 Kf4 11 Kxg7 (11 Ra7 Kg5) Kf5**. White therefore plays **5 Rf7 Rc6 6 Rxc7 Kf2 7 Ke4**. We have achieved the aim of our second Vorplan, and the White king has come up in time to protect his pawn. **7...Kg3 8 Kf5** and White wins.

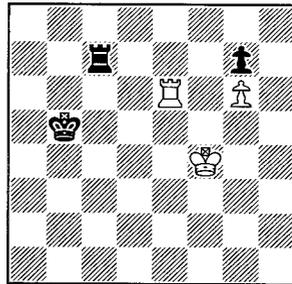
But does the study not contain a dual, in that **4 Rf3** is just as good as **Rf4**? No, because Black has **4...Rd7+ 5 Ke4 Rd6 6 Kf5 Rf6+**. With the White rook on **f4**, the move **6...Rf6+** doesn't help.

If Black tries the b-file at move 2, **1 Rg8 Re7 2 Rc8+ Kb1/Kb2**, White guards his pawn by **3 Rc6** and wins relatively easily.

[Mandler's text in *Studie* is somewhat different from that in *64 studií z oboru věžových a pěšcových koncovek*, and I have incorporated elements from both.]

Surprising tempo play

3.19 (S385, RP29)
Československý šach 1955
 Correction *Deutsche Schachzeitung*
 1962



White to move and win

This position will feature tempo play. Why do I call this surprising? Because the pieces are freely placed and both sides have a wide choice of move.

The incorrect move **1 Ke5** leads to **1...Kc5 2 Re8 Rc6 3 Kf5 Rf6+ 4 Kg5 Rf1 5 Re7/Rg8 Kd6 6 Rxc7 Rg1** with a

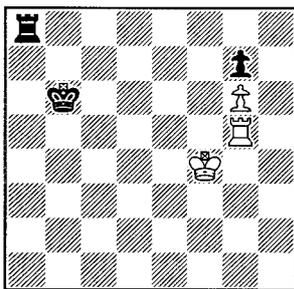
draw.

Correct is **1 Kf5! Kc5 2 Ke5** and now it is Black who has to move. It seems that a move such as **2...Ra7** will be harmless, but in fact it allows White an important tempo-gaining check; after **3 Re8 Ra6** he can insert **4 Rc8+**. Now the Black king will be one file further away from the pawns, and after **4...Kb5 5 Kf5 Rf6+ 6 Kg5** the move **6...Rf1** will lead to a lost ending. True, Black can try **6...Rc6**, hoping for **7 Rf8 Kb6 8 Rf7 Rc5+** and the White rook will block its king's advance to the seventh rank, but this lets White play **7 Rb8+** and push the Black king yet one file further away from the pawns. Black must play **7...Ka6** (else **8 Rb7**), and both **8 Rf8** and **8 Rg8** win easily.

[Mandler overlooked **7 Rb8+**, and I have altered his text to accommodate it. He played **7 Rf8**, which does in fact win (it's the subsequent **8 Rf7** which would be bad), but it is markedly less straightforward.]

An unusual twin

*3.20 (S386, RP28, version)
Práce 1952, version



White to move and win
(a) as set, (b) with bK on b7

The White rook has two natural ways of attaining the seventh rank: by **e5** and **e7**, or by **f5** and **f7**. It hardly seems likely that the position of the Black king will make a

difference, but so it proves; one route is necessary if the king is on **b6**, the other if it is on **b7**.

With the king on **b6**, White plays **1 Re5**, and after **1...Rc8 2 Re6+** he will soon have access to the pawns. Black can improve on this by interpolating **1...Rf8+** pushing the White king one square further away, but it is not enough: **2 Kg5 Rc8 3 Re6+ Kb7 4 Kf5** and the White king will still get through.

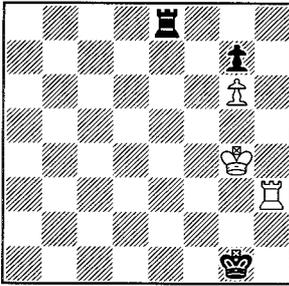
The disadvantage of **b6** lies in permitting the check **Re6+**. If instead White plays **1 Rf5**, Black draws by **1...Rc8**, meeting **2 Rf7** by **2...Rc4+**.

If the king is on **b7**, the correct move is **1 Rf5**. If Black plays **1...Rc8** as before, the reply **2 Rf7+** now gives check, and after the necessary reply **2...Rf7** the rook will be pinned and White has gained a crucial tempo. If instead White tries **1 Re5**, the line **1...Rc8 2 Re7+ Rc7** leaves him a tempo behind.

[Mandler actually set this with the Black king on **a6**, Black to play and draw, with **1...Kb6** and **1...Kb7** refuted by **2 Re5** and **2 Rf5** respectively and intention **1...Rc8** (start with the move that will be needed anyway) and either **2 Re5 Kb7** or **2 Rf5 Kb6**, but in the latter case Black can interpolate **2...Rc6 3 Kg5** or **2...Rc4+ 3 Kg5** before moving his king to **b6** and this spoils the pattern. In any case, **3.20** is one of the most remarkable twin studies ever created by Mandler or any other composer, and it would have deserved a diagram to itself even had the attempted combination been sound. The contrast between the simple and apparently irrelevant change in the position and the complete difference in the solutions is very marked. There are some alternatives in the refutation play with the king on **b6** (Black can meet **1 Rf5** by **1...Ra4+** as well as by **1...Rc8**, and after **1...Rc8 2 Rf7** he has **2...Rc7** as well as **2...Rc4+**), but there is no inaccuracy in the play in the actual main lines.]

The White rook proceeds one step at a time

3.21 (S387, RP30)
Československý šach 1954



White to move and win

In this position, it is immaterial whether the Black king is on the first or second rank. What does matter is that we shift him from the g-file to the h-file. We therefore play **1 Rg3+**. Black cannot go to the f-file on account of **2 Rf3+** and **3 Rf7**, hence **1...Kh2**. Now **2 Rf3** threatens **3 Rf7**, and Black defends by **2...Ra8**, taking advantage of the fact that the blocking of f7 by the White rook will prevent his king from gaining access to the seventh rank. **3 Re3 Ra7 4 Kf5 Kg2**. Now we see how important it was to start by forcing the Black king to the h-file; if we had left it on the g-file, it could play ...Kf2 here, and Black would draw. **5 Ke6 Kf2 6 Rd3** and wins, there being no defence against Rd7.

1 Rf3 fails against **1...Ra8 2 Rf7 Ra4+**
3 Kf5 Ra5+ **4 Ke4 Ra4+** **5 Kd5 Ra5+**
6 Kd4 Rg5! (simplest) **7 Rxg7 Kg2 8 Ke4 Kg3**.

[Mandler composed both studies and problems, and at this point he turns aside to ask briefly whether a study composer adheres to certain aesthetic principles in the way that a member of a school of problem composition does. However, some of his remarks assume a knowledge of problems and their development which most of my readers will not have, and perhaps it is best if I ignore these and just summarize what he says about the composition of endgame studies.

Up to the time of writing (1970), he says, there have been no clearly defined schools of study composition, apart from the division into "analysis-inspired" and "goal-inspired" studies. However, almost everyone acknowledges a "law of economy", even if he attaches his own meaning to the term. In the case of "analysis-inspired" studies, the material is normally determined in advance, and so "economy of material" is automatic. In contrast, "economy of moves", the problemist's principle that a theme which can be realised in n moves should not be allowed to sprawl over $n+1$, is not regarded as a constraint, and a long solution is not necessarily regarded as transgressing the laws of economy. But a solution must not be prolonged merely in order to make a study more difficult; any extension must have a thematic reason, for example by making the selection of the correct first move dependent on a proper understanding of what happens right at the end. And where the reason for a particular opening move is to set the scene correctly for the finale, the further into the future this finale occurs, or in other words the longer the solution, the better.

Additionally, as and when they are possible, the composer will seek pure and economical climactic positions, and he will take pleasure in the artistic principle of echo in mate, stalemate, and play.]