## Depth and Beauty

## The chess endgame studies of

## Artur Mandler



White can win only by playing 1 Kh6 Kb6 2 Kh 7 Kb 73 Kh 8 !!
translated and edited by John Beasley

## Dedication

Mandler's own book opens with a composition dedicated to František Macek, but this has unfortunately been found to be unsound. In its place, perhaps I can offer the little trifle below. It encapsulates a manoeuvre which occurred to me while I was analysing one of Mandler's studies for this book, and it gave a lot of trouble to my solvers when I published it in diagrammes.

JDB after AM, offered as a small tribute to his memory diagrammes 2001


White to move and win
The White king will have to hide on e 8 sooner or later, but if we try the natural $1 \mathrm{Kf7} / \mathrm{Kf8} \mathrm{Rf} 4+2 \mathrm{Ke8}$ Black can play 2... Kd 3 and reach his pawns in time: 3 Kd 7 Rd4+ 4 Ke6 Re4+ 5 Kd6 Rxe7 6 Kxe7/Rxe7 Kc3 and draws, or 3 Kd8 Re4 4 Rxa5 Kc3 5 Rxa4!? Rxa4! 6 e8Q Ra8+, or 3 Rxa5 Kc2! 4 Kd7 Rd4+ 5 Ke6 Re4+ 6 Re5 Rxe5 7 Kxe5 a3. Correct is the roundabout $1 \mathrm{Kf} 7 \mathrm{Rf} 4+2$ Ke6! Re4+ $3 \mathrm{Kd} 7 \mathrm{Rd} 4+$ 4 Ke8, after which the Black rook is on d4 instead of $f 4$ and 4 ... Kd3 can be met by 5 Rd7 pinning ( $5 \ldots \mathrm{a} 36 \mathrm{Rxd4}+\mathrm{Kxd} 47 \mathrm{Kd} 7 \mathrm{a} 28$ e8Q alQ $9 \mathrm{Qh} 8+$ ). Moves other than $4 \ldots \mathrm{Kd} 3$ give White no trouble (he threatens Rxa5 followed by Kf7 etc, and if $4 \ldots$... Rd 5 to prevent this then $\mathrm{Kf7}$ at once). As the reader will see when he or she reaches Chapter 3, all the individual lines in this had already been discovered by Mandler; my only contribution was to add the little walk by the White king to tie everything together.

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## Translator's introduction

The English grandmaster Murray Chandler has described the chess endgame study as "a marvellous and calming escape from a busy world", and rarely has this been as true as in the work of the Bohemian composer Artur Mandler (1891-1971). He was a product of the rich chess culture of Central Europe, where a host of fine players and analysts regularly met and stimulated each other, and where the standard expected of the ordinary club player and newspaper reader appears to have been remarkably high. At a time when English chess columns were dominated by the relatively undemanding "White to play and mate in two", the readers of Prager Presse were being treated to the subtleties of our title-page study, a completely natural king-and-pawn position where the only way to win is for the White king to leave the central battlefield severely alone and march straight up the board into the corner.

Such an environment was bound to produce endgame study composers. The initial impetus was provided by Oldřich Duras, that splendid chess all-rounder of the period before World War I, who was not only one of the strongest players in the world but also contributed to opening theory and composed endgame studies which are still quoted in the textbooks. But if Duras showed the way, others soon followed: František Dedrle, Josef Hašek, Josef Moravec, Richard Réti, and a host of lesser figures.

And Mandler. Comparisons are odious, but it seems to me that Mandler and Réti are like peaks which rise even above a high plateau; they show a mastery of the natural endgame study which perliaps has been equalled only by the famous Russian composer Nikolai Grigoriev. John Roycroft, writing in the endgame study magazine EG after Mandler's death, summed up his work two short sentences: "Here is no depth for depth's sake. Instead, subtlety, beauty and economy combine inextricably and inevitably, so it seems, into one glorious achievement." ( $E G 31$, April 1973, page 421.) Depth there certainly is, often in abundance, but it is the natural depth of the game and not the artificial complexity of the problem: the depth inherent in a position such as $\mathbf{1 . 1 0}$, where the reasons for the White king's unexpected manoeuvre lie many moves into the future. And as for subtlety, beauty, and economy, his studies will speak for themselves.

But they can speak only if they are given a platform. A collection of Réti's studies was produced by Mandler after his untimely death (original German edition 1931, Spanish translation 1983), and Grigoriev's work has also been collected by his friends and admirers (original Russian edition 1952, second Russian edition 1954, Italian translation 1965). But a complete record of Mandler's studies is available only in Czech in his 1970 book Studie, and this is now difficult to obtain even in its country of origin.

In essence, therefore, the present volume is a translation into English of Studie, but I have supplemented the text with occasional passages from Mandler's 1965 book 64 studií z oboru vĕzovyćch a péscových koncovek ("64 rook and pawn studies") and I have added a small but important group of studies which appeared in his 1970 problem collection. I have checked everything by computer, and this has inevitably disclosed some faults; the unsound studies for which I have been unable to find a
satisfactory correction have been placed in an appendix. I suspect that most are unrescueable, at least without resorting to constructional crudities which Mandler would not have permitted, but some may yield to the treatment of a future repairman more skilful than I. This possibility apart, I think we now have a complete collection of Mandler's studies, or at least of such as he wanted to be preserved, conveniently presented for an English-speaking readcrship.

My editorial procedure needs little comment. Numbers "S" and "RP" above the diagrams identify the studies in Studie and 64 studii z oboru vězových a pěšcových koncovek respectively. Exclamation and question marks accompanying moves are always Mandler's. Where Mandler highlights a main line, I have followed him; where he does not, I have highlighted the main line of the solution in the conventional manner, but at one point I think this may have distorted his intentions and I have added a note. Anything in square brackets [...] is my own. Issue 31 of $E G$ contains a list of Mandler's favourite studies, confided to Harold Lommer in one of the last letters he wrote; I have marked these studies with asterisks, but if readers are looking for a convenient pointer to the most rewarding items I would add 3.29 and 5.13. The actual translation was relatively straightforward (Mandler's writing is beautifully clear, a boon to any translator), but the captions with which he introduces each study were sometimes a challenge; I hope I have surmounted it successfully. Obvious misprints (there are only a few) have been silently corrected. The need to cover gaps left by unsound studies has forced me to compose occasional pieces of bridging text, and this also has been done silently as long as the added material seemed to be routine. There are however two places where more creative rewriting seemed appropriate. Mandler presents the exposition of two studies in the form of short narratives, and sadly both studies have been faulted by the computer. It would have been a pity to lose the stories altogether (they are not great literature, but they are pleasantly different from the normal run of chess analysis), so 1 have moved their characters to two other studies and have let them play out their little comedies there instead. The analytic details have inevitably been changed, but I have tried to preserve dialogue and characterization.

There are four appendices. Appendix A contains translations of the introductions written by Bedřich Thelen to 64 studií z oboru vèžových a pëšcových koncovek and by Břetislav Soukup-Bardon to Studie. Both these writers knew Mandler personally, and it is appropriate that their appreciations be included. Appendix B exposes a Mandler rook-against-knight analysis to the pitiless glare of the definitive computer results now available, and shows the remarkably high quality of his work. Appendix C contains details of prizes and other honours. I am well aware that I may be acting controversially in relegating such matters to an appendix, but many of Mandler's finest works appeared in newspaper columns where prizes were not on offer, and the reader who is short of time will be much better advised to look for the asterisks denoting Mandler's declared favourites than to seek out the magic words "First Prize". Finally, Appendix D contains the studies that the computer has faulted, and perhaps a future composer will be able to rescue some of them.

## Testing and soundness

Everything in this book has been checked by computer, using the programs Hiarcs 7.32 and Fritz 6 on a Pentium III at 450 MHz with 128Mb of RAM. As set up on my machine, these programs automatically consult the Nalimov five-man endgame tablebases as required, and also a "depth to capture" database for $\mathrm{K}+\mathrm{R} v \mathrm{~K}+\mathrm{N}$ created by John Tamplin. For specific positions, I also made use of Ken Thompson's database for $\mathrm{K}+\mathrm{R}+\mathrm{Bv} \mathrm{K}+\mathrm{B}+\mathrm{N}$, and Marc Bourzutschky tested some positions fror me using his databases for $\mathrm{K}+\mathrm{R}+\mathrm{X} v \mathrm{~K}+\mathrm{R}+\mathrm{Y}$ and $\mathrm{K}+\mathrm{R}+2 \mathrm{P} v \mathrm{~K}+\mathrm{R}$. So far as I know, no error in any of these databases has been reported in the literature, and I think they can be taken as definitive.

Can it therefore be assumed that everything in the book is guaranteed to be correct? Sadly, no. Even if we assume that the computer calculations have not been vitiated by machine or program error, an assumption which is not necessarily justified (there is a known error in Fritz 6, though the circumstances in which it arises are believed to be fully understood and I don't think it has affected any of the analyses I have relied on here), there remain two significant sources of error: operator error (telling the machine to analyse the wrong position, or misreading the result) and the "horizon" effect. A computer may be very fast, but it is still finite, and within a given time it can only perform a certain amount of calculation. Typically, it examines every line to a certain depth and selected lines more deeply, and if it finds a forced winning or drawing line it reports accordingly; otherwise, it makes a judgement based on the deepest positions it has reached, and if there is a winning move "just over the horizon" it will inevitable return the wrong answer. At a late stage in the preparation of the book, I reccived news of Marc Bourzutschky's databases for $K+R+X \vee K+R+Y$ and $K+R+2 P \vee K+R$. Marc immediately sent me a file of published studies which he had found to be unsound, and these turned out to include two by Mandler which I had passed as correct. They were demolished by apparently characterless moves whose effectiveness only became apparent some way into the future: so far, in fact, that when I took my computer right up to the position before the crucial move and told it to start looking, it took over an hour to report that the study was indeed faulty.

On this evidence, it must be expected that future analysts with more powerful computers will spot a few errors which I have missed, but I hope that any such error has resulted in the retention of an unsound study and not in the unjustified rejection of a sound one.

The mere discovery of an error is of course very far from the end of the matter. An otherwise good study has an inaccuracy somewhere along the way; do we keep it or don't we? The defender has a resource not analysed by the composer, and although there is an answer it appears to be more difficult and complicated than the play in the alleged solution; should the study be discarded as less than properly convincing? An unsound study is one of a set; are the remainder worth keeping on their own? An unsound study can be corrected, but at a cost in additional material, inelegance, or artificiality; would the composer have accepted the correction? All these require the crystallization of imprecise factors into a yes-or-no decision, and one editor will inevitably differ from another. On the whole, I have tended to come down on the side of harshness, since it does a composer's reputation no good to accompany undoubted masterpieces with works in which the observer is forced to overlook imperfections
or obscurities; but all the omitted studies have been detailed in Appendix D, and it will be a simple matter for future editors who may think otherwise to reinstate them.

Mandler's standards of accuracy were in fact very high. A crude count suggests that around a quarter of his studies have proved faulty, but few pre-computer study composers had a better record and very few worked in fields as deep and difficult as his. A disproportionate number of the flawed studies in fact gained prizes or found their way into anthologies, testimony both to their ambitious nature and to the fact that errors overlooked by Mandler tended to escape the notice of others as well. Some of the mistakes were in positions where one side had an extra piece and the other had one or more advanced pawns, an area where there are no simple rules and even modern computers have to perform a lot of calculation to get the right answer. A few resulted from reliance on "theoretical knowledge" which has since been proved misleading (in accordance with the received wisdom of his day, he assumed draws in positions with $\mathrm{Q} \vee \mathrm{Q}+\mathrm{P}, \mathrm{N} \vee 2 \mathrm{~B}$, and $\mathrm{B}+\mathrm{N} \vee \mathrm{R}+\mathrm{B}$ where the computer has now proved that the stronger side can force a win). It should also be realised that Mandler's analyses can have received very little independent checking, since even editors who had the ability to check them are unlikely to have had the time. Most of an editor's time is spent in the sheer practicalities of getting material typeset and corrected, and in dealing with correspondence from solvers and the more error-prone of his community of composers; the name "Mandler" at the top of a page of analysis will normally have caused its acceptance without further ado.

Look at it the other way round. An impartial examination by the powerful and pitiless computers of the present day has indicated that around three-quarters of Mandler's studies were correct, and I doubt if even the perfect knowledge that may become available at some time in the future will reduce this figure below 70 per cent. Given that most of his studies were deep and that some were right on the boundary of pre-computer theoretical knowledge, does this not bear witness to a very high standard of performance?

## A suggestion to the reader

When Timothy Whitworth and I wrote Endgame Magic, we inserted intermediate diagrams into the text of each study so that even the less expert player could read for pleasure without the need to get out board and men. In respect of the present book, it soon became clear that this would be impracticable; the deeper studies would require so many intermediate diagrams that their presence would be as much of a distraction as a help. But a valuable aid to reading is now to hand in the shape of a typical computer chess program, which not only presents the user with a board and men but (a) gives an automatic analysis of alternative lines of play and (b) enables the reader to try out a line not given by the composer and then to put the men back to the point of departure with one click of a mouse. So if you find you need to get out board and men when reading through some of these studies - and if you are of anything less than master strength, I think you certainly will need to get them out - you may find the "intelligent board and men" provided by a modern computer to be by far the best tool for use.

## Acknowledgements

Mandler's text starts with a glowing acknowledgement to Gen.-Maj. František Macek, "to whom I give most grateful thanks for his all-round help in the preparation of this book, a task which has involved many hours of devoted labour, and all the more so because he was similarly willing to assist in the first volume [Mandler's problem collection]. Without his endeavours, my problems would not have been published in collected form." The name of František Macek has appeared frequently in Czech study literature in recent years, and always with respect and affection. Although not a composer himself, he was a great supporter of the art, one of those whose selfsacrificing hard work makes possible the achievements of others. His name will be perpetuated by his collection of some 55,000 studies, the fruit of half a lifetime of dedicated endeavour. This is now in the custody of Harold van der Heijden, who has been collating and merging it with his own computer-based collection: a splendid resource for present and future generations.

My own acknowledgements come into three categories. 1n respect of the text itself, I am grateful to Emil Vlasák, Vladimír Kos, and the library of the British Chess Problem Society for material, to Emil Ylasák and Jan Lerch for examining some of my alleged demolitions and for pointing out an error in one of them, to Jiři Jelínek and Frantisek Macek for their attempts to put me into contact with Mandler's son, to Marc Bourzutschky for sending me his file of demolished studies and for testing some further positions at my request, to Chris Feather for a translation from German, to Guy Howarth for hejp in accessing the $\mathrm{K}+\mathrm{R} \vee \mathrm{K}+\mathrm{N}$ "depth to capture" database compiled by John Tamplin, and to Ken Whyld for tracking down the Amelung study mentioned in Chapter 2. Financially, I am grateful to a friend who shares my belief that this has been a job worth doing and will be giving practical effect to this opinion by meeting half the printer's bill, and to ARVES, which by adopting the book as an "ARVES book of the year" has widened its circulation and underwritten part of its cost. And by no means least, I would like to thank all my Czech, English, and English-speaking foreign friends whose kind words about my previous translations of Czech works on chess have encouraged me to continue doing them. Truly it was a good day when my daughter greeted me with the news that there was this young man who played the oboe and spoke no Englisl, and they were going to get married...

