A. J. Roycroft

THE CHESS ENDGAME STUDY

A Comprehensive Introduction

Classical Arab chessplayers called them mansaba, “arrangements”; to Renaissance Europeans they were “subtleties” or “stratagems”; today these refined chess compositions claim a discrete territory and nomenclature all their own: the endgame study.

The endgame study, like the chess problem, eliminates over-the-board competition to concentrate on an invented endgame position carefully plotted to fox, bewilder, challenge and otherwise stimulate the solver. Unlike problems, studies do not stipulate the number of moves to the solution; they demand a greater knowledge of endgame theory, thus becoming useful tools for actual players, while giving “studyists” self-contained epiphanies of compositional art.

A. J. Roycroft, founder of the Chess Endgame Study Circle and editor of its magazine EG, defines this kind of composition as using “the chessboard, chessmen and chess manoeuvres in much the same way the composer of music treats sound, instruments and sequences of notes.” Such harmony of aesthetics and science permeates this book, the only complete introduction in any language to the endgame study. The author has completely revised this second edition, incorporating new information and carefully updating commentary, studies and sources. Roycroft writes the history of the endgame study with its international roster of great theorists and composers; he directs an encyclopedic discourse to all varieties of chess lovers—casual solvers, “cook” hunters, composers and connoisseurs, analysts and judges; he gives over 400 endgame studies dating from 9th-century Arabia to the present. All studies, from the transparent to the endlessly complex, are annotated (many revised) with the genial wit and spirit evident throughout. Roycroft devotes much thought to definition, classification, and retrieval of published endgame studies, providing his own modification of the Guy-Blandford system; he investigates motivation and creativity, summing up with an apologia on chess as game, science and art.

The Chess Endgame Study, wholly revised in this paperback edition, resumes its status as the classic exposition of the discipline. Every student, player, professional and amateur of chess will want it for constant reference; many readers will become zealous exponents of the endgame stratagem.


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THE CHESS ENDGAME STUDY
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by
A. J. Roycroft

Second Revised Edition

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Preface to the Dover Edition

A significant improvement is the 'user-friendly' modification of the code used in the Diagram Retrieval Directory. The new coding rule is 'one-for-white and three-for-black'. Just a few seconds taken to code the remembered, or even half-remembered, force of any position, and the diagram is located. This system should be part and parcel of all new and revised chess books.

Other revisions, especially new dates and clarifications, have been as thorough as possible. A few errors have been noticed and corrected.

My thanks can, alas, no longer reach: Mr D. J. Morgan; Mr J. Reiners, Cologne; Mr J. P. Toft, Copenhagen. I also have to thank: Mr R. Burger, San Francisco; Monsieur F. Fargette, Chambourcy; Mr W. Keym, Meisenheim; Mr W. J. G. Mees, Zantpoort; Mr R. Pye, Bray, Eire; Mr D. H. R. Stallybrass, London; Mr E. I. Umnov, Moscow; Mr K. Whyld, Caistor.

A. J. ROYCROFT
London, June 1981
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Foreword
by Dr. Jonathan Penrose

Chess has long been a fascinating pastime. This may sometimes seem hard to believe since the rules are quite artificial and the amount of research concentrated upon every aspect of the game has been extensive. Indeed it might appear that this research has already reached such formidable proportions that the modern chessplayer needs to spend a vast amount of time studying the known ‘theory’ of openings, endings (and to a lesser extent, strategy and tactics) before he can hope to be successful against strong players.

Those enthusiasts who are disturbed by this need for a professional approach to over-the-board play may well be tempted to explore other forms of chess—the field of endgame studies and problems—that still provide a satisfying source of pleasure but which avoid the cruelly competitive aspect of play. It is here that chess may be conceived of as a true art form—the real essence of chess uncorrupted by the pressures of personal prestige or the chess clock.

This is of course only partially true. The competitive element (so typical of our culture) reasserts itself even in this rarefied world of studies and problems, although in a subdued form. There are competitions for problems of all kinds and even competitions for solvers as well. These can be seen, no doubt, as spurs to creative endeavour but it is perhaps significant that they should be necessary at all.

The very process of composition is not free from anxiety either. The typical modern composer can hardly avoid the pitfalls of ‘cooks’ and ‘anticipations’ without considerable effort. It may seem to him that certain arbitrary rules of artistic merit have already been tacitly decreed and patents taken out on numerous thematic ideas. Perhaps even here the scope for originality in chess is slowly being narrowed down.

Yet this is far too pessimistic an approach. The artistry involved in the studies presented, for example, in the present book is undeniable. Games of chess, furthermore, produce problem-like situations far more often than is generally believed, and these even seem to gain an intrinsic interest from the fact that they have arisen in actual play rather than have been contrived at home. It is one of the great values
of a book like Test Tube Chess that it assembles the artistic touches found in chess games and collates them with compositions. John Roycroft—an endgame composer, judge, editor and player of many years standing—is well qualified to carry out this task.

Jonathan Penrose

Author’s Preface

This book as a whole is not addressed to a section of chessplayers but to all chessplayers. There is, I believe, something in the endgame study for everybody, and this belief lies behind the organisation into chapters for each of a dozen types of chess enthusiast. The division must not be taken too literally, though, since there will be enthusiasts for whom each chapter may simply correspond to a mood of the moment. The purpose is to foster whatever the current interest of the reader may be, and to introduce other aspects via this interest. The chapters do not have to be read in their sequence. The reader may select the chapter that seems to be addressed to him. The ‘majority’ player, for instance, can plunge into a chapter where he should at once feel at home, since it contains a number of games and illustrations from games. The problemist may find topics of interest in Chapters I-3 and III-1. The initiated study enthusiast may read straight through, sometimes fast, sometimes more slowly, concentrating on the examples, and the same will probably apply to the strong player.

I hope that the conscientious, knowledgable and critical reader will not judge this book too harshly for inaccuracies and omissions, and that he will excuse the occasional repetition of a phrase or idea. The choice in many cases of an example of early date, rather than the best or a sound example, is deliberate, to emphasise historical development. As far as I know this is the first attempt made in any language to present a complete introduction to all aspects of the chess endgame study.

A. J. Roycroft
London 1st June, 1970
Quotations are acknowledged in their respective chapters. Game positions have mainly been culled from magazines published in many lands. Some analysis has been taken sparingly from the works listed in the chapter bibliographies. For Chapter I:3 Murray's *A History of Chess* has been indispensable and superb. I owe particular debts of gratitude as follows.

*Research or facilities:* Monsieur G. Balbo, Champigny; D. A. Brandreth, Delaware; The British Museum Newspaper Library, Colindale; Mr S. R. Capsey; Bishops Stortford; *Chess*, Sutton Coldfield; Dr A. Chicco, Genoa; Mr W. H. Cozens, Ilminster; Mr H. Golombek, Chalfont St. Giles; Rev P. R. Kings, Kings Lynn; Mr D. J. Morgan, Aberystwyth; The Royal Dutch Library, The Hague; Mr J. Selman, Scheveningen; Mr H. W. Thorne, New York.

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A few passages and examples will be found in my magazine, *EG*, and I have to declare a professional interest in computers. Finally I must put on record that this book would never have been even begun without the friendship and encouragement over fifteen years of that outstanding composer and impresario of the endgame study, Harold Lommer.
the a-file and QR-file are synonymous. The ranks are numbered 1 to 8, again from White’s side. As regards Black’s viewpoint, the algebraic lays down that ‘he’ must use White’s, but really, at any rate in studies, ‘he’ is not a person! The algebraic names of all the squares are shown in the diagram. A little practice in naming out loud all the squares available on an open board to each piece in turn when placed on, say, square c4, may even persuade the reader to attempt blindfold chess, which can be played, with an effort of memory, without actually seeing the board in one’s mind at all.

Briefly, a move in this book is denoted by the symbol for the piece moved (K, Q, R, B, S), followed by its arrival square, with ‘×’ denoting a capture. Absence of a symbol indicates a pawn move, and a capture by a pawn is shown concisely by the juxtaposition, without ‘×’, of the departure and arrival files. Further explanation and discussion of solution presentation may be found in Chapter I·4 and in the Glossary entries under ‘annotation’ and ‘notation’ in Chapter III·2.

I. THE INTERESTED

1. Casual Solver
2. Regular Solver
3. Friend, or Curious Enthusiast
4. Impresario
1. Casual Solver

Crossword puzzles have grades of difficulty and erudition. If 'Laundry not back, by George!' appeals as a clue for Washington, then the studies at the end of this chapter should also appeal, C. M. Bent being the composer of the crossword clue also. Sadly, though one accepts it as inevitable, the English morning papers carry the full range of crosswords, but almost never a study.* And one evening paper sports studies, occasionally. What a welcome innovation if the early national dailies offered studies, even difficult ones (with clues!), for the fresh matutinal minds! 'Haven't you solved the Times study yet?' 'No, but I've cooked the one in the Telegraph', is a conversation yet to be overheard. A swing in popularity no greater than the familiar one of the electorate (who are the same people, at any rate in part, as the chess public), a swing away from crosswords and in favour of studies, would lead to an increase in playing strength over the whole country. Unfortunately a vicious circle exists, and such an event is likely only to follow an increase in playing strength. Nevertheless there is small doubt that if an international contest 'over the crossword puzzle' were feasible, the United Kingdom would beat the Soviet Union†. Of course the absurdity of the idea of an international crossword puzzle match highlights the universal nature of the language we call chess.

The casual solver, then, is the newspaper solver. The diagram and stipulation ('White to Play and Win' or 'White to Play and Draw') are on one page and the solution is on another. A player of some strength may expect to solve from the diagram, but the majority player examines the picture cursorily for its main features and puts the position up only when he can also put his feet up, at home, where he has his familiar board and his familiar chessmen.

The preference of the majority player is for relatively few pieces. This turns out to be the very requirement satisfied best by endgame studies. I to 3 are extreme examples, in their elementariness and early

* The Guardian's weekly chess feature has published a few studies.
† Mr Roy Dean, a Foreign Office official of Bromley, Kent, won the Times 1970 crossword solving competition, run under controlled conditions, by almost infallibly completing every crossword submitted, in from seven to ten minutes each.

(i) 1. . . . Ba6; 2. Rb6+, or 1. . . . Bc2; 2. Re1.
The win is possible only because the black king is on that particular square. The more expert reader who wonders why such a position is reproduced at all is asked for indulgence and patience. He may like to refer to 341 for a study of recent years, honoured in a tourney, that uses this idea. Also, there is historical interest: the tourney on the occasion of the 1862 London Congress (over-the-board) was the very first for studies.

1. Kc3, Bf7; 2. Rd8+, Kb7; 3. Rd7+ wins.

As far as can be ascertained, the entries for the composing tourneys were not all published, either at the time of the 1862 over-the-board London Congress or later. However, the book of the congress games did eventually appear, edited by J. Löwenthal in 1864, and a fairly comprehensive selection of the entries for the various composing sections is in a separate section.

(1. Rb6, followed by 2. Kc5, 3. Kc6, and 4. Kc7, also wins.)

White has no safe check and no pin of the pawn. Therefore, even though the pawn is on a central file, and even though White has the move, due to the disadvantageous position of White's king the game is drawn. Black will promote.

dates, but they make the point. This visual simplicity makes studies the ideal material for both newspaper columns and that controversial chess medium, television. The solution should have a single main line of four or five moves. White 'must-nots' and Black 'ought-nots' should be at least as short and clear cut. The esoteric must be avoided like the bubonic. Many a columnist, being an expert, finds it hard to be elementary. I would think twice before putting 143 in a newspaper column for solving, for instance. Mate, stalemate and win of the queen are the three basic courses to be permutated on the diet sheet. Pawn promotion is also permissible as a reverse of the win-of-the-queen coin. Perhaps the furthest that other themes may be explored is the avoidance of stalemate, which will frequently be by underpromotion.

The newspaper solver hardly thinks about chess apart from the column he peruses. He is hazy about basic endings like bishop and knight against the lone king. If asked for a normal result when a minor piece is opposed by two, the latter also with a pawn, his answer will lack confidence.

He would like a simple set of rules, something that hangs together and is easily memorised. It is a pity that the labour of gathering together an apt selection of studies and the complete set of rules to apply is so great. Even when this has been done, there is no guarantee that the next study the solver happens to meet will be soluble from the rules he has learnt. Almost inevitably it will not.

This suggests a profitable approach. A trio of examples will illustrate what rules apply, and, just as vital, the method of solving. There is only one. That method is employed by all successful solvers, even if unconsciously. It consists of certain repeated logical steps.

No mystery surrounds these 'rules'. In our sense a rule is a shorthand way of saying that with white force so-and-so against black force such-and-such the result in all normal cases is a win (or draw). Applying such a rule in practice involves the recognition, visually or otherwise, of the presence in the position of the respective forces to which the rule relates. This may happen not only in the diagram, visually, but in the analysis of variations or with colours reversed. If the reader is not familiar with a fair number of these rules he should pay particular attention to this chapter and to its examples. He should also try to devote a little time, preferably not alone but with a devil's advocate opponent, to study of the early chapters of any elementary textbook on the endgame. Much that is in this book, certainly much analysis, can be understood only after considerable practice with
these really basic elements has made them almost instinctive. Mastering these short-cut judgments, which is all these rules are, saves an enormous amount of time and energy in woodshifting. To blurt out the truth, studies are insoluble otherwise, unlike problems, where the limitation of solution length lends a totally different flavour—it is either mate at that move number, or it is not. In a problem, analysis beyond the length specified in the stipulation has no conceivable point whatever. There is no such mechanical cut-off mechanism in the study. Instead there has to be this judgment, this acquired sense of when to apply the rules of normal behaviour of the chessmen. On balance, this should encourage the beginner. He is not expected to probe deeply as yet. The hope is that depth will come later, and gradually. Many newspaper solvers are capable of more, if properly coaxed and coached.

4 is a mating study, which is not to say that every line ends in mate. It is fairly typical of the short solution style.

Step One: Examine the material (first without pawns, then with pawns).
White has a knight against a pawn, the pairs of rooks on either side cancelling each other out. This is not enough to win in normal situations, for with exchange of one or both pairs of rooks a book draw is obtained. We rely on a book rule which, for further clarity and simplicity, is formulated here as two rules.

RULE 1: Without pawns, the advantage of a minor piece ahead (whatever the other material on the board, provided it is level) draws only. (An advanced player reading this chapter will know that with a larger number of pieces on the board the winning possibilities of a minor piece ahead are greater. The whole is not only more than the sum of the parts, but the bigger the sum the bigger the difference! The newcomer should ignore this, at least on a first reading.)

RULE 2: The advantage of a rook ahead wins.

Step Two: Examine the stipulation.
White has to win. Since, from Rule 1, a draw is normal, we must look for something exceptional. This is the case with all studies, but it is surprising how easily it is forgotten. Also, the exceptional can take many guises. In this position the exceptional can only be mate or win of a rook.

Step Three: Examine the position.
Apart from two things, Black is in a very poor situation, his king being vulnerable (hemmed in on the edge and nearly mated). The two things in his favour are threats (see the next step).

Step Four: What does Black threaten?
The two threats are to promote the pawn now on f2; and to capture the white rook on b4.

Step Five: Is the position clear enough to list white defences to the threats?

Yes, this is not too difficult. 1. Rb1 fills the bill. If the answer to this question were negative, we should have to search for clues. This will be part of the following example. So, the white rook is played to b1, and we go to Step Six.

Step Six: What does White threaten?
Answer: mate next move, by 2. Ra6. Threats are like the New Testament poor, always with us but only too easily ignored. In studies there is always (except in cases of Zugzwang or blockade) a threat, and our efforts must be directed towards identifying it. A threat is always a move or moves. A general or strategic threat is never enough to solve a study which, unlike a game, is always in a state of crisis.

Step Seven: Choose Black’s reply.
It may be that there seems to be no defence of any sort, as a move of the c4 rook to c6 or c7+ is met by capture, after which RULE 2 applies (that is, White wins on material and we need analyse no further) even if there were no mate to follow. In fact, only by moving a rook to b4 can Black create any obstacles in White’s way. On b4 a black rook has the relatively subtle effect of removing the white rook on b1’s guard of the knight. Thus 2. Ra6+ would now be a blunder since it permits the reply 2. . . . K×b5. As there is no obvious reason for choosing one black rook rather than the other, let us take them both and, to be quite impartial, in alphabetical order namely the a-file rook first: 1. . . . Rab4. See 4a.

Step Eight: What does Black threaten?
Step Four asked the same question. The solver can now see that the process is a cycle around identifying threats and selecting moves accordingly. It is precisely what computer people call ‘an instruction loop’. In other words we have an iterative process. There are, then, only seven distinct steps in solving a study, and it is not too hard to imagine the first three being performed in one visual operation.

Black threatens both 2. . . . Rx b1 and 2. . . . Rf4. The latter move is a threat because of . . . Rf7+ to follow. Note, however, that if the white rook on b1 moves away, 2. . . . R×b5 is not an effective reply because 3. Ra1+, Ra4; 4. Ra6+ wins, or 3. . . . Kb4; 4. Rb1+, Kc3; 5. R×b5, wins, in each case by Rule 2.

It is at this point that we need a spark. If studies were always plain sailing they would not be a challenge. If White achieves nothing by moving his rook on b1, can he do better by moving something else? In view of the latent black check on c7 only 2. Sd6 really suggests itself.

Step Nine: Repeat steps four to seven as necessary.
This is a separate step purely for convenience of presenting a series of steps. It involves the iterative process and in the course of it making sure both that our analysis is sound and that all variations are accounted for. Seeing the move 2. Sd6 takes us over the hill. We observe that the white rooks are safe from capture due to the in-between move (often called by its German name ‘Zwischenschlag’) of 3. S×c4+, and the alternative 2. . . . Rc7+ is met by 3. Sb7+, R×b7+; 4. R×b7, R×b7+; 5. K×b7 and wins, this line being
one move longer than our recommended maximum for the chapter; White has to be careful to avoid here 4. K×b7?, R×b6+; 5. R×b6, f1Q and it is Black who wins. Now, there is no mate in this line, and though neat enough it is hardly very memorable. Let us now go back and play the other black rook on the first move, 1. ... Rcb4, see 4b. We can now see that this looks better for Black, since 2. Sd6 does not attack a rook and hence 2. ... R×b6 would be safe, though not 2. ... R×b1; nor 2. ... f1Q; because of 3. Sb7 mate. This time the spark, shock or jolt is provided by 2. Sd4, with two mating threats, 3. Ra6 and 3. Sc6. But Black has the reply 2. ... R×b6. This covers the mates and gives Black a RULE 2 win, unless the position is an exception. Is it? Yes, it is. 3. Rb5+!!; 4. R×b5; 4. Sc6, mate! That is the flavour of a mating study. Note, after 1. ... Rcb4; that 2. Sc3? is met by 2. ... f1Q; guarding both b5 and a6 squares.

Precisely the same steps may be applied to 5 even though this is a study to draw.

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**Step One: Examine the material.**

White has a rook against a bishop. This is a normal draw by RULE 1 as the advantage of the exchange is less than a minor piece.

**Step Two: Examine the stipulation.**

White is to draw, but as it is a normal draw anyway there must be a catch somewhere.

**Step Three: Examine the position.**

The catch is clear. Black has a pawn about to queen. With queen and bishop against rook Black would have an enormous material advantage and would win by RULE 2.

**Step Four: Black’s threats?**

Nothing deep here. Black will promote on g1.

**Step Five: Is our way clear for White’s reply?**

No, it is not. 1. Kh3 does nothing about the threat, and 1. Rg3, B×g3 makes things even worse. So, knowing that there is a solution, we hunt for clues. One clue is that, for drawing purposes, White has too much material. He needs only to capture the g2 pawn at any price to settle the result. There do not seem to be any other clues. That the stipulation is a draw suggests a stalemate possibility, but only an experienced solver would suspect stalemate here. A piece of advice—sacrifice! Even if there seems no point, try it and see. 1. Rf4+, B×f4; 2. Kf3, g1Q is a dead end for White, so try 1. Rd3++.

**Steps Six and Seven: White’s threat and Black’s reply.**

No trouble about either of these steps. Unless the offer is accepted, White plays 2. Rd1. Therefore 1. ... K×d3.

**Step Eight: Black’s threat?**

As before, to queen his pawn.

**Step Nine: White’s reply?**

Continue with the same logic. 2. Kh3 is no good, as it was no good previously, but 2. Kf3 attacks the black pawn, blocks the white pawn, and invites 2. ... g1Q (or R), which a moment or two’s blinking shows to be the stalemate we can now kid ourselves we suspected would be there all along! White’s rook sacrifice did three things: got rid of a superfluous piece; enticed the black king onto a desired square (completing the stalemate net forcibly); and vacated a square for the white king. Reasons enough. Why, fascinating question, was it not obvious? Anything else? Yes, what about other black promotions, to knight or bishop? No stalemate then. No, but 2. ... g1S++; 3. Kg2 and White takes one of the black pieces, leaving a draw by RULE 1. 2. ... g1B leaves Black with two bishops on the same colour, and no black pawns. This may as well be RULE 3, a draw. Even nine bishops (the legal maximum) cannot mate if they all run on the same diagonals.

6 is a win of the queen. Note that unlike the two preceding examples, the particular idea or ‘theme’ here may be expressed as either a win or a draw, depending on the position after the queen is captured. In this case it is a win.
See text.

A. A. Troitsky
Deutsche Schachzeitung, 1911

Win
3+3

1. Sh5+! (i), K×g6; 2. Be8+, Kh6/ii;
3. Sg3, B--; 4. Sf5 mate/iii.

(i) White had to lose one of his
knights, and the solver’s problem is to
decide which one to abandon, and how.

(ii) 2. . . . Kf5; 3. Sg3+ and 4.
S×h1 wins, bishop and knight mating
by any textbook. The black pawns are
irrelevant to this outcome as they
constitute no threat.

(iii) 3. . . . Be4; 4. S×e4 wins. The
dash in 3. . . . B– is the same as ‘bishop
any’, but latitude is usually given to
ignore obvious blunder moves.

C. M. Bent
EG, xi. 1969

Win
4+4

1. Sf6+, Kf4; 2. S7d5+, Kf5;
e4+, S×e4; 4. ga4+, hg; 5. Sh5! and
examination shows that White will
mate next move. This study was the
first of Bent’s to be published in the
BCM, after he had been composing
for two years (though problems for
longer).

1-1 THE INTERESTED

Steps One, Two and Three: On material there is a draw only. The
position is very open and it is remarkable that a win is given. Could
there not be a misprint? No, if only because the alternative stipulation
of a draw is absurd, since it is already at least a draw. Of course,
if the diagram is mis-printed (it happens!) then this is bad luck. It
can be most exasperating, not least to the composer or columnist
who is flooded with letters from would-be solvers whose family
week-ends have been ruined.

Step Four: Black’s threats. Simply a move like 1. . . .
Qd6, or 1. . .
Qa3. Black’s position does not look bad (he even threatens to mate
if White removes his guard on g7), but his queen is a little hampered,
and his king exposed to checks.

Step Five: We can hardly try a sacrifice here, to get us out of our
quandary, but there are three checks to be tried: 1. Qh4+, 1. Sh5+
and 1. Sd5+. The first leads nowhere after 1. . . . Ke5, and while
the second looks promising, if Black is careful he escapes after
1. Sh5+, Ke5 (1. . . . Ke7?; 2. Qb4+, Ke8; 3. Sg7+); 2. Qf4+,
Kd5 (2. . . . Ke6; 3. Qe4+ looks very strong) 3. Sf6+, Ke6 and White
is out of steam. Actually, 1. Sd5+, Ke5 does not look much more
promising, and one can well imagine a solver spending more time
on 1. Sh5+ than on 1. Sd5+. Yet the latter is the first move of the
solution.

Steps Six, Seven and Eight: The leap comes on White’s second move.
The clue is that the two black men, the king and queen, are in a
knighthork relationship, and the only way to threaten this fork is to
play 2. Sb6. It is incredible, but we shall now prove that White wins
Black’s queen in two or three more moves. The queen has fourteen
legal squares to go to, yet none is a sanctuary.

2. . . . Qg7 (g8, h6, h8)+; 3. K(Q)×Q.
2. . . . Qa8 (e8); 3. S×Q.
2. . . . Qa3 (d6); 3. Sc4+.
2. . . . Qb8 (e5); 3. Sd7+.
2. . . . Qe8; 3. Qe2+.
2. . . . Qd8; 3. Sc4+ (checks with the queen fail) 3. . . . Kf6;

This leaves only two other moves:

S×f8+ (that is, with check!), or 3. . . . Kd5; 4. Qd1 (f3, g2)+.

This example is one of the author’s permanent favourites, short
though the solution is.

There follow three studies, all by C. M. Bent, and each with a
straightforward mate as its theme, and not requiring any esoteric
knowledge of endgame theory. However, 9 has more to it than the
other two, particularly in its notes or ‘supporting variations’ and
   (i) 1. . . . Kd8; 2. B x b7, K x e7; 3. B x a8 wins easily, the bishop being able to cover the a-pawn’s queening square. Note that 2. . . . a6++; 3. Kc5! wins, leaving c6 for a knight check after 3. . . . Rb8.
   (ii) 2. a6?, ba++; 3. K x a6 stalemate.
   (iii) 2. . . . a6++; 3. B x a6, c6+; 4. S x c6+, Kc7; 5. Sb4 is a ‘book’ win ‘on material’. The white force cannot, if methodically husbanded, be prevented from ushering the pawn home.
   (iv) 4. Kc6? stalemate!
   (v) 3. . . . c5; 4. Kb6 wins, or 3. . . . Ka7; 4. Sc6 mate!

It is recommended that the reader new to studies dissects this with care before tackling anything more complex. If note (iii) causes trouble, call in outside assistance.

**CLASSIFYING**

For a preamble to the topic of classifying studies the reader is referred to page 125. As the newspaper solver is primarily interested in mate and stalemate, it is surprising to find any system of classifying studies in this restricted manner. However, one of the all-time great composers, G. M. Kasparyan, has organised a collection of precisely this kind, an anthology to delight the newspaper solver for years. 2,500 Finales deals solely with mate, stalemate and stalemate avoidance. Although it therefore has no claim to be a universal method of classifying studies, for its restricted field it can hardly be faulted. For classification purposes, only the mate or stalemate is considered. The suffering king is in the corner, is on the edge, or is in the middle of the board, so that four, six or nine squares have to be controlled (one less in the case of stalemate). The ‘purity’ of the mating or stalematizing position is a major criterion, it being accepted that the artistic effect (or, simply, attractiveness) is heightened if a square

is covered once only, the principle applied being that of economy. The collection is organised into eleven major groups for mate, as follows. Mate by,

- one minor piece
- two minor pieces
- rook(s)
- pawn
- queen
- rook and knight
- rook and bishop
- three or four minor pieces
- rook and two minor pieces
- queen aided by another piece
- two or more mates

This system allows a study, or all studies, with the same mating scheme to be looked up without difficulty, and since within a group studies are presented in chronological order the earliest version and any subsequent improvements can readily be identified.

For stalemate the collection gives seven groups.

- simple stalemate (that is, only one)
- pawn endings
- pin
- shutting in (simple)
- shutting in (complex)
- White stalemates Black
- multiple stalemate

Within each group here will be sub-groups by material, such as shutting in of knight, or of bishop, or of rook, or of more than one piece, or the queen. This method is rather more questionable than that for mate. Suppose there is a draw by underpromotion in two variations, only one of which actually leads to stalemate, how should this be classified? Or suppose that there is a stalemate line but that more interesting play results from Black taking some other option?

The third section of the anthology touches on some of these problems in dealing with stalemate avoidance, but it cannot be said to resolve them. The three chapters in the third part cover,

- suicide (or desperado) pieces
- underpromotion
- elimination of various stalemate threats in conjunction with black counterplay.
2. Regular Solver

Mate is mate and stalemate is stalemate, but whatever is ‘and wins’? (269). To the newspaper solver ‘and wins’ or ‘and draws’ is the cause of much puzzlement, but not to the regular solver, for whom it is just another variation on ‘amen’. He may still be puzzled, but less often, and he knows that application scrapes off the rust of mystery. Probably he is of reasonable over-the-board strength but is not a great competitor. He knows some theory and can acquire more. Solving gives him a double pleasure, the surprise at discovering something fine and the satisfaction of achievement.

Solving is a solitary hobby, but not absolutely so. We shall see in later chapters how solvers can play an important part in helping

\[\text{An extraordinary study, not least for the fact that the composer lived in Kingston, Jamaica, and was blind. The key, or first move, allows two checks, and in the main line White’s progress seems agonisingly slow, given that Black has a free queen.} \\
1. e4!!/i, Qd2+; 2. Ka6, Qe2+; 3. Kx a7, de; 4. Bg7!, Qa2; 5. Bf8/i, Qx a4+; 6. Sa5+, Kh5; 7. Bc6+ and 8. Bx a4 wins. \\
(i) Threatening 2. ed+, but allowing Black a capture with a discovered check on the rank. But Black’s check 1. . . . de+ can be met by 2. Sc5+, Kx c5; 3. Sx e4+ and 4. Sx g5. White’s 1. e4 also opens a diagonal for Black’s queen to check.
(ii) Now at last threatening to discover mate by moving the knight from b7.

‘This problem (sic) is of a very different calibre to those hitherto noticed. It is very difficult, very cleverly conceived, and, as far as we can see, contains no flaw in the solution, for the dual one proposed by 1. ed has not been demonstrated. Its only drawback is the unnatural position, but that, we think, is in this instance more than compensated by its other merits.’ Judge: C. E. Ranken.
1. Bf6, d4; 2. Se2!, a1Q. Surely White’s idea is to capture on d4? After the general exchange there and Black’s subsequent take on d3, certainly White can capture h7, but Black reaches f7 and draws. 3. Sc1!! It seems absurd that White can play this. How could it have occurred to anyone? It threatens Bg5 mate!

3. . . . Qa5. A move of the king succumbs to a knight fork, and . . . Q×c1 to a skewer check on g5. 4. B×d4+ and 5. Bb3+ wins. 3. . . . h6 is another way of guarding g5, but 4. Be5, another quiet move, wins at once!

Why is this the most frequently quoted study in the world? Because, in the USSR, it is well known that it was a favourite with Lenin, who is on record as having successfully solved it.

An amusing example of the study man finding over-the-board play too difficult and being disenchanted! Diagram occurred after 1. e4, e5; 2. Bc4, Sf6; 3. d3, c6; 4. Sf3, d5; 5. Bb3. Black worked out mentally 5. . . . de; 6. Sg5, Bc5; 7. S×f7, Qb6; 8. S×h8, B×f2+; 9. Kf1, Bg4; 10. Qd2, e3; 11. Qc3, e2 mate! So he played it, trusting that if White did not take the h8 rook but castled, ‘something would turn up’. White did play 8. O–O, and won quickly!

judges of composing tournées. Joint solving is not uncommon. Some chess magazines and a few regular chess columns run solving competitions in the form of a ladder, either annual or on some other basis, and although the prizes are small, they can cover the cost of one’s stationery and postage! The U.S.S.R. chess organisation includes problem and study solving on a national scale among its lesser activities. Their 1966 champion was V. I. Stepanenko of Lyubertsy, Moscow Region. This kind of enthusiasm has spread, and there is now an established World Chess Solving Contest.

The regular solver is likely to have both personal and what one might term corporate motives. Monetary reward is incidental. His achievement is over himself and the thing, and at the same time he has beaten, or at least equalled, the other solvers (10 and 11). Particularly for the chess enthusiast remote from, or out of sympathy with, over-the-board play (12), and who does not possess the long-winded stomach required for chess by correspondence, solving . . . could well be the solution.

One solution of a study is enough for the solver. Cooks and duals are a nuisance, and the matters that intrigue the connoisseur appear either trivial or irrelevant. Faced with a challenge like 13 he reacts with, ‘No hints, now! Don’t show me!’ Faced with a claim (of win or draw) in 14, for instance, he shows the reverse of the same medal, ‘Nonsense! Prove it!’ He has, then, both healthy pride and healthy scepticism. He needs persistence, too, for there are tough studies to be solved, and instinct, to say ‘I smell a stalemate here’. Memory by association, which includes by contrast, is of great value, for many ideas on the chessboard are related either directly or by being in some sense opposites. Knowledge he has already. Some missionary zeal he will certainly have, to tell others of this wide expanse, and ambition, to become a better solver, even maybe a composer.

15 and 16 underline the connection between solving and over-the-board play. Differences arise because we know there is a combination and we know the outcome when a study confronts us. But we are always entitled to look at a study as if it had occurred in a game, and to ask ourselves what we should have played over the board.

The basic pattern of solving has been described in the previous chapter, but there is for the regular solver considerably more that can usefully be said. For some remarks on the nature of chess analysis, though, see Chapter II:4.

Among possible metaphors for solving, an effective one is of a blind man given a clock to be wound up. He has a box containing
I-2 THE INTERESTED

Author's solution: 1. Rh8+, Ke7; 2. Bd8+/=, Kc6; 3. Bb6!, K×b6; 4. Rc8, Ra8; 5. R×a8 wins.

(i) 2. Be3?, b6; 3. Rh7+, Kb8; 4. Bf4+, Ka8 draws.
The cook hunter will look at 1. Bf4+, Ke8; 2. Rh8+, Kd7; 3. Bb8 and will see 3 ... b5+; 4. K×a5,
Rb7; 5. K×a6 wins, or 4 ... Ra8; 5. Kb6 and 6. Kb7. The careful analyst will play, therefore, 3 ... 
Ra8!; 4. K×a5, Kc6; 5. Rc8+, Kd7; 6. Rc7+ and now any king move 
draws (6 ... Kd8; 7. R×b7, Kc8; 8. Rc7+, Kd8!), though a composer 
might be intrigued by some of the 
possibilities. Truly a case of something 
for every kind of enthusiast.

1. Rg1!!, R×g1; 2. g7 wins. 1 ... 
Kf8; 2. R×g2 wins.

I-2 REGULAR SOLVER

An example of the exhilarating mixture 
of game, art and science that good 
chess can be. White's chance is his 
advanced pawn, while Black's is his 
attack (... Q×f1+ will mate if the 
white queen cannot cover the back 
rank). 42. d7, d3; 43. Qb3, Re2; 
44. Qa3. White maintains his attack 
on the black d-pawn while covering 
c1 and threatening Qa1+ followed by 
queening. 44. ... Q×f1+! 45.
K×f1, d2. What happens now?
46. Q×f3!, Re1+; 47. Qd1!! Black 
resigned, because of 47 ... R×d1+; 
48. Ke2, Rb1; 49. d8Q and White 
easily wins the pawn ending.

This first move is, in problems, called the key. A fascinating comparison of some major types of composition was made on the F.I.D.E. Albums up to 1964. It showed a different chessman being the favoured key piece in the various fields. For two-movers it was the knight (36%), for three-movers the queen (25%), for longer problems the bishop (22%) and the rook (also 22%). The study percentage, that is, 
where the keymove was with a pawn, was 26. So, when in doubt, 
move a pawn first. This is the opposite of the sound over-the-board advice where, to take an example, Tarrasch admonishes us to remember Steinitz's dire warning that a pawn can never move backwards!

(ii) Introductory exchanges

The solver has some appreciation for difficulty and disguise, but like the player he wishes 'to get on with it', to leave the introduction 
behind as soon as he can. Many studies commence by exchanging, 
often preceded by a check on the first move, or a perfunctory prepara-
tion for a knight fork. There may even be a capture on the first move, 
but this is a blemish unless there are compensations such as the capture 
putting another man en prise. In any case, no more than a 
pawn should be taken on the first move. Often there is little choice, 
this having the advantage of easing the solving, but the drawback 
of being unattractive. Where there is choice, though, we must direct 
our analytic spotlight very precisely. In one exchange line a pawn
Solving this within a reasonable time is hardly possible unless one knows one's king and pawn against king ending. 1. Rd7+!, Ke8!; 2. Ra7!, Rg2; 3. Ra8+, Ke7; 4. f3/ii, Rg3; 5. Ke5!, R×f3; 6. Sg6+, Ke6; 7. Ra6+ with a winning knight fork to follow.

(i) 1. . . . K×f8; 2. Rd8+, K--; 3. R×g8, K×g8; 4. Kc6 and wins because he can reach e4, two squares in front of his safe and unmoved pawn. 1. . . . Kf6; 2. Rd3 wins, no analysis needed.


7. B×c1!, bc; 8. h7, c2; 9. h8Q, c1Q; 10. Qh6+ wins. If Black had played 3. . . . Kd2 then White plays his king up to g6, and if at any time . . . b3, then B×c3+ and queens with check, winning against the pawn on the seventh. If Black plays . . . B×g7 he presents White with a pawn advance tempo.

(iii) **Dual avoidance**

A second solution, or cook, demolishes a study. In addition, where there are minor white alternatives, known as duals, these are blemishes reducing the worth of the whole. Composers try to avoid duals as far as they can, and in so doing they may provide unintentional clues. For instance, if it seems promising for a knight to manoeuvre towards a certain distant square, and if there are two alternative routes, and if there is nothing to differentiate the alternatives, it is worth assuming as a working hypothesis that the knight manoeuvre fails, since the composer would not permit a dual. This can be a dangerous line of argument with some composers, for the famous Troitzyky held that duals are perfectly tolerable if their elimination would lead to ineconomy or increased artificiality of the position. The same argument applies to the closely related case of inversion of moves. A unique sequence is always desirable, but, the Troitzyky school of chess composing says, do not pay too high a price for it.

(iv) **What to do when stuck?**

In cases where Black seems to have no counter, we must concentrate on improving Black's defence. There is usually a great deal more to be discovered about such a position than we have so far suspected. One strong black move, and it will be White who is struggling. If the king has moved in reply to a check, try moving the king first. Try an in-between move, that seems to alter nothing. Re-examine that white threat that seemed so murderous. Is it really decisive? If it is a complex threat, try meeting it by countering the effect, not of the first move, but of a later one. In cases where we can find nothing for White, a sacrifice will often start opening doors (5). And there is no law to stop Black sacrificing material as fast as his
Black’s king may move only between e3 and f4. Why? Try the alternatives.
1. ... K×e4; 2. Bg6 (c6)+ and 3. e8Q. Or 1. ... Kf3; 2. Bh5+. Or
1. ... Kg3; 2. Bd7, Bh5; 3. e8Q, B×e8; 4. B×e8, Kf4; 5. Bc6 (g6)
and wins. Black’s drawing chance consists of being able to take the e4
pawn after his bishop has been given up for the e7 pawn. As for play with
the black bishop, it must be free to play to the left, to a4, if its white
antagonist plays the other way, or to the right, to h5, if the white bishop
plays to the left. This freedom of
move is possible only from d1
or e2. Therefore White will play
his king to e1. But he must do so with
care. 1. Kg1/i, Ke3; 2. Kf1, Be2+;
3. Ke1! Really it’s move one that
should be given the exclamation mark. 3. ... Bh5.

The fact that Black is in Zugzwang
does not want to move) would
suggest to a composer that another
black pawn could somehow be added
on c5. 3. ... g4; 4. Bc6, g3; 5. e8Q,
g2; 6. Qg6 and wins.
(i) 1. Kf2?, g4; 2. Bc6, g3+ and
opponent. Try inverting moves, that is, playing at move two what
is natural to play at move three. Examine all checks, especially
defensive ones. If something will not work on move one, is the situation
subtly altered later? Watch out for ‘sudden geometry’, as after
Black’s sixth move in I8. At all events, do not give up easily. If
White is to win, remember that only a pawn is needed to effect mate,
and if it is a draw, even a pawn may be superfluous. Is the situation
at the end of the analysis so clear after all? Has that elementary
position got a catch in it? And heed the advice of the great scientist
Alfred North Whitehead, ‘Seek simplicity, and mistrust it’.

(v) Complexity
Because there are fewer landmarks, a simple position may well
offer a greater number of options than a crowded one. Is there a
special technique for tackling positions that may look vague? No,
there is none. If the force involved seems very restricted, reference to
diangam theory books may suggest clues, for instance as to what
plan and general threats are to be expected. For threats there must
inevitably be, and the iterative procedure recommended to the newspapar
solver must be tried. A line (series of moves) must be taken, any

H. A. Adamson
Chess Amateur, ix, 1915
Version by T. B. Gorgiev,
2 Hon. Men.
Leningrad Chess Club, 1936

1. h5, Ke6; 2. b6, Kf6; 3. Ke8/i, Kg6; 4. b7, K×h7; 5. K×f7. The
introduction is now over II 5. ...
Kb4/vi; 8. Kf4, Kc3; 9. Kf3, Kh2;
10. Kf2, Kh3/vi; 11. b3!!//ix, Kg4;
Ke5, Kg5/x; 15. b4/xi, Ke4; 16. Kb6
and wins.
(i) 3. h7?, Kg7; 4. Ke7, f5 and Black
wins.
(ii) This is now Adamson’s position.
It is an interesting question whether
the prelude has added to or detracted
from the whole.
(iii) 5. ... Kh8; 6. b4, Kh7; 7. Ke6
wins.
(iv) 6. b4?, Kg5; 7. Ke6, Kf4; 8.
Kd5, Ke3 draws. 6. Ke5?, Kg5
draws, but not 6. ... Kg6; 7. b4.
(v) 6. ... Kh7; 7. b4. 6. ... a5;
(vi) 7. Ke5?, Kg4, but not 7. ... Kg5;
8. b4.
(vii) 7. ... Kh6; 8. b4, Kg7; 9. Ke6.
7. ... a5; 8. Ke5, Kg4; 9. Kd5, Kf4;
K×a5 and 13. b4.
(viii) 10. ... Kh1; 11. b4 Kh2/xi;
Kc5, Kd4; 15. Kb6, Kd4; 16.
K×a6.

10. ... a5; 11. Ke3, Kg2; 12. Kd4,
Kf3; 13. Kc5, Ke3; 14. Kb5, Kd3;
(ix) 11. b4?, Kg4; 12. Ke3, Kf5;
13. Kd4, Ke6; 14. Ke5, a5! (this
is what has been lying in wait for the
counter) 15. ba, Kd7; 16. Kb6, Kc8
draws, but here 13. ... a5?; 14.
ba, Ke6; 15. a6 wins, so precise
timing is essential.
(x) 14. ... a5; 15. Kb5, a4; 16. K×a4!
wins.
(xi) 15. Kb6?, Kd4 draws.
(xii) This is one of the points underlying
the whole study. On h1 the
black king is unable to gain a file
in the race to the b-file, as there is no
square ‘below’ g1.
Black threatens to take on f6 and d2. 1. Sd5, ed; 2. Sc3. Now White has a mate on, which he would not have with his knight on the other square, e3. 2. ... R×c4!. A strong black move, even if the only one. 3. R×c4, Sa2! Not only threatening to take on c3, but covering b4 to stop the white rook returning there. 4. Sd1!, B×e2. This attacks both white pieces, and the position reached is the kernel of the study. 5. Rc2!/i, B×d1; 6. Ka3, Sc3. Taking the rook is stalemate. 7. Ra2+/i, S×a2 stalemate, or 7. ... Kb1; 8. R×d2 and b1 is not allowed as a square for the knight! (i) 5. Rd4?; B×d1+; 6. Ka3, Sc3 wins! Or 6. Ka5, Sc1! (ii) 7. R×d2?, Sb1+ wins, mating with bishop and knight thirty moves later.

1. Rb7+, Kc8; 2. Rb5#, c1Q; 3. Re5+, Q×e5 stalemate. Many similar positions exist.

routine, a sort of count-down, is essential. At first sight a sensible method is to set up the position from left to right and from top to bottom, like a composer setting up a page, but this does not eliminate errors as it is tempting to take short cuts. Better is to start with the two kings and build up in a set sequence, say black men first, and then white. The position takes shape in a way not unrelated to its content, namely forks, ranks, diagonals, pawns nearing promotion, pins. A rational sequence, after the kings, is pawns, knights, bishops, rooks and the queen, for this is in descending order the frequency of occurrence of the chessmen in studies. Next the total of white men on our board is compared with the total on the diagram (this total may be printed explicitly), and the same is done with black. Then the totals by each rank are taken, black and white together, and compared with the diagram. In practice the board will now have been set up correctly, so similar controls on the men on each file are superfluous. The same sequence may be used if a separate diagram is being made to record a nodal, or jumping-off, point in a very complex solution. Taking a diagram is a useful technique to remind oneself, for instance, whose move it is in a tempo struggle. In my experience the handiest stamping set for creating diagrams consists of a dozen sticks, six for white and six for black. Each stick may be prominently lettered and a black band drawn round the black sticks in such a manner that when picked up they will give the correctly orientated figurine on the diagram.

(vii) Style
The experienced solver may find clues if he knows the name of the composer. Such clues are not likely to be of use to any other solver, style being so much a matter of subjective appreciation, but let no one maintain that style cannot exist in the endgame study.

WHAT THE SOLVER NEEDS TO KNOW
Theory is much easier for the solver than for the player. The solver needs only to recognise wins and draws. The player needs to play them. With many positions the tactical content is not extensive, however, so both solver and player have largely overlapping requirements of knowledge and skill. In principle the solver should know as much theory as possible and as many exceptions as possible (22 to 25). The young solver achieves this familiarity by developing a strong associative memory, recalling patterns by their built-in relationship
I-2 The Interested

1. Bf4, Kg2/1; 2. Bh2!, Kh1!; 3. Kf1!
K×h2; 4. Kf2, Kh1; 5. Sf5, Kh2;
6. Se3, Kh1; 7. Sf1, h2; 8. Sg3 mate
(i) 1. ... h2; 2. Sf3, Kg2; 3. S×h2
Wins. 1. ... Kg1; 2. Bh2+, Kg2;

This development of 69 is cooked by 1. Kf2, h2; 2. Kf3, Kg1; 3. Se2+. Kf1; 4. Sg3+, Kg1; 5. Be3 mate.

The 'book' evaluation is that to win
White must queen his pawn or remain
with three minor pieces against one.
This evaluation motivates both White’s
threats and Black’s defences. Requiring
great care will be inequalities which
are themselves sources of endgame
studies, such as two minor pieces and
a pawn against a single minor.
1. Sd3!, Bb1. If 1. ... Bc4; 2. Bb5
is straightforward. No better is
1. ... Kc2; 2. Bg6, h6, S×h6;
3. Bh5+, Ke2; 4. B×h6. What’s
this? Surely the black pawn draws
after 4. ... K×d3; 5. Bg6+, Ke2;
6. B×b1, d3, does it not? Yes, but
now watch the Liburkin miracle.
4. ... K×d3; 5. Kb3!, Bc2+; 6. Kh4!
and we have a remarkable exceptional
position in which in a very simple
situation the advantage of less than a
minor piece wins by Zugzwang. The
black bishop is lost and the pawn is
no longer a danger.

with their neural neighbours: another item may always be fitted
in. Should the solver no longer have a young brain then presumably
he can afford vicarious knowledge by acquiring a few of the excellent
reference books available on endgame theory.

The overlap of endgame theory is partial only. The player has to
know the features of rook and pawn endings with a passed pawn in
the centre. The solver does not. Painless play is rare over the board,
commonplace in studies. Queen endings with many pawns cannot be
learned from studies. The player wishing to turn solver, or the
newspaper solver with a deepening interest, should concentrate on a few

areas of theory, those which in solving practice occur in side lines and
which cause most difficulty while concealing none of the pleasurable
surprises of the composer’s ideas. If all time and effort is spent in the
jungle there will be no appetite left for real tropical delights. The object
of knowing theory is to reduce the jungle time to a minimum.

The solver should make a note of ‘and wins’ and ‘and draws’
verdicts that he does not understand, and should look into them,
preferably with the help of someone more experienced than himself.
A check list of what is basic might be as follows.

1. The mating elements. Queen; two rooks (without king); one
rook; two bishops; bishop and knight.

2. Material advantage wins by technique. Two minor pieces and a
pawn, against a single minor piece; queen against rook; two rooks
against two minor pieces; two bishops and knight against a rook;
bishop, knight and pawn against a rook (see note (iii) of 9).

3. Piece and pawn against piece. If the piece with the pawn is
superior, it nearly always wins. If it is of the same value (26 and 27) or
inferior, the result depends. The play can be very difficult (237),
I-2 The Interested

(i) 1. Kf5?, Kd6; 2. Se5, Ke7; 3. Kg6, Sf6 draws.
(ii) 6. Kg7?, Sg5 draws.

V. I. Tjavanovsky
Československý Sport, 1961

Win 3+2

I-2 Regular Solver

1. h6, and whether the black king or knight moves, 2. h7 wins. Note that if Black did not have a knight at all, he would draw, as his king is within the ‘square’ of the pawn. This is a rare case of a rook’s pawn winning where other pawns would only draw (there is no file to the right of the h-file for the black knight to play to).

See 271 for a live example.

29

White to Play 2+2

The principles are not clear cut, and even strong players need to refer to their bookshelves. See also the next section.

4. Queen against rook and pawn. See Chapter II.2, but the solver cannot afford to leave this area entirely to the theorist or strong player. See, for instance, 49, 162 in note (iv), 291 in note (iv), 351 and 380.

5. Two knights against pawn. Not difficult, provided that one does not have to play it! See Chapter II.2.


7. King against king and pawn (17).

EXERCISES

Gerald Abrahams has the fine phrase ‘seeing the figure in the marble’, for chess insight. The sculptor ‘sees’ the shape that he is creating from the apparently meaningless lump. So do the chess player, solver and composer, each in a different way. The reader will find here a graded selection of nearly thirty positions with nothing in common except that there is something to be seen. The final dozen or so do tenuously hang together, however, since they include a group of compositions entered for one of the early tourneys for studies only. The group may be used as a hunting ground or practice field for cook hunters, analysts, solvers, judges, composers, and connoisseurs. There is also historical interest.

(contd. on p. 58)
Assuming that the white king is under some threat, or at least that White is at a material disadvantage, there is a standard drawing resource, a perpetual check, if the white queen can check on c8: 1. Qe8+, Kh7; 2. Qf8+, g6, or a retreat to the back rank, met by the c8 check again, 3. Q×f7+ Kh8; 4. Qf8+, K7; 5. Qf7+.

I-2 The Interested

Frequently recurring idea

30

White to Play (no white king) $1+4$

1. ... g3!, 2. hg, f3!; 3. gf, h3 wins.
The attraction of chess in a nutshell.
A level-looking, symmetrical pawn position, yet one side wins. The power of the advanced pawn, the power of sacrifices, the helplessness of superior force against a single passed pawn that cannot be reached... seen for the first time, or better still, solved, this must generate enthusiasm!

I-2 Regular Solver

Picking up from 32, the solution runs:

C. Cozio, 1766

(position after Black's 5th move)

32a

Win $2+3$

1. Ra1/i, Bc5; 2. Ra2, Bd6; 3. Ra1, Kg5; 4. Ra2, Kf5; 5. Ra1, Ke4; 6. Ra2, Kd3; 7. R×a3+, B×a3; 8. Kg3 and 9. K×a4 draws.
(i) 1. Rd2?, Be5; 2. Ra2, Bb2; 3. Kg1, Kg3 wins.

C. Cozio, 1766

33

Draw $2+4$

van Zuylen van Nyewelt
'Supériorités...'; 1792

34

Whoever has the move, loses
I: Diagram
II: Move bPd7 to b7
(i) 4. ... Kc5; 5. Rd3, b3; 6. a3, Sd2; 7. S×b3+, S×b3; 8. Rd5 mate.
In this variation the knight is sacrificed for the rook to mate while in the given main line the roles are reversed.

There is nothing unusual in this position, yet it leads in a few moves to the queens almost exchanging squares, and to an extraordinary black king move. 27. Qa5, c6; 28. Q×a7, Qg5; 29. Qe7, Qd2. The queens have changed sides! 30. B×h7+, Kh8!!
Not only disdaining to take the bishop, but letting White take the rook with check! Yes it was Harrwitze not the great Anderssen, who was Black!
31. Re4. Since 31. Q×f8+, K×h7 leads to Black mating on g2. 31. ... B×e4; 32. B×e4, Qe1+i; 33. Kh2, Sf1+; 34. Kg1, Rg8; 35. Qg5, Q×e4 and Black won. If a position is interesting, what does it matter whether it was composed or played?

1. baQ+/i, K×a8/i; 2. Be3, Qe7+;
3. Bf4, Qe5; 4. Be3, Qe5+; 5. Bf4,
a draw by repetition, quite in a modern style apart from the first move.
(i) 1. Be3?, Q×e3+; 2. S×e3, Sb6
could well win for Black, but it may be that doubts about this variation inhibited Cook from publishing this study.
(ii) 1. ... Q×a8; 2. Bf4+, Ka7;
3. Be3+, Kb8, this time a perpetual
on the king instead of on the queen, an attractive kind of echo.

1. Qa1!, Qb1/i; 2. Q×h8!, Qb8!!;
3. Qa1, Qb1; 4. Qh8 draws. The
kind of long-distance corner play
familiar to problemists.
(i) 1. ... Qb3; 2. Q×h8, R×h3+;
3. S×h3, R×h3+; 4. K×h3, e2+;
5. Kh2, Qg3+; 6. K×g3, e1Q+;
7. Kh2, S×e8; 8. Qb2, Qb1; 9. Qa3+, Kb8; 10. Qa8+, K×c7; 11. Qc6+, Kd8; 12. Qd5+ with perpetual
check. 1. ... Se4; 2. Q×a2+, Kb7;
3. Qd5+, Kc8; 4. Q×e4 with a draw.
The analysis is Cook's.

1. Rf8+!, R×f8; 2. Q×h7+!, K×h7;
3. g×f7+ and 4. S×d7. White would
not win by promoting to queen.

67. Sd6, Qh3+; 68. Kf6, Qc3;
69. Sf5+, Kh7; 70. Be6, Kh8; 71. Kf7.
But not 71. Kg6?, Q×d4. 71. ... 
Qe7+; 72. Se7, Qg3; 73. Rd8+.
Also 73. Rh4+, but not 73. Sg6+?, 
Q×g6+. 73. ... Kh7; 74. Bf3+, 
resigns, because 74. ... Kh6; 75. 
Rh8+ and 76. Rg8+ wins the queen.

The play does not prove that this
force is always a win for the co-
ordinated forces, and one would like
to see play against an unconfined king.
In most cases the pieces will win, but
perhaps a mention in Chapter II-2
would not be out of place, among the 'grey' areas of theory.
1. Qh6+/i, Rf8+; 2. Kc7, R×b8/iii;
3. Qc3+, Rb1; 4. Qc3+, Rb2; 5.
Qd4, Kb1; 6. Qd1 mate.
(i) 1. Qe2?, Rf8+; 2. Kc7, R×b8;
3. Qe5+, Kb1 draws.
(iii) 1. Qh6! is very startling. 1. Ra8?,
Rf8+ and 2. ... R×a8.
(ii) 1. ... Rc4+; 2. Kb7, Rb4+;
3. Kc6, R×c4+; 4. Kb5, R×c5+;
5. Kb6 wins. Here 2. ... Rc7+ is met by 3. Kb6.
(iii) 2. ... Rf7+; 3. Kb6 wins.

It is curious, and amusing, that White
wins by riddling himself of his rook,
while Black would draw the final posi-
tion (before the mate) if his rook were
also off the board.

The game was agreed drawn after
55. ... Bd8; 56. Kb5, Bc7; 57, Ka5,
Bd8+; 58. Kb5. But Dr J. M. Aitken
pointed out that Black can win, by
the remarkable idea of sacrificing his
b-pawn, apparently for nothing! A
typical study idea. For example:
55. ... b2; 56. Bc2, Ka2; 57. Kb4, a3;
58. Ka4, b1Q!; 59. B×b1+, Kb2!;
60. Kb4, Bg5; 61. Ka4, Be7, and either
now or later White will have to move
his king, allowing ... K×b1, or his
bishop, allowing the a-pawn to
promote.

(From this promotion-sacrifice idea
appears first in a study by O. Duras
honoured in a 1906 tournament of
Bohemia.)

The tourney demanded a 'repetition'
theme. 1. Sd1/v, Bb3/ii; 2. R×c3,
B×d1+; 3. Kd2/vi, Sf7/iv; 4. Ra3/v,
Bh5; 5. Ra5+, Kc6. 6. Ra5+ wins.
(i) 1. Sa4?, Bc4+; 2. Kc6, Bb3; 3.
R×c3, B×a4 draws, but not 1.
... Bb3; 2. R×c3, B×a4; 3. Rd3+.
(ii) 1. ... Bc4+; 2. Kd5, Bb3; 3.
R×c3, B×d1; 4. Rc8.
(iii) With a threat of 4. Rd3+.
(iv) The fine echo, or repetition,
occurs after 3. ... Sb7; 4. Rh3,
Ba4(g4); 5. Rh4+ wins, the try
4. Ra3? failing to 4. ... Bh5; 5.
Ra4+, Kd5. This line also occurs after 3.
... Se6, and still the try
fails, despite the fact that on e6
the knight does not control a5, as
after 4. Ra3?; Bh5; 5. Ra4+, Kd5;
6. Ra5+, Sc4 can be played.
(v) 4. Rh3?, Bg4; 5. Rh4, Sc4 draws.

Like a boxing match, there is
punching, counter-punching, feinting
and blocking. The knock-out blows
are a left hook to a3 and a right
hook to h3, both by the white rook.
The boxing analogy should not blind
the reader to the composition's
delicate balance.

Composer's solution: 1. Sd4+, Ke4;
2. S×f3, e1Q+; 3. S×e1, Bb4+;
4. Kc2, B×e1; 5. Ra3.
Because of the striking resemblance
between the position after 4. ...
B×e1 and the position in 43 after
3. Kd2, some commentators considered
44 to be a grave anticipation of 43.
However, the award in the Lommer
Jubilee Tourney was not changed, the
judge making the following points.
(i) 44 is cooked by 5. Rh3.
(ii) In the alleged similar positions,
White has the move in one and Black
has the move in the other, the latter
having a white threat of Rd3+.
(iii) The prizewinner combines both
Ra3 and Rh3 in sound variations.
(iv) In each case of the critical rook
move the alternative is neatly
defeated.
Study 44 was one of Bent's earliest
pieces and one he would prefer for-
 gotten. He has accepted my apologies
for its resurrection!
I-2 THE INTERESTED

V. Dolgon and B. Sidorov
2nd Prize
Rubinstein Memorial Tourney 1967-68
Rook and Pawns Section
Award in Szachy, iv. 1969

Win 4+4

46 to 51 and 54 are Croydon Guardian 1884 tournament studies.
1. Ra2/1, Q×a2; 2. Qb1/1, Q×b1;
3. b7, g6; 4. b8Q+, Kg7; 5. Qb7+
Kh6; 6. Se6, g5; 7. Qg7+, Kh5;
8. g4+, Kh4; 9. Qh6 mate.
(i) 1. Re2?, Qa8!; 2. b7, Qb8+;
3. Kh1, fg; 4. Q×g5, h6; 5. Q×d5,
Sed6; 6. Re7, c4; 7. Qe5, Bc3; 8.
Re8+, Q×e8; 9. Q×e8+, S×e8;
10. b8Q, Sd6 wins, or at any rate
draws with ease. (See, for instance,
the end of 365.) It should be clear
that refusing an attempted solution
to a win study may involve either a
draw or a win for Black without
affecting the study’s correctness.
1. Qb1?, fg; 2. Ra2, Q×a2; 3. Q×a2,
S×b6; 4. Qa6, h6 draws.
1. b7?, Qa7!; 2. Qf4, Q×b7; 3. Re2,
Se5; 4. Q×e5, Qb8; 5. Rf5, Q×f4+;
6. R×f4, c4; 7. Rf5, fg; 8. R×d5,
Bd6+; 9. Kg1, c3; 10. R×b5, c2
wins.
The judge awarded points as follows.
Profundity—5; Brilliance—10;
Neatness—10; Usefulness—10;
Ingenuity—10; Total—45.

A. F. Mackenzie (Jamaica)
1st Prize
Croydon Guardian, 1885
(first published 3. i. 1885)

Win 7+10

46

1. B×e5, S×e5; 2. Qh7+, Sf7/i;
3. Q×f7+, K×f7; 4. B×e6+, 
K×e6; 5. Sc5+, S×c5 stalemate.
(i) 2. . . . Kf6; 3. Qh8+ or 3. Qh4+
draws.
Brilliancy—10; Neatness—10;
Usefulness—5; Ingenuity—10;
Total—35.

J. Jespersen (Denmark)
2nd Prize
Croydon Guardian, 1885
(first published 4. viii. 1884)

47

Edward Marks
3rd Prize
Croydon Guardian, 1885
(first published 22. xi. 1884)

48

5+7

49

4+4

1. R×a6!, Q×a6/1i; 2. Rc6+!, 
Ke5/1i; 3. R×a6, e1Q; 4. c6,
Qh4+ /ii; 5. Ke8, Qc4; 6. c7!, 
Q×a6+; 7. Kb8 with the book
draw of c-pawn on the seventh rank.
(i) 1. . . . e1Q; 2. R×e6+, Q×e6;
3. Rc6, Q×c6 stalemate.
(ii) 2. . . . Q×c6 stalemate.
(iii) 4. . . . Ke6; 5. c7+!, Kf7; 6. c8S
draws (also 6. Ke8).
Profundity—5; Brilliance—5;
Neatness—10; Ingenuity—5;
Total—25.
1. c6, b4; 2. Sb7, Ba6/1; 3. Sc5+, Ke5; 4. S x a6, Kd6; 5. S x b4 wins.
(i) 2. ... Bb5; 3. Sd6+.
2. ... d4; 3. c7, Be6; 4. Sc5+.
2. ... b3; 3. Kd2/
Neatness—10; Usefulness—10;
Ingenuity—10; Total—30.
From the facts that the judge awarded
only 0, 5 or 10, and that he did not
automatically sequence the prizes by
points scored it can be inferred that he
found the points system unsatisfactory.
Today's comments would be that
originality should be a criterion
and that some of the Ranken criteria
are insufficiently clear—though they
seem to have been clear to him.

Composer's solution: 1. R x a2,
R x a2; 2. f7, Re2+; 3. Kd6, Rd2+;
4. Sc7, Re2++; 5. Kb7, Rb2+;
6. Ka8 and wins.
A neat idea tidily presented, if one
overlooks the introductory capture.
Unfortunately, as the tourney judge
noted, completely unsound, as 2. ... 
Ra5+ draws. (Dual: 5. Kb8.)
For a white king march to escape
checks from a rook trying to prevent
a pawn promoting, see 52 and 53.

1. c7, Ra5+; 2. Kc4/1, Ra1/ii; 3.
Be6/, Rc1++; 4. Kd5, Rd1++; 5.
Kd6, Re1++; 6. Kf7/iii, Rf1++; 7.
Kg7, Rg1++; 8. Kh7/iv wins.
(i) 2. Kd4/d6?; R x d5++; 3. K x d5,
Kb7.
2. Kc6?, R x d5; 3. c8Q, Rc5+;
4. K x c5 stalemate.
(ii) 2. ... R x d5; 3. c8Q, Rc5+;
4. Q x c5+ wins.
(iii) 6. Kd7? is a waste of time,
6. ... Rd1++; 7. Ke7 and so on.
(iv) Precise. 8. Kh8?, Rb1; 9. c8Q,
Rb8 draws. The checks are exhausted
because the bishop controls h1.

With the same force as 52, and the
same result, the win is by a white
king march from the h-file onto the
same file as the pawn, instead of the
reverse!
1. Bb4/1, Rh2+; 2. Kg7, Rg2+;
3. Kf7, Rf2++; 4. Ke6, Re2+/ii;
(i) Why not 1. d8Q? Because of 1. ...
Rb8; 2. Q x b8 stalemate!
(ii) 4. ... Rf8 not on because of 5.
B x f8.

1. Bd5!, K x d5!; 2. Rc1, S x c1;
3. a7, h1Q; 4. a8Q+ wins.
If 1. ... Sb4; 2. Bh1 wins. The first
sacrifice decoys the king and clears
the way for the second sacrifice,
which clears the diagonal and blocks
the first rank to prevent Black's
promotion also being check. It is
interesting to compare this study
with the next, by Prokeš, sixty-five
years later.

1. Rg6+, Kc5; 2. B d5/1, K x d5;
3. Rh6, B x h6/1i; 4. a7, h1Q; 5. a8Q+ wins.
(i) 2. Rh6?, B x h6; 3. Bd5, Kb6
draws, so the bishop sacrifice must be
played first, taking the black king
one square farther away from the
white pawn. It is also enough for
Black to play 2. Rh5?, K x c4; 3.
R x h2, Kb5; 4. Ra2, Ba7; 5. Kg6,
(ii) 3. ... Kc4; 4. R x h2, Kb5;
5. Ra2 is given by the composer as
winning, but 5. ... Ba7 draws as in
(i). For once the earlier study was
sound! See 93.
CLASSIFICATION

For classification by theme, see Chapter III-2. For classification by material, see Chapter I-3. Any of the latter systems will do for keeping one’s own collection, but one which has unsurpassed conciseness, neatness and usefulness for the solver, is worthy of special notice. It was developed originally by the endings editors of The British Chess Magazine, R. K. Guy and his successor, H. F. Blandford. This book uses a variation of the system, described on p. 353, and the solver will find that any fully or partially recalled position may be retrieved within seconds via the Diagram Directory.

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The Chéron volumes (see Chapter II-2 bibliography) while directed at the practical player, and indeed covering the theory of the endgame in extraordinary detail, contain hundreds of studies analysed with the same care as the didactic positions.

3. Friend, or Curious Enthusiast

THE ENTHUSIAST

Although it would be comic to compare study enthusiasts with football fans since the latter number millions, while the former can be counted in thousands (if they would stand up, like football fans, to be counted!), nevertheless both have in common that they are interested in their heroes as people. That a football fan does not play the game does not prevent his becoming knowledgeable, even to an encyclopedic degree, about his interest—indeed, it often seems that a lack of executive skill is a spur to acquiring theoretical expertise and accumulating facts.

The idea is a voluntary pin (that is, not in answer to a check, and not a capture) of the white rook on a white diagonal, 1. Rf5!, Bg6, followed, after an interlude, 2. h8Q!, B×h8; 3. Ke3!, Bg7, by another voluntary self-pin on a black diagonal 4. Rg5!, Bh6, this being stalemate.
The study friend appreciates this, but refuting the try 1. h8Q?, or showing a draw after 3. . . . Kd1; 4. Rg5, Bb1; 5. R×g4, Kc1; 6. Rc4+, are not in his line.

Anyhow, the study ‘friend’ is no solver (though he may well have been one in his younger days), he is no analyst, he is no composer, he is a diffident connoisseur, he may well have a poor memory for chess positions, but his interest in everything else about studies is unlimited. Essentially he is a simple man, enjoying the main line, but if he puts other skills, non-analytic ones, into his hobby, he can be a rare and invaluable contributor to the scene. His limited skill is not so very important. There is no doubt that an acquaintance with historical development, with schools of thought, with the achievements of the great, even with their mere names and nationalities and
If White has the move, he wins after 1. K x h6, K x a6, by the ancient 'bare king' rule. If Black has the move, he draws by 1. ... K x a6; 2. K x h6, K x a5, the rule allowing Black an immediate reply before the position was assessed. The anomaly is obvious to us today, but it persisted for centuries.

The colours have been reversed from the original. The point is to show the differences between (a) queen and fers (Persian 'fizan') and (b) bishop and alfil. The man on e3 is a fers and can move only one square diagonally. White is not in check. If h3 were a bishop, then 1. Re8+, Kh7; 2. B f5 would be mate, but it is an alfil, moving only to f5 (or f1) and to no other square. Hence the reply to 2. Af5+ is 2. ... Kg6! The win is 1. Af5+, Kg8; 2. Rh8+, K x h8; 3. Re8 mate.

The colours have been reversed from the original. The position is famous enough to have been incorporated into the fabric of the Escorial near Madrid. It is a mate in three. 1. Sh5+!, R x h5; 2. R x g6+!, K x g6; 3. Re6 mate.

I-3 THE INTERESTED

The win by 'bare king'

57

3+2

From an Arabic manuscript

58

Win

4+7

Attributed to Al-Adli
9th Century

59

Win

5+5

I-3 FRIEND, OR CURIOUS ENTHUSIAST

rough dates, is as much help in the balanced view of an endgame study as is a profound analytic dismemberment of it. Indeed, he who knows the background has an advantage over the strong player (assuming that the latter is only a strong player and hence only a strong analyst), in that he is in a position to put the composition into perspective. Restricting one's attention to the chess content of a position ignores, for example, the viewpoint of evolution, human factors and artistic considerations, to all of which standards apply as they do to the chess moves, if, as this book maintains, chess is something more than a game.

The player-analyst or solver rarely thinks of the composer at all. He is not even interested in the fact that there is a composer. He is interested in the position, in the solution. The enthusiast grasps that a human being (occasionally more than one) has created this thing; without aspiring to understand how it came to be composed, and without comprehending the solution in all its depth, he wants to know more about it—context, environment and so on. It is the enthusiast who reads introductions and prefaces—the player-solver never!

This chapter is background reading. Elaborations, of a more technical nature, will be found elsewhere in the book for some aspects, but the following topics will be covered here: rough definition of study; history and development; the study in Britain and in the United States of America; composing tourneys; the word study; and classifying. A selection of endgame 'classics', the evergreen, always quoted positions, will be given, and there is an appropriate bibliography.

WHAT IS AN ENDGAME STUDY?

The more hairy aspects to this question will be considered in Chapter III-1 on the connoisseur, where the resemblances and differences between problems and studies are discussed. Indeed, there is no easy answer at all in terms to satisfy the logician or purist. For practical purposes the answer is: a composed chess position carrying either of two stipulations—'White to Play and Win', or 'White to Play and Draw'. From this definition it is mechanical to identify an endgame study at sight. A few further remarks may be found useful, however. 'Composed' means simply that one person placed both the white and black pieces in their positions; the diagram did not occur in a game. Occasionally, two names are associated with a diagram: the composition is a joint effort, an exact parallel to a Rodgers and Hammerstein musical. Also occasionally, the diagram says 'Black
to move, White wins' (or 'draws'). 'Plays' and 'moves' are synonymous, though both are misleading in suggesting that the position is from a game, which as already made clear, it never is. Confusion arises from the fact that a study is nevertheless to be considered, for solving purposes, as if it had occurred in a game! Lastly, the stipulation is often abbreviated (unless Black is to play) simply to 'Win' or 'Draw'.

**HISTORY AND DEVELOPMENT**

The persistent popularity of chess throughout the thousand years and more of its existence is readily explained. It has a central piece, the king, whose death in checkmate marks the sudden end to the struggle of life. This is pure drama, with universal appeal, in symbolic form. Other games, such as draughts (checkers) or the territory games like Go, lack this dramatic quality, however deep they may be, and Go is probably deeper than chess, as well as being possibly three times as old. Why, indeed, should Go not be deeper, using a board over five times the size of a chessboard?

We have no way of knowing if the Persian or Indian original players of chess ever used the pieces for composing, but by the ninth century A.D. the conquering Arab nations who brought chess to the West had discovered composition, that is that one could use the chessboard, chessmen and chess manoeuvres in much the way the composer of music treats sound, instruments and sequences of notes. They called these chess compositions 'arrangements' (mansubat, or, in the singular, mansuba) and naturally they illustrated checkmate. The position was generally designed to look like the end of a game, with many men cluttering the board. White (generally called red) is likely to be threatened with mate while being required to win. There is normally no limitation on the number of moves. Were these mansubat ever draws? Relatively seldom, though perpetual check, inability to force exchanges, equality of force and repetition were all recognised. Partly this must be due to the drama of mate being compulsively attractive, but it is also due to the rules of chess being heavily loaded against the drawn result. Stalemate was recognised, but was a win for the party administering it. Bare king, describing the situation where a king is alone against enemy force, was also a win for the superior side, with the one sensible exception that the game was drawn if in reply to the capture that 'bared' him the king could himself remove the last opposing man with his next move. The consequences of these
A mate very popular with solvers, editors—and composers! 1. Rh7+, Kg8; 2. Sf6+, Kf8; 3. e7+, S×e7; 4. Rf7+, S×f7; 5. Se6 mate.

Alfils on f5; d2. Firzans on a2, h7; d6. 1. Rf8+, Kg7; 2. Rg8+, Kf6; 3. Rg6+, Ke5; 4. Re6+, Kd4; 5. Re4+, Kc3; 6. R×c4+, Kb2; 7. Rc2+ (missing 7. Sd1+, Ka1); 8. Rc1 mate. Ka1; 8. Rc1+ (missing 8. Fb3(b1)+, Kb1; 9. Ad3 mate) 8. ... Kb2; 9. Rb1+, Kc3; 10. Rb3+, Kd4; 11. Rd3+, Ke5; 12. c6+! (not too hasty with another check from the same rook!) 12 ... Fc5; 13. R×c5+, Kf6; 14. Rd6+, Kg7; 15. Rg6+, Kbh; 16. Rg8 mate.

An early nineteenth century composition is provided by I03.

Alfils on f5 and g1, black firzan on f1. One can see why this was a highly prized sample of composing skill. Although the moves are necessarily forced, the long journey of the black king is imposing and dramatic. 1. Rh7+, Kg8; 2. Se7+, Kf8; 3. Sd7+, Kc8; 4. Sf6+, Kd8; 5. Se6+, Ke8; 6. S×a7+, Kb8; 7. Sc6+, Kc8; 8. Rh8+, Kc7; 9. d6+, Kbh; 10. Sd7+, K×b5; 11. Rb8+, Ka4; 12. Se5+, Ka3; 13. Rb3+, Ka2; 14. Sb4+, Ka1; 15. Ra3+, Kbh (15 ... Kbh; 16. Ad3+); 16. Ra2+, Kc1; 17. Sb3+, Kd1; 18. Ra1+, Ke2; 19. Sd4+, Kf2; 20. Sd3+, K×g1; 21. Sf3+, Kh1; 22. R×f1+, Rg1; 23. Sf2 mate. It is artistically a pity that 23. R×g1+ is also possible.

rules for endgame theory were profound, and they were also well known by the better Arab players. These were not the only differences from the modern game. The moves of the queen and bishop were greatly restricted, the former being unrecognisable except by its initial position at the king’s elbow: the firzan, fers, or councillor, as it was called, could move one square only, and that diagonally. The primitive bishop was the alfil* (etymologically related to elephant), and this jumped or moved diagonally two squares. Pawn promotion existed, but without choice: the weak fers, scarcely better than a pawn, was compulsory. Castling was embryonic, though certain special leaps of the king and promoted fers are on record. The double move of the pawn was unknown.

Arab chess was highly developed. It had master players, who wrote sarcastic comments on each other’s play, just as players do to-day. Their composing skill was not to be surpassed until the eighteenth century. This is not to say that Europe made no advances in chess relevant to composition during these dark ages. The Alfonso manuscript, which one hopes is still safe in Madrid, is the oldest of extant collections of compositions, dating at about 1250. The most famous of these collections are two from Italy, known eponymously as the Bonus Socius and, slightly later and even finer, the Civis Bononiae (‘citizen of Bologna’). The Arab positions are repeated time and again, and some originals, perhaps just non-Arab positions, are tacked on to the end, or, in later anthologies, intermingled. There is a change in the stipulation, which now tends to be to-day’s familiar ‘Mate in 2’, ‘Mate in 3’, and so on. But an excrescence which it will take centuries to eradicable appears. The European composer had the urge but not the talent to manipulate the chess basic material. So he resorted to subterfuge and invented the conditional problem in all its unregulatable manifestations. There is the ‘exact’ mate (373); the ‘fi-dated’ piece, immune from capture: the mate with a nominated man; the mate without moving this or that piece; the self-mate emerges obscurely; the conditions even accumulate and in general seem to derive from a lasting pre-occupation with playing for stakes and oddsgiving. Still the draw does not have a recognised place. At this stage the chess problem and the chess study have a common ancestry, based more than ever on the mystique of checkmate which was fostered by the medieval propensity for moralising and probably influenced by the ‘jocus partitus’ or ‘jeu parti’ (derivation of ‘jeopardy’), the divided or even game position the subject of wagers.

* Derivations, often both complex and obscure, are in Murray, see bibliography.
(ii) 1. ... Kd1; 2. Sg3+, Ke1; 3. Rc1+, Ke2; 4. Rc2+, Ke1;
5. Sg2+, Kd1; 6. Sce3 mate.
(iii) 3. ... Bd6+; 4. Kh3, Kd4; 5. Rd2+, Kc5; 6. b4+, Kc6; 7. b5+, Kc7; 8. Sd5+, Kg8; 9. S×d6 mate.
(iv) An echo: 8. ... Ra8; 9. Sce6+ Kb8; 10. Rc8+ mates.
What is modern here? Quiet moves, echo, king driven towards own men, white king not under mate threat, but actually allowed to be checked. Note how neatly the black bishop on f8 prevents the immediate check by a white knight on the eighth move.
The position has been rotated 180 degrees. 1. b7+, S×b7; 2. Sc6 and wins the knight, hence also the game under the 'bare king' former rules. The 'bare king' rule would also apply after 1. ... Ka7(b8); 2. Sc6+.

1. ... Kd6; 2. Rh5!, R×h5; 3. Ra6+, Kc-; 4. Ra5+, Kc-; 5. R×h5 wins.

1. Sf6!, Kh1; 2. Se4!, Kh2; 3. Sd2!, Kh1; 4. Sf1, h2; 5. Sg3 mate. The colours have been reversed. The man on b1 is still the alfil, a piece to which only eight squares are available on the whole board. Since the mate with knight and bishop is not easy, one might suppose with the weaker alfil it would be impossible. The position has been rotated 180 degrees. 1. Sc7, Kg8; 2. Se6, Kh7 (Black's moves are always the best) 3. Kg5, Kh8; 4. Kh6, Kg8; 5. Kg6, Kh8; 6. Kf7, Kh7; 7. Sg7, Kh6; 8. Kf6, Kh7; 9. Sf5, Kh8; 10. Kf7, Kg8; 11. Ke8, Kh8; 12. Kf8, Kh7; 13. Kf7, Kh8; 14. Sh6, Kh7; 15. Sg8(g4), Kh8; 16. Ad3, Kh7; 17. Af5+, Kh8; 18. Sc7(e5), b1F (that is, fers or firzan, the only promotion allowed under the ancient rules). 19. Sg6 mate, but not if f5 were a bishop!

This is the actual recorded position. 1. Qe6+, Kh8; 2. Sf7+, Kg8; 3. Sh6+, Kh8; 4. Qg8+!, R×g8;
5. Sf7 mate. There is a second solution at move three, 3. Sd8+, Kh8; 4. Qe8+, Qf8; 5. Q×f8 mate. It is easy to correct this by placing Black's queen on a4. Instead there is the stipulation that no black man may be captured! The probable explanation is that the position was the object of wagers. In such cases trivial distinctions are crucial to winning—the wager.
Nevertheless the crucial steps in modern development were being taken, by all outward signs accidentally. Shortly before 1500 the modern queen move appears in northern Italy. 'Appears' is far too tame. The new chess was called after the 'maddened' or 'rampaging' queen, and began very fast indeed, as if itself on the rampage, to revolutionise chess. The bishop also acquires its modern powers. The date is such that the new move could have been invented by Leonardo da Vinci, though I hasten to add that there is absolutely no evidence for this, which is conclusive in the light of Leonardo's well documented life. But printing had been invented and books appeared. The first name that to-day's well read enthusiast will most likely recognise dates from just this period—the Spaniard Lucena. His 1497 work includes examples of both old and new chess. It does not include the position basic to rook and pawn against rook which is often attributed to him (see 80). The compositions show little or no advance. There is an improvement with the Portuguese-born Damiano, in whose collection we find a hint of a distinction between problems and game positions in the use (1512) of the word 'subtleties'. The word stuck, and recurs for three centuries, though a late variation on it is 'stratagems'.

Ruy Lopez' book (1561) contains eight paragraphs of advice on the endgame. They show the peculiarities of the Spanish game. For instance, rook's pawn and bishop not commanding the queening square was a win, as indeed was the straight king and pawn against king, because stalemate was still a win, not to mention 'bare' king (known as robado, which, however, like stalemate or 'mate ahogado', was in Spain a 'half-win', taking half the stake). Of fascinating interest is the seventeenth item of Lopez' code of laws, which enunciates the 50-move drawing rule. I surmise that the rule was intended to put a limit on game length where stakes were involved rather than intended to relate to endgame theory—no wonder the rule is in an unsatisfactory state to-day. From this point on we must devote more and more attention to Italy. Chess became popular in the courts where nobles patronised strong players, competing for the possession of the best. Italian players travelled to Spain to do battle with the older Spanish school, the young player Leonardo, aged about 32, defeating Lopez and Ceron in Madrid in 1574–5. A Sicilian, Boi, was Leonardo's equal. He too defeated the Spanish players and on his way home was captured by pirates. His chess skill so impressed his Moorish captors that they released him. He died, as Leonardo also, poisoned, possibly by a rival. The occupational hazards of being an
Italian chess master were clearly serious and would have called for a high rate to insure their lives! The Italian rules, incidentally, tended to be more in line with the modern version, stalemate being a draw. There is little doubt that the continuous successes of Italian players over two centuries were vital in influencing the modern game. We shall see a spectacular demonstration of this. The competitive emphasis of this age focused skill sharply on the openings, but even so there is a contemporary of Leonardo's that commands attention for the endgame—Giulio Cesare (i.e. Julius Caesar) Polerio.

We have only manuscripts of Polerio, not books. Also, as this Roman travelled widely we do not know how many, if any, of the positions he quotes are his own brain-children. But he was a fine analyst and successful player, the best in Rome in 1606. One of the manuscripts, which Murray dates 'hardly later than 1590', contains twelve 'subtleties' and thirty-eight 'problems'. Two examples illustrate what he thought valuable as 'subtleties' (74 and 76).

The Neapolitan Dr Alessandro Salvio published a treatise in 1604 containing many games and twenty-one 'gioschi di partiti' or problems, and in 1617 Carrera, a Sicilian priest, published a fat work of 640 pages containing a mine of information on contemporary chess. Carrera's information is much more valuable than his analysis, but he still gives many positions that are basic to endgame theory and hence also to the study. From this point on it is possible, or at any rate it is convenient for the purpose of this book, to draw a distinction between the development of the study and the development of endgame theory. The latter subject, quite a large one, is still awaiting a historian. Here we can barely touch on it, noting, though, that the authors we mention will in many cases, and particularly in the nineteenth century, be the same as those the historian of endgame theory will need to consult. We must also be ruthless in restricting mention of the great players from this moment unless, directly or indirectly, they contributed to the study. Gioachino Greco, of Greek birth but known from his Italian residence as 'the Calabrese', was a highly successful and much travelled player who did much to popularise chess in England and France in the 1620's, never in fact returning to his native Italy after 1621, so his influence there was non-existent. Although chiefly important for his games, he is noteworthy here because he gave them brilliant endings, full of sacrifices, thus setting a fashion, which may have influenced future writers on the endgame. Although Greco himself produced only manuscripts, the publication in Paris after his death of a
I.3 THE INTERESTED

This also occurs frequently, in one form or another. 1. Rh7+, Kg3; 2. Re7!, Ra8; 3. Ra7!, R×a7 stalemate.

Salvio, quoted (p. 518) by Loli, 1763

Draw 2+4

An amalgam of brilliance and simplicity. 1. ... Ra1+; 2. Rf1, R×f1+!; 3. K×f1, Bh3! and however White replies he is left without a pawn on the g-file, and no amount of h-pawns can win with the wrong coloured bishop and the defending king on the queening square.

G. Greco, early 17th century

Black to move draws 5+3

The book *Il Puttino* is a romance on the career of Leonardo. This position, frequently attributed in error to Lucena, is one of the basic wins in rook and pawn endings. The procedure is 1. Rc4, to be followed by 2. Rd4+ and the white king then emerges, in reply to which checks from the black rook on the files can be met now by an eventual Kh5 and Rb4. 1. ... Rd2 is met by 2. Ra4 and 3. Ka8.

Scipione Genovino

From Dr Alessandro Salvio’s *Il Puttino*, 1634, p. 69

Win 3+2

I.3 FRIEND, OR CURIOUS ENTHUSIAST

Captain Joseph Bertin, 1735

Noble Game of Chess, (p. 54)


Win 11+12

P. Stamma, 1737 (No. 15)

1. Kc4, a2; 2. Kh3, a1S+; 3. Kc3, Sc2; 4. Re2, Sa1; 5. Rf2 wins. A frequent game finish that must have been already old in Stamma’s day.

Win 2+2

The solution given here is by Bledow and von Oppen (Berlin, 1856). 1. Be5, Rh1; 2. c7, Rf1; 3. Kh7, Rh1+; 4. Kg6, Rg1+; 5. Kf7, Rf1+; 6. Kg8, Rh1; 7. Bf4, Rh4; 8. Bg5, Rg4; 9. Bd8, Rgl; 10. Kh7, Rh1+; 11. Kg6, Rg1+; 12. Bg5 wins.

Win 4+
1. Bg8! A fine first move. 1. ... h6; 2. Qe8, Qe5; 3. Be6+, Kh7; 4. Qg8+, Kg6; 5. Bf7+, Kf5; 6. Qh7+ and 7. Qg6 mate. 1. ... Qe2; 2. Qe8 wins. The position is as given by Lollis in quoting del Rio, but to avoid the straightforward second solution 1. Qe5 the black pawn on b5 should be placed on, say c6, allowing the reply 1. ... Qb8.

Given as 'Mate in Three'. 1. Qh7+, S×h7; 2. Sg6+, Kg8; 3. Bd5 mate. This contrasts starkly with the crowded Arab mansubat and with the majority of Stamma's settings.

An enormous leap forward in the endgame took place in the middle of the eighteenth century. The mysterious Stamma revived the type of composition we have known as mansuba, probably adding compositions of his own, and his '100 Endgames', though not published under that name, became justly famous. Within a few years, however, they and even the great Philidor's analyses were entirely eclipsed by an Italian trio, using, like their French contemporary, all the rules as we know them to-day. Not only were they countrymen, they were actually fellow-citizens of the town of Modena, and friends, as far as we can tell. The first wrote a small book (but including both an index and a bibliography!) for experts, published anonymously in 1750. The 'Anonymous' of Modena was later identified as Ercole del Rio, an advocate in the civil courts. His book is indeed difficult, the variations being without notes, but the collection of endgame positions is outstanding. The first example we give (84), is excellent by to-day's standards. The black queen is forced to its central blocking position by a non-checking move that is not a capture either. The play is mating, but there is a fine surprise initial move. There is little doubt that of the three Modenese masters, Ercole del Rio had the greatest chess talent. In 1763 there followed an imposing and impressive treatise of 632 large pages by Giambatista Lollis, containing a 'century' of endgame positions by various authors.

*M Murray traces this custom back to about 1600 and suggests that it was imported from Russia, the skill of whose players had impressed Tudor travellers (British Chess Magazine, 1903, pp. 281–9).
1. Qb3, Kd2; 2. Qb2, Kd1; 3. Kf3+/i, Kd2; 4. Kf2, Kd1; 5. Qb4+, Ke1; 
6. Qb4/i, Kd1; 7. Qe1 mate.
(i) Controlling e2 in one move, in order to meet the pawn promotion 
by Qe2 mate.
(ii) The quickest, but not the only 
method. 6. Ke2, Kd1; 7. Qb4+ 
wins, and so does 6. Qa1+, Kd2; 
7. Qe1+, Kd3; 8. Qe3+ or 8. Kf3 
or 8. Qc1.

1. Rcg1!, B×g1; 2. R×g6+, R×g6 
stalemate.

White draws by perpetual check or 
stalemate. The rook always checks on 
the file unless Black's king moves to 
the e-file, when Re2 draws, or unless 
... Kf3 is played, when the reply 
Rg3+, K×g3 leaves stalemate. 
(A similar position is in Salvio, 1604, 
but the black queen there stands on 
the f-file, with the white king on the g1 
square. But Del Rio gives the actual 
diagrammed position, in 1750.)

1. Qh6+, Kg3; 2. Qh2 mate. 
Only two moves? Well, put the white 
king on b2, white queen on g7; 
black king on e1, black queen on e4, 
and a black pawn on e3. This is 
A. Batuyev v. V. Simagin from the 
1954 Soviet team championships, 
after White's 83rd move. Black has a 
won game, but continued 83. ... e2?; 
84. Qg1+, Kd2; 85. Qc1+, Kd3; 
86. Qc3 mate. It is exceedingly curious 
how something that actually happens, 
however poor in quality, can exert a 
greater fascination than something 
contrived, however subtle. The funniest 
items in *Punch* are the live quotes 
from regional newspapers, not the 
cartoons or articles!

White to play wins with 1. Kf7 and 
2. K×g6, but Black to play also 
loses: 1. ... h6; 2. h5!, Kh7; 3. Kf7 
and three moves later a white pawn 
will queen on g8.
In my opinion Lolli’s Osservazioni . . . is the most important work on the endgame and for the development of the study prior to the year 1851. Not only are many chapters devoted to the various components of endgame theory but the compositions succeed in their intention to out-stamma Stamma. The Osservazioni . . . may be seen as the origin of several lasting traditions or conventions. For the first time, White moves first in all positions (‘for better discussion of the situation’, writes Lolli), the classification by move-length is made but explicit note is taken that the solution may be prolonged by ‘wasteful’ moves. Further, the authorship of each position, where known, is carefully recorded. The work is well organised and readable. Lastly, the commentaries are very full and the analysis is painstaking. That the endgame study should then effectively stagnate for nearly a century is not Lolli’s fault. In 1766 Cozio, another Italian, but not one of the Modenese stars, published a pair of volumes covering similar ground to Lolli but without the latter’s authority. In 1769, another ‘Anonymous’ from Modena produced a similar, though less bulky, treatise. He coyly supplies his initials above one composition, but the second edition revealed the author to be Domenico Ponziani, who was an advocate in the ecclesiastical courts. Many of his positions (a ‘semi-century’ of fifty) are frequently quoted. But this was the final, brilliant fling of the eighteenth century and of the Italian domination. Fleetingly we should note an analysis of two knights against pawn in a manuscript dating from about 1780 from the pen of a Paris merchant named Chapais. After the French Revolution and the Napoleonic interlude the new centre of chess, including the still embryonic endgame study, emerges as England, with France and Germany close on its heels.

THE NINETEENTH CENTURY

Although it cannot be said that the British were prominent in the developments in the endgame during the nineteenth century, yet it remains true that more steps in the right direction were taken in Britain than in any other country.

To begin with, the influence of the eighteenth century Syrian, Phillip Stamma, and the later Frenchman, Philidor, both of whom spent years in London, is readily discernible in the reprints of the former’s endgame positions and the latter’s endgame analysis. These reprints seem in retrospect interminable, but they must have had a beneficial effect on the popularity and general level of skill at chess.
Then in the early decades the Englishman Sarratt and others like him produced translations of the great continental classics, albeit mostly in incomplete versions. What was perhaps even more important, Sarratt was largely responsible for the adoption in England of the modern rule that stalemate is a draw. With this stabilisation, endgame theory could develop on firm ground. As an example of the confusion, an excerpt from the anonymous *Easy Introduction to the Game of Chess* (1806) reads ‘...if you place your pieces in such a situation near your adversary’s King, as to prevent him moving it without making it liable to be taken, and he having no other Piece or Pawn which he can play, you lose the game. This is called a Stale-Mate.’ This and the ‘bare king’ win had ensured, as we have seen, that draws were relatively rare up to the nineteenth century. With only a small exaggeration we can say that the real development of the endgame study begins with the exploration of theory in accordance with the rule that stalemate is a draw, combined with the disappearance of the ‘bare king’ win.

Most of these theoretical investigations were undertaken or inaugurated by the eighteenth century Italians and it is their works which were translated during the first three decades of the nineteenth century. Much of this analysis is still to be found in the *Handbook*, revised since and re-issued many times right up to our own days, from the pen of one of the two leading players (the other was Adolf Anderssen) of the immediate pre-Morphy era, Howard Staunton.

The one English composer from the 1830’s and 1840’s is William Bone, son of H. Pierce Bone and grandson of Henry Bone, both of whom were court painters. He began to devote much time to chess from about the age of fourteen. His interest persisted through his law studies and, after he had abandoned these, alongside his adopted profession in the arts. The *Huddersfield College Magazine* records that he was an accomplished whist player and a most kind and amiable man. Thirty-three items in the Quaritch Catalogue of the 1928 sale of the Rimington-Wilson Collection show Bone to have been a tireless transcriber of chess, especially problem, matter and an odds-receiving opponent over-the-board to George Walker. Bad health and professional duties forced his retirement from the chess arena many years before his death. A piece of advice he offered to Mr J. A. Miles, whom he taught to compose, survives,† ‘Never put your best move

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* Predecessor of the *British Chess Magazine*, the latter beginning its long and still-going-strong life in Leeds in 1881. The relevant passage is in Vol. 5, on p. 137.
† See *Terms and Themes of Chess Problems*, by S. S. Blackburne, 1907, p. 49.
1. Qd3+!, Kg2; 2. Qg3+/i, Kf1; 3. Qg1+, Ke2; 4. Qd1+, Ke3; 5. Qd3+, K×d3; 6. ghR! any, White is stalemated. At no point is there a choice of check, in spite of appearances; Black would capture a different way and release the stalemate. (i) 2. Qh3+?, gh and wins.

An elegant piece of play for such an early date. 1. a4+!, K×a4; 2. Sc3+, Kb4; 3. Sa6+!, Q×a6; 4. Sc5+, Ka4; 5. Sc3+ with perpetual check.

The stipulation reads ‘White to move and mate without moving his king, without promoting his pawn and without capturing Black’s pawn.’ I decline to give the solution to this last-ditch effort of the conditional ‘school’ of composing!
(i) 5. ... Rf2+; 6. Kg3 wins.
If the black rook could check from f1, White could not win, as the white
king would have to play to f3 to force ... Re8, after which ... Rg8 and
... R×g7 follows, drawing.

1. Sf2, Qd7/i; 2. Ke3, Qa7; 3. Kf2, Qc5; 4. Rg4, Kh3; 5. Rf4!, Qh5/ii;
6. Sg1+, Kh2; 7. Sf5, Qh8; 8. Sf3+ Kh3; 9. Sg5+, Kh2; 10. Rb4!, Qh5;
11. Sf3+, Kh3; 12. Rb1, Qg6/iii; 13. Rh1+, Kg4; 14. Se3+; Kf4; 15.
Rh4+ and mates.
(i) Else 2. Sf3+, Kh1; 3. Rg1 mate.
White's task is to engineer a mate
while preventing the exchange of his rook.
(ii) 5. ... Qe7; 6. Sg1+, Kh2; 7.
Sf3+, Kh1; 8. Se2, Qa7+; 9.
Sfd4, Qe7; 10. Sg3+, Kh2; 11.
Sg5, Qd8; 12. Rg4, Qf6; 13. Sf3+
and mates.
(iii) 12. ... Q×f5; 13. Rh1+, Kg4;
14. Rh4 mate.
(iv) 14. Se5+ also, of course, but
14. Sh6+, Kf4; 15. Rh+ as well.
1. Rf8+, Qxf8; 2. Sf7+, Kg8;
3. Sh6+, gh and White is stalemate,
or 3. ... Kh8; 4. Sf7+ with perpetual
check. Despite the short solution this
is a cut above its predecessors in its
economy and surprise elements.

first', and it is not fanciful to see in this an indication that he was
at heart more of a study composer than a problemist—but he was
born a little too early. His studies have elementary elegance and are
worth quoting to the extent of several examples.

The first edition of Staunton's *Chess-Player's Handbook* bears the
date 1847 in the preface. The sources of the material in the four
chaplers on the endgame are, as one would expect from a Shake-
sperean scholar, scrupulously acknowledged to such as Bilgier,
who had also compiled a famous *Handbuch* in 1843, von der Lasa,
Lolli, Ponzi, Plato, Philidor, Szen, Zytogorski and Klinger. (The only
British name among these is C. Forths of Carlow, Ireland, who sup-
plied some valuable analyses of rook and knight against rook.)
There are astonishing gaps in the coverage, nevertheless. Minor
piece and pawn against minor piece is completely lacking, while
rook and pawn against rook has a solitary example. On the other hand
great space is devoted to rook and bishop against rook, and also to
the remarkably useless endgame king and three united passed pawns
against the same, a hobby that appears to have fascinated, not to say
hypnotised, many of the 'authorities' ever since Greco. On the other
hand perhaps the persistence of this freak may be interpreted as a
sign of a dormant interest in analysis for its own sake, and hence a
sign also of a latent demand for endgame studies. The importance of
Staunton's *Handbook* for the endgame study is not large, but the
book is noteworthy for the full statement of endgame theoretical
knowledge at that time and for the long-term influence the dissemina-
tion of so many copies of a work containing such 'critical and
ingenious' positions must have had.

A year earlier, in 1846, *The Beauties of Chess* appeared simultane-
This is a collection of some two thousand positions, including a few
from games, purporting to be the best from the entire history of
chess up to that time. The compiler was the Rabbi, sometimes Père,
Alexandre, who, though clearly a great enthusiast and no mean spe-
cialist in this field, betrays the contemporary confusion from which
chess composition had still to emerge, in the passage from his preface
quoted on p. 269. He still organises the material in the old manner,
by number of moves in the solution, though this clearly bothers him.
(The arrangement did have the enormous convenience of permitting
the compiler to organise his solutions in neat columns with no space
wasted, in fact in sixty-two pages!)

A clean and startling break with tradition can be seen in *Kling and
The solution begins with what seems to be a retreating move, away from the black king, but really it is advancing towards the black pawn! 1. Ke4!, Qa3; 2. R×b8+, Ka2; 3. Rb2+, Q×b2; 4. B×b2 and wins easily. The 1851 note to 1. Ke4 reads barely 'The only move to win'. To draw against 1. Rb7+, Ka2; 2. R×a7+, is not easy unless one knows that with the white king on b7 the black king must stand on b5 (or white king on d7, black king on d5). Clearly Kling and Horwitz knew.


(i) 1. Kg6?, b4.
(ii) This position is sometimes quoted with the black rook initially on h4, and no black pawn. In that case there is a draw by the easily overlooked 1. ... Rh5+ before taking the h6 pawn.
(iii) Also, 4. Kg3, Rh1; 5. Kg2, an insignificant dual unavoidable both here and in the later manifestations.
I-3 The Interested

1. b7 and wins, though the game was agreed drawn at White's suggestion. The whole game has not survived, but the last move is supposed to have been White's 56th. In March 1895 Potter died, and on the occasion thereof the story moves to a climax. See 114.

Horwitz's Chess Studies which appeared in London in 1851. By hindsight we can now see that 1851 marks the beginning of the second phase in the history of studies. They now emerge from medieval murk, and a general exploration by everyone of everything begins.

Firstly, Chess Studies has bequeathed to us the word 'study', though it did not invent it, as we shall see at the end of this chapter. The work supplies a fair bulk of material. It covers the whole modern range from simple didactic to very fanciful. It is largely original. And it became both very popular—and very useful to future authors to quote from without taking any trouble to do analytic work themselves! From that time on, there is gradually to be observed a separation of interest in endgame specialists. Up to then the same name was likely to be theorist, composer and player (for example the Modenese masters). Now the names that stand out will be, in general, prominent in one category only. Stamma, Philidor and Horwitz himself contrast with the future Berger, Centurini, Guretzky-Cornitz, mainly theoreticians, while, though admittedly looking farther ahead, Troitzky, Rinck and the Platov brothers were to be primarily composers. However, these distinctions are far from absolute, both Troitzky and Rinck, for instance, making valuable contributions to theory.

The latter half of the nineteenth century is the era of the magazine, the chess column, and the spread of the practical game, all being by-products of growing rail, road and postal facilities. For studies the magazines were crucial. They allowed chess enthusiasts with little chance for practical play to indulge in their hobby remotely and yet feel that they were in touch. Troitzky, the great Russian trail blazer spanning the nineteenth and twentieth centuries, was born in 1866, and it is no coincidence that much of his time was spent in remote places as a forestry official, while Rinck, popularly regarded as Troitzky's great rival, acquired time and leisure via the profits from the family breweries in Lyons. Both contributed hundreds of compositions to the magazines and columns of Europe.

In 1884 Horwitz republished the 1851 Chess Studies, adding further compositions, though it is sad to record that he suppressed all mention of his collaborator Kling, by this time deceased. Justice was done, however, in an 1889 edition published after Horwitz' own death. But no really notable original book on studies appeared, the most consistent contributions coming from the magazine Baltische Schachblätter of F. Amelung and others (Berlin and Riga) from 1889 onwards.

Barbier's column in the Weekly Citizen gave this position (initially with the pawn already on c7).
1. c7, Rd6++; 2. Kb5, Rd5++; 3. Kb4, Rd4++; 4. Kb3, Rd3++; 5. Kc2, Rd4!!; 6. c8Q, Rc4++; 7. Q×c4 stalemate was what Barbier gave, but Saavedra, a local reader of the column, found 6. c8R!!, Rs4; 7. Kb3 and wins! See 112 to 114 (possibly even 105) for the antecedents of this immortal position. What guided Barbier's hand in the placing of the black king? Barbier seems to have 'composed' the stalemate defence and Saavedra the underpromotion.
A win does not look likely from the diagram, and looks even less likely after 1. Bh6+, Kg8; 2. g7, Kf7/i, since there is a plain stalemate with the black king on g8 and the white king controlling f7. 3. g8Q+!!., K×g8; 4. Ke6, Kh8; 5. Kf7, e5; 6. Bg7 mate!

(i) The instructive alternatives are, 2. ... e6+; 3. Kd6i, Kf7; 4. Ke5, Kg8; 5. Kf6 and wins, and 2. ... e5; 3. Ke6, e4; 4. Kf6 wins.

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If the close of the century is marked by a feverish activity on the part of Rinck and Troitzky, which sparked off lesser doings by lesser mortals, it would not do to pass by the year 1895, date of the famous Hastings Tournament won by the wonder man Pillsbury from the United States, without mentioning a notable event. In May of that year occurred the discovery by a Spanish priest temporarily resident in Glasgow, of a single move that led to a win in a position quoted in a newspaper column run by an émigré Frenchman! The result, 115, is unquestionably the most famous of all endgame studies.

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THE TWENTIETH CENTURY

Three quarters of the way through is a good enough time to consider the developments of the current century, and to make a stab at what the next thirty years may offer. For contemporary composers the reader is invited to form his own judgment from the numerous examples in this book.

Generalising or talking of trends is suspect in a field of activity so dependent on individual genius. The presence or absence of a single outstanding personality can be crucial. Notable progress seems due chiefly to historical, genetic and environmental accident. However, the third phase in study composition, which is in 1970 probably completed, may be said to have been the discovery of classic positions like 125 to 136. Hand in hand with this exploration has been a great development of the skill in handling counterplay by Black, a skill most essential if the positions are to look natural, or even simple. There are dominations of all kinds, surprise twists of about three moves in length, simple looking positions with solutions that look simple only afterwards, and memorable basic manoeuvres. The principal composers are Troitzky, Rinck, the Platov and Behing pairs of brothers, Leonid Kubbel and Prokes.

At the same time there were two leading master players who composed, Reti and the lesser known Latvian, Mattison, whose best over-the-board performance was in the 1931 Prague Olympiad when he beat Alekhine, Rubinstein and Vidmar. Réti’s and Mattison’s positions are at least as simple to look at as those of the classics, but they contain in addition a depth of thought amounting to a philosophy. They are the forerunners of the strategic master composers Liburkin, Bron and Kasparyan. (138, by Kasparyan, is ‘for advanced students only’, and does not belong in this chapter, strictly

(continud. on p. 99)
1. S × h4?, K × h4; 2. Sf3+, Kg3;
3. Sg1, h5! wins, and 1. Sf3?, h3;
2. Sb4, h2; 3. S × g2, h1Q; 4.
Sb4, Q × f1; 5. Kc4, Qf2; 6. Kd5,
Q × e2; 7. Kd4, Kg4; 8. Kd5, h5;
9. Kg4, Q × f3 wins. That White
can draw is due to one of the deepest
moves in this book. 1. Ke6!, g1Q !;
2. S × b4, Qb1+; 3. Sf4! and
draws, as the black king is hemmed
in and the white pawn is protected.
Had the white king moved to any
other square on the first move, some
other check would have been available
to the black queen, and White's third
move would have been impossible.
1. Kh7!!, h4/!; 2. Kg6, h3; 3. Kg5,
h2; 4. Kg4, h1Q/!!; 5. Kg3, and at last
the point of avoiding the capture on
the first move is clear. The g7 pawn
stops ... Qh8 controlling a1 and
winning for Black!
(i) 1. ... g5 is the not so 'boring'
line 2. Kg6, g4; 3. Kg5!, g3; 4.
Kh4!, g2; 5. Kh3, Kh1; 6. R × g2 and,
thanks to White not capturing the
other pawn this time (move 3), this is
not stalemate. An echo.
(ii) The study student should have
no trouble with 4. ... h1S; 5. Kf3, g5;
6. Rd2, g4+; 7. K × g4, Sf2+; 8.
Kf3, Sh1; 9. Ra2 wins. See 82.
1. Sa3, so that promotion will
be answered by capture on c4, drawing,
but what is wrong with 1. ... S × a3—
clearly nothing, as Bc3 fails to a
knight fork. 2. Ke8!!, a1Q. Further
delay by ... Sb5 fails to 3. Sc7+ followed
by Bc3 or S × b5. 3. Bc3!, Qd1(g1); 4.
Sc7+, Ka7; 5. Bd4+!, Q × d4; 6. Sb5+,
S × b5 stalemate.

The normal result with this force is a
draw, the rook giving itself up for the
bishop. But here the rook is dominated.
1. Sd2, Re5; 2. Sc4, Re5; 3. Sd6!, Re5;
The 'domination' theme is self-explanatory
if the position after 4. Bf3 is
closely examined.

The black a-pawn will queen, and
with check, unless drastic measures
are taken. 1. Sc6!, K × c6; 2. Bf6, Kd5.
Now what? 3. d3!!, a2; 4. c4+!,
Kc5. Taking the pawn en passant
would let White recapture on c3,
both stopping Black's and retaining
White's pawn. 5. Kb7, a1Q; 6. Be7
mate!

Clearly White can neither catch the
black h-pawn, nor promote his own,
so how can he possibly draw?
1. Kg7!, h4; 2. Kf6!, Kb6. Else White
will play to e7 and support his pawn
after all. 3. Ke5!. This threatens to
go to d6, which would in fact secure
the promotion of the white pawn if
Black advanced his own. 3. ... K × c6;
4. Kf4! The impossible has happened.
White has caught the black pawn!
Year of first publication is frequently
given as 1921, when the study was
undoubtedly composed, but it appears
that Réti's agreement to publication
was not given until he had satisfied
himself that no good introductory
prelude could be provided. (Investigation
by J. Selman, Schach-Echo, 1967.)
Let us try 1. Ba6?, Kc7; 2. Kc5, d6+; 3. Kd5, K x b8; 4. K x d6, Ka8 draws, or here 4. Kc6, d5. The solution is 1. Bb7!!, Kc7; 2. Ba6, K x b8. White’s material will win after ... K b6; 3. K d6, or after ... d6; 3. Sc6, but after the text move we have the Troitzky position 116. 3. K d6, Ka8; 4. K c7, d5; 5. Bb7 mate. The composer’s nation was Finland, a country very strong indeed in chess composition.

A thoroughly paradoxical manoeuvre, for White draws by blocking his own pawn and attacking Black’s from behind when it can make a useful double step on its path to b1! 1. Kc8!!, b5; 2. Kd7! There is now the threat of playing to c6 (or d6 or e6). 2. ... Bf5+; 3. Kd6!, b4; 4. Ke5, Kg4; 5. Kd4! and draws, very much in the spirit of Réti.

Another impossible draw! 1. Ke7!!, g5; 2. Kd6, g4; 3. e7. The point emerges. At this moment the black pawn prevents the bishop from playing to h5. But on b5 it can be attacked to gain the crucial tempo. 3. ... Bb5; 4. Ke5, Be8; 5. Kd4, g3; 6. Ke3 and draws.

The charm of a pawnless position with neat twists to it is irresistible. 1. Bf6+, Kh7; 2. Rg7+, Kh6; 3. Rf7, Kg6/j; 4. Rf8, Sc6/i; 5. B x d8, Kg7; 6. Re8, Kf7; 7. Rh8, Kg7. Black seems to have engineered a draw by repetition with his bishop sacrifice. But two can play at sacrificing. 8. Bf6+! K x f6; 9. Rh6+ wins.

(i) 3. ... Sc6; 4. B x d8, S x d8; 5. Rd7, Se6; 6. Rd6.

A. V. Sarychev and K. V. Sarychev
Commended
Shakhmaty Listok
1928 (2nd half) Version

1. Kd3, Kf7; 2. Kc4, Kg6! Not difficult, so far, but now if White takes on b4, Black does not take the knight, which draws only, but moves his pawn on, which wins. 3. Sf8+!, Kf5. A dominating vantage point.
4. Sd7, h5; 5. Sc5, b4; 6. Sb3!, h3; 7. Sd2, h2; 8. Sf1, h1Q; 9. Sg3+ and 10. S x h1, drawn. Walter Veitch observes that the white knight has traced out the letter G on the board; Grigoriev’s initial, at least in the Western European alphabet!

H. M. Lommer
Basler Nationalzeitung, 1935

(i) 1. ... Kd4; 2. Bh7, Sf6+; 3. Kf5 wins. Or 1. ... Kf6; 2. d7 wins.
I-3 THE INTERESTED

1. e6/!, Rd3+!/i; 2. Ke5, e3; 3. R×e4/i/ii; 4. R×g4+, Kf2; 5. Re4, Re3/iv; 6. R×e3, K×e3; 7. e7!, e1Q. Now if White queens, Black wins, and as the remaining pawn is not on the bishop's or rook's file, White seems lost. 8. K×e6!! and now 8. ... K×f4+; 9. Kf7, or 8. ... Kd4+, 9. Kd7?, and there are no checks! Drawn.

(i) 1. Rg7??, e3; 2. R×g4+, Kf2; 3. Rf4+, Kg3 wins.
(ii) 1. ... e3; 2. e7, Rd3+; 3. Kc5.
(iii) Not 3. ... e7?, e2 and wins.
(iv) 5. ... e1Q; 6. R×e1, K×e1; 7. ... e7, Ke2; 8. Kf6.

If, as any player knows, a rook is poorly placed in front of a passed pawn, and if two united pawns on the sixth can win without the aid of their king against a rook, how does White draw here? 1. Kf4, e2/i/; 2. R×c4+, Kd3; 3. Kf3, d2; 4. Re4+!, Kd3; 5. R×d4+!, K×d4; 6. K×e2, Kc3; 7. Kd1, Kd3 stalemate.

(i) 1. ... d2; 2. Kf3, Kd3; 3. Ra1, e2; 4. Ra3+, Kc2; 5. Ra2+, Kc1; 6. Ra1+, Kb2; 7. K×e2! draws.
(ii) 2. ... Kf3; 3. Kf3, d2; 4. Rb1+, Kc2; 5. K×e2!
2. ... Kd5; 3. Kf3, d2; 4. Rc5+!, K×c5; 5. K×e2.
The rook sacrifices itself five times!

White has the wrong bishop for winning with the a-pawn, so he must promote his e-pawn to win. 1. Be3+, Kb7; 2. e7, R×a3. Now Black intends either to capture on e3 or to play to a8 with the rook. 3. Ba7!! So that if the rook takes, the pawn queens, and if the king takes, Kd4(f4) with refuge from checks on the seventh rank.

3. ... Ra1; 4. Kf4, Re1+; 5. Bf2!!
Playing the king to e4 would allow simple capture of the bishop. 5. ... R×f2+; 6. Ke3, Re1; 7. Ke2 wins.

I-3 FRIEND, OR CURIOUS ENTHUSIAST

1. Sd4+, Ke5. Against the other reasonable move, ... Kb7, White wins by K×h2 followed by advancing the f-pawn, the a-pawn being easily protected by the knight from b3.

2. Kh1!! The force of this is only apparent afterwards. The bishop will be lost if it moves (showing why White could not take on h2, allowing the drawing ... Bf4+!); 3. Kd6 is also met by a fork, and ... K×d4 allows the a-pawn to promote, as does ... Kd5.

Without pawns, and about to lose a bishop, White seems to have nothing better than R×d3. But he has an extraordinary resource. 1. Rd5!!,
R×d5; 2. Be3!! But not to d2, because of the reply ... Rf5!! when to capture (nothing better) is stalemate. 2. ... Rg5. On f5 the capture by White is safe. Mate by Bf7 was threatened. 3. Bf7+, Kh6. If the rook interposes, the white king retreats to h2 and wins the rook. 4. Be8! But not Kh4? because of ... Kg7!

4. ... d2; 5. B×d2 wins the rook.

One of Liburkin's earlier and simpler studies 1. Rh8+, Kg7; 2. Rg8+, Kh7;
3. B×a2! Possible now that the white rook has at least ephemeral protection 3. ... R×a2+; 4. Kb1, Rb2+;
5. Ka1, K×g8 stalemate. There is another stalemate after 4. ... Sc3+;
5. Kc1, K×g8, and a third in this line if Black continues 5. ... Ra1+;

Win

H. Mattison, Atputa, 1930

M. S. Liburkin
5th Prize, Shakhmatny Listok, 1928 (2nd half)

Draw

M. S. Liburkin
5th Prize, Shakhmatny Listok, 1928 (2nd half)
This is probably the simplest study by the great French composer, analyst and endgame theorist. It is an exercise in careful checking. 1. e8Q+, Ke5; 2. Qe7+, Kb5; 3. Qd7+, Kb4; 4. Qe7+i, Kb3; 5. Qf7+, Kb2/i2. Qg7+, Kb3/i3; 7. Qf7+, Ke3; 8. Qf6+/v, Kd2; 9. Qd6+, Ke3; 10. Qe6+, Kf4; 11. Qf6+, Kg4; 12. Qg7+, Kh5; 13. Qe5+, Kg6; 14. Qg7+, Kh5; 15. Qe5+ drawn.

(i) Checks on d6, d4, g4, met by 4. ... Ka5!
(ii) 5. ... Ka3; 6. Qa7+ justifies the d7-f7 checks.
(iii) 6. ... Ka2; 7. Qa7+. 6. ... Kc2; 7. Qg6+, Kc1; 8. Qg1+, Kc2; 9. Qg6+ draws.
(iv) Checks along the sixth rank are now chosen to keep the pawn under observation. Checking on the seventh resumes on ... Kb2.

(i) 1. Bf4?, B x f4; 2. R x a3, Bc2 wins easily.
(ii) 2. Bg7?, Ba3; 3. Kf7, Bg6+ wins. 2. Be3?, Bf8; 3. Kc-, Bg7 wins. 2. Bg5?, Ba3; 3. Ke6, Bb2; 4. Bf6, a3 wins, see (iv).
(iii) On other squares Black could not reach the powerful set-up with a pawn on a3 protecting the bishop on b2.
(iv) 3. Bg5?, Bb2; 4. Bf6, a3; 5. Be5, Kg8; 6. Kd5, Bg6; 7. Bd4, Bf7+i; 8. Ke4, Bc4, after which Black has both set up a barrier against the white king and covered f1 so that the rook cannot play there and shut off the black king, which is therefore free to

138 (contd.)

march round the back of White’s king to b3 and win.
(v) The white drawing threat is an arm-in-arm manoeuvre of the king and bishop, Kd5, Bd4, Kc4, Bc3, Kb3 down the stairway. 5. Kd6? wastes a tempo and allows 5. ... Kg8, after which the main line rook move is ineffective.
(vi) 5. ... Kg8; 6. Bd4, Bg6; 7. Kc4, Bf7+i; 8. Kd3, Bb3 (not as good as the barrier set up with the bishop on c4, as white can himself set up a barrier, an impassable one) 9. Bc3, Kf7; 10. Re1 and draws. White tempos with his king on d2 and d3, going to c2 if allowed, and if the black king reaches f2, then Ra1 and

still Black cannot get through. Note that 10. R x a2? loses, 10. ... B x a2; 11. Ke2, Bbl+ and 12. ... B x c3, but not 11. ... B x c3; 12. K c x c3, Bc4; 13. Ke2, B2a, an important book draw.
(vii) 7. Kc5? leaves no defensive resource against the black king’s lengthy march. 7. Ke5? also presents Black with a tempo to cross to the queen’s side before the barrier is set up. 7. ... Kg8; 8. Kc4, Bc4 wins.

(viii) Preventing the king marching on the other arm of the white bishop down the stairway to c2. Black seems to have prepared his own king march well, and stopped White’s, but it is not quite enough.

speaking. But mention of strategic depth without an example would be even more confusing than to give one.)

This strategic school, if we may dare to use such words, is distinguished by great analytical depth, as a result of which the most extraordinary reasons are discovered for choosing one square rather than another, for sacrificing, and for systematic manoeuvres of all kinds.

At the same time, the romantic compositions of Korolkov and the young Mitrofanov have had great impact, their influence being seen in the prolific Pogosjants. These three are all U.S.S.R. composers, and this is no coincidence. There are many reasons why Soviet study chess is so strong, but the main reason must be its popularity deriving from the mass following that chess in general enjoys. The other reasons are, the tradition reaching back at least to Troitzky; the active interest of International Masters and Grandmasters, several being also F.I.D.E. judges of chess composition; the many competitions for composing and solving, up to a national level; and the help composers give each other.

The foregoing is not much to go on, but it does afford ground for a little reasoned forecasting. To-day’s deepest studies, for instance the leading prize-winners in a major tourney, are a world apart from neat miniatures and classics. But no one can start composing by creating deep masterpieces. Therefore there is an urgent need to follow the lead given by, for instance, the U.S.S.R. Georgian Republic
1. g7, Bf7/i; 2. K×f7, b2; 3. g8S+i/i, Kh7; 4. Bg7/i, b1Q; 5. Sf6 mate.
   (i) 1. ... b2; 2. g8Q, b1Q; 3. Qg7 mate.
   (ii) 3. g8Q?, b1Q draws.
   (iii) 4. B×b2? is stalemate.

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I-3 The Interested

E. Pogosjants
Shakhmatnaya Moskva, 1962

1. Ra7/i, Sd7/i; 2. R×d7/i, Bc8; 3. e6!, fe; 4. Rc7, Ba6; 5. Ra7 wins.
   (i) 1. ef?, Bc8 wins.
   (ii) 1. ... Kb4; 2. ef wins, but not
   2. R×a6?, Sd7.
   (iii) 2. R×a6+?, Kb4 draws.

A triple change of pin.

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I-3 Friend, or Curious Enthusiast

newspaper *Drosha* in its 1966 tourney. This tourney had a separate section for beginners. Only in this way will new talent be encouraged.

In such tourneys originality need not be as important as in the ‘major’ section. If the base of composers can be broadened, there is no reason why the general standard of composing should not rise. At the top of the tree, though, inhabited by perhaps at most three composers at any time, what possible developments can take place? I find it very difficult to imagine any compositions deeper than those of Kasparyan’s prize winners of to-day, but maybe we shall see them. It would help composers and solvers alike if someone were to invent a device like a slide-rule by which the book result of a given distribution of force could be instantly and certainly determined. This could be achieved by the ‘terminal in every home’ attached to a gigantic central computer that some prophets visualise by the end of the twentieth century. But I predict that actual composition of prize-winning endgame studies by a computer program will be the last chess stronghold to be stormed by electronic attack, after a computer has beaten the World Champion. That it will eventually happen is beyond doubt and is even demonstrable in a few lines.

1. Computers manipulate symbols.
2. No one has defined the limits of ‘manipulating symbols’.
3. Computers are rapidly increasing in speed, capacity and applied power.
4. Some things computers can already do, some things we know they will be able to do very soon, and other things will inevitably follow.
5. In a fairly natural progression, then, we can see computers gradually performing more and more complex mental tasks.
6. This progression might be: simple look-up enquiry; selective display of information according to general instructions, such as a person’s profile of interests; automatic analysis of such displays of information, leading to detection of exceptional situations; diagnosis of the cause of the exception; exploration, by simulation, of the effects of changes in the environment; ‘conscious’ improvement of the environment by the computer; constant absorption of experience and iterative application of it; design; creation, discovery.
7. When computers reach the stage of creation or discovery they will be able to ‘make’ original endgame studies.

As regards future themes, it would be foolhardy to say more than that I expect the three current features of top contemporary
composing to continue: exploration of the artistic possibilities of the greyer fringes of theory; systematic manoeuvres; and pure romantic imagination. In addition, one may expect a more methodical pursuit of task records, theme definition and the combining of several ideas in a single study, as illustrated by 382.

**GREAT BRITAIN**

If there ever was any conflict between the British tradition of insularity and the international bond of chess, it has usually been resolved in favour of the latter where the endgame study has been concerned. The two greatest study anthologies (that is, up to 1963 and the publication of Kasparyan's *2,500 Finales*) were produced by Englishmen, and they show no nationalistic bias. Tattersall's *A Thousand End-Games* appeared in two volumes in 1910 and 1911. Its net spread from Polerio onwards, incorporating the best of Horwitz and Kling, together with Rinck and Troitzky up to that time. The emphasis in the examples Tattersall chose is largely on the study, with practical chess and theory in the background though by no means absent. The *Bradford Observer Budget* wrote that 'Most of the studies are such as might arise in actual play', though any chess writer knows that if the contrary is said then the book is as good as dead! The introduction contains an illuminating passage: '. . . positions in which analysis can prove a definite result by means of interesting and difficult play. These positions are variously known as End-Games, Endings and Endgame Studies. End-Game, being the most comprehensive word, is used in the title of this work. The word ending is usually confined to those positions of common occurrence which can easily arise in the course of an actual game. Merely as an example may be mentioned the ending of King, Rook and Bishop against King and Rook . . . an acquaintance with them is necessary to a successful chess-player, and accordingly they are liberal represented in this collection. Other positions are given that have arisen in actual play, but which, from their complex nature are not likely to arise again. In choosing these attention has been paid to the principle of economy. Elaborate positions containing pieces and pawns that play no part in the actual solution have generally been omitted, even when the play is of great difficulty; for it has usually been found that when the unnecessary material had been removed from the board that the difficulty has gone with it. . . . Lastly, the
I-3 THE INTERESTED

A. W. Daniel
Chess Amateur, xii. 1908

1. R x e4/i, Bc2; 2. Kh8/i, a2; 3. Re1, Bb1; 4. Re5, a1R/ii; 5. Ra5, Ba2;
6. Ra7/+ with a draw.
(i) The alternative to allowing the pin by the bishop is 1. Ra5?, e3;
2. R x a3, c2; 3. Ra1, Bd1; 4. Ra7+, Kf6; 5. Ra6+, Kf5; 6. Ra5+, Kg4 wins.

A version by Chéron (1960) places the white rook initially on the square e1,
with the try 1. Kh6?
(ii) 4. ... a1Q is stalemate, just as
2. ... B x e4 would have worked. It is interesting
that promotion to rook would actually win for Black against 3. Re5?
For example, 3. ... a1R; 4. R f5+, Kg6;
5. R f8, Rh1++; 6. Kg8, Bb3+ wins.

This was composed on a train journey in 1921.
1. h8Q/i, a1Q; 2. Qg8/ii, Qa2; 3. Qe8/ii, Qa4; 4. Qe5+/, Ka8; 5. Qh8/i, and wins.
(i) 1. hB?, a1Q; 2. B x a1 is not stalemate, but it does not win either.
(ii) 2. Qe8?, Qg7 and soon draws, either by exchanging queens or by
perpetual check.
(iii) 3. Qf8?, Qa3, with, again, a
perpetual, or stalemate if the black
queen is taken.

The first version actually published was the following: White: Kd8, Be1,
Pa5, h6. Black: Ka7, Ra6, Pa4, b7. Solution: 1. Bd2++, Kd8/i; 2. Bb6,
R x b6; 3. ab, a3; 4. a7, and so on.
This was in Greig's Sunday Express column of 27th December 1921.

1. b6 +/-, Kh8/i; 2. b4, a5; 3. b5, a4;
4. h6, a3; 5. h7, a2; 6. h8Q, a1Q;
7. Qg8, Qa2; 8. Qe8, Qa4; 9. Qe5++,
Ka8; 10. Qh8 wins.
(i) 1. h4?, ab and White could even lose!
1. ba?, b5 and White certainly loses!
(ii) 2. ... K x b6; 2. h4 and wins
easily against the two pawns.
1. ... Ka8 deprives Black of his
stalemate defence (7. Q x a1? stalemate).
It is a great pity that Joseph did not
compose this version with its natural
setting, pseudo-sacrifice introduction,
tries, and the black king moving to b8!

Version of 145 by an unknown composer, in Ceskoslovenska
Republika, 7. x. 1923

(i) 1. ... b6; 2. Kc7. Only the British Chess Magazine, in February 1922, gave
the author's name.

1. Friend, or Curious Enthusiast

numerous positions that have been constructed by composers...
form a considerable part of this work. They are known as Endgame Studies.' In the age which gave us the word jingoism, the author supplies notes on the English notation for French, German and Spanish
readers, in their respective languages.

After Tattersall, what? Certainly no deluge of British composers.
War followed soon, but who knows what difference that made?
A first light had indeed already appeared in the shape of the endings
column of The Chess Amateur. The column was run as a mere sideline by the composer genius Thomas Rayner Dawson. The word genius is undisputed. 'TRD' composed 6,400 chess pieces in his lifetime, more than any other composer.* But his study composing interest was small, though he was even less interested in the over-the-board game. Nevertheless he produced more studies than any other British composer until Michael Bent 'arrived' in the fifties and
sixties. TRD's total was 148. It is another pointless exercise to wonder
what he might have produced in the studies field, though even studies
enthusiasts must marvel at his work in the limitless lands of un-
orthodox or 'fairy' chess. As it is, few of his studies are memorable,
many having been composed on the spur of the moment to fill a
gap in one of his many newspaper or magazine columns, or else to
illustrate some notion that darted across his mind, probably from the
problem domain. He was, however, keen on encouraging any composing
talent in any sphere, and resorted to the subterfuge, which only
the richly creative can afford, of publishing his own compositions under
a pseudonym (in fact, several) so that new talent might be
coaxed into the limelight by assuming it was competing with equally
raw material. TRD also ran the endings column in the British Chess
Magazine for a number of years. The best, and indeed excellent,
composer of the Chess Amateur days was H. A. Adamson (see 20).

Before coming to more contemporary composers, A. W. Daniel, a
fine problemist, and David Joseph, a fine player, must not be
forgotten, as each contributed something unforgettable (144 and
145).

The epitome of the international in chess is Harold Maurice
Lommer. Born in 1904 in Islington of German parents (and therefore
of British nationality), his early years were spent on the Continent,
and to this day his 'rs' are noticeably un-English. It was in Europe
that he met Emanuel Lasker and André Chéron, and each of these

* It is possible that another British composer, C. S. Kipping, exceeded this
figure.
I-3 THE INTERESTED

1. Sd4+! f5; 2. S × f3, K × f3; 3. Kf8, d2; 4. e8Q and if Black queens his pawn, the promoted man is lost to Qh5+.
(i) The symmetrical move 1. Sf4+? only draws, Black having a drawing f-pawn after 1. . . . Ke3; 2. S × d3, K × d3; 3. Kd8, f2; 4. e8Q, Kd2; 5. Qb5, Ke1; 6. Qb1 +, Ke2; 7. Qe4 +, Kd2; 8. Qf3, Ke1; 9. Qe3 +, Kf1; 10. Ke7, Kg2; 11. Qe2, Kh1, all this being effectively 'book'.

(i) 3. . . . Kd3; 4. Rd5 +, Q × d5; 5. Sf4 +, Ke4; 6. S × d5, K × d5; 7. h4 wins.
(iii) 5. . . . Kd5; 6. Rd4 +, K × d4; 7. Sf5 +.
A lot of checks, but also a lot of play.

1. Bd4 +, Ka8! This allows Black a subtle defence on the fifth move.
2. c4, Sd2; 3. e5, Sh3; 4. c6, Sa5; 5. c7, Sc6 +/i; 6. e8R +/! and wins.
(i) So that 6. K × c6? is stalemate, and so is 6. c8Q +, Sb8 +; 7. K–.

T. R. Dawson
1 Hon. Men.
Chess Amateur, viii, 1924

R. K. Guy
British Chess Magazine, x, 1943

H. F. Blandford
1st Prize, Springaren, 1949

I-3 FRIEND, OR CURIOUS ENTHUSIAST

(a German and a Frenchman) contributed towards Lommer's chess development and attitudes. Lommer and his wife Valyne together speak at least six languages. He lived in Spain, in Valencia, for the sunshine—until his death, a great loss to the study world, in 1980.

Lommer will be remembered both for his compositions, of which, typically, he has not made a collection, and for 1234 Modern Endgame Studies which was published in 1938, a co-author being M. A. Sutherland, an enthusiast and business backer of the venture. Appearing a quarter of a century after Tattersall, 1234 has both similarities and differences. Scope and contents are familiar, even to the large number of works by Rinck and Troitzky, but the algebraic notation is adopted (another international sign). Also, there are some rather fanciful positions that Tattersall would have shuddered at. But most of the selected positions are representative of composing achievements in the interim, and it is a wonderful record. From the point of view of accuracy, too, there is an advance (back to LOLli!), a serious attempt being made to state both the composer’s name and the date and place ('source') of first publication, details sadly scarce in Tattersall. Lommer is currently assembling 1357, a sequel to 1234.

After World War II ended Lommer opened a night club called 'The Mandrake' in Soho, in partnership some of the time with Boris Protopopov ('Watson'). Chess was played there, even a tournament or two. From 1955, when I first met him and Hugh Blandford, the endings editor of the British Chess Magazine, until 1959, when he sold his interest in the club and left for the Continent, we used to meet irregularly, and whatever composing I have done was largely inspired by those sessions. Hugh Blandford's experience is similar but longer, for he knew Lommer during World War II.

None of the magazine columns so far mentioned, and none of the composing tourneys of the British Chess Federation, can seriously be said to have increased the popularity of the study in England. The same cannot be said of the New Statesman weekly column run by Heinrich Fraenkel ('Assiac'), another friend of Emanuel Lasker, whose ghost seems to haunt these pages though his sympathy with the study was not deep. This column, begun in 1949 as a fortnightly exercise at the suggestion of the editor, the late Kingsley Martin, has always emphasised the endgame study without ignoring the more popular aspects of middle game play, short games, blunders and the human aspects of chess.

Of crucial importance was the initiation of a solving ladder, with at least two studies each week for solution, with prizes. Every 'decade'
The task shown here is five white promotions to knight in a study to win. Many previous attempts at this task were unsound, including a number by Lommer over some twenty years.

1. "c6+! dc; 2. Ke6+! Kb6/i; 3. Rb4xh4, g1Q; 4. Rb4+ and now;
   4. . . . Ka5; 5. Sx6 mate.

2. "c5? Sx6 mate.
   4. . . . Ka7; 5. Sx6+, Ka8; 6. Rb8 mate.
   4. . . . Kc7; 5. Sxa6+, Kc8(d8);
   6. Rb8 mate.

(i) 2. . . . Kxb8; 3. Rg7, h3; 4. f6, h2; 5. f7, Kb7; 6. f8Q+, Kb6;
   7. Qb4 mate though with duals. Problemists call the choice of the black king on his fourth move a ‘star-flight’, all diagonally adjacent squares being available for ‘flight’.

1. Qb4+/i, Kg5; 2. Qc7+, Kh5; 3. Qh7+, Kg5; 4. Sh3+, Kg4; 5.
   Qxg6+, Kxh3; 6. Kf3! wins, Black having no move to avoid mate or loss of the queen.

(i) 1. Qd4+? Kg5; 2. Qxh8+, Kh5 and White cannot win, nor can he after 1. Qf8+?, Sf7!; 2. Qxf7+, Ke5.

This was composed after an idea of the Swiss composer S. Isenegger.

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Chéron has adapted a Shinman problem to show eight white promotions to knight in a study to win.

---

Has not Black, whose pieces are supporting his advanced pawns, even an advantage? 1. Sf6+, Kf4;
2. Se5+, Kf5; 3. ed+, Sxg4;
4. g4+, Sxg4; 5. Sf5! White’s net is now spread, but it is not all over yet.

(i) 6. Ka7?, Bc5+; 7. Ka6 and now Black’s g4 knight may move.
(ii) Possible because Black’s bishop occupies the square on which the e4 knight otherwise checks!

1. Sd6/ii, Sa1+/ii; 2. Kc3, R×g7;
3. Sc4+, Ka2/iii; 4. Se5+, Kb1;
5. Bg4+, Ke1; 6. Sd3+, Kd1; 7.
   Bb6+, Bg4; 8. Bxg4+, R×g4; 9.
   Sf2+ draws.

(i) 1. B×b3?, B×b7; 2. Se6, Rh2+;
3. Kc1, K×b3; 4. Sc5+, Kc3 wins.

(ii) 1. . . . R×g7; 2. B×b3, Rg2+;
Or here 2. . . . Rc7+, 3. Sc4+, Kb4;

(iii) 3. . . . Ka4; 4. Be8+, Bd7;

1. Bg6+/i, Kg4; 2. B×c2, Sf5+!;
3. B×f5/ii, R×f6; 4. hgs1, K×f5/iii;
5. h7/ir, Rh6+!; 6. S×h6+, Kg6;
7. h8R! wins, but not 7. h8Q?

stalemate.

(i) 1. hgQ?, Rb4+; 2. Kg3, Rc3+;
3. Kf2, Rb2+ and 4. . . . Rc1, what might be called the ‘hand over hand’ mate.

(ii) 3. Kh3?, R×f6; 4. hgQ, R×h6+;
5. Kg2, Rg6+; 6. Q×g6, Sh4+.

(iii) 4. . . . R×h6+; 5. S×h6 protects the bishop and wins.

(iv) Of course 5. S×f6?, K×f6 draws.

(v) 5. . . . Kg6 is naturally met by
   queening the pawn, and not by 6.
   S×f6?, Kg7 with a standard draw.

1. Bg6+, K×f6 may demolish 155:
2. B×c2, S×h6; 3. h8Q+, Ke7. The

pawless ending queen and bishop
against rook and two knights is not in the ‘books’.)
of ten weeks the leading solvers on the ladder are also rewarded and sent back to the bottom. Over the years this has produced a group of interested persons, mainly British, who, although they never meet as a group, form a core of interest in the endgame study. The propaganda value for the study is considerable. This is not all. Every two years a composing tourney is run, the only regular formal one for studies in the world, and its stature is such that many of the world’s leading composers enter.

These factors, combined with a few radio broadcasts on the endgame study that I made on the British Broadcasting Corporation’s ‘Network Three’ programmes (until chess disappeared from British radio in 1964) suggested that a semi-formal group might profitably meet in London from time to time. After several months spent collecting names and addresses, a meeting was held at the St. Bride’s Institute, Bride Lane, London EC4 on Friday the 19th of March 1965. The attenders were Barry Barnes, Michael Bent, Hugh Blanford, George Fisher, John Roycroft, Adam Sobey, Don Stalleybrass, John D. Taylor, Paul Valois, Walter Veitch and International Master Robert G. Wade. ‘The Chess Endgame Study Circle’ was founded, and from July of that year a quarterly magazine has been produced called EG, pronounced ‘ezee’. The name implies both endgame and the Latin exempli gratia, for the intention was to select for publication the best examples of recent composition.

This was another ‘first’ for Britain. Neither before nor since has a magazine exclusively devoted to endgame studies been published. It is in the international tradition, carrying articles by Cherian, Kasparyan, Nestorescu and others.

Britain has, then, an environment, albeit fragile, for fostering any solving, analytic and composing talent that may exist.

Already one can point to the increase in composing stature of Charles Michael Bent, whose total of studies published all over the world is in 1972 in excess of four hundred.

There is a long way still to go, and no guarantee whatsoever that Britain will ‘get there’, but there is now the opportunity (at the risk of sounding like a Chancellor of the Exchequer) to improve our position in the endgame league. It would help dramatically if more than the current two or three leading players gave studies more than a passing nod. There is nothing like setting an example from the top. Given the right fillips a composing ‘school’ might form. This would then operate spontaneously, its members corresponding, meeting and exchanging challenges, until inevitably the standard of composing
No other genuine study appears to have been honoured in these tourneys, of which there were nine from 1880 to 1884. The judges were the winning solvers in the concurrent solving competition.


This is probably 'Mate in 14' as well as 'Win', so it could be said that even this position is not a 'genuine' study after all!

---

1. R x b4, b5; 2. a4, ba; 3. Kh3, a3; 4. Kh3, Kb1; 5. K x a3+, Ka1; 6. Rh4 wins.

Without the black pawn on b4 there would be a simpler win by 1. Rh2, Kb1; 2. Kc6(c4).

---

1. Be4, Bh5/i; 2. Sd3+, Kd1; 3. Bsd5(c6) wins, as saving the bishop leads to mate on the spot.

(i) 1. ... Be2; 2. Bc2, Bf1(b5, a6); 3. Sf3, 4. Sd4 and 5. K x c4, the black bishop having been forced to c4 to cover the two mates.
1. ... Ba4(g4); 2. Sd3+ wins the bishop.

---

1. Qb2, Qf4; 2. Qh8+, Qf8; 3. Qh5+, Kd8; 4. Qa5+, Kc8; 5. Qa8+ wins.


(ii) 14. ... Kg7; 15. Re8, Kg6; 16. Rg8+.

This study made Peckover famous.
8. Bg5 and draws!
(i) 1. Kd7/; Be6/+ and ... Rc6 wins.
puts the black rook in range of the white king in the event of . . . R × f6.
(iii) Again, 5. c8Q? loses, and
... Bf5+ was threatened.
(iv) Beautiful repeat of the idea
behind the fourth move, for 6. . . .
R × g5; 7. c8Q, Bf5+; 8. Kf6 draws.

1. Rd1+i, Sd7+/i; 2. Ka7/ii, Kc7(e7);
3. Rc1(+), Kd8; 4. Sf7+i, Ke7;
5. Sg5/; Kd8/iii; 6. Se6+, Ke7/; 7.
Sd4/; Kd8/; 8. Se6+, Ke8/; 9. Re1+,
Kf8/; 10. Se7 wins the bishop.
(i) 1. . . . Bd7; 2. G6/; Sc4/iv; 3. Rd4,
Sa5; 4. Se5, Ke8/; 5. Kc7/v, Bf5/;
(ii) White’s king is now imprisoned.
R × c8, K × h7; 8. Rc7/.
Re1+, Kf7/; 5. Se5+.
(v) 5. R × d7/; Sc6+ draws.

THE UNITED STATES OF AMERICA

Considering the absence of a studies tradition in the U.S.A., the current activity in this field is encouraging. The very great problemists Eugene Cook, Sam Loyd and William Shinkman each dabbled only light-heartedly in the composed endgame, though Cook’s efforts are memorable and not to be undervalued.

It is astonishing that apart from the occasional products of the problemists, and the rarer example of a player presenting an artistic version of something that occurred over-the-board, there is an almost complete blank up to the late 1950’s. In 1884 a study (159) received a prize in a compering tourney of the Cincinnati Commercial, but on investigation this turns out to have been an informal competition in which nearly all the entries were problems. The interesting and excellent feature of these tournees, which seem to have numbered nine and to have been half-yearly, was that the prizes were awarded by vote of the best solvers.

There was a Rice Memorial Tourney in 1915–16, in memory of the millionaire who nurtured the Rice Gambit, but this did not unearth any native talent.

Then, in the late 1950’s studies under the name of Peckover began to appear in Europe, since there was no outlet for them in the U.S.A. They had depth, economy and charm. They won prizes. Some observers thought that the name was a misprint or pseudonym for the Soviet player and composer Chekhov.

Edmund Peckover tells us that his first study appeared in The Egyptian Gazette in 1916, while he was a patient in the military hospital at Zeitoun, Cairo. Later, his columns in The Regina Daily Leader (1920) and The Provincetown Advocate (1937–8) carried his own originals. He is British born (Brondesbury, in north-west London) but has lived in the U.S.A. since the 1920’s. He wrote the studies section in the short-lived American Chess Quarterly (1961–5).

The one current F.I.D.E. International Studies Judge in North America is Walter Korn, also known for his work with Modern Chess Openings and for a long-standing, mainly studies feature ‘The Brilliant Touch’ in the American Chess Review* monthly.

* Amalgamated since November 1969 with Chess Life to become Chess Life and Review.
and lastly two two-year informal events run by the U.S. Chess Federation’s Chess Life and Review magazine. All have been international.

**COMPOSING TOURNEYS**

Like studies themselves, these events emerged only gradually as entities in their own right. Problem composing tourneys began earlier, with a London event in 1854, while study tourneys remained unusual until the nineteen-twenties. A feature borrowed from problem events, but less appropriate to studies, was the ‘set’. Competitors would be required to submit not just one entry, but a number, and the prize(s) would be awarded to the best set(s). In fact only rare composers produce presentable studies in these quantities, so this type of tourney is no longer seen. The last appears to have been in the *Journal de Genève* during 1932 and 1933. A regular winner of these ‘Prix d’Envoi’ was the prolific Henri Rinck.

The very first study tourney is therefore of considerable historical interest. ‘Conditions of the Problem Tournament in Connexion with the Grand International Chess Congress in London in 1862’ appeared in Löwenthal’s column in *The Era* on the 9th of February of that year. Separate sections, with different prizes in both number and amount, were catered for, but in all sections ‘sets’ of compositions were required, though there was in addition a prize for the best single entry. One of the ‘novel features’ was the prize of £10 for the best set of six(!) ‘studies or endgames’. The First Prize in the ordinary problems section was actually £20, or something like £110 a century later. No wonder that 464 positions were received. Of the eight sets submitted in the studies section four were considered for the prize, the other competitors aside from the winner, Horwitz, being W. Mitcheson (Newcastle-upon-Tyne), the Rev. G. McCaRu(tough, Aberdeen), and T. Herlin (Lille, France). Given that six positions were required and that only three months were available for the work it is remarkable that even so many as eight entries resulted.

It may be asked how we know that this was the first study tourney. The evidence is almost conclusive, I think. Perusing Löwenthal’s column even cursorily reveals both his world wide contacts and his encyclopedic knowledge. Had it not been a ‘novel feature’, some correspondent would have brought it to his attention. Had they done so he would have published the fact, his column having an agreeable air of frankness and helpfulness about it. A hypothetical thread linking the 1862 tourney with later competitions run by the *Cincinnati*...

(i) Complex! Black tries to wangle a check with his bishop.
(ii) 1. . . . Bh4; 2. cbQ+, Rx b8; 3. Rbc7 mate.
(vi) 10. Kh8, K×b7; 11. cbQ+, K×b8; 12. R×d8+, Ke7 draws, worse for White being here. 11. cdQ+?, R×d7 and Black wins.

A. H. Branton
British Chess Magazine viii. 1949


(ii) 10. B×b7++; R×b7; 11. R×b7, Kg2; 12. Rb1, K×f2.

A remarkably sophisticated manoeuvre and try, considering that it was one of the composer’s first efforts, and he was still in his teens.

Commercial is the fact that Löwenthal spent a year in the American city before coming to London for good in 1851, and one of his solver-correspondents used the pen-name ‘Cincinnati’.

In 1880 a Mr J. Crake instituted a study composing competition in the Hull Bellman, but only a single entry resulted, and that was unsound. In 1881 the same gentleman renewed his offer of three prizes, this time in the Hull Church Gazette, whose chess column he ran. The Gazette ceased to appear before the tourney closing date, but the competing entries, of which there were four, appeared in the medium-brow literary journal Society. Two of these were cooked. The judge, W. N. Potter, the same strong player who appears in the Saavedra saga, commented on the First Prize (141) that it was ‘a decidedly pretty and altogether faultless End Game’ and he further regarded it as ‘a model to be followed out in such competitions; inasmuch as it has one simple idea, well carried out’. Rescued from oblivion is 35, which won the Second Prize.

An early tourney, that was nevertheless organised in a most efficient and sophisticated manner, was that of the Croydon Guardian in 1884. This was a Saturday newspaper with an extensive chess column written anonymously by C. Feist. The announcement appeared repeatedly for several months and the reward was an international entry of twenty-two. Some noteworthy features of the announcement were:

1. The tourney was for original, unpublished endgames, but actual play positions would be allowed. (One actual play entry was received.)
2. Impossible positions were inadmissible.
3. Marks would be given for (a) profundity of conception, (b) brilliancy of execution, (c) neatness of construction, (d) usefulness of chess education. Unnatural positions would ipso facto lose marks unless they possessed some striking features of merit. Simple positions would be preferred to complex ones with a large number of pieces and pawns, which partake more of the nature of a middle than an end-game.
4. Not more than three entries from one composer, who in any case would qualify for not more than one prize.
5. Three prizes.
6. Full solution to be supplied, with a ‘motto’. The composer’s name and address to be in a sealed envelope.

The ‘motto’ system allows the receipt of an entry to be acknowledged publicly, and is a colourful, if clumsy, way of referring to studies in the award. The mottoes of the prizewinners were ‘Softly, softly, ketch monkey’, ‘Mandefold’, and ‘Hae tibi sunt artes’. Another was ‘En toute choses il faut conséder la fin’ (a quotation from La Fontaine). The positions (a selection will be found among 46 to 55) were published in the weekly column, still anonymously, and the award appeared on the 7th of February 1885, being confirmed without change on the 13th of June 1885. Almost immediately the column ceased appearing, but not before a letter from Leonard P. Rees had been published drawing attention to some unsatisfactory aspects
THE FIRST STUDY TOURNIES

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Type</th>
<th>Composer of 1st Prize</th>
</tr>
</thead>
<tbody>
<tr>
<td>1862</td>
<td>‘In connection with the International Congress’, London</td>
<td>set</td>
<td>B. Horwitz (e.g. 172)</td>
</tr>
<tr>
<td>1865</td>
<td><em>Le Palamède</em>, France</td>
<td>mixed, set</td>
<td>no award made</td>
</tr>
<tr>
<td>1879</td>
<td><em>La Stratégie</em>, France</td>
<td>mixed, set</td>
<td>no award made</td>
</tr>
<tr>
<td>1882</td>
<td>Society, England</td>
<td>studies only</td>
<td>H. Coster (141)</td>
</tr>
<tr>
<td>1884</td>
<td><em>Cincinnati Commercial</em>, USA</td>
<td>mixed</td>
<td>G. T. Robertson (159)</td>
</tr>
<tr>
<td>1885</td>
<td>Croydon Guardian, England</td>
<td>studies only</td>
<td>A. F. Mackenzie (46)</td>
</tr>
<tr>
<td>1885</td>
<td><em>British Chess Magazine</em></td>
<td>studies only</td>
<td>J. Burt</td>
</tr>
<tr>
<td>1895</td>
<td><em>Rigaer Tageblatt</em>, First Tourney, Russia</td>
<td>studies only</td>
<td>K. Erlin</td>
</tr>
<tr>
<td>1901</td>
<td><em>British Chess Magazine</em></td>
<td>studies only</td>
<td>A. F. Mackenzie (10)</td>
</tr>
<tr>
<td>1902</td>
<td><em>La Stratégie</em>, France</td>
<td>mixed, set</td>
<td>J. Jespersen</td>
</tr>
<tr>
<td>1903-5</td>
<td><em>The Leader</em>, Melbourne, Australia</td>
<td>mixed</td>
<td>H. Rinck (117)</td>
</tr>
<tr>
<td>1905</td>
<td><em>Rigaer Tageblatt</em>, Second Tourney, Russia</td>
<td>studies only</td>
<td>J. Sehwers</td>
</tr>
<tr>
<td>1907</td>
<td>Bohemia, Austro-Hungary</td>
<td>set</td>
<td>H. Rinck</td>
</tr>
<tr>
<td>1909</td>
<td><em>Rigaer Tageblatt</em>, Third Tourney, Russia</td>
<td>studies only</td>
<td>V. and M. Platov (II)</td>
</tr>
</tbody>
</table>
individual entry that was sound. The composer of the First Prize was a noted problemist of Kingston, Jamaica, easily confused with the players Capt. George Henry Mackenzie of an earlier and A. J. Mackenzie of a later period. Arthur Ford Mackenzie was totally blind from February 1896 until the end of his life. Only four studies by him are known, but this makes 10 an astonishing sans voir effort. The composer of the Second Prize was also a problemist.

The tourney was sophisticate in combining features of the modern formal and informal tourneys. There was a solving tourney, both to add interest and to aid the judge, but, as is common with pioneering efforts, the solving part became, in the judge’s words ‘a nonentity’—there was a single entry, anonymous, from Copenhagen. The Rev. Ranken went on to write that ‘there is reason to fear that this must be ascribed to the fact that endgames have not the same interest for the general public as problems, either because chess players in general have not yet been educated up to their superior importance, or because owing to the necessary greater laxity and broadness of the conditions they do not care to take the trouble of wading through the various complications. This is a matter of chess instruction which it is to be hoped time will amend’.

About the only unnecessary feature was that all entries and authors’ solutions, however bad or incomprehensible, were published, as were the names of the entrants. There were also misprints. One wonders if a red-faced competitor took personal revenge on the columnist, after seeing his entry made to look ridiculous, and caused the column’s abrupt termination soon afterwards! A table of the early study composing tourneys is on p. 121. To-day there are many such tourneys, even to the extent that one can maintain that there are too many, the available talent being insufficient to meet the demands.

**WHY ‘STUDY’?**

The reader puzzled by the word study is in eminent company. One of Dr Siegbert Tarrasch’s many dicta was that endgame compositions (he termed them ‘win or draw problems’) are ‘quite unsuitably called studies’,* though he praises them as ‘very well calculated to develop the power of combination’.

By about the beginning of the twentieth century the usage among composers and in magazines was more or less normal, though it is not even to-day accepted by chessplayers, let alone the public at large. The great Oxford English Dictionary gives the word no chess specialised meaning at all. Murray is equally unhelpful. But there are ample references in English, French and Russian chess literature, and to account for this we go back to the popularity and wide reprinting of the various editions of Chess Studies by the German-born pair Kling and Horwitz, a work which, as we have seen, first appeared in London in 1851.

The contents of Chess Studies are studies beyond a doubt,* even if the original version did include as a supplement some unrelated analysis of the Muzio Gambit! It is intriguing that the authors’ introduction makes no mention of the title, but it is certain that there is no coincidence to be considered (the word study also appearing commonly in a chess context in its normal dictionary sense of a specialised piece of research) because the same two gentlemen included about two hundred positions, explicitly labelled chess studies, in their mini-magazine The Chess Player and The New Chess Player during its three year existence from 1851 to 1853.

Why did Kling and Horwitz adopt the word without explanation? Because it was in common use in the endgame sense? Surely not, for other contemporary references have yet to be found. Because it was a piece of research, and the word studies had the requisite ring of research? Possibly, for there are at least three earlier works with the identical title, though none with any connection to endgames. Two (1803 and 1810) are by a certain Peter Pratt, while the other is by George Walker (1844) and is an inappropriately titled assembly of a thousand unannotated games. Was it because Horwitz, being a painter (of miniatures), and Kling, being a musician, were familiar with the word in their daily work outside chess? Webster’s 1961 dictionary gives the definition, ‘a musical composition usually devoted entirely to a special problem of instrumental technique’. Translated into chess terms this is almost perfect! Very likely that was a reinforcing factor, and it may be relevant that Chopin, composer par excellence of musical études or studies, died in 1847. We do not know for certain. A piece of negative evidence is provided by Kling’s The Chess Euclid (1849), in which the author refers to ‘the forthcoming work ‘A Treatise on the Endings of Games’ by my friend Mr Horwitz and myself, a subject which has occupied our leisure hours for some time past.’ This can only be the 1851 book, and the word study is conspicuous here by its absence.

* There is, though, on p. 47 of Chess Studies, a ‘Mate in Four’ stipulation.

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The original 1769 caption reads, translated, 'Black to move. The game is drawn. Let him who can, study it.' The 1820 ‘Bingham’ version mis-translates the final words ('Che sa lo studj:') as ‘Who knows the study?’ This is the earliest known use of the word study in the context of the composed endgame. For analysis (Ponziani gives none), see 175.


(i) 1. ... Kb3; 2. Rg7, Rc2; 3. Rb7+/iii, Kc3; 4. Rb3+, K x b3.
(ii) 7. Rb3?, Rd2; 8. R x b2, Rd1 matre, or 8. Rc3, Sd3 wins.
(iii) 3. Rg3+ ?, Rc3; 4. Rd3, Se5; 5. Re3, Sc4 wins.

Earlier references have proved extraordinarily scarce. My searches have unearthed only one in any language. In 1820 a certain J. S. Bingham (the name may well be a pseudonym) published a translation of the anonymous 1769 Italian treatise Il Giuoco Incomparabile . . . , and on the final page 174 appears, with, at the foot, the words ‘Who knows the study?’ This is an exciting discovery, and going back to the original Italian we duly read the very last words on the last page (bar the table of contents), 'Che sa lo studj'.

Alas for hopes of tracing the word study back to the eighteenth century Italian masters, the correct translation should be, ‘He who is able, study it’. Nowhere do the Modenese masters use the word study as a noun in the endgame sense, though as one might expect there is in all works on chess a fair frequency of words like ‘studying’ and ‘student’. Yet Bingham not only seems to have used the word confidently, he also gratuitously repeats the caption ‘A Study’ on another page. It is true that his preface refers simply to ‘Ends of Games, or Situations’.

Further research has revealed nothing. We do not know enough about ‘Bingham’ and British chess in 1820 to say what he intended by the word, nor whether it was in general use, but it is more than likely that Kling and Horwitz knew Bingham’s translation. We do know that Bingham was slipshod in other respects. His version is very incomplete, is based on the inferior first edition (1769) and he ascribes the original to ‘Dal Rio’, which is wrong on two counts. Firstly, the real author was Ponziani, and secondly, the name of the earlier, also anonymous, writer from Modena was del Rio.

First usages in French (étude) and German (Studie) remain undetermined. This is surprising in the latter case, as both Kling and Horwitz had been part of the active Berlin school until they left permanently for England in or about 1846. Max Lange’s Handbuch der Schachaufgaben (Leipzig, 1862) betrays, or perhaps merely reports, some confusion. ‘Studie’ occurs several times, usually coupled with ‘so-called’, and once (p. 113) the example is a conditional problem. On p. 546 there is though a clear definition of ‘Studie’ as a ‘problem’ with a practical content having as stipulation either a forced win or a forced draw, in each case conclusive (‘allgemein’). Later, though, (p. 593) Lange links Horwitz with the field of ‘so-called’ studies again! For France there is also one oddity worth mentioning. In 1856 Jean Préti published Recueil des Etudes Progressives containing a large number of pawn endings. The ‘études’ are clearly intended as ‘lessons’ of progressive difficulty, but it is not inconceivable that the accidental association may have suggested a permanent connection. In the very first issue of La Stratégie in December 1867 a position by Shumov is described as ‘Etude No. 1’ and the stipulation is ‘White to Play and Win’. The editor was Jean Préti again. An abiding mystery remains the adoption by the Russian language of the French version (стюда) by about 1900 and possibly much earlier.

For lack of other evidence it must be assumed that the chess world owes its first usage of the word ‘study’ to a mistranslation by a probably pseudonymous* writer in the year 1820!

CLASSIFICATIONS

There is no clearer indication of the versatility of the study, or rather of its protean nature, than the many systems of classifying to be found in books. Where the writer is a strong player, or is addressing

* J. S. Bingham seems to have been a pseudonym of Captain John Smith of the Royal Navy, who died in 1836. (See British Chess Magazine, November 1978.)
himself to players, kinship with the game is emphasised. As the game has defied neat classification, so the studies in that type of book tend to be an assortment of brilliancies with nothing but their surprise value in common. Another frequent type of book is the anthology. Here there is only one organisation that is practicable, and this is almost universally adopted. The material is arranged in ascending order of complexity of force in the initial diagram, and there is an index by composer. Although the 'order of complexity' allows of many interpretations, the anthology is very useful to all study enthusiasts. Since the nineteen-fifties the collection of the work of a single composer has become a notable feature of the study scene. As the interest of such a collection is partly in tracing the development of the composer's style and skill, chronological order of publication is the only logical approach, together with some kind of index to link together studies with similar ideas. In these cases the items in the index will naturally reflect the preferences and tendencies of the subject composer. Lastly, there is the connoisseur's book, which is an attempt to impose a pattern onto studies as a whole. Each type of book tends to have its own way of classifying, or at least ordering, the material. We look at some of these in appropriate chapters. Here we consider the anthology.

It would certainly ease the consultation of anthologies if they all had adopted the same system of ordering. Unfortunately, there is no best system. There is the Guy-Blandford code, described in the Diagram Key, and there is the unique code, described below, of the Frenchman Henri Rinck. That adopted by the F.I.D.E. Albums is simpler, but it is of minimal help in locating a study. Rather more haphazard, but pleasantly informal, is the arrangement adopted in Sutherland and Lommer's 1234 Modern Endgame Studies, itself very similar to that of Tattersall nearly thirty years earlier.

The different flavours of the systems make an interesting comparison.

1234 (Sutherland and Lommer)

Pawns only; one knight; two knights; knight v. knight; more knights; one bishop; bishop v. bishop (same colour); bishop v. bishop (opposite colour); more bishops; bishop v. knight; bishop and knight v. pawns; various combinations of bishops and knights; one rook; rook v. rook; more rooks; rook v. knight; various combinations of rooks and knights; rook v. bishop; rooks, bishops and knights (3 pieces); rooks, bishops and knights (4 pieces); rooks, bishops and knights (5 pieces); rooks, bishops and knights (6 or more pieces); queen v. pawns and queen v. queen and pawns; various combinations of queens and knights; various combinations of queens and bishops; queens, bishops and knights (3 pieces); queens, bishops and knights (4 pieces); queens, bishops and knights (5 or more pieces); queens and rooks; queens, rooks and knights; queens, rooks and bishops; queens, rooks, bishops and knights (4 pieces); queens, rooks, bishops and knights (5 pieces); queens, rooks, bishops and knights (6 or more pieces).

F.I.D.E. Albums

This is another classification by material, but with all wins separated from all draws. The number of white men is totalled, irrespective of pawns or pieces, and the number of black men is also totalled. The grand total of all men, white and black, is also considered. All positions with a grand total of 5 precede all positions with a grand total of 6, and so on. Within a grand total of, say, 6, all positions with white totals of 3 precede all positions with a white total of 4. Within the sub-group of positions having the same number of white and black men the positions are ordered alphabetically by composer, and within the same composer the sequence would be chronological. The method is practical, and it facilitates diagram checking, but the mixture of arrangements by force, alphabet and date lacks coherence.

1414 Fins de Partie (Rinck)

This is the single volume containing the complete works of Henri Rinck. The sequence of studies is determined by a complex thematic classification, but there is a clever tabular reference scheme if one knows the white and black force. The system is purely numerical. 1 denotes pawn or pawns. 2 denotes knight, 3 bishop, 4 rook and 5 queen. Apart from pawns, plurality is denoted by repeating the digit. White force is fully stated in bold type, then black, in normal type, and each set of digits is itself arranged in ascending order. In the table, first comes 1–1. This is the group pawn(s) against pawn(s), and Rinck then lists the diagram numbers of those studies in his collection. 1–2 is the next group, and this means white pawn(s) against one black knight. Another example; 15–1223344 is a case of white queen and pawn(s) against black pawn(s) accompanied by the whole of the black complement of major and minor pieces except the queen.

One may ask, what is the total number of possible classifications of force on the chessboard? Omitting pawns, the question has
already been asked and answered. The Ukrainian writer and composer Bondarenko puts the total at 2,916.* This total can easily be checked from the Guy-Blandford code on p. 353. It assumes that one white and two black knights is a combination distinct from one black and two white knights. 0–3 for the queen gives four possibilities, and 0–8 for rook, bishop and knight give nine each. \[4 \times 9 \times 9 = 2,916\].

If 'reversals', as in the example with the knights, are not to be considered distinct, the calculation becomes \[3 \times 6 \times 6 \times 6 = 648\], but if bishops of opposite colours are to be separate from same-coloured bishops, we have, in each case: \[4 \times 9 \times 10 \times 9 = 3,240\] and \[3 \times 6 \times 7 \times 6 = 756\]. Finally, if we multiply by 4 the figure of 3,240 to cover the possibility of the presence or absence of white and black pawns, but ignoring how many pawns, we get the very large maximum total of groupings by different force of \[4 \times 3,240 = 12,960\]. Those who think that there is no scope for new ideas in studies should ponder the fact that the total number of studies so far composed in the history of chess is in the region of thirty thousand (another calculation, or estimate, by Bondarenko†—which now seems low).

**BIBLIOGRAPHY**


† *Gallery of Study Composers*, p. 294.

4. Impresario

Here we cover all aspects of presenting studies to the chess public. The impresario may be simply a player demonstrating a study to a casual acquaintance, or he may be in the professional capacity of column-writing journalist or author. Every study enthusiast is indebted to one kind of impresario or another for his initiation!

**THE JOURNALIST**

Because their solutions take up an unpredictable amount of space, studies are less handy than problems for chess column material, and so tend to be less frequently published. There is a genuine dilemma in solution presentation: too short, and the reader will say 'I don't understand'; too long, and he will react with 'You don't expect me to plough through all this, surely?' But studies are closer to the practical game, and as players far outnumber problemists, no ambitious column-ist can afford to ignore the study. If the journalist has a penchant for the study, his column may, over the years, achieve positive results faster than any other method. Here is an example of Assiac's *New Statesman* style. It appeared on the 28th of March, 1969.

**THE KISS OF LIFE**

Long before doctors, nurses and coastguards learned to reactivate the breath of life in someone apparently suffocated, and even longer before spare-part surgery and electronic resuscitation were ever heard of, composers of endgame studies knew all about it. They knew from bitter experience no less than from their very own and noble code of honour forever bidding them devote the same ingenuity that faulted a colleague's masterpiece to the effort of curing and thereby saving it. It happened to the second prize-winner of our recent tourney . . . But I can report a happy ending. The first of several readers at home and abroad to spot the flaw was J. E. Peckover, the distinguished American composer: and it was he who found the 'cure', thereby saving Michael Bent's brilliant piece from having to be discarded from its author's oeuvre (176).
1. Se6+/1, Kf6; 2. Sd7+, Kf7; 3. Sd8+, K × e8; 4. Sf6+, K × d8; 5. S × h5, Sf3+; 6. Kg3, Sd4+; 7. Kh3, S × g1+; 8. Kh2, Bf3; 9. Sf4!, Se2; 10. Se6+, K--; 11. Sg5, S × g5 stalemate. A fine piece of construction, in which the variations, the lines that defeat white alternatives, are not difficult but just right to give the solution surprise value.

(i) As originally published, the black king was on g7 and white knight on d8 instead of f8. This allowed the bust 1. Se6+, Kh7; 2. Re7+, Kh8 and Black wins. The study was disqualified of its second prize in the award.

1. f8R+/i, R × b2+; 2. Ka1, Ra2+; 3. Kb1 wins.

(i) 1. f8Q?, R × b2+; 2. Ka1, Rb1+ and draws, as any capture of the rook leaves stalemate.

As, in the diagram, Black threatens 1. . . . R × b2+ (though not 1. . . . R × f7?; 2. b3 mate), the underpromotion is forced and therefore sound in the composed sense.

White’s bishop seems useless and a perpetual check seems the best to be hoped for. It is wonderful that White found 1. Bg5!, which wins.

If 1. . . . Q × g5; 2. Qd8+ and 3. Qc7+, after which 4. Q × h2 suffices. If 1. . . . f5; 2. f6! and Black is helpless. So 1. . . . h1Q; 2. Qe8+, Kg7; 3. Qg6+, Kf8; 4. Q × f6+, Kg8; 5. Qd8+, Kg7; 6. Qe7+, Kg8; 7. Qe8+ and Black resigned.

Other examples of faulty and cured studies are: 316 and 324; 332 and 331.

To the chess journalist with this kind of flair and tact (Bent’s composition, being faulty, had to be eliminated from the prize list of that tourney) there is scarcely a limit except the size of the column, to the kind of event that is newsworthy. Through passages like ‘The Kiss of Life’ the reader cannot fail to become aware of the existence of a curious world, that of chess composers. His curiosity is aroused. Other articles by Assiac have been in effect snapshots of the composer in his workshop, so on the one hand the journalist can build up a mystique, and on the other he can reveal in part what goes on in these arcane regions. This arousal of interest followed by its satisfaction is first class journalism.

Of course, the journalist wants his story. The spectacular, the human, the humorous, the unusual, these he must have. 177 to 183 show game material of this kind, not far removed from studies. Since, as is maintained in this book, the study is worthy of being taken seriously as a (minor) art and science, there can be a conflict. Newsworthiness (see 232) does not inevitably go hand in hand with the more sober and high-minded qualities favoured by the scientific and the artistic among the chess fraternity, who are quick to pick up historical errors and anachronisms, chess errors, missing sources, omissions, exaggerations, and all the other pitfalls which, if only because he has no time to check every aspect of everything before putting pen to paper, a journalist tends perforce to ignore. But there are two sides to this question. The purist often forgets that the technicalities he values, like originality, accuracy and detailed sources, are secondary criteria compared to the human qualities of courage, persistence and honesty. The human qualities are the stuff of journalism, and it is rare indeed for anyone to be able to link studies with them. Again, the knowledgable may snort at the repetition of classic positions well known to him, but he will be wrong, for it is precisely these classics that gain new adherents. After all, every classic is new, the first time one sees it. No, publicity for chess and for studies is so crucial that, no doubt at all, we cannot have too many chess journalists!

THE WRITER

Admittedly most books on studies are more in the nature of anthologies, so that skill with words is not of such great importance here as a
Black made the mistake 1. ... Kh3? instead of playing his rook to e2, and there followed 2. Bf2!, Rg8; 3. Bg3 with a draw, there being stalemate if at any stage the bishop is captured, white 3. ... Ra8; 4. Bxh2 is the standard draw with this force.

If the bishop in the diagram is placed on e7, and if the whole position is reflected as in a mirror, so that the white king is on a1, and if White is to move, we have a composition by A. Moutarde, 1916. The draw is 1. Ba4+, Ka3; 2. Bc2.

White can set up a mate (Kf8, Pg6 and Sf7) in six moves, but this is one too many, as Black queens on a1 on his fourth. White is outside the square (a5–a1–e1–e5) and there is a danger of stalemate. Yet White wins: 1. Kf7, a4; 2. Sg6+, Kh7; 3. Se5, a3; 4. g6+, Kh6 (2. Sg6+ has gained two tempi, for if 4. ... Kh8; 5. Kf8 and 6. Sf7 mate) 5. Sg4+ (yet without this check White could not win) 5. ... Kg5; 6. Sc3, a2; 7. Sc2, Kh6; 8. Sa1 wins.

subject distinct from journalism. It is usually composers having a literary bent who are responsible for the rather rare short story or episode developed round an endgame study. 184 to 184h is an example of the converse, a study composed to illustrate a poem! The illustrator is the phenomenal Leningrad composer Vladimir Korolkov. The second verse of Longfellow's poem is omitted.
**EXCELSIOR**

by Henry Wadsworth Longfellow

(illustrated by Vladimir Korolkov)

The shades of night were falling fast,
As through an Alpine village passed
A youth, who bore, 'mid snow and ice,
A banner with the strange device.

**Excelsior!**

1. **bc+**
   Not 1. b7?, e1Q+; 2. Kc2, Qd2 mate, nor 1. Kc2?, e1Q; 2. bc+, Kc5; 3. cd+, ed wins.

   **Ke5**
   1. ... K×c3; 2. Qb3 mate, or 1. ... Ke4;
   2. Qb3+, Kd3; 3. Qc2+, Ke3; 4. Qd2+, Kf3; 5. Qd3+, Kg2; 6. Q×e2; wins.

In happy homes he saw the light
Of household fires gleam warm and bright;

Above, the spectral glaciers shone,
And from his lips escaped a groan,

**Excelsior!**

2. **cd+**
   Bad is 2. Kb2?, e1Q; 3. cd+, K×d4;
   4. Qc2, f1Q.

3. **Kd6**
   If 2. ... K×d4; 3. Qb2+, Ke3; 4. Qd2+. Or 2. ... ed; 3. Qf5+. Or 2. ... Kc6; 3. Qc2+. Or 2. ... Kd5; 3. Qb3+, Ke4; 4. Qc2+, Ke3; 5. Qd2+ and wins.

'Try not the Pass!' the old man† said;
'Dark lowers the tempest overhead,
The roaring torrent is deep and wide!'
And loud that clarion voice replied,

**Excelsior!**

3. **de+**
   Weak is 3. Kc2?, e1Q; 4. Qb5, f1Q;
   5. Qc5+, Ke6.

4. **Ke7**
   If 3. ... K×e5; 4. Qb2+, or 3. ... fe;
   4. Qd3+, or 3. ... Ke6; 4. Qc2 (e4)+, or 3. ... Ke6; 4. Qb3+.
   * The white pawn on b2.
   † The white king on c1.

**IMPRESARIO**

'Oh stay', the maiden* said, 'and rest
Thy weary head upon this breast!
A tear stood in his bright blue eye,
But still he answered with a sigh,

**Excelsior!**

4. **ef+, Kf8**
   If 4. ... K×f6; 5. Qb2+, or 4. ... gf;
   5. Qe4+, or 4. ... Kf7; 5. Qb3+, Kg6;
   6. Qg3+, or 4. ... Ke6; 5. Qe4+.

'Beware the pine-tree's withered branch!
Beware the awful avalanche!'

This was the peasant's last Good-night,
A voice replied, far up the height,

**Excelsior!**

5. **fg+**
   After 5. Qh7? simplest is 5. ... f1Q+ and 6. ... Q×f6.

5. ... **Kg8**
   Inferior is 5. ... K×g7; 6. Qb2+, or 5. ... Kf7; 6. Qb3+, or 5. ... Ke7; 6. Qe4+.

At break of day, as heavenward
The pious monks of Saint Bernard
Uttered the oft-repeated prayer,
A voice cried through the startled air,

**Excelsior!**

6. **ghQ+**
   Not 6. Qb3+?, Sf7; 7. b7, e1Q+;
   8. Kb2, Qe5+; 9. Ka3, f1Q; 10. b8Q+, Q×b8; 11. Q×b8+, K×g7 draws.

A traveller, by the faithful hound,
Half-buried in the snow was found,
Still grasping in his hand of ice
That banner with the strange device,

**Excelsior!**

6. ... **K×h8**

* The white queen on b1.
There in the twilight cold and gray,
Lifeless, but beautiful he lay,
And from the sky, serene and far,
A voice fell, like a falling star,
Excelsior!

7. Qb2+, Kg8; 8. Q × e2.

OPTIONS IN SOLUTION PRESENTATION

The traditional approaches to notation, punctuation, piece symbols and the structure of solutions on the page are none of them completely satisfactory for complex endgame studies. An account of the rethinking behind this book’s approach may therefore be of interest, if only to a minority—but then each chapter is in any case directed to a minority.

1. Notation. The algebraic is preferred to the descriptive. The reasons are the usual ones of brevity and conciseness, reinforced by the convention that studies are almost invariably regarded from the white side. The algebraic is international.

All U.S.S.R. and pre-Soviet Russian books and periodicals that I have seen have employed the algebraic designation of files, despite the existence of, for instance, Cyrillic alphabet characters for everyday purposes.

2. Sub-set of the algebraic notation. The abbreviated version, which gives the arrival square only, is perfectly adequate for all save the exceptional case. To resolve ambiguity, either rank-digit or

file-letter is affixed to the symbol denoting the piece moved. In rare cases the exact departure square must be specified.

3. Captures are denoted by × placed between the symbol of the capturing man and its arrival square. The captured man is not otherwise identified. The alternative symbol: is eschewed because it is visually less forceful. The only disadvantage of × is mentioned in 8 below.

4. Symbols for the chessmen. K for king, Q for queen, R for rook and B for bishop are normal. S for knight is controversial but has a respectable pedigree, even if it is a problemist’s pedigree! It stands for the word Springer, which is the German for knight. Kt is avoided for its lack of economy and its confusion with K, while the only other candidate is N. The objections to N are admittedly not strong, but they do carry some weight: it is comprehensible only to the English-speaking peoples; and problemists reserve the letter for the curiously fascinating piece the Nightrider, a fairy chess piece that is the logical extension of the knight: Na1 can move at will to b3, c5, d7, or to c2, e3, g4. In denoting moves, P is generally omitted and this omission is both in theory and in practice sufficient to indicate not only that a pawn is to be moved but also which pawn. By a convenient extension a capture by a pawn is indicated by two lower case letters denoting the departure and arrival files, without ×; specifying the departure or arrival square in addition is occasionally necessary.

5. Castling is rare in studies, but the shorter of the two alternative methods is used, namely O–O or O–O–O.

6. Promotion is denoted by the most economical method, namely placing the symbol denoting the piece chosen immediately after the arrival square identification, which already implies a pawn move. Brackets and equals sign are both superfluous.

7. Bold type for the main line and ordinary type for the supporting variations is a compromise deliberately chosen after considering visual effect, kindness to the reader and the necessary complexity of many solutions.

8. The symbol / indicates a divergence, and it is followed by lower case roman numerals to identify that branch. As another branch occurs it is given the next ascending serial number. The branching variation will itself be found down the page. The chief disadvantage is that roman numerals become clumsy at xviii, and there is the further small drawback that ×, though typographically distinguished from × in this book, now has two uses, as it indicates capture as well as note ten.
But the overwhelmingly convincing advantage is its algorithmically
all-embracing application to solutions, however complex, and its
basic serial-number simplicity. See also ‘annotation convention’ in
the glossary given in Chapter III-2.

9. The question mark. This has a precise significance in the world
of the study, whereas in the ordinary game it denotes merely a poor
move. It is applied in studies to two cases. Firstly, to a white try or
attempted solution, where the refutation leading to a result worse for
White than the stipulation must be watertight. A try needs only a
single question mark, and that should be affixed to the first move in
the try line. Secondly, to a black move that loses in a draw study.
This usage is strictly adhered to in this book. (See also note (iii)
of 412 for ? used after a black move allowing White to draw in a
supporting variation.)

10. The exclamation mark. This is a real bone of contention, and
I have compromised. In Part I it appears fairly freely, but in Parts
II and III hardly at all. The journalist has no qualms about singles,
doubles or even trebles (!!!) and many players see no objections, on
the principle that any guide is better than none in a foreign country.
If a move is marked ! it will be recognised as good or strong or
brilliant, and the reader is thereby exhorted to concentrate his atten-
tion at that point in order to discover the reasons for the strength or
brilliance. The exclamation mark is also a relief from the visual
monotony of columns of unalleviated move numbers, piece symbols
and squares. It serves as an abbreviated commentary. So, the !
lightens the burden on the reader for whom too much chess (or
‘much study’, as Ecclesiastes has it) is a weariness of the flesh. On
the other hand the exclamation mark does not have the precision
of meaning of the question mark in the world of the study. All main
line white moves are unique anyway, and to use the exclamation
mark for good black moves would show the side that eventually
gets the worst of the play having all the good moves. Furthermore,
the critical reader is rightly suspicious of editorial punctuation, and
finally, where there is a stipulation of a win or a draw the assistance
given by additional punctuation is arguable.

11. Checkmate and stalemate. Check, whether single, double or
discovered, is always +. Mate and stalemate merit the full words,
though the French ‘pat’ and even the German ‘patt’ have noticeable
space advantages over the English ‘stalemate’.

There is an objection to the adopted system. Echoes or equally
valid variations within the same study frequently occur. If they are of
equal importance it is aesthetically desirable that they also appear
so to the eye. If one variation is in bold type and another, resulting
from an alternative black move at that point, is in ordinary type,
priority and emphasis seem to be given to the former. One possibil-
ity is to introduce A and B indications, each in bold type, but this is not
consistent with the general principles selected. My preference is to
maintain the system but to draw particular attention to the impor-
tance of the variation by saying so in the notes. In any case it often
happens that one of the branching variations is longer than the other,
and in this case the main line in bold type should generally be the
longer one.

ANALOGIES

Attempting a full and coherent explanation of what studies are about
is tiresome, for both parties. A much better approach, and one
suited to the columnist, not to say conversationalist, is to find the
right analogy. This is much less tiresome. On the other hand it may
fail or boomerang. What analogies may be used? Here are a few
suggestions.

Culture
The chess composer is the good or bad artist, author, creator, poet,
craftsman, technician. The solver is the good or bad interpreter,
translator, student, audience.

Driving
It happens every day and is not normally of significance. ‘This is
a stupid road!’ exclaims the driver. An effective figure of speech.
A road cannot be stupid in the literal sense. If the driver means any-
thing beyond expressing his own annoyance he means that the de-
signer or builder of the road was stupid. There are obvious distinc-
tions, then, between the road, its designer and its user. It would seem
impossible to confuse any one of these with another! Just so, there are
distinctions between the study, its composer, and the solver. But
ask someone who has just made a remark about studies whether
he is meaning studies, composers or solvers, and it is rare to receive a
clear reply.
Gastronomy
A study, like a good meal, should have a proportion or balance. A good study will have three distinct ‘courses’—an hors d’oeuvres, a main dish and a dessert. Echo or other valid variations are the options for the main course or dessert! The analogy partially fails if the point of a study is in one taste of the dessert! On the other hand the analogy is an excellent means of conveying the judging criterion of a sense of proportion within a study’s solution.

Haystack
The solver searches for the needle in one haystack. The composer, before him, has selected, or done his best to select, the right haystack, which he has been compelled to pick to pieces to discover if it is the most appropriate home for his valuable needle.

Language
Chess may be considered a universal language because its rules are identical anywhere in the world and are recognised as such. The minds of players of different nationalities communicate over the board. But chess also satisfies Noam Chomsky’s definition of a language as the set of all sentences that its grammar generates, if we read ‘positions’ and ‘rules’ for ‘sentences’ and ‘grammar’. There is food for thought in Chomsky’s emphasis on creativity.

Mathematics
Like pure mathematics chess is a self-contained, almost inexhaustible world. Within this world a chess composition is an undiluted achievement.

Maze
Consider a maze of the following kind: a large number of entrances, only one of which leads to the centre. The solver has to reach the centre. But the composer’s condition can also be illustrated by the same analogy. The composer is himself outside a maze, at the centre of which is—the solver’s maze! Each entrance to the composer’s maze is a candidate solver’s maze. The composer must select the best candidate, involving inventing every candidate, too.

Medical research
Consider a single-handed project to discover the cure for an illness. Previous research is available, which it would be stupid and wasteful to ignore. The research worker builds on proven past results. All useful research is new. All results must be strictly proved. Working hypotheses must never be published as facts, however useful they may have been as hypotheses. When or if a cure is found it must be tested for all possible short and long term side-effects, whether these be harmful or harmless. Again, can the cure be improved? Is it in its best form? These questions have their counterparts in study composition. Indeed the composer, especially when wearing his journalist’s hat, frequently refers to his ‘laboratory’. The human qualities needed are similar too. Patience, self-criticism, a strictly logical mind on the one hand and an imaginative one on the other, independence of thought and a spirit of enquiry are equally valuable in either laboratory.

Mountaineering
Climbing mountains is a pure physical achievement. Composing with chess is a pure mental achievement.

Music
Chess composition may be explained to both the non-chessplayer and to the non-composing chessplayer by analogy with music. Musical and chessboard composition are both creative acts which may produce flops, esoteric or popular works, may show schools and trends, simplicity and complexity, preferences and rules. There is scope for, and value in, originality and style. Each is international though music does tend to have national boundaries, or at least continental ones.

The musical analogy may be pressed. Each chess piece in a composition is an orchestral instrument playing its part in a harmony. Each piece should be utilised to the maximum of its range, just as it would be a waste of the piano to restrict a musical score to a single octave. And each piece on the chessboard, like each key on the piano keyboard, means both the black and the white! And if the piece corresponds to the instrument, the move corresponds to the note. Roughly, anyway; notes may be concurrent as well as consecutive, moves must be only consecutive. Or is this absolutely true? Consider alternatives, in particular alternative black moves. May not two black third moves be considered concurrent? If they result in so-called echo variations then we have in chess what is accepted as counterpoint in music. If in playing through one of the variations we can at the same time envisage the echo, we are appreciating something very close to counterpoint. And in music, as in chess composition, there is no game element. Curious, that music is played!
The mate arises from a (synthetic) game, but from perfectly reasonable moves. See p. 167.

**TOPICS FOR THE PEN**

It might seem that the range of topics for writing about the endgame study is limited. In the strictly logical sense of the word limited this may be true, but a quick look at the index to this book should show that the range is a wide one. With only a small spoonful of imagination it is possible to invoke struggle, drama, life, death and all the gamut of human emotion and intellectual endeavour. There is no shortage of material for controversy. Should tourneys be abolished? Are formal tourneys better or worse than the informal variety? Was Troitzky a finer composer than Kubbel? But aside from technical discussions, there is scope for ideas. A chess composition almost certainly comes under the international legal definition of a literary work, so some form of copyright should be implemented and enforced. There are still a few grey areas of endgame theory, so tourneys should be organised inviting entries using only the ‘grey’ material.

The writer with endgame study knowledge may well be a better person than the composer in thinking up ways of explaining the composing process to the general chess public. There is, for example, the very odd procedure composers have to indulge in whereby they have a final position and have to invent the introductory play. It is peculiarly difficult to convey what this entails. For an ambitious attempt, see the Barnes experiment in Chapter III:3. However, there is a simple idea that does give some of the flavour of ‘inventing moves backwards’. Take any position that is at the end of a combination, such as 185 which is checkmate. Guess what the last move might have been. You will find that you have to choose the departure square. Look at the actual move. In most notations the departure square is not given, so even this will not be of great help! Do the same with the next-last move, for each side in turn. You will discover the flavour of un-capturing and of un-moving into check. Pieces suddenly appear where there were none before. A sacrifice has to be invented and the piece to be sacrificed is not on the board!

It is no coincidence that the best writers on chess, such as Réti and Euwe, have also had the reputation, if not profession, of teachers.

**DIFFICULTY**

To each his own difficulty. Composer, player, solver, analyst, and indeed each individual within each class, will experience very varying degrees of difficulty according to circumstances. The impresario is more concerned with solution difficulty.

Most people would attribute difficulty in a study to uniqueness of the solution. It is more precise to attribute difficulty to choice. For the beginner, or a solver versed in problems rather than studies, choice seems impossibly wide. There are four ways of reducing this choice that are under the control of the impresario.

1. Give explicit hints (186).
2. Goad the solver, with prizes or with phrases (187).
3. Select studies which are easy.
4. Educate the solver in the theory applicable.

Special attention is given here to the first and to the second. Many examples of the third are in Part I, while for the fourth, which is the least promising, the reader is referred to discussions of endgame theory scattered among many chapters.

**HINTS ON HINTS**

A good hint will make the solution easier to find but will not remove the surprise effect. It speeds up the tightening process described in Chapter I:2. Therefore, for most studies, the hint will concern itself with the early part of the solution. It is very bad to anticipate the idea, for example by saying that it is a clever and surprising under-promotion, because this both removes the surprise element, which is really the whole selling point of studies, and leaves behind only the
1. Rc6, Sc4+; 2. Ke7, Bd3; 3. Rh1+, Kg7; 4. Rg1+, Kh7; 5. Kf8, b1Q; 6. Rg7+, Kh8; 7. Rh6+, Bh7; 8. Rg8 mate.

An observation to try to bring this study alive to the struggling solver might be: Fascinating to be a spectator to the forging of the L-shaped angle-iron in the top right corner! More specific hints would be to indicate Black’s threats of ... Sc4+, ... Bd3 or ... a3, or simply to say that the first moves are 1. Rc6, Sc4+.

The American magazine gave a dozen quiz positions like this one, accompanied by cajoling exhortations to induce the reader to attempt to solve. ‘All these positions yield to the application of chess logic.’ ‘Do not ask us to supply the winning idea!’ ‘Chess rewards the capable seeker in the end.’ ‘Reject the vain endeavours for the fruitful ones ... you may aspire to establish yourself as a real solver!’ ‘Simply find what’s in the position.’ ‘Look hard, of course, work hard and think hard.’ ‘Interject some leaven of inspiration. There may be some need of genius, or at least a touch of talent.’

The position is anonymous. 1. ... R×b4; 2. gh/i, Be4; 3. Rxe2/i, B×e2; 4. R×e2, Qg4+; 5. Kh2, fe/iii; 6. Qel/i, Qf3; 7. Kg1, Qd3 and 8. ... Qd1 wins.

(i) 2. R×f3, Q×f3; 3. gh, e3; 4. fe, Qg3+ mates.

(ii) 3. Q×c4, Qg4+ and mate.

(iii) Black could mop up the pawn on h4, but it would not hasten the win.

(iv) 6. Qc1, Kd7 is simplest as ... Qf3 will inevitably follow in a move or two, with a win as in the main line.

difficult part. Just as exasperating is to say that there is a near try that fails. A good clue says what the near try is, and why it fails. This is the plan to adopt in a chess column, where the hint must be a written one. Verbal hints can be more flexible, giving minimum explicit help and aiming to get the solver to solve to the best of his ability. He must not be depressed, must not associate you, the demonstrator, with something that is too difficult for him.

THE DEMO

By ‘demo’ or demonstration is meant the person-to-person presentation, not the contemporary sit-down or run-around protest meeting. In commercial selling terms the demonstration, to be effective, must be made by someone with ‘I believe in this product, isn’t it wonderful’ in his heart. Surely this applies to studies, for who would bother to show off a chess position that had no interest for the demonstrator?

Before giving some ‘Do’s and Don’ts’ for the demo, here is a dialogue that is almost certain to take place if the composer ventures into his local chess club.
The scene: any chess club. Enter a Player looking for a game. He spies a nebulous member (the Composer) alone with a board and pondering 188.

PLAYER: Who's winning? (Composer winces visibly.) Adjourned game, eh?

COMPOSER: No. Not an adjourned game.

PLAYER: Whose move?

COMPOSER: White to move.

PLAYER: Drawish, I should say. Bishop takes pawn. Rook takes pawn.

COMPOSER: It isn't a game, it's an endgame study.

PLAYER: Oh, I see, a problem. Some are quite good. Couldn't happen in a game, of course. This one doesn't look too bad, though. Is it yours?

COMPOSER: No. (He winces again.) It is not. But it doesn't matter who composed it. If you're interested, have a go. Treat it as a game. Or better, as an adjudication. The white pawn is on the sixth rank. I'll turn the board round so that you can have White on your side.

PLAYER: All right. Hm. The pawn's attacked so I play it to the seventh. What do you do?

COMPOSER: You should really work this out for yourself.

PLAYER: Why? You said just now that I should treat it as a game. In a game my opponent makes his own moves.

COMPOSER: Yes, but surely in a game you must take account of your opponent's possible moves. The white move is bad because of rook to f6 or g1, the latter with check. To get the most out of this study, or any study, the variations that do not work must be found by the solver. Try another move.

PLAYER: Not much like a game if I can have moves back, is it? What about putting the rook, as Tarrasch says, behind the passed pawn? Rook to f5.

COMPOSER: That ignores the fact that Black has a threat of rook to g1 check.

PLAYER: Well, what of it? Black won't win.

COMPOSER: Agreed. But the point is, White would not win. And by playing correctly, White can win.

PLAYER: Oh! You didn't tell me that before. But look here. This is again not like a game. In a game I never know whether there is a win in a position until I have found one.

COMPOSER: This is not a game. It is a composed study.

I-4 IMPRESARIO

PLAYER: Now that is a contradiction. A minute ago it was a game. Now it isn't.

COMPOSER: I thought you said you knew something about endgame studies.

The dialogue ceases. It can hardly continue. Player, composer and studies are all losers. Both sides were at fault in that exchange. If he wants to analyse, the composer should do so alone or with someone who is known to be familiar with composing situations. He should not attempt to do so in the local club. On his part, the player could try a bit harder to understand what studies are about.

How to demonstrate a study—and how not to!

A study appeals to us and we want to show it to others. As we have just seen, it is easy to do so in a way that in fact puts the other man off. How can one avoid this? Choosing the right person and choosing the right moment and choosing the right method may all be crucial, and there can be no guarantee of success. But some tested ground-rules do exist.

1. Do say it is an interesting position.
2. Do not say it is a study.
3. Do not ask him to solve it, unless you know he is very able and keen and prepared to spend the time.
4. Be prepared to suggest approaches, and to summarise the characteristics of the position, such as threats.
5. If you can, act the part and say the position occurred in a match game, but do try to correct this impression afterwards—when he is already hooked.
6. Be prepared to take sides. This is likely to be necessary if your audience adopts the player's stance and says 'I do this, what do you do?' A nice trick is to claim 'I think I can draw this for Black' in a win study. Then, if he finds the win he will be pleased and will remember the position. If he does not find the win, you can suddenly offer to change sides, or at least you can say 'You haven't tried so-and-so'. By this time he is involved, and the battle is won. Not recommended, unless you know the man very well indeed, is to take bets on the result, even if he makes the suggestion. Although all this smacks of duplicity, some initiative is essential to overcome the prejudice of players against anything composed.
7. Do not announce that it is a draw, or a win.
8. Consider presenting the critical position, after the introduction.
Let him have a good chance of discovering the surprise move or moves for himself without having to wade through complex lead-in play.
9. Ask, tactfully, if he would like to see more positions of that kind.
10. Try to select positions that players think are likely to have occurred in games.

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II. THE PRACTICAL

1. Majority Player
2. Advanced Player
3. Cook Hunter: Friend or Fiend with Microscope
4. Analyst, or Seeker after Truth
1. Majority Player

In its finest manifestations chess exhibits features of a game, and of a science and of an art (189 to 192). This versatility is very likely unique in degree, if not in simple fact. At will, one may treat chess as game or art or science, but of course the most popular treatment is as a game played on any level of skill and as no more than a recreation. I shall try to show, by numerous examples, that the majority player is closer to endgame studies than he perhaps imagines. What he finds most attractive in chess has a great deal in common with what studies are about.

The popular appeal of chess lies no doubt in the drama of checkmate in its reality or threat, together with the perils and thrills of battle (193 and 194). The player makes mistakes in all phases, but so does his opponent. For this enthusiast the positions given in this chapter may be enjoyed for their own sake, but the selection is intended to say something, even if indirectly, about the endgame study.

Like an endgame study, this chapter has a ‘Main Line’ and ‘Variations’. The main line is short, the variations are longer. While aiming at holding attention, they also (I hope) support the correctness of the main line. Just like a study. The form may be presented in the same way as the solutions, thus.

Main line: 1. ‘Basics’, learning process\textsuperscript{i}; 2. Comparisons with the opening\textsuperscript{ii}, and middle game; 3. Accidental discovery, juxtaposition\textsuperscript{iii}; 4. Real life occurrence of a previously composed position\textsuperscript{iv}, strategies\textsuperscript{v}; 5. The invention process and naturalness, outlandish game positions\textsuperscript{vi}; 6. Acquiring tactical awareness\textsuperscript{vii}, drawn from sources\textsuperscript{viii}.

(i) Extract from James Mason’s The Art of Chess.

(ii) The thrills of openings innovations and prepared variations. All variations in studies are prepared! Attractiveness, soundness and difficulties, both over-the-board and in studies.

(iii) Two Zugzwang examples; a complete game; ‘Could it be a study?; technique; another game.

(contd. on p. 157)
In a game, what is immediately decisive is 'better' than, because more efficient than, something slower, and in general the player is interested in alternatives only if they are tempting traps. Petrosian played the beautiful 26. Qe2, Sa5; 27. Qh5 and Black has no defence against 28. g3 winning the queen. White avoided the hasty 26. Qh5, when 26. ... Sd2; 27. g3?, Qf3 is a loop-hole.

It would take a rash person to claim to distinguish the game, scientific and artistic elements, but surely they happily coexist here.

The kind of 'echo' that sometimes occurs in over-the-board play, when, as here, it is the other side that accomplishes the repeat, the effect is humorous. Play continued: 25. R×f7, Kg8, not 25. ... R×f7?; 26. Re8+, 26. R×b7, Re2; 27. Kg1, not 27. R×e2?, Rf1 mate. The game was drawn in 62 moves.

32. ... f5/i; 33. g4, Rd4; 34. gf, ef, and now 35. Rb8+, Ke7/i; 36. Re3+, Kf6; 37. Rb6+, Kg7; 38. Kg3+, Kf8; 39. Rb8+, Ke7; 40. Re3+, Kf6; 41. Rd6+, Kg7; 42. Kg3+, Kf8; 43. R×h6 and won.

(i) 32. ... Kg7 was better, but nothing is positively demonstrable in the sense that alternatives in a study have to be clear.

(ii) 35. ... Kg7 would allow the rook-pistons to force the king round clockwise instead of anti-clockwise.

See 192 for the flavour of a similar manoeuvre in a study.
II-1 The Practical

It depends whose move it is. White to play draws only, as, with his knight on any square of the same colour as that occupied by the black king, he can only manage to check while the oscillation continues between c7 and c8; the king moves to the companion square (c8 or c7), and the knight must move away, allowing the oscillation to continue. Black to play, though, loses, because his king will be forced away. The drawing rule, wherever the knight stands, is to play the king to whichever square is the same colour as the knight’s square.

1. Kf4, f1Q+; 2. Kg3 wins. Or 1.
   ... Kh1; 2. Qe2, Kg1; 3. Kg3, but not 2. Kg3?, f1S+, and not 2. Q×f2? stalemate.

II-1 Majority Player


(i) But there is a trap: 3. Ka1?, Kc2 mate, a mate which can be achieved compulsorily if Black has two bishops on the same colour, since the square c1 can be covered by the other bishop.

The trouble White is in can be seen from 1. ef?, K×f2; 2. B×g4, Bb7; 3. Bh5, Ba6; 4. Bg4, Bf1; 5. B×h3, B×h3; 6. f4, Bg2 mate. The actual line begins 1. B×g4. A capture, but putting the bishop en prise. 1. ... fe/j; 2. B×e2, K×f2/i; 3. Ba6, Bd7; 4. Bb5, Bg4; 5. Be2, K×e2; 6. Kg1 and this is the classic draw of Loll, as in notes (i) and (ii).

(i) 1. ... B×g4; 2. ef, B×f3+; 3. Kg1 is the 198 draw.

(ii) 2. ... K×e2; 3. Kg1 is the same draw.

The move is unimportant. White’s oscillation between a1 and b2 can only be halted by abandoning the pawn or approaching with the black king to give stalemate.

As with many old positions, we have to consider both the case with White to move and the case with Black to move. White’s move: 1. Ke4, Ke6; 2. Kb4, Kc7; 3. Kb5, Ke8; 4. Kb6, Kb8; 5. P×P, P×P. White cannot improve on this.

Black’s move: 1. ... Kd7; 2. Ke4 as before.
The position is relatively unfavourable for White, but there is no win for the rook. 1. Bb7\textsuperscript{7/2}, Rb6; 2. Bd5, Rh2; 3. Bc6, Rf2; 4. Kg1, Ke2; 5. Bd5, Ke1; 6. Bc6, Rf6; 7. Bb7, Rg6++; 8. Kh2, Kf2; 9. Kh3, Rg3++; 10. Kh4 drawn.

(ii) 5. Bb5?, Kf3; 6. Bc6++, Kg3; 7. Be4, Re2.

The possibility of reaching a position like this accounts for quite a number of under-promotion studies. Play might go 1. Kd1, Rb1; 2. Kc2, Rh8, and White risks nothing by maintaining his fortress with 3. Kd1, Rh2; 4. Ke1, Rd2; 5. Sh3 and the knight will soon return to c1. In contrast to a bishop, a knight on the edge prevents an opposing king taking the dangerous opposition when the defending king is also on the edge.

For an example buried in a sub-variation, see 33\textsuperscript{4} in notes (x) and (xii).


(i) Or 2.f7 at once.

(This position dates from Greco, in the early 17th century.)

(iv) Two coincidences. Are they really coincidences?
(v) How important is it for a chess idea to have occurred in a game? Examples from Prokes and Ellison.
(vi) Some improbable, but actual, positions and play.
(vii) The power of the exception to prove (or test), imply and teach, the rule. ‘Why did he resign?’ Bases of good chess; theory.
(viii) Bibliography.

‘MAIN LINE’

No single change would do more to improve the universal level of chess than if a word like ‘basics’ were to replace ‘endgame’ or ‘ending’. The trouble with the syllable ‘end’ is that people shy away from starting the learning process with it. For centuries in every country chess has been taught by showing the moves of the different pieces and then inviting the beginner to take the white or black pieces in a game. Players will surely sympathise with the first question I put to the good and patient uncle who taught me the game by that time-honoured method, ‘How many pieces are you allowed to have on one square?’ The implication that to grapple with the complex before the simple leads to quicker and more productive learning, is absurd. What is astonishing is that the converse, surely obvious when stated, has needed repeating in each chess generation (195 to 199). One eloquent soothsayer was the nineteenth century Irish-American player and writer James Mason (see Variation No. 1).

There are points of comparison between the endgame and other phases. Like the opening, the endgame has its own literature, history, specialists and great names. There are explorers, or theorists, in both domains (see Variation No. 2). Someone attracted by the idea of chess discovery, but for whom the shifting sands of the openings are uncongenial, could well seek and find satisfaction in the well mapped, if often hilly, lands of the endgame (200 to 203).

Discovery, though, if taken at all seriously (that is with publication in mind), implies awareness of the state of the art, and this in turn implies a stocked library. Such a treatment of chess is foreign to the player, who, if he possesses any books, probably has two or three collections of the best games of great masters complete with their rich annotations. From time to time he plays these through. When he does, perhaps it happens that he despairs of even comprehending the opening and middle-game achievements he encounters, but feels that the interspersed endgames are, or ought to be, more approachable. There is
This position was concocted by the two players at the conclusion of an informal match of ten games in which the time to ponder a move was not to exceed five seconds. In one of the games Capablanca had won very prettily and the method was the foundation for this joint composition. The games were played in the Café Kerkau in Berlin.

None of them have survived, but Capablanca won by 6\frac{1}{2} to 3\frac{1}{2}.

1. S×c7, S×c7; 2. Ra8+, S×a8; 3. Kc8 and wins both knight and black pawn in two more moves, followed by promotion of the white pawn.


Play proceeded, 56. . . R×b6; 57. R×b6, d3; 58. Rg1, d2; 59. R×f6.

It is now possible to count nine passed pawns! 59. . . Rc7; 60. Rfg6, d1Q and White resigned.

Black has just captured a bishop on b2 with his rook from b8. He should have taken with his bishop. Keres draws with 41. Rd7, when the threat of 42. c7 and 43. Rd8+ has to be met. The only way to do this without sacrificing the bishop for the pawn is 41. . . Rc2; 42. c7, Bf8, but then all Black's pieces are tied up or tied down. It is a positional draw.

Najdorf did not even bother to make a 41st move.

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II-1 The Practical

"Endgame composed by
Lasker and Capablanca"

Vossische Zeitung, 26.vii.1914

II-1 Majority Player

many an endgame enthusiast who acquired his taste through the accidental juxtaposition of a rewarding ending with a dazzling but impossible complex display of combinative wizardry (see Variation No. 3). And it is not unknown for positions, simple and complex, to repeat themselves, wherever they 'first' occurred, thus demonstrating the usefulness to the practical player of a little knowledge (see Variation No. 4). Such coincidences are frequently reported in the chess press.

What about the middle-game? Many players associate forced manoeuvres with this phase of chess, and they are surprised, mortified even, when a sacrificial twist or sudden mate or other combination, takes them off guard in the ending (204 to 207). It is usually missed in the game, discovered afterwards, and considered extraordinary. Yet the landmarks were surely there all the time. Now it is exclusively with these stratagems that endgame studies concern themselves. Furthermore, it is maintained here that a harvest of points and half-points is garnered through the tactical awareness acquired, and acquired agreeably, by acquaintance with endgame studies (see Variation No. 5).

It is not by analysing games, or at least not only by analysing games, that studies concentrate on these forced endgame manoeuvres, but by inventing positions of this kind. This curious chess inventing activity is called composing. It is a solitary occupation with analogies to musical composition and sculpture (though also with analogy to laboratory research—the test tube of the book's title). It is true that many chess compositions are, like the creations of these latter arts, off-beat. The player tends to say that they are artificial or unnatural, that 'they could not occur in a game', and that really he 'only likes games'. Fair enough. But some quite outlandish positions do occur in games (208, 209) and they get reprinted, presumably because they are of interest to players (see Variation No. 6). In a medium where, by the laws of the game, blunders must stand and clocks must be heeded, it is to be expected that freaks will arise. Any curious single feature (note the careful wording) to be found in an endgame study is probably paralleled in a game somewhere. What has to be admitted is that some studies accumulate these features in the one position. This affords the player some justification for his suspicion. But the difference can only be one of degree and the majority of studies are free from this fault, if fault it is (210 to 212).

Apart from promoting tactical awareness, and apart from the possibility of applying, directly or indirectly, positions that one meets in books, there is another advantage, probably the most important, accruing to the player who devotes time to endgame studies. Most studies may be thought of as exceptions to the rules. The rules are otherwise called
Play proceeded: 47. g6, Ka3; 48. Kg3, Rb6; 49. Kh4, R×h3; 50. R×e6, Rb7/; 51. Kh5, Kb4; 52. h4, c4; 53. Rb6+, R×b6 stalemate.
(1) 50. ... c4; 51. R×c5, Kb4; 52. Rb6+, Kc5; 53. R×b3, cb; 54. Kh5, b2; 55. h4 with the same result. Surely a case of life imitating art!

Black has six more pawns than White. 208 is a good starting point for a discussion of the curious in chess. There are curious positions, and there is curious play. There are, then, four possible combinations of the curious and the non-curious, with positions and play. Most riveting is to combine a non-curious position with curious play. Is there any player to disagree? So, why give so many curious positions from play in this book? Because it is a fact that in the field of studies the most riveting examples have either been composed already (the classics), or have very abstruse supporting variations. It follows that a certain artificiality of position must often be accepted, for the sake of the play. Curious positions with non-curious play (261) belong to the game, not to the study. The curious positions quoted

White's last was 67. e6-e7. Play ended with 67. ... Qd5++; 68. Kf6, Qd4++; 69. Ke6, b1Q; 70. S×b1, Q×e4++; 71. Kf6, Qb4+ and drawn by perpetual check.

Not the most attractive of studies, but very game-like, which will do for a verdict on Cozio as a whole. 1. ... Rf2; 2. Bf7, Rf8; 3. Bf5, Rb8; 4. Bc8, Kg7; 5. Kh5, Kf7; 6. Kc6, Ke7; 7. Ke7 wins. The diagram, as Walter Veitch has patiently pointed out, is a simple win for Black, for instance by 1. ... Bd4.

1. Ra6, A fine move indeed. 1. ... R×a6; 2. g8Q and will win. If instead 1. ... g2; 2. R×a8, g1Q; 3. g8Q will also win. Cozio does not give the equally instructive 1. ... Rg8; 2. Ra7+, Ke8; 3. Ke6 wins, or here 2. ... Kc8; 3. Ra8+, Kb7; 4. R×g8, g2; 5. Rb8+ wins. Note in this last line the tempting try 3. Rf7?, g2; 4. Rf8+, Kd7, and it is Black who wins. It is most unusual to find such a wealth of content in such an old position.

The Italian adoption of today's stalemate is illustrated here, as well as an early example of a popular stalemate setting.

1. Rd8+, Ke3; 2. Rh3, Q×h3; 3. Rd3+ and whichever black man recaptures it is stalemate. The alternative is 3. ... Kb2?; 4. R×h3, c3; 5. Rh1 and wins. Note the echo, not mentioned by Cozio, 1. ... Ke3; 2. Rh3, Q×h3; 3. Rd3+. That Cozio should omit such lines is evidence that he was not the composer, but merely the compiler.
II-1 The Practical

J. Löwenthal
The New Chess Player,
4. ix. 1852

213

Win

3+2

214

Draw

2+3

King's Indian Defence
Position after 10. Bg5 in a variation of the Four Pawns Attack

215

Black to Play

15+15

II-1 Majority Player

‘theory’ or ‘the book’, the same terminology as is used in the openings. It follows that a study, in addition to being a puzzle and entertaining, is often also highly instructive. Solving such a study, or even just playing through all its lines, must teach, or at least imply, several axioms of endgame theory (213 and 214). So, here is a more palatable way to absorb endgame theory than by poring over the columns of analyses in the theoretical treatises—of which, I hasten to add, many are superb for reference and study, if one can learn that way. And even if nothing at all about theory sinks in, at any rate you will have enjoyed yourself (Variation No. 7).

VARIATION NO. 1

Extracts from the introduction to James Mason’s The Art of Chess:

That due knowledge of any subject not perfectly simple in itself implies exact knowledge of its elements or parts is a truism remarkably appropriate to chess. Now to form just ideas of the parts or elements of which chess consists, it is necessary to consider them each separately at first, and not to confound them all into one view, so that, as it were, we cannot see the wood for the trees. A player in a fog as to the movements of two or three pieces—what will he do with two-and-thirty? But having mastered the parts, then a correct method will enable us to trace their connections and interactions, until we may eventually perceive them working together according to that controlling principle of unity in diversity which is the last to be discovered in the actual game... What is wanted... is a groundwork of clear and determine ideas as to the final object of the game—checkmate. It is a principle of experience... that the clearer an idea is, the more fruitful it is in producing other ideas, and increasing our knowledge. And the simpler the idea the clearer, if only it be attentively considered. We should, first of all, be intent upon the end at which we would arrive, if we would best avail ourselves of the means of getting there. Thus, in chess, it is the end we should consider first, so as to more easily master the simple ideas of the game, that we may become readily familiar with them, in order to go on with confidence to their combination or involution. Again, if you do not know what to do with three pieces, what about thirty-two?... Master the end, the great central idea of the checkmate, with its approximate conditions. Then you will be able to judge of its more remote circumstances, implied in wider combination, and so on, until you arrive at the indeterminate opening with an authority of your own—the only authority that can be worth anything

1. Qg5, Kh8; 2. Qh5+, Kg8. Or, Black to play. 1... Bh6. Black has an impregnable fortress. As important for the endgame as it is beautiful.

See p. 165.
to you in the actual game... The opening... is... the least understood, even by the accomplished player, and it is just this part that the neophyte is usually recommended to master at the beginning. A more fatuous gripping of the wrong end of the stick it would be hard to imagine. It is as if the cadet were to devote himself to the mastery of the higher tactics or strategy of a grand army in the field, while yet innocent of company drill, or of the evolutions of a single battalion. "There is nothing in war," said Napoleon, "that I cannot do with my own hands. If there is nobody to make gunpowder, I can manufacture it."

**VARIATION NO. 2**

To younger generations of chess players, those who have grown up among the post-war World Championship matches, the King's Indian Defence is no doubt congenial and devoid of mystery. To any older generation this defence is likely to cause confusion, for the familiar openings are the Queen's Gambit, Ruy Lopez and Nimzo-Indian. To these players a little home study pays big dividends, at least in half-points saved, against the genned-up youngsters. A sensible, if not necessarily sound, innovation can give both personal satisfaction in making a discovery, and good practical over-the-board results. For example: 1. d4, Sf6; 2. c4, g6; 3. Sc3, Bg7; 4. e4, d6; 5. f4. A somewhat discredited variation. 5... O-O; 6. Sf3, c5; 7. d5, e6. And now the bold 8. e5 is given in none of the current 1969 books, but is by no means easy to refute, White being ready to sacrifice a pawn, or even two, for the initiative. Play might go 8... de; 9. fe, Sg4; 10. Bg5, (215) Qa5; 11. Be2, ed; or 11... Sxe5; 12. O-O; in either case. The attempt at immediate refutation by 10... f6; can be met by 11. ef, Bxf6; 12. Qd2, the general exchange on g5 being harmless, and material being level. Another continuation might be 10... Qb6; 11. Sa4, Qc7; 12. d6, Qc6; 13. Be2, Sd7; 14. O-O, Sxe5 (14... Sdxe5; 15. Sxe5, Sxe5; 16. Be7) 15. Be7, Re8; 16. Sc3, and White has threats of Sb5-c7 and Qd2-f4 with straightforward menaces against f7 and f6. With a little wishful thinking a brilliancy is readily concocted: 10... Qb6; 11. Be2, Sxe5. This avoids a likely repetition draw after 11... Qxb2; 12. Sa4, Qa3; 13. Bc1, Qb4+; 14. Bd2. 12. O-O, Sxf3+; 13. Rxf3, Qxb2; 14. Rb1, Qa3; 15. Se4, Qxa2. 16. Sf6+, Kh8; 17. Rh3, h6; 18. Qe1, Sd7; 19. Rxf6+, Bxf6; 20. Qh4, Qxb1+; 21. Bf1, Sf6; 22. Qh6+ Kg8; 23. Bxf6.

The thrill of this kind of discovery is all the greater if the find happens
to have sacrificial or other beauty. When this happens it is a wonderful bonus. In solving an endgame, the emphasis is different. We know that there is always a bonus (or should be, if the study is worth something), so that the thrill may seem to be less since it is expected. But on the other hand we do not know how, when or where the surprise will come, nor how many surprises there may be, and the thrill itself can be great.

The player is a latent enthusiast if he has ever wished that his opponent had not blundered. The only reason for this wish, certainly the only likely reason, is that something pretty did not occur. In other words the player attaches importance to beauty as well as to winning. Studies provide the opportunity to pursue beauty in chess for its own sake. The opponent does not blunder, for there is no opponent. All moves may be retracted. No one scores a point, or a zero, or a half. The point of the thing is the point of the thing.

Another excitement familiar to the regular player is the prepared variation, a close relative of the opening innovation, held in readiness for the player who is known to favour a particular line. Suppose a player has a pet defence to the Blackmar-Diemer Gambit. 1. d4, Sf6; 2. f3, d5; 3. e4. The gambit is reached by transposition. 3. . . . d6; 4. Sc3, e6. The pet defence. 5. fe, Bd4; 6. Bd3, Sx e4. Black’s point. 7. Se2, Qd5. This is a clever (not new) move to prevent White from castling, but against which the following prepared line might be concocted. 8. O-O, Bx c3; 9. bc, Sx c3; 10. Sx c3, Qxd4+; 11. Kh1, Qxc3; 12. Rb1, Bd7. Preventing pin of Black’s queen when it retreats to c6, and so allowing attack on g2. 13. Bb2, Qc6; (216) 14. Bxg7, Rg8. Now what? The bishop cannot move because of mate on g2. 15. Rxf7. The point, and a great thrill to discover. 15. . . . Kx f7; 16. Qh5+, Kx g7. Or 16. . . . Ke7; 17. Qh4+, Ke8; 18. Qx h7, Rg7; 19. Qh8+, Ke7; 20. Qx g7+ with a winning attack, 17. . . . Kd6 being no better. 17. Rf1, Qx g2+. A brilliant resource, even if inadequate. 18. Kx g2, Kh8+. A king giving a discovered check is a rarity, and note too how the white king reached the corner after castling and the black king without. In fact the white king now marches back to his starting square! 19. Kf2, Rg7; 20. Ke1, Sc6; 21. Rf7, Rag8. Black would seem to have recovered, and with rook, knight and two pawns for the queen the material is about level. However, there happens to be the following: 22. Qx h7+, Rx h7; 23. R= h7 mate, which apart from any other aspect, is a nice quid pro quo for Black’s queen sacrifice on move 17.

Since there are no live opponents in an endgame study, there is no
II-1 The Practical

A. A. Troitsky
5th Prize, Shakhmaty v SSSR, 1934

Win

Matulović v. Malich
Yugoslavia-East Germany, Lugano 1968

Position after White's 64th move

The white bishop protects e1, the white rook on c2 protects the c6 pawn. The two lines of action cross on c3. So Black played 35. ... Be3; 36. Bxc3, R×c6, after which Black would have been relatively happy with 37. R×e2, R×e2+, but that is not what White played. Hartston continued 37. Ke1 and Bilek resigned. The interference move did not quite work. There is a name for this interference on a square covered by a rook and a bishop—it is a Novotny, after a famous nineteenth century Bohemian composer.

17. a4!, Qd5; 18. abl!, Q×g5!; 19. B×e4, Rbb8; 20. ba, Rb5; 21. Qc7, Sb6; 22. a7/ii, Bb3; 23. Reb1, R×b1+; 24. R×b1, f5; 25. Bf3, f4; 26. ef resigns.

(ii) Golombek observes that the advance of the a-pawn to a7 by the 22nd move must be a very rare occurrence.
II-1 THE PRACTICAL

A. Nimzowitch v. J. R. Capablanca
New York, 1927
Position after White’s 38th move

II-1 MAJORITY PLAYER

G. M. Kasparyan
1st Prize Revista de Sah, 1960

1. Q × g2/i, Be5+ ; 2. Kg5/i, a1Q  ; 3. a7, Q × a7/iii; 4. Kg6/iv, Qa1/v; 5. Qd5+/v, Kb8; 6. Qe4, and this is a staggering position of reciprocal Zugzwang. 6 . . . Kg8; 7. Qe4+, or
6. . . . b2; 7. Q × e5+, or 6 . . .
B--; 7. Qe8+, or 6 . . . Q--; 7. Qa8
(h1)+, or 6 . . . g3; 7. Qh4+.
(i) 1. Kf5?, b2.
1. Kg5?, Be3; 2. Q × c3, g1Q; 3.
Q × b3+, Kf8; 4. Q × a2, Qe3+ with
perpetual check.
1. a7?, Be5+ ; 2. Kf5, B × g3 (but
not 2 . . . a1Q?; 3. Q × g2 and wins);
3. a8Q+, Kg7; 4. Qa7, g1Q; 5.
Q × d7+, Kg8.
1. Q × b3+?, Kg7; 2. Qd1, Bf6; 3.
Q × g4+, Kf8.
1. Q × g4+, Bg7.
(ii) 2. Kg5?, a1Q; 3. a7, Bf4+.
(iii) 3 . . . Qb1+ ; 4. K × g4.

The conventions, or rules, governing the ‘soundness’ of studies are
discussed in other chapters (in particular Chapter III-1 on the
collector), which the player-reader may now be tempted to read.

VARIATION NO. 3

In Capablanca’s Hundred Best Games a magnificent middle-game
combination against Spielmann (227) is followed by an equally astonishing
win by Zugzwang in a queen and rook endgame against Nimzowitch
(228). Two examples of Zugzwang wins in endgame studies are 229
and 230. ‘Reciprocal Zugzwang’ after White’s sixth in each main line
simply means that on top of Black not wishing to move, if it were White’s
move, he too would find the obligation to move disagreeable. Such
positions are very difficult to invent unless they are elementary examples
of the opposition, such as the famous ‘traîbchet’ (231).

A complete game is a convenient way to illustrate the major
differences between a game and a composed endgame study. R. Fischer v.
All development play without tactical threats is foreign to studies.
The connection exists, though, where there is a tactical threat. 5 . . . Bg7

such thing as a prepared variation. On the other hand, all variations are,
and must be, prepared in the sense that it is the task of the composer
to see them all before the position is published. Then again, if the content
of the foregoing prepared variation is attractive (which in other chapters
might be called ‘artistic’ or ‘aesthetic’), then in endgame studies we
find a profusion of such attractive effects (217 to 222). The difference
is solely that in the prepared variation of a game the attractiveness is
accidental (for the purpose of defeating a particular opponent anything,
however unattractive, will do) while in the study the attractiveness is
deliberate. In neither case is the necessary analytic effort easy. The
difficulty of over-the-board analysis is common experience, but the
difficulties associated with composing are not. For instance, it lessens
the effect of the above final queen sacrifice that it is not necessary, in
the composing sense, as 22. B × h7 also wins (see also 223 to 226).
1. Kf6, Kh3; 2. Ke6/i, Kc4; 3. Ke5 and wins, this position being sufficiently famous to have a name, ‘le trébuchet’, signifying trap.

(i) White would himself fall into the trébuchet by playing 2. Ke5?, Kc4. The trap must be a great deal older than the first mention of its appellation that I have traced, which is 1860, a position given by Durand in La Régence.

Play continued: 9. ... Se8 (better 9. ... S×b3) 10. B×f7+, K×f7; 11. Se6 and White won.

If chess is a game-science-art mixture, what elements are in this example? There is game significance in that White won, and in that it may be useful to us in a game. Fischer deserves credit, naturally, for having tested the line fully before embarking on it, but this is another game aspect since the analysis is of earlier Soviet origin. This removes scientific or artistic worth from this execution of the trap, which is not to deny the correctness of the variation, its instructiveness or its startling effect. It made an ideal news item!

threatened the knight on d4, while 7. ... O–O threatened ... S×e4; S×e4, d5; since the sting is now taken out of the previously available reply Bg5. There is study value only in new positions, so the initial game arrangement is ‘non-study’, but it is possible to exaggerate the difference since there may be study value in discoveries made in old positions. 8. ... Sa5. This is an error. In a study an error has to be analysed to prove that it is wrong. The proof must be conclusive, else the study is technically faulty. In a game the demonstration that a move leads to difficulties is enough. So study analysis has to be sharp. One may distinguish solver’s analysis and composer’s. The latter operates on a position under construction, and only when the construction process is

(ii) it happened to be original, and

(iii) play ceased as soon as the result became certain.

However, even with these conditions met it makes a feeble study, and one may well ask why. The charm of the combination arises from its game associations. There is the thunderbolt in the familiar opening variation. There is the setting of the same trap in our own next game.
The play may be said to be midway between a game and a study. 1. Se6, Qh8/f; 2. Sg5+, Kg7; 3. Qd4+, Kg8; 4. Qd5+, e6/f; 5. Qa5!, Qg7/i; 6. Qd8+, Qf8; 7. Qc7!; a5/iv; 8. c5, Qe8/v; 9. Se4, Qf8; 10. Sd6 wins.
(i) 1. ... K×e6; 2. Qf5+, Kd6; 3. Qd5+, Kc7; 4. Qa5+. 1. ... Qa5; 2. Qh7+, K×e6; 3. Qg6+, Ke5; 4. Qc5. 1. ... Qe8; 2. Qf5+, Kg8; 3. Qg5+, Kf7; 4. Qh5+. 1. ... Qg8; 2. Qf5+, Ke8; 3. Qh5+, Qf7; 4. Qh8+. (ii) 4. ... Kg7; 5. Qf7+, Kh6; 6. Sf2!
(iii) 5. ... Kg7; 6. Qe5+, Kg8; 7. Q×h8+, K×h8; 8. Sf7+ and 9. Sd6. 5. ... Qf6; 6. Se4 wins.

(iv) 7. ... Qa3+; 8. Sf3, Qf8; 9. c5 wins.
(v) 8. ... Ba6; 9. Q×d7, Qb8+; 10. Qd6, Q×d6+; 11. cd, Bc8; 12. Se4, Kf8; 13. Sc5, Ke8; 14. g5 wins.

We do not mind bystander men in the openings. But shift the men around, put the combination into the endgame, and the flavour changes at once (233). Instead of being familiar and natural, the same combination may easily become unfamiliar and artificial. The player is uneasy. He shrugs and wonders why the unusual should not happen in an unusual position. A healthy reaction, and one that is a warning to the composer that his art relies on a backdrop of the normal and natural. If all is exceptional, then nothing is exceptional. But the composer can say, from his point of view, that the Fischer combination does not surprise him at all. Of course such things are possible with all these men on the board! What would the player say to the domination of a black queen on an almost empty board, by a queen and knight with practically no assistance? (6). That is, or should be, the flavour of the endgame study. The conclusion of the Fischer game is a matter of technique. Observing technique in action has its own fascination, but for the study man there is interest only if the tactical points suggest composing ideas (White's moves 22 to 26, for instance) or if aspects of endgame theory arise. 11. ... de; 12. Q×d8, Sc6; 13. Qd2, B×e5; 14. O-O, Sd6; 15. Bf4, Sc4; 16. Qe2, B×f4; 17. Q×c4, Kg7; 18. Se4, Bc7; 19. Sc5, Rf6; 20. c3, e5; 21. Rad1, Sd8; 22. Sd7, Rce6; 23. Qh4, Re6; 24. Sc5, Rf6; 25. Se4, Rf4; (25. ... Re6(17); 26. Sg5); 26. Q×e7+, Rf7; 27. Qa3, Sc6; 28. Sd6, B×d6; 29. R×d6, Bf5; 30. b4, Rf8; 31. b5, Sd8; 32. Rd5, Sf7; 33. Rc5, a6; 34. b6, Be4; 35. Re1, Bc6; 36. Rc6, b6; 37. b7, Rab8; 38. Q×a6, Sd8; 39. Rh1, Rf7; 40. h3, Rf×b7; 41. R×b7, R×b7; 42. Qa8 resigns, for 42. ... Rb1+; 43. Kh2, Sb7; 44. a4 will soon win another black piece. For the reader who has diligently followed the discussion, here is a final combinative over-the-board brilliancy showing opening knowledge, a sound plan energetically executed in a thrilling middle-game, and a short mopping-up operation. White is a young Soviet player, indeed the 1969 World Junior Chess Champion. White: Anatoly Karpov. Black: Evgeny Gik. 1. e4, c5; 2. Sf3, d6; 3. d4, cd; 4. S×d4, Sf6; 5. Sc3, g6; 6. Be3, Bg7; 7. f3, Sc6; 8. Bc4, O-O; 9. Qd2, Qa5; 10. 0-0-O, Bd7; 11. h4, Se5; 12. Bb3, Rfc8; 13. h5, S×h5; 14. Bh6, B×h6; 15. Q×h6, R×c3; 16. bc. There is nothing new so far, just a display of current analysis. But Black's reply seems to be refuted by the game's continuation. 16. ... Q×c3; 17. Se2, Qc5; 18. g4, Sf6; 19. g5, Sh5; 20. R×h5, gh; 21. Rh1, Qe3++; 22. Kh1, Q×f3; 23. R×h5, e6; 24. g6, S×g6; 25. Q×h7+, Kf8; 26. Rf5. A lovely climax. 26. ... Q×h3++; 27. ab, ef; 28. Sf4, Rd8; 29. Qh6+, Ke8; 30. S×g6, fg; 31. Q×g6++; Ke7; 32. Qg5+, Ke8; 33. ef, Re8; 34. Qg8+, Ke7; 35. Qg7+ resigns. (Championship of Moscow University, 1968).
VARIATION NO. 4

'A given position may have occurred in master chess or in club chess or may have been composed, and in the vast majority of cases there is no clue in the actual position.' True or false? I think it is true. Here are two examples.

235 occurred in a low division of the London Commercial Chess League for the season 1962–3. It was a position for adjudication, and, as in story-books, the championship of that division hinged on the result. White claimed a win, and Black claimed a draw. If either claim succeeded, the championship would go to that team. The adjudicator no doubt reasoned roughly as follows:

(i) White, though having the move, has no threat, nor has he anything particular to defend against.
(ii) It is easy for Black to attack the white passed pawn with both queen and rook, to tie up both white pieces defensively.
(iii) If White is tied up permanently, the position is clearly drawn.
(iv) The real question, then, is whether White can improve the position of his men and still hold on to the extra pawn.

This must have suggested lines of play for both sides, but eventually the adjudicator declared the result a draw. This, of course, was not at all to the liking of the team whose player had the white men, and they prepared to lodge an appeal, as was their democratic right. But how to support that appeal with analysis, since there are no democratic rights without duties?

The position is not amenable to straight and conclusive analysis, so no doubt the black team was unruffled by the thought of the appeal. However, the appeal was in fact successful, for after the moves 1. Qb1, g6; 2. Ra2, Qf6; 3. Qb6+, Kg7; 4. Qc7, a position is reached (236) which is identical with the position after White's 38th move in the thirty-fourth and last, final and beautiful, game in the World Championship Match played between Alekhine and Capablanca in 1927. It was only necessary to quote the game continuation from there, referring to the score and notes. Since Alekhine won that game (and the match) and since no one has suggested that Capablanca's defence could have been improved, the adjudicator in the league game had no choice.

The second example (237) begins with a position from the fifth U.S.S.R. Correspondence Championship, at a 'simple' endgame stage where White, Golovko, offered Black, Estrin, a draw. The latter
declined. Play continued 53. ... Kd5; 54. Ke3, Kc4; 55. Rb1, Rh6. 55. ... b5; 56. Rcl+, or 55. ... Rd6; 56. Rcl+ is a clear draw. 56. Rcl+, Kb3; 57. Rbl+, Kc2; 58. Rb5, Kc3; 59. Rb1, Rc6++; 60. Kf4. Black has improved his prospects by driving the opposing king one file farther from the pawn. This is not all. The position is now, after 60. ... Kc4 (238), identical with a didactic study, rather than an artistic one, due to the virtuoso Russian composer and theorist N. D. Grigoriev.*

There is further analysis by André Chéron bearing the date 1944. In fact there are several winning methods, but none of them is short, and Grigoriev himself had found masters incomprehending when he showed them the longwinded marches of the king. 61. Rcl+. Or 61. Kf5, Rh6; 62. Ke4 (62. Kg5, Rd6 occurs in the game on move 73), 62. ... Rh4++; 63. Ke3, Rh3++; 64. Kd2, Rh2++; 65. Ke3, b5; 66. Rcl+, Kb3; 67. Rb1+, Rb2 wins. 61. ... Kd5; 62. Rd1+, Kc6; 63. Rcl+, Kb7; 64. Rbl, Re8; 65. Kf3. A subtle tempo struggle is in progress. Black can win by 65. ... Re7++; 66. Kf4, Kc6; 67. Rcl+, Kd5; 68. Rb1, Kc5; 69. Rcl+, Kd4; 70. Rbl, Rf7++; 71. Kg3, Rb7; 72. Kf2, b5; 73. Ke2, Kc3; 74. Kd1, Rd7+ and 75. Ke2, b4, or 75. Kc1, Rh7, but Grigoriev’s method is slightly different. 65. ... Re5; 66. Kf4, Re6; 67. Kf3 (239), Kc6; 68. Rcl+, Kd5; 69. Rd1+, Kc4; 70. Rcl+, Kd3; 71. Rbl. There is a twofold disadvantage to White in the position of his king, for as it is he is deflecté yet another file from the pawn, while after 71. Rd1+, Kc2; 72. Rd5, Kc3 the pawn advances, which can be met only if the white king can play to f5 to gain a tempo (possible from f4, but not from f3). 71. ... Rf6++; 72. Kg4, Kc4; 73. Kg5. Giving more checks is met by a further retreat to b7, followed by Rf8 and advance of the pawn after Rb8. 73. ... Rd6; 74. Rcl+, Kb3; 75. Rbl+, Kc2; 76. Rb5, Kc3; 77. Kf5, Kc4; 78. Rbl, b5. It is twenty-five moves in the game since the previous capture or pawn move. 79. Rcl+, Kb4; 80. Rbl+, Kc5; 81. Rcl+, Kb6; 82. Ke5, Rd2; 83. Rbl, Kc5; 84. Rc1+, Kb4; 85. Rbl+, Kc4; 86. Rcl+, Kb3; 87. Rbl+, Rb2 (241). Clearly if White’s king were one file nearer the pawn he could exchange rooks and then play Kc5, drawing. 88. Rh1, b4; 89. Kd4, Rc2; 90. Kd3, Kd2; 91. Rh6, b3; 92. Rb8, Ka2; 93. Ra8++, Kb1; 94. Rh8, b2; 95. Rh1+, Rc1; 96. Rh8, Re5; 97. Kd2, Ra5, and White resigned.

* To be completely accurate, the position is found with reversed colours on p. 184 of the 1954 Russian compilation The Chess Work of N. D. Grigoriev. The composer is famous for deep king and pawn studies. 234 is a typical example of subtle timing.

† No. 201 in Chéron.
1. Ke6, Rb1/i; 2. Sb7/ii, Re1+i; 3. Kd5, Rd1+i; 4. Ke5 and takes refuge at c7, after which d6–d7 wins.
(i) 1... K×d8; 2. c7+, Ke8; 3. Ke7 wins.
(ii) 2. Sf7?, Re1+i; 3. Se5, Kd8 draws.

1. Be5, Kd3; 2. Kd7, Ke4; 3. Ke6, a1Q; 4. B×a1, Kf4; 5. Be5+ saves the pawn and wins. The point is that any other square (such as f6) for the bishop on the first move, would allow 3... Kf4, drawing.

(i) 1. Bc2+, Kg7 with ... Rh8 to follow.
(ii) 3... K– allows 4. Bd3, winning.

For a finer example with this force, probably the best possible, see 133.

None of these positions has, so far as I am aware, ever occurred in games up to now, but perhaps this is because players are not in general aware of this kind of possibility. They are all by the wonderful Czech composer Prokeš (pronounced 'Prokesh'), who was also a player who represented his country over-the-board. No one can say that the positions quoted here have any 'unnatural' features in the diagrams.

242 Inventing a story for this diagram, one readily imagines Black having sacrificed a piece to push his pawns, supported by both king and bishop. If, to forestall ... f3–f2, White captures on f3, then ... Kd1 wins. How can White draw?

243 What chance has the d-pawn of promoting? Forget that question, and try to win by 1. K×f7?, Se5+ draws easily, or 1. Kg7?, Sc5!; 2. h6, Se6+ with a classic draw by playing to f8 or g5 next move, while here 2. K×f7, Se4; 3. Kg6, Sc5! 4. h6, Se6 is similar.

244 Black seems to have organised his defence against the passed pawns, as he is gaining time by attacking the knight. Or is he? Can White so arrange that Black wastes time in capturing it?

245 As with many practical positions, the difficulty is to spot the important square far enough in advance. To which square should the bishop move? Suppose he moves 'somewhere', then 1... Kd3, 2... Ke4 when 3... Kf4 is a threat. This should suggest the answer.

246 It is rare for a king and bishop to be able to force a pawn through against a rook on an otherwise empty board. It only succeeds here because everything is in White's favour. This includes Black's king, which cannot catch the pawn, blocks a file for the rook (hence 1. Bc2+? would be a blunder, as h8 would become accessible), and is on a white square for a tempo-gaining check at the right moment.

247 This could be called an ordinary endgame combination. White cannot stop a black pawn from queening, but can do something about it afterwards.

248 In effect, the same remarks apply as for 244. Note that if White can consolidate his material, he will win, because an exchange of the rook against any white man still leaves a winning margin of force.

249 A couple of things to avoid, here, on the way to a standard 'must-be-known' win. 1. Rg4?, h2; 2. R×g2 stalemate. The other trap comes after 1. Rc1+, Kh2, when Black has the stalemate threat of 2... g1Q+; 3. R×g1.

250 1. c7 is obvious, and it wins. But examine all the black defences, and count the different squares on the e-file on which the white rook
   (ii) 1... Rb8; 2. Bc5 wins.
   (iii) 2... Re8; 3. Sg6+, Kg8; 4. Se7+ and 5. Sc8.
   (iv) 3... Kg8; 4. Ke7 wins.
   (v) Black has only losing moves. But if it were White’s move here, he could not win, as he has no threat and no waiting move.

1. Re1+/i, Kh2/ii; 2. Ke2!!/iii, g1Q/iv; 3. R×g1, K×g1; 4. e7, h2; 5. e8Q, h1Q; 6. Qe3+ with the win known to Polerio/v.
   (i) 1. Rg4?, h2; 2. R×g2 stalemate.
   (ii) Threatening 2... g1Q+; 3. R×g1 stalemate.
   (iii) Relieves the stalemate and prepares for the sixth move.
   (iv) 2... Kg3; 3. e7, h2; 4. e8Q, h1Q; 5. Qe3+, Kg4; 6. Qf3+ and 7. R×h1.
   (v) Not possible if the white king were on e3. See 74. 6... Kh2; 7. Qf4+, Kh3; 8. Qh6+, Kg2; 9. Qg5+, Kh3; 10. Qh5+, Kg2; 11. Qg4+, Kh2; 12. Kf2 wins.

1. e7, Rf1+; 2. Kf4, Kh3/ii; 3. Rg3+, Kh3; 4. Re3 wins.
   (i) 2... Kh5; 3. Rg5+, Kh6; 4. Re5.
   2... g5+; 3. Kf3, g4+/ii; 4. R×g4+, Kh5; 5. Re4 wins.
   (ii) 3... Kh3; 4. Re2 wins.

II-1 The Practical

II-1 Majority Player

lands to secure the promotion. You will find that in one variation it is e2, in another it is e3, in another it is e4, and in yet another it is e5! Scarcely a useful point for a player in itself, but a player will appreciate the artistry.

251 Lastly, in this group, a piece to show two things. First, that Prokeš could handle the queen with as light a touch as any of the other pieces. Second, that studies can be funny.

The Player and the Composer

Most players think of the chess composer as a quite different kind of animal from themselves. In important respects this is true, but there is one ‘method’ of composing which is very closely related to the kind of analysis familiar to all players who have had to analyse adjourned
Having the worst of the position, due to Black’s occupation of the centre and threats to the pawns on g2 and h3. White boldly and correctly offers his knight. The intriguing play developed like this:

45. b5/i; B×c3/i; 46. b/e/i; Ba5; 47. cb, Bc7; 48. Kd3, Kd5/iv; 49. a4/v, Ke6; 50. Ke4, K×b7; 51. Kf5, Bd8; 52. Kg4, Bf6; 53. Kh5, Bg7; 54. g4, Kb6; 55. h4, Ka5; 56. g5, hg; 57. hg, K×a4; 58. g6, f6; 59. Kg4, Kb5; 60. Kf5, Kc5; 61. Ke6, Bb8 wins. White resigning on account of 62. Kf7, f5; 63. Kg8, Be5.

(i) Necessity is the mother of invention.
(ii) The best bet, but it should only draw. 45. . . . cb is scarcely analysable.
(iii) 46. K×c3?; cb; 47. Kb4, Kf4 wins by ‘counting’.
(iv) Or 48. . . . Kf4; 49. Kd4, f5; 50. a4, Kg3; 51. a5, Bb8; 52. Kc5, Ba7; 53. Kc6, K×g2; 54. a6, f4; 55. Kc7, f3; 56. b8Q, B×b8 +; 57. K×b8, f2; 58. a7, f1Q; 59. a8Q+ draws.

This is the losing move. For the drawing 49. Ke3, Kc6; 50. Kf3/vi, K×b7, see 253.

White to Play 6+6

(vi) 50. Ke4?, K×b7; 51. Kf5, Bd8 is a little better than the game continuation, but it still loses as Black has too many tempi to spare.

(vii) 51. K×a6, K×b7; 52. Ke4, B×c2 is better.

(viii) 52. K×a6, K×b7; 53. K×a6, Bb6; 54. a7, f1Q; 55. a8Q+ draws.

(v) Only just in time. This would not draw if the black king was already on g7.

(vi) Attacking the bishop is not essential to the drawing mechanism.


(vii) But not 17. . . . f6?; 18. a7, B×a7; 19. g6 and White wins.

(viii) 2. Kf5?, Be7.

(x) This is Black’s alternative plan, to protect the pawns with his bishop and capture on a3 with his king.


(x) 4. . . . Kd5; 5. a4.

or no, it seems of no value to another player. The study should look like a game, should be natural, and should not be too abstruse. But the player is very ready to be spell-bound by a natural looking position with extraordinary content, thereby coming very close to a well known, if rough, definition of a study vouchsafed by Richard Réti. The most popular studies, the classics, are in this class, and to say, as one occasionally overhears, that the positions are natural but the play is not, is to put the case for studies rather than the case against them (260 and 261). Normal is in any case probably a better word than the over-worked natural. A recent advertisement in the London Underground read, ‘It would take only 396,105 million tons of Fynnon Spa bath salts and 235 million underwater heaters to turn the Channel around Brighton into warm, natural, refreshing bath water.’

A few actual play positions with exceptional features are therefore...
This is derived from a double or reciprocal Zugzwang noticed by Mr Ellison when analysing 253, from which it can be reached only by inferior play on both sides.

1. Kd7/i, Kg7/ii; 2. a6, Bg1/i; 3. KD6, Kg6; 4. Ke5, Bh2+; 5. Kd5/iv, Bb8; 6. Ke4/v and the position is a draw.

(i) 1. a6?; Bg1; 2. Kd7, f6. This is the far from obvious threat that White has to watch in the main line. 3. Ke6, fg; 4. hg, h4 and wins, the bishop no longer blocking the pawn.

(ii) 1. ... Bb8; 2. a6(Kc6) or 1. ... Bg1; 2. a6(Kd6) transpose into the main line or (iii).

1. ... f6; 2. Ke6(c6)/vii, fg; 3. hg, note that White draws if his king reaches h1; 4. Kf5, h3; 5. Kg4 and draws. Compare with (i).

(iii) 2. ... Bb8; 3. Ke6(viii), Ba7; 4. Kd5(vi), Kg6; 5. Ke5, Be3/ix; 6. Ke4, Bg1; 7. Ke5(f4) main line.

This and 256 emerged from analysing 253.


(i) If this is not played at once, 1. ... Bd7 wins.


(iii) Or 2. ... Kb5; 3. Ke5, Bf7; 4. Kd6, Bg8; 5. Ke5, Ke5(c6); 6. a4/xi, Bf7; 7. a5, Kb5; 8. Kd6 like main line.

(iv) But not 3. Ke5?, e5 wins.

(v) 4. ... Kx a2; 5. Ke7, Bg8/xii; 6. Kf8, Bh7; 7. Kg7.

(vi) A valid inversion of moves here is 5. f7, Bx f7; 6. Ke5.

(vii) There is nothing to be gained by deferring this attempt.

(viii) 9. Kg6?, Ke4; 10. g5, e5 wins.

(ix) 10. Kg7?, e5.

(x) 11. g6?, e5; 12. Kg7, Be6 wins.

(xi) 6. f7, Bx f7; 7. Kf6, Bg8; 8. a4, Kd6 wins.

(xii) 5. ... e5 is also a draw.

This is three studies in one, the only difference in the positions being the starting square of Black's king. There is a remarkable amount of variety of sharp play, almost entirely free from duals (that is, white alternatives).

I: 1. g6/i, f6/ii; 2. Kg4, Kxa3; 3. h5/iii, Kb4; 4. Kf5, Ke5; 5. Ke6, Bb8; 6. Kf7, f5; 7. g7, Bx g7; 8. Kx g7, f4; 9. Kx h6 and draws, the white pawn reaching h7.

(i) 1. Kg4? loses, as White is a move behind II.

1. a4?, Kx a4 and Black wins, White having completely wasted a tempo.

A really remarkable feature of the triplets is that in order to draw White must choose a different first move in each case. 'True' twins or triplets have precisely this feature, namely that a try in one setting becomes the key in another, this working also in reverse.

(ii) 1. ... f5; 2. a4 and draws, now or later, by stalemate!

(iii) 3. Kf5?, h5; 4. Ke6, Bh8; 5. Kf5, Kbp; 6. g7, Bx g7; 7. Kg6, Bh8; 8. Kx h5, Kc5; 9. Kg6, Kd6; 10. h5, Ke6; 11. Kh7, f5 and Black wins the resulting queen ending—Polerio again!


(i) 1. g6?, f5; 2. a4, Bf8; 3. g7, Bx g7; 4. Kg6, f4 wins.

No. This occurred in Capablanca v. Treybal in the Carlsbad 1929 tournament. See 258 for an actual position from the game.
The game lasted only three more moves. 55. ... ba; 56. R×d7, Re7; 57. R×d8+, R×d8; 58. S×e6 resigns.

The position occurred in the game L. Szabo v. C. H. O'D. Alexander in the 1954 Team Tournament at Amsterdam. Black has no piece developed, White has three and has the move, yet Black has a won game! The opening moves were: 1. d4, f5; 2. e4, fe; 3. Sc3, Se6; 4. g4?, h6; 5. f4?, d5; 6. Be2, g6; 7. Be3, h5!; 8. g5, Sg8, giving the diagram.

This occurred in a master game, between Krasnov and Y. Averbakh in the 1970 Championship of Moscow. 1. e4, e5; 2. f4, ef; 3. Sf3, Sf6; 4. e5, Se4; 5. d4, d5; 6. B×f4, c5; 7. Sbd2, Sc6; 8. S×e4, de; 9. d5, ef; 10. dc, Q×d1++; 11. R×d1, bc; 12. gf, Be6; 13. Rgl, g6; 14. Bg5, Be7; 15. B×e7, K×e7; 16. Kf2, a5; 17. Rd6, Rhd8; 18. Rd3, a4; 19. Rc3, B×a2; 20. R×c5, Rdb8; 21. Bd3, R×b2; 22. Ra1, a3; 23. Re3, Bb1; 24. R×c6, a2; 25. Rc7+, Kf8; 26. Kg3, Re8; 27. Bc4, Re7; 28. R×e7, K×e7; 29. Bb3. Diagram. Grandmaster Averbakh won quickly. 29. ... R×b3; 30. cb, Ke6; 31. f4, Kd5; 32. Kg4, b6; 33. b4, Kd4; 34. h5, Ke3; 35. hg, fg; 36. e6, Bf5++; 37. Kg3, Kh2; 38. e7, Bd7; 39. Rd1, a1Q; 40. R×a1, K×a1;

The genesis of an unlikely position for White's king. Play continued: 45. Rb7+, Kf6; 46. Se2, Be5; 47. Ra7, Rce5; 48. Ke1. The beginning of a real trek. 48. ... Bb3; 49. Kd2, Bh2; 50. Sd4, Bf4++; 51. Ke2, R×c3; 52. S×b3, R×b3; 53. R×a5, Rb2++; 54. Kf3, Bg3; 55. Be2, Rhb3++; 56. Kg4, Be1; 57. Rhb5, Rg3++; 58. Kh5, R×g2; 59. Bc4, Rg3; 60. Rb1, Rg5++; 61. Kh6, Bd2; 62. Kh7, Rg7++; 63. Kh8, Bc3, and 263 is reached.

included. 262 shows the genesis of an unlikely white king position, in 263. Most players would not expect an over-the-board position to hold the record for consecutive checks of one king, 264. In contrast, 265 is a problem, a mate in five moves, by the most famous and popular problem composer of all time, the American Sam Loyd. The theme, the progress of a pawn from the second to eighth ranks, is known as the excelsior. (Consider also 184, and the possibility that 145 could be an elementary double excelsior if both rook's pawns begin on their second, rather than seventh, ranks.) 266 is a near excelsior from a
The position (of White's king) is astonishing, but the play is in this case straightforward, and is given to alleviate curiosity.

64. Rb5, Rg3; 65. Bf1, Be5; 66. a4, Rf3; 67. Rbl, Ra3; 68. Rb4, Ra1; 69, Be2, Re1; 70. Bd3, Kg6++; 71. Kg8, Re1, and White overstepped the time limit, though he might as well have resigned. 72. Kf8, Bd6++, or 72. Bc4, Bd6, or 72. Rc4, Rd1.

Instead of 38. Qg2, White played

38. Rxe1?, Qxe1++; 39. Kg2, Qe2++; 40. Kg3, Qe1++; 41. Kg2, Qe2++; 42. Kg1, Qe3++; 43. Kf1, Qd3++; 44. Ke1, Qe3++; 45. Kd1, Qd3++; 46. Ke2, Qe2++; 49. Kc3, Qe3++; 50. Kc4, Qe2++; 51. Kd5, Qd2++; 52. Ke5, Qxb2++; 53. Kd6, Qd4++; 54. Ke7 (for Bd5 see moves 75 and 76)

Qxe5++; 55. Kxb7, Qb5++; 56. Ka7, Qe5++; 57. Kxa6, Qe6++; 58. Ka7, Qe7++; 59. Ka8, Qe6++; 60. Kb8, Qb8++; 61. Kc8, Qb6++; 62. Kd8, Qb6++; 63. Kd7, Qb7++; 64. Kd6, Qb4++; 65. Kc6, Qe3++; 66. Kd5, Qe5++; 67. Ke4, Qe2++; 68. Kb4, Qe7++; 69. Ke4, Qe4++; 70. Kd4, Qd2++; 71. Ke4, Qe2++; 72. Kf4, Qd2++; 73. Ke5, Qe3++; 74. Kd6, Qd4++; 75. Bd5, Qb4++;

1. b4 (for 2. Rf5) 1... Re5++; 2. bc, a2; 3. c6 (renewing the threat)
3... Bc7 (to meet 4. Rf5 with 4... Bf4 and there is no mate on the fifth move) 4. cb, and whatever Black replies, 5. baQ is mate.

This is the original 'excelsior' problem.

**II-1 MAJORITY PLAYER**

When it rains from a cloudless sky, when a glass vessel falls to the floor and is not shattered, when a heavier-than-air object flies, we remember it. Paradox, contradiction, exception. But the spell vanishes with repetition. It is memorable if new, and what is new to me may not be to you. In principle the exception is a powerful mnemonic, being retained because it is exceptional, because it implies the normal. The theory is that if I learn the way-out cases I shall absorb the rules, and having absorbed the rules I shall be able to apply them in real life. Chess studies are exceptions, particular cases of advantage and disadvantage. Therefore they are useful, though since they hold a fascination in their own right for many, they are in no need of the justification of applied use.

'Why did he resign? I don't understand', is a common observation to be overheard in any chess club (269). Even when it is pointed out that the player had lost, or was about to lose, material, incomprehension persists. Many keen players fail to improve simply because the most fundamental principle of good chess eludes them, or else they know it superficially without feeling its truth in their chess bones. The principle is that material advantage wins. Like the letters in the stick of rock this principle permeates every decent endgame study that has been composed. So, if a few carefully selected studies are taken, and taken apart, until they are understood in the way a watchmaker understands a watch (the English composer of the classic 145 was a dealer in watch parts), results on one's play can be as startling as the alleged effect on one's body of those advertised devices for building muscles.

Let us recapitulate some basic chess 'arithmetic'. A king against a king on an otherwise empty board. What result? A draw. Can either side even make a mistake? No. Add a white bishop. Result? Again a draw. Can either side make a mistake? Again, no, since a mating position is not possible. Replace the bishop by a knight. The result is still a draw, and again, no mate being possible whatever Black or White play, even if they conspire together, no mistakes can be made—losing the knight can hardly be called a mistake in this situation. Now add a second white knight. Now we find that a position of mate can be set up. But if we imagine the position prior to the mate, Black must have had an
23. ... b6; 24. S×d5 (24. Rc4?, S×e3) 24. bc; 25. Sc7, ed (25. ... Re7; 26. Qe8+, Kg7; 27. bc, Rf6; 28. Rb1 and so on) 26. S×e8, de (26. ... Rd8?; 27. Qe6, Qe7; 28. Q×e4 is good enough) 27. S×d6 (27. f4, ef; 28. S×d6, f2+; 29. Kf1, e2+ and draws) 27. ... ef+; 28. K×f2, Qd2+; 29. Kg1, Qe3+ (and not 29 ... Q×c1+?; 30. Qf1 and wins) 30. Kg2, Qf3+; 31. Kg1, Qe3+, drawn.

1. Ba4, c6; 2. b4, Bd4 (2. ... B×b4; 3. Rb1, Bc5; 4. R×b7) 3. b5, B×a1 (3. ... Sc7; 4. S×d4, ed; 5. dc, bc; 6. bc, S×c6; 7. Qf3 is very strong) 4. bc, Qc7; 5. cb+, Ke7; 6. baQ, and the impossible has happened in a game! The continuation was 6. ... R×a8; 7. Ba3, Bd4; 8. Re1, Qb6; 9. S×d4, Q×d4; 10. Qb3(?), Sg4; 11. Qe2, Qf4; 12. g3, Qf3; 13. Qb2, Rb8, when White played 14. B×d6+ and lost, when he could have won by 14. R×e5+, S×e5 (14. ... Kf6; 15. R×f5+, K×f5; 16. Bd7+ and 17. B×g4) 15. Q×e5+, Kf8; 16. B×d6+.


15. ... b5; 16. Ra1, b4; 17. Q×d6, bc; 18. e5 (Q×d7, Q×f4) 18. ... eb; 19. Q×d7, b1Q. From b7 to b1 in five moves! The game finished 20. Q×c7, Q×d1; 21. R×d1, R×c7; 22. ef, Sb4; 23. fg, K×g7; 24. Rd4, Rb6; 25. c4, S×a2; 26. Bd1, Rb4 and White resigned.

Spassky played 52. Rh6+, and resigned after 52. ... Ke5; 53. Rb6, Sa4; 54. Rf6+, Kd4; 55. Re4+, Ke5; 56. R×a4, Ra1. Probably the only defensive attempt to meet the threat of ... Sa4; followed by ... Ra1; and ... R×a2; is 52. Ke3, Sa4; 53. Rb5, Ra1; 54. Kd2, R×a2; 55. Kc2, but the neat 55. ... b1Q+; 56. K×b1, Sc3++; 57. Kc1, S×b5 finishes it. With the white rook on b8, for instance, it would take only a move or two longer, 55. ... Ra1; and 56. ... Rc1+.

Alternative to the move that allowed the mate. And this alternative in fact draws. So, once more we have a draw, but this time with the enormous little difference that Black can make a mistake. White can make a mistake here only in so far as if he loses a knight he removes the possibility of Black making a mistake. Now let us replace one of the two knights by a white bishop. Here we have another enormous little difference. Not only can Black make a mistake, for instance by failing to capture a white piece if the opportunity is offered, but White can easily fail to win if he misuses his available force. For the first time there is struggle, there is chess, and there is the possibility that the superior side can force a decision against any, and that includes the best, defence.

Expanding the principle, namely that material advantage wins, may take several useful forms, such as: other things being equal, material advantage wins; or, in positions with much material on the board a small advantage can usually be turned into a large one. This latter process, called technique, is shown in the Fischer v. Reshevsky and Karpov v. Gik games. Studies can teach these basic laws almost as well as master games, for the supporting variations, the lines that do not form the main line of the solution, are just such technical exercises.

It cannot be held that everything pertinent to the correct handling of over-the-board endings may be learned from studies. A homely precept like 'when pawns are monochrome, let your monarch roam', is the province of over-the-board. The analytic 'tightness' of studies excludes the application of general positional rules in the choice of moves. The supporting variations usually demonstrate one of these rules already in
operation. It may hence be far from easy actually to discover the laws of
theory from the straight dissection of studies.

We have seen in Chapter I-1 that theory is not mysterious. A chess
position conforms to it unless there are particular reasons why it
should not. A study will combine both the conformist and the non-
conformist reasons, even if these are not always explicit to every
solver’s satisfaction. The non-conformist reasons usually take the form
of threats. A threat may be subtle, and may be recognised only by
knowing the appropriate bit of theory. Solvers and players face the
same general problem, and both may develop that sixth sense, or
nose, for moves. There is nothing like seeing threats for saving thinking
time. Whether studies aid directly in developing positional judgment
in the ending is debatable, but the same theory is the foundation of
each. The powers of the pieces. The elements. This is the case for acquir-
ing ‘book’ knowledge. Unfortunately, the overtones of knowledge tend
to be the ‘owl’ (bookishness) and the ‘edge’ (discomfort). Therefore the
worth claimed for studies in rendering theory digestible.

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2. Advanced Player

There is no need to convince the strong player of the importance of the
endgame (270 and 271). Capablanca and Rubinstein and Smyslov are
household words to him. True, his respect may be token only, for
if offered the alternatives of an hour to spend either on the Poisoned
Pawn variation of the Sicilian Defence or on a didactic endgame of
theoretical importance, he usually prefers the former. So, this chapter is
about what ought to interest the strong player about endgame studies!

Studies that teach rather than please may be called didactic, and
those that please rather than teach may be called artistic. Consider 276
and 277. The borderline is unclear, but is this not an advantage?
We may learn from something that is artistic. But in this chapter we are
concerned with certain parts of endgame theory, and the main emphasis
must be on what is of over-the-board use.

This book does not attempt to cover the field of endgame theory.
Instead the approach is confined to the periphery, the present and recent
frontiers of theory. Only here is there still scope for the strong player or
analyst to make a contribution to knowledge. Many players are capable
of this work and willing to undertake it, if only they can have the grey
areas of endgame theory identified to them. This will be done below.
A player who does take up this challenge, and who unearths interesting,
original and non-trivial positions, will no doubt be astonished if he is
told that he has been using a proven method of composing endgame
studies!

To the best of my knowledge the grey areas have neither been listed
nor classified before. They do, however, naturally group themselves
under four distinct headings.

1. The result depends on known specific conditions, but the defined
may be further refined.

(a) Queen against two knights. The queen wins unless a barrier can
be put up by the defence in such a manner that both the attacking
king cannot approach and the attacker cannot use Zugzwang to
breach the barricade (278 to 281, also 32a).

(b) Rook and two knights against rook. The theoretical win may

(contd. on p. 203)
On normal evaluation Black is the equivalent of a piece ahead and should win with a minimum of technique, especially as he still has a well protected pawn. But White has a fortress position, with the pawn as hostage! 93. Sh2, Ke4; 94. Sa4, Kd4; 95. Sf2, Rf3; 96. Sa4, Re3; 97. Sh2, Ke4; 98. Sa4, Kf3; 99. Ka3, Ke4; 100. Kb4, Kd4; 101. Sh2, Rh3; 102. Sa4, Kd3; 103. K×b3, Kd4+ and the draw was agreed. 99. Ka3 was to meet Black’s threat to march round the back of his rook to d2 by Kb2 and Sc5.

A very nice ending from play.
50. ... Sc5+?; 51. Kf3/ff, Sc5+; 52. Kg3, h2; 53. K×h2, S×b7; 54. a6, Sf3+; 55. Kh1 resigns.
(i) 50. ... Kc7; 51. Be6, Sf6+; 52. Kf5, Se7+; 53. K×f6, S×c6; 54. a6 (and not 54. bc, K×c6 because the bishop is the wrong colour even if the remaining white pawn could be saved) 54. ... Sa7; 55. b6+, Kb8; 6. Sb2+, Ka8; 57. b7 mate. If this were a study, it would be a flaw that 56. b7 also wins. 54. ... h2; 55. b6+ wins.
(ii) 51. B×c5+, K×c5 allows Black to draw.

1. ... gh and 1. ... g4 are both threats, so White achieves nothing by moving his king, this leading to an elementary black win with his king in front of his f-pawn. 1. hg+, Kh5,
Now 2. Kg2?, Kg4 is also won for Black. 2. g6, fg. Here there is again a threat of ... Kg4. 3. f5, gf; 4. Kg1. With any other move Black keeps the opposition and gets his king in front of his pawn (the necessary conditions to win with a pawn on the fourth rank). 4. ... Kg5; 5. Kf1, Kg4; 6. Kg2, Kf4; 7. Kf2 and draws.

57. ... Kb8! drawn, as Black can take the close opposition if the white king advances to his fifth rank. The same move as White’s fifth in 272.

Penrose played 60. g4. There is nothing better. 60. ... B×g4; 61. Q×g4, Rg6, and Black easily held the draw although the h-pawn advanced to h5.

Black seems to have a fortress as in 274, but his king is not so well placed so that there are chances of exchanging pieces into a won pawn endgame.
(i) 2. ... Rd6; 3. Qc5, Kd7; 4. Kg4, Ke6; 5. Kf4.
(ii) 3. ... Re6; 4. Q×e6+ wins.
II-2 THE PRACTICAL

M. S. Liburkin
Trud, 1947

[Diagram of chess game]

Win 4+3


(i) 1. ... Bh7; 2. e7.
   1. ... Kh7; 2. Kc3, Kh6; 3. Kb2.
(ii) 2. Kc1(c3)?, a3; 3. Kb1(b3), Bh7;
   4. e7, Bg8+; 5. K × a3, Bf7; 6. Kb4,
   Kh7; 7. Ke5, Kh6; 8. Bd6, Kg5;
   2. Kc2, Bh7.
   3. Kd3, Bh7; 3. Ke4, Kg8; 4. Ke5,
   Kf8; 5. f7, Ke7.
   2. f7?, B × f7.

(iii) 2. ... Bh7; 3. e7.
   2. ... Kh7; 3. Kc2, a3; 4. Kb3,
or here 3. ... Kh6; 4. Kb2, Kg5;
5. f7.

(v) 3. ... Bh7; 4. e7.

3. ... a2; 4. Kb2, Kh7; 5. K × a3.

P. R. Bilguer and von der Lasa
Handbuch des Schachspiels, 1843

278

Draw 2+3

G. Walker, Le Palamède, 1837,
and Fr. Dedrie,
Le Monde des Echecs, 1946

279

White to Move 2+3

2. ... Sf7; 3. Qc5, Sb3; 4. Qc2+.
2. ... Sg4; 3. Qb4.

Black to play will find his king
inevitably cornered. White to play
cannot lose a move and clearly has to
keep to the f-file to prevent the black
king from crossing to b5 with a cast
iron draw. Cheron gives 1. Qf8, Se5
and 1. Qf1, Se5, both with a draw,
but no analysis of attempts to
approach with the white king as in
279 is given.

This is the generally accepted standard
draw, whoever is to move. 1. Qe6, Kg7;
2. Kf3, Sh7; 3. Kg4, Shf8; 4. Qd6,
Kf7; 5. Qd5+, Kg7 and White is
making no headway. There is perhaps
a glimmer of doubt in the way the
solution ends—it may be seen that
it is very difficult for the white king to
approach'. Certainly a mid-board
defence with the knights mutually
defending each other is by no means
so secure, though the eighteenth
century authority Lolli did think that
this was a guarantee of a draw.

Walker gave 1. Qf8, Kg5; 2. Qf7 and
so on, with a win by eventual stale-
mate of the black king forcing a
knight to move and be lost. But
Kling and Horwitz showed that the
best move for Black was 1. ... Se5,
it being agreed that Black can then
draw. In extensive analysis the Czech
Dedrie indicated a win by 1. Qf3,
Se5; 2. Qf8, aSe6/vi; 3. Kf7, Sa5+;
4. Kc7, aSc6; 5. Qf4, Kh5; 6. Kd6,
Kg6; 7. Ke6, Kh5; 8. Qf5+ /ii, Kb4;
9. Qf6+, Kg4; 10. Kd5, Kg3; 11.
Ke4, Kg2; 12. Qf4 and wins quickly.
(i) 2. ... a5(e)×c4; 3. Qf4.
2. ... Sd3; 3. Qd6+.

J. Mendheim
Aufgaben für Schachspieler,
1832

277

Win 4+4

M. S. Liburkin
1st Prize,
USSR All-Union Tourney, 1950

1. Kg5+i, Kf4/ii; 2. g7/iii, Sf7/iv;
5. Ka2/vi, Kd6; 6. Se7, Sb6; 7. Sf5+,
S × f5; 8. g8Q and wins. Glorious
tempo and echo play.

(i) 1. g7?, S × f7; 2. Kb3, Kf4(-g5-g6).
1. Se5+?, Ke4; 2. Sf6+, Kf5; 3. g7,
a2; 4. ghQ, a1Q+ and 5. ... Q × e5.

(ii) 1. ... Kg4; 2. g7.
1. ... Ke3; 2. g7, Sg6; 3. Kb3, Kd2;
4. Sf6, Se7; 5. Sd5, Sg8; 6. Se4+,
Kd3; 7. eSf6, Sb6; 8. Se3, Kd2; 9.
Sg4, a2; 10. K × a2, Ke2; 11. Se3+,
1. ... Ke2; 2. g7, Sf7; 3. Kb3.

(iii) Now follow the knight sacrifice
echoes.

(iv) 2. ... Sg6; 3. Kb3/vii, K × g5;
4. Ka2, Kf4; 5. Sf6, Se7; 6. Sd5+,
S × d5; 7. g8Q wins.
(v) 3. Sh3+?, Kg3; 4. Se7, Sh6; 5.
Sf5+, K × h3; 6. S × h6, a2.
5. Kc2?, a2; 6. Kb2, b3; 7. Ka1,
Kd6; 8. Se7, Sh6; 9. Sf5+, S × f5;
10. g8Q, Sd4; 11. Kb2, Sc2.
(vii) 3. Se6+?, Ke5; 4. Sh6, Se7;
5. Sc5, Kf6 draws.
An example of what can happen in practice: 1. Kf4, Sbd5++; 2. Ke5, Sd7++; 3. Kd6, Sf6++; 4. Qb7, Kf5; 5. Qb1++, Kf4; 6. Qg6, Ke3; 7. Ke5, Kf3; 8. Qg5 and the game was agreed a draw! The win was not far off:
8. Qg1, Ke2; 9. Qg3, Kd2; 10. Kd4 and Black is helpless.

(ii) At this point only, for with the black king on e8 there will be a white rook—check on the file later if a black knight ventures to escape the white king's perpetual attacks. Rook and two knights against rook is a book win.

In the endgame two knights against a single pawn, the latter assumed, for the sake of simplicity, to be black, the knights win if one of them succeeds in permanently blocking the pawn before it passes the frontier denoted by the pawns in 283. The blockade must be by a knight and not by the king, because the pawn would advance another stride the moment the king moved away. The diagram illustrates the general rule due to Troitzky (Deutsche Schachzeitung [1906] and later). There are a few exceptions, both wins and draws, to be found in the treatises on endgame theory. One of the earliest analyses is 172.

T. D. van Scheltinga v. L. Prins
Hastings, 1938

There is no mystery or magic about the 'Troitzky line'. White can only win by checkmate. Mate is possible only with the black king penned in a corner by white king and white knight, and then only if the 'reserve' knight that has been blocking the pawn can be brought to assist in the mating operation before the pawn can promote and prevent the mate.

The best White can achieve here is to reach an ending with a pawn on c5 against two knights, one of which blocks the pawn's advance. The theory of this ending is due to A. A. Troitzky and says that the defender, White in this case, draws if and only if his king can occupy the corner nearest the pawn, in this case a8. The Soukup-Bardon study shows an exception to the theory and is therefore of theoretical value. White's threat of going for a8 is, in this position, enough to draw.

1. Ke8/i, Sc6/i; 2. B×a7/i, S8×a7/i;
5. Kd7 and draws.

(i) 1. Bc7++, Kb5; 2. B×d8, Kc6;
3. Ke8, a6; 4. Ba5, Sa7 and wins by capture of cP and methodical advance of both black pawns.

Troitzky has simply done all the legwork to demonstrate when this is possible and when it is not. It is not surprising that the rank on which the blockade has to be established varies with the file the pawn stands on, as all corners of the board are not equally accessible to a knight wherever it stands.

B. Soukup-Bardon
Prague, 22. x. 1961

A white knight blocks a black pawn. See discussion

The 'Troitzky line' for the ending two knights against a single pawn

White to Play 2+3

Draw 4+5

B. Soukup-Bardon
Prague, 22. x. 1961

284

Draw 3+5

(iii) 2. Bc7++, Kb5 wins.
(iv) 2. . . . S6×a7; 3. K×d7 followed by c5–c6–c7, and there is no win against a pawn advanced this far (unless there is a snap mate).
(v) 3. . . . Ka6; 4. Kc7, Kb5; 5. Kb7 draws, because a8 is reached.
(viii) But not 3. K×c8??, a6; 4. Bc7++, Kb5; 5. Kb8, Se6 and Black will win, White's king being useless behind the pawn.
This is one of the positions with this material where the outcome is still uncertain. However, the answer will soon be demonstrated! The challenge of a claim in print will stir an analyst to action faster than anything else. This is how theory develops. One analyst draws conclusions, a second is sceptical, a third refines, a fourth draws the various lines together, and a fifth tidies it all up.


(i) 1. Bb4?, R × d3; 2. Be1, Rd1 mate (other moves also). Note that in reply to 1. Bc5, 1. . . . R × d3 fails to 2. B × f2 check, though an inexperienced player could still lose this position as White.

A typical piece of brisk Rinck juggling.

1. Kf7, Rhb8/i; 2. Sc6+, Kd5; 3. Bh6 and captures a rook next move. Piling up over a hundred positions like this may not change theory’s verdict of a general win for the advantage of the double exchange, but it will make us very cautious when we obtain an ‘obvious’ win over the board!

(i) 1. . . . Rg8; 2. Se6+, Kd6; 3. B × h4.

2. The result is known, but there are, or may be, many exceptions.

(a) Two rooks against two minor pieces. Usually a straight win, but the industrious Rinck discovered and published over a hundred exceptions (286 to 290).

(b) Queen against rook and bishop. Drawn, but Rumanian composers of the fifties and sixties have discovered astonishing resources, especially when spiced by the addition of a pawn (291).

(c) Queen against rook and knight. Also a draw, but many possibilities remain undiscovered (292).

(d) Three minor pieces against one minor piece. The three pieces
II-2 The Practical

   (ii) 2. Sb4?, Ra1; 3. Sc6+, Ke8; 4. Se5+, Kf8.
   2. Kb7?, R×b5+ wins.
   (iii) 3. Se6+, Ke8; 4. Sc5, Ra1;
   5. Ba6+, Kb8.

   (ii) 1. ... Kg6; 2. Bb1+.
   (iii) 2. Kd4?, Kg4 wins.
   (v) 7. Se4?, Rd3+; 8. Kc4, Rgf3; 9. Bg4, Rfc3 and 10. ... Rd8.

1. Bd5, Rf5; 2. Ka6, R×d5 stalemate.
   If Black avoids the direct stalemate line he loses the exchange. For instance 1. ... Ra1+; 2. Kb5, or 2. ... Rf6; 3. B×c6+. Note in the main line that 2. Kb5, which may look adequate at first glance, loses to a counter move of Black's king. 2. ... Kb7, the white bishop on d5 remaining pinned.
   Rinck's justification for including a study with a two-move solution is that it is a rare case of a 'model stalemate' with this force.

II-2 Advanced Player

1. Qf3/i, Rb1+; 2. Kc2/ii, Rb8; 3. Qc6+, Ka7/iii; 4. Qe7+, Ka8/iv;
   16. Kd3(d1) wins.
   (i) 1. Qg6+?, Rd6; 2. Q-, Rb6+ and 3. ... Bb4(d6).
   1. Kc2?, Rd6; 2. Qa3+(Qf3, Bc7); 2. ... Kb7; 3. Qb3+ (Qf3+, Rb6+);
   3. ... Kc8 draws.
   (ii) 2. Ka4?, Rb4+.
   2. Kc3?, Rb8 for ... Bb4+.
   (iv) 4. ... Rb7; 5. Qa5+, Kb8; 6. Qd8+ and 7. Q×f8.
   (v) Completing the remarkable Zugzwang position, ... Bb4 being now met by Qa4+. Black's king cannot move. 5. ... Rb7; 6. Qc8+, Rb8; 7. Qa6 mate, and moves of the black bishop lose the piece.
   (vi) If the white king plays to a black square a check from the bishop should secure the (still difficult) draw. Hence White employs Zugzwang to win the pawn when it is on the white square e2, while Black counters with rook checks.
   (vii) 10. ... e2; 11. Qa4+ wins.
   10. ... Rb8; 11. Kf3.
   (ix) 4. ... Ba3; 5. Qc7+, Rb6; 6. Qa7+, Ra6; 7. Qb7, Bc5 (... Rb6, Qd5+); 8. Kc4, Bb6; 9. Qc6(d5)+.
   4. ... Bb4+; 5. Kc4 with similar variations.

E. Dobrescu
3rd Prize,
Vecherny Leningrad, 1965

1. Rc4/i, Kb6; 2. Rb4+, Ka5; 3. Ra4+, Kb5; 4. Kb2, Qe2+; 5. Kb3, Qd1+; 6. Kb2, Qe2+; 7. Kb3 draws.
   (i) 1. Rb5+?, Ka7; 2. Ra5+, Kb6;
   3. Ra4, Qd1+.
   1. Sc3?, Qf1+; 2. Sb1, Qa6+; 3. Kb2, Qb6+.
1. Rd2/i, Be8+; 2. Kh7, B×h5; 3. Ra2+, Kh7; 4. R×h2, Bf7; 5. Rb2+, Kc6; 6. Rbb/i, Se7; 7. Rf8, Bg6+;
8. Kh6, Be5; 9. Rf6+, B×f6 stalemate.
(i) 1. Rh1?, Be8+; 2. Kh7, B×h5;
3. R×h2, Bf7. Black will gradually disentangle his pieces and win (though I should not like to have to do it
over the board).
(ii) 6. Rb6+?, Kd5; 7. R×f6, S×f6+;
8. Kg7, Ke6 wins.
A fine example of what is possible with standard book win material. The
composer is a Moscow pianist.

One of fifty-two studies to win
composed with this material by
Rinck: 1. Se4+, Ke4/i; 2. Be2,
(i) 1. ... Kd3; 2. Sf4+, K×c4; 3.
Bf7, Kd4; 4. S×d5 wins.
(ii) It is a Zugzwang position with the
black force in mid-board. The rook is
completely dominated.
If the rook could slip out, theory says the position is drawn.

Considering that both rook and bishop
are long range pieces capable of both
pinning and losing a move, it might be
thought that they would have winning
chances against two knights. Theory,
however, gives the general result as a
draw. The diagram is a case in point.
Provided Black does not rigidly insist on
maintaining his knights in their present
positions, he seems to be able to main-
tain himself. There is, however, scope for
further theoretical investigation to dis-
cover the best defensive plan or plans.

White has an unshakable bind on the
g7-h8 corner. Bringing the white
king to g5 takes six moves. 1. Kb4,
Bc6. Black can only play to keep his
bishop as active as possible: 2. Kc3,
Kf4, Bc6; 6. Kg5, Bb7; 7. Rh6, Be4.
Missiaen now shows a long win with
8. Bb3, Bb1; 9. Bd5, but Walter
Veitch found a simple win with
8. Be6, Bd3; 9. Rf6, Kh7; 10. Bf5+,
B×f5; 11. R×f5 and White's king
reaches g6. 11. ... Kg7; 12. Kh5,
Kh7; 13. Rf7+, Bg7; 14. Kg5, Kg8;
15. Kg6 wins. (EG, October 1971.)
The analysis is of theoretical impor-
tance and also artistically, as a
number of studies were upset by it.
297 is an example of several given by
Missiaen.

1. g3+, B×g3; 2. Bc1+, Kg4; 3.
Bh1, Rb1; 4. Kg2, R×c1 stalemate.
But, following Missiaen's discovery,
4. ... Be5 wins.

The argument is that Black has a
fortress into which he cannot be
further compressed: 1. Be7, Kc7; 2.
Bb4, Kb6; 3. Bg3, Sa5; 4. Bf2+, Kc7.
True, as after 5. Kc5, Sb7+; 6. Kb5
there is the open board awaiting the
knights and his monarch. But this at
least leaves the question open whether
Black can take up a comparable posi-
tion in another corner, though it
'looks as if he can'.
Botvinnik took fifteen minutes deciding between 77. Sc5+ and 77. Kxa6, eventually preferring the latter in the hope of reaching the Kling and Horwitz position, 298. 77. Kxa6, Bf1+; 78. Kb6, Kd6; 79. Sa5 (hoping for Sb7?) 79. ... Be5+; 80. Kb7, Be2; 81. Sb3, Be3; 82. Sa5, Ke5; 83. Kc7, Bf4+ resigns, because of 84. Kd7, Kd6; 85. Sb3, Be3 and ... Bd1 and ... Bd4. 77. Sc5+, Kd6 (77. ... Bxc5+??); 78. Sxa6, Bd2; 79. Sb8, Bg5; 80. Sa6, Bb8+; 81. Ka7, Kc6 winning quickly, is the alternative.

(a) Two bishops against knight. Only one position has been generally agreed to be drawn, but a conclusive demonstration of the win is still lacking, despite a brave effort by Khachaturov (298 to 305). It is not known who proved this. (See also 4(d) below.)

(b) Two knights and bishop against rook. A theoretical draw on the principle (it is not known if this has been conclusively demonstrated) that the rook will be able to sacrifice itself for the bishop (294).

(c) Rook and bishop against two knights. Drawn, but only just. A fortress position by the knights is not possible. They must indulge in a running engagement (295).

(d) Rook and bishop against two bishops. A draw, naturally, but see 296 and 297.

3. The result is controversial or not known. (See also 155.)

(a) Two bishops against knight. Only one position has been generally agreed to be drawn, but a conclusive demonstration of the win is still lacking, despite a brave effort by Khachaturov (298 to 305). It is not known who proved this. (See also 4(d) below.)

(b) Queen and knight’s pawn against queen. At the time of writing (June 1971) this is a burning issue (306 to 308).

(c) Queen and rook’s pawn against queen. There are winning possibilities if the pawn can reach the seventh (309).

(d) Queen and pawn against rook and bishop. No one has yet stated how it may be known by inspection whether the pawn may be manoeuvred past a square covered by both rook and bishop, see 335.

4. No one thought of it before. Strictly these oddments should come under one or other of the previous headings, but they are identified in the main with individual composer analysts, which sets them apart.

(a) Queen against four knights. Troitzky showed how the knights can win. Of no practical value, but interesting enough (310 and 311).

(b) Two knights against two pawns. This has been adopted as a speciality by Soukup-Bardon, although it is true that Troitzky investigated some positions of this type in the Deutsche Schachzeitung in 1914. Wins and draws depend on utter familiarity with the play of two knights against a pawn (312).

(c) Two queens against one queen. This is of value to players, for the headache of queen and pawn against queen may threaten to develop into the migraine of this fiery furnace of female fury. Analysis due largely to Fontana, see 425.

(contd. on p. 216)
A. Khachaturov
Shakhmaty v SSSR, 1953


Black to Move 3+2

A. Khachaturov
Shakhmaty v SSSR, 1953

1. ... Sc7; 2. Bf3, Se6; 3. Bh4, Sc7;
4. Bc6, Se8; 5. Bd7, Sc7; 6. Bd8, Se8;
7. Bg4, Sd6; 8. Bb4, Sce8; 9. Bf2, Ke7;
Ke6, Sc8/ii; 13. Bf3, Kc7; 14. Bf2,
Sb6; 15. Bg3+(g1).
(i) 12. ... Sb7; 13. Bb6+

Black to Move 3+2

A. Khachaturov
Shakhmaty v SSSR, 1953

1. ... Ke7/ii; 2. Bc1, Kd6; 3. Bf4+,
Ke7; 4. Ke5, Sd7++; 5. Ke6, Sf8; 6.
Bb5+, Ke8; 7. Kd6, and 301 has
effectively been reached.
Khachaturov's method of presenting
the play gives White a precise aim in
the driving play to the edge of the board.
(i) 1. ... Sc8; 2. Ba4+, Ke7; 3. Bb4,
Sd6; 4. Ba5+.
1. ... Sd7; 2. Ba4+, Ke7; 3. Bb4,
1. ... Kb5; 2. Bd6, Kc6; 3. Bf4,

Black to Move 3+2

A. Khachaturov
Shakhmaty v SSSR, 1953

1. R×h2, gh; 2. Sb6+, R×b6; 3. d7,
Ra6++; 4. Kb3, Rb6++; 5. Ka4,
Ra6++; 6. Kb5, Ra5+; 7. K×a5,
a1Q; 8. B×h1, B×d7; 9. cd++, Ka7;
10. d8B. A position of two bishops
against knight has been reached where
Black has strong stalemate defences,
10. ... Sd7; 11. Be7, Se5; 12. Kh5,
Sd7; 13. Bg2, Se5; 14. Bh3, Sf3; 15.
Bb6+, Kb8; 16. Bd8, Se5; 17. Bf6,
Sf7; 18. Kb6 wins.
(i) 6. ... Rb6++; 7. K×b6, hiQ; 8.
B×h1, S×d7++; 9. cd++, Kb8; 10.
d8B, Bh3; 11. Bb7 wins.

Grandmaster Polugaievsky, the initial
adjudicator, failed to find a win and
did not get the solution a draw.
International Master Lissitsyn,
however, claimed a win in a letter
published in issue No. 10 of 64 in
1969. Here is his analysis, which is
the first that we are aware of dealing
with a knight's pawn on the sixth rank.
1. ... Qg6++; 2. Kh8, Qh6++; 3. Kg8,
Qe3; 4. Kh8/i, Kb1/ii; 5. Qh1++, Ke2;
6. Qg2++, Kd3; 7. Qf6++/iii, Qe4; 8.
Qg3+, Kc4; 9. Qc7++, Kb4; 10.
Qb8++, Kc5; 11. Qc7++, Qe4; 12.
Qg3++, Kb2; 13. Qg2++, Qc2; 14.
Qd5, at least White's queen is still
in the centre and it is not clear that
Black has made any headway, 14. ...
Qh2++; 15. Kg8, Qg3++; 16. Kh8,
Qh3++; 17. Kg8, Ke2, the king is
about to head for h2! 18. Qe4++, Kd2;
19. Qd4+/iv, Ke1; 20. Qa1++, Kf2;
21. Qb2++, Kg1; 22. Qa1++, Kh2;
23. Qd4/v, Qg2++; 24. Kh8, Qh1, a
curiously strong manoeuvre. It seems
that White is forced at the very
least to abandon the strong central
position as alternatives lead to the
advance of the pawn or to the
exchange of queens. 25. Qe5+/vi,
Kg1++; 26. Kg7, Qg2++; 27. Kf7, or
27. Kh8, Qh2++; 28. Qe1++, Qf1++.
(i) 4. Qa8++, Kb1; 5. Qh1++, Ke2;
6. Qg2++, Kd1; 7. Qf1++, Kd2; 8.
Qg2++, Ke1; 9. Qh1++, Kf2; 10.
Qh2+, Kf1; 11. Qh1++, Qg1+, or
here 11. Qb2, Qg3++; 12. Kh8, Qh3++; 13.
Kg8, Qg2++.
(ii) With a threat of ... b3–b2.
(iii) 7. Qf1+, Ke3; 8. Qa1++, Kb4.
(iv) With the white king on g7 this
position occurred in Shamochkina v.
Podgaets in a Moscow–Odessa match
in February, 1969. Play proceeded in
that game 92. ... Ke2; 93. Kg8, Kf1;
94. Qc4+, Kg1; 95. Qd4+, Kh2; 96.
Qb4/v, Qe6++; 97. Kh7, Qf7++; 98.
Kh8, Qh5++; 99. Kg8, Qd5++; 100.
Play continued 61. b6, Ka5!!; 62. b7+, Ka6. Now if White makes a queen (or rook), Black’s king is stalemated and Black draws by sacrificing his queen, beginning with a check on e6. White therefore tried 63. b8=Q+, but this is not enough to win, and a draw was agreed a few moves later.

See 306 (v) for the origin of this position, with colours reversed. Faibisovich analyses to a win for White. 1. Qb7+, Ka2/i; 2. Ka8, Qh8+; 3. Qb8, Qh1+; 4. Ka7, Qa1/i; 5. Qh2+, Kb1+i; 6. Kb8, Qf6/i; 7. Qh1+, Ka2; 8. Qa8+, Kb1; 9. Qb7+, Ka1; 10. Qa7+, Kb1; 11. Qf7, and ‘etc’.=

(i) 1. ... Ka1; 2. Ka8, Qh8+; 3. Qb8, Qh1+; 4. Ka7, Qg1+; 5. Qb6, Qg4; 6. Qa6+, Kb1; 7. Ka8. Other black moves after 4. Ka7 allow the white queen to occupy e5 or f6.

(ii) 4. ... Qg1+; 5. Qb6, Qg5; and White wins as Black does in 306, note (iv).

See 306 (cont.)

Kb7, Qh3; 101. Qc3+, Kg4; 102. Qb4+, Kh5; 103. Qb8, Kg5; 104. Qg3+, Kf5; 105. Qf2+, Ke6; 106. Qe3+, Kd7; 107. Qe3, Qd7; 108. Qb2, (Qh3+ or Qd4+ are no better) 108. ... Ke6; 109. Kb6, Qh1+; 110. Kg7, Qg1+; 111. Kh8, Qe3; 112 Qb1, Qh6+; 113. Kg8, Qg5+; 114. Kh8, Qf6+; 115. Kg8, Qf7+; 116. Kh8, Qf8+ and White resigned, 117. ... Qf5+ following.

(v) 23. Qa4, b2 is playable. But Novotelnov, in Shakhmaty Bulletin for July, 1970, gives as the best defence 23. Qf6, with 23. ... Qg2+; 24. Kh8, b2; 25. Qe5+, Kh1; 26. Qe1+, Qg1; 27. Qe4+ draws, or here 24. ... Qh1; 25. Qg8. However, this is not the last word. See 308.

(vi) 25. Qg8, Qg1+ wins. Or 25. Kh7, Kg3+; 26. Kg8, Qa8+; 27. Kh7, Qh7+; 28. Kh8, Qg8+; 29. Kh7, Qh3+; 30. Kg8, Qg4+ wins. No better is 25. Qb2+, Kg1+; 26. Kg7, Qg2+. Best is 25. Qc3, but then 25. ... Qd5; gives, according to Lissitsyn, a winning position.

M. Podgaets v. Y. Klovan
Semi-final, USSR Championship, 1969
Position after Black's 60th move

V. Faibisovich
Shakhmaty Bulletin, ii, 1971

1. h7/i, Qh3+; 2. Ka6, Qe3+/ii;
3. Kb7/i, Qh8/i; 4. Qd5+, Qa4; 5.
Qg8/v, Qb2+; 6. Kb8, Qa3/vi;
7. Qf7/vi, Kb5+; 8. Kb8/ix, Qd6+;
9. Ke8, Qe6+/x; 10. Kd8/xi, Qa8+;
11. Ke7, Qa3+; 12. Kf6, Qe3+; 13. Kg6, Qg3+; 14. Kh6, Qe3+; 15. Kg7, Qg5+;
16. Qf6, Qe7+; 17. Kh6, Qf8+; 18. Kg5, Qh8/xii; 19. Qf7, Ka4; 20. Kg6, Kb5;

(i) 1. Qc7+, Ka4; 2. h7, Qd4+; 3.
Kc8/xiv, Qh8+; 4. Kb7, Qb2+; 5.
Ka7, Qd4+; 6. Ka6, Qf6+; 7.
Qb6, Qg7/xv; 8. Qa7, Qh6+; 9.
Kb7+, Kb5; 10. Ka8, Qf6 drawn.

(ii) 2. ... Qxh7; 3. Qa3 mate.

(iii) 3. Qe5+?, Ka4 and now 4.
Qxg3 stalemate, or 4. h8Q, Qxh8
or 4. Kd5, Qf3+, or 4. Kd6, Qg3+, or 4. Kb6, Qb3+; 5. Ka6a7, c7
Qd3(f7+).

(iv) 3. ... Qf3+; 4. Kb8, Qb3+; 5.
Ke8, Qh3+/xvi; 6. Qd7, Qh6/xvii;
7. Qd8+ (7. Qf5+ also) 7. ... Ka6;
8. Qd3+xviii, Ka7; 9. Qd4+ wins.

(v) 5. Qa2+?, Kb5; 6. Qg8/xix, Qe5;
7. h8Q, Qc7+x; 8. Ke8, Qc5+; 9.
Kd8 (9. Kd7, Qa7+) 9. ... Qb6(d6)+
draws, see 425.

(vi) 4. ... Kb4 would have prevented this check which, together with Black’s next move is the only defence against the immediate promotion of the pawn.

(vii) 6. ... Qe5; 7. h8Q, Qa5+; 8.
Kb7, Qb5+; 9. Kc7, Qc5+; 10. Kd7,
Qb5+; 11. Kd6, Qb4+; 12. Kd5,
Qb3+; 13. Kd4, Qb2+ (13 ... Qd1+; 14. Kc5); 14. Ke3, Qc1+; 15.
Kf2 wins.

(viii) 7. h8Q? see 425.

(ix) 7. ... Qc4+; 8. Ka5; 8. Qc7+x/xxi, Kb5+;
9. Qa7, Qc3; 10. Qb7+ (10. Qb8+-,
Kd6); 10. ... Ka5; 11. Qd5+; 11.
Qd6+, Kb5; 13. Kd7, Qg7+; 14.
Qc7, Qh8.

(x) 8. Qa7, Qc3 drawn.

(x) 9. ... Qc5+; 10. Qe7, Qf8+; 11.
Qd8, Qe5+; 12. Kb7, Qc6+; 13.
Kb8 wins.

(xi) 10. Qc7?, Qf6; 11. Qd8 (11. Qd7+, Kc5); 11. ... Qc3+; 12. Kb8 (12.
Kb7, Qf3+); 12. ... Qe5+.

(xii) 18. ... Qe7+; 19. Kd5, Qe2+; 20.
Kd6 wins.

(xiii) 21. Qb3+ also wins, but not 21.
Qg8?; Qe5; 22. h8Q (22. Qf7 will
still win); 22. ... Qg3+ drawn.

(xiv) 3. Qd6, Qa7+; or 3. Ke8, Qb8+,
or 3. Ke7, Qg7+; or 3. Ke6, Qg4+—
the white king finds no escape from
the checks.

(xv) 7. ... Qe5?; 8. Qc6+, Kb4;

(xvi) 5. ... Qc3+; 6. Qc7+, or 5. 
Ka4; 6. Qa6+

(xvii) 6. ... Qh5; 7. Qd2(d8)+
wins, or 6. ... Qb4; 7. Qd8+.

(xviii) 8. hQ?, Qc6+, 9. Qc7,
Qe8+ drawn.

(xix) White can in fact transpose
back to the main line with 6.
Qf7, Ka4; 7. Qg8.

(xx) 7. ... Qe4+; 8. Kb8, Qf4+; 9.
Kc8, Qc1+; 10. Kd8, Qd2+; 11. Ke7,
Qb4+; 12. Ke6, Qb3+xiii; 13. Kd7,
Qd3+xiii; 14. Kc7, Qc2+; 15. Kb8

(xxi) 8. Kb7, Qb3+.

(xii) 8. Qb8, Qd2+; 9. Ke8, Qb7+.

(xii) 8. Qb8, Qd2+; 9. Ke8, Qb7+.

(xii) 12. ... Qc4+; 13. Ke5, Qe2+ to
keep the king off c3 and h2, then

(xxi) 13. ... Qd1+; 14. Ke7 wins.
To win this position White will have to capture one of the black pawns.

Which? The answer is not simple and depends on some acquaintance with the Troitzky theory. A bishop's pawn must not be allowed to reach its fourth rank, and a knight's pawn must not be allowed to reach its fourth rank, if a win is to be extracted. From this it is clear that Black has a fairly advantageous position. However, it turns out that in this ingenious example that the possession of two pawns rather than one has its drawbacks. It allows White alternative winning possibilities.

If the gp advances, White may win by blocking the fp and capturing the gp, and if the fp hastily advances the gp may be blocked and the fp captured, in either case transposing into a 'standard' Troitzky win. The solution shows that these alternatives, real horns of a dilemma, do in fact face Black. This helps explain why White must not capture Pf7 on his first move.


(i) 1. K×f7?, g5 and as a knight's pawn beyond the third rank the draw, White has deprived himself of his win. 1. S×g7?, f5, after which ... f4 cannot be stopped and secures the draw, as White has again eliminated his win by blocking gp and capturing fp.

1. Sg3?, Kf4; 2. Sf1, g5; 3. Sg2+, Kf3, when ... f5 and ... f4 gets both black pawns past the (invisible) Troitzky barbed wire!

The actual move 1. Ke7 puts Black in a remarkable Zugzwang. It would appear that he would not lose if he had not to move his king or pawns. White has no threat, for Sg2 permits ... f5 followed by ... g5 or ... f4 (and a Troitzky draw); while Sg3 is met by ... Kf4 and the white knights are in a tangle. In addition, e7 is best for White's king, as ... g6 to be met by Sf6, and the knight must be protected.

(ii) There are six other black moves. The composer deals with them all.

1. ... g6; 2. Sf6, see 312a, which shows a winning method that may well be applicable to other configurations of two knights against two pawns.

1. ... f5 or 1. ... f6; 2. Sg6+ and wSh5 can hold up fp by occupying f4, after which White wins either by capturing g7 or by capturing f5—but not, of course, if he captures both!

1. ... Kd5; 2. Sf5, g6; 3. Sf6+, Ke5; 4. Sb6(e3), when this knight occupies g4 and the win is as set out after 1. ... g6 (see 312c).

1. ... Kd4; 2. Sf5+ and 3. Sh×g7 wins.

1. ... Ke4; 2. Kd6, g5; 3. Sg3+, Kf4; 4. Shf5, f6 is 312b, where the play against pawns on f6 and g5
II-2 THE PRACTICAL

312 (contd.)
complements the play against pawns on f7 and g6. However, the composer also gives 3. Sf6+, Kf4; 4. Sg2+, Kf3; 5. Se1+ as an alternative win.
For 2. . . . Kd3 here, see note (xiii), but 2. . . . Ke3(d4); 3. Sf5+ and 4. Shxg7+ wins.
(iii) 2. Sg2, f5 draws easily.
(v) 3. Sg7+?, Kgf6(f4) and after the attacked knight is saved, . . . f5 draws.
(vi) Otherwise there is a straight win by blockade of gp after 4. Sh2 and S2g4.
(Or win).
(vii) 4. Sh4+?, Kf4; 5. Sg2+, Kf3; 6. Se1+, Kf2; 7. Sс2, g3 draws.
4. Sd4+, Kf4 draws similarly.
5. Se1?, Kf4; 5. Sd3+, Ke3 draws.
4. Sd2?, Kf4; 5. Kd6, g3; 6. Sd5+, Kg4; 7. Se3+, Kh3; 8. Sf3, f5(g2) draws.
(viii) 5. Sf1 is tempting. After 5. . . . Kf4; 6. Sh5+ the gp is indeed taken, but White cannot afterwards block the fp early enough with a knight.
(ix) 6. Sd4?, g2, or 6. Sg1?, g2 each give Black too much rope.
(x) 6. . . . Ke5; 7. Sg2, Kf5; 8. Sh5 and 9. Shf4 wins.
6. . . . Kg5; 7. Sg2, Kg6; 8. Se4 (or,
more simply, 8. Sd5 and 9. Sdf4)
(ii) 7. . . . f5; 8. Sg2+ and 9. Shf4 wins.
(xiii) 4. . . . Kd2; 4. Kf4, Ke1; 5. Kf3, Kd2+xvi; 6. Kf2 wins (as does
6. Sxg7 because the fp can be allowed to advance to f4 without endangering the win, provided that the defending king is excluded from the corner near the pawn (h1).
(xiv) The composer analyses alternatives to a draw. 4. Kf4?, Kf2: 5.
Kg5, Kg1; 6. Sf4, g6; 7. Sd5 (for
Sf6); 7. . . . Kf2; 8. Sf6, Kg3; 9.
. . . f4 and Black reaches the drawing corner h1.
4. Sf4+?, Kf2 and now either 5.
Sf5, g6; 6. Se7, f6+; 7. Ke6, g5; 8.
Sh5, f5, or 5. Kf5, Kg3; 6. Sg2, g5; 7.
Kxg5, f5 draws.
(xv) 5. . . . g5; 6. Sf5, or 5. . . . g6;
6. Sf6, or 5. . . . f6; 6. Sg6, or 5.
. . . f5; 6. Sg6. All catered for by Troitzky. In the long run.

(d) Two bishops on the same colour, supported by a knight, against

WHAT DID THEY KNOW ABOUT
ENDGAME THEORY IN 1617?

The third section or 'book' of Don Pietro Carrera's Il Gioco degli Scacchi (1617) treats of drawn games only, and of the endgame only.
There are sixteen chapters and although the examples are very few, it is clear that had he wished he could have given many. Some of the
'chapters' are barely a page in length.

II-2 ADVANCED PLAYER

The first of three necessary phases in the win involves bringing the h4 knight to g4, which Black tries to prevent (2. . . . g5; 3. Sf3+ and 4.
Sh2 wins, for example): 2. . . . Kf4;
3. Sg2+, Kf3+; 4. Se1+, Ke2/ii;
5. Sc2, Kd3; 6. Sb4+, Kd4/iii; 7. Se6+, Ke5; 8. Se5, Kd4; 9. Seg4. For the procedure from this point, see 312c.
(i) 3. . . . Kg3; 4. Se3 and 5. Seg4.
(ii) 4. . . . Ke3; 5. Sc2+iv, Kf4; 6.
Sb4, g5; 7. Sd3+ and reaches g4 in
two more moves.
(iii) Other moves are also met by
(iv) The composer also gives a second
line here, 5. Kd6, g5; 6. Ke5, g4; 7.

The method is as before. 5. Kd5, Kf3;
Se7+, Ke6; 12. Sg5f, Ke5; 13. Kf3,
Ke6; 14. Ke4, Kd7; 15. Kd5, Ke7;
16. Sc6, Kd7; 17. Sc4, Kc7; 18.
Kd6, Kb6; 19. Kd6, Kb7; 20. Se6,
Kb6; 21. Sc7. The reader will by now recognise the manoeuvres. 21. . . . Kb7;
22. Sc5, Kb8; 23. Ke7, Kc8; 24. Ke8,
Kb7; 25. Kd7, Kb8; 26. Sc6, Kb7;
27. Sc4, Kb8; 28. Sc6, Ka7; 29.
Kе6, Ka6; 30. Sc7, Ka7/ii; 31.
Se5, Kb8; 32. Kd7, Ka7; 33. Kc7,
Kа8; 34. Sd4 and mates.
(i) 30. . . . g4; 31. Sc5+ and 32. Se4 wins.

I: King and pawn against king. A full description of the normal cases.
II: King against rook's pawn and bishop. An example is given, with a
trap.
III: Rook's pawn against rook's and knight's pawns (all on same
side of the board).
IV: Rook against a pawn on the seventh rank.
V: A rook's pawn against queen.
VI: A bishop's pawn against queen.
VII: Two united pawns against a knight or a bishop. He assumes that
II-2 The Practical

B. Soukup-Bardon
Position after 9. Se4 from 312a

312c

Black to Move 3+3

II-2 Advanced Player

for the rook always moving so as to be defended by the pawn, and the
king always remaining near his pawn, the adverse king is prevented from
approaching; but if the adverse king were behind the pawn the game
might be won; the game is drawn in the same manner if the rook be
defended by a knight or bishop.’ (see 291 and 292).

XV: Two rooks against queen and pawn, and also against queen
and two pawns.

XVI: ‘On the stalemate’. Lewis’ translation (1822), which I am using
says, ‘by some called a smothered mate’.

The above is a warning against assuming that any ‘truth’ discovered
after painstaking analysis is necessarily new. It is most unlikely to be,
but concentration on grey areas does at least improve the chances.

ENDGAME THEORY AND THE COMPUTER

The simplicity of the material involved, normally five or six men on
the board, is such that there is not only a real possibility of computers
making discoveries in endgame theory, but this possibility borders on
certainty and has moreover been a potentiality of computers for a
number of years already. The computer is the ideal tool for solving
tasks which humans find laborious and repetitive, and which for
these very reasons cause human error.

The endgame two bishops against knight is a good choice for such an
experiment because it is already ‘nearly’ a win for the bishops. This
means that it may not be necessary to devise a program that will
discover the best move every time. If the next best move for the side with
the bishops is adequate to demonstrate a win against all defences, the
computer will have added to endgame theory, even though it will not
have played perfectly.

The procedure for programming a computer for chess has been de-
scribed many times. After choosing an efficient method of representing
the empty board and the men (king, bishop and knight only, in our
case) to the computer, a series of routines must be written and tested.
There will be routines to generate all legal moves for each piece.
Initially these moves will be on an empty board, but further routines or
sub-routines will test for pins, checks, checkmate, stalemate and square
occupation or capture. This programming code is central and will be
used literally millions of times when the whole program is run live.
Hence the emphasis on efficiency. A nuisance aspect is the requirement
to know if the current position being examined by the program at
any instant has occurred before. If it has occurred in the same line, then

the pawns are advanced and hence he advises that the pawns are to be
preferred.

VIII: Minor piece against minor piece and pawn. He assumes that the
defending king can play in front of the pawn and draw.

IX: Knight or bishop against rook.

X: Two bishops against queen.

XI: Two knights and a bishop against a queen.

XII: Rook against rook and knight.

XIII: Rook and knight or bishop against two rooks.

XIV: Rook and pawn or knight or bishop against queen. Two
twentieth century examples are 274 and 275. ‘A queen has no power
against a rook and pawn that has not moved, provided it be not a rook’s
pawn, and the rook be defended by the pawn having the king behind,
or on the side of the pawn, and the adversary’s king before the pawn,
Only ten squares on the chessboard are unique in a topological sense. Thus a8 is the same as a1, h1 and h8. b8 is the same as a7, a2, b1, g1, h2, g8 and h7. Each square on a corner-to-corner diagonal has three other equivalents, and each square not on these diagonals has seven other equivalents. These facts are of use to a computer program examining the ending two bishops against a lone knight (see text).

A critical position, in the sense that White to play wins and Black to play draws. Hence very instructive. Taking Black first, 1... Kd6; 2. b6, Kd7; 3. b7, Rf8 draws, or 2. Rf6+, Kd7 draws.

White to play: 1. Rf6, Kg4; 2. Kb3, Rh4; 3. Kc3, Kg5; 4. b6, Rg7; 5. Kd4 and 6. Kd5 wins.

(i) Chéron also gives 1. Rf6 to win, but 1. b6, Kf6; 2. Kb2, Rf8; 3. Ka4, Kc6; 4. Ka5, Ra8+.

(ii) 1... Kd6; 2. b6, Kd7; 3. b7, or 2... Rf7; 3. Ka4.

(iii) 2. b6, Kg6; 3. Rb8, Kc5; 4. b7, Kd6.

(iv) 2... Kd6; 3. b6, Rg7(g5, g1); 4. Ka4 wins.

there is repetition, which of course suits the defending side, and the superior side must diverge. If the position has occurred in another already analysed line, then we must not waste valuable equipment by re-analysing, but we must make a rapid cross-reference and then get on with analysing something new. In fact quite a lot of computer resources will be needed for this apparently unproductive question alone. A position may be the same, seeing that there are no pawns, by reflection or rotation, in up to eight ways. The program will need to have a standard orientation of the board and men. Topologically there are only ten different squares on the chessboard, and a set of these is shaded in 313. We can define our standard by saying that the black king must occupy one of the shaded squares: if he does not, then a transformation routine will convert the irregular position into a regular one. Incidentally, we can now do a small calculation of the

maximum number, or rather the limit, of possible distinct positions with the material in question. Black’s king on one square (of the ten) makes a minimum of four illegal for his opposite number, leaving sixty available. Bishops running on one colour may be on another maximum of thirty-one each, leaving sixty squares for the knight. Given that either side may have the move, we have:

\[ 10 \times 60 \times 31 \times 31 \times 60 \times 2 = 69,192,000 \]

Of course, some of these positions will be illegal through impossible check or both sides in check, and if there is a legal check then only one side can have the move. In practice the actual total of legal positions could best be found by a computer systematically examining every single one of the sixty-nine million possibilities. A modest computer could do this over a week-end, at a rate of at least a million an hour.

However, having all positions stored away barely touches the real problem, since they are not organised meaningfully. Positions are not moves, let alone good moves, and it is moves that we require (though a move may be represented by a pointer from one stored position to another). If the foregoing routines are crucial for the efficiency of the program, the routine to generate good moves is crucial to the whole success of the project. Luckily, only simple tactics need be considered. The reality and the threat of fork, pin, checkmate and stalemate, together with isolation of the knight and the counterattack by the black king on a bishop to meet a menace to his horse, is the sum total. If four plausible continuations by white are examined after each black move, say to a depth of five moves on either side, that might well be sufficient. If not, then the figures of four and five could be revised as program parameters.

At the end of each five-move-long line an evaluation routine would compare the starting and finishing positions of the line to see how much progress, if any, White had made. No doubt the evaluation routine would need to be refined, but it need not necessarily be complex. It could simply compare the relative mobilities of the white and black force, on the basis of elementary spatial or factual values (number of squares available, pieces protected, proximity to edge or corner, and so on). The move that gives maximum improvement would be chosen as the white continuation.

We do not know what the result of such an investigation would be. Clearly, the validity of its conclusions could be jeopardised by the programmer’s assumptions, and a computer proof of a win for the bishops would have to be examined critically, just as a human proof would be. The programmer might assume that all lines longer than twenty
3. Cook Hunter: Friend or Fiend with Microscope

The essential chess act defies description. Even the great teacher, Dr Siegbert Tarrasch, could not improve on the phrase ‘chess vision’. ‘But it has to be seen!’ he repeatedly exclaims in The Game of Chess. We often hear that so-and-so has a quick sight of the board. Yet in spite of these references to vision it is notorious that blind players tend to be strong. Sight is only a convenient metaphor for the real thing.

As a matter of experience we know that what some people apprehend from a chess position differs hugely from what we ourselves observe (315 and 316). It is also true that the chessmen seem to speak a different language to the cook hunter, the subject of this brief chapter.

Cook hunters are not numerous, but they seem to come in two distinctive breeds, the aggressive and the modest. Unfortunately the aggressive is the more prevalent, but this may be an illusion due to his articulateness. ‘I cooked it’, he cries, ‘and on the first move!’ It is an almost impossible task to convince him that what is the first move to the solver is probably the last move that the composer working backwards from his main play invented! I have met one cook hunter who seriously maintained that composers cheat. His contention is that this is the only possible explanation for the large number of unsound studies. The composer, he says, sees the flaw but does not bother to put it right because he knows that very few people will examine the position in detail. Certainly there are some startling examples of unsoundness, of chess blindness in composers. But on the other hand composers are well aware that a high proportion, maybe a fifth, of all studies are unsound at initial publication, and it does a composer no good to earn a reputation for contributing more than his fair share of unsoundness. No, dishonesty is not the besetting sin of composers, though wishful thinking may be. The great American problemist W. A. Shinkman put it this way. ‘The bewildering number of variations and combinations incline one to a series of personal judgments, and in the case of a composer sounding the children of his own fancy there are
II-3 THE PRACTICAL

Nothing complex here, so it was psychologically excusable that both composer and editor overlooked a big
cook, that is, second solution.
1. $Sb4+$, $Kb6; 2. S × c6/i, $Bg3; 3.
$Se5, $B × e1; 4. $Bd8+, $Ka6; 5. $Sd3
and mates or wins the bishop.
(i) Of course capturing the rook is the
only move to consider. But, as
Walter Veitch patiently observed,
2. $Bd4+ is equally strong. 2. . . . $Rc5;

The following composer’s solution
satisfied the Thèmes-64, II FIDE
Album, and VI Polish Championship
judges. 1. $Qh7+/i, $Ke6; 2. $d8S+/ii,
$Kd5/iii; 3. $Qg8+/iv, $Ke4; 4. $Qg4+,
$Kd5; 5. $Qe6+, $Kd4; 6. $Se6+ wins.
(i) 1. $d8Q?, $Qc1+; 2. $K × c1 stalemate.
1. $d8R?, $Qa5+ draws.
(ii) 2. $d8Q, $Qd4+; 3. $Q × d4 stalemate/v.
(iii) 2. . . . $Kd6; 3. $Sb7+; 2. . . . $Ke5;
3. $Qh5+, $Kd4; 4. $Se6+. 2. . . . $Kf6;
(iv) 3. $Q(b7, f5, h1, h5)+?, $Kc4.
3. $Q(d3, d7)+?, $Qd–. 3. $Qf7+?,
$Ke4. Of eight checks, one works.
(v) The huge flaw: 3. $Qd3 wins! See 324.
1. $R × g8+/i, $Q × g8; 2. $Qb2+, $Qg7;
3. $Qb8+, $Qg8; 4. $Qe5+, $Qg7; 5.
$Qe8+, $Qg8; 6. $Qh5+, $Kg7; 7.
$Qg6+, $Kf8; 8. $Qd6+, $Kg7; 9. $Kg5,
$Kh8+; 10. $Bg6, $Qg7; 11. $Qb8+,
$Qg8; 12. $Qb2+ and mates.
(i) 1. $Q × f7?, $R × g4+ draws. But
unfortunately there is another move
that does win for White. 1. $Qc3+, $Rg7; 2. $Rg3 has the deadly threat
3. $Rh5+, $Kg8; 4. $Qb8+, $Qf8; 5. $Be6+.
This is a clear example of a study being
spoil by a last minute addition of an
introductory exchange. The composer
is a brilliant and prolific problemist,
and head editor of Thèmes-64.

II-3 COOK HUNTER: FRIEND OR FIEND

influences, subtle but none the less potent, that create an unconscious
is too indolent to indulge in conclusions that coincide with his desires; a
personal wish for the success of a given postulate insensibly inclines
him to fatter a cold neutrality toward the success of an unfavourable
hypothesis. Being thus psychologically prejudiced by intuitive desires,
the accuracy of his conclusions is naturally affected, and the fruit of
this condition is therefore, sometimes, the unsound or faulty chess
problem.* The contemporary American study composer Edmund
Peckover has expressed the same thought another way and with humour.
In an article called ‘The Law of Latent Apperception’† he contends
that the composer realises the final truth about his composition only
after he has folded it up, inserted it in an envelope, addressed, stamped
and posted it!

The cook hunter sees what the composer missed (318 to 320), so it
would seem that the latter can learn from the former. Alas, the sole
lesson seems to be that it is safe to stop analysing only when all has
been seen and correctly judged. But there is no answer to the consequent
heart-cry, ‘But how do I know when I have seen everything?’ Ideally
the composer would like to have a tame cook hunter or tester as an
assistant.

Of greater interest is the cook hunter who demolishes more in sorrow
than in anger. ‘I have never demolished a study in my life’, writes
Walter Veitch, to whom several of our examples are due, ‘They de-

m 0 lish themselves!’ He illustrates his attitude with 321, a famous
classic by Kozlowski. ‘Am I disappointed not to have demolished the
study? Of course not. I am delighted it is sound and to know why it is
sound. It adds to my appreciation of the position.’

There is no special recipe for hunting cooks. One looks for threats,
and for defences to the threats, as for straight solving, except that one
cannot use a purely destructive approach by trying to pull the composer's
solution apart, the very stipulation being taken as an invitation, even
challenge, to find a cook. It sheds no light to say, however true it may be,
that the successful hunter develops a sixth sense, a knack of looking at
things differently. It is scarcely more helpful to point out that the cook
merchant is signally unthunderstruck by the composer’s idea, though
in this he is distinguished from the friend, the connoisseur, and even
from the judge, all of whom are attracted chiefly by what the study
seems to be about. But if the cook hunter cannot be charmed, can we

* W. A. Shinkman, ‘In re the 418 Sui-Mate’, Grand Rapids, 1907.
† British Chess Magazine, August, 1959.
‡ EG, March, 1969.

The fluid final moves are quite sound, but the flaw arises on Black's fourth move. Black can win by allowing a knight fork and eschewing the double attack. 4. ... Kc6!; 5. Sc5+, Kd5;

1. Qg8, Bg3+; 2. Kf1 fg; 3. Rd6, Q × d6; 4. Qh7+, Bh4; 5. Qc7, Bg3; 6. Qh7+, Bb4; 7. Qc7, Qg3; 8. Q × g3+, and now 8. ... B × g3 leaves White stalemated, while 8. ... K × g3; 9. Kg1 leaves Black stalemated!

This pretty and quite complex scheme has nevertheless a flaw: 3. ... Bh4 and Black will win.

then say what is his satisfaction, what it is that keeps him going? Perhaps his pleasure is related to that of the player who conquers through seeing something deeper or more accurately than his opponent. The demonstration of a truth that has eluded others has its own satisfaction. But what motivates the friendly demolisher remains mysterious, unless it is the same as that which keeps the analyst analysing (322). Again, there may be a connection with that rare and valuable subspecies of composer who revises incorrect studies (323 and 324). Other irregularities (325 and 326) can also arise, and it is perhaps surprising how often they are missed, but it does not take a sharpshooter to pick them out. 'All I do', writes Veitch, 'is look at studies with some degree of interest and curiosity. Do not you examine studies more closely?'

(contd. on p. 233)
1. Rg7+, Kg×h8; 2. Rh7+, Kg8;
3. g7 and wins is the solution invariably
  given to this classically simple position.
But what, asked Walter Veitch, about
1. g7, Ra8; 2. Rh1? Well, 2...
  Ra3+; 3. Ke4, Ra4+; 4. Kd5,
  Ra5+; 5. Kc6, Ra6+; 6. Kb7,
  Kd6; 7. Rc1, Re7++; 8. Kb6/i, Re6+;
  9. Rc6, Re8; 10. Rc7, Re6+; 11.
  Kb7, Re8; 12. Rd7, Kd7/i; 13.
  R×f7 wins, does it not? No, pursues
Veitch inexorably, it does not!
13... Re6; 14. Rf8, Rg6 draws—
if ever White contests the g-file
Black ensures his king is by then on
(i) 8. Kb8, Re8+; 9. R×c8++
and 10... f5 wins.
(ii) Or 12... f5; 13. Rd5 also wins
the pawn.

Note that the black rook could in
fact be played to g3 as early as the
third move.

1. Sf3, Kh6; 2. Bg8, Se7+; 3. Ke6,
  S×g8; 4. Kf7, Kh7/i; 5. Sg5+,
  Kh8/i; 6. f3, Sh6+; 7. K×g6, Sg8;
  8. Sf7 mate.
(i) A draw was claimed\(^1\) by 4... g5;
  5. K×g8, g4; 6. Sg1/i, Kg6, but
  refuted\(^2\) by 7. Kh8, Kh6; 8. Se2,
  Kg6; 9. Sg3, Kh6; 10. Kg8, Kg6;
  Kd8, Kd6; 14. Kc8, Ke7/iv; 15.
  Kc7, Ke6; 16. Ke6, Ke5; 17. Kd7,
  Kf4; 18. Ke6, Kf3; 19. Sh1, Kg2;
  20. Kf5 wins.
(ii) 5... Kh6; 6. f4 wins the black
  knight.
(iii) 6. Sh4, Kg5; 7. Sg2, Kg6; 8. Kf8,
  11. Se1, g3; 12. fg, Kf5 and 13... K
  g4 drawing.
(iv) 14... Kc6; 15. Se4 and Sf6-
  ×g4/h2.
Despite the rescue operation, the study
is unsound—due to a second solution.

1. Rd3+, Ke1; 2. Rf3, Kd2/i; 3. Bf1
and the following variations:
3. ... e1Q; 4. Rd3 mate.
3. ... e1S; 4. R×f4 wins.
3. ... e1Q: 4. R×f1, Ke3; 5. Ke2, f3;
  6. Rf1+i, Kf2; 7. Kd2.
(i) 2... Kd1; 3. Bg4, e1Q; 4. Rd3
  mate, or here 3... Kd2; 4. Rf2
wins.
(ii) 6. Kd1?, f2; 7. Rh1, Kf3; 8.
  Rf1, Ke3 and draws.
The 1929 position by Réti placed the
white rook on a3, which allowed the
alternative solution 1. Bg4.

1. Qh7+i, Ke6; 2. d8S+//, Kd5; 3.
  Qf7+i, Ke4; 4. Qf3+, Ke5; 5. Qh5+, K
  d4(d6); 6. Se6(b7)++ wins. (i) 1. d8Q?,
  Qf2++; 2. Kd3, Qc2++; 3. Ke3; Qc2+;
  4. Kd(f)4, Q(e)3+; 5. K×Q stalemate.
(ii) 2. d8Q?, Qh5++;
  2. d8R?, Qe5++; 3. Kd3 (to avoid
  ... Qf6+ and... Qa5+); 3.
  ... Qb5+; 4. Ke2, Qa4++; 5. Kc1,
  Qa3++; 6. Kd1, Qa1+; 7. Ke2, Qe5+.
(iii) The king on e2 provides 3.
  Qg8+?, Ke4; 4. Qg4+, Kd5; 5.
  Qe6+, Kd4 drawn, or here 4. Qg2+, Kf
  5. Qh3+, Kg6 drawn.

If one's horror at the sight of the
black force can be overcome, there is
a chance of appreciating the idea
which, surprisingly, is not stalemate.
It is an opposition of rooks, a pendu-

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\(^1\) I. Rosenfeld in Shakhmaty v
SSSR, iii, 1957.
\(^2\) G. Tanayev in Shakhmaty v
SSSR, iii, 1958.
'White wins, with or without the move', says Berger, not realising that with White to play the position is illegal! Black has no last move. Black to play moves his aP, and White advances his bP without capturing.


(i) As originally published and honoured, the white rook was on f7 and the black bishop on e4 and the solution 1. Re7, Bd5 (diagram).

This allowed the cook 1. Rg7+i, Kh1; 2. Re7, Bd5; 3. f7, Bxf7; 4. Rxf7, b3; 5. Rf5, with the same position as in note (viii) but with the black king on h1 instead of g1—one square too far off. If in this cook 1. ... Kg2/ii; 2. f7 wins, or 1. ... Bh2; 2. Rh3, Kh2; 3. f7, or 1. ... Kh2; 2. f7, Rh1(a1); 3. Kg4, b3; 4. Rxe4, b2; 5. Re2+ draws.

This is a case of a cook being found 'on the very first move!' of the solution. But the composer had only added the extra move on to the beginning at the very last moment of composition!

(ii) 3. f7?, Rh1; 4. Re4, Rxf7; 5. Rxh4, b3.

(iii) 3. ... Re1; 4. f7.

(iv) 4. Kg2?, Bh7; 5. Re7, b3.

4. Kg2 (c8)?, Bf7; 5. Re7, Bc4; 6. Re4, Rc1.

(v) 5. Re3?, Kh2.

(vi) 6. ... Ra1; 7. Re4, b3; 8. f7, b2; 9. f8/Q, b1/Q+; 10. Qb4.


(ix) 20. Rf4, Ra1(d1, d1, f1) and Black wins, but not here 20. ... Rcl.

The point lies in 388, where White to play loses (Rb8, Rc7), but Black to play only draws (... Rc8; Rc4+).

This consideration determines Black's choice on move 20 in this subvariation.
Author's solution: 1. R8d7+, Kb8; 2. Sd3, f1Q; 3. Rb7+, Ka8; 4. Ra7+, S×a7; 5. Rb8+, B×b8 stalemate.
All very well, but first of all Walter Velth saw the alternative draw
1. R6d7+, Kc6; 2. R×c8+, K×d7; 3. Rf8, Kc6; 4. Sd3. And then a keen
solver spotted that White wins!
1. R8d7+, Kb8; 2. Rb7+, Ka8; 3. Rf7. Consecutive moves by the
same piece can be difficult to see, especially if the second move is a
retreat (in this case from having delivered a strong check). (Harry
Rombach, Canada, in EG, viii, 1969.)

1. Se8, Kg8; 2. Sf6+, Kf7; 3. h7, Kg7; 4. h6+, Kh8; 5. Kb3, a2; 6.
K×a2, b3++; 7. Kb1, b2; 8. Sg4 wins.
(i) Unfortunately 3. Sd5 also wins,
3. ... Kg8; 4. S×b4, Kh7; 5. Sd5,
K×h6; 6. Sf4. The Perkonaja study
won a tourney that had the specific
aim of producing a sound version of
Tapionlinna’s theme.
(ii) The sound version even eliminates
an intractable inversion option,
4. Kb3, Kh8; 5. h6, or 4. ... a2;
5. K×a2.

1. Se7/i, Kh7; 2. Sf5, Kg8; 3. Sd6/i,
Kh7/i; 4. Sf7, Kg8; 5. Se5, Kh7/iv;
6. Sg4, Kh8/v; 7. Kd2/vi, Kh7/vii;
8. Kc3, Kg8/viii; 9. Sf6+, Kh8/ix;
10. h7, Kg7; 11. h6Q+/ix, K×h6;
12. h6, d2; 13. K×d2, c3++; 14.
Kc1, c2; 15. Sg4 wins.
(i) 1. Kf4?, d2; 2. Sc3, Kh7; 3. Kg5,
Kg8; 4. Kg6, Kh8; 5. h7, d1Q;
6. S×d1, c3; 7. Se3, c2; 8. S×c2
stalemate.
1. Sf6?, c3; 2. h7, c2; 3. Kd2, Kg7;
4. h8Q+, K×h8; 5. h6, c1Q++; 6.
K×c1, d2++; 7. Kc2, d1Q++; 8.
K×d1 stalemate.
(iii) 3. ... Kh8; 4. S×c4, Kh7; 5.
Kf4, K×h6; 6. Kg4.
(iv) Threat 6. S×c4 stops 5. ... Kh8.
(v) 6. ... Kg8; 7. Sf6+, K−; 8. h7
and Kd2−c3 as main line.
(vi) 7. Sf6?, c3.

To conclude, some assorted faulty studies (328 to 330, and 332).
Further practice material is at the end of Chapter I−2, but the real cook
hunter has neither wish nor need to be told where to seek his quarry.
His motto is, ‘There are no sound studies, only unbust ones’.
4. Analyst, or Seeker after Truth

Analysis is the search for good, better and best moves: an iterative procedure familiar to player, solver and composer. Can there be a separate individual called an analyst?

The special contribution of the analyst is objectivity, a quality as valuable as it is rare. The player wants his side to win, or at least not to lose; the composer has an idea to express; the solver’s interest is in rediscovering the idea of the composer: these aims are subjective. The only objective man we have met so far is the advanced player or theorist seeking the golden light of truth to illuminate a murky corner of the endgame landscape. Even the cook hunter was really concerned with destruction. The analyst will analyse anything, anywhere, at any time.

And yet the analyst is closer to the composer than might be supposed, than he himself suspects. When he is testing his creations the composer tries desperately to be objective; and when he is searching for ideas, analysis is perfectly valid as a method. 253 to 256 have already shown the kind of studies resulting from analysing game positions, a method which may be termed distillation, the selection of the most valuable positions from a welter of variations. A school of composition subscribes to the view that the distillation process is superior, because less artificial, to the alternative of starting from a neat final position and working backwards from that. On the other hand it is recognised that the latter method, exhausting though it is, has produced most of the great artistic masterpieces.

The two methods should not be assumed to be mutually exclusive. 333 is a study of which I am proud. The only drawback is that the white rook does not move into its Black Hole of Calcutta but is already imprisoned there when the curtain rises. For a long time I vainly tried to find a decent introduction to make the rook move just once, without a capture, onto the c3 square. I mentioned the difficulty to Vladimir Korolkov, the great Leningrad composer, in the course of correspondence. Some weeks later I received 334 and its supporting analysis (by Korolkov and the famous problemist Loshinsky), which is reproduced in full here. It shows that there is no alternative to hard,

(i) Or 1...Ka2; 2. Sf6. The black threat is 2...b4; 3. K×b4, Sd5+ drawing.
(ii) Covering d5. 2. Ra3?, Sc2 and 3...B×h7.
2. K×b5, Sd1; 3. Ra3, c3+; 4. Kb4, B×h7 draws.
(iii) The only waiting move available!
4. R×d3?, cd; 5. Sa4+, Kc1; 6. S×e3 (or 6. Bh6) 6...d2 draws.

1. Rc3++.
To prove that this is the best move the following analysis, which carries no guarantee, is necessary.
1. Rh2?, b4; 2. Kb5, c3++; 3. Ka5, Sc4++; 4. Kb5, Se3++; 5. Kc5, c2;
6. Rh1, Sf1; 7. Bh6, b3.
1. Rh2?, b4; 2. Kd4, Sf5++; 3. Ke5, c3;
4. Sf6, c2; 5. Rh1, Kb2; 6. B×b4, c1Q; 7. Ba3+, K×a3; 8. R×c1, Kb2,
or here 4. Rh3, c2; 5. R×d3+, Ka4;
6. K×f5, c1Q; 7. Sf6, b3 and so on.
1. Rh2?, b4; 2. Bh6, b3; 3. B×e3, b2.
1. Rh2?, b4; 2. Rh3, b3; 3. R×e3/i, b2; 4. Kd4+, Kb3; 5. Re1, b1Q.
(i) 3. Kd4+, Ka2; 4. K×c3, b2; 5. Rh2, Kb3.
1. Rh2?, b4; 2. Sf6, c3; 3. Sd5/ii, c2; 4. Rh1, Sf1; 5. Bh6, b3; 6. Rh3, b2; 7. R×d3+, Ka2; 8. Sb4+;iii,
Kb1; 9. Rb3, c1Q++; 10. B×c1, K×c1; 11. Sd3+, Kc2; 12. R×b2, +
K×d3.
(ii) 3. Bh6, b3; 4. B×e3, b2.
(iii) 8. Sc3+, Ka1; 9. Rd8, b1Q;
10. Ra8+, Kb2; 11. Sa4+, Kb3.
1. Rh2?, b4; 2. Bg7, c3; 3. Bh6, b3;
4. B×e3, b2.
So much for 1. Rh2. Now there is another tempting move, 1. Rc1.
1. Rc1?, b4; 2. Kd4, Sc2+ and then 3...
B×h7, or here 2. Sf6, b3; 3. Kd4+;iv, Ka2; 4. K×c3, b2.

V. A. Korolkov, L. I. Loshinsky
Version of 333 Original

333
Win 4+5

334
Win 4+5

4. Analyst, or Seeker after Truth

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II-4 The Practical

334 (contd.)

(vi) 4. ... Ka2?; 5. Kxb4, Bxh7; 6. Rxe7, c2; 7. Rh1, Bd1; 8. Bh6, Kb2; 9. Kc4, c1Q+; 10. Bxc1+, Kxc1; 11. Kd3 and White wins.


5. Bh6, Ka2; 6. Bxe3, b2; 7. Rh2, c2.


(viii) 4. Kg7, b3 has already been analysed.


(x) 6. Sd5, c1Q+; 7. Bxc1+, Kxc1; 8. Se3, b3; 9. Sx1, Bxf1; 10. Rxf1+, Ke2; 11. Kc4, b2; 12. Rf2+, Kc1; 13. Kc3, b1Q+.

(xi) 7. Sg4, b3; 8. Se3, Sxe3; 9. Bxe3, Ka2; 10. Kc3, b2; 11. Kc2, b1Q+; 12. Rxb1, Bb3+.

(xii) 8. Kg5, c1Q; 9. Bxc1+, Kxc1; 10. Sg3, Kd2; 11. Sxf1+, Bxf1; 12. Rxf1, b2; 13. Rf2+, Kc1; 14. Kc3, b1S+.

1. Kxb5+, Kb3; 2. Rh2, c3+; 3. Kc5, c4; 4. Rh1, Bf1, or here 2. Rc1, c3+; 3. Kc5, Bxh7.


(xiii) 2. Rh2, Sf5+; 3. Ke5, c3 we have had before.

2. Bxb+4, Kxb4; 3. Rb2+, Ka3.


If all the above is water-tight, then the black reply is easier on the analytic faculty.

1. ... Kb2.


(xv) 2. ... Sc2; 3. Sd5, b4; 4. Sb6+, Ka6; 5. Sxc4, Bxh4; 6. Rxc4.

(xvi) 3. ... b3; 4. Ra1 mate.


1. ... Ka2; 2. Sf6 and wins.

The position after this single move (!) introduction is now 333.

II-4 Analyst, or Seeker after Truth

straight analysis in such cases. The solution is extended by only a single move, and yet every move of the supporting analysis has to be water-tight. There is some comfort for lesser mortals in the rumour that although Koroliov's work has few equals for its general soundness Koroliov himself is reputed neither strong as a player nor fast at analysing. It has even been whispered that his wife was stronger over the board! But no composer has a better reputation for soundness.

That aside prompts a further digression. Players sometimes experience at first hand the relative weakness of composers when they play straight chess, and they conclude that there is something inferior about studies or problems and those who concern themselves therewith. 'Suppose', a player will say, 'that the best player, such as Capablanca, were to have played a match against the best study composer, such as Grigoriev, what would the result have been?' The answer must be that Capablanca would have been the winner. 'Well', goes the argument, 'must it not be agreed that over-the-board play is superior to composed play?' The answer to this is very simple. 'By no means. Having compared the two great men on the chosen ground of one, we should compare them also on the chosen ground of the other. What studies did Capablanca compose?' As far as is known, the answer is one (320). Since Grigoriev played some very hard games with Alekhine, he comes out of the dual comparison well ahead of Capablanca. It would be unwise to try to draw any firm conclusions from this.

Naturally, analysis is meat and drink to the player. Correspondence play, adjourned games and adjudication appeals all imply analysis in depth. 335 is just the kind of thing that crops up and proves fascinating, a deceptively simple position that is begging to be dissected down to the last nuance. The position is also a curiosity, as we shall see. Rook and bishop, if they can be protected, have no difficulty in defending against a queen. In this position there is however a pawn as well as the queen, and the pawn is already on the sixth rank. The point is that the seventh rank square that pawn must pass is covered by both the defending black pieces. Is that all? If so, the position must be a draw. That is not all. The bishop has to keep at a distance from its friendly rook, and the black king is remote from the pawn. Therefore White has the advantage. Enough to win? The position is likely to interest theorists, especially as I have failed to find its like in the regular treatises. In the game, which must have been adjourned several times, White made only jerky progress, and it was a long time before he reached 336. This is now nearer a win as Black's pieces are beginning to feel uncomfortable. Subjecting a position like this to the scalpel has
II-4 THE PRACTICAL

White's last was 134. Qe6-e7, when Black is forced to play 134... Bc3; 135. Qe7 and Zugzwang is in force. 135... Kh3; 136. Qe6, Kh2; 137. Qe5 for Kf2/i, and if 135... Bd4; 136. Qe6+, Kg1; 137. Qc1+, Kg2; 138. Qf1+ and Qf4, or here 136... Kh2; 137. Qd6. However, Popov found a way out, demonstrating that his opponent had played fifty consecutive moves without pawn move, capture or mate by either side, and by the Laws of Chess the game was drawn!

(i) 137... Kg2; 138. Qf2+, Kh3; 139. Kf1 forces Black's king away from the comfortable ranks.

Threat: Qf5+, Kh4; Qf4+ and reaches h6. 139... Kg4; 140. Qe2+, Kh4; 141. Qc4+, Kh3; 142. Qg8, Rg4; 143. Qh7+, Rh4; 144. g7, R x h7; 145. g8Q wins! No?!

II-4 ANALYST, OR SEEKER AFTER TRUTH

The nature of analysing

This chapter began with a practical definition of analysing, but it may be worth trying to delve a little deeper, now that we have seen some examples. It is an activity fundamental to, even equivalent to, good chess. It is the means, the only means, theory uses to prove the truth of the rules it discovers. It combines awareness of spatial relationships with elements of struggle. The latter inescapably implies time. And time is a curiously slippery commodity to talk about sensibly. Let us listen once again to the nineteenth century voice of James Mason, again from The Art of Chess. '... the board and men, the space and force at work within it, are open to observation of master and tyro equally—the one may see as much as the other; but there will be a difference in their perception of time, and this will produce a difference in ideas, which will affect the moves and make all the difference in the play. You know the board, and you know the men in their various relations; what you are uncertain of is how these can be best utilised for the great purpose of the game—checkmate. You want to know the time—to be in time to checkmate your opponent; to move as long as he can move, or until he can move no more—which neither winning or drawing.

If you are threatened with mate on the move, and can make no move to stop it, you have no time. If you undertake to do in two or more moves something requiring two or more moves and one more for its accomplishment, then you will be short of time, have no time for that undertaking—and should fail. For we commonly say we have no time when, of course, we have all there is—only this happens to be insufficient. Thus... time in chess is nothing else than the ability to endure; is, in fact, the thing itself, because, strictly speaking, no time no game. How to get at the heart of this mystery of time should be the great endeavour of the student... It is towards the end of the game that we have the least difficulty in perceiving the importance of time in combination, and it is there it should be studied at the outset. If you do not study it there, very likely you may never really know anything...
about it, except what you are told, and this will do you little good in chess.'

Are we any wiser for Mason's articulate wisdom? I think we are. Analysis is bound up with time, and time is best appreciated in the endgame. Since endgame studies are a concentrated form, time is almost overpowering by its presence in them. It could even account for their lack of popularity, for if mustard is a good and powerful condiment it is intolerable as a main course!

Like a strong player a successful composer must be an accurate analyst. This is not in the composer's case the same thing as a fast analyst, though the results must be the same whether one is fast or slow. If the composer is a first-rate and dauntless analyst, though, he will be able to produce complex works whose soundness rests on lengthy variations. Outstanding among such composers is Chéron, the great French endgame theorist. The close practical relationship between endgame theory, natural positions and long variations is only to be expected. An example is 337, though only a simple example compared to some. The interest here is in the length and accuracy of the alternative analysed on White's second move. The 'main line' in the try 2. Qd4 goes on to the thirteenth move.

A related aspect of analysing, and an important one, is the discovery of new ideas. Indeed, so much of the composing process consists of analysis that one can say that if analysis did not suggest new ideas, the discovery of new ideas would cease. Here is an example given by Kasparian, who is a master of every aspect of composition. He was trying to develop a composition based on 338 and 339 either by making the introductory play more dynamic than in the Troitzyk or by discovering enriching moments. 340 appeared to be a successful attempt. But, writes Kasparian, 'this appearance of soundness might have led me to compose a defective study, for in fact Black wins: 1. Bf2, Kb2; 2. Kb4, Ke2+; 3. Ke4, Kd2; 4. Kd4, Ke2; 5. Ke4, Kb2; 6. Kb4, Ka2+; 7. Ka4, Rf1; 8. Sh1, R x h1; 9. Bg3, Kb2; 10. Kb4 and so on.'

1. Rd8+, Kx d8; 2. Rce2, h1Q; 3. B x e6, Be3; 4. R x c3, Q x g2++; 5. K x h6/i, Qh2++; 6. Kg6, Qg1++; i/i; 7. Kh7!//iv, Qh2(h1)+; 8. Kg8/v, Qg1++; 9. Kf8/vi, Qc5/vii; 10. Rac4, Qc6; 11. Kf7, Qc5/viii; 12. Kg6, Qg1++; 13. K x f5, Qh1++; 14. Kg5, Qg1++; 15. Kh6, Qh1++; 16. Kg7, Qa1++; 17. Kg8, Qg1++; 18. Kf8/ix, Qc5; 19. f5, Qc6; 20. Kf7, Qc5; 21. Kg8/x, Qg1++; 22. Kf8, Qc5; 23. f6, Q x c4; 24. fe++.

(i) 1. Rc2+?; Kd8; 2. B a6, K x d7.
(ii) 5. K f7?; Qb7; 6. R c8+ leaves the black h-pawn.
(iii) 6. . . . Qg2++; 7. Kf7, Qc6; 8. R c4 is exactly what White wants.
6. . . . Qg1+ makes it harder.
(iv) 7. Kf7?; Qc5; 8. R c4, Qc6; 9.? 
(v) 8. Kg7?; Qa1 is nasty!
(vi) This, possible only via the preceding manoeuvre, allows the crucial Zugzwang to be placed on Black’s shoulders.
(vii) With the black h-pawn gone, Black can play for stalemate.
(viii) 11. . . . Qe8++; 12. Kg7, Qf8++; 13. Kh7 wins!

II-4 THE PRACTICAL

G. M. Kasparyan
3rd Hon. Men.,
Shakhmaty v SSSR, 1954

(i) 1. Sc3?, the alternative attempt to menace mate and prevent 1. . . . d1Q, is met by 1. . . . Rd6++; 2. Kc7, d1Q draw, or 2. Kb5, Bf3. (ii) Now Black has to cover a3, as 5. . . . Q x d4; 6. Ra3+, Qa7++; 7. R x a7++, K x a7; 8. c4 wins.
(iii) 5. . . . Qa1; 6. R f8+, Ka7; 7. S+ wins.

In fact, if Black were to play after 5. . . . Qc1 he would lose. This is an excellent example of Zugzwang.
6. . . . Ka7; 7. Ra3++, Q x a3; 8. Sb5++;
6. . . . Qa1; 7. R f8+ as before. But White has no move to maintain the position. It is what problemists call a mate. White has to find some other way to win.
(v) Consider the alternatives.
7. R f6?, Qg5/vii; 8. Sc6++, Ka6 draws.
7. R f5?, Qe1/viii; 8. Sc6++, Ka6; 9. Ra5++, Q x a5++; 10. S x a5, K x a5 draws.
7. Sc6++, Ka6; 8. c4, Qf4++; 9. R x f4 stalemate.
7. Sb5++, Ka6; 8. Sc3, Qh1/ix draws.
(vii) 7. . . . Qb2; 8. Sc6+, Ka6; 9. R x a7+ mates.
(ix) 8. . . . Ka5?; 9. Ra8++; Kb4; 10. Sa2+ wins.

analyse further. There is a battle of wits between him and the composer, the latter trying to fabricate exceptions (to the rules) which the solver will not easily see, and the solver applying the rules to the best of his ability while knowing that there is an exception to be discovered. Unconscious awareness of this is no doubt behind the feeling of triumph that player-solvers feel when they have plumbed the depths of a study. Perhaps when, or if, they realise that they have not beaten anyone by solving a study, but merely drawn level with the composer, they may lose interest in endgame studies. On the other hand they may pursue the composer into his den in the guise of cook hunters, or, in the spirit of pure research, join the rare and dedicated rank (there are not enough of them to form ranks) of endgame theorists.

(contd. on p. 247)
It scarcely seems possible to analyse this open position, let alone prove a
win for White, whose rather weak force is widely dispersed! 1. Sc7+/1,
Rg5; 15. Kb4, Rg6; 16. Sd5, Ke4; 17. Se7 and wins.
(i) 1. g7?; Rg5; 2. Sc7+, Kd6; 3.
Se8+, Ke6; 4. Bd4, Kf7; 5. Sd6+, Kg8; 6. Se8, Kf7.
Bb3+, Ke7; 4. Sd5+, Ke6; 5. g7,
Rg4 draws.
(ii) 1. . . . Kc6; 2. g7, Rg5; 3. Se6,
Rg4; 4. Bh4, Rg6; 5. Bf6, Kd6; 6.
Sg5, and White wins with the threat of
marching to f5 via e4. To stop
this, Black has to post his king on
d5. Then, a move of the white king
to d3 or e3 forces . . . a5. This gives
White a further point of attack, since
... Rxf6 with check is no longer a
defence against capture of the
pawn. This is enough to decoy the
black king away from the king's side
of the board, and then Sf7–h6 wins.
(iii) 3. Se6?, Rg4; 4. Bh4, Rg6; 5.
Bf6, Kf5.
(iv) Directed against Bc3. 3. . .
Kxd4?; Se6+ wins at once, of
course.
Sh5, Rg3; 7. Bf6, Rg4; 8. Kd2, Kf5
(for ... Rxg7); 9. Bb2, Ke6; 10.
Ke3, Kf7; 11. Kf3, Rg3 drawn.
(vi) For 5. Kd2? see (viii).
(vii) 5. . . . Rg6; 6. Ka2, Kg5; 7. Sd5,
Kh6; 8. Se7, R×g7; 9. Sf5+, a key
line where Black has no check.
(viii) Compare 5. Kd2?, Rg4; 6. Ke3,
Rg3+; 7. Kf2, Rg4; 8. Kf3, Rf4+; 9.
Ke3, Rg4; 10. Kd3, Rg6; 11.
Ke4, Kf7; 14. Sf5, Rg6 and Black's
apawn is his salvation. 15. Kd5, a5;
K×a5, Kh7; 19. Kb4, Rg6; 20. Kc4,
Rg5.
(ix) 7. . . . Rg6; 8. Sd5, Rg2++; 9.
Ka3, Ke6; 10. Sf4+.
(x) Another anti-check coverage.
Bc3, Rgl/xiv; 12. K×a4, Rg6 (for ... 
Kg5) 13. Ka3/xv, Kg5; 14. Sd5,
Kh6; 15. Se7 wins.
(xii) 11. Se6?, Rg4 is too strong.
(xiii) 11. Kc4, Kg5; 12. Sd5, Kh6;
13. Se7, Rg4++; 14. K–, Kh7,
demonstrating the importance of
preventing the rook check if White is
to win.
Sf8, Ke4; 14. K×a4, Kd3++; 15.
Kb3 wins.
15. Kd3, Rd8++; 16. Kc4/xvi, Kg6;
17. Sd5, Kf7; 18. Se3, Kg6; 19. Sd5,
Kf7; 20. Se3, Kg6 and drawn.
(xvi) 16. Bd4, Kg6 for 17. . .
R×d4+. 


(ii) 2. Sc1?, f3+; 3. Ke1 (else a knight forks).


(v) 5. K×d1?, a2; 6. Sc1, a1Q wins, the white knight being pinned.

(vi) This threatens Ka2 with B×a3 after.


(viii) 7. . . . Bc2+; 8. Ka2 as in (vii).

(ix) 5. Sc1?, Bd1+; 6. K×d1, a1Q wins, as (v).


(xi) 9. Ka2?, Bd1; 10. Ka1, Sd2, see (xv).


(xv) This is the deepest point in the study, though not the main line.

III. THE SERIOUS

1. Connoisseur, or Critic
2. Judge, or Mandarin
3. Composer
4. Apologist
1. Connoisseur, or Critic

The enthusiast who consciously sacrifices some of his ingenuous delight in studies in the interests of understanding the reasons for his enjoyment, is a connoisseur.

A good starting point is a quotation from Emanuel Lasker. This will lead to a discussion of the aesthetic ingredients of studies, and we can then see how the study relates to the problem and the game. Some attempts at defining the study then lead to consideration of the range of its chess content, or themes, including tasks. An excursion into the comparative evaluation of compositions that illustrate similar ideas will be brief, as it encroaches on the domain of the tourney judge (Chapter III.2), but more attention is given to systems of classification by content.

LASKER ON THE NATURE OF CHESS

The italics in this excerpt are Lasker's.

'To what category must we assign Chess so as to account for its aesthetic effect? Manifestly, the class of achievements. It is the achievement of the pieces on the Chess-board, nothing else, that grips the interest of the spectator and carries him along and excites him. Unless the spectator observes an achievement which seems to him out of the common, his interest will slumber. Only when a move discloses a task to be solved which seems difficult if not impossible, or when, for some reason, the spectator expects such a move or series of moves, the aesthetic evaluation begins. . . . The spectator must not be deaf and dumb to this language . . . but the spectator by no means need be a master . . . True, the human language . . . , the language of pantomime, that of the human anatomy and of the emotions, is a thousand times more eloquent than the language of the Chess pieces. Yet it is a fact that Chess games and Chess positions have a hold upon many, a hold strong enough to make them burst into applause and to cause . . . these positions to be preserved . . . and . . . fondly remembered. . . . When mind overcomes matter, we are charmed . . . The ideal would be that the task is of vital importance and the achievement can be consummated in
III-1 The Serious

A. A. Troitzky
Novoye Vremya, 1896

348

Draw
5+3

T. R. Dawson
Ultimate Themes, 1938

349

Checkmate
8+8

T. B. Gorgiev
2nd Prize, Shakhmaty v SSSR, 1936

350

Win
5+4

III-1 Connoisseur, or Critic

One of the examples chosen by Dr. E. Lasker to illustrate ‘a maximum effect, a consummate achievement’. White cannot prevent Black’s pawn from queening. How can the rook be used to assist the white knight in reaching e3? Stated like this, the solution is not too difficult to find: 1. Rd5, f1Q; 2. Rd4+, K x d4; 3. Sf5+, and there is a fork whichever white square the black king chooses. If 1. . . . K x d5; 2. Sf5, Ke4!; 3. Kd2!, K x f5; 4. Ke2, Se4; 5. a5, K x f4; 6. a6, Kg3; 7. a7, Kg2; 8. a8Q, f1Q+; 9. Ke3, Qf2+; 10. Kd3 draws.

The position illustrates several kinds of ‘essential’ men in a mate. The black king and the self-blocking black pawns on g6 and h4 are clearly essential, and are primary units. The two black rooks and the f3 pawn are not essential at all. But, remove a black rook and we may also remove the a2 queen or the f2 rook. The men on c3, c5 and e5 are similarly linked. These are secondary units (the complete list is a2, a8, c3, c5, e5, f2 and g2). Now, add a black pawn on f6, and this and the knight on e8 become alternative units. These distinctions are of particular interest to problemists.

1. b4, ab; 2. Sd3, c2; 3. B x e2, Kh5; 4. Se1, Bb6; 5. Sg2, Bd8; 6. Bd1, B x h4; 7. Ke3+, Kg5; 8. Kf3, b3; 9. B x b3, Kh5; 10. Bf7+, Kg5. If Black were now to move, he would draw by . . . Kf6. However, since White has no way of maintaining the status quo in other respects, this ‘threat’ cannot be carried out. Whether or not Black has a threat, White has only one move to create the winning Zugzwang. 11. Be8. The black bishop is captured next move.

Although Lasker is not explicitly talking about studies he nevertheless illustrates his thesis with some twenty examples of beauty, a dozen of which are studies (348).

Lasker is maintaining that the effect on the interested and comprehending spectator arises from the general principle of economy. The criteria of economy are two, necessity and sufficiency. As regards the actual solution of a study we have already seen these criteria in action in the chapter on the cook hunter. If the composer’s solution is not necessary, there is a ‘cook’. If it is insufficient, there is a ‘bust’. In either case there is demolition and the study is ‘unsound’. But, aside from soundness, the principle of economy has at least four other applications to the study.

1. Minimum force to achieve the composer’s intention, which is not necessarily the final position.
2. If the final position, such as a mate or stalemate, is the composer’s idea, then economy must apply.
3. Minimum time. This means that slower methods simply do not succeed. Although bound up with soundness, this application of the economy principle has some interesting side-effects.
4. Maximum use of the material on the board.

Each of these deserves detailed attention.

1. Anyone can count the material on the board to see if there are few pieces or many. It is a long step forward to comprehend what the composer had in mind, especially in the absence of notes—or in the presence of incomplete or misleading notes. It is a further and difficult advance to be able to maintain that that idea or theme could have been presented with fewer men; or that it embodies the best representation of that idea; or to be prepared to compare different versions. Furthermore, to weigh up the force used against the idea expressed implies some absolute criteria. These factors interest the connoisseur, and if

This illustrates a relatively harmless inversion of moves. 1. d6, Rg7/l; 2. Rh3+/l, Kg8; 3. Rg3, R×g3; 4. d7.
White queens and wins the book ending.
(i) 1. ... Rg6(g5) allows the white alternative moves 2. d7 and 2. Rf8+. But in each case the other move must be played next. This is known as inversion. 'Transposition' is better reserved for black moves which lead back into another line, though this is not a generally recognised distinction.
(ii) 2. Rf8+?, Kh7; 3. Rd8, Kg5; 4. Kd2, Kg7 draws.

White has so arranged matters that his rook is as remote as possible from the black king and he has the crucial opposition to play to the side of the pawn opposite the one the black king chooses.
(i) 1. Rd3 is the alternative. But not 1. Rd1?, d4; 2. Kd7, Kd5; 3. Kc7, Kc5; 4. Kb7, Kc4; 5. Kc6, d3 draw. Whether d2 or d3 is chosen for the rook on the first move, the idea of the study remains undiluted—d1 must be avoided until the pawn has advanced to d4.

The classic case of 'loss of time'. In fact a spectacular example.
1. Re2, Qg8; 2. Sg7/l. And now, whether the queen or the king takes the knight, white wins the black queen and promotes first, with check.
(i) What is the matter with 2. Sf6? The answer is 2. ... Qg1; 3. Re8+, Kg7; 4. Rg8+, Kh6 and draws, 5. R×g1 being stalemate. But White can still win after 2. ... Qg1 with 3. Sh5, returning to the main line, and winning after a 'loss of time'. Some writers do not give question marks to moves that merely lose time.

2. Problemists have been familiar for well over a century with mates and stalemates that are 'pure' and 'economical'. If they are both, then they are called 'model'. The player is less familiar with them. To the player, mate is mate, whether queen and both rooks crowd round a blocked in king, or mate is elegantly delivered by the last remaining force. The study enthusiast must take sides with the problemist here, if it is a question of taking sides. Model finales are superior to less economical conclusions. The definition of 'pure' is that each relevant square in the suffering king's field must be guarded or blocked once only, due allowance being made for necessary pinning and for the permitted possibility of a (necessary) double check (in the case of mate). This is clear and concise. Since the mating position is more important in problems than it is in studies, problemists have answered the question of what 'essential' men are in a mate. T. R. Dawson, in his brochure Ultimate Themes (Stroud, 1938) distinguishes primary, secondary and alternative units. Primary men may never be removed, secondary men may be removed in groups, alternative men may be removed alternatively (349). The definition of 'economical' is rather less satisfactory, at least in the problem domain, as it has several rival interpretations. In essence, it means that all the white (that is, mating or stalemate) force remaining on the board must be involved in the finale. (Finale is used in its theatrical sense, not in the French chess sense of 'ending'.) The argument arises over whether the white king and white pawns may be excused duty. In the study it must be said that no one is inclined to argue over niceties of this nature. The consensus is that if every man does participate, including the king and any remaining pawns, this is fine, indeed could not be improved upon, but that if they do not the composition remains perfectly valid. If anyone wishes to use the word 'model' they are free to do so.

The conclusion that study people are less aesthetically aware than problemists would probably be correct. Discussions on the admissibility of virtual play (lines that occur only in White's tries) have little counterpart in the study, nor does study prose approach this passage (admittedly in a clumsy translation).
In consequence of the fact that every, even the slightest chess movement is closely followed by the eternal shadow of analysis, the composer having had times out of number the crop of the chessfields cut down by analysis before it could attain maturity, cannot allow himself to listen credulously to all the promptings of intuition but has to suspect a thousandfold complexity in even the most simple position. If, however, it is indispensable for the problemist-analyst to accept the analytic nature of chess as the obvious consequence of the exact capabilities of the chess material, it is not less necessary for the problemist-creator warned by the good taste to assume the brave and unyielding attitude of an aestheticist toward this aspect.*

The point is rather that in the study mate is not the be-all and end-all. To begin with there is stalemate. But there are also all draws, and all exceptional manoeuvres with restricted force but without restricted time, such as could arise in the game of chess; though again, not restricted to positions that would be likely to occur in the ‘average’ game, whatever that might be. Thus the questions of purity and economy are diluted by the host of other possibilities offered by the rules of chess.

However, mates and stalemates do form a considerable part of the productions of study composers, so it is natural that some attention should have been given to this aspect. Just as the force used and the purity and so on of the mate has been used for the classification of problems, so can it be for the classification of studies—though, naturally, only the mate and stalemate variety.

Time is confusing, as we have already seen in the quotation from James Mason, (Chapter II-4). Luckily, study connoisseurs do not have to be grandmaster players, so a deep appreciation of when one or more tempi are worth a given material is not required. What is required is the realisation that all studies are critical in the time sense. Except in rare cases, Black will always have a threat (350), which means that in a study White is by definition in a time vice, with only one way out, and only one way at any given moment. However, some concessions are made to the difficulties of composition in the following cases (some of which may well be contested).

(i) Inversion of white moves is allowed in introductory play, if avoidance of it would infringe the canons of economy of force (351). In a main line, as in 332, note (ii), it is more serious.

* Dedrle’s book Echo (the 1927 volume in the A. C. White Christmas series).

(ii) Alternative squares (for example of a rook or a bishop—white, always) are allowed if both: the idea is the same for each, e.g. to reach another rank or diagonal; and the retreat cannot be said to form the idea of, or a significant part of the idea of, the composition (352).

(iii) Loss of time. This occurs when, in a win study, a given white move does not win, but merely allows the unique winning move to be played later, when the position is repeated. This is very frequent, especially in positions of a ‘natural’ character (whatever they are!) (353).

Clearly, where black play is involved, the greatest possible freedom of movement is welcomed, and only in rare cases (such as a surprise draw where Black stalemates White—though in a ‘White to Draw’ study—see 357) would a criticism be levelled at the uniqueness of Black’s moves—and even here it would be controversial!

4. This really means that every man must do some work. Preferably, every piece should move at least once, but some pieces can be immobile in the main variation, quite acceptably, if they perform in support variations or tries. The material should not be too big when compared against the active use made of it. Naturally, making every piece move also satisfies the purpose of surprise, as the position will very likely be transformed in appearance and suggestibility. Whence difficulty. Unsightly introductory captures also infringe this canon, and the bigger the force removed, especially if it comprises simple exchanges and not sacrifices, the worse the effect.

Another, and perhaps unexpected, aspect of using the force to its utmost, relates to space. There is more space in the centre of the board than on the edge, and more space on the edge than in the corner (there are only these three different types of square), as far as the mated or stalemated king is concerned. So, an economical effect in the corner is inferior (that is, in artistic appeal, or in other words it is less elegant) to one on the edge, and the edge (24 squares) is inferior to the centre (36 squares, not to be confused with the centre as understood by openings specialists). In the study this applies not only to mate and stalemate, but also to domination. For effective use of this triple differentiation for classification, see pp. 30-1.

To a lesser extent this aspect also means that the full powers of a piece should be seen to be needed. This is not always possible, due to the demands of side-variations and soundness, and it is a difficult point to decide in a particular case whether a given piece is ‘fully’ used or not.
A big surprise in this little position?
Yes! 1. Se3/i, d1Q+; 2. S×d1,
Bc2+; 3. Ka3; B×d1; 4. Bc4/ii,
(i) 1. Sc3+ ?, Kc2; 2. B×d2, Bc6+ draws.
(ii) This is the surprise move. 4
Bd3+ ?, Bc2.
(iii) 4 . . . Bc2; 5. Ba2+.
4 . . . Bh5; 5. Bd3+. In all cases,
mate follows.

Of course, there are studies where virtuoso pieces display an agility
and power outside their normal range (354), and there can be no
argument about these cases, even though other material on the board
could detract from the general dazzling effect.

**SURPRISE**

There are not many analogies between chess and life that bear elabora-
tion. For one thing the consequences of mistakes are so different. One
can always start another game, but one has only a single life. Perhaps
that is a partial explanation of the power of chess as retreat from life.
However, there is no doubt at all that both chess and life are full of
surprises.

There are pleasant and unpleasant surprises. In a game, as in life,
surprises are acute and personal. In the study the personal aspect fades
and becomes an intellectual happening. But whatever the circumstances,
III-1 The Serious

G. Bagdassarians
Shakhmaty v SSSR, 1936

1. Rd1, Q×h8/1; 2. R×f1+, K×g8/ii; 3. Ke8, Se6/iii; 4. Rg1+, Sg7+; 5. K×e7 stalemate. That the result is stalemate will not surprise the solution sleuth, but that it is Black who is stalemated will provide the jolt. (i) Black has no more than a perpetual check: from 1. . . . Qa7+; 2. K×d8. While 1. . . . Q×d1+?; 2. Bd5 mate is not recommended.
(ii) 2. . . . Sf7?; 3. B×f7 and again White wins.
(iii) 3. . . . Qf6; 4. R×f6, ef; 5. K×d8 draws.

Pawnless studies are common, but a game position with five pieces and no pawn is rare indeed. It follows that studies rather than the game discover the secrets of pawnless play. The game concluded, to White’s discomfort: 60. . . . Re3; 61. Bd4, Re2+; 62. Kc1, Sb4; 63. Bg7, Rc2+; 64. Kd1, Be2+ and White resigned rather than be mated next move.

Black’s last move in this variation given by Fischer was to take on f5 (from e6) a white knight that had just come from g3. Retracting Black’s previous move, another pawn capture, of a pawn on f4 from e5, takes us to the actual game position. The point is to illustrate that a game may produce an ‘unnatural’ quadrupling of pawns.

R. Blau v. W. Unzicker
Lucerne, 1949
Position after White’s 60. Be5

Draw 6+6

R. Fischer v. P. Benko
Candidates’ Tournament, 1959
(Analysis. This position did not occur)

The Endgame Study and the Game

III-1 Connoisseur, or Critic

Surprise is relative, and variable. It varies not only from person to person but from day to day. Clearly, what surprised us on Tuesday ought not to surprise us on Wednesday, and it will be taken as a personal affront by our pride if we are caught by the same ‘surprise’ next year.

I do not know if surprise may validly be considered as an aesthetic element in a study. Probably not. It is more likely just the ‘ouch!’ reaction, defying dissection. I do know that it is crucial. If I thought no study would ever surprise me again, I should abandon chess altogether. Walter Veitch, for whom chess, he says, has lost much of its charm, makes the good polemic point that whenever he sees a new study idea, which is rare enough, he is saddened by the thought that that composition is one more nail in the coffin of the endgame study, because that idea can never be validly expressed again, and the number of ideas possible must be mathematically limited! Opposed to this pessimistic view it can be maintained optimistically with the Bohemian school that chess composition is the synthesis of artistic ideas and chess ideas, and that both of these together are effectively inexhaustible.

Since studies are supposed to be surprising, a continuous diet of studies can exhaust, or at least dilute, their capacity to surprise. This is why it is a good plan (whether planned or not) to be exposed to buffetings of the normal, the game, in order to renew the appetite for the exceptional, studies. Let some more selected examples (normal?!) illustrate (358 to 363). There is no (great) harm in playing chess! It can be argued that the endgame study could have evolved without chess as a game ever having been invented. But historically this is so far from reality that I cannot believe it. In any case, it is such a good game! This is not to say that the game element in chess is paramount. A controversial view on this is set out in the final chapter.

The Endgame Study and the Game

Some remarks have already been made on this subject in the chapter on the majority player. Let us hear what words, comfortable or otherwise, the great players have used.

Emanuel Lasker ‘... you may take up a combination that arose in actual play, get rid of non-essentials and thus refine it. But there are masters in the art of composing combinations who follow their own methods and who, perhaps, work with no method relying only on their own fertility of invention. ... artistic combinations ... have given pleasure to millions. But for all that, it is only the hard-fought game which produces the profoundest and most precious ideas, just as Nature,
If 23. ... B×c3? 24. Q (or B) f6 and wins. What Black actually played was 23. ... Qb4! intending 24. ab, B×c3 and it is Black that has the same mate! Play continued: 24. ab, B×c3; 25. Rb8+ (in the genuine problem sense the black bishop is forced to cross the 'critical' square f6) 25. ... B×b8; 26. Bf6, Ra1+ (again Black has the same manoeuvre as White!) 27. B×a1 (as 27. Kd2 at best reaches an ending difficult to win) 27. ... B×a1 (here, in an actual game, is the 'impossible' move of a bishop from corner to corner) 28. R×d6 wins.

The position arose in this celebrated game after the moves: 1. b3, e5; 2. Bb2, Sc6; 3. c4, Sf6; 4. Sf3, e4; 5. Sd4, Bc5; 6. S×e6, de; 7. e3, Bf5; 8. Be2, Qe7; 9. Qc2, O–O–O; 10. f4, Sg4; 11. g3, h5; 12. h3, b4; 13. hg, hg. Now, an 'unnatural' pawn configuration on the king's side could have occurred after 14. Bf3, ef; 15. Q×f5+, Kh8. (Admittedly Black could also, and probably would, play 14. ... g2; 15. B×g2, R×h1+; 16. B×g1, Qh4+.) The point to be made is that when the unnatural occurs in a game, players applaud, but not if it occurs in a study! The game ended 14. Rg1, Rh1!; 15.

not the artist, creates the most wonderful works, just so again as the precious metal is not discovered in the retort of the alchemist but in Nature's own recesses. . . . Not too completely, therefore, must the adept of Chess give himself over to the charms of constructed combinations.*

We shall come back shortly on the question of the natural. On p. 272 of his book, though, Lasker, in discussing the principle of economy and its ideal criteria of necessity and sufficiency, says 'The practical game . . . can seldom approach the ideal.' This is in tune with Richard


A practical example of ensnaring a queen and winning by Zugzwang. Play concluded: 36. Q×g8+, K×g8; 37. R×f7, Qe3/i; 38. Rf7, Qh6/i; 39. Kh3, Kg7; 40. Rg3+, Kh8; 41. Rf7, b5; 42. Rg5 and wins!
(i) 37. . . . h5; 38. Rf7, Kg7; 39. Rgl+, Kh6; 40. Rf6+, Kh7; 41. Rf7+, Kh6; 42. Rg3, Qb5; 43. c4, Qe8; 44. Rg7 and another Zugzwang!
(ii) There was the threat of Rg3+ and Rf8 mate.

With four a side, and what foursomes, no wonder there is some hot square dancing! 30. e7i, e3; 31. R×e3, Q×d7; 32. c6i, Qe8; 33. d6i, Q×c6; 34. Re3+, Qb6; 35. d7, Rae8; 36. Re3i, Qc5; 37. Re6i, Q×f2+; 38. K×f2, Kb8; 39. Kf3, c6; 40. d×e7+, R×e7; 41. Kf4 and Black resigned (all of them!) because after the white king reaches f7, the rook check on d6 finishes it.

Réti's 'Greater beauty is possible in the study than in the game.' (Recalled by the late Dr Alois Wotawa in conversation in Vienna in 1968.)

Alexander Alekhine 'Despite the attraction that the idea of composition has had for me, and despite many attempts, I have failed to produce anything worthwhile . . . I should very much like to create quite alone, without the obligation to adjust my plan because of my opponent's.'

Just to show that eight out of nine consecutive moves with pawns in the opening is not only possible but can be good. The position occurs after the moves 1. e4, c6; 2. d4, d5; 3. Sf3, Sf6; 4. Sc3, e6; 5. Bg5, de; 6. e4, b5; 7. e5, b6; 8. Bb4, g5. And after 9. Sxg5, hg, Black will have played only one of his first ten moves with a piece. What seemed unlikely, unless one was knowledgeable, now seems natural!

Play in this extraordinarily deep game continued. 20. ... Bb7; 21. Rb1 (21. Bx b7 was better) 21. ... Sf3+; 22. Kh1, Bx a8; 23. Rxb2, Sx g5+; 24. Kh2, Sf3+; 25. Kh3, Bx b2 and Black won after another eight moves. How 'natural' are the features here? The white bishop on a8 shut in by the black bishop on b7; the bishop and knight battery on the long diagonal; the maximum length check by the bishop on a8 to the white king on h1.

José Raoul Capablanca ‘... there are also many collections of composed endings, some of which represent the lifework of a specific composer, as in the case of Rinck and Troitzky. All these works have definite, if limited, value... These endings are of the greatest value, not only because of their beautiful variations, but because they frequently contain positions which might easily arise in over-the-board play... three essentials for a masterpiece in the field of endgame composition: Naturalness of Position, Depth, and Beauty of Solution... Solving endgame studies... has always seemed good practice to me... you deal with the same conditions that apply in actual play.’


Both White and Black have trebled pawns. Is this 'natural'?

The object of reproducing this time-honoured finale is to illustrate that a game may show many pieces, in fact all the black ones except the pawns, standing on the edge of the board. 21. Sx g7+, Kd8; 22. Qf6+, Sx f6; 23. Be7 mate. The game was not played in the First International Chess Tournament, but appears to have been merely a friendly encounter.
**III-I THE SERIOUS**

1. Kf6, Sd6; 2. Ke6, Sc4; 3. Sb5, Rc5; 4. Sd6+, S x d6; 5. Se4, S x e4 stalemate! A fine example of pawnless play. The solver wends his way through an attractive mini-maze of short supporting variations.

   For instance, 1. Sb5?, Rc6+ and

1. Bf7/i, Bg6; 2. Ba2/ii, B x h5; 3. Sf5+, Kg6; 4. Bb1 and wins the bishop, probably by a discovered check, since the defence of (i) is not available.

   (i) 1. Bg7?, Bg6; 2. Bb5, B x h5; 3. Sf5+, Kg6; 4. Bb3, Bc2 draws.

   (ii) Only in this way can the opposition of the black bishop be prevented on the fourth move. See (i).

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**III-I CONNOISSEUR, OR CRITIC**

**THE ENDGAME STUDY, THE PROBLEM, AND THE GAME**

The study and the problem are branches of chess composition, which is often called the poetry of chess while the game is the prose, though one could adduce many examples of poetry in the game and prose in compositions. Some writers* draw a subtler analogy, between the drama of the game and the ballet of composition. This is a colourful distinction, and one feels the point behind it, but surely it ought to be possible to devise a more illuminating picture to show convincingly the relationships linking, or separating, the three major faces of chess?† To do this I suggest that only three notions are necessary.

(i) the board and chessmen, together with the FIDE Laws for their correct deployment. (This notion is used in Chapter III:4 and is abbreviated to 'BMR', signifying Board, Men and Rules.)

(ii) composition

(iii) an additional rule of mate within a stipulated limit of moves.

The game of chess is regulated by (i) only, while the study combines (i) and (ii), whereas the chess problem needs all three notions. The relationships can be diagrammatically represented in two ways, see A and B. A supports the hypothesis that the study lies 'between' the game and the problem, and B the hypothesis that they have common parentage in (i) but are otherwise independent. It would tidy up the question nicely if a simple objective test could determine whether A or B is the truer picture. Unfortunately, no neat test is available. Maybe a clear distinction is invalid. Here is something for the connoisseur to ponder. However, that the study should lie 'between' the game and the problem, as in A, implies that the problem derives from the study. Historically this is very hard to justify, since we have seen in Chapter I:3 that both genres emerge jerkily over the centuries, and in a very confused manner. More satisfying is B, accounting for the separate flavours of the two branches of composition and 'allowing' them to pursue their own individual ways without any question of what is 'between' what. But, whether A or B is preferred, the contention that the study derives from the problem is untenable.


† There is a fourth, so-called 'fairy chess', in which the rules, any or many, are arbitrarily altered. It is not generally argued, though it could be, that orthodox chess problems are 'fairy chess' because they introduce the 'mate-or-nothing' stipulation, which is foreign to straight chess.
Is this a problem or a study? Or is it, as some might maintain, foreign to both? It won an award in a problem tourney, but might also have been successful in a study event. The solution is the same, whether considered as a problem or as a study. 1. Rb7+, Ka8; 2. Rb8+, Kb7; 3. R5b7+, Ka6; 4. Rb3, Ka7; 5. R8h5, Ka6; 6. R5b4, Ka5; 7. Rb7, Ka6; 8. R3b6+, Ka5; 9. Rb2, Ka6; 10. R7b4, Ka5; 11. R4h3, Ka4; 12. Rb6, Ka5; 13. R2b5+, Ka4; 14. Rb1, Ka5; 15. R6b3, Ka4; 16. R3h2, Ka3; 17. Rb6, Ka2; 18. R1h5, Be1; 19. Ra6+, Ba5; 20. Ra x a 5 mate.

Here are some of the points to consider. It's a study because:
(a) the length of the solution
(b) the mate itself is of no interest
(c) the mechanism could have led to an ordinary draw, via a crucial exchange, and in that case it could not be a problem
(d) systematic repetitions generally suit studies
(e) two rooks against a king is a very game-like situation.

It's a problem because:
(a) the composer entered it for a problem tourney, hence it is de facto a problem
(b) the black pieces are placed in problem fashion, for soundness rather than for counterplay
(c) there is a big material difference between the black force and the white (though it is usual for the white force to be superior in problems)
(d) the black force gets in its own way in a typically contorted problem fashion
(e) the composer chose a setting where there are no variations longer than the twenty moves of the stipulation, but he could have chosen a study form.

The pieces are placed so that any counter-play is brutally eliminated. The mechanism is, however, if regarded independently of the setting, without attraction. 1. Rb3+, Kd4; 2. Bg1+, Ke5; 3. Rb5+, Kf4; 4. Bh2+, Ke3; 5. Rb3+ with a draw. Alexandre puts this position among his five-movers, with the stipulation of draw ('remise', in the French of the time), but it is obviously not a problem in five moves.

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**THE STUDY AND THE PROBLEM**

The question is sometimes asked, whether it is possible to distinguish the study from the problem simply by inspection of a diagram and ignoring any stipulation. In the majority of cases a skilful and knowledgeable person would arrive at the same stipulation that the composer had in mind. Then there are positions which are equally valid as problems or as studies, and whose solution(s) are identical (370).

So evidence is advanced that there is no fundamental difference between the two forms of composition. One can go further and quote positions which have been published both as problems and as studies. And there is good, if ancient, authority for the confusion, if it is a confusion. Alexandre (1846) groups together positions with the same solution length. They turn out to be mixtures of game endings, problems and studies. Where the length is two moves there is little difficulty in distinguishing types, and one may call them all problems without upsetting anyone. But the longer the solution becomes, and his final chapter contains thirteen-movers and over, the hazier the distinction (371). No doubt Alexandre considered his system to be neat and foolproof when he began it, but he expressed second thoughts in a passage in his preface. 'Under the denomination problem, I comprehend ends of games in which the number of finishing moves is limited; whether it is required to conduct a pawn to queen, to give mate, or force an ordinary description of draw; also positions in which the party having the move can mate (372) (Alexandre means that either side, having the moves may mate. An early form of two problems in one.) . . . in The Beauties of Chess will be found a vast number of problems in which the checkmate is forced in a given number of moves, neither more nor less, many others, in which the defending player has a choice of variations,
III-1 The Connoisseur, or Critic

The requirement remains, given a stipulation of win or draw, to apply theory, that is, the normal game values of the chessmen. If the stipulation is ‘mate in 5’ then theory does not apply—the position is a problem. A corollary of this is that a wordless diagram is meaningless. That is, to ask if a ‘position’ is a study or a problem is, strictly speaking, without any sense. (A conclusive demonstration of this would be any slightly irregular stipulation, such as 373.) It must bear a stipulation, even if inferred. Unless we know the composer’s intention we are not fully aware of what he has composed, and we are unable to proceed. The composer’s intention is expressed in the diagram and its stipulation, and in the solution with its notes. Since intentions are abstract, they are frequently unrecorded or partially recorded, which can and does lead to polemics.

As we have already seen (370), the composer may occasionally have to choose between presenting a composition as a study or as a problem. Relevant factors in his decision may be the flavour of the play, the importance of the mate, relevance to endgame theory of the force employed, and kindness to the solver. If he is still in doubt he may submit his piece, if it is good enough, for a tourney of either kind. It would be most irregular, in fact unethical, to enter it for both a study tourney and a problem tourney.

In and prior to the nineteenth century they had excuses for confusion. We have seen that the rules of chess had never been firm about the scoring of some of the situations we recognise to-day as draws. When stalemate did not split the point, and when the win by bare king was allowed, draws were rare. But when these rules had been tidied up and beautiful drawing possibilities began to be discovered, it was no longer enough to say ‘draw in 4 moves’, especially as there will often have been variations with different lengths.

Can we in fact imagine to-day a problem stipulating ‘White to play and draw in $n$ moves’? Mate is a precise win. What kind of draw is intended? If only one kind, we must be told. Will alternative draws be cooks? Will any two people identify the same non-stalemate draw at the same move number? If any draw will do, again we must be told. But this is now very complex. It involves familiarity with the latest endgame theory. Two knights win against a pawn sometimes, but a trivial alteration may make it a draw (see Chapter II-2). It is a tall order to require the solver to handle all known wins and draws before he can even start to solve. Indeed, it is too big a demand on the composer as well! Theory, unlike mate, has no static definition. The ‘draw in $n$ moves’ is quite impracticable.
Let us be fanciful for a moment. One could argue that endgame theory is ‘mate, or draw, in $n$ moves’ generalised to cover all cases, it being beyond unaided human power to calculate ‘$n$’ except in simple cases. The mate with bishop and knight has been calculated (by whom I do not know) to take at most thirty-three moves, for example. As ‘$n$’ increases, so the positions covered tend more and more to include endgame study positions. But if unaided man is in difficulties with the larger numbers, has he not invented the computer to help him? So, the sinister suggestion surfaces that computers should be not only the solvers but also the composers of problems above six moves in length! It is something that computers could do in their spare time. They could use the facilities increasingly available for communicating with each other in order to arrange their own private solving and composing tourneys. The programming involved would set ‘$n$’ at a low number to begin with, and increase it by one when the possibilities of that length had been exhausted.*

**DEFINITION OF A STUDY**

Many people would be satisfied with Réti’s ‘an endgame with exceptional content’. But even so ardent a disciple of Réti as Dr A. Mandler found it necessary to add some words on soundness to the definition when he issued the authoritative edition of Réti’s studies in accordance with the explicit wishes of the latter after his early death. ‘An endgame combination’ is liable to the same objection. There is a formal definition that was considered as part of a so-called ‘Codex’ of composition during a meeting of some of the world’s chess composers in Piran, Yugoslavia, in 1958. Piran is, incidentally, a delightful tiny port a couple of miles north of Portoroz on that ear of land lying south of Trieste and jutting out into the Adriatic. The proposed definition reads, translated from the original German,† as follows.

Article 1: A study is a chess composition that has one of the underlisted stipulations and furthermore fulfils the underlisted requirements.

**Stipulations**

Article 2: The stipulation may be:

(a) White moves and wins (against any Black defence)

(b) White moves and draws (against any Black defence)

If Black has the move the stipulation may be:

(a) Black moves and White wins (against any Black defence)

(b) Black moves and White draws (against any Black defence)

**Requirements**

Article 3: Fundamental technical pre-requisites are:

(a) The position must be legal

(b) The study must have a solution

(c) There must be uniqueness of solution against Black’s best defence

Article 4: The position is legal if it can be reached by legal moves from the initial game position, and provided that the number of chessmen on the board in no way exceeds the basic complement of a chess set.

Article 5: The stipulation must be achieved in all variations conforming with the Laws of Chess. If in even a single variation the stipulation is unattainable then the study has ‘no solution’ and is to be disqualified. Castling in the course of the solution is admissible, provided that the illegality of castling cannot be demonstrated. The en passant capture on the first move is admissible if, and only if, it can be demonstrated that the pawn to be captured must have made a double-step move.

Article 6: The requirement of uniqueness of solution means that the composer’s idea must be carried through with a particular sequence of moves against Black’s best defence. The non-fulfilment of this requirement leads to second solutions and to duals.

Article 7: A second solution or ‘cook’ is a possible solution that differs from that of the composer. In this case the study is disqualified and the composer may correct it and re-publish.

Article 8: Duals are departures from the composer’s solution in respect of sequence of moves or in respect of choice of square. A dual does not disqualified a study, but merely reduces its worth. Duals may take the following forms:

(a) Reversal of sequence of two consecutive moves

(b) Lack of precision in choice of square to reach a goal. Example: Kd2 may play via d3 or e3 to reach e4. Sa1 may play via b3 or c2 to reach d4.

(c) Lack of precision in tempo moves. Example: Ra2 may move to f2, g2 or h2.

(d) Artificial prolongation of the solution, where White does not take the shortest route but must eventually return to the composer’s solution (loss of time).

(e) The mating of the black king in a clearly won position, or the forcing of a stalemate in a clearly drawn position, in completion of the composer’s idea, is regarded as a dual when it has the importance of a second solution.

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† *Problem*, January, 1959.
This is a valuable attempt not only to define the study but to list the important features relating to soundness. With polishing here and there it could well be adopted universally. The ‘against any Black defence’ in Article 2 is in practice never explicitly stated. The reference to the basic complement of chessmen in Article 4 is intended to exclude legal positions with, for instance, three black rooks, but the case of two bishops on the same colour needs to be clarified, as does the controversial case of an obstructive bishop—that is, a bishop not on its original square but which could, because of unmoved pawns, never have moved. In other words, the bishop in the diagram must be the result of a promotion of a pawn.

In Article 5 the reference to a double-step of a pawn should be further clarified to refer to the move which notionally created the diagram. All mentions of disqualification also need to be expanded in respect of the three possibilities; a formal tourney (i.e. not yet published, unless the award has appeared), an informal tourney, and no tourney. In fact a whole host of queries arises concerning tourneys, soundness and anticipations, but it would probably be reasonable to expect a separate set of Articles to cover tourneys. A curious case occurs in applying Article 8(d). It often happens that a composer, in order to avoid an annotation (which is always worth avoiding) takes his solution on a tour of a white possibility to show that it fails, returning to the same position to try another move. Strictly speaking this is to be deprecated, as the solution is artificially prolonged, but very little harm is done. Some composers, in applying the rule concerning the draw by repetition, extend their solution until the position has occurred three times, but in my view this is again a poor procedure. A study should show the best moves, and if they lead to a repetition once then they lead to a repetition again. The rule in the Laws of Chess is intended explicitly for the over-the-board game, for it includes provision for one of the participants to claim the draw. In a study there are no such participants.

**MISCELLANEOUS**

Before considering the themes to be found in studies, a few other matters of a miscellaneous nature may be gathered together.

(a) Are there players in studies? No, there are not. However, it is next to impossible to talk about White and Black without using the language of the game. Although ‘White wants’ and ‘Black intends’ are inescapable without resorting to desiccated impersonal circumlocutions, the reader must be wary of falling into the trap of thinking that when the solution is over a point will have been notched up or halved. From this point of view it is mildly preferable to say ‘White moves and wins’ rather than ‘White plays and wins’. No wonder the ordinary player fails to realise that studies are not game positions! Not only is he exhorted to treat the position as if it were from a game, but the vocabulary echoes the familiar player’s jargon. Of course, it would be quite possible to describe the moves in a clinically remote manner (interesting that ‘solution’ and ‘analysis’ each has its laboratory meaning), but they would lack vividness and the sense of dramatic development. The consequence would probably be that studies would appeal to fewer than they do. It might be an interesting experiment to adapt the vocabulary of, say, statics and dynamics, with its polygon of forces, to describe the workings of studies, but in any case a new set of definitions would have to be worked out together with their correspondence with the current terminology, so the objective of severing the game connection might very well not be achieved. Besides, Emanuel Lasker conceived of chess, like life, as a struggle (this is what he meant by Nature in chess), and a struggle is always more real if we imagine real people. There is nothing peculiar to chess here. For how long has the anthropomorphic notion of borrowing been invoked to ease the chore of learning how to subtract in arithmetic?

(b) What is the ‘main line’? There is a definition in the Glossary at the beginning of Chapter III-2, but the reason behind the definition is relevant here, as we have already met in this chapter all the notions involved. The concept of the main line is a very important one, for it links up with such things as the composer’s idea, theory, surprise, and duals. In a study, Black is assumed to be familiar with the whole corpus of endgame theory (‘the book’, the powers of the pieces in normal situations—see previous chapters ad nauseam!), but is assumed to be blind to surprise moves (anti-book) by White, though Black may have some surprises of his own up his sleeve. This means that Black will choose those moves that make theory operate in his favour, or at least will operate with mating threats if he has any. So, the main line is the line that is determined by Black choices based on making the theory of the endgame work for Black and against White. Two consequences of this are that the surprise moves form the main line, whether the solver in fact saw them before he realised the applicability of certain theoretical laws or not, and, more important, if the position finally resolves itself
into a clear theoretical win, with no surprises left, then the artistic canons of 'no duals' are relaxed to the extent that they no longer apply. This often puzzles a learner-solver, especially the newspaper variety, who for some reason connected with his difficulty in separating studies from problems (the fault of editors?) expects that the solution to a study must be unique in all variations up to mate. Hence his preference for mate studies! Though if the identification of the terminal move of the main line depends, as it generally does (that is, in non-dramatic studies, i.e., not mate or stalemate) on knowledge of what theory says, then there will be differences of opinion as to what that point is in any given case—it will depend not only on familiarity with the rules, but with the current rules, and especially on the (pure chessplayer's) ability to apply the right rules to the position. No wonder so many people are put off studies. Perhaps they ought to be called cameos, no longer implying the imagined drudgery of study, but rather a compact expression of one or more exceptional chess aperçus.

(c) Introductory play. The enthusiasts of previous chapters have generally cursed introductory play, considering it a pointless obfuscation of the kernel. The connoisseur has a very different viewpoint. He looks for economy and neat disguise. If surprise is inseparable from the artistic content, in fact the measure of it, then disguise, to heighten surprise, is very important indeed. A most attractive, though rare, feature is for the introduction to be a foretaste of the main idea. But the main idea is often elusive in these days of complex studies, so a definition of introductory play is also elusive. There are studies where the introduction is fascinating and the solution tails away into an involved draw requiring reams of supporting analysis, and in such a case the connoisseur may well think that the introduction is itself the main idea. In other studies the climax may be a mere two moves. The right treatment is therefore often a puzzle, to composer and connoisseur alike. There is a dilemma. Is it best to wrap up the idea in very difficult play, leaving the solver gasping for breath, to show him the brief 'Hey Presto!' at the end? Or is it wiser to clothe the light with the light, at the risk of him saying 'Well, that was feeble'? This is a very interesting topic about which not only has the last word not been said, but very few words have been said at all. The sole certainty concerns the extreme case: given a study with a monumental pyramid of hard analysis, and only a single one-move point at the pinnacle, everyone will agree that it is a bad study and no one will enjoy it. Indeed it would be just that kind of study that would put off a latent enthusiast for life. What about the other extreme? Given a rich matrix, say half-a-dozen moves with many parallel variations, but with no wrapping, just neat, the player will enjoy it and may well remember it. But the connoisseur (even if he is a dedicated analyst type) and the judge and the composer, and the keen solver, will be disappointed if there is no, or an inadequate, wrapping. Why will they be disappointed? I think, for the same reason that a great painting, say a portrait by Rembrandt, would lose so much if the empty space were removed, that is, if the picture frame were the shape of the subject's head; for the same reason that a symphony with nothing but the undiluted themes would be indigestible; how can one have a climax unless it is the climax to something?

One looks for a balance in the introductory play. A balance in content against the composer's main idea. If his idea is a slim one, then the introductory play, if good (that is, neat and not too heavy), may weigh equally with it and form a harmonious meal composed of two or three courses.

**THEMEs**

The theme of a study is the idea that the composer has succeeded in expressing. At once there is a barrier to communication. Unless the composer explicitly states what his idea is, and he may understandably not wish to diminish the surprise element he has prepared for the solver, the latter (and a feriori the connoisseur) has only the bare diagram and solution to work from. What the connoisseur believes the theme to be may not be what the composer thought he was composing. The reader may care to take a couple of samples of Korolkov's work (374 and 375) and try to decipher the theme. He can then compare this with Korolkov's own classification later on in this chapter. The classifications show, in fact, much better than any general description, the possible range of themes.

**TASKS**

A task (see the Glossary in III-2) is a theme which shows maximum (or minimum) characteristics that may be counted. It is a field for records, but again there is no central point of reference for the record in a particular instance. There is similarly no list of all possible tasks, but anything that meets the definition will be acceptable. Examples would be, the maximum number (in one study, but including all variations, though not normally tries) of:
III-1 THE SERIOUS

   (i) 1. Ra8+ ?, Kb5; 2. Bh2, Rf2; 3. Sg5, Rf1+; 4. Ka2, Rh1.
   (ii) 2. ... b3; 4. Sc8, Rf1+; 4. Rc1, Rh1; 5. Sf3 wins.
   (iii) 4. Ka2?, R×g1; 5. Ra8+, Kb6; 6. S×h3, b3+ draws.
   (iv) To win, the pawn on b2 must not be lost.
   (v) Had Black played 5. ... Kb5,

V. A. Korolkov
1st Prize,
Sverdlovsk Tourney, 1946

now 12. Sd4+ wins.


III-1 CONNOISSEUR, OR CRITIC

It will usually be found that the pursuit of settings for tasks results in artificiality. A sizeable group of composers frowns on tasks because of the conflict with naturalness. But anyone who condemns a position as a 'monstrosity' would do well to try to understand what the composer is trying to do.

MORE ABOUT CLASSIFYING

The connoisseur would like to see classification by internal content, not by external form. Anthologies have their uses but they do not classify anything. Ideally he would like there to be a pattern into which all studies would fall. It is surprising, seeing that the study is so close to the game, that any attempts to seek or impose a pattern have had success. At least three are noteworthy.

Rueb

The Dutchman Dr Alexander Rueb was the first President of the FIDE. A major interest of his was the historical and aesthetic approach to endgame studies. From 1949 to 1955 he published five pairs of volumes devoted to his classification system. One volume in each pair was explanatory and illustrative, and was called The Chess Study.* The companion volume gave the bulk of the supporting material, and was called Sources of the Chess Study.† Although Rueb's explanation of his system is not sufficiently clear for the confident pigeon-holing of any study not already incorporated in it, the principle involved is aesthetically very satisfying. It is the principle of inequality. Rueb, as I comprehend him, observes in chess, and in a concentrated form in the study, inequalities in time, space, material and activity. Thus, the acts of gaining time, space, material and activity exhaust all possible themes. A study simply tells a story of how equality is transformed into inequality. In a draw, the transformation is from inequality into equality. So, apart from an introductory and historical pair of volumes, each of the four remaining pairs examines and enumerates examples in one of the four spheres of inequality.

The trouble arises when one wishes to locate a study in Rueb. Mate, stalemate, win of a piece, promotion, may crop up anywhere. If the theme is not both accurately recalled and put into its Rueb corner the

* De Schaakstudie.
† Bronnen van de Schaakstudie.
way Rueb did, much time is wasted. This is exaggerated if one wishes merely to collect all the examples of, say queen and pawn against queen. They appear in almost every volume. Then, more important, what is equal to one observer is unequal to another; the genesis of an inequality in space may be an inequality in time; and it can hardly be denied that all studies deal directly or indirectly with time and space and force and activity.

However, the achievement of Rueb is unique and earns our deep admiration. It is a clean break from what amounts to an earlier, orthodox Dutch tradition. The player and composer Weenink identified three study schools: natural (game-like); artistic (unlike games); and thematic (ideas from problems).*

Korolkov
In 1958 the Leningrad composer Korolkov published a magnificent collection of 108 of his studies. As was natural, the sequence chosen for presentation was chronological. However, a remarkable index by theme is included and is well worth reproducing here in an abbreviated form (and using a decimal numbering scheme that is not quite Korolkov's).

A. Struggle for position
1.0 Mate
1.1 Single mating position
1.1.1 With a single piece (with sub-divisions as in Kasparyan's 2,500 Finales)
1.1.2 With two or more pieces
1.2 Five mating positions (clearly a special case. AJR)
2.0 Stalemate
2.1 Single stalemate position
2.1.1 Simple stalemate (that is, not one of the later sub-categories)
2.1.2 With pinning
2.1.3 With shutting in
2.1.4 With both pinning and shutting in
2.2 Two stalemates
2.3 Three or more stalemates
3.0 Positional draw
3.1 Perpetual pursuit
3.2 Reciprocal pursuit (example: 375)
3.3 Alternating attack
3.4 Tying down
3.5 Fortress (2 examples)

B. Struggle for material
1.0 Win of material
1.1 Domination
1.2 Rescue of a doomed piece
1.3 Pawn promotion to queen
2.0 Under-promotion
2.1 Single pawn
2.1.1 To rook
2.1.2 To bishop
2.1.3 To knight
2.2 Repeated promotion (all by White)
2.3 Parallel promotion (White in different variations, or mixed White and Black)

C. Struggle for tempo
1.0 Win of a tempo
1.1 Zugzwang
1.2 Reciprocal Zugzwang

D. Miscellaneous themes
1.0 Retrograde analysis
2.0 Castling
3.0 En passant capture

Poreca
The classification in Chess Studies* is into seven chapters, as follows:

checkmate: single white piece
two or more white pieces
stalemate: white king on edge of board white king not on edge

* Studi Scacchistici (Milan, 1967) is a fully commented collection of 484 Soviet studies.
two or more main variations
pinning of white piece
shutting in of white piece

repetition of moves:
perpetual check
perpetual attack
immobilisation (of Black)
position draw

win of material:
combinative play
double attack
skewer (attack on one piece behind another)
discovering attack
knight-tour
surrounding

promotion:
to queen, rook, bishop, knight, multiple

win of tempo
opposition and related squares
simple Zugzwang
reciprocal Zugzwang

g skipping

geometrical manoeuvres:
staircase
simple systematic manoeuvre
complex systematic manoeuvre

2. Judge, or Mandarin

This chapter describes the organising and judging of endgame study
tourneys. Some definitions are necessary and they are grouped together
here in a glossary to avoid irritating the initiated. For ease of reference
some other terms are also included. The glossary is deliberately discursive
rather than dry.

GLOSSARY

after Used in the source (q.v.) to indicate that the composer wishes
to acknowledge his debt to previous work (376).

Album A FIDE Album is published at regular intervals. It is an
anthology covering a three year period for all forms of chess composition.
The 1962–64 volume contains 908 compositions, of which 164
are studies. Selection is by a tourney, but by a tourney of a unique
kind, in that all entries must already have been published and may
themselves have won prizes. There are no prizes for selection but
studies in the Album series form the basis for the award of the
title of FIDE Master of Chess Composition.

annotation convention A system for indicating and recording diver-
gences from a study's main line. The chess moves and their associated
variations have a structure that is not merely hierarchical (otherwise
known as branching or tree-like). Transpositions may occur across
variations, and this feature means that the correct term is a network.
The manufacturing industry has long been familiar with this type of
structure. The calculation known as a bill of materials operates by
breaking down a product (the diagram position) into sub-assemblies
(positions in variations) through as many levels (moves) as necessary
before arriving at basic components (the final position of any line
corresponds to a component). A component or sub-assembly may
form part of more than one other sub-assembly, and this is transposi-
tion. The parallel is exact. The chosen annotation convention must
reflect this complexity while not over-burdening the patient reader
or solver. No convention is perfect, and no convention can remove the
complexity. But a basically simple system is readily devised which
allows the reader to identify where a branch occurs, locate where that
branch is on the page, and with minimum difficulty return to his
point of departure, while at the same time not confusing the reader
who is interested only in the main line. In this book "/" marks where a
branch occurs, with a lower case roman numeral that is then used to
(i) 1. Sc1?, Sc5; 2. Be3, Sd3 draws.
(ii) 1. . . . Sc5; 2. S × c5, Kg1; 3. Se4+, Kf1; 4. Sg3+, 1. . . . Sb8; 2. Bc7 wins.

(ii) But not 3. Sd3–?, Kh1; 4. S × b4 stalemate, though White can retraction his mistake by playing 4.
Sf2+. This 'loss of time' is not a flaw.

There is a superb second solution, discovered by R. Diot. 1. Sc3, Sc5; 2. Be3, Se4; 3. Sd1, Sc3; 4. Sf2–+, Kg1; 5. Se4–, Kg1; 6. Sg3 mate. 376 does not have this possibility.

1. d7, Sb6+; 2. Kd3, S × d7; 3. R × d7, Bf1/i; 4. Rd6+i, K × e5; 5. Rd4, a2; 6. Ra4, a1Q; 7. R × a1, Ra2+; 8. Ke3, R × a1; 9. Bb2 with domination of the black rook.
(i) 3. . . . a2; 4. Rd6+ and 5. R × a6 draws.
(ii) The king must be forced to e5 to prepare for the finale.

The anticipation of this study was located by J. R. Harman. See 379.

(i) 1. Sc1?, Sc5; 2. Be3, Sd3 draws.
(ii) 1. . . . Sc5; 2. S × c5, Kg1; 3. Se4+, Kf1; 4. Sg3+, 1. . . . Sb8; 2. Bc7 wins.

L. Vidor
Bulletin de la Fédération Française, v. 1930

G. M. Kasparian
3 Hon. Men., Rubinstein Memorial Tournament, 1967–8
Award in Schach, iv. 1969

Marcel Doré
'After L. Vidor, 1930'
2 Hon. Men., Themes-64, 1966–7

search for the annotation or note. Both the occurrences and the notes themselves are in strict sequence down the page. See 167 for a straightforward example. The reader finishing with note (iv) will know that to return to his point of divergence he will need to search for a point between '/iii' and '/iv', and he will also know the move number to which '/iv' will be appended. So although some dodging up and down the page is inevitable, there are many signposts. The great advantage is the reduction in number of parentheses. There are no FIDE standards for annotation convention.

announcement The (initial) publication of details relating to a tourney (q.v.). It is normal to include: type of entries acceptable (e.g. wins and draws in any quantity, provided they are unpublished), closing date, address, name of judge, number of prizes, and whether informal or formal (see also twin). If it is a theme (q.v.) tourney, this will be stated, together with an example of the theme. Frequently several copies of each entry are requested. Fully annotated solutions are not always asked for, but perhaps they should be.

anticipation A composition with the same idea as another but published earlier. Ensuring that his award does not contain 'anticipated' studies is a major preoccupation of the tourney judge. There is neither an accepted method of classifying studies for anticipation retrieval, nor an all-embracing collection, private or public. Partial anticipations are more common than complete anticipations. 378 to 385, and others.

award The result of a tourney, as published. It gives the positions, solutions and composers' names, in ranked sequence. It is the task of the judge to produce the award within a reasonable time and the task of the director to publish it. It is normal for the award to contain several prizes, honourable mentions and commendations. The number of these will usually have been set out in the tourney announcement. The award is provisional until the confirmation time (q.v.) has elapsed. It is then confirmed and cannot be altered whatever later discoveries are made. For an example of an award, see later in this Chapter. If the tourney is under the auspices of a regular publication, then that publication will feature both the announcement and the award. Sometimes, however, a separate brochure will be produced.

battery Two pieces of the same colour form a battery when the action of one of them, the masked piece, may be made effective by a move of the other, the masking piece. A familiar example is the discovered check.

bust A black defence that defeats the stipulation, that is, the composer's intention, rendering the study unsound. Used as a verb it may have the more general sense of to demolish. 329, 330 and 386.

closing date The date by which entries for a tourney must be received. The date forms part of the announcement.

commended The category in a classified award that follows the prizes and the honourable mentions. There is a tendency to group commendations together without ranking them.
III-2 THE SERIOUS

1. Rd5, Bg4; 2. Rf8+, K×g7; 3. Rf1, Be2+; 4. K×c3, B×f1; 5. Bb2 and wins the rook by a discovered check next move, drawing. Although this anticipates 378, the latter is a superior production. Consider that the latter has no capture on c3, the white rook journeys to a1 where it is captured after Black has constructed a battery of rook and bishop, and that the black battery is amusingly echoed by the winning white battery. All this is a small price to pay for three extra men on the board.

M. N. Klinkov
Thèmes-64, i–iii. 1967

1. h7, Rb5+; 2. Kc7, Rc5+; 3. Kd7, Rd5+; 4. Ke7, Re5+; 5. Kf7, Rf5+; 6. Kg7, Rg5+; 7. Kh6(b6), Rg8; 8. hgB wins, but 8. hgQ is stalemate.
(i) 6. . . . R×f2; 7. h8Q is a theoretical win.

Two anticipations painlessly located via the J. R. Harman system were 381 and 382, of which only the second was known to the judge.

The location of anticipations does not put the judge out of a job—it merely makes one important and tiresome judging responsibility possible!

S. Herland
Wiener Schachzeitung, 1924

1. B×b4, R×b4; 2. Sc3+, Ka1; 3. a7, Rb8; 4. abB wins.

III-2 JUDGE, OR MANDARIN

M. S. Liburkin
2nd Prize,
Shakhmaty v SSSR, 1931

An example of a task, namely two under-promotions, and of a masterpiece!
1. Sc1, R×b5/i; 2. c7, Rd5+; 3. Sd3, R×d3+; 4. Kc2, Rd4; 5. c8R/i, Ra4; 6. Kb3 and wins, the Saavedra theme (see 115).
(i) 1. . . . Rd5+; 2. Kc2/i, Rc5+; 3. Kb3/i, R×b5; 4. c7, Rb8; 5. cbB, the only move to win! 5. Sb3+?, R×b3 is also check!
(ii) 5. c8Q?, Rc4+; 6. Q×c4 stalemate.
(iv) 3. Kd2?, R×b5; 4. c7, Rb2+; 5. Kd1, Rc2; 6. K×c2 and another stalemate!

M. N. Klinkov
Thèmes-64, vii–ix. 1967

1. Bb8+i, Ka8; 2. Sc3/i, Bb6; 3. Sh5, g4; 4. Ba7, Ba5; 5. Bg1, g3; 6. Bc5, g2; 7. Bg1/i, Bb6; 8. B×b6, g1Q; 9. Sc7 mate.
(i) 1. Be3+?, Bb6 draws.
(iii) There was a defensive threat of 7. . . . g1Q; 8. B×g1, Bb6 and draws.

An anticipation located by J. R. Harman is 384.

C. Rainer
Rebus, 1932

It would seem that if White can win this he should be able to do so in four or five moves or not at all, so simple does the position seem. 1. Ka4, Qe2 + draws. 1. Qd4+, Qb2; 2. Qd1+, Qb1; 3. Qa4+, Kb2; 4. Qb3+, Ke1; 5. Qe3+ (whatever can White achieve with this?) 5 . . . . . Kb2; 6. Kb4, Ka1 +/1; 7. Bb3, Qb2; 8. Qg1+, Qb1; 9. Qa7+, Kb2; 10. Qa3 mate (10. Qd4+ also).


The anticipation of 317, identified by the Harman index. (However, 1. Qe3 also solves.)

Composers' solution: 1. Bb6+/i, Ka8/i; 2. Ra1, Qg7/i–ii; 3. e5, Q × e5; 4. d4, Q × d4; 5. e3, Q × e3; 6. Bb1+, Q × a1; 7. Be4, Qa6; 8. B × g2 wins by eventual Zugzwang capture of the black queen.

(ii) 1. . . . Ra1? 2. Bb3, g1Q; 3. Ba4 and Bb5 mate.

(iii) 2. . . . g1Q; 3. Bb1 mate.

But, as Walter Veitch pointed out, Black too has a pawn sacrifice after 7. Be4, d5 and wins, since 8. B × d5, Qe5+. When we have seen this

Composer's solution: 1. Qg8, Ka1/i; 2. Qg7+, Ka2; 3. Qf7, Ka1; 4. Qf6+, Ka2; 5. Qe6, Ka1; 6. Qe5+, Ka2; 7. Qd5, Ka1; 8. Qd4+, Ka2; 9. Qc4, Ka1; 10. Qc1+ wins.

(i) 1. . . . Q × g8; 2. a7.

Do you see any flaw in this? Walter Veitch did not take long to find the cook. 1. Qg8, Ka1; 2. Qb8+, Ka2; 3. Q × h2, gh/i; 4. a7, Qd1+; 5. K × h2, g3+; 6. Kh3, Qh1+ /iii; 7. Kg4, Qd1+; 8. Kg5.

(ii) 3. . . . Qd1+; 4. Qg1, Q × d3; 5. Qe1, Qh7+; 6. Kg1, Qh2+; 7. Kf1, Qh1+; 8. Ke2, Q × g2+; 9. Kd1.

(iii) 6. . . . Qh5+; 7. K × g3, Qg6+; 8. Kg2.
A position due to N. D. Grigoriev 1937, after Rinck (1908)

388

It depends 2+3

A. A. Troitsky
Shakhmatny Listok, 1929

389

Draw 3+3

H. Rinck
La Stratégie, xi. 1920

390

Win 4+2

III-2 The Serious

First of all it depends on who has the move. Black to play can try 1... b2+; 2. Ka2 which is an obvious draw (after the first shock), or 1...

... Rc8; 2. Rc4+, R×c4 stalemate, or 1...

... Rh3; 2. Rb8 (2. R×c4?, Kbl); 2... Rh7; 3. R×c8+ (3. R×b3?, Ra7+ and 4...

... Rb7+ draws.

White to play cannot retain the stalemate defence and loses, 1. Rb8, R×c7 wins, 2. R×b3, Ra7+ and 3...

... Rb7+ and 4...

... R×b3.

Secondly, this pretty, or useful, or theoretical, or well known, according to one's point of view. It is all these!

388 occurs as an important possibility in note (ix) of 327. We have yet another case of reciprocal Zugzwang, neither side wishing to have the move.

The play incidentally illustrates a white alternative, in note (iii), that is not generally considered a flaw, because it is merely a 'loss of time'. That is, White has to transpose back into the main line. 1. Se4+, Ka4/ii;

2. d7, Rb8/ii; 3. Sb6+, Ka3; 4. Se8, Rb1+; 5. Kd2. Here is the alternative/iii. 5...

Bb3; 6. Sd6, Rd1+; 7. Kc3, R×d6; 8. d8Q, R×d8 stalemate.

(i) 1...

... Kb4; 2. d7, Rd3; 3. Se5,

Rd5; 4. d8Q.

(ii) 2...


(iii) 5. Ke2, Bc4++; 6. Kd2, Bb3 transposes, but takes a move longer.

1. Sg8, Ke7/i; 2. Se7, Kb6/ii; 3. Sc8+ K×c5; 4. Be7, Kc6; 5. S×d6, Kd7;


(i) 1...

... Rd4; 2. Se7+ and a further knight check wins the black rook.

1...

... Rb6; 2. Se7+, Kb8; 3. Sd7+. With the maximum of fourteen squares available, the rook is dominated.

(ii) 2...

... Kd8; 3. Sb7+ or (a dual)

3. Sf5+

2...

... Kb8; 3. Bf4.

III-2 Judge, or Mandarin

sense a square may be critical. This usage is more familiar to problemists. It is best to give examples (226 and 360). The player uses the word in its plain dictionary sense to apply to a game position where a crisis has been reached, and, just to confuse the situation further, it may apply to a study in this way also (see p. 256).

demolition Analysis demonstrating that a study is unsound. The word usefully combines the meanings of 'cook' and 'bust', and is in addition more elegant.

desperado A piece that tries to sacrifice itself at any cost, usually in order to leave a stalemate. The white queen in 99 is a desaparo.

director Ideally, every formal tourney should have an administrative director whose responsibilities should include:

(a) receipt and (if requested) acknowledgment of entries

(b) translation of entries into a common language

(c) conversion of solutions into a standard notation and solution (annotation) convention

(d) maintenance of the list of identities and addresses of the entrants

(e) publication of the announcement and other publicity

(f) publication of the award and confirmation

(g) distribution of the award, and confirmation to all entrants and, of course, prizes to the (confirmed) winners

(h) return of unsuccessful entries promptly (together with comments, if any, of the judge), posted on the date of publication of the provisional award

(i) ensuring that the judge keeps to a schedule and, if there is more than one judge, that they collaborate smoothly

(j) maintaining a master set of all correspondence.

In an informal tourney, for instance one run by a monthly chess magazine, the studies editor will be the director and many of the above considerations do not apply. The director may be in a position to reimburse the judge for postage expenses. It is unheard of for a judge to get paid for judging.

disqualification This would normally occur during the confirmation time (q.v.) for a formal tourney or at any time in an informal tourney. Unsoundness and complete anticipation are the usual reasons. Analysis that is incomplete, incorrect or indecipherable could also result in disqualification, though judges tend to be lenient about manual slips that they are very confident of being correct. An incorrectly submitted diagram, though, should never be accepted; it might seem that this would never occur, but it is by no means unknown for a pawn to have been left off.

domination Theme where a black piece has wide freedom and is still captured (390 and 393).

dual A white alternative not intended by the composer but not amounting to a cook. A dual is a flaw, and the degree of seriousness depends on where it occurs. A dual destroys the artistic value of the variation in which it is found. Typical examples of trivial duals: 45 and 390. The more important that variation is in relation to the whole composition the more serious the flaw. A dual cannot therefore
be assessed in isolation (393). A ‘waste of time’ (389) is not a dual
and a transposition is not usually regarded as of great importance.
See also Article 8 of the ‘Codex’ in Chapter III-1.

**echo** A repetition with a difference within the same study. A manoeuvre
on white squares may also occur, after a different black reply, on
black squares. A sequence on a rank may also take place on a file.
These repetitions may be consecutive (that is, in the same variation)
or concurrent (in different variations). ‘Consecutive’ and ‘concurrent’
could also be called ‘series’ and ‘parallel’. ‘Echo promotion’, though,
generally means something slightly different—say a white promotion
to rook answered by a black promotion to rook. The terminology
is not consistent. Echoes impress those who are susceptible to them
and can be very difficult to achieve. They are the counterpoint of
chess (391 and 393).

**economy** One of the main criteria for judging. Poor economy is shown
by men that are in the diagram but play no part in the solution or
supporting variations; by pieces that get exchanged off early without
showing their paces; by the use of heavy pieces where light ones would
serve; by a heavy setting for a light idea. The composer’s motto
should be, ‘make every piece work’.

**editor** The person responsible for a chess periodical or chess column.

**FIDE** ‘La Fédération Internationale des Echecs’, or the International
Chess Federation. Its motto is ‘Gens Una Sumus’. Mainly concerned
with the over-the-board game and the organisation of various
tournaments (as distinct from tourneys, q.v.) it leaves composition
to a Permanent Commission for Chess Composition (q.v.).

**grading** The process by which a judge arrives at his award. Apart
from doing his best, being objective and hunting for anticipations,
there are no rules. For a points system of grading, with a maximum
total of a hundred, the author has tried, and can recommend, the
following, which falls down only if used as a relative measure of the
excellent against the merely adequate. Idea or originality, 15;
presentation of that idea (number of captures, for instance), 15;
economy of means (disfiguring pawns), 10; attractiveness of setting,
10; difficulty of solution, 5; tries, 5; White’s moves in the main
line, 5; Black’s moves in the main line, 5; variations arising out of
good alternative black moves, 10; refutation of white moves (not
amounting to tries), 5; other continuations depending on Black, 5;
general effect (to include, for instance, a bonus for outstanding
characteristics), 10. Total, or maximum, 100. For simpler systems,
see later in this Chapter, and also Chapter I-3 (Croydon Guardian
tourney).

**honourable mention** Often abbreviated to Hon. Men. or HM, this
rank in an award lies between the prizes and the commendeds.

**idea** A chess thought, one that either does or could lie behind a study.

**incorrect** Demolished, unsound.

**inversion** The simplest form of transposition is an inversion. It occurs
when two white moves may be played in either order with no differ-
ence in the result.
Black threatens mate in 3 in several ways, beginning by moving one of his men from f6, g6 or h6. 1. e7, with two variations: 1. ... f5; 2. c8Q, Bc3; 3. Q × f5 draws by stalemate. Or, 1. ... g5/6; 2. c8R, Ka1; 3. Re2/v, Bc4/v; 4. Rc1+, Ka2; 5. Ra1+, Kb3; 6. Ra3+, Kc2; 7. Rc3+, Kd2; 8. Rc2+ draws by stalemate or perpetual.

(i) 2. c8R?, Bc3; 3. R × c3, Qg7 mate.
(ii) 1. ... Ka1; 2. c8R is a transposition.
(iii) 2. c8Q?, Ka1; 3. Qc2(c1+), b1Q(+) mates.
(iv) With the quiet threat 4. R × b2! Sg6 blocks the b1–h7 diagonal and
(v) 3. ... Bb1(b1Q) stalemate. 3. ... 4. Rc1+ now does draw!

A joint composition has more than one author.

judge The person charged with grading of tourney entries and with producing an award. Anyone who is invited may accept. In addition, there is the title of International Judge awarded by the FIDE. See the list at the end of this chapter.

key The first white move of the solution. In studies the first move is often barely significant, and the adoption of the term key from the terminology of chess problems is not wholly appropriate. The key may be a check, but only in exceptional circumstances should it be a capture.

loss of time Applied to a white move or manoeuvre which must be retracted in order to achieve the stipulation. 333, 377 and 389.

main line The simplest definition is 'the variation shown by the composer as the main line'. The point is to distinguish between the main line and the variations. The main line shows the idea. There is however a better definition. The main line of the solution to a study consists of that series of moves resulting when Black chooses moves in accordance with endgame theory. That is, Black is presumed to be more knowledgeable than imaginative. If the position is assessable at all in terms of endgame theory this definition ensures that the content of the main line is an exception to theory. Finding the main line, of course, may itself demand considerable knowledge of endgame theory, but then the selling-point of studies to players ought to be that 'if you do not know the theory before you find the solution you should have learned it afterwards—and in an agreeable manner.' There may, for example with echoes, be more than one main line. See the discussion in Chapter III-1.

Master, and Grandmaster, of Composition Titles of International Master and International Grandmaster for Chess Composition are awarded by the FIDE on the recommendation of the Permanent Commission. Apart from the rare honoris causa award there is a system of qualification through the continuing series of FIDE

III-2 Judge, or Mandarin

Albums. As from the 1975 meeting in Tbilisi the qualification is 25 'points' for the Master, and 70 'points' for the Grandmaster, titles. A study scores one-and-two-thirds points and any other composition a single point. Because of the large number of compositions that have now been published in the Albums, and complicated by the scoring for joint compositions, not to mention a few errors subsequently discovered in the Albums themselves, the Qualifications Sub-Committee of the Permanent Commission has needed a computer program to keep track of candidates. Posthumous titles are not awarded. The list of holders of the title (study composers only) is at the end of this chapter.

matrix An idea in a vacuum is of very little value to the composer. The first skeleton position expressing the idea is called the matrix (sometimes 'scheme'). The matrix will not be a complete position. The kings may be absent, for instance. The important thing is that the composer is confident that a sound setting can be developed from it. The matrix is an embryo setting. Handling a matrix is central to composition and is very difficult to write about. Not only is it very personal to the composer but it needs a vocabulary of its own which it has not got.

minimal A composition in which the white force is numerically restricted to two, the king and one other man (394).

model The reader is referred to the discussion on p. 255.

notation Method of recording either moves or a position. For moves, the two general alternatives are the descriptive and the algebraic. For positions there are, apart from diagrams, the longhand ('white king on g1' and so on), the Forsyth, and tabular or column representations. In this book the abbreviated algebraic notation is used for moves (the departure square is omitted, as is P for pawn), and diagrams for the positions.

notes Annotations and comments to the solution. The usual phrase is 'in the notes'.

obstrusive An obstructionist is one that only have arisen by promotion. This is usually because unmoved pawns preclude the normal bishop on that colour square from ever having moved. Convention frowns on the obstructionist. There are none, I hope, in this book. A white bishop on a black square other than c1 in 148 would be obstructive, and so would a black bishop on a black square other than f8 in 150, except that in that case the position would also be illegal, as all eight black pawns are still on the board.

original A delightfully ambiguous word. It can mean 'very old' and equally it can mean 'very new'. In the source of a study it means 'first publication'. Even the usually precise French use the word 'inédit', which means 'unpublished', over the diagram which actually publishes it. The Germans are better, with 'Udruck', meaning primal printing. All tourney entries must be originals, in the sense that they have not already been published.

Permanent Commission The standing committee of FIDE that handles chess composition. It normally meets once a year in September in
Europe and consists of people like you and me (i.e. they do not spend much of the rest of their time on chess) except that they are authorities on composing. Much of their labour is devoted to FIDE Album matters and to the awarding of titles of International Master of Composition and International Judge. It is a genuinely international body and conducts its affairs with goodwill and frankness. Publicity for its work is practically non-existent.

**priority** The first composer to express an idea as a published work is said to have the priority. The first version may not be sound, and is unlikely to be the best version, but priority belongs to it. As with anticipations, there is no publicly or privately agreed list of what is eligible for priority. For the question of 'which date?', see towards the end of this chapter.

**prize** The highest rank in an award. Usually a nominal sum of money, or value in kind. From three to five prizes in a tourney are normal, but the amounts and number depend on the editor or other sponsor. There is no money in chess composition, any more than there is in judging. A study may be brewing for five years or more in a composer's loft and he will be lucky to win, and receive, £5 for a first prize.

**setting** Usually refers to a sound expression of an idea or theme. In general there will be many possible settings, and the composer's primary aim is to discover the one that is most elegant and most economical. Secondary aims will be difficulty and disguise, the minimum principle being to have every piece move at least once. Often disregarded, though crucial to the study's net impact on the solver, is the introduction and other aspects of the setting should bear as close a quantitative and qualitative relationship as possible with the main idea.

**solution** The moves needed to satisfy the stipulation. See under annotation convention and stipulation.

**soundness** Together with economy and originality (which has its dictionary meaning and is excluded from this glossary) this is a necessary criterion for a good study. Actually, even a bad study has to be sound. It means that there is only one solution. White must have no choice of moves to achieve the stipulated result against the best defence, but the principle of soundness says nothing else about Black. The principle ceases to apply as soon as a theoretically known position is reached. For instance, if a line ends White having king and rook against king, and there may be ten ways to win, the study is still sound, theory having known since the dawn of chess that mate with a rook can always be forced.

**source** The composer's name, together with the date and place of first publication. This information ought ideally to be supplied every time the position is re-printed, and it ought to appear with the diagram. But technicalities of printing and space make this not always practicable, and many editors are lazy. Some sources are very lengthy and there can be a valid excuse. But courtesy to the composer, who gets little recognition, should be of importance to anyone reproducing his work. There is an analogy with music. Where known, the month of appearance of a position is given in this book, but in the abbreviated form of lower case roman numerals, e.g. September is denoted by ix.

**stipulation** The words or symbols associated with a composed diagram and describing the task to be performed. Usual are 'White to Move and Win' or 'White to Move and Draw'. They are often abbreviated as in this book to 'Win' and 'Draw', and sometimes represented by the admirably international '+' and '−', as in the FIDE Albums. The stipulation is part of the composition which, strictly speaking, is not complete without one. Occasionally, when the composer finds it unavoidable, Black plays first.

**task** The best definition of a task is due to T. R. Dawson, although he was dealing with the unlimited range of fairy chess. The words within quotes are Dawson's. Task studies 'have maximum or minimum characteristics in relation to one or more of their space, medium, limitations, and thematic features.' In other words, there must be something to be counted. In 390 and 393 it is the squares to which a black rook can move. In 394 it is the (minimum) white force employed to show underpromotion to rook to draw. For task promotions to knight, see 150.

**testing** The process of discovering whether a composition, in embryo or in final form, is sound. Cook hunters and analysts develop a nose for the unsound study, an instinct which they themselves cannot explain. For someone without this flair, which means nearly every composer, testing is laborious and error prone.

**theme** A more precise term than 'idea'. In fact, a theme is an idea expressed (in words) as in precise terms as its constituents allow. There are tourneys where a theme is prescribed.

**theory** Often called the 'book', this is no more and no less than the sum total of current knowledge about the results (win or draw) with given distributions of force in the endgame. Theory is nearly complete, but see Chapters II-2 and II-4. The current authorities on endgame theory are frequently used as synonyms for the theory itself: Averbakh, Chéron, Fine, Hooper.

**tourney** There are two kinds of tourney, but both are competitions to find the best original study compositions. The two kinds are the informal and the formal. The practice in an informal tourney is for all entries to be published, with the composers' names, in the course of a year (sometimes less, sometimes more than a year) in the column of a chess magazine. In a formal tourney the judge does not know the identities of the composers, and the entries are not published at all before the award appears. In a formal tourney, unsuccessful entries are returned to the composers unpublished. Some formal tourneys have taken several years to publish their results. An idea seldom tried since the Croydon Guardian tourney of 1884 is to have entries published without authors' identities, so that solvers can test them, and so that the judge will produce an unbiased award. This would combine the best features of both schemes and would be

* Ultimate Themes, 1938, p. 3.*
I: 1. g8R i, K--; 2. Rg7 and draws.  
(i) 1. g8Q, Kc1++; 2. Qg7, Bb2; 3. Q×b2+, ab; 4. Kg7, b1Q; 5. h8Q, and in a few moves Black checks on f5 and mates on f7.  
(ii) 1. g8R?, Kg1++; 2. Rg7, Bb1; 3. Kg8, B×g7; 4. K×g7, B×h7 wins, White having no pawn left.

Note that the try in 395 I, is the key in 395 II, while the try in 395 II, is the key in 395 I. This reversible try and key relationship is a characteristic of the best twin compositions.

easy to administer. However, it would mean inventing another word for this type of tourney! See also Album for an unusual tourney for published material and without prizes. In a theme tourney the entries must satisfy the requirements of a prescribed theme, such as a mid-board mate, a battery, a stalemate with pin, repetition, or any applicable idea, whether general or specific. A jubilee tourney is in honour of a living composer, and a memorial tourney is in honour of a deceased one, or of some equally notable event. A 'ring' tourney is for all published originals for which there is no other organised award.

transposition This has effectively the same meaning as a transposition in the opening. It occurs in a study when one line of play leads into a line that has already been analysed. Unlike inversion (q.v.), transposition is usually applied to black moves. For a simple example, see 394.

try A tempting white move that fails. A try may occur at any stage in the main line of a study, but in problems a try is restricted to the key.

twin A type of composition in which two (or more—see 256) studies are represented in the same diagram by the device of making a single change, which may be an addition, deletion or change of man, or board orientation. It is hard for judges to know how to treat 'twin' entries for tourneys. Simplest is to exclude them (or include them) explicitly in the announcement (395).

underpromotion Promotion of a pawn to rook, bishop or knight.

unsound Demolished, incorrect. The normal case of unsoundness is either a cook or a bust, but a curious situation occasionally arises when there is both a cook and a bust. This means that there is an unintended, but adequate, solution, and also that the composer's intention fails to an unforeseen black defence. The net result is that the study is sound by virtue of a series of accidents. In such a case there is not likely to be any artistic value in the net result, but what there is can in all fairness not be attributed to the composer. It must be considered a joint composition by the composer, who did after all provide the position, and the solver who first spotted the cook (320).

version An alternative, and presumably superior, setting of a composition by the same composer. The word 'version' sometimes appears in the source. It is sometimes a euphemism for correction.

WCCT World Chess Composition Tourney of the FIDE, a periodical event for national teams, first organised in 1972.

COMPOSING TOURNEYS

The simplest kind of tourney, both to organise and to judge, is informal. This is run by a chess magazine with a regular studies column, such as Československý Šach (Czechoslovakia), L'Italia Scacchistica (Italy), Magyar Sakkélet (Hungary), Problemi (Yugoslavia), Revista Romana de Sah (Rumania), Schakend Nederland (Netherlands), Shakhmaty v. SSSR (USSR), Stella Polaris (Scandinavia), Szachy (Poland) and Tidskrift för Schack (Sweden). The tourney usually lasts for a calendar year and all the 'originals' published in the year are entries. The tourney is often combined with a running solvers' ladder contest. The solutions are published a few months after the diagrams, and in theory any flaws should be discovered by the solvers. Some time in the following year, usually in July or August, the tourney judge's provisional award appears, and by November or December, all being well, there is a confirmed award. The editor in fact runs the tourney merely by producing his column and ensuring that there are nominal prizes. The national composers will tend to support their own magazine and a friendly international rivalry develops, with the composers from other countries wishing to display their better wares on the worldwide market-place. The judge, too, has a fairly easy time, not having to bother about unsoundness and being able to concentrate on intrinsic merit. On the other hand he must concern himself with anticipations because he is likely to have a larger library and a longer experience than the solvers.

If mystery surrounds the tourney judge and his judging, this is nobody's fault. The judge, diffident perhaps, and busy certainly, knows that the news value of a man doing his job is nil, while as nearly all human study contact is by mail it will not occur easily to a member of the study public to make a formal request for the lid to be taken off the subject. Here, however, is certainly the place to remove the lid, if only to show that there is no magic underneath.
In 1967 I gladly accepted the invitation of the French quarterly Thèmes-64 to judge its informal study tourney for the years 1966 and 1967. In due course all the entries reached me in their published form, this necessarily involving some delay as the last of the 1967 solutions was not published until the April to June 1968 issue. It was a very small tourney with a total of nine entries in all. Solvers had demolished one (317), so I had only eight to examine. Most tourneys have about fifty entries, and the reason for choosing this one to describe is simply because it is easier, both on the writer and the reader. The largest total of entries for a tourney that I have ever heard of, except for the FIDE Albums, was 230.* This was a formal tourney run in 1966 by the newspaper Vecherny Tbilisi for the 800th anniversary of the Georgian (in Asia, not America or England!) philosopher and poet Shota Rustaveli. The eight studies to be graded in the French tourney will be found in this book as 376, 380, 383, 386, 387, 396, 397 and 398. My first job was to tackle the expectations. By a process to be explained later in this chapter, two anticipations were identified, 381 eliminating 380 and 384 eliminating 383. This left six. I copied the positions and solutions onto handy standard diagrams and took them around with me to look at while travelling or at any odd moment. To each I gave stars, from none to five stars for each of four attributes: originality, economy, beauty and difficulty. The relative importance of the attributes listed has very subjective interpretations, so it will never do simply to count the stars and grade accordingly. The star method may be elaborated. One could sub-divide ad infinitum. Originality includes theoretical value. Economy includes proportion, ‘right length for the idea’. Details could be tabulated: ratio between number of moves in main line to number of men in diagram; the number of black moves with no choice, and, for that matter, the number of white; presence of sacrifices, white and black, thematic connection between introductory play and idea; a measure of the purity and economy of mates and stalemates; the number of duals and an estimate of their importance; the degree of Black’s counterplay. This is very fine. But, having made the list, what then? Unless one is near to having produced a ranking list, the meticulous analysis has been wasted. Only in the course of time will the judge become so confidently conversant with the material he is charged with that he can begin to sketch out his first draft of an award. The judging process is iterative. What has three stars for originality this week may be given only two next week. Sooner or later the entries start separating out. There will be a group of candidates for the prizes, a group of candidates for honourable mentions and a group of candidates

* The new record is 274 distinct and original entries for the Roycroft Jubilee Tourney of EG, in 1979.
for commendeds. Evaluations will crystallise. Some candidates will cross boundaries into other groups. Eventually the movements across the interfaces slow down and the entries occupy their respective classes in the requisite numbers. Perhaps at this stage the judge feels that the standard is very high and he asks the director for an increase in the prize fund; alternatively he may find the overall quality poor and recommend that some prizes be withheld. In general, however, to maintain the confidence of composers, the originally announced prizes should be awarded. Of course, the judge may be lucky and the entries may sort themselves out naturally. One outstanding entry simplifies the task immensely. But this happens in the minority of cases only. The star system falls down unless some weighting factor can be applied to distinguish between stars for this and stars for that. It is by no means impossible for a generally recommended method to be worked out, for after all, such a system probably is no more than a rough rationalisation of what happens when a judge makes a good subjective ranking. It would be wrong though for the FIDE or anyone else to try to make a method compulsory.

In the case of the French tourney the star system was of little help. As I asked in the award, ‘How is it possible, with complete fairness, when no study is outstanding, to produce a ranking list if: some entries have originality but poor economy; some have good economy but little originality; others have good introductions but uninspiring conclusions; some have new and agreeable settings to completely anticipated ideas; one is captioned ‘after’ another composer; another has poor quality, but good quantity, over-the-board content?’ In the award I went on to try to answer my own question by suggesting that when his criteria fail him the judge must let his personal preferences decide—until, that is, the criteria themselves become, in the course of time, more closely defined by international agreement.

On the excellent principle that it is not enough for justice to be done, but that it must also be seen to be done, the award is normally accompanied by the judge’s comments. It is very difficult for a judge to be a despot if he has to make his award convincing, preferably in such a way that the unsuccessful and less successful entrants will not feel aggrieved. The ranking I gave, with comments, was:

Prize

396 Despite a short solution and many checks, the pure mate with self-blocks cannot be denied. (A self-block, a problemist’s term,
mood, and some vague guess at the new fact but is nowise to be trusted as the lasting relation between that intellect and that thing.'

**ANTICIPATIONS**

A judge often invokes assistance to check the soundness of tourney entries. His prime duty, the evaluation of originality, he carries out in solitary confinement, relying on his memory, experience and bookshelves. In other words, the judge and the award he produces are fallible. No one can be sure that a clear anticipation does not lie hidden, but within arm's reach, even after the most meticulously conducted search. Unaided, the resources of one brain are inadequate for ensuring that the judge promulgates a good award, even with the safeguard of confirmation time.

**CLASSIFICATION**

The problem is the classic one of information retrieval. In other chapters we have seen various methods of classifying studies. Not one would be of more than nominal assistance in retrieving anticipations. In the case of author collections the system is irrelevant; initial position material is superior, but due to exchanges in the course of play it is very unsatisfactory none the less, and there are too many rival interpretations of 'same material'; indexes of themes occur chiefly as appendices to X's best studies and are almost by definition tiresome to understand and peculiar to that author, not to mention being restricted to that author and most likely in an unfamiliar language; the Kasparian system (see at the end of Chapter I-I) is good but restricted. What is needed is a single, cumulative index based somehow on the content of studies but free from the drawbacks of the all too suggestive 'theme'. Tattersall, although he did not explicitly refer to the problem of identifying anticipations, and indeed due to the early 1911 date he is unlikely to have had them in mind, makes a far-sighted observation: '... the student is advised to consider carefully what principles and what manoeuvres are illustrated in each position ... and to note the fact that the nature of the play involved might form a good basis for the classification of End-games.'*

To the best of my knowledge only one collection of studies exists that attempts a system of classification designed for retrieval of positions with like ideas. It is the work of Mr J. R. Harman of Stroud Green, * A Thousand End-Games, Vol. II, p. 200.
III-2 THE SERIOUS
J. Berger, 1890
(but this orientation is
No. 770 in Tattersall's
A Thousand End-Games, 1911)

401
Win
J+2

III-2 JUDGE, OR MANDARIN

(iii) to gain a tempo
(iv) for other purposes.
17. Losing the move.
18. Perpetual check.
19. Stalemate avoidance (except under-promotion, see 16(i) above).
20. Unclassified.

Position, solution, author and abbreviated source are entered on an
index card, with gummed tabs attached to the upper edge to indicate,
by placement and sometimes also by colour or marking, the features.
This is not all. Whenever a significant capture, exchange, or series of
captures takes place in the solution, a new card is created. The cards
are filed in strict Guy-Blandford sequence, as in the Diagram
Retrieval Directory in this book. In the Harman system an anticipation
is identified by converting into the Guy-Blandford code the com-
plement of active chessmen in the study under examination and then
consulting that block of the card index grouped under that code. This
small deck of cards is then inspected for the tab or combination of tabs
that represent the features shown in the study under examination. A
card satisfying these conditions will display position, composer, play
and book reference for a study which is a candidate anticipation. The
final responsibility remains, however, with the judge, for degree
of anticipation cannot be evaluated by a card indexing system.

COMMENTS ON THE HARMAN SYSTEM

The Harman system painlessly located the anticipations noted in the
Thèmes-64 award. Since it was built empirically from the features ob-
served in actual studies its efficiency may be taken for granted. There
remain a few disadvantages, both theoretical and practical. Maybe a
quarter of all studies ever composed are in the system, so there can be
no guarantee that every, or even any, anticipation will in fact be un-
earthed, assuming one to exist. The system does not record unsound-
ness, and the solution on the card will necessarily be in an abbreviated
form. This means that in many cases it will be necessary to refer back
to the book or other publication from which the study was abstracted.
This source may not be readily available, and even the judge may not
have the time or resources to discover that source. Even the source has
its drawbacks; in the case of a magazine the solution will almost
invariably be published months after the position, while a demolition
may be noted in an entirely different magazine, in a different language,
years later! Besides, the demolition may itself be demolished some-
where else . . . (322). Nevertheless the Harman system is an enormous

THE HARMAN SYSTEM

Ideas or themes are broken down into their component chess man-
oeuvres or patterns, called features. The major features, which are not
exclusive, comprise, in no particular sequence:

1. Mate, threatened or effected.
2. Fork.
3. Opposition.
4. Discovered check.
5. Overloading.
6. Pinning.
7. Sacrifice or offer.
8. Zugzwang,
   (i) to win a piece
   (ii) to mate
   (iii) for other purposes.
9. Repetition of moves, excluding perpetual check.
10. Both sides promote.
11. Check with discovered attack elsewhere.
12. Elimination of control of a promotion square.
14. Covering a check from a promoted pawn.
15. Skewer (synonym: spear) check threatened or effected.
16. Under-promotion,
   (i) to avoid draw (e.g. stalemate avoidance)
   (ii) to effect mate
advance on anything previously available. It is of use to composers as well as to judges, for a composer entering for a tourney will wish to be sure that what he has composed is original. Michael Bent describes the system in action. 'He took from my proffered bunch of originals a random sample to test for anticipation. Murmuring some mystic numbers he pulled out a drawer. His fingers, every one an index finger, flashed deftly over the cards with their coloured emblems and within seconds he laid before me seven studies representing five different composers spanning a period of forty-four years.'

By 1971 some eight thousand studies had been incorporated on fourteen thousand cards. This is very bulky. Mr W. H. Cozens has proposed an alternative system that is a great saving in bulk. Mr Cozens' idea is to have a punched card for each feature. There would be, say, a thousand punching positions in each card, so that a thousand studies could be identified by one set of cards. To index a study, first determine its features; then select the cards that represent those features; next, align the cards carefully and punch or drill a hole through that position that will identify the study. This method requires that a study be allocated a serial number, for which purpose another index is needed, the hooligan alternatives to this being to mark the book diagrams or to cut the pages up and paste them, serially numbered, in an album. The Cozens technique has not been implemented. Clearly it is a most effective way to achieve a compact index. If thirty cards (for thirty features) index a thousand studies, then nine hundred cards (thirty sets of thirty) will index thirty thousand. This is only a small boxful. Retrieval of anticipations using this system involves selecting feature cards, squaring them up into a neat deck, and holding them up to the light. Where light shows through, an anticipation is identified. There would be some practical difficulties, for instance in reproducing correctly a card into which a hole had been punched in error, but if orthodox computer punched cards are used, and if there is access to computer equipment, this difficulty is easily overcome.

**ANTICIPATIONS AND THE COMPUTER**

It is easy to imagine thirty thousand positions, sources, composers' names, solutions, stipulations, features, comments and references (including demolitions and corrections) being stored on a computer's direct access file. By to-day's computer standards the amount of 'secondary storage' or 'backing store' space required is trivial. At a thousand characters (that is, letters, digits, punctuation and spaces) for a study, which is a very generous average, the whole data bank could be accommodated on a single IBM disk pack or data module, with space to expand. With appropriate file organisation and programming, retrieval could be automatic, whether by position, by composer, by source or by 'like idea' to identify anticipations. The only two difficulties are, the supply of computer facilities (including systems analysis and programming), and the labour of input preparation and maintenance. These difficulties will prevent the accomplishment of the aim for some years yet, but may ensure that when it is done, most of the necessary systematic thinking will already be complete and documented.

**CURiosITIES IN JUDGING**

If the world of chess studies were better organised, the matters discussed in this section would have been ironed out long ago. Quite possibly the proper procedure is perfectly clear to other judges. Unfortunately, there is no agreement on what, where or who the authority is in such cases. If the FIDE Compositions Commission has promulgated rulings it has not been able to publicise them widely.

**Similar entries**

In a formal tourney, where the judge is unaware of the composers' identities, what should he do if he finds two or more entries with the same material or with very similar settings and ideas? If by coincidence the similar entries are by different composers then the judge must treat the entries on their merits, neither of course being anticipated by the other! If they are entries by the same composer, then the judge is really being asked to select the best setting of an idea, as it would be quite wrong for the composer to figure in the award with two or more of the similar settings. Unless a composer is limited to a single entry, with 'top security' anonymity the judge cannot know for certain whether he is dealing with several composers or with one, so some minimum compromise is in order. Either entries are grouped by composer, achieving the same effect as the nineteenth century 'motto', or, and this is preferable, the judge should be permitted to ask the director whether specific studies are by the same author. Although a composer ought not to enter closely related positions for the same tourney, nor for concurrent tourneys, there is no formal code of behaviour to which he can refer for guidance.

**Multiple copies**

A formal tourney will frequently ask for entries to be in triplicate or quadruplicate. A reasonable request, one might think. The director
III-2 THE SERIOUS

A. K. Kalinin
1st Prize, Soviet Army Jubilee Tourney, 1968

1. Sc6, Ba3+; 2. K×c2, Rb2+; 3. Kc3, R×a2; 4. Kb3, Ra1; 5. h7, Kg7;
6. Sd4 and one has to look again to make sure that Black really has nothing better than 6... Bc1; 7. Kc2, Ba3;
8. Kb3 draw. The tourney was for military composers and the judge was F. S. Bondarenko. The award was published in The Soviet Soldier in 1968. See the comment after 403.

Draw 5+4

III-2 JUDGE, OR MANDARIN

needs a master copy, each judge, if more than one, must have the complete entries to judge from, and maybe a separate person will be testing them for soundness. But the study fraternity is not very large, and individuals are in fairly frequent correspondence. Therefore peculiarities of paper, ink, diagram and notation, not to mention language and annotative style, tend to be common knowledge in the case of a prolific composer. Hugh Blandford's 'musical' figurines based on minims, crochets, quavers and so on, are unmistakeable. It follows that a single copy of an entry should suffice and that multiple copies should be taken only after the process of rendering anonymous. Even this is not foolproof, for not only do many composers tell one another freely what they are working on, but, as is inevitable with an art form, even a minor one, style shows through. It may show in the choice of material, the theme illustrated, the means used, and in the mastery of the chess force employed. Of fifty-nine entries in an efficiently anonymous New Statesman tourney I, as judge, successfully guessed about a quarter of the authors' identities from clues of various kinds.

Non-analytic notes
A composer will very likely supply descriptive matter with his entry. It may be merely a statement of the idea or theme, it may draw attention to an echo or other special point, or it may indicate similarities with, or differences from, related antecedent work. Some composers habitually provide a great deal of this material. How much should be passed on to the judge? There is a genuine dilemma here. On the one hand the judge needs all the help he can get in understanding an entry, and the composer may well feel that his idea is not self-explanatory if restricted to a bald main line with or without a few supporting variations. On the other hand the judge must be objective. Non-analytic notes become all too easily subjective in nature, so that the style, personality and predilections of the composer show through. Thus anonymity may be lost. There is no easy answer. Whatever the answer is, though, it must lead to a further burden on the shoulders of the director. Some, perhaps many, guidelines will have to be worked out. It is not even a simple matter to decide whether exclamation marks are subjective or objective.

Date in relation to priority
The simple answer to questions of priority is to compare dates of first publication. This is confused by a number of factors. If the composer is unavailable for questioning, if he is deceased for example, the
correct date for priority, but as, for lack of witnesses, this can never be established it must be rejected, being in any case open to abuse. For a formal tourney, the date can only be the closing date for entries. Finally there is the case of the compositions of a deceased composer, unpublished during his lifetime, bearing no date or at best an uncorroborated date, and published years after his death.

Fairness

Halberstadt, a prolific composer, could afford to send studies into tourneys where the judge might be assumed, from his own compositions, to reject that style. The gamble, it is pleasant to record, had some success. A judge, of course, should learn to make adjustments, in judging, to compensate for his predilections. Only in the last resort, perhaps to separate entries he has provisionally ranked equally, may he indulge in subjectivity. On occasion, it is true that objectivity can have unfortunate consequences. The remarkable 406 was not honoured, the reason being that the composer withdrew his entry after publication when he accepted the judge, de Feijter’s, invitation to assist in the judging process.

MORE ON THEMES

The attempted definition of a theme in the glossary is very wide. It does not attempt to draw a line between what is worthy of the word theme and what is not. There are many thorny issues to be debated. Almost nothing is agreed. Each judge will have his own rules of thumb. An idea expressed on black squares is no different from the same idea expressed on white; and a domination of the queen is equally obviously distinct from an underpromotion to secure White stalemate. Between these extremes very little is clear enough to be undisputed. Queen dominations by a bishop and knight (with pawns) are many; what will constitute originality here? The composer will need to find a new mechanism, or a new combination of mechanisms, in order to claim some originality. But there is no attempt at defining the word mechanism in the glossary; and if the composer does make a discovery of this nature, is this a new theme? What indeed is the proper relation between a theme and the notion of originality? We could begin to answer this question only if we had secure definitions of theme and originality in our pockets, but we have not. Perhaps the question will be found in a future examination paper for the degree of Bachelor of Chess!
FIDE TITLES

Since 1973 a candidate for the title of FIDE Judge of Chess Composition has to support his application with details of major awards he has made. The Permanent Commission evaluates the application. An awarded title is specific to a named genre or genres of composition. The following lists give all the titles relevant to studies that the Commission has awarded since its first meeting in Budapest in 1956.

JUDGES

1956  F. Dedriute, J. Fritz, A. Mandler†, V. Pachman, L. Prokeš†, F. Prokop† (both Czechoslovakia)
      L. Lindner, Z. Zilahi† (both Hungary)
      P. Farago† (Rumania)
      A. Hildebrand, A. Werle (both Sweden)
      Y. Averbakh, M. Botvinnik, V. Bron, V. Chekhov†,
      A. Gulyayev, A. Gurvich†, A. Herbstman, G. Kasparyan,
      A. Kazantsev, R. Kofman, V. Korolkov, L. Loshinskii†,
      B. Sakharov†, E. Umnov (all USSR)

1957  J. Halumbirek†, A. Wotawa† (both Austria)
      B. Soukup-Bardon (Czechoslovakia)
      A. Dunder, J. Gunst†, V. Kivi (all Finland)
      A. Chéron†, V. Halberstadt† (both France)
      W. Unzicker (W. Germany)
      J. Mandil† (Spain)
      P. Kerest†, V. Smyslov (both USSR)

1958  O. Kaila (Finland)
      H. Lommer† (Great Britain)
      C. de Feijter, J. Selman† (both Netherlands)
      R. Voia (Rumania)

1959  J. Roycroft (Great Britain)
      J. Marwitz, W. Mees (both Netherlands)
      S. Isenegger† (Switzerland)
      A. Kopnin (USSR)

1960  J. Sule (Czechoslovakia)
      G. Grzebañ (Poland)
      C. Lafora† (Spain)
      G. Nadareishvili (USSR)

1961  H. Blandford (Great Britain)
      D. Bronstein (USSR)

1962  H. Staudt† (W. Germany)

1964  M. Milescu (Israel)
      W. Korn (USA)
      A. G. Kuznetsov (USSR)
      F. S. Bondarenko, A. P. Kuznetsov (both USSR)
      V. Yakimchik† (USSR)
      L. Mitrofanov (USSR)
      P. Perkonoja (Finland)
      I. Grosu (Rumania)
      V. Neidze (USSR)

Masters of Composition

1959  honoris causa
      A. Chéron† (France)
      A. Herbstman (USSR)

1960  V. Pachman (Czechoslovakia)
      G. Kasparyan (USSR)

1961  V. Chekhov† (USSR)

1965  V. Korolkov (USSR)
      N. Petrovic (Yugoslavia)

1966  A. Wotawa† (Austria)
      J. Fritz, A. Mandler† (both Czechoslovakia)
      (L. Prokeš, Czechoslovakia, also qualified, but died before
      the title could be awarded)
      V. Bron (USSR)

1967  A. Akerblom† (Sweden)

1969  P. Perkonoja (Finland)
      T. Gorgiev†, G. Nadareishvili (both USSR)

1971  J. Krikheli, V. Tjavalovsky (both USSR)

1973  K. Hannemann (Denmark)
      E. Zepler† (Great Britain)
      A. Grin (Gulyayev) (USSR)

1974  H. Lommer† (Great Britain)

1975  A. Kazantsev, A. Kopnin, E. Umnov (all USSR)

1977  A. Hildebrand (Sweden)

1979  B. Kozdon (W. Germany)
      M. Vukcevic (USA)
      F. S. Bondarenko and A. Sarychev (both USSR)

1980  Em. Dobrescu, V. Nestorescu (both Rumania)
      D. A. Gorgenidze, An. G. Kuznetsov, L. A. Mitrofanov (all
      USSR)

Grandmasters of Composition

1972  G. Kasparyan (USSR)

1975  J. Fritz, V. Pachman (both Czechoslovakia)
      V. Bron, V. Korolkov (both USSR)
      N. Petrovic (Yugoslavia)

1980  B. Lindgren (Sweden)
      G. A. Nadareishvili (USSR)

Note. In the lists of holders of the Master and Grandmaster titles Akerblom, Hannemann, Kozdon, Krikheli, Lindgren, Petrovic, Umnov, Vukcevic and Zepler are primarily problemists.
According to Edward de Bono* there are three types of creative demand. Creative analysis, in which the whole situation is presented and the task is to find particularly effective methods of description. (Does study composition fit in here?) Then there is creative problem solving, where a given situation is to be changed into a desired one. (This fits solving, perhaps, but hardly composing. Or does it?) And lastly, creative innovation, where a situation has to be improved. (Is this composing?) De Bono says, 'The less there is to work on, the greater the difficulty', implying that creative innovation is the most difficult of the three. One might convincingly retort that creative innovation is not difficult (407), it is merely rare. For those with the ability nothing is too difficult. For those without the ability, creative innovation is admittedly difficult!

In Chapter 1-4 the impresario found it hard enough to discuss and present any aspect of studies. Composing is probably the hardest aspect of all to talk sensibly about. There are many myths about composing. Here are six. The composer has an easy job because he can change the position around, because he has not got an opponent, because he can select his sophisticated positions, because he can consult his bookshelves, because he has no tournament clock ticking away, and because he can have moves back. Each of these assumes that the composer has the same aim as the over-the-board player, namely to win (or at least not to lose), always from a given position, and always from the viewpoint of one side, Black's or White's. But the aim of the composer is quite different. He changes the position around so that he can create something new, interesting and correct: if he were to change the position in the way the player would like to he would finish, all composers would finish, by contemplating in eternal bliss nearly identical mates with king and queen against a lone king! The composer has no opponent? He has no human opponent prone to error like himself, but he has an inhuman opponent, to wit, the laws and powers of the pieces, and this opponent commits no error! When the composer errs he has composed nothing: the player can still continue his game (with more errors to come) after his mistake, unless it is the terminal one (408). In a game


(i) Threats were 1. ... Sc3+ and 1. ... Kxd5+.
(iii) Else 3. ... Kxe5; 4. cb, Sxa2; 5. b6, Sb4.
(iv) 4. ... Sxd5; 5. Bx5, Kxd5; 6. ef, Ke5; 7. Sh7.
(v) 5. ... e4; 6. d6 wins.
(vi) 4. Bx2, Sc3+; 5. Kf2, Kc5; 6. Sd7+, Kd6; 7. Sf6, Sxa2 draws.

If this superb study won Second Prize, whatever was the First Prize like? I have failed to trace it, a likely assumption being that it proved unsound.

The long game ended suddenly with 92. ... Kf3? 93. Qd3+, drawn, because 93. ... Qx3 is stalemate. To an endgame study enthusiast it is incomprehensible that White's 93rd move was given an exclamation mark, unless it is symptomatic of players not expecting surprises in the endgame. White's 93rd is not even unique. 93. Qx2+, Kg3; 94. Qd3+ is equally effective.
III-3 THE SERIOUS

E. B. Cook
Illustrated London News, 7. vi. 1856

409

Draw 4 + 5

G. M. Kasparian
3rd Prize,
Shakhmatnaya Moskva, 1967

410

Draw 6 + 3

V. Kiti
2nd Prize,
Revista Romana de Sah, 1934 (2nd half)

411

Draw 4 + 2

the last error is decisive: in composing, it is the first that is fatal. As for sophisticated positions, when they occur in games they are generally due to luck or contributory negligence: in composing, luck is extremely rare, and in any case it is only the exceptional that ever interests the composer. And the composer not only may, but must, consult his bookshelves. Fischer scores a full point when he catches Reshevsky with some prepared analysis (232), but the composer is rightly taxed with lack of originality, if not outright plagiarism, if his offering is found to have a published antecedent. No, there is no tournament clock ticking away alongside the composer, but the consequences of mistakes are so different—the composer is not allowed one. ‘Having moves back’ is poor compensation for this handicap.

Composers get their ideas from analysing, from analogies or suggestions triggered off by other composers or compositions, or simply out of the blue (409 to 414). The logical sequence of a composition is once the idea is born, to find a matrix, turn it into a sound setting, and if the result is satisfactory, add an introduction. In practice, unless the composer has self-discipline of steel he finds himself wastefully confusing these phases, all of which are in any case submerged in a never-ending torrent of analysis. Until there is a revolution in human communication there can be little to be added to Peckover’s ‘semi-automatic visual flash’ to describe the moment of birth of an idea. The same seems to apply to the search for a matrix. Analysis we have seen enough of in other chapters. More promising for further examination is the area of settings and introductions.

In 1964, with the selflessly offered co-operation of Barry P. Barnes, now one of Britain’s four FIDE Masters of Chess Composition (all problem composers), I conducted an experiment to find out as much as possible about these moments of very hard work. The details are published here for the first time.

THE BARNES EXPERIMENT

Thirteen serially numbered sealed envelopes were prepared, each containing a diagram. Envelope No. 1 (see 415a) contained the final position of a drawn study, and the subject was instructed to open it and examine the contents. He was then to decide what the previous move of the main line solution was and, before opening Envelope No. 2, to note his train of thought in arriving at his decision. Envelope No. 2 and succeeding envelopes contained, he was told, alternate white and black moves
1. Sd7/i, and now two fine variations:
1. \ldots d1Q; 2. Sx f6+, Kg5; 3. Sd5+, Kh5; 4. Sf6+, Kb4; 5. Se4+, Kh5; 6. Sf6+.
1. \ldots Kg4; 2. Bx f6/ii, d1Q; 3. Se5+ Kf5; 4. Bg7 with a well known fortress draw (214).

1. Se6?; d1Q; 2. Bx f6, Qd3+; 3. Kg7, Qg6+.
5. \ldots Qh5+?; 6. Kg8, Qe8+; 7. Kh7 draws.
6. Kg7, Kf5 wins.
6. \ldots Qg2+?; 7. Bg7 draws.

1. g7+, Kg8; 2. Kh6, Sg6; 3. Kx g6, b1Q. The mate threats on h6 and e7 are met by a pinning defence. The question is, can Black do more? The subsequent play is intended to exhaust the possibilities and demonstrate that White manages to draw. 4. e4, Qx e4; 5. f4, Qd3; 6. Kh6, Qh3+; 7. Kg6, Qg4+; 8. Kh6, Qx f4+; 9. Kg6, Qg4+; 10. Kh6, Qh3+; 11. Kg6, Qb7+; 12. Kg5, Qh3; 13. Kg6, with a positional draw. Do not miss the stalemate after 6. \ldots Qxf5, this defence explaining the white pawn moves. It also suggests a way to turn the study into a win. See 414.

1. b7, g3+; 2. Kx g2, f3+; 3. Kx f3, e4+; 4. Kg2, Sf4+; 5. Kh1, g2+; 6. Kg1, Kh3; 7. Sg3, Kx g3, and now, not 8. b8Q?, Kh3; 9. Qx f4 stalemate, but 8. b8B and wins, as 9. Bxf4 follows. The pawn on h5 is white!

Thinking of the resemblance between this and the previous study, we realise that it is up to the composer to make several studies out of related ideas, before someone else does.

III-3 Composer

working back to the initial position, that is, the one that would normally be published as a study. His narrative follows, complete with any errors that it may contain. Better than any general description it describes the tortuous and tortured processes a composer has to undergo in ‘inventing moves backwards’. The experiment was to cease if the study was known. In fact a fairly uncomplicated published position, though a fine one, was chosen, and it was new to the subject. The experiment took place from January to March 1964. For brevity, W means White, Bl means Black, wS means white knight and bB means black bishop.

BARNES’ NOTES

9.5 p.m., 6th January
Opened Envelope No. 1. First reaction: why is this a draw? Seems obvious win for Black. Then saw that if bQ either blocks e8 to prevent Pe8Q+ or captures at e8 when the pawn promotes, 2. Sc7+ wins bQ, when bK and bB v. wK is draw.

A thought: if W got his Q, material would be equal. Unless Bl can keep up checks (unlikely) or produce something special, issue is undoubtedly in doubt.

A real need to find possible-variations from set position.

1. Kc2, Qc1+; 2. Kd3 ...

Drawing principles not clear in my mind. Certain ideas, of course, but, as here, don’t always recognise a draw when there evidently is one. I’ll have to exhaust possibilities of set position to get some ideas.

(a) If bQ can capture wS with a check W is lost. Must keep wK ‘out of line’. Still not convinced that W would lose or draw if he were allowed to queen \ldots keep on analysing!

(b) bB is taboo when bQ threatens wS. Vide (a).

(c) 1. Kc2, Qc1+; 2. Kd3 loses to 2. \ldots Qc4+; 3. Kx d2, Qx d5+. So 1. Kc2, Qc1+; 2. Kb3, Qc4+; 3. Ka3, Bc1 mate. Hence 3. Kb2, Qx d5; 4. e8Q (example manoeuvre: now how does W not lose?). If Q’s can be exchanged it is still a draw. The possibility that if W queens there is a draw occurs to me. Bl cannot interpose bQ and must be careful not to let W force an ‘exchange focus’ between bK and bQ. Sole bB draws. So it would appear wS really is taboo: capture by bQ ends in draw.

Can Bl gain (time?) by moving bK to avoid check? Evidently not: all time wQ is on board there is either perpetual check or threat of ‘forced exchange focus’ should wS be captured by either bK or bQ.

What about bB to f4 or a5 at some stage to capture at c7 in conjunction with bQ at e8? If bQ can focus e8 with a check and then play bB to a5, Bl wins \ldots 1. Ka2 has just occurred to me! Black must
check, or draw (as indicated above) follows after e8Q+, so 1. Ka2, Qa7+; 2. Kb1, Qg1+, or 2. ... Kc5; 3. e8Q. Am becoming convinced that there really is a draw for W.

9.30 p.m., 6th January
Convinced as I shall ever be (I think!) that position is draw.

A thought: should there be W accuracy after Qg1+? K2 seems to obtain the draw but what about 1. Kb2/c2? Can BI win after these moves? 1. Kb2, Qc1+; 2. Ka2, Qc2+; 3. Ka1, Bc3+; 4. Sxc3+, Qxc3+, or 3. Ka3, Bc1 mate. If 2. Kb3, Qb1+; 3. Ka3, Bc1 mate. The other alternative is 1. Kc2, Qc1+; 2. Kd3 (or 2. Kb3, Qb1+) 2. ... Qc4+!; 3. Kxd2, Qxd5+. So only 1. Ka2 to secure draw.

9.30 p.m., 13th January
I have been thinking about the set position for some days now: I am convinced that there is a draw it for W after 1. Ka2.

The choice of BI’s last move is limited to some extent. It is easy to see that BI last played ... Qg1+; ... Qxg1+; ... PglQ+; ... hQ+; ... FgQ+; ... Bxd2+ (by discovery). My preference for an ‘uncomplicated’ position and the desire to keep bQ on the board leads me to examine the possibilities of the bQ moving to g1 with check. From where did bQ start? I am determined to avoid captures and promotion—a promotion would be too un-problemlike. ... Pg1Q+ I will reject.

From my earlier studies I have seen that if bQ can check wK and at the same time attack e7 or e8 BI has time to play ... Ba5, preventing W’s threatened combination. Because there is a threat, BI’s move ... Qg1+ has to be the best under the circumstances. A check from bQ at any square other than g1 wins fairly quickly for BI as explained above. I find that if I am to keep bQ on the board and not resort to promotion or capture/discovered checks with capture tricks, a7 is the only square bQ could have started from. W’s threat is e8Q+. BI can’t meet it. 1. ... Qg1+ is the only move to drag things out. But then W draws. I’ll settle for BI’s last move having been ... Qa7-g1+. If the ‘unknown’ composer says otherwise, I’ll compose the study on my lines. His last move can’t have been much better.

10 p.m., 13th January
Envelope No. 2 opened. I’m right. After a short examination of 415b I feel that I have come to a cross-roads of sorts. Obviously BI played ... Qg1+ because there was no winning move at his disposal. To force this state of affairs, W’s position prior to that must have been one of two things:

(a) wK moved out of check (from b7) with the threat of e8Q very much on—I would plump for wK from a2-b1.

(b) with wK at b1, W’s last move must have been to threaten e8Q with its drawing (or winning) potentialities.

At this stage I will not complicate things by having captures—I have worries enough.
III-3 The Serious Composer

I'll investigate the possibilities of suggestion (a):

As Bl is not playing for a draw, W's last move of Kc1–b1 can be ruled out, for then bBd2 must have been Bl's last move, and that leads to a draw when wK captures on d2.

For similar reasons Kc2–b1 can be ruled out. W would have done better to capture bBd2. Surely Bl wouldn't have played to d2.

I think I have been labouring under a misapprehension. W has no need to make a passive move with his K while the threat e8Q is on. So that means W didn't play from either b2 or c2—c1 is out for the reason I gave in my systematic and pointless (or was it?) search. So if it was either wK from a1–b1 or a2–b1 getting out of check, Bl must have played bQ last move to a7 to give check—to delay e8Q by W. It is made even clearer to me that if Bl is forced to check at a7, bQ must have started from a square from which a bQ was not available to win.

If wK did move out of check, wK from a2–b1 offers the best possibilities. With bQ at a7+, Ka2–b3 gives B1 a win by ... Qa4+; Kb2 followed by Kb5–c5, escaping the fork. If Ka2–b2, Qd4+; Ke2, Qe4+! now if Kc2–b2 then B2–a5 and Bl wins, and if Kx2d2, then Qx2d5+ and wins the c7 pawn and game. Therefore, Ka2–b1 is the only safe move for W. Similarly if wK were at a1. Having driven wK to b1, Bl must keep up the pressure by playing Qa7–g1—with the sequence of play repeated to give the draw. As I am to make a study out of this, the shuffle between a2 and b1 by wK and between a7 and g1 must be broken.

I will guess then that W last played Ka2–b1 after Bl's bQ move to a7+—as there would be no other point in Bl's move when e8Q+ is on—and I will guess further that Bl's move before Ka2–b1 was not ... Qg1+ (forcing wK back to a2 to give a perpetual check).

I haven't the energy to investigate possible last moves by wP or wS at this stage—obviously Pe6–e7 is a strong possibility but as this study can be spun out to 13 (half-) moves, I am going to account for one move at least by Ka2–b1 following bQ to a7+. I'll open Envelope No. 3.

I'm very relieved that I a... right!! wK was at a2.

7.50 p.m., 12th March

As wK is in check, Bl must have played either bQ to a7+, or given a discovered check. bB move can be ruled out for Bb4+ or Bd8+ wins immediately. bKa5–b5+ looks interesting for the move to b5 is forced. Before I can build a study round this move I have to see if Bl has winning chances with bKa5.

There is no check available to bQ—and wS to c7 or f6 would seem to force wP home. If Qc5; 2. e8Q, Qc2#; 3. Ka1 and there seems to be no more than a draw. A remarkable situation arises if Qc5; 2. e8Q, Qx2d5+; 3. Ka3, Bc1 mate, or 3. Ka1, Bc3#; 4. Kb1, Qb3# (... Qd1+ draws) 5. Kc1, Qc2+; 6. Kb1, Qb1#; 7. Ke2, Qe1# and wins. 3. Kb1, Qb3#; 4. Ka1, Bc3 mate. 3. Kb2, Qd4#; 4. Ke2, Qc3# and 5. Kd1, Qe1# or 5. Kb1, Qb3# wins, so here instead, 4. Kb1, Qd3# wins, or 4. Ka2, Qc4# wins, or 4. Ka3 (b3), Qc3# wins.
1. e7, Qe1; 2. Be3, Q × e3; 3. Sb6+, Kb5; 4. Sd5, Qa7++; 5. Kb1, Qg1++; 6. Ka2, Qg8; 7. e8Q+ Q × e8; 8. Sc7+ drawn.

14th March
I have now seen that Ka4–b5+ (discovery) is out of the question as ... Qa7–b8 wins. I have also seen clearly that Ka6–b7+ (discovery) gives W his draw after Ka2–b3! I am sure that Bl's last move was not a bk move to give the check from bQa7.

Assuming then that bQ moved to a7++, the following starting squares can be ruled out: f2 (bB5+), d4 and c5 (Q × d5+), b7 and d7 (Q × d5+), c7 (Qc2+), b8 (Sc7+ gives W the draw). Likely squares are e3, b6 and g1—I plump for g1 because of the pleasing long-range effect.

Envelope No. 4 opened—I'm wrong—it's e3. But it was anyone's guess—a study could have been built round my choice of last move.

Examination of No. 4 clearly shows the WS moved last—and the possible last moves are few.

Rejected last moves of WS are from c7, c3 (because of check on bK), b4 (bK or bB would have taken it), and f6 (e8Q+ draws). So it's either Sb6–d5 or Sf4–d5. I favour Sb6–d5 because of the interesting possibilities of it having been a check on bK which could have been at a4.

Moves by the checked bK to a5 or b4 lose for Bl after forks at c4 or d5. I'll open Envelope No. 5. I'm right—so I'll open Envelope No. 6 in the strong hope that bK was at a4—bK must play to b5 and bQ cannot capture ws because of e8Q+. I'm not surprised to find I'm right.

Obviously ws played last to b6—and the choice of starting squares is limited to three: a8, c8 and d7. Had it been at either c4 or d5, W would have captured bQ. To decide which square WS came from, I have to find a move by Bl with interesting effects.

I have seen fairly quickly that if ws had been at c8 and bQ at a7, then bQ would be threatened and WP is guarded. The checking promotion is threatened as well. bQ must move—to d7 loses after Sb6+. Only Qe3 from a7 keeps Bl in with a chance. It must be as I have said. I'll open Envelope No. 7 to see if WS came from c8. Yes, I'm right.

Now for Envelope No. 8, to prove that bQ was at a7. It would appear that I'm badly wrong—bQ captured wB at e3 starting from e1. An examination is called for.

With bQ at a7 and WS at c8, I can now see that Bl would win after ... Qa6!! If e8Q+, Kb4++; Kb1, Qd3+ wins. My respect for study composers grows. I have to accept the contents of Envelope No. 8.

15th March
W's last move was not a WS move—e8Q+ would have been the obvious—and the situation must have been such that e8Q+ wasn't on. Not very helpful deductions! (An idea for a study with WB, WP and WK v. bQ and bK has occurred to me.)

I can see that bQ must be lured to e3 so that the combination Sb6+ etc. will work. With bQ at e1, bB5 after the eventual Sd5 wins for Bl.

I think W's last move must have been by WB. The fact that bQ is at e1 seems to indicate that it is there to prevent e8Q++—and that affords scope for forcing bQ to e1 on Bl's last move. I seem to be able to do this by making W's last move wB5–e3, which followed ... Qg1–e1
A gain in depth from 416a. 1. Ke3, e5; 2. Ke4, Sf3; 3. Ke3, Sg1; 4. Ke4, Sf3; 5. Ke3, Bd1; 6. Bh5, Kg2; 7. Bg4, Kg3; 8. Bh5 and the position is a draw, but only because Black has the move. With White to play, Black wins. A perpetual attack is transmuted into a pin, giving the position considerable interest.

(i) The only way to avoid the continual threats to his pieces.

1. Kd2, Be2; 2. Bg6, Kg2; 3. Ke3/i, K×h1; 4. Ke4, Sf3; 5. Ke3 and so on.

(ii) Unfortunately this is not the only move, the composer-analyst noticing in time that there is a dual draw by 3. Be4+, Bf3; 4. Ke3, B×e4; 5. K×e4, Sf3; 6. Ke3 drawn. To eliminate this fault Kasparyan deduces that it is absolutely essential to place the white bishop on e8.


with a positional draw by the reciprocal Zugzwang already seen.

(i) 1. ... Sc4; 2. Kg5, e5; 3. Bb5, e4;

4. Kf4 draws.

1. ... Sg4; 2. Bh5, e5+; 3. Kg3 draws.

1. ... Sd3+; 2. Ke3, Bf1; 3. Bf7, e5;

4. Ke4, Kg2; 5. Ba2, Kg3; 6. Bb1 draws.

(ii) Deep. 2. Bd7?, e5+; 3. Ke3, Bd1; 4. Bg4, Kg2; 5. Bh5, Kg3 and White succumbs to Zugzwang. No better is 2. Ke3?, Bd1; 3. Bf7, Sg5 and 4. ... e5 wins.


to prevent e8Q, which arose out of W’s previous move of Pe6-e7. It seems so promising that I will open Envelope No. 9 to see if W’s last move was in fact Bg5-e3. I’m right. I’ll now open Envelope No. 10 to confirm that Bl played ... Qg1-e1. I’m right. I’m convinced that Pe6-e7 was W’s last move to force ... Qg1-e1—so I’ll open Envelope No. 11. I’m right again—Pe6-e7 was W’s last move.

The position—No. 11—looks ‘explosive’, and it looks impossible to force bQ to play to g1 on a last move. A check to BK would certainly give the required two moves to go if the W force is not sufficient to tip the scales in W’s favour—and if the placing of bk at either a5, b5 or b4 does not affect the play already found.

With bk at b5, a bM move to a4+ (or a W move to a4+) would serve to drag bk back to a4. But why should W play a4+—why not capture a Bl piece at a4 which would otherwise defeat the impending combination? A bS at a4 has possibilities, I think—when ... Sc3+ would be threatened. A W capture of bS at a4 would oblige bk to take it to remove its control of e8 (for one reason at least). I could start Wb at b5 so that ... Sc3+ has a quick mating net. Is then Bb3×a4+ forced, and does bk have to take it? I think not, for Bg5×d2 prevents ... Sc3+ and seems to leave W with enough force to draw—Bb3×Sa4+ is a not particularly artistic start, but may not matter. One of the decisive factors for W is that bk stands at b5 and Sd+ at some stage gives W time to advance Wp and offer threats similar to those good enough to draw.

Even a Wp at b3×Sa4+ is not good enough. Not only is it inartistic but bk does not have to capture on a4. It simply heads for the top of the board and W can resign. After some desperate ‘fiddling’ I have an inspiration (which I can hardly believe sound). What Bl’s last move being bBe1×wRd2 after wBe7×bSg5?? The capture of bSg5 seems forced for a check on bk (as if it matters?) by wRd2 is prevented by bQg1. It would seem that bBe1×wRd2 is forced on Bl to stop wp going on. Then the study is as required. Bl can’t play ... Q×g5—correction, he can. Pity, I thought this combination was what was required: 1. bBe7×bSg5, Qg1×g5; 2. Sb6+ if K on 5th rank, and 3. Rd5+ wins! But 2. ... Kb4! and W’s advantage fizzes out as soon as Bl can start checking.

I give up—I’m curious. Envelope No. 12 opened. Well! Still, there’s some comfort in knowing that that seems to be it.

THE DISTILLATION METHOD OF COMPOSITION

Master of Composition Kasparyan describes* with examples the persistence the composer must exercise to extract the most from material which his instinct tells him is promising. 416a he gives as a starting point, already with far from negligible content, where the balance of force is bishop against bishop and knight and pawn. Clearly play motivation

* In Shakhmaty v SSSR for February, 1956.
III-3 The Serious


(i) 1. ... Kg2; 2. Kc2, Sf3; 3. Bc6, K×h1; 4. d4, ed; 5. B×f3+.


(iii) 3. ... Be4; 4. Ke3.


This is a black win deriving from note (iii) in 416d.

1. Ke4, Kg3; 2. Be6, Kb4; 3. Ba2, Kg5; 4. Bb1, Kf6; 5. B×d3,Bg2 mate. 417a


(ii) 6. d4, Bh3; 7. d5, Ke5; 8. Kb6, Bg2.

The main line given above was the composer's intention, but he spotted the flaw before presenting it for publication.

III-3 Composer mainly revolves around the inferior force's threat to the pawn. 416b developed from it, but Kasparyan took this only as the basis for a study, not for a completed work. He needed introductory play, which would be either luring the black king to h1, or by attack on the black bishop or knight. 416c was the first attempt, 416d the second. The composer considered the move 2. Bf7 as a definite enrichment, but further probing revealed the flaw in the main line given under note (iii). The final version was 416, but the dual win just indicated also served to become another composition, this time a win, by a little regrouping and the addition of a white pawn, 417a. This gave 417b after changing the colours and adding some material. But again there is a flaw (see note). Much further analysis flowed under the bridge before 417 emerged. 418 is a further example of a study arising out of prolonged and searching analysis of 417 and derived positions.

Style

We have seen that the judge can frequently make intelligent guesses at the identity of a composer from the style of a composition. Michael Bent, for instance, has certain unmistakable predilections, which he is quite open about. 'I should give thanks to the unknown genius who invented the knight's move and thereby gave to composers a richness of expression for which they must ever be grateful.' A couple of related examples will illustrate. 419 and 420 might be called 'sta(b)lemates'. Style is elusive and fascinating. The authorship of certain New Testament epistles attributed to St Paul has been established beyond reasonable doubt by analysing, with the help of a computer, the frequency of occurrence of certain common words. It ought to be possible to do the same with endgame studies, or at least to devise an experiment to determine whether study composing style is meaningful. One form of such an experiment would be to take successive snapshots of a solution, including the whole board every time, and examine the data (given a sufficient quantity of it) for repetitive patterns. The pattern might be purely visual, with no logical link to chess whatever, or it might be in a statistical relationship to the geometry of the chessboard. A common factor deduced from a number of studies by the same composer could then be compared with the constituent factors found in a set of anonymous studies, though it might be desirable for the total number of moves in the set to exceed a certain minimum. A matching condition would indicate, within probability limits, a composer's identity.
   (i) 1. Ka5?, Be2; 2. Ba4, Kd4; 3. Se6+, Ke3; 4. d4, d5; 5. Bxd5, Bf5 drawn.
   (iii) 3. Bg4?, Ba3; 4. Sd8, Kd4; 5. Bf5, Ba2; 6. Sf6+, Ke3 drawn.
   (iv) 3. . . . Ba3; 4. d4+, Ke4; 5. Bg2+, Ke3; 6. d5, Kf2; 7. Bh1 wins.


Originally the composer had put the black knight on g4, allowing the cook 1. Be6, Se5; 2. Kh4, Bg4; 3. Kg5, Sf3+; 4. Kf4, Sd4; 5. Bx5, or here 1. . . . Se3; 2. Kg5, Kxb6; 3. Kf4.
But again he noticed and corrected the flaw before publication. (Back to the drawing board?)

   (i) 1. Kc5?, dS6+; 2. K-, Kxh4 and Black wins.
   1. Sf5?, Sxf5+ wins (extra pawn).

III-3 Composers

Like the other computer applications mentioned in this book, this one could be undertaken in 1972.

**AN EXERCISE**

Here is an easy exercise in composing. 421 shows a forced series of moves, with checks, and a clear result, a win for Black, though the reader should note the black bishop not controlling the queening square of his a-pawn. How may this be turned into a study? The author's rather weak answer is 422, but naturally there are many possible answers. Remember that the position should have a solution, and only one. A combination that is sound in the game sense is not enough, as a rule, for a study. All other white moves must demonstrably fail, and moreover alternative sequences for the actual moves in the solution should also fail. This implies a reason, and every time a different reason, for the failure of an inversion of moves. It is instructive to take an impressive study apart in this respect and to classify these reasons. No one has yet produced a complete, or even an adequate, list, yet every budding composer would like to have it. No, it will not be found here, either.

**OBSOLETE VARIATIONS**

How may a composer, who is possibly not a strong player, analyse out a supporting variation with accuracy? If he cannot, then his composition is unpublishable, and probably unsound as well. But the coveted natural position normally implies difficult lines to be analysed, and they must be correct in the sense that they lead demonstrably to the result that the composer needs for the soundness of his work.

A suggested method uses many diagrams. The initial diagram is numbered ‘1’, and a move or two played, until an important bifurcation occurs, and the alternative moves are listed, with diagram numbers for each. The first of these now becomes ‘2’, that is, a new diagram, and the process is repeated as often as necessary until one line has reached a conclusion. Then each alternative is taken methodically, so that a chain of diagrams is created, each with only a few moves associated. The chains are preferably two-way so that one may refer readily either to the prior or to the succeeding diagram. As mistakes occur and improvements are found, so many of the diagrams will have to be destroyed. But it will be unusual if more than thirty or so are not enough to clarify what was initially obscure. The method permits analysis to be dropped and resumed later without time being wasted in going over the same
(i) A capture is not a desirable first move, but tolerated if of a pawn.
(iii) 2. . . . Sd1+; 3. Ke1 draws.
(iv) White must now be wary.
(v) 4. K × g4?, Bd3; 5. Kf3, Sd5; 6. Kf2, Kd4; 7. Ke1, Kc3; 8. Kd1, Kd3(b2);

1. . . . R × e4+; 2. Q × e4/1, Rc4+; 3. Ke3, R × e4+ 'and Black wins easily'.
(i) 2. K × e4, Bb7+ wins.
The interested reader may care to try to construct a sound study (with White to play) using the above data, which is all that appears in the source, as a starting-point. 422 is a suggested rendering.

1. Rd5+ +/i, Q × d5/ii; 2. Rf5+, Kd6;
3. R × d5+, K × d5; 4. h5, Ke5; 5. h6, Kf6; 6. Bf5/iii any 7. h7 wins.
(i) As well as 1. . . . K × d6, Black threatens 1 . . . . Qa3+. If 1. Rd3?,
Qa5+; 2. Kc4, Qa6+ draws.
(ii) 1. . . . K × d5; 2. Bg2+ and 3.
B × a8.
(iii) But not 6. h7?, Kg7 draws, the bishop not controlling the promotion square.
exhibitions, talks, reviews, critiques and so on in the major media of mass communication. A one year university course could then cover the essential aspects of study composing.

Taking de Bono’s three types of creative situation which we gave earlier, it seems study composition covers them all, and more. Thinking of an idea must be the starting point, but it falls outside the three types because there is no prior ‘situation’. Finding a working matrix for the idea seems to be an iterative process combining all the types. The sole useful method of simplifying the process is the constant and thorough analysis of promising material to discover and select the worthwhile ideas that are hidden there (see 425 and 426 for a curious story), which probably corresponds to creative analysis. It is the level at which the great majority of composers operate, though clearly with unequal efficiency. To operate efficiently at the other levels, that is in turning an attractive idea into a finished work of art, is given to few.

**CLASSIFICATION**

The typical composer book is a collection put together in no particular sequence, but with an index. An example is A. A. Troitzky’s *Chess Studies.* There is an index by theme and there is an index by material. The latter has three gross divisions: queens on both sides; queen on one side; struggle with rooks. An interesting technique in this index is to asterisk studies where a queen appears by promotion. The gross divisions have detailed sub-divisions, based, naturally, on the material that actually occurs in the 360 positions included. To enable comparison with the theme index of Korolkov at the end of Chapter III-1, Troitzky’s classification is given in full.

1.0 Win by creating a mating net (16 examples, excluding the following)
1.1 With Zugzwang
1.2 With Zugzwang and cutting-point
1.3.0 With sacrifice of a piece (pawn)
1.3.1 To deflect from a protected square
1.3.2 To block a line
1.3.3 To decoy a black piece to an unfavourable square
1.3.4 As 1.3.3, combined with square blocking
1.3.5 Indian theme (retreating manoeuvre to create a battery)
1.3.6 Geometrical manoeuvres of White’s queen
2.0 Win of a piece with the help of mating threats (24 examples, and the following)
2.1 With Zugzwang
2.2 With pinning

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stage in its development where, writes Kasparyan,* in order to create an interesting, valuable work of art the composer needs a high standard of technique as well as imagination. He also needs a great deal of knowledge. In other words each successive chess generation has to rediscover the basic ideas. The whole field needs, and in my view deserves, the status of an academic subject, even if a minor one. If it is an art and a science then it should be treated like one. As a start chess should be a recognised optional subject in all schools and there should be regular

* The Technique of Study Composition, an article in EG No. 6, October, 1966.
1. Kb8, Qd6+; 2. Kc8, Qe6+; 3. Kb8, Qa8+; 4. Ke7, Qa7+; 5. Ke6/5, Qa2+; 6. Kf5, Qe2+; 7. Kg4, Qg2+ drawn.

(i) 5. Kf6, Qf2+ drawn.

The principles of Black's play may be represented in a diagram where upper case represents squares occupied by the white king, and lower case corresponding letters the squares where Black must check to ensure the draw. See 425a.

The white king and a black queen are on the board. The white king occupies any square designated in upper case, and Black draws if he can check from the corresponding lower case square. See 309 and 425.

Accuracy is essential. If White's king is on h4, a check on h1 would lose to Kg3 and a march along the rank to b3, after which a white queen will be able to interpose after at most a couple more checks. Black can stop this only by allowing the king to reach h2, which is just as effective a square for winning.

This was actually a game position that occurred in Munich and was solved (or composed) by Przepiora over the board. This is only one of several remarkable aspects. 1. Rb8, Ke4; 2. R × g8, S × g8; 3. g6, b3; 4. gh, b2; 5. hgQ, b1Q; 6. h7, Qe4+; 7. Kd6+ and 8. h8Q wins, or 8. Qb8+ first.

This is the only example I know of a game position mis-reported as a composed ending. There are many examples of the converse. The composer was within a fraction of discovering the one queen draw against two shown in 425 forty-seven years later!

D. Przepiora

Vorwärts, 1910

2.3 With geometrical moves of White's queen
2.4.0 With sacrifice of a piece (pawn)
2.4.1 To open a line
2.4.2 To free a square for another white piece
2.4.3 As 2.4.2, combined with line blocking
2.4.4 To decay a black piece to an unfavourable position (42 examples)
2.4.5 As 2.4.4, combined with line opening
2.4.6 Roman theme (invalidation of a black defence, not by eliminating it but by making it harmful to Black)
3.0 Win of a piece by direct attack (21 examples)
3.1 Bristol theme (a move along a line to allow a piece of the same colour access to a square, generally the penultimate square, on that line)
3.2 With geometrical moves of White's queen
3.3.0 With sacrifice of a piece (pawn)
3.3.1 To open a line
3.3.2 As 3.3.1, combined with square blocking
3.3.3 To decay with surrender of a square
3.3.4 To decay to an unfavourable position (35 examples)
3.3.5 As 3.3.4, combined with forcing to surrender a square
3.3.6 To free a square for another white piece and to block a square
3.3.7 Simultaneously to open a line, block a square, forcing to surrender a square and free a square for another white piece*
4.0 Capture of a black piece by direct attack (38 examples)
4.1 With discovered check
4.2 With check and simultaneous attack
4.3 Combined with Zugzwang
4.4 Thanks to Zugzwang
4.5.0 With sacrifice of a piece (pawn)
4.5.1 Forcing to surrender a square
4.5.2 To decay to an unfavourable position (14 examples)
5.0 Win through queening a pawn
5.1 With Zugzwang
5.2 Pinning
5.3.0 With sacrifice of a piece (pawn)
5.3.1 To avoid stalemate
5.3.2 To open a line
5.3.3 To force the surrender of a square
5.3.4 As 5.3.3, combined with line-blocking
5.3.5 To free a square for another white piece
5.3.6 To decay a black piece to a square unsuitable to prevent a threat (11 examples)
5.3.7.0 To block a line with a white piece

* This long-winded description is applied to White's second move in this Troitzky study (1895): White: Ke3, Qh3, Sg5, Pa3, a4; Black: Kc5, Qg8, Rf7, Ph6 c6. Win. 1. Sc4+, Kd5; 2. Sf6+, R × f6; 3. Qd7+ and soon wins the queen or mates.
5.3.7.1 To block a line with a black piece (Roman theme)
5.3.8.0 Double block (Novotny theme—rook and bishop lines)
5.3.8.1 Double block (Plachutta theme—similarly moving pieces)
5.3.9.0 Obstructing Black’s position
5.3.9.1 Otherwise worsening Black’s position
6.0 Win of a piece by threat of pawn promotion
6.1 Combined with mating threats
6.2 Combined with a threatened mating net
6.3.0 With sacrifice of a piece (pawn)
6.3.1 To force the surrender of a square
6.3.2 To decoy to an unfavourable position
6.3.3 As 6.3.2, combined with line opening
7.0 Underpromotion
7.1.0 Stalemate avoidance
7.1.1 Rook
7.1.2 Bishop
7.1.3 Knight
7.1.4 Rook or bishop
7.1.5 Rook or knight
7.2 Preventing a stalemate for white (knight)
7.3 To win a tempo (knight) (14 examples)
7.4 To construct a mating net (knight)
7.5.0 Consecutive promotion (by White) of two pawns
7.5.1 As 7.5.0, but three pawns
7.6 Both sides underpromote
8.0 Various themes
8.1 To give Black the move.

It is very interesting to observe the development from classification by a selection of basic tactical ideas (Troitzky, the founder of modern study composing) to the more sophisticated method incorporating ideas, such as systematic manoeuvres, which are nearer to strategy (Korolkov). It is also interesting to the followers of style to observe the exploitation of certain types of theme by individual composers. This is facilitated by noting the major cases of multiple examples in the two indexes.

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A. MANDLER, *Výběr 64 Vězových a Pěšcových Studií* (‘64 Rook and Pawn Endings’), Sportovní a Turistické Nakladatelství, Prague, 1964.


4. Apologist

Tartakower was once asked who was the greatest player of the World Champions Lasker, Capablanca and Alekhine. His answer was that if chess is a science, Capablanca was the best, if it is an art, Alekhine, but if it is a game, then Lasker!

GAME, SCIENCE OR ART?

Libraries put chess among the sports and pastimes, which is more rational than alongside physics or sculpture. Chess as it impinges on the non-chessplaying world is a game, and indeed there are chessplayers, one wins, loses and draws, there are competitions and championships. But perhaps the classification is not quite so clear-cut. There are competitions in music and sculpture, and there are mathematical games. Patterns are common to games, sciences and the arts. 'The skill with which we can pick out patterns from a mass of data is the skill with which one is a scientist. Art is about patterns as well, but in art it is not the basis of the patterns that matters but the effect of the patterns.'

From this point of view one may well claim that there are artistic and scientific elements in the game of chess. The question arises whether it is possible to distinguish these elements from each other and even define them. At least, the question arises for the kind of person who may read this chapter, and whom I have called an apologist.

As a starting point we assume that chess consists of game, science and art, and of nothing else. This may or may not be true, for there could be scope for something metaphysical, but as a basis for discussion it is widely acceptable. Considering the three constituents as notions in their own right we can see that by its nature science should be susceptible to logical treatment, that games are also sufficiently familiar

* Take ex-World Champion Botvinnik's considered opinion. 'I believe that chess isn't a science, but a sport. But if you've created a gem of a chess game and it survives through the centuries, then it is an art. Still, after all has been said, chess is an intellectual sport, to be more precise, a mathematical game, but in a broader meaning of the word, as cybernetics understand it. Running a factory or a sector of the economy is a game for them, and military science too.' Interview in Soviet Weekly, 21–28th December, 1968.


D. Bronstein v. B. Larsen
Amsterdam Interzonal, 1964
Position after Black’s 19th move

Here is the epitome of the attraction of top class chess—an inextricable and dramatic mix of artistic invention, scientific calculation and over-the-board game factors such as determination and luck. The game finished:
20. Sxe4, B x e1; 21. Se6, B x f2 + ;
22. K x f2, fe; 23. Qg4, RF8 + ; 24.
Kgl, Rf6; 25. Qh3/i, Qf8; 26. Sg5,
Rf1 + ; 27. Kh2, Rf5; 28. S x e6, Rh5;
29. Q x h5, gh; 30. S x f8, R x f8;
Resigns.
(i) Deemed by Bronstein to give at least a draw was 25. de, Qf8; 26. e7,
Rf1 + ; 27. Kh2, Qf5; 28. Q x f5,
R x f5; 29. R x a7, Rc8; 30. S x d6,
Re5; 31. S x c8, S x c8; 32. Ra8.

Larsen, however, gives 25. . . . S x c4
as winning, in all probability, for
Black.

and uncontroversial for them to be readily put under the microscope, and that art is the least tractable. Our investigation of the tangled chess mass of game-science-art (427) should therefore yield best results if the scientific element is first identified, then the game element may be isolated from what is left, and the final remainder, if any, must be art.

Advice to play the board and not the man suggests that a sharp line may be drawn between the forces on the chessboard (together with their objective potentialities) and the brains that in a game control them (together with the subjective ideas in these brains of these potentialities). The distinction is merely between inanimate and animate. Black and White do not, when mixed, form grey matter! Consider the inanimate. It has no choice. It obeys the push and pull of cause and effect. It can be subjected to laboratory scrutiny or analysis and its secrets extracted with greater or lesser success, dependent in part on the complexity of the data. With all data rigidly defined and with all secrets of their interactions known, the effects of any combination of the data may be simulated in a computer, provided the latter be powerful enough for the task. Thus have the properties of some new and unmanufactured complex chemical compounds been successfully predicted working from basic information of formula and molecular structure.*

* What, then, might be the data, the inanimate elements, the

scientific subject-matter of chess? They are the board, which we shall abbreviate to $B$, by which is to be understood the normal arrangement of sixty-four squares; the normal complement of thirty-two chessmen, abbreviated henceforth as $M$; and the rules, $R$, governing the actions of the $M$ on the $B$. The ensemble of scientific data can now be called $BMR$, which it will frequently be found convenient to place within brackets, thus: $(BMR)$. As win, loss and draw are effectively defined by the $R$, we may introduce easily a perfectly scientific notion of analytic proof or truth, denoted by $T$, and it is now possible to write $(BMR)T$ with the clear meaning of full and exhaustive chess analysis with a definite result (namely, win or draw). We may also define $(BMR)_1$ to mean the data for a single position, and by natural extension $(BMR)_n$ means the data for $n$, or all, positions, and $(BMR)_1T$ means the analytic ‘truth’ about a specific position.

It may be felt that some demonstration is called for to show that this isolation of the scientific elements in chess is really as easy as this. The twenty-two pages of The Laws of Chess* provide the means. Each Article of the Laws may be taken separately to see if it is $BMR$ or not. As one would expect, game elements loom large, so we find ourselves incidentally but usefully engaged in the second phase of our task, the separation of the game, which we shall call $G$, from the tangled mass. It is very interesting that the character of $G$ in chess emerges quite sharply from the following analysis of the Laws.

\begin{align*}
\text{Article in The Laws of Chess} & \quad B + M + R \quad \text{(scientific elements; board, men and rules)} \\
2 & \text{the board (B)} \\
3, 6 & \text{the men (M), including the limit to their number and their powers of movement} \\
1, 3 & \text{separation into White and Black (R)} \\
1 & \text{opposition of these two (R)} \\
5, 6 & \text{the move (R)} \\
5, 3 & \text{capture (R)} \\
10.1, 10.3 & \text{check (R)} \\
10.2 & \text{checkmate (R)} \\
10.1 & \text{stalemate (R)} \\
4 & \text{alternation of move (R)} \\
12.4 & \text{50-move draw (R)} \\
12.3 & \text{draw by repetition (R)} \\
11.1 & \text{object of the ‘game’ (R)} \\
(20) & \text{(interpretation of the laws) (R)} \\
\end{align*}


In other words $G$ elements relate to the actions and interactions of living persons engaged in a game. For instance it has been found necessary in applying the fifty move draw rule to require that a player make a claim; the intent is to reduce disputes. The Articles concerned, 12-3 and 12-4, thus appear under both $BMR$ and $G$, but the straight counting of fifty consecutive moves on either side without pawn move, without capture and without mate, is unequivocally pure $BMR$. The distinction between the impersonal and the personal is sharp in every case, even obvious. We may note nevertheless that this distinction is not made in the Laws themselves, since it is irrelevant to their aim. Article 1, for instance, begins, ‘The game of chess is played between two opponents . . .’ (my italics). On the other hand there is a consistent, if small, indication of the distinction in the use, at least in the English edition, of upper case $W$ and $B$ (for White and Black) to denote live players (such as in Article 14-7 relating to clocks), while any adjectival reference to the inanimate chessmen (such as Article 1, the initial game arrangement) employs lower case $w$ and $b$.

The thirty-two men come under $BMR$, but the initial game arrangement (428) comes under $G$. For $(BMR)_1T$, i.e. scientific, purposes, it is not necessary for more than the two kings to be on the board. Mate is a $BMR$ element, but the notching up of a point is $G$. There are many $G$ elements that do not arise in the Laws: blunders, psychology, physical factors, organisation, post mortems, being on or off form, and Master and Grandmaster titles, to give a few examples. It may not be possible,
If chess is a scientific game, what are the scientific elements, and what are the game elements, in the starting position?

(BMR) or (G)? See text

White to Play

16-16

III-4 The Serious

III-4 Apologist

scientific and the game aspects do in fact mutually interact (inextricability) and this fact is simply represented by juxtaposing the expressions:

\[ P(BMR)_T P(G) \]

Thus BMR and G remain distinct, despite the indubitable influence that each has in the player’s mind in the course of a game.

If one could imagine a player so accomplished that he was capable of \((BMR)_T\) not only in analysis but in over-the-board conditions as well, then, for him:

\[ P(BMR)_T P(G) = P(BMR)_T \]

Substituting words for the symbols, such a player would not have the handicaps and distortions of ordinary players, would not suffer the P and the G modifications and dilutions of the pure chess truth \((BMR)_T\). In algebraic terms, P and G in the formula ‘disappear’ to a value of unity. Of course, such a player has not been born. Even if we restrict the meaning of \((BMR)_T\) to the best move in the position, a truth much more easily discovered than the whole truth about that position, such a player is not likely to appear on this earth. But we have now stated an ideal, even in this ‘best move’ compromise, and as an ideal it is the goal of every ambitious player. Therefore, and it is here that we find a very practical result from our investigation, it is quite practicable for a coherent and comprehensive training schedule to be worked out using the above equated expressions. The objective of the training schedule would be systematically to reduce the values of the variables P and G in the expression \([P(BMR)_T P(G)]\) so as to bring its resultant value as close as possible to the ideal \((BMR)_T\) for each individual undergoing the training.

Before trying to pin down the elusive art content of chess we may briefly examine the question whether the game element or the scientific element is the ‘more important’, or indeed whether they are of equal importance. Interaction between the two occurs only in over-the-board chess, so let us see what happens when there is a crisis. A typical crisis is time trouble. Does the player move, or does he continue searching for the best move? He moves. Or, if he does not move, he loses on time, another typical G element. To my mind this is sufficient evidence that in over-the-board play G overrides BMR. It is not even possible to consider them as equal. A player unhappy with the chess clock has not come to terms with the game elements in chess. He may be happier, and of greater service to the chess community, as a theorist, whether of openings or endings. There are no G elements in the chess activities of the theorists. Nor are there G elements in the realms of chess composition.
III-4 The Serious

Silberstein v. Veresov
Semi-final, USSR Championship, 1969

Position after White's 48th move

Black to Play

Not that there is any inherent superiority of \((BMR)T\) over \((GT)\). The arguments in favour of struggle, uncertainty, excitement and so on are very strong. *The presentation in this chapter merely draws the distinction.

Mention of chess composition introduces studies for the first time. It leads naturally on to the third element, art, which, as a gratifying justification of our method, has not raised its head until now. The competitive element \(G\) gives the majority of chess enthusiasts their satisfaction with the game, but few players can be strangers to the pleasure of arriving at \((BMR)\) truth after hard analytic labour. On top of these bonuses there is undoubtedly in chess something we must call aesthetic (429). Symmetry, economy, variations (the counterpoint of chess composition), multum in parvo, surprise, the sacrifice of material to achieve positional compensation—consider all these and more. They have an effect on us. Music and science also may affect us. To which is chess more closely related? To me it is clear that the aesthetic effect of chess is closer to that observed in science than to that of music, if only because the capacity of chess for expressing emotion is so severely restricted, however much emotion the player, composer or solver may feel. Be that as it may, chess does speak to some people and allow them to speak. No one who has won a fleeting understanding of the masterpieces of Capablanca, Rubinstein, Alekhine, Bronstein, Botvinnik, Keres, Tal or Fischer, not to mention Liburkin or Kasparyan, will deny that it is proper to apply the word beauty to certain chess phenomena (430 to 432). Chess at a high level can be artistically creative.


III-4 Apologist

V. A. Korolkov and L. A. Mitrofanov
2nd Prize,
Shakhmatnaya Moskva, 1962

1. Rg7+/i; Kf1/i; 2. Rxg1+, Kxg1;
3. Rh1+/i, Kxh1; 4. ab, Rh8; 5.
Kxc6, Kg2; 6. Kb5, Kf3; 7. Ka6,
Ke4; 8. Ka7, Kd5 and wins/iv.
(i) Though two pieces down, White is
to win.
1. ab?, Rxh8; 2. Rxh8, Rxh6,
or 1. Rxh8?, Bxc8+; 2. Kxc6,
Bxa6 only draw.
(ii) Now if 2. ab?, Rxh8; 3. Kxc6,
Rh6+, or here 3. Rg1+, Kxg1;
4. Kxc6, Kf2 and draws, see (iv).
(iii) White, with rook and two pawns
opposed to two rooks and a bishop,
sacrifices his rook for nothing.
White then wins with just his two
pawns, even though neither is at this
moment on the seventh rank.
Impossible, but true.
(iv) With Black’s king already on c5,
this would obviously only draw. The
study leaves an extraordinary
impression.

L. A. Mitrofanov
1st Prize,
Vecherny Tbilisi, 1967

1. b6+, Ka8; 2. Re1/i, Sxe1; 3.
g7, h1Q; 4. g8Q+, Bb8; 5. a7/i,
Sc6+; 6. dc, Qxh5+; 7. Qg5/i, 
Qxg5+; 8. Ka6/iv, Bxa7; 9. c7/v
and miraculously wins with two
pawns against Black’s queen, bishop
and knight.
Super-romantic play in a
near-classical setting. A quite incredible
achievement. The award spoke of
fantastic queen play, strategic subtleties
and tactical effects.
(i) 2. g7?, h1Q; 3. g8Q+, Bb8
leaves White helpless, so he sacrifices
his only piece!
(ii) Very strong, but the counterplay
is even stronger.
(iii) 7. Ka6?, Qe2+, so again White
sacrifices!
(iv) Wins against 8. ... Qe7 or 8 ... 
Qa5+, see (v).
(v) 9. ... Qa5+; 10. Kxa5, Kb7;
11. ba, Kxa7; 12. c8Q wins.

Tragically, this study came under a
cloud in 1970. In a September issue of
64 A. Kuindshy showed a complex
drawing beginning with 2. ... Sc4+.
One line runs: 3. Kb5, Sxb6; 4. Kxb6,
Sxe1; 5. g7, h1Q; 6. g8Q+, Bb8;
7. Qg7, Qg1+!; 8. Qxg1, Ba7+. A
brilliant cloud. ... The composer’s
correction is to remove the white rook
and place the f3 black knight on e1.
This shortens the solution by one
move.
Even in more humble confrontations aesthetic effects arise, though usually by accident. Humour, too, must not be denied. But these effects are rare, and they are rare because they approach the ultimate possibilities of BMR; and to pursue this idea of the ultimate one has to discard G utterly and to replace it by the idea of composition, control by a single brain of the positioning of all the force, white and black. Thus composed \((BMR)_1 T\) has a good chance of being aesthetic, it being, at its best, a symbiosis of ideas from chess and art. Further discussion of the aesthetic aspects will be found in earlier chapters.

Asking whether chess be game, science or art turns out to be rather like asking whether atoms are dangerous, useful or interesting. It depends on the point of view. The raw material of chess BMR, can be used for a game, if we choose; for scientific investigation; or for artistic purposes. In this sense chess is a universal abstract tool of proportions sufficient to challenge the highest sporting, scientific, and perhaps even artistic, aspirations. Let us hope that its lack of 'useful' direct application, for instance in industry, is in fact its strength because it cannot be seriously misused. Chess contributes to worldwide understanding and amity. In this, the study has its part.

**SOCIAL, EDUCATIONAL AND CULTURAL IMPLICATIONS**

According to the view expounded here the chess endgame study is, at any rate in its more advanced manifestations, a branch of chess amounting to a minor arts discipline* worthy of close attention from all who have at heart the social, educational and cultural interests of the community. The links between the intuitions of scientific research and the inventive moments of artistic creation are to-day commonly recognised. 'Science, like art, is an initially imaginative exercise—differing from others in that the intuition is subject to a process of factual scrutiny for its usefulness as a picture of the real.'† What is not recognised is the existence of phenomena such as the chess endgame study which overlap both spheres. The inspiration that comes to the study composer arrives by the same mysterious means, in fact is the same phenomenon, as both the binding vision of a poet and the sudden insight of Watson's double helix solution to the problem of the structure of deoxyribonucleic

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* There is a chess faculty in the Central Institute for Physical Culture and Sport in Moscow. The entrance examination includes the solving of three endgame studies.

† A review by Dr Alex Comfort in the *Guardian* of the 21st August, 1969, of Prof P. B. Medawar's *Induction and Intuition in Scientific Thought*, Methuen, 1969.
acid (DNA). The terms in which Watson relates his remarkable story frequently correspond with those a study composer would use to describe his experience. Consider the following extracts.* He is discussing his faith in the method of investigation, which involves 'playing with molecular models'. 

'... almost immediately Francis (Watson's colleague Crick) saw that the reasoning which had momentarily given us hope led nowhere ... Several times I carried on alone for half-an-hour or so, but ... my inability to think in three dimensions became all too apparent ...' Later, '... Not until the middle of next week, however, did a non-trivial idea emerge. It came while I was drawing the fused rings of adenine on paper. Suddenly I realised the potentially profound implications ...' '... anxious to publish quickly ...'.

For unreasoning faith, and for humour: '... by the time I had cycled back to college and climbed over the back gate, I had decided to build two-chain models. Francis would have to agree. Even though he was a physicist, he would have to agree that important biological objects come in pairs.'

The laws governing the abstract mini-world of chess being as strict as the laws of nature in the great physical world, and as difficult to apply, as experienced players will confirm, it may then seem that the study has more in common with science than with art. Strict verification (soundness) is paramount. Hence the title of this book. But the rapturous outbursts that greet some of the finest study compositions also lend support to the view that art is the study's truer spiritual home.

The foregoing is to my mind evidence that the chess endgame study provides a ready-made way to close the gap between art and science. Building on the foundation of a little chess education, which may start at six years old or earlier, everyone may learn the vocabulary of chess, and hence of the chess study. This will supply a common language and a common ground for the two cultures, perhaps even a unique means of insight for each into the other's world. That chess is quite international, that it can be a lifelong interest, and that the longevity of chessplayers is an almost established fact, are quite incidental benefits!

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*The Double Helix*, by James D. Watson, Weidenfeld and Nicolson, 1968. The extracts are from pp. 76, 155, 184, 158 and 171.

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**Diagram Retrieval Key**

(Using the Roycroft modification of the Guy-Blandford system)

If white and black force is known, any diagram is instantly retrievable.

<table>
<thead>
<tr>
<th>0 0</th>
<th>0 1</th>
<th>0 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 3</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1 0</td>
<td>1 1</td>
<td>1 2</td>
</tr>
<tr>
<td>1 4</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>2 0</td>
<td>2 1</td>
<td>2 2</td>
</tr>
<tr>
<td>2 5</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

Even if the force is partially remembered, the search will usually be brief. The force must be coded from the above table to form a Q-R-B-S four-digit key with two additional and normally optional decimal places to denote the total of white pawns (first decimal place) and black pawns (second decimal place). There will be a single code digit for the queens, and this will be the first of the four digits of the key. The table is then used in the same way to code digits for the rooks, bishops and then lastly, the knights. It will be seen that the table groups digits in threes, the desired code being in every case the third, the one under the digits that denote respectively the number of white (left upper digit) and black (right upper digit) men present of the type to be coded.

If no white man, then the top row is used, if one white man the second row, and if two white men the bottom row. The resultant Q-R-B-S four-digit key (with or without the pawn decimal places), then allows immediate consultation of the Directory on pp. 354–7.

Example: A single white bishop against a single black rook, with or without pawns. Following the rules given above, queens (zero-zero) give code 0, rooks (zero-one) give code 3, bishops (one-zero) give code 1, and knights (zero-zero) give code 0. The four-digit key is therefore 0310, with decimal places (white pawns, then black) ignored. Consultation of the Directory identifies diagrams 201, 179, 52, 53, 246, 83, 133 and 405.

The table can be ignored if one simply counts 'one' for a white man and 'three' for a black man. This codes 'one white and two black' as 7 automatically. Code 9 is used for 'all other combinations'—see 3009.00 311 in the Directory. The list of positions with alfil or fers is: 57, 58, 60, 62, 64, 65, 67, 70.
AL-ADLI. 9th Century Arab player, author and composer.
ALEXANDRE, A. 1766–1850. Germany. Author.
ALTWEIN. Contemporary German Democratic Republic player.
ANDERSEN, A. 1818–79. Germany. Player, author and composer.
ANTOS. Contemporary Czech player.
ANTOSHIN, V. S. 1929–. USSR. Player.
AVEBAKH, Y. L. 1922–. USSR. Player and author.
BADAI, B. V. 1911–67. USSR. Composer.
BALGO, G. Contemporary French bibliophile.
BARBIER, G. E. 1844–95. France, but also lived in Britain. Player.
BARNES, B. P. 1937–. England. Author and composer (problems).
BARZIN, L. 20th Century Belgian player.
BECKER, A. 1896–. Austria and Argentina. Player and author.
BELENKY, A. M. 1905–. USSR. Composer.
BELOKON, S. G. 1939–. USSR. Composer.
BELYAKIN, S. M. 1921–. USSR. Composer.
BENKO, P. (or Benkő). 1928–. Hungary and USA. Player and composer.
BERNARD. Contemporary Lithuanian Republic player.
BERTIN, J. 18th Century English author of The Noble Game of Chess, 1735.
BLEK, I. 1932–. Hungary. Player.
BILGUER, P. R. von. 1813–40. Germany. Author and composer.
BIRNOW, Z. M. 1911–67. USSR. Composer.
BLAU, R. Contemporary Swiss player.
BONDARENKO, F. S. 1905–. USSR. Author and composer.
BOTVINNIK, M. M. 1911–. USSR. World Champion 1948–63 (with two breaks due to Smyslov and Tal), author and composer.
BRANTON, A. H. 1929–. USA. Composer.
BRIEGER, R. 1925–. USA. Composer.
BRON, V. A. 1909–. USSR. Composer.
BRONSTEIN, D. 1924–. USSR. Player, author and composer.
CHAPAIS, F. Late 18th Century French analyst.
CHEKHOVSKY, V. A. 1908–65. USSR. Player and composer.
CHOMSKY, N. 1928–. USA. Pioneer of the ‘transformational grammar’ school in contemporary linguistics.
COCK, J. C. Contemporary English player.
COOK, E. B. 1830–1915. USA. Composer.
CORDER, M. J. Contemporary English player.
COSTER, C. H. Late 19th Century English composer.
COZENS, W. H. Contemporary English author.
COZIO, COUNT CARLO. 18th Century Italian author (composer).
DAMIANO. 16th Century Portuguese player, author (composer).
DEL RIO, ERCOLE. ca. 1718–ca. 1802. Italy (Modena). Player, author and composer.
DOBRESCU, E. 1933–. Rumania. Composer.
DOLGOY, V. N. Contemporary USSR composer.
EFRON, A. 1899–. USA. Composer.
EHRLICH, L. 20th Century Austrian composer.
ERLER. Contemporary German Democratic Republic player.
ERMENKOV, E. 1949–. Bulgaria. Player.
ESTRIN, Y. B. 1923–. USSR. Player and author.
FILIPPOVICZ, A. 1930–. Poland. Player.
FONTANA, R. 1928–. Switzerland. Composer.
FOX, A. W. 1881–? USA. Player.
FRAENKEL, H. 1897–. English (ex-German) author.
FRANZ, R. 1822–85. Germany. Author and composer.
GASPERONI, F. 18th Century Italian.
GHIȚESCU, T. 1934–. Rumania. Player.
GIANUTIO, H. Late 16th Century Italian author (composer).
GLIGORIĆ, S. 1923–. Yugoslavia. Player and author.

GOLOVKO, N. G. 1917–. USSR. Player.

GORGIEV, T. B. 1910–76. USSR. Author and composer.

GRECO, G. 1600–34. Born in Greece, spent youth in Italy (Calabria). Player and author.

GRIGORIEV, N. D. 1895–1938. USSR. Player, author and composer.

GRZEBAN, G. 1902–. Poland. Composer.

GULYAEV, A. P. 1908–. USSR. Author and composer (sometimes under the name ‘A. P. Grin’).


HATHeway, C. Early 20th Century USA. (?) composer.


HERBSTMAN, A. O. (or I.). 1900–. USSR. Author and composer.


HERLIN, T. 1817–89. France. Composer.


HILDEBRAND, A. 1921–. Sweden. Author and composer.

HODGES, A. B. 1861–1944. USA. Player.


ISARYANOV, V. P. 1925–. USSR. Composer.

JACOBS. Contemporary USA player.

JANOSI, E. 1936–. Rumania. Composer.


JESPERSEN, J. 1848–1914. Denmark. Author and composer.


KALANDADZE, V. I. 1935–. USSR. Composer.

KALININ, A. K. 1914–. USSR. Composer.

KAMININ, S. M. 1908–43. USSR. Composer.


KASPARYAN, G. M. 1910–. USSR. Player, author and composer.

KEREZ, P. P. 1916–75. Estonia and USSR. Player, author and composer.

KEYM, W. Contemporary German composer.

KHACHATUROV, A. A. 1917–. USSR. Player and composer.

KHASIN, A. I. 1923–. USSR. Player.

KIESERITZKY, L. 1805–53. Poland. Player.


KINZEL. Contemporary Austrian player.


KIVI, V. 1905–. Finland. Composer.


KLINCOV, M. N. Contemporary USSR composer.

KLOVAN, Y. Y. 1935–. USSR. Player.

KÖNIG, I. 1899–. Austria, England and USA. Player, author and composer.

KORCHNOI, V. L. 1931–. USSR. Player.

KOROLKOV, V. A. 1907–. USSR. Author and composer.

KOTOV, A. A. 1928–. USSR. Composer.


KRASNOV. Contemporary USSR player.

KUBBEL, L. I. 1891–1942. Russia and USSR. Author and composer. One of three chess-playing brothers, Kubbel was christened Karl Artur Leonid. He amended his forenames to Leonid Ivanovich subsequent to the 1917 October Revolution.

KUZNETSOV, A. P. 1913–. USSR. Composer. (Not related to An. G. Kuznetsov, another contemporary USSR composer.)

LAMARE, M. 1856–1937. France. Player, author and composer. His 'Traité des Fins de Partie' appeared in 1924 under the pseudonym of 'Un Amateur de l'Ex-U.A.A.R.', the latter standing for 'Union Amicale des Amateurs de la Régence', and the Régence was a famous Paris café where much chess was played in the 18th Century and later.

LARSEN, B. 1935–. Denmark. Player and author.


LASKER, EM. 1868–1941. Germany. World Champion 1894–1921 and author.

LERCENTHAL, B. VON. Early 19th Century German author.


LEWANDOWSKI, A. Contemporary Polish player and composer.


LIBURKIN, M. S. 1910–53. USSR. Composer.

LISITSYN, G. M. 1909–. USSR. Player and author.

LOLLI, G. 1698–1769. Italy (Modena). Player, author and composer.


LOSHINSKI, L. I. 1913–76. USSR. Composer.


LOYD, S. 1841–1911. USA. Player, author and composer.

LUCENA, J. R. 15th Century Spanish player, author (composer?).

LYAVDANSKI, V. K. 1931–. USSR. Player.

MCARTHUR, REV. G. 1829–2 Scotland. Composer.


MALICH, B. 1936–. German Democratic Republic. Player.


MARKS, E. Late 19th Century English composer.

MARSHALL, F. J. 1877–1944. USA. Player.

MASLOV, L. P. 1935–. Poland. Player.

MATANOVIĆ, A. 1930–. Yugoslavia. Player.


MATULović, M. 1935–. Yugoslavia. Player.

MECKING, H. C. 1952–. Brazil. Player.

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MENDHEIM, J. ?–1836. Germany. Player and composer.
MILLER, A. C. Contemporary English composer.
MISSIAEN, R. 1925–. Belgium. Composer.
MONTIGNY, A. Early 19th Century French composer.
NADAREISHVILI, G. A. 1921–. USSR. Author and composer.
NAJIM AL-KHADIM, 9th Century Arab player.
NAJDOFF, M. 1910–. Poland and Argentina. Player.
NEIDZE, V. E. 1937–. USSR. Composer.
NESTORESCU, V. 1929–. Rumania. Composer.
NOVOTELNOV, N. A. 1911–. USSR. Player.
OLYMPIEV, B. Contemporary USSR composer.
OPPELEN, O. VON. 1783–1860. Germany. Author and composer.
ORTega, Contemporary Cuban player.
PADEVSKY, N. B. 1933–. Bulgaria. Player.
PECHECK, J. E. 1896–. USA. Composer.
PERELMAN, M. N. Contemporary USSR composer.
PERKONIJA, P. 1941–. Finland. Composer.
PETROSIAN, T. V. 1929–. USSR. World Champion 1963–69. Editor of 64.
PETROV, A. D. 1794–1867. Russia, though much of his life spent in Warsaw. Player, author and composer.
PITZLER, 20th Century Australian player.
PLATOV, M. N. 1883–1938. Latvia and USSR. Composer. Brother of the following, and probably lesser collaborator in their joint compositions.
PLATOV, V. N. 1881–1952. Latvia and USSR. Composer, usually jointly with his brother.
PODGAETS, M. Contemporary USSR player.
POGOSJANTS, E. L. 1935–. USSR. Composer.
POLERIO, G. C. 1548–1612. Italy. Player, author and composer.
POPOV, L. 1936–. Bulgaria. Player.
PRIMETT, A. P. Contemporary English player.
PRINS, L. 1913–. Netherlands. Player.

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PROSKUROWSKI, W. 1936–. Poland and Sweden. Composer.
RAABAR, 9th Century Arab player.
RAIN, C. 1910–. Rumania. Composer.
REEK, J. VAN. Contemporary Netherlands composer.
RESHEVSKY, S. H. 1911–. USA. Player.
RETI, R. 1889–1929. Central European (born near Bratislava, died in Prague), hence probably best considered as from Czechoslovakia. Player, author and composer.
ROBERTSON, G. T. Late 19th Century USA (Philadelphia). Composer.
RUY LOPEZ, J. V. 16th Century Spanish player and author.
SAAVEDRA, F. 1849–1922. Spain, but travelled widely as priest.
SALVIO, A. Early 17th Century Italian player and author. Not to be confused with C. Salvio (1850–1930), author and composer.
SARYCHEV, A. I. 1909–. USSR. Composer, often jointly with his brother.
SARYCHEV, K. V. 1909–50. USSR. Composer, lesser partner in joint compositions with his twin brother.
SCHEFFERS, E. S. 1850–1904. Russia. Player.
SCIPIONE GENOVISO. 17th Century Italian, quoted by Salvio.
SEYBOTH, I. M. 1924–38. USSR. Player and composer.
SHAMKOVICH, L. A. 1923–. USSR. Player.
SHINKMAN, W. A. 1847–1933. USA. Author and composer.
SIAPERAS. Contemporary Greek player.
SISEROV, B. Contemporary USSR composer.
SILBERSTEIN. Contemporary USSR player.
SIMAGIN, V. P. 1919–68. USSR. Player.
SMYSLOV, V. V. 1921–. USSR. World Champion 1957–58, and composer.
SOKOV, V. A. 20th Century USSR composer.
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SPASSKY, B. V. 1937–, World Champion 1969.
STAMMA, P. 18th Century player, author and composer of Syrian (Aleppo) origin.
STEIN, L. 1934–73. USSR. Player.
SUTHERLAND, M. A. 20th Century English player and author.
SZABO, L. 1917–. Hungary. Player.
THORNE, H. W. Contemporary USA composer.
TIJAVLOVSKY, V. 1928–. USSR. Composer.
TOLEDO, G. Contemporary Brazilian player.
TOLMACHOV, L. Contemporary USSR composer.
TRZESOWSKI, A. 1936–. Poland. Composer.
UNZICKER, W. 1925–. German Federal Republic. Player.
VEITCH, W. 1923–. Scotland. Player and composer.
VERESOV, G. N. 1912–. USSR. Player.
VESELY, J. Contemporary Czech player.
VIDOR, L. 20th Century French composer.
VOLOVICH, A. 1936–. USSR. Player.
WADE, R. G. 1921–. New Zealand. Player and author.
WEINBERGER, O. Contemporary USA composer.
WEINSTEIN, R. 1941–. USA. Player.
WESTERINEN, H. 1944–. Finland. Player.
WESTMAN, Y. E. Contemporary Swedish player.
WISE, D. M. Contemporary English player.
YAKOVENKO, V. A. 1941–. USSR. Composer.
ZAKHODYAKIN, G. N. 1912–. USSR. Composer.
ZEGLER, J. Contemporary French composer.