

ENCYCLOPEDIA OF
CHESS
WISDOM

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Eric, who has trained many of the brightest chess prodigies and students of all levels, adds four decades of the experiences at the chessboard to bring readers the whole world of chess.

Eric is the senior editor of the free online chess magazine, www.chesscity.com

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TABLE OF CONTENTS

A NOTE FROM ERIC	13
INTRODUCTION	15
A Guided Tour	17
THE OPENING	19
Development	20
Occupy the Center with Pawns	21
Rim Pawns Should Stay Close to Home	27
The g-pawn Does Not Advance Past the Third Rank	28
The f-pawn Stays Home	30
Do Not Advance Pawns Beyond the Fifth Rank	31
Don't Move a Piece Twice in the Opening	31
Move Pieces Rather than Pawns	32
Semi-Slav Defense: Noteboom Variation	33
Develop Knights Before Bishops	33
Bishops Stay Near the Center	36
Her Majesty Stays in the Safety Zone	37
Castle Kingside As Soon As You Can	37
Sveshnikov Sicilian	39
King's Indian: Saemisch Variation	40
Keep Up With Your Opponent	44
Hang On To Your Pieces	45
Opening Repertoire	46
Move Order	47
Opening Theory	50
Fashion Rules!	51
Italian Game (Giuoco Piano)	51
Evans Gambit	52
Max Lange Attack	53
Two Knights Defense	53
Spanish Game (Ruy Lopez)	54
Scotch Game	55
Russian Game (Petroff Defense)	56
Center Game	56

Vienna Game	57
Allgaier Gambit	58
King's Gambit Declined	59
French Defense	59
The Only Constant Is That Things Change	60
Standard Chess Openings	63
The Modern Approach	63
The Traditional Approach	67
Gambit Chess Openings	69
Queen's Gambit	70
King's Gambit	71
Schara Gambit	75
Blackmar-Diemer Gambit	76
Cochrane Gambit	77
Latvian Gambit	78
Englund Gambit	80
Gambits and their Compensating Factors	80
Queen's Gambit	81
King's Gambit	81
Schara Gambit	83
Blackmar-Diemer Gambit	83
Cochrane Gambit	84
Latvian Gambit	85
Englund Gambit	85
Gambit Summary	87
Declining a Gambit	87
Unsound Gambits	90
Unorthodox Chess Openings	91
Good	96
Bad	97
Ugly	98
Twilight Zone	98
Names of Chess Openings	99
Traps	100
OPENING ROLE OF EACH PIECE	103
Opening Role of the Pawns	103
Ideal Pawn Center	104
Open Game	104
Closed Game	105
Classical Preventions	106
Romantic Interventions	107
Hypermodern Inventions	108
Opening Role of the Knights	110
Tarrasch Defense	111
Trompowsky Attack	111
Opening Role of the Bishops	111
Classical: b5/g5	112
Romantic: c4/e3	112
Sicilian Dragon: Yugoslav Attack	113
Exchange: d3/g5	113
Queen's Gambit Declined: Exchange Variation	113

Hypermodern: Fianchetto	114
English Opening: Symmetrical Variation	114
Edgy: a3/a6/h6/h3	114
Queen's Indian Defense: Nimzowitsch Variation	115
Opening Role of the Rooks	115
Sicilian Defense: Paulsen Variation	116
Opening Role of the Queen	116
Queen at a4: Catalan Opening	117
Queen at a4: Schara Gambit	117
Queen at b3: Gruenfeld Defense: Russian Variations	118
Queen at b3: Evans Gambit	118
Queen at b3: Slav Defense	119
Queen at c3: Queen's Indian Defense	119
Queen at d3: Gurgendze Defense	120
Queen at e3: Center Game	120
Queen at f3: Muzio Gambit	121
Queen at g3: Center Game	121
Queen at h4: English Opening	122
Opening Role of the King	122
Transition	124

THE MIDDLEGAME

125

Attack	125
Pawnstorm Against Fianchetto Formation	128
Central Attack Against Uncastled King	129
Attack on f7 Against Uncastled King	130
Sacrifice at f6 Against Castled King	131
Capablanca's Rule	132
Simplify to Win	136
Bring the other Rook into the Attack!	136
Attack Where You Have the Pawn Majority	137
Sicilian Defense: Najdorf Variation	138
Initiative	139
Defense	142
Types of Defense	142
Passive Defense	143
Active Defense	144
Automatic Defense	144
Philosophical Defense	146
Aggressive Defense	147
Pawns Protect the King	148
Vulnerability of f7	149
Well Defended f7	150
Vulnerability of g7	151
Well Defended g7	151
Vulnerability of h7	152
Well Defended h7	153
Counterattack in the Center	154
Saving Lost Positions	157
Exchange Pieces to Ease the Defense	159

Prohylaxis	160
Overprotection	161
MIDDLEGAME ROLE OF EACH PIECE	163
Middlegame Role of the Pawns	163
Middlegame Role of the Knights	164
Middlegame Role of the Bishops	165
Good Bishop	165
Bad Bishop	166
The Bishop Pair	167
Middlegame Role of the Rooks	171
Middlegame Role of the Queen	173
Middlegame Role of the King	174
Weaknesses	175
Provoking weaknesses	175
Make Sure Your Pieces are Mobile	176
Exposed Pieces	177
Keep Forces on Both Sides of the Board When Kings are	
Castled on the Same Side	179
Transition	180
Material Alone Is Not Enough!	181
Simplify to Win!	183

THE ENDGAME **184**

Attack in the Endgame	185
ENDGAME ROLE OF EACH PIECE	186
Endgame Role of the Pawns	186
Try to Promote Your Pawns!	187
A Rook Pawn Can Be Useless!	187
Endgame Role the Knights	188
Endgame Role of the Bishops	191
Bishops of Opposite Color	193
Bishops vs. Knights	194
Endgame Role of the Rooks	196
Endgame Role of the Queen	202
Endgame Role of the King	202
Study by Richard Reti	203
The Opposition	204
Mating Material	207
Zugzwang	207
Exchange to Win!	209
Four Critical Positions	210
Opposition Position	210
Lucena Position	211
Philidor's Position	211
Queen and Bishop Pawn Draw	212
Summary of the Three Stages	214

STRATEGY **215**

Coordination	217
Queen and Rook	217
Queen and Bishop	218
Queen and Knight	219
Rook and Bishop	219
Rook and Knight	220
Two Rooks	222
Control the Center	223
Space	227
Pawn Structure	228
1. Backward Pawns	228
2. Doubled Pawns	232
3. Fianchetto Structures	238
4. Hanging Pawns	240
5. Hedgehogs	242
6. Holes	245
7. The Isolated d-pawn	248
8. Passed Pawns	250
9. Pawn Chains	252

TACTICS, SACRIFICES, AND COMBINATIONS **257**

Tactics Defined	257
Sacrifices Defined	258
Combinations Defined	259
Piece Tactics	260
1. Blocking	260
2. Choke (Brinkmate)	261
3. Clearance	262
4. Deflection	263
5. Decoy	264
6. Desperado	265
7. Destroying the Barrier	266
8. Discovered Attack	268
9. Discovered Check	269
10. Double Attack	270
11. Double Check	270
12. Fork	270
The Knight Fork	271
The Bishop Fork	271
The Rook Fork	272
The Queen Fork	272
The King Fork	273
13. Forced Moves	273
14. Interference	274
15. Intermezzo	275
16. Overloading	276

17. Pin	276
Absolute Pin	277
Relative Pin	277
Terminal Pin	277
Perfect Cross	278
St. Andrew's Cross	279
Oblique Cross	279
Malteses Cross	280
18. Pursuit	281
19. Removing the Defender	282
20. Skewer	283
21. Trapped Pieces	283
Trapped Bishop	284
Trapped Rook	285
Trapped Queen	286
Trapped King	287
22. Windmill	287
Pawn Tactics	288
1. En Passant	288
2. Breakthrough	289
3. Forks	290
4. Promotion	291
5. Underpromotion	292
Promotion to a Knight	292
Promotion to a Rook	292
Promotion to a Bishop	293
Checkmating Patterns	294
1. Anastasia's Mate	294
2. Anderssen's Mate	295
3. Arabian Mate	296
4. Back Rank Mate	297
5. Blackburne's Mate	298
6. Boden's Mate	299
7. Corner Mate	300
8. Cozio's Mate	300
9. Damiano's Mate	302
10. Damiano's Bishop Mate	303
11. David and Goliath Mate	304
12. Double Bishop Mate	305
13. Dovetail Mate	306
14. Epaulette Mate	308
15. Greco's Mate	309
16. Hook Mate	310
17. h-file Mate	311
18. Legall's Mate	312
19. Lolli's Mate	313
20. Max Lange's Mate	314
21. Minor Piece Mate	316
22. Morphy's Mate	318
23. Reti's Mate	319
24. Opera Mate	320

25. Pillsbury's Mate	321
26. Queen and Pawn Mate	323
27. Smothered Mate	324
28. Suffocation Mate	325
29. Swallow-tail Mate	326
Stalemating Patterns	327
1. Classic Pawn Stalemate	327
2. Rook Pawn Stalemate	328
3. Mattison's Stalemate	329
4. Queen Corner Stalemate	330
5. Wolf's Stalemate	331
6. Tower Stalemate	332
7. Englisch Stalemate	332
8. Paulsen's Stalemate	334
9. Congdon's Stalemate	335
10. King's Head Stalemate	336

ANALYSIS **337**

Value of the Pieces	337
Kotov's Tree of Analysis	347
On Calculation	348
Analyzing in Time Pressure	348

TRAINING **350**

Study the Classics!	351
Studying Games	354
Studying Openings	354
Studying Middlegames	355
Studying Tactics	356
Studying Endgames	357
Physical Training	358
The Lazy Way	359

PSYCHOLOGY **360**

Question Authority!	360
If You Need a Draw, Play for a Win	361
If You Need a Win, be Patient!	363
Play the Position or the Opponent?	366
Unbalance the Position and Unbalance your Opponent!	367
Kindness and Compassion	370
Clock Management	370
Style	371
Psychological Warfare in the Opening	371
Intuition	374

ETIQUETTE	375
Timing of Draw Offer	375
Timing of Resignation	381
Post-Mortem Analysis	386
Kibitzing	387
Playing for Money	388
 RULES	 390
Adjusting the Pieces and the Clock	391
Don't Talk to Your Opponent	391
Touch Move	392
Castling	392
50 Move Rule	396
Time Controls	397
Standard Time Control	397
Amateur Time Control	398
Blitz Chess	398
Whatever Happened to Adjournments?	398
Local vs. Standard Rules	399
Notation	400
Introduction	400
The board	400
The Moves	401
The Symbols	407
The Scoresheet	407
Ratings	408
FIDE Ratings	410
USCF Ratings	410
Other National Ratings	410
ICC Ratings	411
WBCA Ratings	411
PCA/WCC Ratings	411
 LAST WORDS	 412
 RECOMMENDED READING	 414
 CHESS NOTATION	 417
The Moves	418
The Symbols	423
 INDEXES	 424
Index of Concepts	424
Index of Openings	427

A NOTE FROM ERIC...

The reader will hopefully find a great deal of wisdom in this book. This knowledge was not created in my own mind, of course, but comes from the many teachers, friends and opponents I have encountered in over three dozen years of active chessplaying and 15 years of writing on chess. It is not possible to trace the source of each idea. I've quoted authors who have stated a particular concept whenever I feel that they put it better than I ever could, or because the quote is well known. For the most part, however, the influences lie submerged, their journey into my chess philosophy irrecoverable.

Therefore I'd like to mention some of the strongest influences on my game, so that you'll have some idea where all this chess wisdom comes from. My father taught me the game when I was four and half years old, and I had no formal instruction other than his advice, experience, and a wealth of chess literature that I discovered a few years later. America did not have any chess training at the time, and I doubt I could have located such resources if they did exist. At the Manhattan Chess Club and Marshall Chess Club in New York City I was able to receive valuable advice from such venerable chess writers as Al Horowitz, Hans Kmoch, and Edward Lasker. Grandmaster William Lombardy was very helpful to me and other young players at the Manhattan, and when I migrated downtown to the Marshall, many different masters provided instructive competition, including the late Leslie Braun.

In the 1980s, I entered the international ranks and also earned the title of International Arbiter at the encouragement of Ray Keene, whose classic study of Aron Nimzowitsch was one of my favorite books. Ray also got my writing career going, at first with articles for various chess journals and then in full length books for the British publisher B.T. Batsford. I lived in England then, as a housemate of such strong players as Keene, Jon Tisdall, and Murray Chandler. I made frequent visits to Bob Wade, who gave me free run of his fantastic chess library. I also learned a lot of chess at the King's Head Pub, where most of these players, and other stars such as Jon Speelman, were regular visitors. In fact, the analysis of one of the most fascinating adjourned positions of my career took place there. We'll see that game in the section on stalemate.

When it comes to endgame play, the greatest teacher of all has recently passed away. I am not referring to a human teacher, but to the practice of adjourning games overnight. Adjournments have all but disappeared, as we'll learn in the rules chapter.

I learned some invaluable lessons in endgame play while working out my own adjourned endgames or helping others. The best lessons, though, were the analysis sessions conducted with strong players. Grandmaster Vlastimil Jansa and I spent most of one of the Gausdal Internationals examining each other's many adjourned games. As captain of several American teams at international competitions, I sometimes stayed up all night working out difficult endgames with other team members. At Graz, in 1981, we had to work on the marathon contest between John Fedorowicz and Johnny van der Wiel for several days!

As the 80s progressed, I learned more about organizing chess tournaments and was on the staff of several World Championship events, usually as chief of the press center. There the best chess journalists from all over the world, including Oswaldo Leonxto Garcia, David Goodman, Jon "Ace Reporter" Tisdall and famous veterans Leonard Barden, Harry Golombek and Miguel Najdorf, held court. Many of the tales in this book were brought to the world through their reporting.

I started writing on chess during the 1980's and had the fortune of teaming up with strong players who led me to a deeper understanding of the game. Grandmasters Leonid Shamkovich, Ray Keene, Garry Kasparov, Joel Benjamin, and Lev Alburt became colleagues and friends. Many promising young players helped out on some of these projects.

When I help with the training of many of our young stars, I try to go beyond the pure chess teaching to the psychological and social aspects of the game. The education of a chessplayer must include familiarity with the great players and greatest tournaments. These topics are covered in the latter chapters of the book.

I owe a deep debt of gratitude to all of those mentioned above, and countless others who have given me the opportunity to learn some of the secrets of the Royal Game.

INTRODUCTION

*Chess is a game in which a knight may drink
and an elephant may bathe. — Proverb (India)*

The most important concepts, strategies, tactics, wisdom, and thinking that every chessplayer must know, plus the gold nuggets of knowledge behind every attack and defense, is collected together in this book with the goal of bringing you greater pleasure and increased success at the chessboard.

From opening, middlegame, and endgame strategy, to psychological warfare, strategy, preparation, and tournament tactics, and bonus sections on rules and etiquette, the *Encyclopedia of Chess Wisdom* forms the blueprint of knowledge, power play and advantage at the chess board. Step-by-step, you will be taken through the thinking behind each essential concept, and through examples, discussions, and diagrams, shown how you can use this wisdom to fully impact a game to your advantage.

The *Encyclopedia of Chess Wisdom* is a compendium of important chess concepts as passed down from generations of teachers, players, and scholars. This book is unique, however, in presenting important counterexamples to most of these crucial concepts. Each

*Every science
borrows from all
the rest, and we
cannot attain
any single one
without the en-
cyclopedia.*

—Glanvill

All of the important aspects of the game are contained here, from the opening to the endgame, from the psychology of the game to the rules of behavior...

time, however, has forced us to re-evaluate some of these statements. In the discussion of each crucial concept I will point out whenever the old formula may no longer apply. Important corrections based on modern thinking can be found throughout the book.

All of the important aspects of the game are contained here, from the opening to the endgame, from the psychology of the game to the rules of behavior. Although it is impossible to cover any of these in great depth, you will get a good introduction to the key concepts, and will be shown examples from practical play to emphasize each point. A bibliography of recommended books is included so that each topic can be explored in greater depth.

The material is presented with many diagrams and discussion in prose. I've tried to explain everything as clearly as possible, but that doesn't mean that the book is just for beginners. Those starting out on their chess journey will find all of the classic knowledge enlightening, but more advanced players will benefit both from the repetition of important fundamentals they have overlooked, and more importantly, will be ready to absorb the many counterexamples that are provided. Even accomplished masters will find new material here, more weapons to add to their practical arsenal.

This is an encyclopedia in the old sense, an attempt to bring together advice on a wide range of chess subjects. Since entire books are devoted to many of the individual topics presented here, it is not possible to go into any great depth on any single subjects. I have had to confine myself to a single example for each theme. Because progress in chess is largely a matter of pattern recognition you can only expect to understand each of these ideas conceptually. To reinforce each of the concepts you'll need to consult more detailed works, or simply play enough games and study enough games that they become second nature to you.

So browse this encyclopedia for general knowledge, or turn to specific sections on aspects of the game which interest you. Some of the material will no doubt be familiar to all but beginners, but you'll find much of the traditional wisdom called into question here. To enable beginners to master the game, important concepts are often

bit of wisdom contains at least a grain of truth, and this book will help you pick out the useful ideas while avoiding mistaken interpretations.

Chess fans have received tips from the best players in the form of instructional books which have been available for centuries. Much of this wisdom is valuable and you'll find quotations from many great chess players and teachers throughout the book. The passage of


This is an encyclopedia in the old sense...

oversimplified and contradictory situations are conveniently ignored.

Many different chess themes are often seen in a single game, even in one position! Use the index at the back of the book for additional examples of key concepts. The more positions you learn, the easier it will be for you to recognize the opportunities in your own games.

A GUIDED TOUR

It makes sense to start at the beginning of the game, in the **opening** phase. We'll cover a lot of ground in this critical area. We'll begin with the concept of development, bringing your pieces into battle. The vast subject of opening theory will be introduced with specific discussion of standard, gambit and unorthodox openings. You'll learn how openings get their names, and examine a collection of opening traps. Then we will look at each individual piece and how it is best used in the opening phase of the game.



It makes sense to start at the beginning...

When most of the forces have been brought into play, we enter the **middlegame**. The art of attack and defense is our primary interest here. The concept of the initiative and exploitation of weaknesses also play a significant role. Once again, we will consider the role of each piece and in a discussion of the tricky transition between the middlegame and the endgame.

The **endgame** is one of the most complex battle grounds in the game of chess. In addition to our usual treatment of the individual properties of each piece, we will present tips on a range of important issues such as the opposition, making material, zugzwang, and profitable exchanges. You'll find a dozen important endgame positions which are required knowledge for successful endgame play.

We move onto elements of chess **strategy** including piece coordination, control of the center, space, and the essentials of pawn structure. Tactical operations are presented in the next chapter. We look at tactics, sacrifices, and combinations. A collection of checkmating and stalemating patterns completes the chapter.

Advice in the art of chess **analysis** is the next topic. We'll discover that assigning numeric values to each of the chess pieces is a task much more difficult than appears at first sight. The mental gymnastics of chess analysis and calculation are investigated, leading to some practical tips on analyzing in time pressure.

Chess **training** is the subject of many books. Many conflicting views have been presented but there is a consensus on many of the best ways of studying chess games. You'll learn how to study classical games, opening strategy, middle game technique, tactics, endgame strategy, and more. Chess is **psychological** warfare too. A lot of chess games are won because one player adopted the correct psychological attitude. You'll

learn how to question authority, manage the clock, and take advantage of your intuition. Many other practical situations provide instructive lessons in the handling of critical positions.

The later sections of the book contained wisdom of a different nature. Some aspects of chess etiquette and even the rules of the game are not widely known. A bewildering variety of new time controls have been introduced, for example. We'll take a look at many different ranking systems and explained some differences between the local and international rules. You'll find some recommended reading to help you continue your journey into chess at the end of the book.

STRATEGY

*Whoever sees nothing in the game than
that of giving checkmate to one's opponent,
will never become a good chess player.*

—Euwe

Except among rank beginners, games are not decided by checkmate in the first few moves. A long term strategy is needed to create the circumstances in which a mating attack is likely to be successful. Strategic skill is not easy to acquire. Where tactics are mostly a matter of pattern recognition, strategic planning requires intelligence.

Planning requires several things. You must have a good objective grasp of the situation. This is actually the hard part. Once you have worked out the relative merits of each side's position, you can determine whether attack or defense is appropriate. Then you can choose the appropriate form of action.

Although serious errors may change the direction of a game radically, Steinitz's concept that a chess game is won through the accumulation of small advantages still remains the foundation of modern chess. Attack or defend as the position requires, not as your mood dictates. Objectivity is crucial, and each configuration of pieces must be evaluated dispassionately.

The evaluation of a position takes into account both permanent and temporary factors. Of course no advantage is really permanent, a bad move can easily throw it away. Better to think of it as an advantage which you can hold on to.

KOTOV'S LIST OF ADVANTAGES

PERMANENT ADVANTAGES

- Material advantage
- More pawns in center
 - Passed pawns
- Weak enemy squares (whether or not occupied by enemy piece)
 - Healthier pawn structure
- More appropriate minor pieces

TEMPORARY ADVANTAGES

- Vulnerable enemy piece
- Superior coordination
- Control of the center
 - Control of a line
- Advantage in Space

In this chapter we will consider coordination, control of the center, space, and pawn structures.

There is no magic formula to calculate the size of an advantage. Computer programs apply crude algorithms to come up with numbers, but rarely does any human have the capability to explain them. There are so many ways to calculate a numerical evaluation of the position. We learned early on that simply counting up material points does not suffice. Many factors are subtle, and while clear and simple logic is most often associated with chess, sometimes fuzzy logic is more appropriate.

One aspect of the game that Alexander Kotov should have included in his list of temporary advantages is the initiative. This is one of the most important factors in the middlegame, and also plays a role in the opening and endgame. The initiative is discussed in the middlegame chapter.

Strategic planning is best handled by non-linear thinking, absent of calculation. Look at the position. Imagine a similar, but more attractive position (from your point of view). Then try to come up with a plan to transform the present board to the desired one.

We will now look at six aspects of the game which can be especially useful in strategic planning. We start with piece coordination, the degree to which each side's pieces work together. Control of key squares is the next topic. We move on to the effect of control of greater space, which often confers the right to attack. Many books have been devoted to the subject of pawn structure, and we'll just get a brief overview here. We finish up with a discussion of purposeful moves and the importance of the

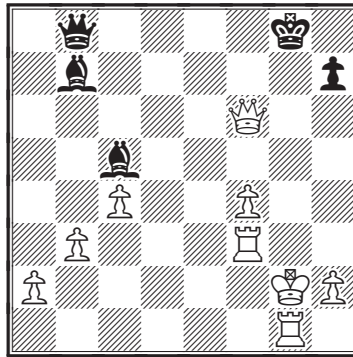
“tempo,” which is a unit used to measure time as it relates not to the chess clock, but to the abstract drama of the chessboard.

COORDINATION

Coordination refers to the ability of your pieces to work together. If they can bear down on a particular square, or defend each other against attack, their combined force is greater than pieces working alone. The better coordinated your pieces are, the more likely you are to win. Whether in attack or defense, pieces working together can easily defeat an army that is scattered. The most tightly coordinated pieces are those that form a **battery**, teaming up to attack enemy territory. Any two pieces can form a battery, though the plodding king and lowly pawn are not generally considered participants because of their limited range.

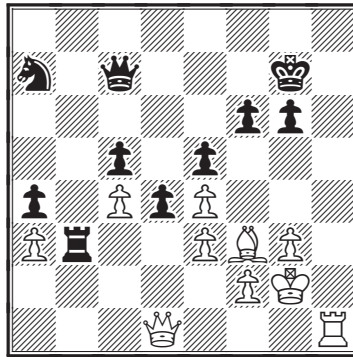
QUEEN AND ROOK

A queen and rook make up the most powerful battery. Against an exposed king, they usually deliver the fatal blow quickly. The following amusing position shows the underlying idea.



Tarrasch won this game against Pribulsky at Berlin 1880 despite the fact that both rooks are attacked, one is pinned and threatened with a capture and check. Tarrasch simply moved his king to h3 with discovered check. Black resigned, because taking the rook at g1 allows the other rook, no longer pinned, to slide to g3 and deliver check-mate.

The checkmating power of the queen and rook battery can be seen in artistic combinations even in scholastic chess. The game between Scott Thibaudeau and Wogae Sung from the Junior Varsity section of the 1998 National High School Championship featured a surprising turnaround.



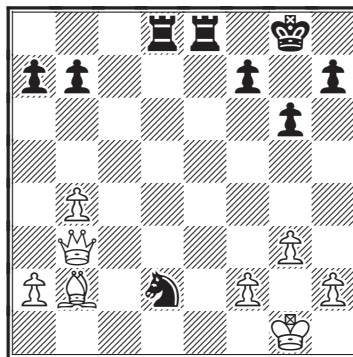
At first, things look bad for White, because the queenside pawns are weak and there is pressure in the center. White has control of the h-file, but Black can defend against queen and rook by retreating the queen to the kingside via f7 and g8. White found the brilliant 33.Bh5!! Black should not have taken the bait.

33...gxh5? This opens the floodgates and the White forces rush in. 33...Qf7; 34.Qg4 Rxa3 allows 35.Bxg6!! Qxg6; 36.Qd7+ Kg8; 37.Rh4! but 34...Rb7! would have left White grasping for a decent move.

34.Qxh5 Qf7; 35.Qh7+?! 35.Qh8+ Kg6; 36.Qh6# would have been more efficient. 35...Kf8; 36.Qh8+ Qg8; 37.Qxf6+ Qf7; 38.Rh8#.

QUEEN AND BISHOP

Queen and bishop can wreak havoc from a long distance, and are a great team as long as there aren't too many pawns on the board. The White battery has to maneuver in surprising fashion in our example, which shows two useful queen and bishop formations.



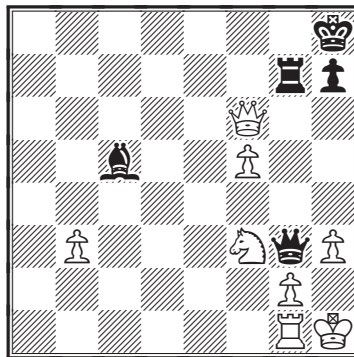
26.Qc3. The battery aims at g7, the mating square. 26...Rd4; 27.Kg2 Red8; 28.Qc7 R4d6? This lets White reconfigure the position for a different mating approach. The

rook should retreat to d7, so that the f-pawn can be advanced and the g7-square will be protected. 28...R4d7; 29.Qe5 f5; 30.Qh8+ Kf7; 31.Qxh7+ Kf8; 32.Qxg6 will win eventually thanks to the extra pawns, but mate is not in the immediate forecast.

29.Bf6! The bishop cannot be captured, because the rook at d8 would hang. The rook cannot advance to d7, because then a check on the back rank would be deadly. 29...R6d7; 30.Qf4! Checkmate blows in from another direction. 30...Re8? This makes it simple. 30...Rd6; 31.Bxd8 Rxd8; 32.Qc7 loses both queenside pawns. 31.Qh6. Black resigned, as mate at g7 is next.

QUEEN AND KNIGHT

The queen working in close proximity to a knight is a tremendous fighting force. Although the queen can cover all files, ranks and diagonals, only the knight can cover a square which is not on a straight line. The ideal coordination of queen and knight is found in the Smothered Mate, which is presented in the chapter on checkmating patterns.



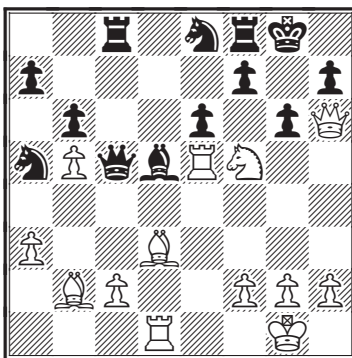
The game Jain vs. Musketh, Hastings 1995, saw mutual checkmating threats as the game approached time control.

After 39.Ne5 Qf2, Black may have felt that White had nothing better than to repeat the position by retreating the knight, faced with mate at g1. White has other plans!

40.Nf7+! Kg8; 41.Nh6+ Black resigned. 41...Kh8; 42.Qd8+ Rg8; 43.Qxg8# is all that is left.

ROOK AND BISHOP

Rook and bishop are ideally coordinated when they converge on a single square. There are a number of checkmating patterns that use these two pieces, as you will see in the section on checkmate. Let's take a variation on one checkmating theme, the Opera Mate. The example is Spielmann vs. Hoenlinger from Vienna, 1929.



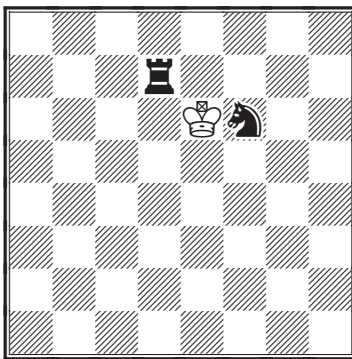
The queen, knight, and distant bishop stare menacingly at g7, but that square is defended by the knight. It is the rook, not the queen, who will deliver checkmate. Not at g7, but h8! First Spielmann gets the knight out of the way of the rook.

25.Ne7+!! Qxe7. The next shot is **26.Qxh7+!!** The queen sacrifices herself so that the rook can team up with each bishop in turn to create a beautiful checkmating combination. **26...Kxh7; 27.Rh5+.** This takes advantage of the power of the bishop at d3, which pins the pawn at g6. The Black king is driven back to the home rank.

27...Kg8; 28.Rh8. The dark squared bishop is the partner as the final curtain is lowered. For the most potent combination of rook and bishop power, see the section on the Windmill in the tactics chapter.

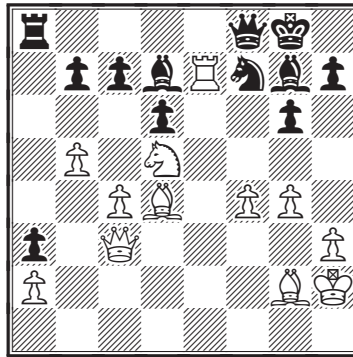
ROOK AND KNIGHT

The rook and knight do not get along all that well. Even working together, they are rarely effective. They can often be attacked by an enemy king, wedged in between them but not under attack.



In an endgame with rook and bishop against rook and knight, the limited range of the knight makes life difficult in many cases. Sometimes, however, a knight can be a

valuable assistant to the rook. When it occupies an outpost in enemy territory, the knight can safeguard a rook on the seventh rank, as in the following position.

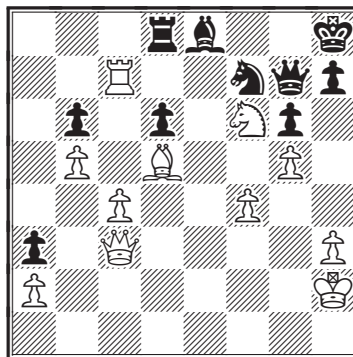


This position was reached in Solt vs. Krizsan, from a game played in Hungary in 1974. The White rook is anchored by the knight at d5. The knight later plays an active role in the destruction of the enemy position.

26...Rd8. Black defends the bishop and thus protects the c-pawn, which cannot be captured by the knight, which must remain at d5 to protect the rook. If the bishop retreated, the c-pawn could be captured by the rook. **27.Bxg7!** This exchange strengthens the power of the rook at e7 by creating a more stable pin on the 7th rank. It also frees f6 for use by the knight.

27...Qxg7; 28.Nf6+! Kh8. If **28...Kf8;** White can take the bishop with check, since the rook cannot be captured while the king must stay at f8 to protect the queen. **29.Bd5 Be8; 30.Rxc7 b6; 31.g5.** Black has no useful move.

The bishop has joined the attack, and now all of White's forces are coordinated, except for the queen at c3, which will quickly move to the e-file.



31...Rb8; 32.Qe3. Black resigned here. After **32...Qf8 33.Re7** the bishop is lost.

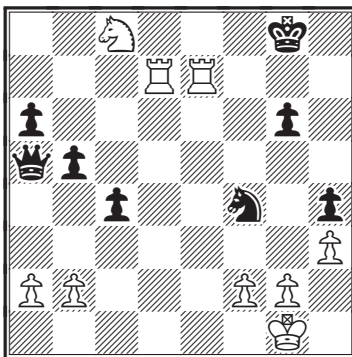
TWO ROOKS

*All things being equal, the player
will prevail who first
succeeds in uniting the efforts of
both rooks in an important direction*

– Znosko Borovsky

When a pair are of coordinated rooks take part in attack, the defense usually has a difficult time. They are best used on adjacent files, because when doubled in a battery they control fewer relevant squares. A battery of rooks cannot smash through a well defended pawn barrier easily. Instead, they are usually used to make progress on open files.

A frontal assault can sometimes be effective but the most deadly infiltration is the occupation of the seventh rank. Doubled rooks on the seventh often threaten perpetual checks and can sweep enemy pieces off the board. An ideal rook battery consists of rooks on the seventh rank of the central files.



The ideal rook battery is seen in Luckis vs. Letelier from the 1946 Mar del Plata tournament. It is Black's turn to move but a defense to the threat of Nd6 and Rd8# is hard to find. Notice that the rooks control not only the seventh rank in its entire length, but also both central files. The control of e1 prevents checks, and the control of d8 stops the queen from getting back to defend. Defeat is inevitable.

The game concluded. 34...Kf8?!; 35.Nd6 g5; 36.Re8#. That was just one of many possible mates!

CONTROL THE CENTER

All schools of thought agree that players should try to control key squares, especially in the center of the board. The center need not be occupied with pawns, but if a player can control the middle ground then winning chances are greatly enhanced.

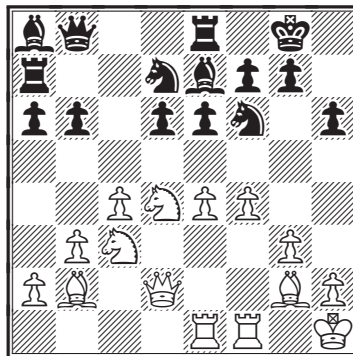
Control of the center brings the possibility of influencing activity on both flanks simultaneously

— Nimzowitsch

Perhaps the most important aspect of controlling the center is that it gives you the freedom to operate on either side of the board, or both! Your pieces can safely transfer from one side of the board to another, with the central zone being safe territory. The defensive side, however, having less room to maneuver, must somehow managed to guard both flanks if a counter attack in the center is not available. Chess masters frequently exploit this by developing threats on both flanks.

As with most of the topics in this book, entire treatises have been written on the importance of the center. Indeed, major philosophical debates have taken place, and the understanding of the center has been greatly refined since the days when occupation of the center by pawns was considered a goal in itself. Domination of the center is now understood to be achieved by a mixture of pawns and pieces. The pieces need not be stationed in the center, but must have scope over the central squares. To have scope over a square, a piece needs to be able to reach it in a single move.

Our example involves the game Timman vs. Portisch, from Tilburg 1979. The position is a hedgehog formation, which is discussed in the chapter on pawn structure. White has greater space, but Black's position is very solid. The defense was very much in vogue at the end of the 1970s. White has just played 17.f4, completing the domination of the middle of the board.



White completely dominates the center. The d5 square is within reach of five pieces,

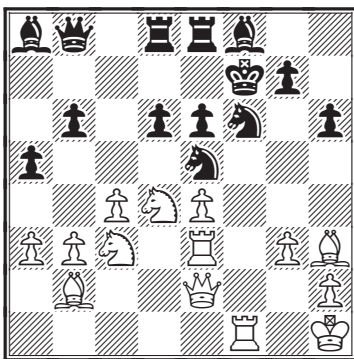
while Black has only three aiming at that spot. The pawn at e4 is supported by three pieces and attacked only by two. The knight at d4 cannot be disturbed except by an advance of the pawn to e5, which would critically weakened d5 and allow the knight to take up a strong post at f5. The e5-square is not yet under White's control, but since the pawn cannot advance from e6, it cannot be put to good use by Black.

17...Rc8; 18.Re2 Nc5; 19.Rfe1 Bf8. White has doubled rooks not to prepare the advance of the e-pawn, but to overprotect it. **20.Qd1!?** The overprotection strategy continues, as White prepares to triple on the e-file without conceding the g4-square to the Black knight.

20...Rac7; 21.Re3 Rd8; 22.Qe2 Rcc8?! 22...e5 might have been tried now, since the knight is easily driven off of its new home at f5. **23.Nf5 g6; 24.Nh4** seems only a little bit better for White. **23.f5!** Despite the buildup on the e-file, this is the intended advance. The e-pawn must stay at e4 or Black will exchange bishops and White will have problems on the light squares. **23...a5.** This allows White to create a serious weakness at e6.

24.fxe6 fxe6; 25.Rf1 Re8; 26.a3 Re7; 27.Ncb5. White is just maneuvering pieces to improve the landscape before the serious work begins.

27...Ncd7; 28.Rd1 Ree8; 29.Nc3 Ne5; 30.Bh3! White's overprotection of e4 allows the bishop to take up an active post, targeting the weakling at e6. **30...Kf7.** There is no other way to defend the pawn, which guards the critical central outpost square at d5. **31.Rf1 Rcd8.**



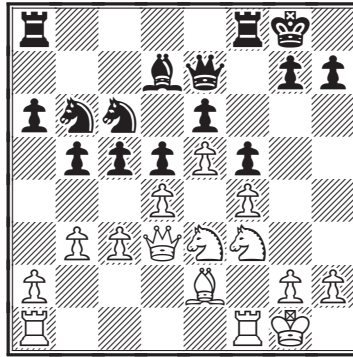
The stage is set for a sacrifice. White still controls three of the four central squares. The knight at f6 is an important defender, which is eliminated with a strong sacrifice.

32.Rxf6+! Kxf6; 33.Qf1+ Ke7; 34.Nxe6 Rc8; 35.Nd5+! Bxd5. Black has no choice. **36.exd5.** The remaining knight is now the critical defender. White can blast it from the board at any time. **36...a4; 37.Nf4 Kd8.** A prettier finish is **37...Rc7; 38.Bxe5 dxe5; 39.d6+ Kxd6; 40.Qd3+ Ke7; 41.Rxe5+ Kf7; 42.Qd5+ Kf6; 43.Rf5+ Ke7; 44.Ng6#.**

38.Bxc8 Kxc8; 39.Ne6. By blocking the e-file, White cuts off a supply line to the knight at e5, which becomes vulnerable. **39...Kb7. 39...Ng4; 40.Qf7! Nxe3; 41.Qxe8+ Kb7; 42.Qd7+ Ka8; 43.Nd8** is another win, with **Qc6+** looming.

40.Bxe5 dxe5; 41.Qf7+. Black resigned. The end comes quickly as the remaining pieces fall. 41...Be7; 42.Nxg7 Rc8; 43.Qxe7+ Rc7; 44.Qxe5 Qh8; 45.d6! Rxd6; 46.Qxd6+ Qxd6; 47.Re7+ with a simple win.

If the center can be blocked, however, it loses some of its importance. Then the speedier flank operation will win. We see an excellent example from the game Rosenthal vs. Zagoryansky at the 1936 Moscow tournament.

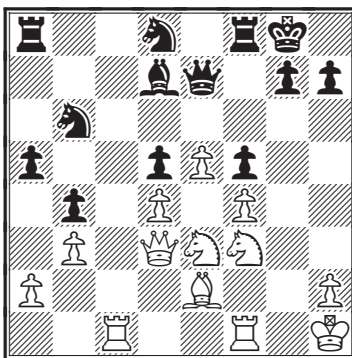


Black has just played 16...f5! White has a difficult choice. There is only one opportunity to capture en passant, but blasting open the kingside is also tempting. As it turns out, neither of these plans is correct. The best way to keep control of the center is, paradoxically, to remove the pawn at d4 by capturing at c5.

17.g4?

With the center closed, White tries to get the kingside attack going. Black's counterplay on the queenside seems insignificant, but it is not. Capturing at f6 would also be an error, but White could have retained the advantage by capturing the pawn at c5. This illustrates the difficulties that proper evaluation of the center can present. 17.exf6?! gxf6; 18.Rfe1 cxd4!; 19.cxd4. Capturing with the knight would have allowed Black to advance the e-pawn to e5 and annihilate the center. The superior 17.dxc5 Qxc5; 18.Rfc1 would have maintained the balance on the queenside. White would have a nice post for the knight at d4, as an exchange of knights would solidify White's advantage in space. 17...b4! The base of the pawn chain is attacked. 18.gxf5 This also attacks the base of the pawn chain!

18...exf5; 19.Kh1 a5. Black continues to play on the queenside. 20.Rac1 cxd4; 21.cxd4 Nd8!



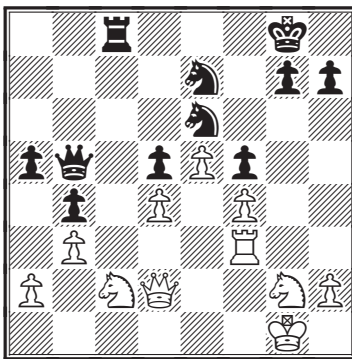
This is a multipurpose move. The knight will take up a new post at e6. At the same time, the bishop at d7 can support an advance of the a-pawn, and the c-file can be contested by a rook at c8.

22.Ne1? This is a very poor move contributes nothing to the kingside attack. White will soon regret his folly. The correct move was **22.Rg1**.

22...Bc8; 23.Qd2. The knight is evidently headed for d3. In any case, White did not want to allow Black to move the bishop to a6. **23...Ne6!** White cannot complete the maneuver, because the pawn at d4 would not be defended if the knight gets in the way of the queen.

24.Rc6? White has no support at all for a queenside invasion. The impudent rook is chased away. **24...Qb7!; 25.Rc2 Bd7; 26.N1g2 Rac8!; 27.Rxc8 Nxc8.** The rook was unavailable for recapturing duty because it needed to remain in a position to guard the f-pawn.

28.Nc2 Ne7; 29.Bd3 Bb5!; Black exchanges bishops. The tide has turned and the blockaded White center is weak. **30.Rf3 Rc8; 31.Bxb5 Qxb5; 32.Kg1.**



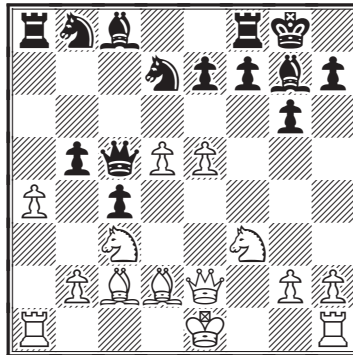
White counts on using f2 as a safe square. The hole at c3 is the reward for Black's bold queenside strategy starting at move 17. In his concern for the king, White over-

looked a simple tactic. 32.Nge3 was the best defense. At least the Black knight at e6 is tied to the defense of the pawns. 32...Rc3; 33.Rf1 Qd3; 34.Qg2 Qe4 would also be unpleasant. Black threatens to capture at d4, but the exchange of queens does not help. 35.Qxe4 dxe4; 36.Rf2 Nxd4!; 37.Nxd4 Rxe3; 38.Rc2 Rc3 followed by ...Nd5 would still be difficult to defend.

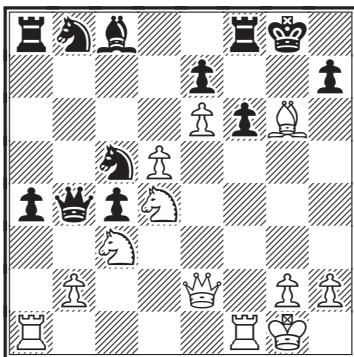
32...Rxc2!; 33.Qxc2 Nxd4; 34.Qc7 A desperate try to stay in the game, but after 34...Nxf3+; 35.Kf2 Nd4, White resigned. 36.Qxe7 is mated by 36...Qe2+; 37.Kg3 Qf3+; 38.Kh4 Qg4#.

SPACE

When you control greater space, you can more freely maneuver your pieces and shift them quickly from one side of the board to another. The space you control is generally an area behind your pawn barrier, if it is intact, or within the scope of your pieces. Remember that a square is within the scope of your piece if it can reach that square in one move, and it doesn't matter whether or not your piece would be under attack on the target square.



20.Nxd4 f6? 20...f5 is better. Still, White has 21.Nxf5 gxf5; 22.Bxf5 with a winning position, for example 22...Nb3; 23.Qh5 Rxf5; 24.Rxf5 and mate follows. 21.Bxg6!



The remainder of the game is not available, but Black is lost in any case. After 21...hxg6; 22.Qg4 Kh7; 23.Rf3 f5; 24.Qh4+ forces mate in 6. 22...g5 is not much better. 23.Rf3. The rook lift is used to get to the h-file. 23...Qxb2; 24.Rb1 Qa3; 25.Qh5 forces mate in 7! 25...Nxe6; 26.dxe6 Bxe6; 27.Qg6+ Kh8; 28.Nxe6 Qc5+; 29.Nxc5 g4; 30.Rf5 Rf7; 31.Rh5+ Rh7; 32.Rxh7#.

Space is generally limited by pawns, either your own or enemy, and therefore will figure prominently in our discussion below.

PAWN STRUCTURE

Attacks on your major pieces require open lines, which means that the defending pawns have been cleared out of the way. If you are defending, you want to keep the pawn barrier intact so that it can continue to protect your territory. When you create weaknesses in your pawn structure, these attract the attention of your opponent, who will figure out a way to exploit them.

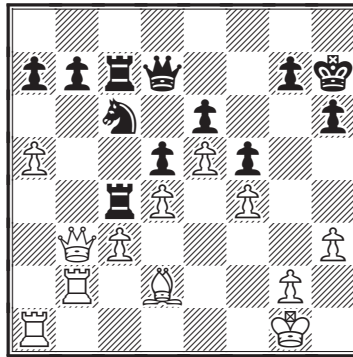
*Take care of the Pawns
and the Queens take
care of themselves.*

— Loyd

We'll look at ten different types of pawn structures and see how they can be exploited.

1. BACKWARD PAWNS

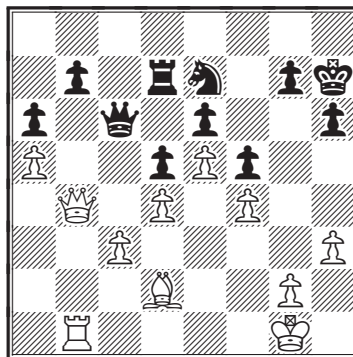
A backward pawn is one which has no neighboring pawn on a rank behind it to offer support. Pawns like to be supported by other pawns, and may be difficult to maintain if they have to rely on pieces instead. Here is a position where White must use all of his resources to defend the weakling.



We join the game Szabo vs. Tal from the 1958 tournament at Portoroz. White has a backward pawn at c3, and Black has blockaded it by placing a rook at c4. Ideally, Black can attack c3 with all four pieces, forcing White to use all of his pieces to defend the pawn. How will Black make progress in this case? The plan involves maneuvering the knight to b5, supported by a pawn at a6.

24...a6; 25.Qb6. This stops ...Na7. 25...Ne7. Black will try to get to a7 via c8. 26.Qd6 Qe8; 27.Rb6. 27.Qxe6?? is a blunder. 27...R4c6 traps the queen.

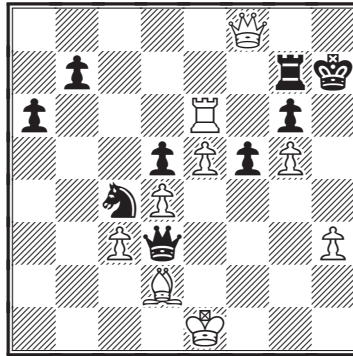
27...R4c6; 28.Rxc6 Qxc6; 29.Rb1 Rd7. Tal puts the question to the enemy queen. If the queens are exchanged, the endgame with good knight vs. bad bishop is a straightforward win. 30.Qb4. 30.Qxc6 Nxc6; 31.Ra1 Na7; 32.Ra3 Rc7; 33.Kf2 Rc4 reaches a winning endgame. The plan is simply ...Nb5, and if the rook goes to b3, to maintain the pawn at c3, then ...Ra4 sneaks behind the a-pawn. 34.Ke3 Nb5; 35.Rb3 Ra4; 36.Kf2 Rxa5. This looks risky, because of the potential advance of White's c-pawn with a direct attack on the knight and a discovered attack against the rook. There is no danger, however, since 37.c4 is countered by 37...Ra3!



30...Nc8; 31.g4. White sees that Black will now be able to carry out the plan of ...Rc7 and ...Na7-b5. Opening lines on the kingside is intended to provide some

counterplay on the kingside. Black keeps the position closed. 31...g6!; 32.Qf8. A lone queen presents no danger. 32...Rg7; 33.Kf2 Qc4; 34.Rb2 Na7; 35.Rb6 Nc6! The a-pawn is now the target. Eventually the Black queen strikes deeper into the enemy position and the knight can make use of c4.

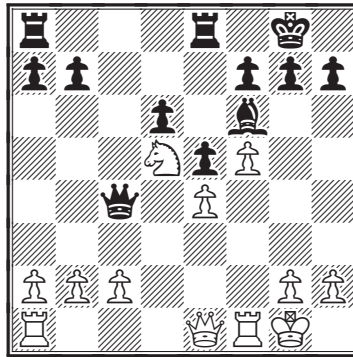
36.Ke1 Qd3; 37.g5 hxg5! There can be no danger on the h-file because White still has a pawn on the file and the rook cannot get there anyway. 38.fxg5 Nxa5; 39.Rxe6 Nc4. The e-pawn was of no real significance. The coordination of queen and knight leaves White defenseless.



40.Bc1 Qxc3+; 41.Kd1 Qxd4+; 42.Ke2 Qe4+; 43.Kd1 Qf3+; 44.Kc2 Qe2+; 45.Kc3 d4+! 46.Kb4. 46.Kxd4 Qd1+; 47.Kxc4 Rc7+; 48.Kb4 Qe1+! 49.Kb3 Qc3+; 50.Ka2 Qc4+! 51.Ka3 Qxc1+; 52.Ka4 Qc4+; 53.Ka3 Qc3+; 54.Ka2 Qd2+; 55.Ka3 Rc3+; 56.Kb4 Qb2+ and mate next move. 46...a5+

47.Kc5 Rc7+; 48.Kb5 Nxe5+; 49.Kb6 Rc6+. White resigned, because capturing the rook loses the queen to ...Nd7+.

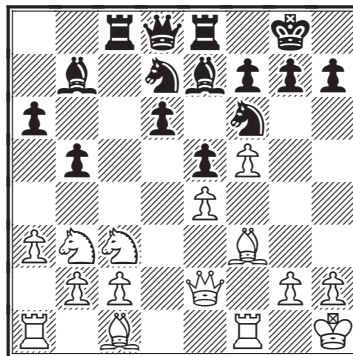
An alternative to simply winning the backward pawn is to use it as a barrier to keep enemy forces from coordinating in defense. That can be seen in this excerpt from the game Smyslov vs. Rudakovsky, from the 1945 Soviet Championship. White has just played 17.Nd5, a powerful move which occupies an outpost in front of the backward pawn. Black is unable to secure an effective defense against the kingside attack which follows.



17...Bd8; 18.c3 b5. Black's queenside counterplay is non-existent. White enjoys a considerable advantage in space. 19.b3 Qc5+; 20.Kh1 Rc8. Black has no targets. White can now freely pursue the enemy king. 21.Rf3 Kh8; 22.f6! The barriers start to fall.

22...gxf6; 23.Qh4 Rg8; 24.Nxf6 Rg7; 25.Rg3 Bxf6; 26.Qxf6 Black resigned. White will bring the rook at a1, which has not yet moved, into the game with devastating effect. 26...Rcg8; 27.Rxg7 Rxg7; 28.Rd1 Qxc3; 29.h4 Qc7; 30.Rxd6. White wins.

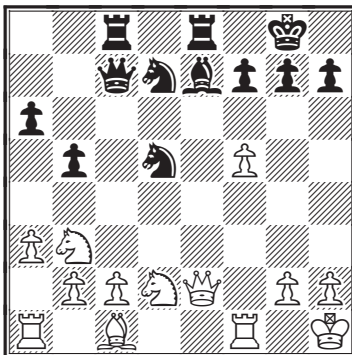
If the backward pawn is such a liability, why then is it seen in many important variations of the Sicilian Defense? The answer is that a backward pawn can be remedied by advancing it. The pawn also serves as an anchor for a pawn at e5 or c5, which gives Black control of d4. In the Sicilian, Black has a semi-open c-file which can be used by a variety of Black pieces to indirectly support the pawn. The famous "Sicilian Break" is a case where the backward d-pawn advances to d5.



This position was reached in the game Van der Wiel vs. Browne, from the 1980 Wijk aan Zee tournament. White seems to have everything under control, as far as the d5-square is concerned. After all, the knight, pawn, and bishop at f3 all guard it, and a rook can come to d1 next turn. With the center under control, White looks forward to a kingside pawnstorm. Black has a strong move, however.

14...d5! The Sicilian Break opens up the position and leads to an initiative for Black. The initiative is supported by a pawn sacrifice.

15.exd5 e4! White realized that **16.Bxe4 Bd6; 17.Nd2** is countered by **17...Rxc3!; 18.bxc3 Bxd5** where White is in deep trouble. So he played **16.Nxe4 Bxd5; 17.Ned2**. Perhaps Black's best move is **17...Bd6**, but Browne selected **17...Qc7; 18.Bxd5 Nxd5**.



The exchanges have not hurt Black, despite the pawn deficit. White's pieces are underdeveloped and uncoordinated. Black has plenty of time to get pieces to the kingside to attack the White king, which has only pawns as protectors. Black has eliminated the backward pawn and has an active game, which he eventually won after a long struggle.

2. DOUBLED PAWNS

A pair of pawns are doubled when they reside on the same file. **Doubled pawns** have been traditionally considered a weakness, but in recent decades quite a number of exceptions are found in respectable openings. One can no longer recommend following traditional advice to inflict doubled pawns whenever possible. Nowadays the specific circumstances of each doubled pawn structure must be considered. Let's start with an example of bad doubled pawns.

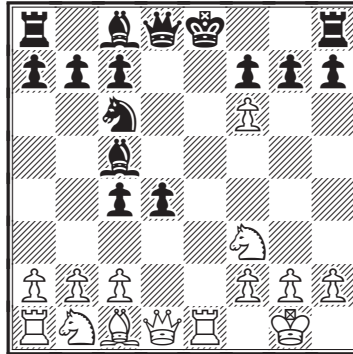
Doubled pawns are especially weak when they are isolated. Without the support of neighboring pawns they are difficult to defend. When the doubled pawns are part of what should be a healthy pawn barrier protecting the king, the consequences can be fatal. We can see this even in the opening, for example in the Max Lange Attack.

The following game is attributed to Muller vs. Bayer, played in 1908. It is stunningly beautiful, but perhaps is an example of a composed game. The opening starts out in exciting fashion.

MULLER - BAYER

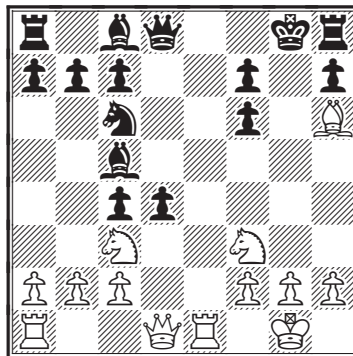
1908

1.e4 e5; 2.Nf3 Nc6; 3.Bc4 Nf6; 4.d4 exd4; 5.0-0 Bc5; 6.e5 d5; 7.exf6 dxc4; 8.Re1+.



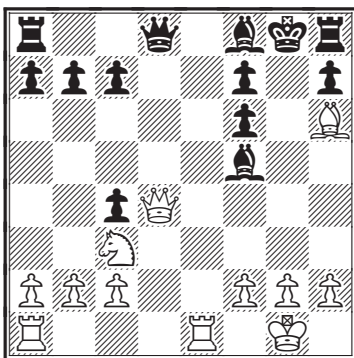
8...Kf8? Black should play 8...Be6.; 9.Bg5! White threatens gxf7 attacking queen and rook so Black must capture.

9...gxf6; 10.Bh6+! Kg8; 11.Nc3! White continues to develop. The pin on the d-file is deadly, even though the Black queen is defended.



11...Bf8. 11...dxc3; The trap is sprung on 12.Qxd8+ Nxd8; 13.Re8+ Bf8; 14.Rxf8#. 12.Nxd4! White offers yet another piece. 12...Nxd4?! Hard to resist, unless you see what is coming. 12...Bxh6; 13.Nxc6 Qxd1; 14.Ne7+ Kg7; 15.Raxd1 would have left the game level, though the weak pawns and White's spatial advantage are meaningful. Black's extra pawn is not worth much, since it is also doubled, though defensible.

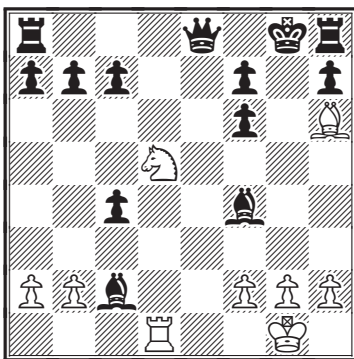
13.Qxd4!! Bf5; 13...Qxd4 loses to 14.Re8 which threatens mate at f8. 14...Qd6; 15.Nd5!! Black is mated in four moves.



Black continues to suffer from the isolated doubled pawns.

14.Qf4. 14.Nd5 is a simpler win. 14...Bg7 allows 15.Re8+!! Qxe8; 16.Nxf6+ Bxf6; 17.Qxf6 Qf8; 18.Bxf8 and wins. Or 14...Bxh6; 15.Re8+!! Qxe8; 16.Nxf6+ Kf8, when 17.Nxe8 Kxe8; 18.Qxh8+ Bf8; 19.Qe5+ Be6; 20.Qb5+ will be easy for White to win. 14...Bxc2?; 14...Bxh6! is much stronger, though White has a clear advantage by taking either bishop. Of course such an end would have deprived us of the artistic finish.

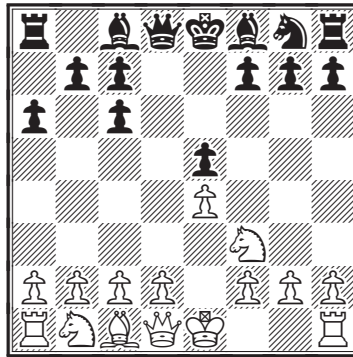
15.Rad1!! Bd6. 15...Bxd1; 16.Qg3+ mates. **16.Nd5!!** White sacrifices the queen to force mate. 16...Bxf4; 17.Re8+!! Qxe8. The weakness of the isolated doubled pawns finally leads to checkmate.



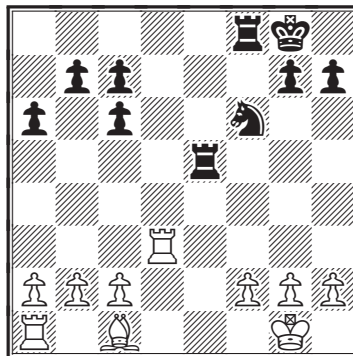
18.Nxf6#. So many brilliant moves by an obscure player and a suspicious oversight by Black combine to lend credibility to the notion that this was an invented game. I have not researched the matter, but would hardly be surprised to find that it had been composed.

When the doubled pawns are not isolated, they can be part of a strong defensive barrier. Nevertheless, in the endgame the pawn structure can be fatally unbalanced, if one side has a pawn majority that has no doubled pawns, and the other side has doubled pawns. This endgame can arise from many openings where a central pawn

captures on the bishop file. The most recognizable example is the Exchange Variation of the Spanish Game, which begins 1.e4 e5; 2.Nf3 Nc6; 3.Bb5 a6; 4.Bxc6 dxc6.



White will obtain a permanent kingside pawn majority with an early d4, for example 5.0-0 f6; 6.d4 which can lead to an early endgame after 6...Bg4 7.dxe5 Qxd1; 8.Rxd1 fxe5; 9.Rd3 Bd6; 10.Nbd2 Nf6; 11.Nc4 0-0; 12.Ncxe5 Bxf3; 13.Nxf3 Rae8; 14.e5 Bxe5; 15.Nxe5 Rxe5.

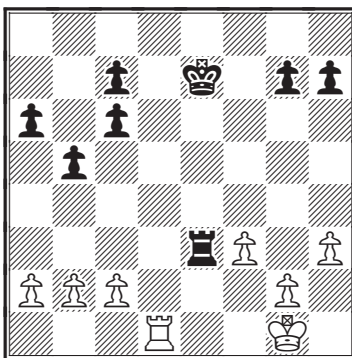


We are following Grefe vs. Koelle, Australian Open 1975. White has two advantages. The bishop is better than the knight and the doubled pawns on the queenside hurt Black's chances of making anything with the pawn majority.

16.Bf4 Re2; 17.Rd2 Rfe8; 18.Kf1. White chases out the invader. 18...R2e7; 19.Rad1 Nd5; 20.Bg3 b5. Black does not want the knight to be chased from d5, where it guards the pawn at c7 and blocks the d-file.

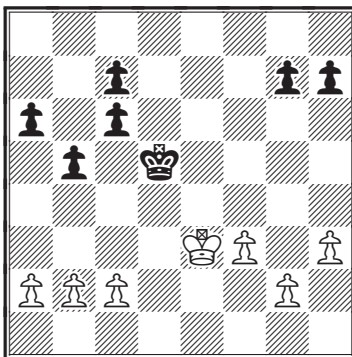
21.h3 Re4; 22.Kg1 Kf7; 23.f3 R4e6 24.Bf2 Ne3? A strategic error. Black needed to keep the minor pieces on. The closer the game gets to a pure pawn endgame, the worse Black's chances.

25.Bxe3 Rxe3; 26.Rd7+ R8e7; 27.Rxe7+ Kxe7.

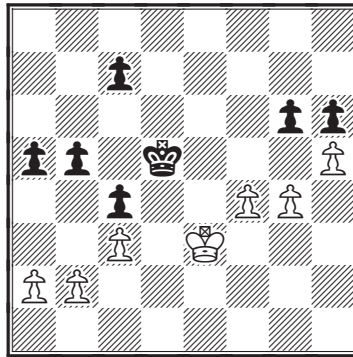


Black had perhaps counted on a rook and pawn endgame which would be very difficult to win even with imperfect defense. This particular position does not allow for that possibility, as White can force the exchange of rooks.

28.Kf2 Re4; 29.Re1 Rxe1; 30.Kxe1 Kd6; 31.Kd2 Kd5; 32.Ke3. We arrive at a pawn endgame with no chance of survival by Black if White can manage to advance the kingside pawn majority.



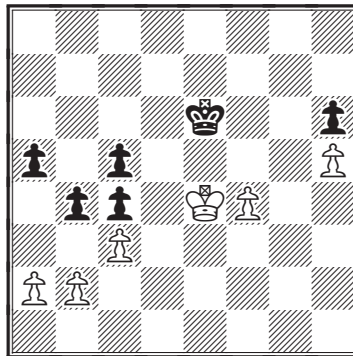
32...c5; 33.f4 c4; 34.c3. White will not allow the Black pawns to get too close to the promotion rank. **34...a5; 35.g4 h6; 36.h4 g6; 37.h5!**



The pawn chain is weakened, but a passed pawn is created.

37...gxh5; 38.gxh5 c6; 39.Kf3! The battle for the tempo begins. Sooner or later Black must give way, and White's king will get to e4.

39...b4; 40.Ke3 c5; 41.Kf3 Ke6; 42.Ke4.

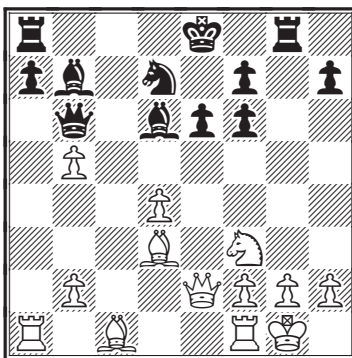


White has the opposition, and wins.

42...Kf6; 43.f5 Kf7; 44.Ke5 Ke7; 45.f6+ Kf7; 46.Kf5 a4; 47.a3 b3; 48.Ke5 Kf8; 49.f7. Any king move wins by force, but no doubt White had seen the game to the end, where the win comes on the wings of a single tempo.

49...Kxf7; 50.Kf5 Ke7; 51.Kg6 Ke6; 52.Kxh6 Kf6; 53.Kh7 Kf7; 54.h6. Black resigned.

There are some positions where the doubled pawns are not a liability. They can be an asset, keeping enemy pieces off critical squares. The file where the doubled pawn once stood is now open for use by a rook. Many times the doubled pawns are the result of an exchange of bishop for knight, so there is additional positional compensation. Our example shows how deadly the compensating factors can be. In Korody vs. Benko, Budapest 1921, White has just advanced 16.b5, since it was attacked at b4.



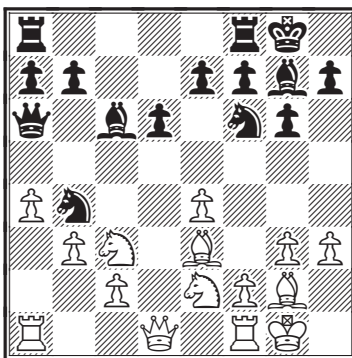
White has not been able to make any progress against Black's well-defended center. The d5 and e5 squares are overprotected, and both f-pawns play an important role in the central barrier protecting the king. The g-file is ready for action, and the bishop at b7 joins the rook in converging at g2. The knight is in the way, of course, but can be lured away. The surprise came in the form of 16...Qxd4!! White is left without any good moves. 17.Nxd4?? is out of the question on this turn, because of 17...Rxb2+; 18.Kh1 Rxb2+; 19.Kg1 Rh1#. 17.g3? allows an elegant mate with 17...Bxg3!! 18.hxg3 (18.Nxd4?? Bf4+; 19.Bg6 Rxb6+; 20.Qg4 Rxb6#; 18...Rxb6+! 19.Kh2 Bxf3 and to prevent mate at h4; White must capture the rook. 20.fxb6 (20.Kxb6 Qg4+; 21.Kh2 Qg2#) 20...Bxe2; 21.Bxe2 Rc8 and Black is seriously behind in material.

So White chose 17.h3, to which Black replied 17...Ne5!; Trade a non-attacker for a defender! 18.Nxd4. The alternatives were not much better. 18.Be4 still allows 18...Rxb2+!! 19.Kxb2 Bxe4; 20.Rd1 Bxf3+; 21.Qxf3 Nxf3; 22.Rxd4 Nxd4 winds up with Black a knight and pawn ahead, with the doubled pawns as healthy as ever! 18...Rxb2+. The rest is simple.

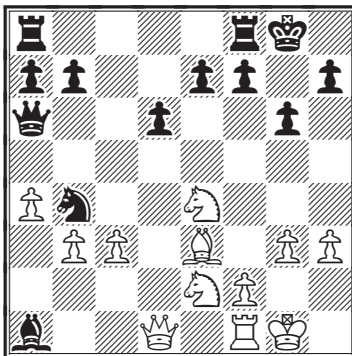
19.Kh1 Rh2+; 20.Kxh2 Ng4+; 21.Kg1 Bh2#. The doubled pawn remains intact here, too. Doubled pawns are weak in many cases, but strong in some, so you should evaluate each case on its own merits. It is safest to accept doubling of your pawns when you can comfortably capture toward the center, as this does not bring with it the likelihood of a losing king and pawn endgame.

3. FIANCHETTO STRUCTURES

A *fianchetto* places a bishop at b2 or g2 (as White) or b7 or g7 (as Black) with some surrounding pawns, and its formation is strong as long as there is a bishop at home. If the fianchettoed bishop is exchanged, very bad things can happen. The fianchetto is the base of operations for many opening strategies, including the King's Indian Defense and Dragon Sicilian. In the latter, the bishop is needed both for defense and to attack the enemy queenside. The fianchetto (both the Italian pronunciation *fee-ann-ket-to* and American *fee-ann-chet-to* are used) is one of the most dynamic formations and is considered positionally sound.

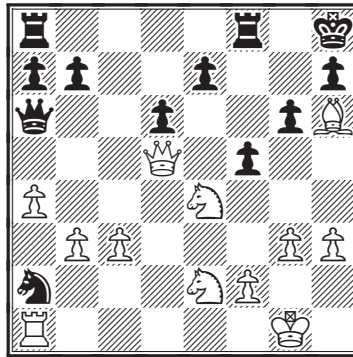


In the game Nunn vs. Mestel, from the 1982 Zonal at Marbella, two great Dragoners met. Black was tempted by the pawn at e4, reckoning that it was insufficiently defended because of the pin on the long diagonal. After 15...Nxe4?!, 16.Bxe4 Bxe4; 17.Nxe4 Bxa1, White established a strong position with 18.c3!



The Black bishop is trapped in the corner, and the dark squares on the kingside are vulnerable.

18...Na2; 18...Nc6 would have provided better defense. 19.Bh6 f5; 20.Qd5+ Kh8; 21.Rxa1.

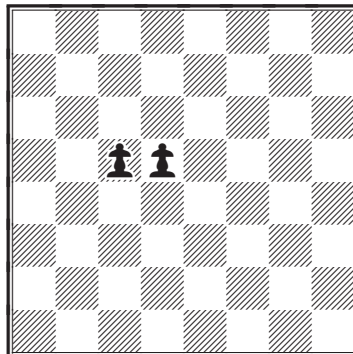


Now the knight at a2 is trapped, so Black has to capture at e2.

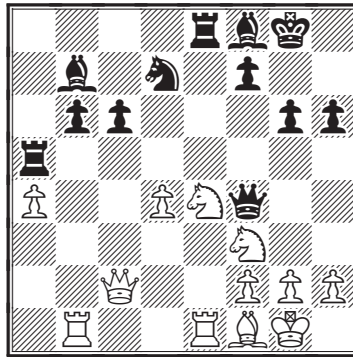
21...Qxe2; 22.Qd4+ e5; 23.Qxd6 fxe4. 23...Rf7; 24.Qxe5+ Kg8; 25.Nf6+ Rxf6; 26.Qxf6 and mate in 3. 24.Qxe5+. White won.

4. HANGING PAWNS

Hanging pawns are adjacent pawns with no visible means of support. They can appear on various flanks and files, but are most often seen on the queenside. Hanging pawns on the c-file and d-file are very common in the Queen's Gambit Declined and Nimzo-Indian Defenses, where many main lines revolve around the weakness of the pawns and the need to protect them.



Because the hanging pawns cannot be protected by other pawns, they must be supported by pieces. If the defending pieces are eliminated, or sufficient force is brought to bear, then the pawns can be captured. The weakness of the hanging pawns is illustrated nicely in the following position from Karpov vs. Georgiev, Tilburg 1994.



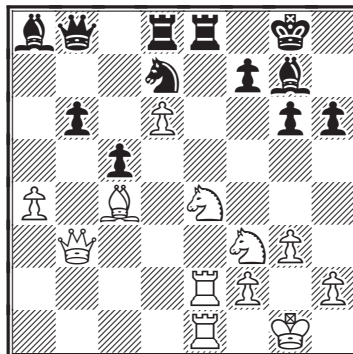
The hanging pawns at b6 and c6 are weak, and each has only a single defender. The remaining Black forces are in no position to assist with the defense of the pawns, so sooner or later one of them will have to step forward. This is not simple, because White has two pawn restraints at a4 and d4, as well as queen, rook, knight, and bishop all overprotecting the key squares.

22.Bc4. A cunning move, tempting Black to advance the c-pawn and open up an attack at e4 as well as d4. Black first swings the bishop into a better position at g7.

22...Bg7; 23.Re2 c5. Black must try to get into the game, and at least at e4 there is a target. **23...b5** would solve the problem if not for White's tactical refutation. **24.Qd2! Qxd2; 25.Bxf7+!** and Black cannot take the bishop because of Nd6+ and the rook falls with check, after which White can recapture at d2. **25...Kf8; 26.Nfxd2 Re7; 27.axb5 Rxf7; 28.Nd6!** Mate is threatened at e8, but the bishop at b7 is also under attack. Black must settle for **28...Bxd4; 29.Nb3! Ra4; 30.Nxb7 cxb5; 31.Nxd4 Rxd4; 32.Nd8!** White wins the exchange.

24.d5! Raa8; 25.Rbe1. White is setting up more tactical threats. Black now tries to reorganize to go after the pawn at d5. The hanging pawns are still weak even in their new formation.

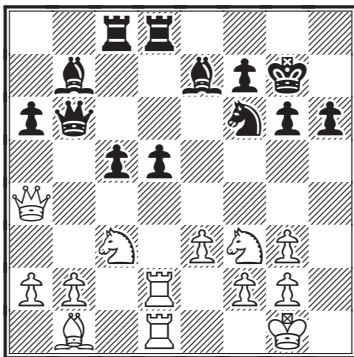
25...Rad8; 26.Qb3 Ba8; 27.g3 Qb8; 28.d6!



The bishop at a8 is released, but the pawn at f7 falls, and then the White pieces quickly move in for the kill.

28...Rf8; 29.Bxf7+ Rxf7; 30.Neg5!! White has no need to conserve material. Black's queenside forces cannot come to the defense of the king in time to make a difference.

30...hgx5; 31.Nxg5 Rdf8; 32.Re8 Qxd6; 33.Qxf7+ Kh8; 34.Ne6. Black resigned. Hanging pawns are not always weak, however, as Karpov has demonstrated from the other side of the board.



In the first game of the 1981 World Championship match Karpov obtained a favorable hanging pawn structure as Black against Korchnoi. Each pawn enjoys the support of three pieces.

24.a3? 24.Ne5 d4! (24...Bd6; 25.Nxg6 fxc6; 26.Qc2 gives White some serious attacking chances.) 25.exd4 cxd4; 26.Ne2 Rc5 and Black has an active game with pressure at b2 indirectly protecting the d-pawn. 24...d4! 25.Ne2. 25.exd4 Bc6!; 26.Qc2 Bxf3; 27.gxf3 cxd4 is very strong for Black.

25...dxe3; 26.fxe3 c4. The pawn structure has changed radically. White has the weak pawns, and Black's pawns are fairly healthy. The bishop pair and mobile piece give Black a clear advantage.

27.Ned4 Qc7; 28.Nh4 Qe5; 29.Kh1 Kg8; 30.Ndf3 Qxg3; 31.Rxd8+ Bxd8; 32.Qb4 Be4 and White lost after another ten moves.

Handling hanging pawns takes a great deal of care, and is a task best left to professionals. You should avoid hanging pawns because they tie down your pieces in defense. When your opponent has hanging pawns, look for ways to attack in other areas of the board.

5. HEDGEHOGS

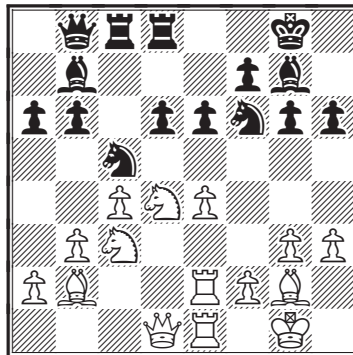
The **hedgehog** formation is a relatively modern innovation, at least as a serious defensive setup. Black places most of the pawns along the third rank, and usually fianchettoes both bishops. Many of the pawns are a bit weak and require the support of the other pieces, just as in the case of hanging pawns. The hedgehog formation can

be reached from the Sicilian Defense, English Opening, Queen's Indian, and other popular openings.

*The hedgehog is a peaceful creature.
But those who try to hurt it soon
experience the sharpness of its quills*

— Adorjan.

The hedgehog is not only a defensive formation. If White does not carefully over-protect the center, the entire White formation can come crashing down. We see a classic example from Garry Kasparov.

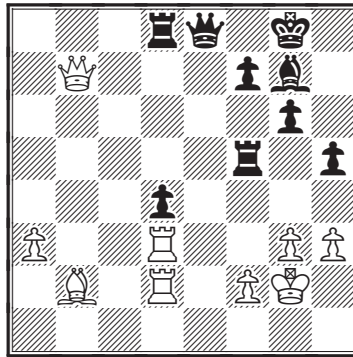


This is an excerpt from the game Hübner vs. Kasparov from the 1981 Tilburg tournament. Both sides have completed development and have slowly maneuvered through the first 22 moves. White seems to have a firm grip on the center but the weak pawn at d6 has no way to get to d5 and smash open the center. Or does it?

23...b5!; 24.cxb5 d5! This is a very instructive game because it shows how quickly the center can be undermined by well timed pawn advances combined with pieces that are situated to take advantage of the new environment.

25.exd5 Nxd5; 26.Nxd5 Bxd5; 27.b4 Bxg2; 28.Kxg2 e5! Black maintains the initiative. The remainder of the game, while not relevant to the question of the hedgehog formation, is worth viewing. **29.bxc5 exd4; 30.Rd2 Rxc5; 31.bxa6 Qa8+; 32.Qf3 Qxa6.** Material is now equal, and Black has a powerful passed d-pawn. **33.Red1 Rf5; 34.Qe4 Qa4!**

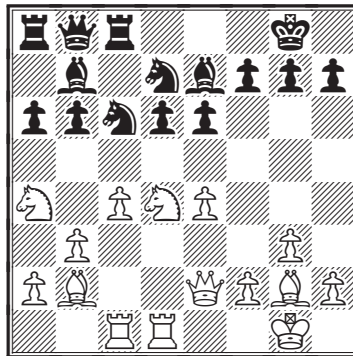
The pawn is indirectly defended because **35.Bxb4?** loses to **35...Rfd5**, exploiting the pin on the d-file. **35.a3 Re8; 36.Qb7 Rd8; 37.Rd3 h5; 38.R1d2 Qe8!**



Black must find a way to remove the blockade of the d-pawn, and finds the means in an exchange sacrifice that will come at the last move of the time control (move 40).

39.Kf1 Rb8; 40.Qc7 Rxb2!; 41.Rxb2 Qe4. A clever move, which threatens both the rook and ...Qh1+. **42.Qc4 Qh1+; 43.Ke2 Qg1; 44.Rb8+ Kh7; 45.f4 h4! 46.Rb5 Rxb5; 47.Qxb5 hxg3; 48.Qg5 Qf2+; 49.Kd1 Qf1+.** White resigned. A very efficient win by Kasparov.

The hedgehog is hardly a perfect creature, however. The counter-punching can only take place if the defensive formation can withstand all of White's attacks. Our next example shows White exploiting the weakness of the queenside pawns. It is taken from the game Smyslov vs. Dzindzichashvili, played at Moscow, 1972.



Black's position seems solid enough, with all of the pawns defended. Smyslov exposes the hidden weaknesses of the hedgehog position with a fine sacrifice. The e5-square, which Black seems to have well under control, plays a major role.

17.Nxe6!! fxe6; 18.Qg4 Nf6; 19.Qxe6+ Kh8; 20.Nxb6. White has three pawns for the piece, and the central pawns, supported by rooks, crash through.

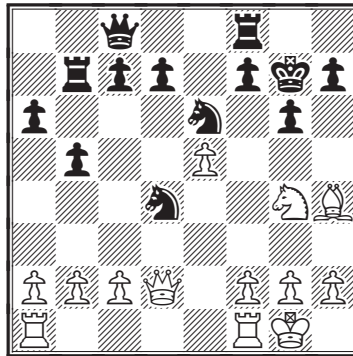
20...Rf8; 21.c5! Ra7. 21...dxc5?; 22.e5! wins a piece. 22.cxd6 Bd8; 23.Na4 Re8; 24.Qf7 Ba8; 25.d7 Rg8; 26.Qe6 Qb5 and in this pathetic position Black resigned,

since the advance of the e-pawn will wrap things up quickly.

Weak pawns are targets, but so are empty squares which cannot be protected by pawns. We'll meet those next.

6. HOLES

A **hole** is a square near enemy pawn formations which cannot be defended by an enemy pawn. Holes are significant at every stage of the game. When a hole is occupied by a piece, we call it an outpost, because it represents a safe haven deep inside enemy territory. A couple of holes can easily lead to checkmate.



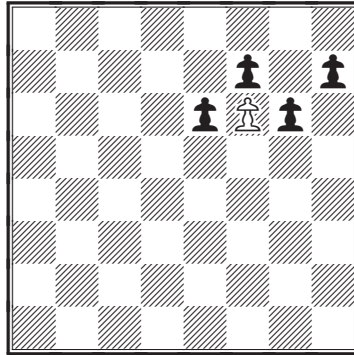
In Unzicker vs. Aarlund, from the 1974 Olympiad in Nice, Black suffers from serious holes at f6 and h6. White threatens 22.Bf6+ Kg8; 23.Nh6#. This often happens when the bishop is removed from the fianchetto formation. The king at g7 is less good as a defender. White owns both f6 and h6. The game cannot last long, and didn't. Black retreated the knight from d4 to f5, to cover h6 and g7.

21...Nf5; 22.Bf6+ Kg8; 23.Nh6+ Nxh6; 24.Qxh6 d5. Black has no way to save the game. After 25.Rad1, Black resigned, because there is no defense to the rook lift to h3 and checkmate.

*Weak points or holes
in the enemy position
must be occupied by
pieces, not pawns*

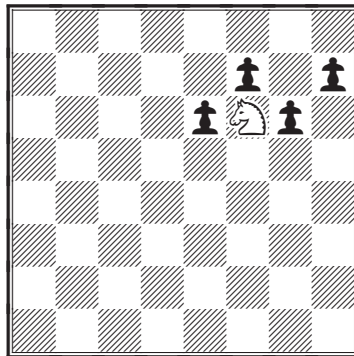
– Tarrasch

It is often tempting to place a pawn on a weak square in the enemy position. Such holes are better occupied by pieces. When a pawn sits on square it has control only over the two squares diagonally in front of it.



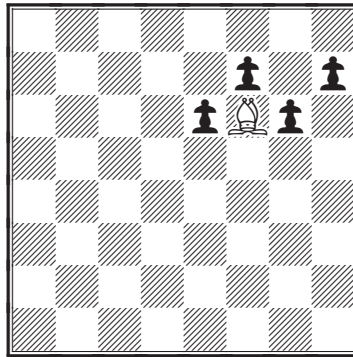
The pawn at f6 is useful of course, but the effect is limited by the short range. Black is deprived of two squares, and the pawn cannot reposition itself to inflict any serious damage.

A knight has a much greater effect because it attacks four points in the enemy position.



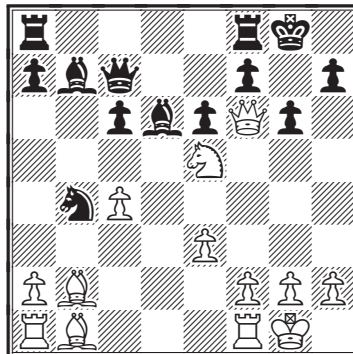
The knight would fork any two pieces on d7, e8, g8, and h7, possibly also enemy pieces to the rear at e5, h5, d5, and e4. It can move to any of those eight squares and reposition itself for another attack, should the immediate occupation at f6 not bring the desired result.

Bishops can be very powerful when operating from a hole in the enemy position. There are many checkmating patterns that involve a bishop on this square, as you will see in the inventory of mating positions in the Tactics chapter.



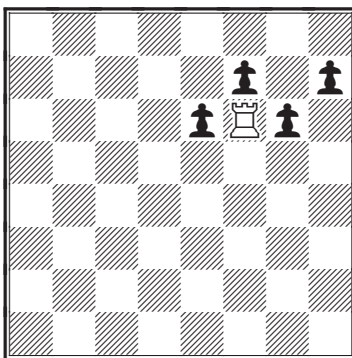
You can see that the bishop controls key squares at e7, g7, h8, and d8. The bishop does not have the ability to attack squares of both colors, so is somewhat more limited than the knight in this regard.

Because holes are, by definition, close to the enemy home rank, the queen is less effective. Often she can be chased away easily enough. In any case, the queen only adds an additional two squares to the coverage of the bishop, f7 and g6. Of course if the f-file is open for use by a rook, the pressure on f7 can be intense. And if the queen is backed up by a bishop on the long diagonal, the combinational possibilities are usually excellent, as we see in a game between Delmar and an unknown amateur, played in New York in 1890. We join it in the early middlegame.



The queen is now in position, and Black naturally had to worry about a subsequent knight move, for example ...Ng4 with three different checkmate threats, at h6, g7, and h8! So Black tried to chase the queen out of the hole with 17...Be7 but encountered the brilliant 18.Qh8+!! Kxh8; 19.Nxf7+ Kg8; 20.Nh6#.

A rook strangely enough, is almost useless when it is occupying a hole. It is surrounded by well-defended pawns. In general, it is not better than a rook safely stationed further back on the file.

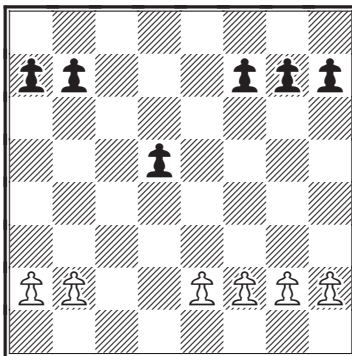


Therefore, it is usually best to occupy holes with minor pieces.

7. THE ISOLATED D-PAWN

Entire books have been devoted to discussion of the strengths and weaknesses of the isolated d-pawn. Many important variations of the Queen's Gambit, French Defense, Caro-Kann Defense, Nimzo-indian Defense and other major openings crucially revolve around this pawn, often called an isolani.

Siebert Tarrasch was convinced that the traditional evaluation of an isolated pawn, that it is a major weakness, was wrong and that the isolated pawn was in fact a strong weapon. Let's first look at the pawn structure by itself.



If the game came down to a king and pawn endgame, Black would be lost. The pawn at d5 is weak, and can easily be blockaded by an enemy king at d4. In fact, the blockade is the best-known strategy for operating against an isolated d-pawn. The best blockaders are pieces of limited mobility and value, which means that a knight is ideal.

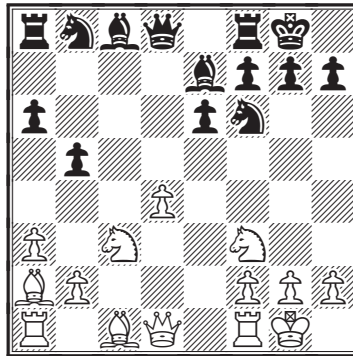
When there is a White piece at d4, the Black cannot advance the pawn from d5 and White can aim other pieces at it. Extreme views have been expressed on the sub-

ject of the “isolani.” The great Hypermodern strategist Aron Nimzowitsch considered the blockade a potent weapon against the isolani, rendering it very weak. For the Classist Siegbert Tarrasch, on the other hand, the isolani is a source of dynamic strength, because it cramps the enemy position. Modern thinking holds that the isolani is neither good nor bad in isolation, but must be judged depending on the surrounding circumstances.

An isolated d-pawn on the fourth rank does indeed feel a powerful urge to get to the fifth rank. The pawn does not feel comfortable on the fourth rank, where it can be blocked by one enemy piece and then attacked from all sides. Advancing the pawn can be effective even when it merely seems to simplify the position. The following example is very instructive. We join the game Dolmatov vs. Larsen, from Amsterdam 1980, at the end of the opening, before White’s 12th move.

*The
strength of
an isolani
lies in its
lust to
expand...*

— Nimzowitsch



12.d5! exd5; 13.Nxd5 Bb7?! 13...Nxd5; 14.Qxd5 Ra7 would have been a better defense. 14.Nxe7+ Qxe7; 15.Bg5. The bishop pair is a powerful force in this game, thanks to all the open space. 15...Nbd7; 16.Re1 Qc5? Like it or not, Larsen had to retreat the queen to d8 here.

17.Be3 Qf5; 18.Nh4 Qe4; 19.Bg5 Qc6. Black tries to set up an attack, but White just drives the queen away with tempo. 20.Rc1 Qb6; 21.Be3 Qd8; 22.Nf5 Be4; 23.Nd6 Bg6. Black has arranged the defense of the kingside, but White’s advantage in space and control of the center bring the game to a rapid conclusion.

24.Qd4 Qb8; 25.f4. Black cannot preserve the bishop at g6 without critically weakening the kingside. 25...Rd8. 25...h6; 26.f5 Bh7; 27.Rc6! White dominates the board. 27...b4 28.Bxf7+! White wins at least a pawn, because the bishop cannot be captured. 28...Rxf7?; 29.Nxf7 Kxf7; 30.Qc4+ Kf8; 31.Rxf6+! gxf6; 32.Bxh6# is just one example of an embarrassing finish.

26.f5 Bh5; 27.h3 Nb6; 28.Qxb6 Qxb6; 29.Bxb6 Rxd6; 30.Be3 and Black resigned, since the bishop is lost.

The lesson here is that the advance of the isolated pawn is not just a way of getting rid of the nuisance. Since the holder of an isolated d-pawn often enjoys an advantage in space, the elimination of the pawn can increase that factor and result in a substantial advantage.

If you have an isolani, you must consider whether the advance of the pawn and offer of exchange will improve your position. If you release the tension too soon, you will be left with mere equality. If you wait too long, you'll be stuck with a sick pawn in the endgame.

When playing against the isolated pawn, try to blockade it with a piece and control the neighboring files, then you can try to win it. Do not rush the attack on the isolani. As the game progresses it becomes weaker and more vulnerable.

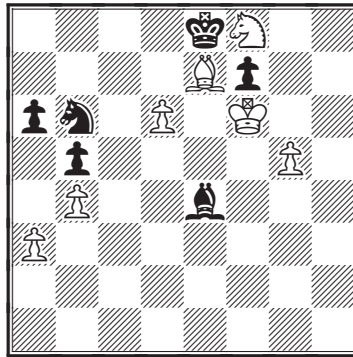
8. Passed Pawns

A **passed pawn** is a pawn which has no enemy counterpart directly in front of it or on either adjacent file. Each time a piece leaves the board there is one less resource to be used in stopping a pawn from marching up the board. That's why you should try to exchange pieces when you have a passed pawn. Reduce the number of potential defenders and you will have a significant advantage.

Our example shows this idea with a twist. It uses the important technique of letting your opponent capture one passed pawn while you create another one. Some players let themselves get tied down to the defense of a pawn and overlook simple winning combinations. A group of players representing the city of Nijmegen did not fail to spot the possibility to eliminate defenders in a correspondence game against The Hague.

A passed pawn increases it's strength as the number of pieces on the board diminishes.

— Capablanca

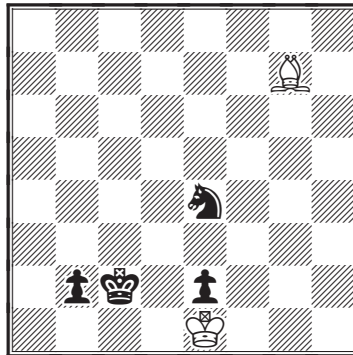


White has a passed pawn at d6, but there is no way to get it passed d7. The Black knight must stand guard over d7, at least until the bishop can get to a better position.

48.d7+! 48.g6? fxg6; 49.Nxg6 Bxg6; 50.Kxg6 Nc4 turns the tide, and it is White who must worry about the weakness of the pawns. 51.Kf5 Kd7; 52.Ke4 Nxa3; 53.Kd5 Nc2; 54.Kc5 Ke6 will end in a draw. **48...Nxd7+;** 49.Nxd7 Kxd7; 50.Kxf7. White has lost the d-pawn, but gained a passed g-pawn. The g-pawn, though only on the 6th rank, is even better, especially with the knights gone from the board. It is further from the queenside. Black's only hope is to get the king to a3, give up the bishop for the g-pawn, move the king to a4 and try to exchange the remaining White pawn. This plan is doomed, however.

50...Bd3; 51.Bc5 Kc6; 52.g6 Kd5; 53.g7 Bh7; 54.g8Q Bxg8+; 55.Kxg8 Kc4; 56.Bb6. Black resigned, because the bishop will come to a5, and the White king will eat the Black pawns as follows. 56...Kb3; 57.Kf7 Kxa3; 58.Ba5 Kb3; 59.Ke6 Kc3; 60.Kd5 Kd3; 61.Kc5 Ke4; 62.Kb6 Kd5; 63.Kxa6 Kc6; 64.Ka7 followed by 65.Kb6.

Keep in mind that when you have only one pawn your opponent can sacrifice a piece to remove it and will often achieve a draw as a result. This defensive plan is the key to many endgames.



The passed pawn is a criminal, who should be kept under lock and key. Mild measures, such as police surveillance, are not sufficient.

— Nimzowitsch

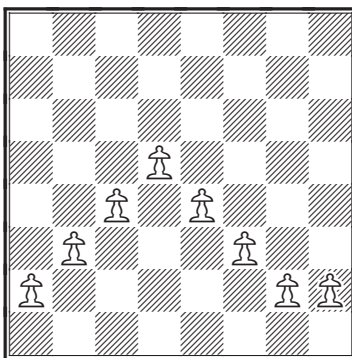
Things look bad for White, but there is an escape. Black captures the pawn at b2. If the king captures the bishop, then the White king grabs the e-pawn and the game is drawn because Black has insufficient mating material. If Black ignores the bishop at b2 and protects the pawn by moving the knight to g3, then White moves the bishop to e5, attacking the knight. The game is also drawn.

Your opponents passed pawn can be your worst nightmare. In the endgame, preventing a passed pawn from reaching to the promotions square is one of your

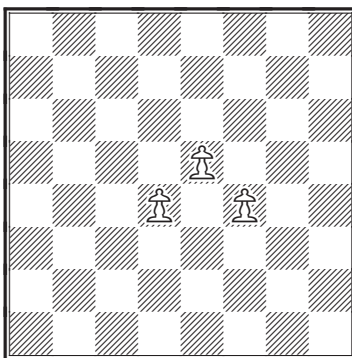
most crucial tasks. The best defense is to keep it routed to its square, unable to advance. That is what it means being under lock and key. The surveillance Nimzowitsch refers to use pieces to control squares which live between the pawns current location and the promotion square. The problem with this form of defense is that such pieces can often be deflected or destroyed, sometimes through sacrifices, and then the pawn gets through.

9. PAWN CHAINS

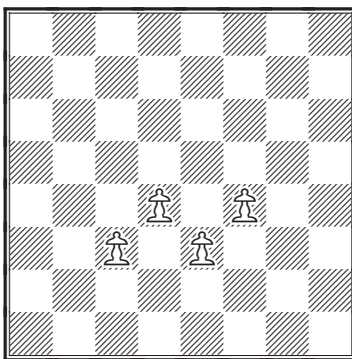
Pawn chains are groups of pawns that are connected to pawns on adjacent files. They can be static, as in the case of stonewall formations, or dynamic, advancing to attack the enemy position. A pawn chain can look like this.



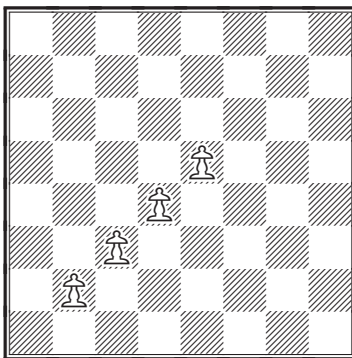
We rarely encounter such a long chain, but pawn chains are characteristic of certain openings, including the Saemisch Variation of the King's Indian Defense, the French Defense, Colle System, Torre Attack, and the older Benoni formations. Chains consist of at least three pawns and can have different shapes.



A three-pawn chain facing forward is called a **wedge**. It is seen in the French Defense, Caro-Kann Defense, and in other Semi-Open Games.



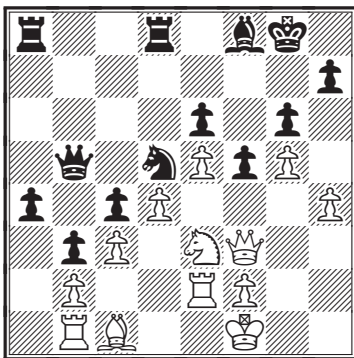
This is a **stonewall**. It is characteristic of the Colle Attack, some lines of the Torre Attack, and of course the Stonewall Attack. Black often adopts the formation in the Stonewall Dutch.



The basic pawn chain along a diagonal is a **straight chain**. It is seen in the French Defense and some other openings. We will use this simple chain for the remainder of our discussion.

We are often taught that the best way to attack a pawn chain is at its base. The base is the pawn which lies on the rank closest to the enemy home rank. In the diagram above, the base of the chain is at b2. Yet in many cases the target is the head, rather than the base. The head of the chain is the other end, at this case, e5. Sometimes, the intermediate pawns are the focus of attention.

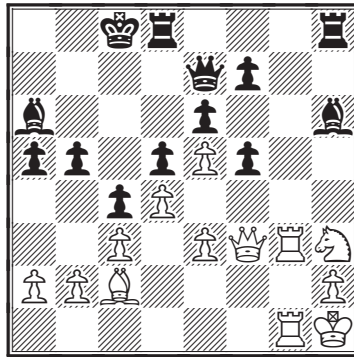
In reality, there is no way to make a simple generalization about attacking pawn chains. It is true that most of the time a pawn at the base can be attacked by pieces, while the other pawns can only be hit by pawns (unless a pin or other tactic enables a piece capture). Let's look at four situations where a different pawn is the target in each case.



This position is from Ermenkov - Tukmakov, Vrnjacka Banja 1979. Black combines threats on both flanks to win, but the primary objective is the advance of the b-pawn. With 37...a3! Black attacks the base of the pawn chain. This is especially effective because the pawn at c3 is supported only by the b-pawn, so that if White captures at a3, Black can capture at c3, forking the rooks.

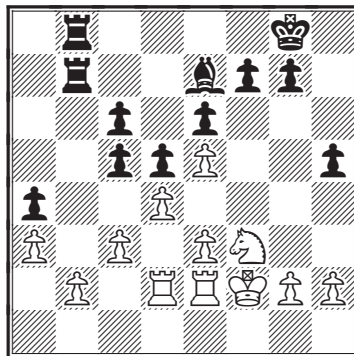
38.Nxd5 Qxd5. The knight which threatened c3 is now gone. White has no good queen moves, so the queens must come off the board, too. 39.Qxd5 Rxd5; 40.Ke1. 40.bxa3 Rda5 will result in the same sort of finish.

40...axb2; 41.Bxb2 Ra2. The invasion of the seventh rank leads to a winning position. 42.Kd1 Rda5. White resigned during adjournment. Is the position really that bad? Yes, and all because of the pawn chains. 43.Rd2 h6! 44.Bc1 hxg5; 45.hxg5 Rxd2+; 46.Kxd2 Ra2+; 47.Ke3 Rc2; The base of the pawn chain, now at c3, is doomed. 48.Bb2. (Or 48.Bd2 f4+! 49.Ke2 Be7 and the g-pawn falls.) 48...Be7; 49.f4 Bd8; 50.Kf3 (50.Ra1 Rxb2; 51.Ra8 Rc2; 52.Rxd8+ Kf7 is a simple win.) 50...Ba5; 51.Ra1 Bxc3; 52.Bxc3 Rxc3+ etc.



In Norwood vs. Tiviakov, from Calcutta 1993, Black opts to go after the pawn at c3.

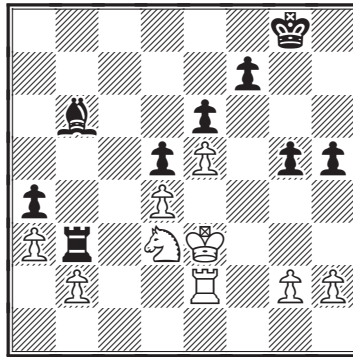
23...b4!; 24.Bb1 bxc3; 25.bxc3 Kc7! Black will now use the open file for infiltration. **26.Nf4 Qa3; 27.Qf2 Rb8.** White is in a desperate situation. He tried a sacrifice at f5 but after **28.Bxf5!? Bxf4; 29.Qxf4 exf5; 30.Rg7 Rb2!; 31.Rxf7+ Kb6; 32.h4 Qxc3** the base of the chain falls, and the other pawns are vulnerable. Black won without difficulty.



This is an excellent example of attacking the neck of the pawn chain, which is the pawn just below the head. Black not only uses the c5xd4 capture (twice!) but finished up with an attack on the head of the pawn chain, giving us two lessons in one! Our teacher is Bent Larsen, playing Black against O'Donnell in a 1970 game played in the USA.

24...cxd4; 25.exd4. Both pawns chains are undoubled. Larsen continues vigorously in pursuit of his target. **25...c5! 26.Rc2 Rc7; 27.Ke3 g5; 28.Ne1.** The knight heads for a more useful post at d3, where it can protect b2, at least temporarily.

28...cxd4+! 29.cxd4 Rb3+; 30.Kd2 Bd8!; 31.Rxc7 Bxc7; 32.Nd3. White defends b2, but the pawn at d4, our old target, is undefended. **32...Bb6!; 33.Ke3.**



Now there are pins at d3 and d4, which means that e5, despite all appearances, is actually undefended! Larsen relentlessly continues the assault, not minding a little sacrifice along the way.

33...f6!; 34.exf6 e5!; 35.Kd2. The pawn cannot be captured because of the pins, so the king retreats. **35...e4!** The knight is chased, and the b-pawn falls.

36.Nc5 Rxb2+; 37.Ke3. Black now enters a winning king and pawn endgame. **37...Rxe2+; 38.Kxe2 Kf7; 39.Ke3 Bxc5; 40.dxc5 Kxf6; 41.Kd4 Ke6; 42.Ke3 Ke5; 43.g3 d4+.** White resigned.

Summing up, the art of chess strategy lies in understanding broad and general concepts, such as those we have examined in this chapter. Now we turn to more specific matters, the tactical operations which take advantage of successful strategic planning or mistakes by your opponents.