30k – 20k Study Book

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v 0.5.2 (Mar. 19, 2004)

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0.1 Acknowledgements

While there is of course no room to thank everyone who deserves it, I wish to acknowledge certain people without whom the book wouldn't have been able to be released.

Thanks to:

Alexander Dinerchtein 1 dan professional, for his contributions to the English Speaking Go Community.

The people from KGS: William Shubert et al, and especially Little-Cire, HGo, and StaySee for permission to include their games.

Douglas Ridgway, "TheKro" and others for numerous suggestions and comments in the early stages of this work.

And finally thank you to the people that inspired me to write books about Go, Patrick Bridges and Charles Matthews.

0.2 About this version of the book

This version was released in order to test embedded fonts. A need to embed fonts arose when Windows users complained that their system was unable to display standard Postscript fonts properly in PDF format. Since both Postscript and PDF are worldwide standards, something had to be done.

However, the informationI received about embedding fonts into a PDF file was not clear. Therefore, several versions of this version of the book will be released, and a final method of embedding fonts will be chosen based on reader feedback.

There will be three versions which I would like you to compare. Each version was produced with a different method. Basically, I need to know which of the following three files looks best under windows, and under linux:

taiji4x.pdf

taiji4y.pdf

taiji4z.pdf

If you have any other suggestions on how to make this book look better, please let me know. Thanks.

0.3 Introduction

Go is a difficult game to teach. In fact, it is difficult to teach beginners *anything* at all about the game in a formal setting. In Go, players learn best by playing, and by self-study of the patterns of the game. An entire book could be written to cover what you might learn in your first 20 games of Go alone. For that reason nobody likes to write a book for beginners, because it isn't going to be read for very long. For now, in the immortal words of Toshihiro Kageyama (a professional Go player), "If you see an enemy stone, try to capture

it, try to cut it off. If you see a friendly stone, try to save it from capture, try to connect it. Concentrate on this alone as you build up some practical experience." Of course, the key here is building up some practical experience, but there really isn't much else to say. I admit, it is somewhat of a paradox. The more you read this book, the more you need to play games to understand what is in it. And yet the more games you play, the less you need from this book. So then, why did I write this book? There is a saying:

"**A beginner should lose his first 100 games as quickly as possible.**"

So, This Go book will be different. I know that you will learn by yourself, win or lose. Therefore I am not going to spend a horribly long or detailed time on the very basics of the game – you'll pick those up as you play your first 100 games. Instead, I will concentrate on showing you the good Go habits which will give you a strong foundation for the future. Good habits will be far more important than anything else for your Go journey, *far* beyond your first 100 games.

It is therefore important that as you read this book, you play at least ten games of Go for every chapter you read. If you play one game of Go per day, spend about a week on each chapter. Of course you may find that you progress slightly faster or slower, so feel free to set your own pace. And now, a word about some of the thinking that went into the content of this book.

0.3.1 *Rule sets and Technical Terms*

Because I learned Go using territory scoring, that is the way I teach Go to beginners. Territory scoring is very popular among strong players. For those who believe that area scoring is easier for beginners, I have struck a compromise and this book will use the the American Go Association Rules of Go, which detail both area and territory scoring. If you are interested in area scoring, please read the section in the rules which describes area scoring and practice using it whenever territory scoring is used.

Secondly, I have chosen to use Japanese for technical terms throughout this book. While there is often a perfectly good English word available, I have chosen to use Japanese terms in all cases. The most obvious advantage of this is that Japanese terms are somewhat of a standard, in wide use throughout existing English Go literature. Another major benefit is that we can avoid any latent meanings held over from using English words as technical terms.

Go is both a highly technical and highly intuitive game. In Go, you must have both a holistic understanding of the concepts *and* a strong foundation in the fundamentals of Go. I believe that using foreign terms is the best way to achieve this for English speakers. Japanese words will therefore appear in *italics* at least until they are defined, at which point they will appear naturally as technical terms used for discussing Go. At that point you should no longer consider them to be Japanese words per se, but part of the English Go vocabulary.

And now, let us start our Go journey together - by learning the history and rules of the game.

Chapter 1

The World of Go

1.1 The History of Go

Like most ancient things, the truth about Go is probably lost. As the story goes, about 4200 years ago, Emperor Shun of China invented the game to teach his young son how to concentrate better. The story doesn't say if it worked or not. Other stories say it was a different emperor, or that it didn't come from China in the first place at all. At any rate, it is widely believed that Go originated as a Chinese game, and we know for a fact that it first arrived in Japan from China (although other nations, notably Korea, had received the game earlier due to their proximity with China).

Tha absolute earliest reference to Go in written history is from China in 559 BC, where a scholar used Go as an analogy. We do know that Go was popular in China at least during the time of the Han dynasty, about 2,000 years ago. Other nations seem to reference it at a later date, indicating that it spread from China to other places. An example is the story of King Gaero of Paekche, Korea (455 AD), containing a reference to Go.

Boards of all sizes were popular throughout (at least) the Han and

Sui dynasties, with 17x17 and 19x19 boards being found. 13x13 boards from the Liao dynasty were also discovered.

In 754 AD, the game reached Japan, where it was called Igo (pronounced 'Go'). Go was varyingly popular throughout the next millennium. During the 17th Century, for example, Go had reached fever status in Japan. Special schools were set up and run by Buddhist priests, the most popular of which was called the Honinbo school. The top players from the schools were asked to demonstrate for the Emperor. Then, in 1924, the Nihon Kiin was formed by Baron Okura in Japan. The last of the Honinbos, Shusai, joined the Nihon Kiin and as a result it became the dominant Go organization.

At this time, Japan was the lighthouse of the Go world. Since then however it has spread all over the world again, back to China, Korea, and now North America. In 1936, the San Fransisco Go Club became the first international branch of the Nihon Kiin, and after the war, the AGA (American Go Association) came into being and published a Go journal for its members. Finally, in 1993, the American Go Association was incorporated as the organization we know today.

Since then, Go has been enjoying a worldwide revival of unprecidented magnitude. Most recently, there has been a Go explosion amony the younger generations, due to the popular animated series "Hikaru no Go".

Go, the ancient game, becomes modern.

Nowadays there are Go clubs everywhere. Go books are available even in some small and medium sized bookstores. If the future of Go in America is anything like it's past was in Japan, we are in for a very exciting ride!

1.2 Modern Go: Computer Go

In recent years, several computer programs have been developed which can play Go. Fortunately or unfortunately, they are not very good. Go is a deep and complex game which cannot be easily mastered by humans, let alone computers. Experience so far has taught us that the strongest computer opponents are no stronger than 10 kyu.

In the emergency situation where you can't find someone who knows how to play, a computer opponent might be a good choice. One popular and free program available for Microsoft Windows is Igowin. Other operating systems can look for GnuGo, which is another strong Go playing program for MacOS, Linux and Windows.

The great thing about the program Igowin is that it adjusts it's skill level to you as you play. If you are just a beginner, Igowin will play like a beginner - but if you win too many games, it will get harder and harder. Therefore Igowin is a good opponent to help you learn. The Igowin program is available from the Kiseido website at HTTP://www.kiseido.com/download.htm.

If you play computer opponents, please keep in mind that when you get close to 16 kyu in strength a computer no longer provides a worthy opponent. In that situation it is better for you to start playing "real humans" again.

The other side of computer go is Internet Go. If you haven't done so already, visit HTTP://kgs.kiseido.com and try out one of the most advanced and friendly Go servers in the world. Internet Go is similar to go played on a go board. The board will appear on the screen while you are playing, and you can click on intersections with your mouse. You can post a profile and a picture on KGS which will allow people to challenge you.

One of the greatest benefits of playing on KGS is that you have instant access to every game of Go you have played over the last 180 days. With a few easy clicks a game record list comes up, and you

can go back and study your own games to see where you made a mistake. This is an invaluable resource which should not be discounted easily. In the past, players did not have anything like this and had to record games by hand. This is one case where modern technology has greatly helped Go players.

One other useful feature on KGS is the ratings graph. This graph is an index of your rating vs. time. If it goes up quickly, you are improving fast, and if it starts to taper off, you may hit a barrier soon and you should start studying and playing more to use your existing momentum to break through it.

The minimum timeframe for your rank graph to become a reliable judge of your rate of improvement is two months if you play one game per day, or six months playing one game per week.

Chapter 2

The Rules of Go

Go is a relatively simple game with few rules. Play is mainly learned by experience. As a beginner, around 30 *kyu* in strength, you will not necessarily know or understand all the rules of the game. That's OK, the definition of this rank is someone who does not yet know all the rules.

You may already have been taught how to play by your instructor. In this case, you can use this section as a reference.

If the official AGA rules are a bit of a mouthful for you, feel free to skip them and come back later. The rules are taught by practical example throughout this series of books.

2.1 American Go Association Rules of Go

The full and complete official AGA rules of go can be found on the AGA website at HTTP://www.usgo.org/.

1) The Board and Stones

Go is a game of strategy between two sides usually played on a 19x19 grid (the board). The game may also be played on smaller board, 13x13 and 9x9 being the two most common variants. The board is initially vacant, unless a handicap is given (see rule 4). The two sides, known as Black and White, are each provided with an adequate supply of playing tokens, known as stones, of the appropriate color.

2) Play

The players alternate in moving, with Black playing first. In handicap games, White moves first after Black has placed his or her handicap stones. A move consists in playing a stone of one's color on an empty intersection (including edges and corners), or in passing. Certain moves are illegal (rules 5 and 6), but a pass is always legal (rule 7). Points are awarded for controlling space in a manner described below (rule 12). The object of the game is to end with the greater total number of points.

3) Compensation (*komi*)

In an even (non-handicap) game, Black gives White a compensation of (5.5) points for the advantage of the first move. This compensation is added to White's score at the end of the game. In handicap games, black gives white 0.5 points compensation. This avoids

draws. *(Note: Recently Japan has moved to adopt a 6.5 point komi in even games. We will use the 6.5 point komi convention in this book)*

4) Handicaps

The game may be played with a handicap to compensate for differences in player strengths. The weaker player takes Black, and either moves first, giving only 1/2 point compensation to White, as in Rule 3 (this is known as a "one stone handicap"), or places from 2 to 9 stones on the board before the first White move.

If the players have agreed to use area counting to score the game (Rule 12), White receives an additional point of compensation for each Black handicap stone after the first. (Black would otherwise gain an additional point of area for each handicap stone.)

The nine intersections marked as star points are ordered as follows on a 19x19 board: 1st star point: Q16, 2nd at D4, then Q4, D16 and 5th at Q10. 6th at D10, then K16, K4 and finally the 9th star point at K10.

The handicap stones are traditionally placed as follows: 2 stones on the 1st and 2nd star points. 3 stones on 1st through 3rd. 4 on 1st through 4th. 5 as with 4, but with one on the center. 6 stones on the 1st through 6th star points. A 7 stone handicap is the same as 6 but with 1 in the middle. An 8 stone handicap has stones on the 1st through 8th star points, and finally, a 9 stone handicap has handicap stones on all 9 star points.

Unless otherwise specified, handicap stones shall be placed in this fashion. Handicaps greater than nine stones and handicaps on boards with fewer than 19 lines are not standardized.

5) Capture

Stones of the same color are said to be connected if they are adjacent along horizontal or vertical – not diagonal – lines on the board. A string of connected stones consists of those stones which can be reached from a given stone by moving only to adjacent stones of the same color. A string of connected stones is surrounded by stones of the opposite color if it has no empty points horizontally or vertically – not diagonally – adjacent to any of its member stones. (Such adjacent points are known as liberties of the string.)

After a player moves, any stone or string of stones belonging to the opponent which is completely surrounded by the player's own stones is captured, and removed from the board. Such stones become prisoners of the capturing player. It is illegal for a player to move so as to create a string of his or her own stones which is completely surrounded (without liberties) after any surrounded opposing stones are captured.

This means that it is possible to fill an empty space within an opponent's group and capture even if the player's own stone or stones would momentarily be surrounded by the group being captured, but ***self-capture is illegal****.*

6) Repeated Board Position (Ko)

It is illegal to play in such a way as to recreate a previous board position from the game, with the same player to play. *(The most typical example is a situation where the players can each alternately capture and recapture a single stone. This is known as "ko". After the first capture, the player moving next may* ***not*** *capture immediately, as this would repeat the board position; instead, that player must play elsewhere on the board (or pass). The player who first captured may then "fill" the ko (or otherwise resolve it), or play elsewhere as well (often in response to the other player's previous move.) If the*

board position has changed, and the ko has not yet been resolved, the opponent is then free to capture, and it is the original player who may not then immediately recapture. This process is known as a ***ko fight****, and the moves played away from the ko itself are known as* ***ko threats****. Rarely, multiple kos or other repetitive situations will arise; the principle for handling them is always the same: the players must avoid repeating the full-board position, so they are periodically, and alternately, forced to play away from the repetative situation before responding.)*

7) Passing

On his or her turn, a player may pass by handing the opponent a stone, referred to as a pass stone, rather than playing a stone on the board.

8) Illegal Moves

An illegal move is one violating the rules. If a player makes an illegal move – such as moving twice in a row (i.e. before the opponent has made a response), attempting to play on an occupied intersection, self-capture, or retaking ko so as to repeat the full board position, the player must take back his or her move (both moves, if he or she moved twice in succession), it shall be treated as a pass, and a pass stone exchanged. *(An illegal move must be noted as such by the opponent before he or she makes his or her move. When a player moves, he or she is tacitly accepting the opponent's previous move as valid. In particular, if it is discovered that an earlier move by one of the players was illegal, the game must nevertheless be continued* ***as it stands*** *unless both players agree to restore the earlier board position and proceed from that point.)*

9) Ending the game

Two consecutive passes signal the end of the game. After two passes, the players must attempt to agree on the status of all groups of stones remaining on the board. Any stones which the players agree could not escape capture if the game continued, but which have not yet been captured and removed, are termed dead stones. If the players agree on the status of all such groups, they are removed from the board as prisoners of the player who could capture, and the game is scored as in Rule 12. If there is a disagreement over the status of some group or groups, play is resumed as specified in Rule 10.

10) Disputes

If the players disagree about the status of a group of stones left on the board after both have passed, play is resumed, with the opponent of the last player to pass having the move. The game is over when the players agree on the status of all groups on the board, or, failing such agreement, if both players pass twice in succession. In this case any stones remaining on the board are deemed alive. Any stone or group of stones surrounded and captured during this process is added to the capturing players prisoners as usual.

11) The Last Move

White must make the last move– if necessary, and additional pass, with a stone passed to the opponent as usual. The total number of stones played or passed by the two players during the entire game must be equal.

12) Counting

There are two methods for counting the score at the end of the game. One is based on territory, the other on area. The players should agree in advance of play which method they will use. If there is no agreement, territory counting shall be used.

Although player's scores may differ under the two methods, the difference in their scores, and hence the game result, will be the same.

Territory

Those empty points on the board which are entirely surrounded by live stones of a single color are considered the territory of the player of that color.

Area

All live stones of a players color left on the board together with any points of territory surrounded by a player constitute that player's area.

Neutral Points (*dame*)

Any empty points left on the board at the end of the game which are not completely surrounded by either player's stones are known as neutral points, and are not counted toward either player's territory or area.

Counting by Territory

When counting by territory, players add up their total territory less any prisoners held by the opponent (including dead stones removed

at the end of the game). The player with the greater total (after adjusting for any compensation offered according to rule 3) is the winner.

Counting by Area

When counting by area, the players add up their total area. Prisoners are ignored. The player with the greater total area (after adjusting for any compensation offered according to rules 3 and 4) is the winner.

2.2 Ranks, Ratings and Handicap Go

A beginner in Go receives the rank of 30 *kyu*. As skill progresses, the number progresses to 29 kyu, 28 kyu, etc. until the rank of 1 kyu is achieved. Each rank is equal to one handicap stone on a 19x19 sized board. This means that if a player ranked 20 kyu were to play someone ranked 22 kyu, the 22 kyu would receive 2 handicap stones. If the rank difference is one stone, the stronger player takes white and *komi* (the compensation white receives for black moving first) is 0.5. If the rank is the same, the colors are chosen according to agreement and the *komi* is set at 6.5. To see how komi is applied when calculating the score, please see the example game on page 55.

If the player gains another stone in strength beyond 1 kyu, the player is promoted to 1 dan. After that, skill levels are marked as 1 dan, 2 dan, etc. until amateur 6 or 7 dan. These are known as the amateur ranks. In the world of professional Go, players are ranked professional 1 dan to professional 9 dan. A professional 1 dan is at least a few stones stronger than the strongest amateur rank.

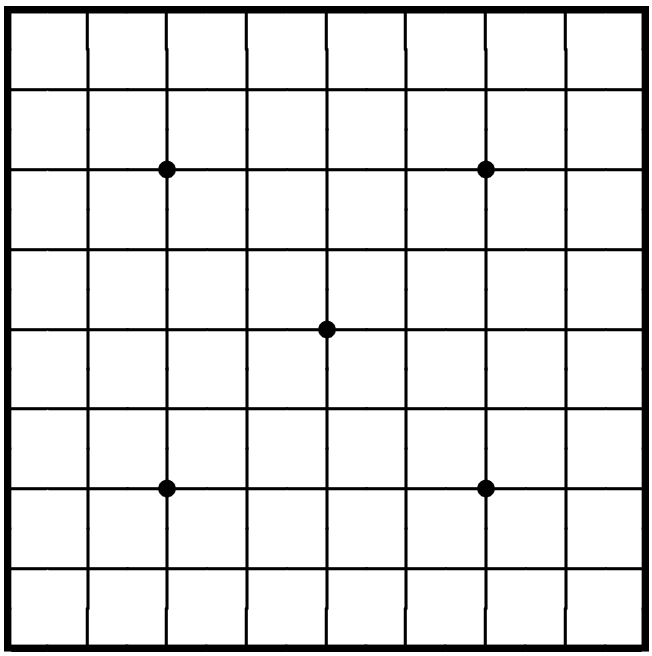
Ratings are something different entirely. Ranks are given to you by your instructor or your go organization. Your rating however, is an indication of how strong you are compared to other Go players.

Once you achieve a rank, you can never lose it - but if you stop playing Go you can lose your skill, and hence your rating may decline.

Chapter 3

Go for beginners: 9x9

The 9x9 board is a good board for beginners to play on because it's small size is easier to understand. Here is an example of an empty 9x9 board:



3.1 The Goban

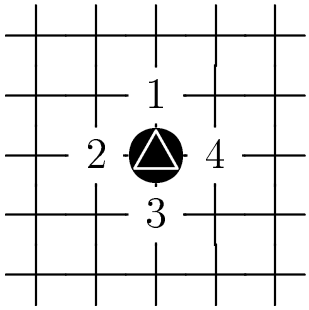
A crash course in the game begins with the depiction of a Go board (goban) above, and a quick glance at the rules of the game in the previous chapter. For the first move, black usually moves on or near one of the star points (marked with dots). On a 9x9 board, the five star points are: four at the 3-3 points in the corners, four at the sides, and one at *tengen* in the middle. Sometimes not all star points are marked, but every goban (go board) always has nine star points.

A coordinate system is used to reference individual intersections. The bottom left corner of a 9x9 board is known as 1-1 or a1, and the point immediately to it's right is 2-1 or b2. Therefore C-3 is also 3-3. F-7 is also 6-7.

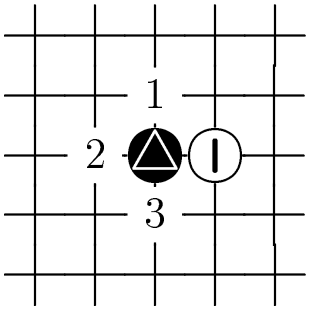
When discussing corner positions in context, points can be named by their line numbers referenced by the corner point. Thus H-8 is a "2-2 point" and C-7 is a "3-3 point". Those are not coordinates but references to the positioning within the corner.

Finally, an intersection can also be thought of as a distance from the edge of the board. B4 (2-4) is on the second intersection from the side of the board to it's left, and on the fourth intersection from the bottom of the board. Since the lowest number is used, a move played at B4 is therefore said to be played on the 2nd line.

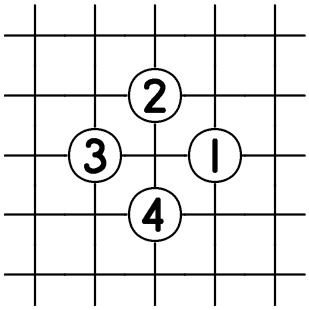
3.2 The Stones



A stone has four liberties.

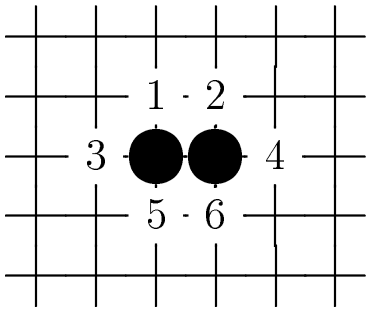


If an enemy stone is placed on a liberty, the black stone will have one less liberty.



The black stone has been captured by white 1-4, and removed from the board.

If enemy stones remove all liberties, the stone is captured and removed form the board.



Likewise, stones which touch share liberties.

So while a single stone has four liberties, two stones of the same colour right beside each other would have six liberties. The more liberties a group of stones have, the longer it takes to capture them.

3.3 Making Territory by Surrounding

The ultimate goal of Go is to surround more territory than your opponent. Whoever has more territory will win, so it would be a good idea to show you what territory looks like. Remember that territory must be enclosed for it to be owned by a player at the end of the game. Here are some examples:

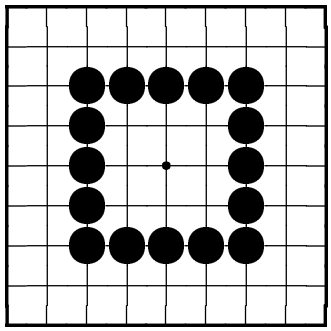


Diagram 1

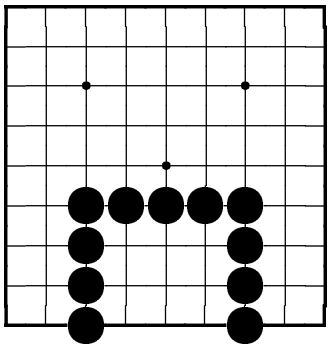


Diagram 2

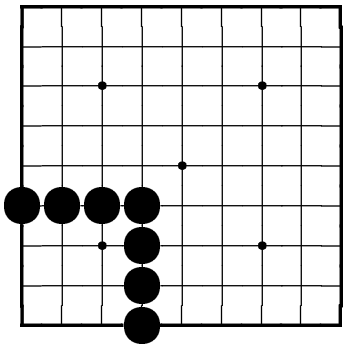


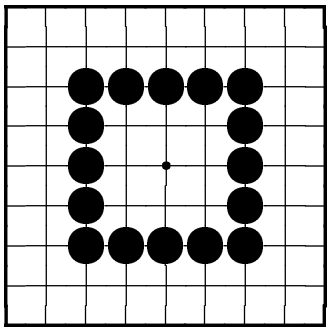
Diagram 3

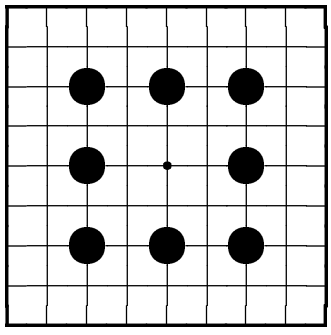
Each of the three examples above shows how nine points of territory might be enclosed. In the middle of the board, on the side of the board, and in the corner (far right).

One thing you may notice is that although the three shapes all enclose nine points, some shapes are more efficient than others in doing so. For example, while the shape in Diagram 1 uses 16 stones to enclose nine points, the shape in Diagram 3 only uses seven. Continuing with this theme, we see that some shapes may be made even more efficient than before.

3.3.1 Making territory efficiently in the center

Example 1:





If the first shape encloses nine points, so does the second shape. However, with the second shape it was done more efficiently. Notice how every stone in the second shape can be connected to it's

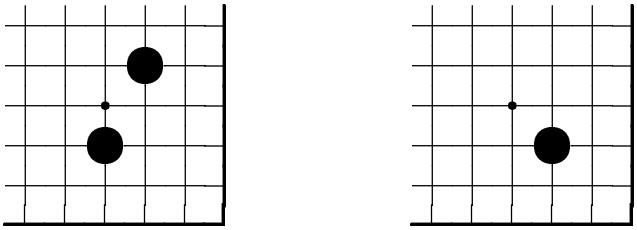
neighbor with only one move, and that if white tried to interrupt this connection he would be immediately attacked. The particular basic shape which makes up the box is known as *ikken tobi*, and is discussed at length in Chapter 5.1 on page 42.

3.3.2 Making territory efficiently in the corners

Example 2:

Just like before, the second example shows how to enclose a maximum amount of territory with a minimum amount of stones.

Example 3:



Here are two very efficient shapes for you to consider, both of which may appear in the corner only. They are known as corner enclosures, and are made when you would like to secure territory very quickly. Can you estimate approximately how much territory they surround?

3.3.3 Making territory efficiently on the side of the board

Example 4:

In a real game of go, you can't take your time and make 11 moves to surround 9 points like in Diagram 2 - your opponent isn't going to stand idly by and let you cordon off points! He will try to stop

you or make territory of his own. For this reason we need the most efficient shapes possible on the sides, too. Just imagine that we're making a box, and the two stones above are the top corners of that box. Do not let the enemy into your imaginary box of territory!

A simple extension along the side of the board doesen't make very much territory, so black will make a one space jump as shown on the left above. To the right of this a two space jump is shown. On the side of the board, the one space jump secures about 6 points of territory. The two space jump secures about 8 points - the territory between the stones and the side of the board.

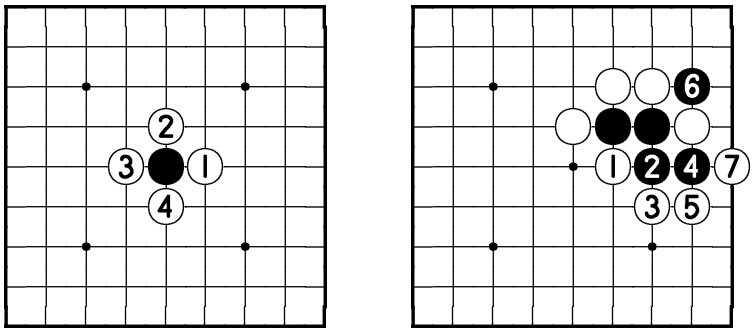
Which kind of jump you use to claim territory depends on your own style. The one space jump is stronger, but also slower than the two space jump - that is to say, it does not cover as much ground in one move as the two space jump. There is a saying, that the one space jump is never a bad move.

In the center of the board, it is very difficult to make territory so the shapes must be exceedingly efficient. There is a saying, "there is no territory in the center". Thus to make territory in the center, you must do it indirectly. It is one of the paradoxes of go that the best way to make territory in the middle of the board is by not trying.

3.4 Making territory by Capturing

When territory is made by capturing stones, it is worth twice as much. This is because every prisoner you capture at the end of the game is worth one point, as well as one point for the space it was on. The same basic rule applies in area scoring too, because not only will you make a point, but by removing one of the enemy stones from the board you will be costing him a point as well.

Example 5:



In the above two examples, when white captures one black stone and removes it from the board, then at the end of the game he can count one point for his space surrounded by capturing, and also one point for the prisoner in his hand. Likewise on the right above, when white captures four black stones, it counts as eight points. Therefore, capturing stones is a fast way to make territory.

Unfortunately, all the time that you try to capture the enemy, he will also try to capture you! Thus we come to our next topic, life and death on the go board.

Chapter 4

Life and Death

Your opponent will be trying to capture your stones. When he does, they are dead, and removed form the board. Before they are dead, they are alive. It's a basic distinction, but how do you know if a stone or group of stones is alive or dead?

The basic definition of alive is a stone or group of stones which either already has at least two eyes, or has the potential to make two eyes. You may be wondering what an eye is. An eye is a distinct area of territory which is completely enclosed. For now, let's examine a group which has no eyes:

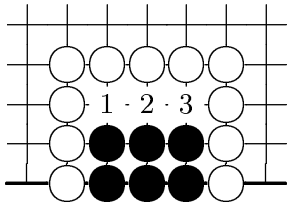


Diagram 1

In diagram 1, the black stones have no eyes. We see that black only has three liberties. Eventually, white will capture those six black stones and there is nothing black can do about it.

Diagram 2 tells a slightly different tale; Black has one eye. Notice how white cannot move 'a' right away, because you cannot move on

an intersection which is already completely surrounded. Since black has one eye, white must move as in diagram 2b to capture black:

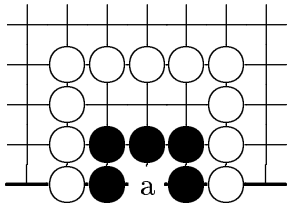


Diagram 2

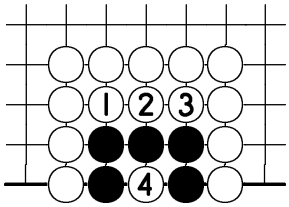


Diagram 2b

Notice that white was unable to move 4 at a until all the other black liberties had been removed. Essentially, white was only able to move 'a' because it was a move which would remove all the liberties and kill black.

Now, observe what happens when black has two *eyes*:

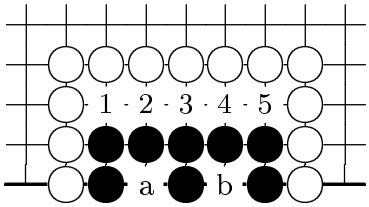


Diagram 3

Diagram 3 shows what happens when black has two eyes. As before, black is completely surrounded by white. As in Diagram 2, white cannot move at 'a' or 'b' until he first removes all but one liberty from the black stones.

White starts moving 1.. 2.. 3.. 4.. 5.. but then something curious happens. When white tries to move 'a', it is an illegal move, since black still has one liberty left at 'b'. Yet if white tries to move 'b' first, black still has one liberty left at 'a'!

Because white cannot move 'a' or 'b' to atari black, the black stones in diagram 3 are said to be unconditionally alive. Even if white attacks them, black will not respond, because they can never be captured.

This theory of alive and dead will serve you greatly on your go journey. To give a better understanding of life and death on the goban,

we will cover some more life and death problems in chapters 9 and 12, and Appendix B.

4.1 Cutting and Connecting

The life and death of individual stones is related in no small way to their status as being part of a group which is alive. If a single stone gets cut off, and eventually surrounded, it will die. As a result, a big part of Go is keeping your stones connected to one another, and cutting apart your opponent's stones.

The following two examples are taken from real games of Go played by beginners:

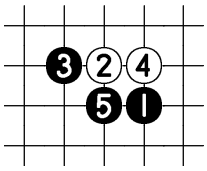


Diagram 1

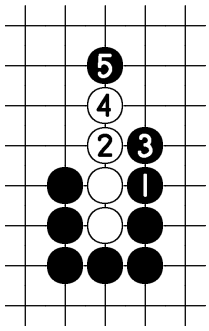


Diagram 2

Can you see anything common in these diagrams? In Diagram 1, black 3 is a bad move. 5 in Diagram 2 is a bad move for the same reason: Black can be split. When black moves 3 in diagram 1, what would happen if white just went down, and cut the two black stones off from each other (Diagram 1b)? From this simple example of cutting, you can see that as long as white keeps black's 2 stones cut off from each other, then in theory black will need to make two groups alive while white will only need to make one group alive. In theory then, white will have an easier time winning the game because black has to work twice as hard.

In Diagram 2, we see a more complex example, but the principle is the same. When black hits white on the nose with 5, white can turn in either direction, but white will most likely move to the right

and cut black's nose-hitting stone off from the main group. The next four diagrams show how white should respond to cut black, and also how black should have moved so that white cannot cut him off:

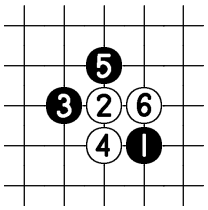


Diagram 1b - black cannot connect and one of his stones is almost in atari!

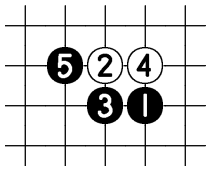


Diagram 1c - black does not present an easy weakness to white.

1b: Here we see black presenting a weakness by not keeping his stones together.

1c: Black moves so as to keep his stones connected while he attacks white.

In Diagram 1 and 1c, the end result looks the same. What's missing is the possibility of Diagram 1b. Black must move as in Diagram 1c to prevent Diagram 1b from ever happening.

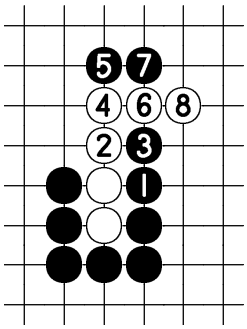


Diagram 2b - black's attacking stones are cut off from the main group.

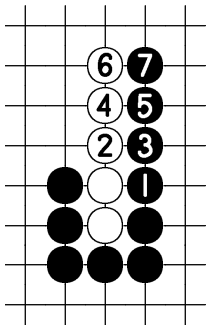


Diagram 2c - black attacks white and also stays connected.

The point in Diagram 1 and 2 is not about killing stones or failing to kill stones. It's to show you that while you are trying to accomplish your goals, you must not defeat yourself. It is important to stay strong and connected while you try to cut the enemy stones away

from their strong base. If you can't cut the enemy stones, at least you will not be cut so easily either.

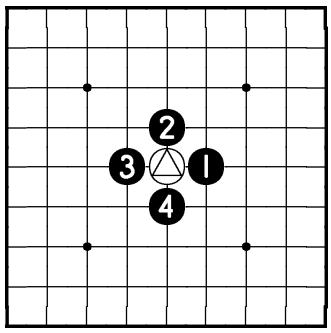
This discussion brings us to an idea about shape. Some shapes are strong, and cannot be cut - others are weak, and can be cut. We now take a look at the nature of shape by examining several very common patterns on the go board.

Chapter 5

Your First Shapes

When you first start playing go, you are taught how to capture stones. The following diagram demonstrates capturing a single stone:

Diagram 1:

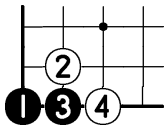


The marked white stone is captured with ❹.

The 4-stone shape which results from capturing a single stone is known as a *ponnuki* (death star). From this fundamental rule we can begin to see shapes emerge on the board, and try to understand which ones are good and which are bad. Moves which let the enemy capture your stones are bad; running away and saving a weak group is good. Capturing enemy stones is good, failing an attempt to capture them is bad.

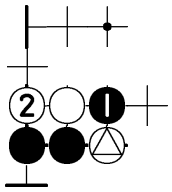
For example, moving on the first line or directly at the 1-1 point is a bad move:

Diagram 2:

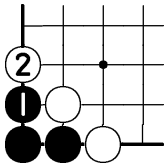


Black is trapped by white 2. Even if black moves at 3, white simply blocks, and black can be captured by white on the next move.

What if black tries to escape anyways? Black could try to capture one of the nearby white stones, or he could try to run away, as follows:



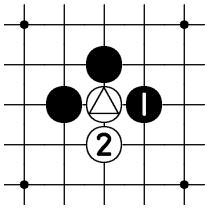
If black tries to escape by capturing the marked stone, white moves ② to capture black.



If black tries to run the other way, white ② still captures black.

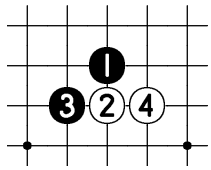
Therefore, we see from Diagram 2, 2a and 2b, ❶ cannot escape after ②. After ④, the two black stones are in atari, and even if they try to escape white can still capture them.This technique is a fundamental shape in Go, known as a *geta* (net). You will learn more about nets later in the problem sections on pages 99 and 112.

Diagram 3:



In Diagram 3, the marked white stone is put into atari with 1. With 2, white moves out. The move 2 is technically known as *nobi* (extension). Nobi happened here because black tried to capture white, but what usually happens is that you will nobi right away when the opponent makes a *hane* (bend-around attacking move), as follows:

Diagram 4:

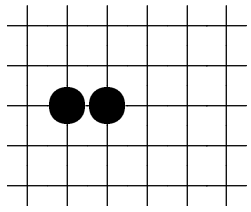


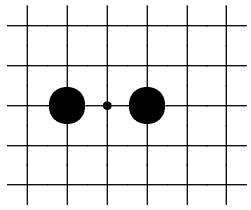
The white stones in diagram 4 are thought of as being stronger than the white stones in diagram 3 because they have more liberties. In this diagram, the white stones have four liberties, while in the previous diagram they have only three.

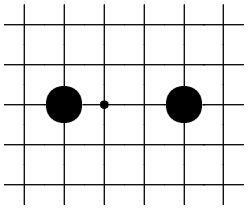
Note also that although white has an extra liberty for his group, black has made one less attacking move. Black 5 at 2 in Diagram 3 makes the situation identical, except that it is White's move.

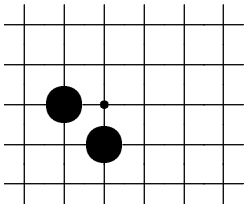
This is the way you can start to understand shape: A shape is good when it is strong. That means, when it has a lot of liberties. When a single stone is played it has no shape, but when more stones are played, shapes emerge. The more shape moves you know how to make, the quicker you will not be a beginner anymore.

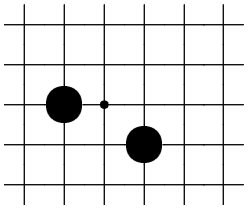
There are certain shapes which are very common. If you know these shapes and what they mean, you can become very strong at Go. Below you will learn five of the most common shapes and some sequences which go along with them. Together they are like the five elements of go, metal, wood, earth, water and fire.

 *nobi* (extension)

 *ikken tobi* (one space extension)


nikken tobi (two space extension)


kosumi (diagonal move)

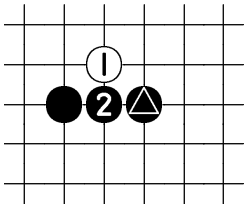

keima (knight's move)

Finally, a *hane* is a kosumi which bends around to attack an enemy stone.

Each of these shapes represents a connection between two stones. You make these kinds of shapes all the time, but now you know what they are called. These shapes can also be considered fast and light, or slow and strong. For example, a nobi is a very strong shape because there is no way to cut the stones. Ikken tobi is a faster shape but it has a weak point in the middle, which we will now examine.

5.1 Ikken Tobi

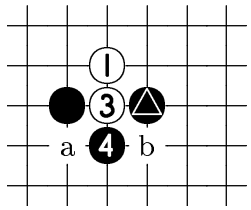
Diagram 5:



When black makes ikken tobi with the marked stone (Diagram 5), white has the option to *nozoki* (peep) at 1. Black usually connects with 2, and we see that black's ikken tobi stone has helped him cover

more distance than a simple nobi. Because it covered more distance, ikken tobi is thought to be *faster* than nobi.

Diagram 6:



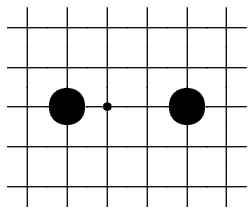
If black moves somewhere else instead, white has the option of pushing through at 3 and if black tries to defend at 4, he will still be left with two cutting points at a and b. This is incomprehensibly bad for black, so black will usually connect as in diagram 5.

Finally, if white moves in between the ikken tobi stones, black will put him into atari right away - so white probably won't move there!

5.2 Nikken Tobi

A nikken tobi is similar to ikken tobi, but one space farther away. In the center of the board, let us examine a nikken tobi.

nikken tobi (two space extension)



Remember from chapter 3 that groups of stones share liberties. It is therefore a good idea to keep your stones connected together so they are stronger. If white invades your two space extension, you need to know how to keep the nikken tobi stones together.

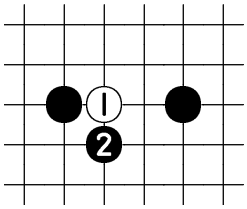


Diagram 8

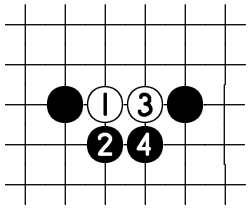
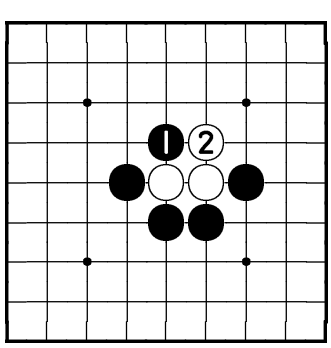
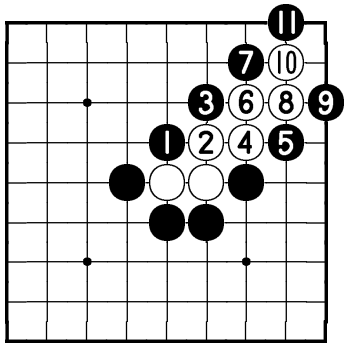


Diagram 8b

For example, if white moves at 1 in Diagram 8, a good idea would be to *hane* towards your other stone. If white performs nobi, you also nobi, as in diagram 8b.

With 4, black connects his stones. "Wait a minute!" you might say, black is left with two cutting points, at a and b. How can black defend both points? This is where the magic of Go comes from. Although there is some fighting involved (white can move a or b), black still connects his stones because of the next shape you will now learn, the ladder.



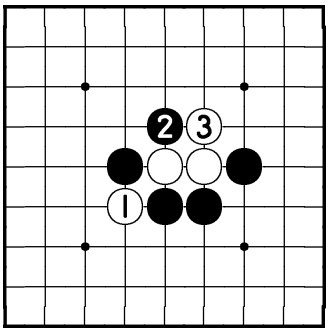


shicho (ladder)

5.2.1 Shicho (ladder)

When black places the white stones into atari with 1, white moves out with 2. However, white is trapped in what is known as a *shicho* (ladder) shape. It is easy to see, because every time white tries to escape, black just puts him into atari again. If white moves one more time to try and escape the ladder, black will capture him with a move in the corner.

Diagram 8c:



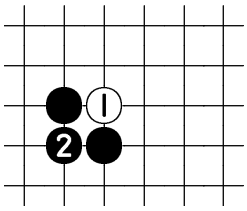
Now it can be seen that if white tries to cut black, black will simply employ the ladder technique to save his stones by capturing white. The stalwart student will notice that if there is a white stone in the path of the ladder, the ladder does not work and white can escape – but in this case there isn't one so white is captured.

From this analysis we know that nikken tobi is a strong shape and the original stones are connected. It's not as easy to remember as ikken tobi, but it will help you decide when the time is right to make a two space jump.

5.3 Kosumi

The following diagram 10 will demonstrate kosumi. Kosumi is a very simple shape, like nobi. It is also slightly faster than nobi:

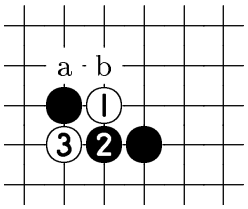
Diagram 10:



If white tries to cut, black just connects.

5.4 Keima

Keima is a fast attacking shape. It is said that you run away with ikken tobi, but attack (enclose) with keima. Although keima can be cut, you can still come out of the fighting in a good position:



White 3 cuts black's keima shape. Of course, black now has several options, for example he can threaten to make a net at 'a', or start a ladder with 'b'. The fighting surrounding keima is somewhat advanced and there are many variations to consider. For now, just try the loose net at 'a' or the ladder at 'b', and see what a difference this makes in your games!

Now that you know the most basic shapes of Go, and how they work. Don't always make hane or nobi! Try to experiment with kosumi, ikken tobi and nikken tobi in your games, and your strength will improve many stones.

Chapter 6

Go Proverbs for Beginners

Before you progress further, it is a good idea to have already played at least 30 games of Go. This way, you will have an idea of what play is like, and you will have had the chance to try several of your ideas out on the board.

To celebrate your progress, now would be a good time to introduce you to some Go proverbs. Go proverbs are not like rules, but more like guidelines. They are sayings handed down by the strongest players of all time, and if you want to improve it is best to heed their advice.

For new players, the two most important proverbs to remember are are:

1.In the beginning, move in the corners first.

2.Make your own stones strong before you attack the other stones.

In the beginning of the game, we move in the corners first because it is easier to make territory there. If you move in the center first, nobody knows where your territory will be.

6.0.1 Why tengen is bad

To state the conclusion first, the real reason why we don't make first hand tengen is because we do not understand it's implications, even on a 9x9 board. You are of course perfectly welcome to move tengen first - but for now we can consider that first hand tengen violates both proverbs: it does not aim at making itself strong before attacking, so cannot possibly follow proverb #2, and it obviously doesn't follow proverb #1 either. For now, we should follow the advice and play moves that we understand, as this is one of the best ways to learn from our mistakes.

Sometimes, a strong player will move in the center anyways. They would do so because they want to start fighting immediately. Although one cannot say tengen is truly a bad move because it is so difficult to understand, after you play a few games you should try some other moves instead.

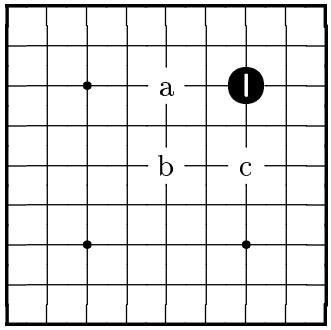


Diagram 1

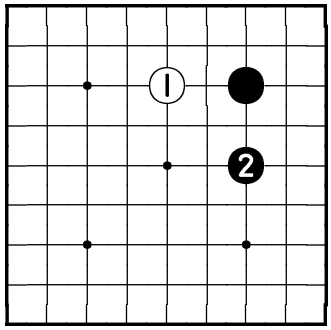


Diagram 2

In Diagram 1, black moves at 1, and we see that if white moves A, B, or C, then black can move at either A or B, and make a base. When black makes a base, he also thinks about Proverb #2: "make yourself strong first". Since you become strong, it is easier to attack the opponent later on.

In Figure 2, we see what happens when white moves 1. Black simply moves in the other direction to balance white's move. Remember our discussion of territory in section 3.3.3? Black has naturally gained territory here by extending from his corner stone.

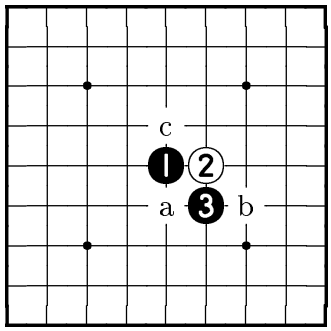


Diagram 3

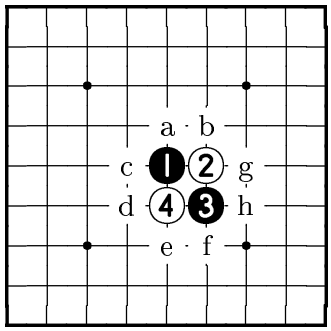


Diagram 4

In Diagram 3 and 4, we see what happens if black moves in the center first. White might *tsuke* (attach) at ②, and then if black makes hane (bend around to attack) at ❸, white has four basic fighting options (a to c or extend). Even if white always chose 'a', black suddenly has eight fighting options to choose from (a to h). Within the first few moves, there are already hundreds and maybe thousands of lines of play to think about! For this reason and others, it's very difficult to move in the center first.

6.0.2 How to counter first hand tengen on 9x9

But what if your opponent's first hand is tengen, like in Diagram 5? How can you deal with him? The truth is that while it may not be so easy, but if we remember the proverbs we have a good chance of winning.

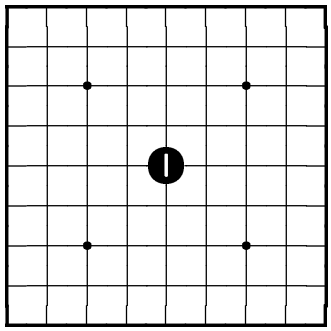


Diagram 5

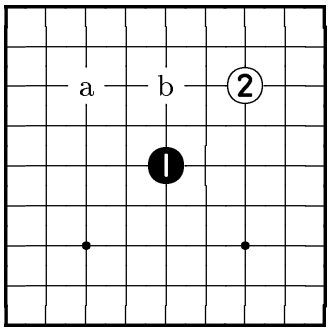


Diagram 6

From the proverbs we know that we should move in the corners first. Therefore, if black deigns to move tengen as first hand, the obvious reply is ②. Actually, Proverb #1 is one of the few proverbs which is almost always true.

In fact, until you get close to 20 kyu, try this: if you see an empty star point in the corner, move there. After all the star points have been taken, move on the empty star points on the side. At this point, should you try to connect your star point stones together and prevent your opponent's stones from "linking up". If you can understand this right away, you are doing very well.

Given that black does not know proverb #1, he probably also does not know proverb #2. That is to say, until now you have probably been playing a game of capture the stones. Black moves 1 first and white immediately attaches at 2 as in Diagram 3. Well, proverb #2 is all about realizing that white 2 in diagram 3 is better in one of the corners. Therefore black may be surprised if you move in the corner first, and may try one of two attach moves (Diagram 7 and 8) - just as you might have tried if you had never read this chapter.

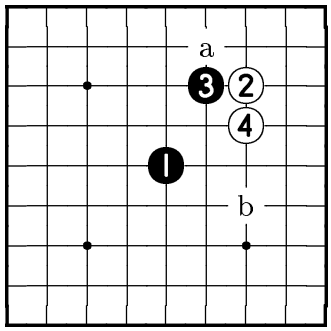


Diagram 7

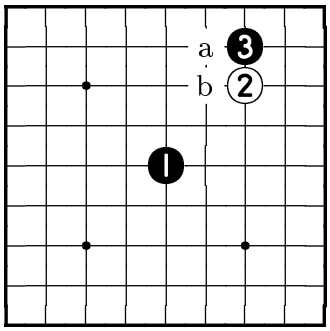


Diagram 8

If black does attach against the lone white stone in the corner, white should not make the mistake of 4 at 'a'. While this is a good move, it doesn't make as many points as white 4 at f6, as shown. 4 at f6 also has the benefit of creating more liberties for the two white stones (a total of 5 liberties after white 4), so it follows proverb #2 and can be said to be better than white 4 at 'a'.

After this sequence, 'a' and 'b' become *miai* - if black takes one spot, white simply takes the other. If black moves one spot to the right of 'a', you should consider the endgame sequences shown in chapter 10.

In Diagram 8, we see that if black attaches from the side of the edge of the board, both 'a' and 'b' are possible next moves for white. Now, let's examine more closely what happens if black tries to fight his way into the corner or capture a stone:

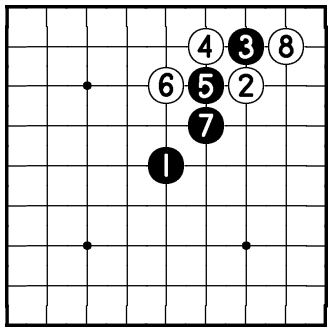


Diagram 8a

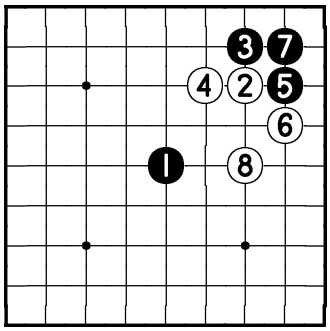


Diagram 8b

8a: If white casts hane down to attack black 3, black is likely to cut at 5. In such a case, white first attacks the cutting stone at 6 so that he can get out on the top left, and then casts atari upon black 3. White has neatly deflected black's attack and become very strong in the process.

8b: If white extends to split up the two black stones, black may try to live in the corner. 4 at b follows the second proverb, to make yourself strong before attacking. Finally, If white 'b' and black 'a', white keeps on moving to the left to make a strong group, biding his time and becoming stronger at black's expense.

Taken together, the two proverbs given to you here can vault you to 26 kyu nearly immediately.

Another way to understand 'make yourself strong before attacking? is to examine two 9x9 opening patterns, as shown below:

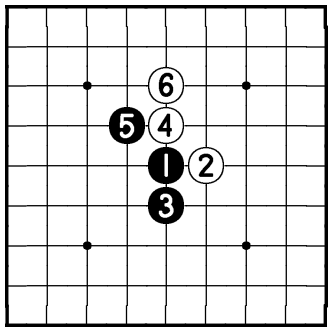


Diagram 9

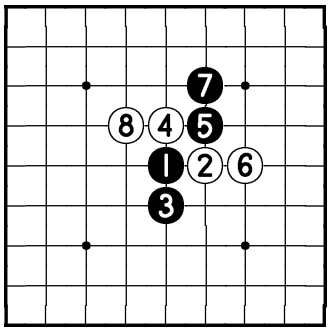


Diagram 10

Diagram 9 or 10? When white moves 2, black does not hane - black moves at 3 to “make himself strong before attacking”. Nobi is indeed a strong move. Assuming white always moves 4, black has a choice to cut the white stones and start a fight as in Diagram. 10, or make the more peaceful move as in Diagram. 9. The peaceful way is preferable because black’s stones are connected in some way and they become stronger. After all, there is strength in numbers. If black cuts, it is also important to understand that black is also cut himself, and white might be able to turn the tables. This can’t happen so easily with the peaceful move as in Diagram 9.

To counter the cut threatened by black 5, white moves at 6. Now if black tries to cut (i.e. as in black 5 from Diagram. 10) white can atari to put the cutting stone into a ladder shape (ladders were mentioned in chapter 5, and will be explained again in chapter 9). For now you can try it on your own- if black cuts at F6 in the first diagram, white puts black into atari at G6. If black tries to escape, white just keeps on putting the black stones into atari, and black dies. White’s counter at 6 was successful, and black wouldn’t dare try to cut the white stones now because a cutting stone would be very weak and easy to capture.

Again, the real reason we don’t move in the center is because even the best go players find trouble understanding that move. We move in the corners first because it is much easier to understand and to fol-

low the go proverbs. So if you are ever unsure of where to move, try strengthening your position or moving in one of the empty corners.

Now, let us examine a game played between two players ranked 26 kyu.

6.1 Game One: A Lesson in Komi

A Lesson in Komi

The Kiseido Go Server (KGS)

White: LittleCire 26k

Black: HGo 26k

Played on January 27th, 2004 on KGS

6.5 point komi. Each player starts with 30 minutes on the clock.

In Go, since black moves first, white is given a certain number of points as compensation. We call this the *komi*. In this game, white was given a komi of six and a half points to balance the fact that black had the chance to move first.

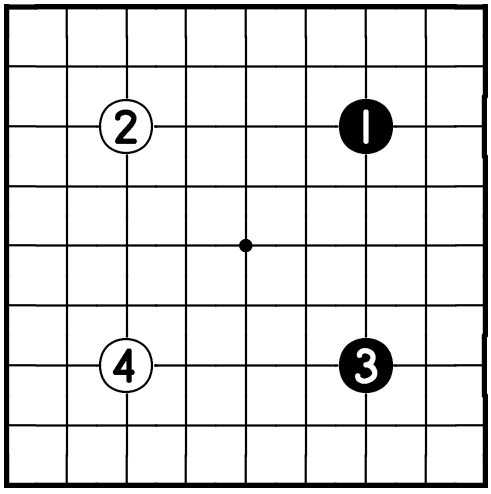


Figure 1 (1 - 4)

Both black and white here know the proverb “first, move in the corners”. In the corners, it is easier to make territory. Since go is a

game about making territory, it makes sense to move in the corners first.

If you recall from chapter three, it only takes seven stones to enclose nine points in the corner, but in the middle of the board it takes sixteen stones. That's the reasoning behind moving in the corners first. Note the sense of balance in this game so far - black didn't simply try to enclose territory in the corner, he tried to stake a larger claim for the entire right side of the board.

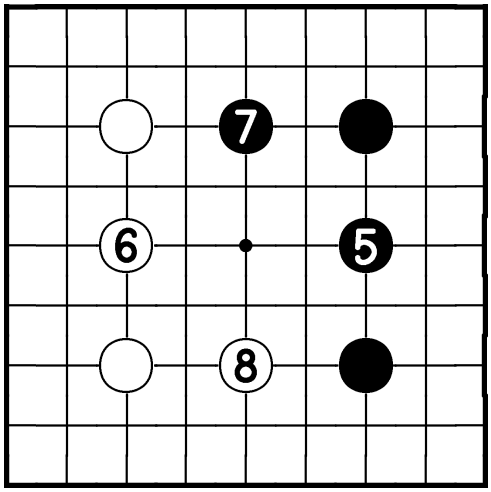


Figure 2 (5 - 8)

The game continues with black 5, which gains territory on the right side. White counters with 6, which gains territory on the left. With 7 and 8, both white and black gain territory on the bottom and on the top.

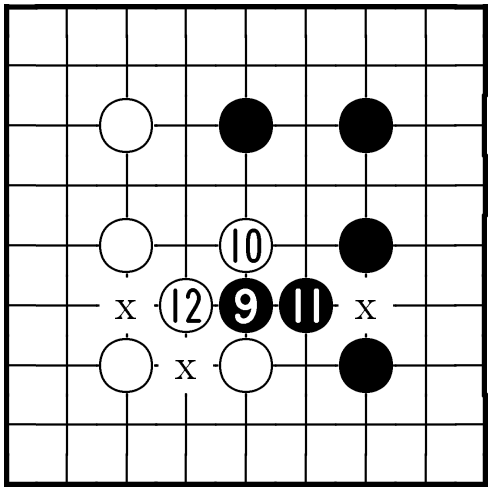


Figure 3 (9 - 12)

Next, black tries to start a fight with the tsuke (attach) move at 9. When white moves at 10, black simply pulls back and white moves 12 to defend. Although black has gained one point at g4 (marked with x), it seems white has gained 2 points on the left (also marked) and white also controls the center. Then again, black still has the initiative, so all is not lost.

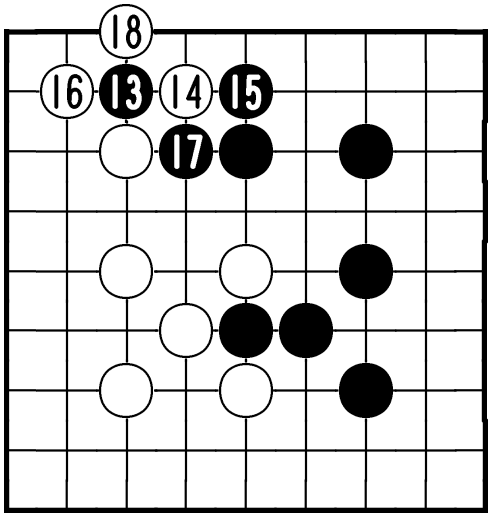


Figure 4 (13 - 18)

Black attacks again, with the tsuke (attach) move at 13. White counter-attacks at 14, and when black blocks solidly at 15, white

puts black into atari at 16. Black 17 forces white, and black then casts his aspirations on the center.

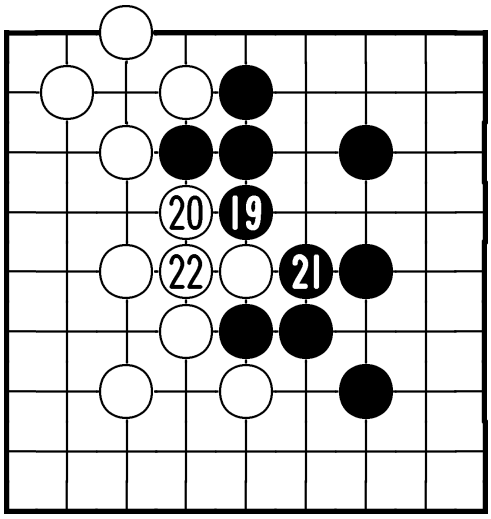


Figure 5 (19 - 22)

Next, black switches to the center with 19. After white 20 and black 21, black has made territory near the center, which is good. White defends at 22 to prevent black from capturing one stone, and black still has the initiative.

At this point, if we count up how much territory each player has begun to enclose, we see that both black and white have about 27 points. The white territory is the number of intersections to the left and under the white stones, and the black territory is the number of intersections to the right and under the black stones.

Therefore we see that the game is still close, and could be decided by black's next move.

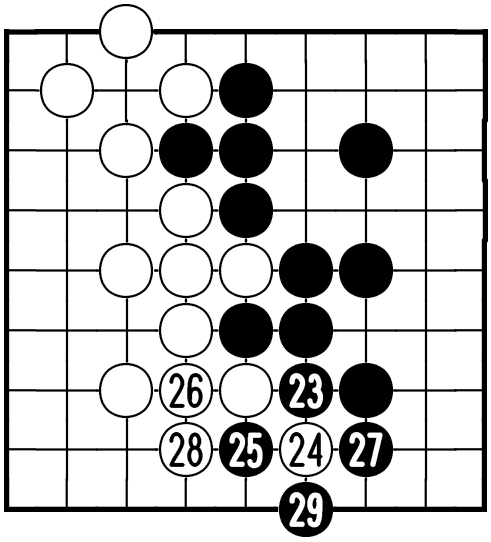


Figure 6 (23 - 29)

With 23, black moves in the right direction. Black weakens white's territory along the point where the biggest open spaces meet. White attacks at 24, and when black ataris at 25, white is in trouble. White defends at 26 and black attacks again at 27. After white defends at 28 black takes one stone at 29.

If we compare the diagram above to the score count earlier, we see that white has lost a few points, and black has gained a few points. We can therefore say that black is about 5 or 6 points ahead now. However, notice that by capturing a single stone, black has lost the initiative. It's white's move now, and he will fight back hard because he knows he is behind and the game is almost over.

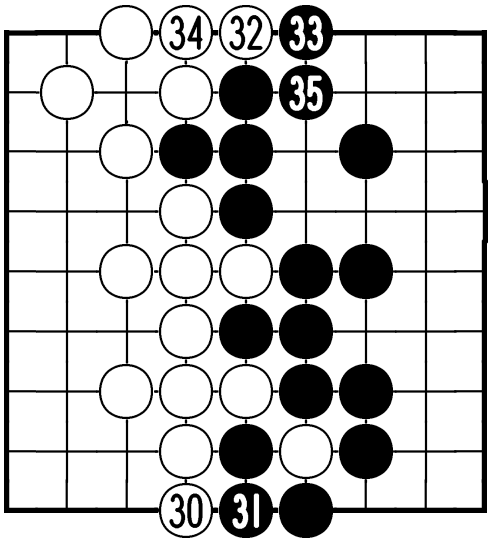


Figure 7 (30 - 35)

White 30 threatens to attack at 31, which is worth one point. It's also a good move because if black moved at 30 first, white would loose 1 point. Black defends and white switches to 32. Black loses a point or so here, so this exchange is good for white.

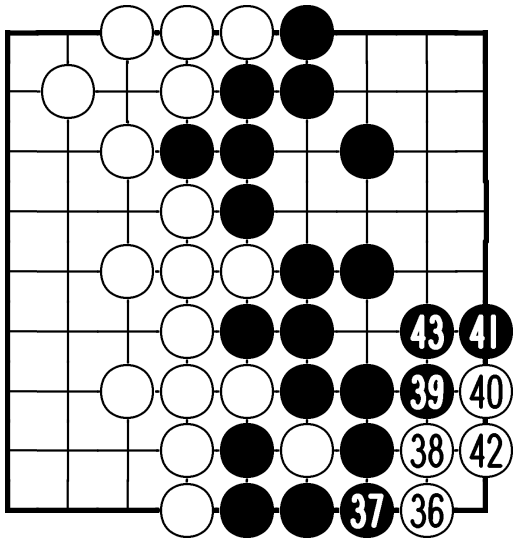


Figure 8 (36 - 43)

White launches a last desperate attack at 36. Black stops white's plan by solidly connecting at 37. When white tries to move out at 38, his hopes are again stopped by black 39. In fact, white cannot escape from black's attack. In a way, white is caught in a trap similar to the trap in Diagram 2 from section 5.

From 40-43, white is only able to make one eye. Because white cannot make two eyes on the right, those stones are dead.

6.1.1 How to count the score at the end of the game

First, remove all the dead stones from the board and put them with the captured stones. White already captured one black stone at 13, and black already captured one stone at 24.

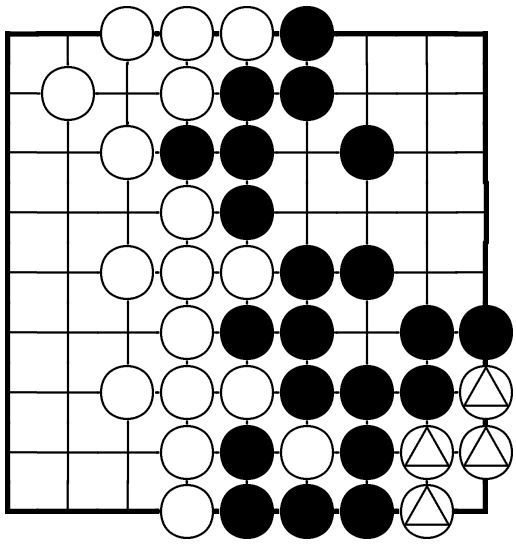


Diagram 1

The four marked white stones are dead, so they are removed from the board. Black now has 5 captured stones. Now we count the score.

As we discover, white has 22 points and so does black. We then add to each person's score the number of stones they captured: White captured one stone, making a total of 23 points, and black captured five stones, making a total of 27 points. Finally, we add komi (6.5) to white's score: 22+1+6.5 = 29.5 points. White wins by 2.5 points.

43 moves. White wins by 2 $\frac{1}{2}$ points.

Black had more territory but white had a greater score at the end of the game because of komi.

The irony of this situation is that the players didn't realize a komi of 6 $\frac{1}{2}$ points was too large for 9x9 Go. When playing on 9x9, a komi of $\frac{1}{2}$ is almost always used.

If this game was counted properly, black would have won by 3 $\frac{1}{2}$ points. Never forget how to count the score, or maybe something terrible like this could happen to you too!

You might also want to count the score some time in the middle of the game too, so you know who is winning. As the saying goes, “he who counts, wins.”

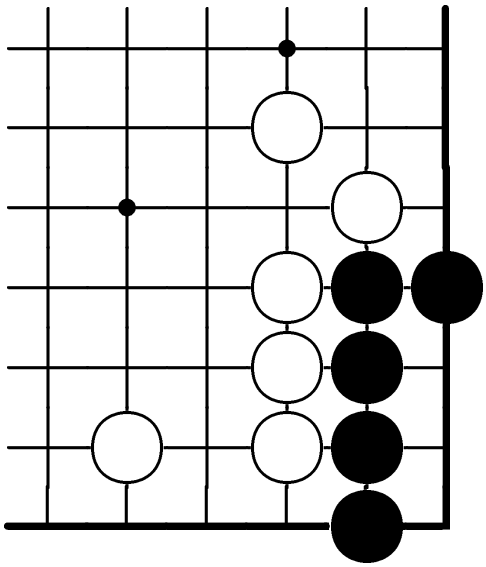
Chapter 7

Tsumego

Once you know the basic rules and how to play, you may notice that you seem to lose most of your games when the other player captures your stones. Sure enough, one after the other, all your stones are captured and when there is nothing left alive, the game is over. This is a truly unfortunate situation, but there's no time like the present to stop it from happening.

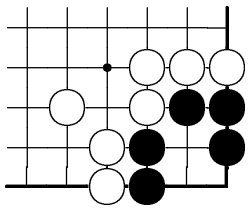
The basic defenition of alive on the go board is a group of stones which cannot be captured - usually because they have enclosed two separate spaces known as eyes. So, it is not by coincidence that the answer to your first tsumego problem is at the coordinates "2i".

Life and death on the go board is all about killing stones, but also all about making your own stones alive. Because of the proverbs we studied in chapter four, "move in the corners first", and "make yourself strong first", all of the life and death problems we will study now are corner problems where you must find the move which makes life. Always remember that in life and death, life comes first.



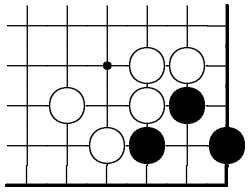
1. Black to Live

In our first tsumego problem, black must try to live. Living means making at least 2 eyes, or you can also live in *seki*, which means dual life. Above is a 2 eyes to live problem, and there is only one answer. If black does not move in the right spot, white will kill black by moving at a certain spot inside black's area.



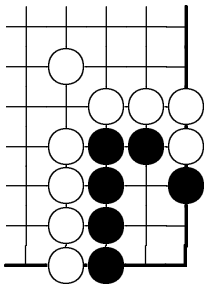
2. Black to Live

In our second problem in the corner, we see that black must again find a way to make life. If this shape seems harder, remember that black must make two eyes to live.



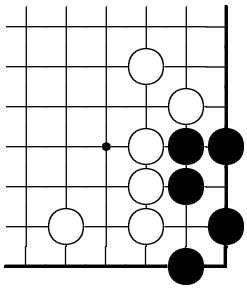
3. Black to Live

This problem is similar to the one above. How can black survive?

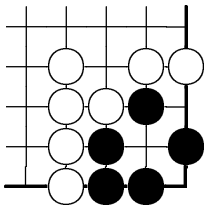


4. Black to Live

Where should black move so that his group in the corner is alive?



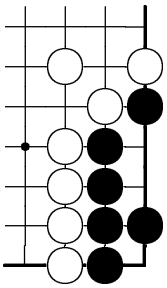
5. Black to Live



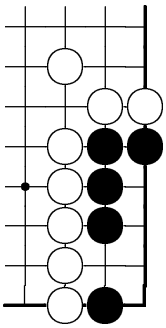
6. Black to Live

Problems five and six will require a new kind of move which you will have to discover yourself. You already have two eyes, but, what if white attacks? You will need to pre-emtively defend your weak areas in these problems.

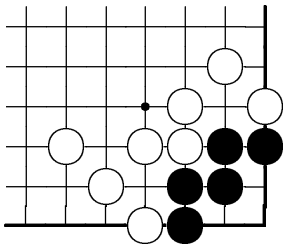
Finally, here are some extra “black to live” problems for you to study. You can consider them homework for next week!



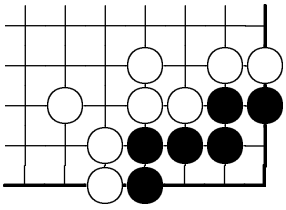
7. Black to Live



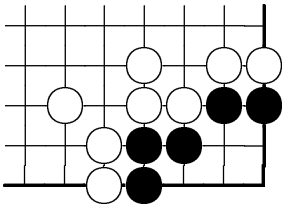
8. Black to Live



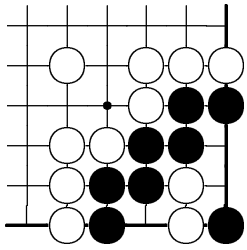
9. Black to Live



10. Black to Live



11. Black to Live unconditionally



12. Black to Live in Seki

Problems 10 and 11 are similar because black can live in ko, but that is not an answer we will accept this time. In a real game, making a ko where you don't need to can cost you the win.

Finally, the last problem is not your average life and death problem. Black can live in seki (dual life). This is a situation where black won't have two solid eyes, but white won't be able to capture the group. If you're unsure of the answer, ask your instructor. Seki will be explained in detail in the second book.

If you can know the answer to at least 10 of these problems off by heart, you are certainly ranked 25 kyu.

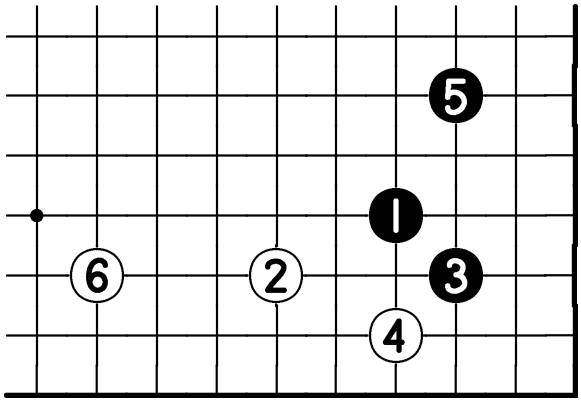
Chapter 8

The Opening

This chapter is all about the early phase of the game, known as the opening. The opening is the most important phase of the game because once played, the stones cannot be moved. If you make a mistake, it will be with you for the rest of the game.

The good news is, long ago people came up with opening patterns for both teaching and for play. The bad news is that there are tens of thousands of such patterns, and new ones are still being discovered. When we talk about go opening patterns, we talk about *joseki* and *fuseki*. *Joseki* are opening patterns in the corner, while *fuseki* is the opening pattern over the whole board. A fuseki is therefore comprised of several joseki. No matter what, never study one without the other. If you study fuseki alone, you will not be able to cope with the variations, and if you study joseki alone, you won't have a grip on the big picture.

Here is an example of a 19x19 joseki:

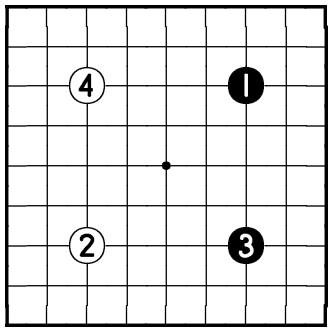


a basic joseki sequence

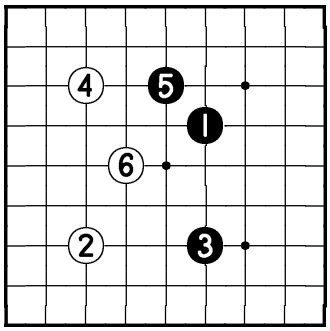
This joseki depicts a *kakari* (approach move) to the star point stone at ❶. With 1, black moves in the corner. 2 is an approach move. Black balances with 3, and white goes into the corner with 4. When black blocks, white extends to make a base. It's a simple and clear joseki - both black and white have about ten points.

In a joseki, both black and white get an even and fair result. If the opening was too good for black, then white wouldn't play that way - and if it was too good for white, then black wouldn't play that way either. There are thousands of joseki patterns handed down by the strong players, but it's more important to know the principles behind the joseki than to memorize the exact moves, no matter how common they are. That being said, you can't help but memorize a few of the sequences as time goes by. That's ok, as long as you don't become locked into an inflexible way of doing things later on.

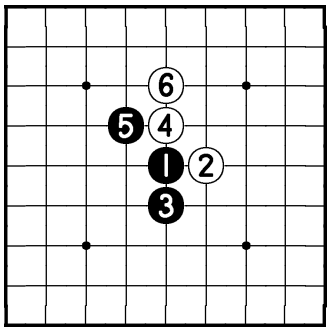
Although there are no joseki on a 9x9 board the way there are on 19x19, there are some opening patterns you might like to try. Below, I have created some 9x9 fuseki for you to study on your own, or play with friends.



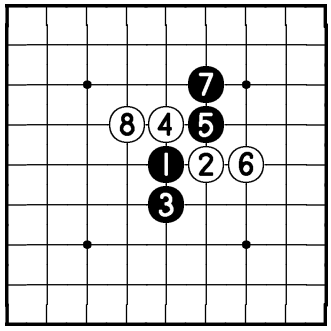
Four corners opening



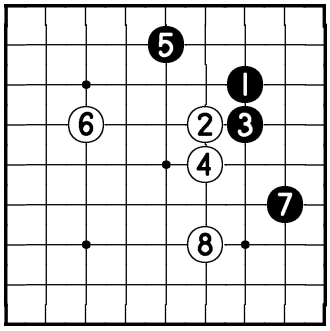
The bubble defense opening



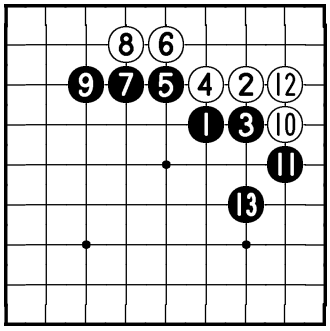
Deflection opening



Windmill opening



shoulder hit to 3-3 stone



3-3 invasion

What kind of opening do you like? An easy to remember opening, like the four corners? A more aggressive opening which hopes to make a lot of territory? A fight in the center? Or making small territory and keeping the initiative, hoping to move in a different corner again later? It's all up to you. Once you understand the real meanings behind opening patterns, then if your opponent doesen't play according to your expectations, you can try figure out a way to balance the sirtuation. This type of balance is the single most important key to understanding joseki.

This lesson was intentionally kept short so you would have more

time to play Go. Joseki and Fuseki patterns are meant to be studied by trying them out and seeing if they work for you. Use this time to play more games and try out some openings! Don't worry if your partner doesen't play the opening you want him to. Just remember the proverbs, and try your best. Good luck!

Chapter 9

Introduction to Reading

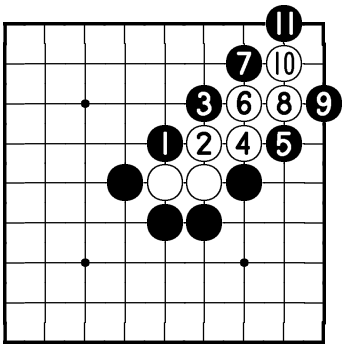
Reading means the ability to look ahead in the game of Go, and is the most important factor determining a person's strength in Go. Strategy and memorization of shapes can take you far, but both are founded upon reading skill.

Reading and memorization are linked. On a 19x19 board, a dan-strength player should be able to memorize the first 50-100 moves just by going over them. Then again, we're all beginners here, so I can't ask you to memorize your own games yet! Instead, you can start to practice your reading skills using tsumego. The way to do it is to think about the answer, to visualise it happening on the board or in a go board in your mind. That is the way to improve reading skill.

One day while I was teaching Go to children, one of them asked me "what if he didn't understand what to do, and moved (there)?" and then proceeded to show me some ridiculous sequence where the other player let his stones be captured. While a cute idea, the lesson learned is that you should never underestimate your opponent! No one would ever make the moves which that young child was curious about, not even the child herself. Therefore, the only thing which can save you from underestimating your opponent is to develop your

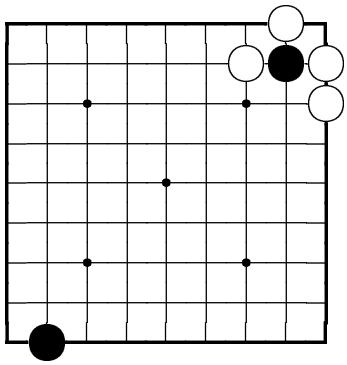
reading skills.

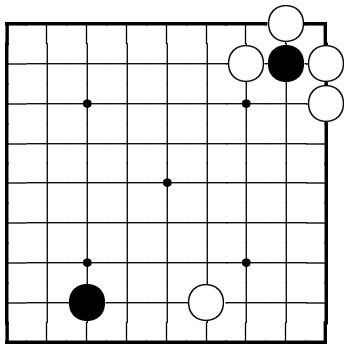
First I will present ladder problems. Ladder problems are essential for training reading skills. This is because ladders are easy to read out. As a quick review, here's the basic ladder shape again:

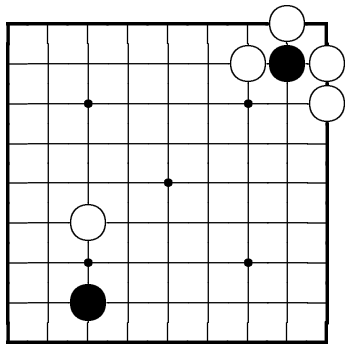


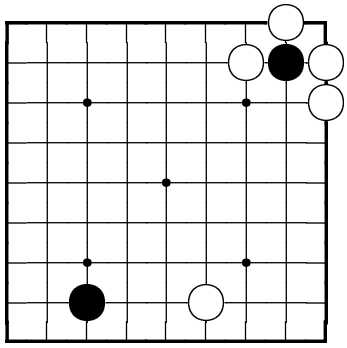
White cannot escape after black 1.

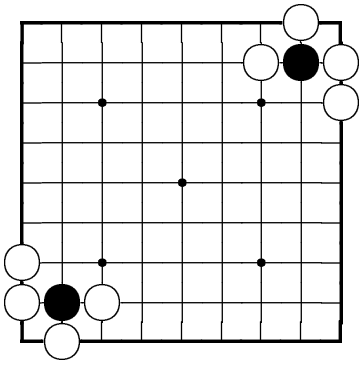
With this example in mind, try to solve the following ladder problems by reading them out: Can the black stone in the upper right escape? Yes or no?







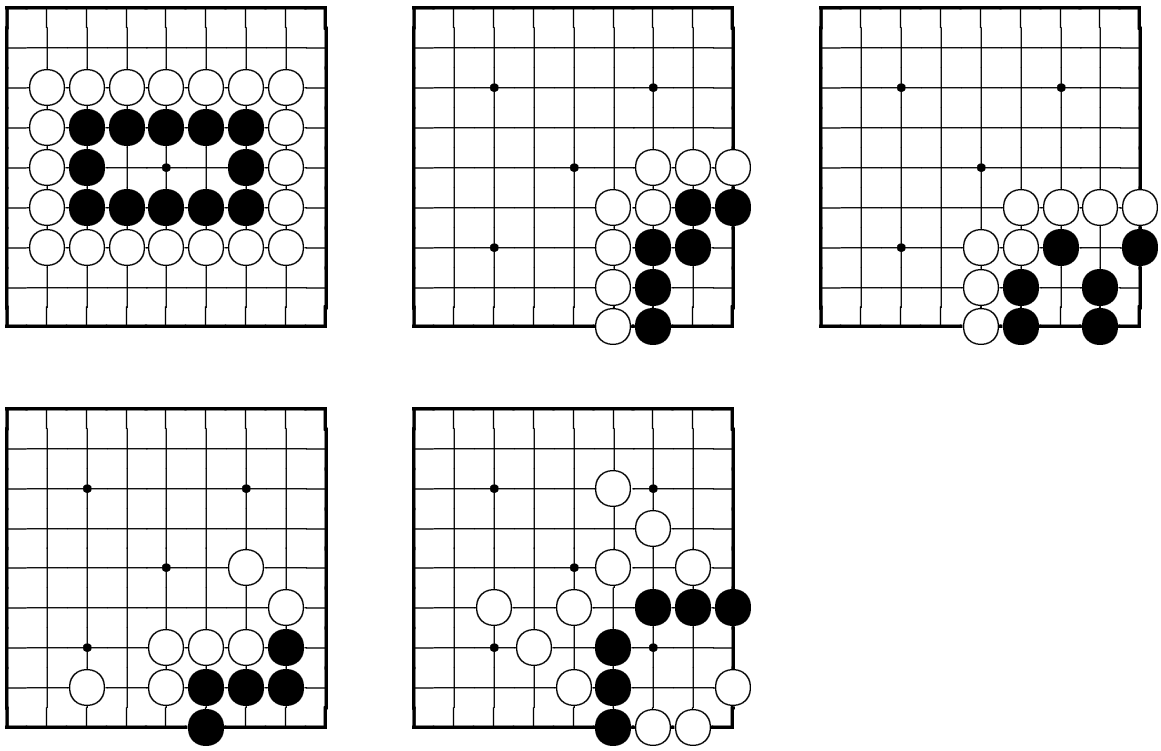




In the last problem, how can black save at least one of his stones?

Now that you can read out some ladders, try reading out the following life and death problems using the skills you learned above.

White to kill:



In those five problems above, you will notice that you have to look farther and farther ahead to try and find where the first right move is. If you have trouble, don't use a go board to work it out - think and think. If you can't solve it, thats ok – try again later. The purpose of these problems is not to time yourself in finding a solution, but to train your reading/viaualization skills.

A stronger player would know instantly where the right move is because the more you read, the more you actually teach yourself! The time you spend reading now will always be with you. Soon, things you used to have to read out will come naturally, and thus it can be said that reading builds upon previous successes. You will learn many things for yourself about Go simply by reading them out.

When you begin to look ahead more than one move and to consider your options as you play a real game, you might want to consider moving to a larger sized board - 13x13 would probably be a good

choice for now. It may seem daunting at first, but you will quickly grow accustomed to playing on the larger board.

Chapter 10

Common Endgame Patterns

Now that you're playing on a larger board (13x13 or even 19x19, if you're really ambitious and patient!), you may notice that there are three distinct phases to the game: corner openings, the middle game, and the endgame. Now, we will continue our study of shapes in the endgame, and you will see how those shapes will interact at the side of the board.

Probably the most common basic shape you will see is depicted in diagram 1 below:

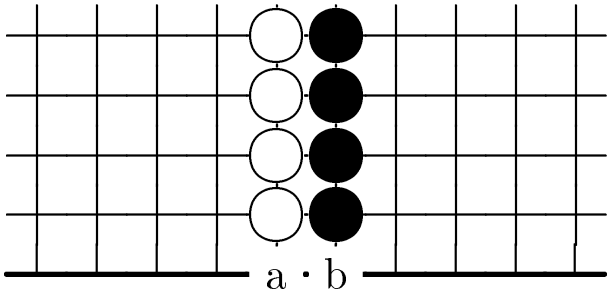


Diagram 1

This shape occurs often in actual games. The important points are a and b. If it is black's move first, 'a' is good, and play will proceed like this:

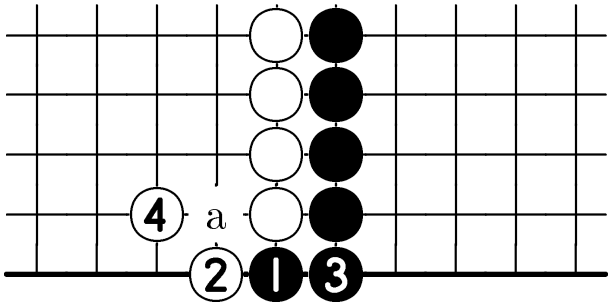


Diagram 2

White 4 at a is also possible. If it was white's move however, then white would move the same way, like this:

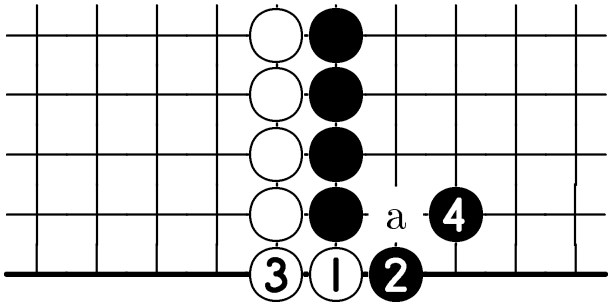


Diagram 3

Of course, black 4 at a is possible as well, just like in diagram 2.

If we assume that the left side is white's territory, and the right side black's, then in diagram 2 we see that white has 14 points and black has 16; in diagram 3, the situation is reversed and black is the one with only 14 points. Therefore since the difference between the score is + or - 2 points for each diagram, moving first at 'a' for black or 'b' for white in diagram 1 is worth four points.

Also, considering diagram 2- if black does not protect at 3, white can capture the black stone. Also once black protects, white needs to also protect to prevent the atari at a.

The following are examples of what can go wrong:

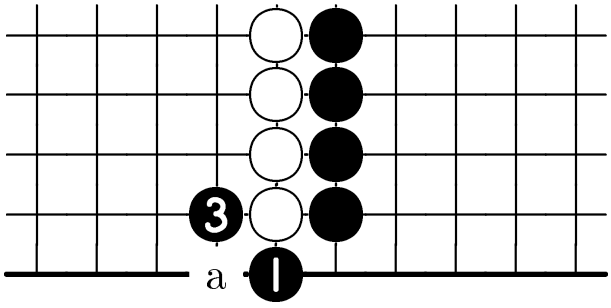


Diagram 4

If white doesn't answer, black will move 3 and white's territory on the left will be destroyed. Therefore white cannot omit ② at 'a'.

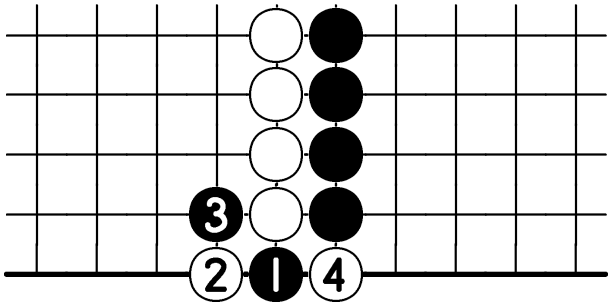


Diagram 5

If black doesen't protect with 3 at 4 above, white will capture. This is bad for black. Instead, black should calmly defend.

Now we will see what happens if white plays ②, but then omits ④:

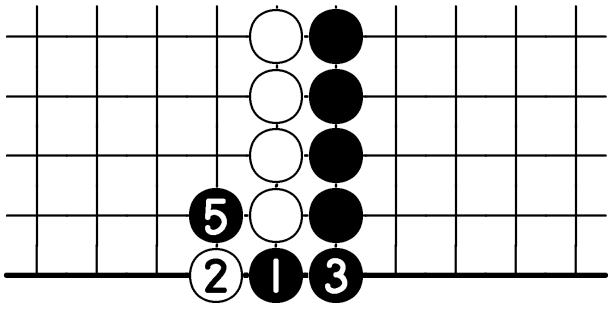


Diagram 6

If black defends but white doesen't defend, black will immediately cut at 5. This traps white 2 against the side of the board, as follows in Diagram 7.

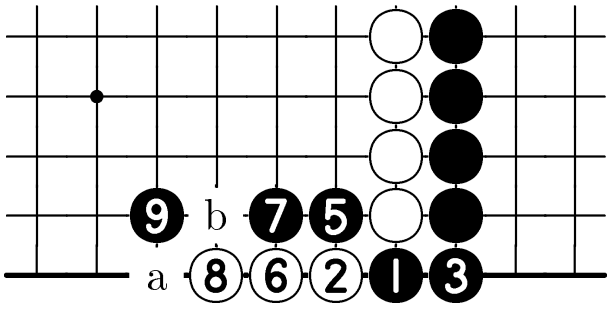


Diagram 7

If white moves at a or b above, black simply blocks, and white can no longer move out of atari.

Therefore in this situation, when black moves at 'a' in diagram 1, play should follow as in diagram2; and if white moved first, then play should follow as in diagram 3.

Another common endgame pattern is seen below:

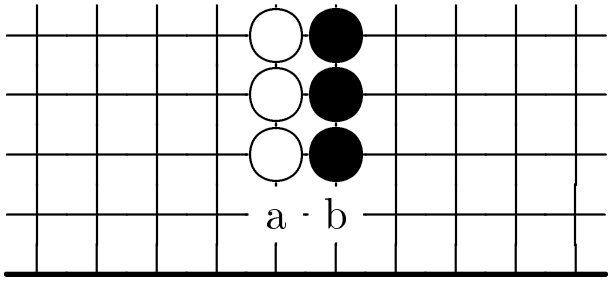


Diagram A

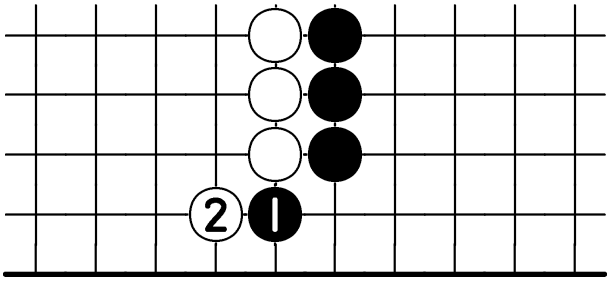
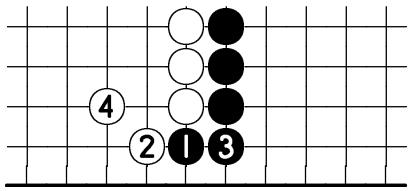


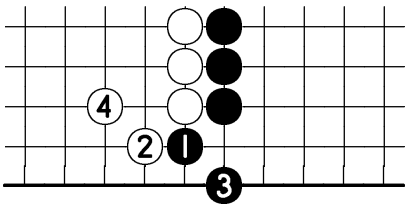
Diagram B

Diagram A: This may look very similar to diagram 1; and in fact it is. If white moves 'a' and black 'b', or vice versa, it reverts to diagram 1. This time we won't study white at 'b', since it is the mirror image of black 'a'.

Diagram B: When black manages 1, white almost always blocks at 2 to defend his territory on the left. Black must now prevent white 'a', since that places 1 into atari.

The usual defending move is at 'a' or 'b' for black, and the follow-up is as in diagrams C and D:





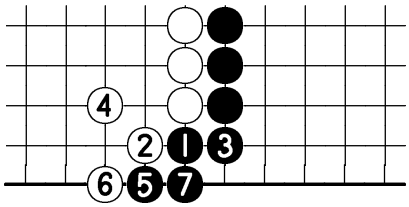


Diagram C

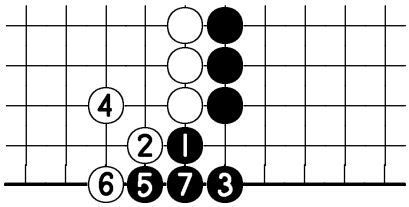


Diagram D

Alternately, if black does not move 5 right away it will not amount to a serious loss as white cannot get into his territory on the right.

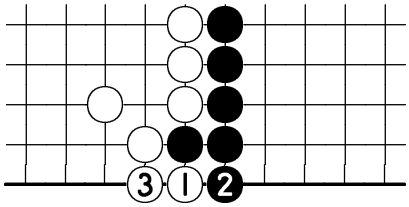


Diagram E (1)

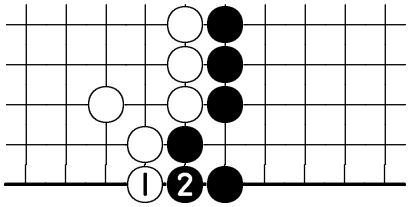


Diagram E (2)

From a study of the diagrams in this chapter, one can gain an appreciation of the most common plays on the sides of the board. Each move is important. As in diagrams 4 and 6 for example, the difference between making the right move and a mistake can be very large.

These aren't all the moves you need to know for the endgame, but most of the important ideas are here. Some more common endgame moves (such as the monkey jump), and some common middle game fighting moves will be discussed in the next book. For now, don't forget to play these defensive moves on the side of the board.

Chapter 11

The 20 kyu barrier

By now, you should have a pretty good idea of what is going on with regards to who wins and loses at the end of the game. If you haven't done so already, you should now begin playing on a 19x19 sized board. This transition should ideally mark the playing of your 100th game of Go. If you haven't been keeping track that's ok, you will instinctively know when you want to start playing on the larger board.

At about this time you will encounter your first barrier. The frustrating thing is that no matter how much you study, you will simply *not* be able to get any stronger.

The reason for this is that your brain needs time to adjust all of the new information you are receiving. 19x19 is fundamentally different than 9x9 because of an additional element of strategy, while up until now we have just studied some basic tactics. Still, tactics have their use, and there is a plateau phase where you must continue to study tsumego before you will pick up on the 19x19 board.

In addition, you have started to develop a style, and in turn this means you have developed both good and bad habits.

Each barrier is different, but since I can't analyze your bad Go habits from this angle, all I can reccomend is that you play more games.

Fortunately this is good advice for beginners, who usually have no trouble getting quickly past 20 kyu just by playing games.

It's as simple as that. Who said every lesson needs to be full of diagrams?

Oh! but we're not letting you off so easy this time. If you really want something to do, you should go over the next game: a 13x13 game played between a 22 kyu and a 23 kyu. Remember, these players are *rated* 22 and 23 kyu. They may have wildly different styles than you do. You may not agree with every move they make. But I believe you can learn something from this game of what is required on a 13x13 sized board.

11.1 Game Two: Winning a Lost Game

Winning a Lost Game

The Kiseido Go Server (KGS)

White: Staysee 22k

Black: Cobrasnake 23k

Played on January 8, 2004 on KGS.

$\frac{1}{2}$ point komi. Each player starts with 20 minutes on the clock, and 5 *byo yomi* periods of 20 seconds each.

11.1.1 The Opening (*fuseki*)

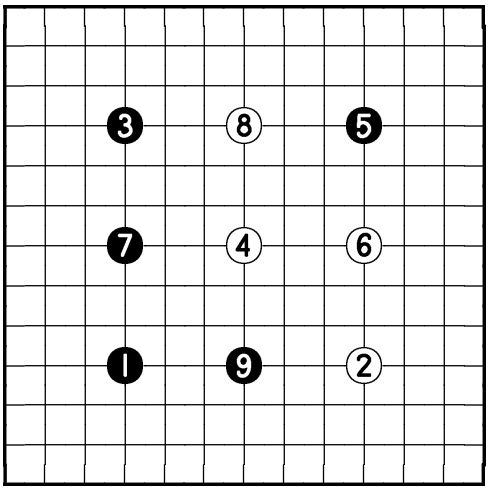


Figure 1 (1 - 9)

White 4 might be considered a bad move, because it does not adhere to the go proverbs we learned earlier. Actually, when black moves 5, it is clear that 4 is a bad move because black now has three corners and white only has one. If black 5 is alive, then it certainly looks as if black has more territory on the left and bottom of the board and it will be a difficult game for white. Some might even say it is already a lost game for white.

Because of this, white 4 would probably be better placed at 5.

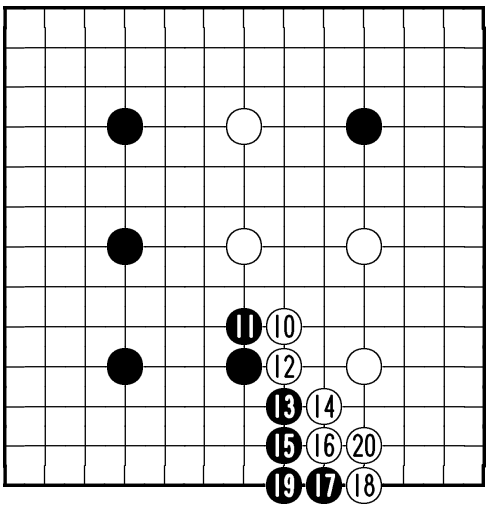


Figure 2 (10 - 20)

White realizes that black has more territory on the side and with 10 attempts to use the power of his 3 nearby stones to get some space in the middle. Black sees this and pushes into the center with 11. White then settles himself with 12.

Black 13 is an easy enough move to understand- expanding one's own territory at the expense of one's opponent. After 14, we see a common endgame sequence from 15 to 20. This sequence is fundamentally similar to the common endgame sequence shown in Chapter 9 Figure 2 with white at 'a'.

We see that white has managed to cordon off about 25-30 points in the bottom right, center and right side. Black has the bottom, bottom corner and probably the left side - black's territory certainly looks bigger than white's. By this stage the opening is over. All the big points have been taken, and the players have started to fight over territory - the middle game has begun!

11.1.2 The Middle Game (*chuban*)

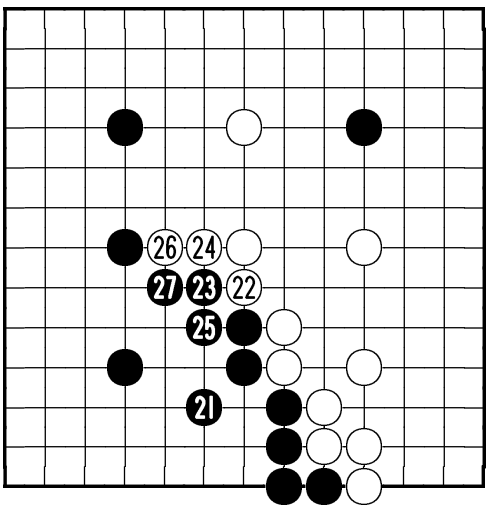


Figure 3 (21 - 27)

Black 21 is a simple protective move to prevent white from cutting.

With 22, white continues his plan to dominate the center. After black 23, white 24 is a move which cannot be ignored as it threatens to deflate black's territory with a hane atari at 27. Therefore black moves at 25, the spot which he would have to move if white made atari at 27. However, this is a bad move- it is better for black to simply move 27 instead of 25.

After 26, black submissively moved 27, and white devastated black's left side as a result. Black should have moved at d6 instead of e6. Remember, d6 is a stronger shape than e6 - black's left side would be intact if he made the stronger move here.

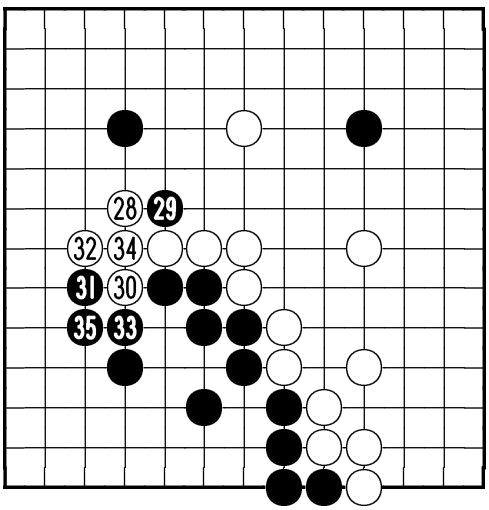


Figure 4 (28 - 35)

Black 31 is a huge mistake which allows white to severely reduce black's territory on the left. The strong shape at 32 is like a dagger plunging into black's area. With 35, black secures the bottom left, but the damage has been done. Black's early game advantage has been spent and the game almost looks even. The white stone at the top can probably connect to the strong white shape below it, and black will have a choice whether to save his stone in the top left or the top right. It is highly unlikely that both of those stones will be able to survive, but it's also unlikely that white will make much territory in the area. All considered, the bottom half of the board is approximately even- each player has cordoned off about 25-30 points of solid territory.

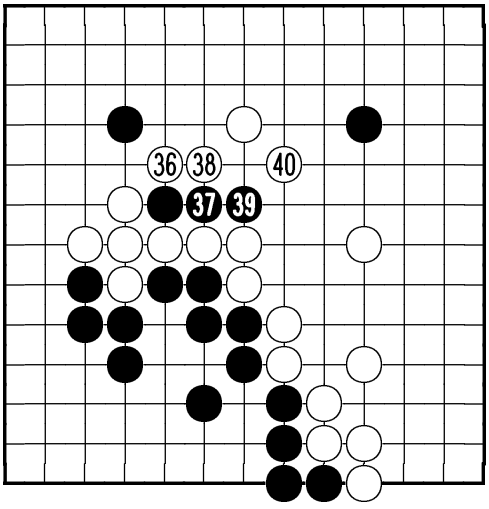


Figure 5 (36 - 40)

With 36, white continues with his center-oriented strategy, and manages to virtually capture the three black stones with 40. There is a saying, "you can run but you can't hide".

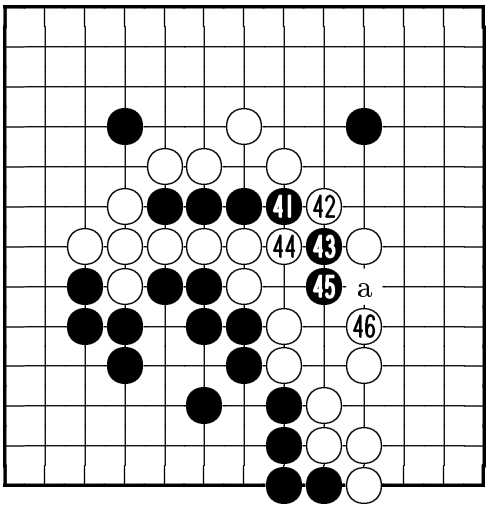


Figure 6 (41 - 46)

The capture made evident with white 44, black descends at 45. White again tries to capture stones with 46, but here the correct move is 'a'. With 46, white has left a weakness. If black moves a first and white blocks, black can use double atari on 42 to escape as in Figure 6.

As an exercise from the reader, was there a way for the black stones to escape? As early as 40, the black stones were trapped in a geta (net). Was white 40 the move which captured the stones? Or was their doom sealed earlier or later than white 40?

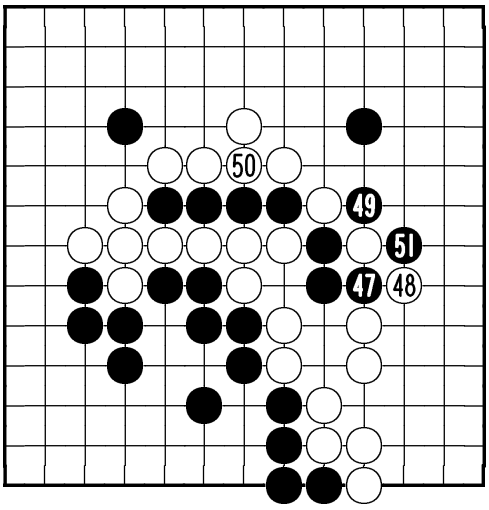


Figure 7 (47 - 51)

With 47, black sets up double atari at black 49. White captures the four center stones at 50, and black escapes with 51. So as it would seem, black has managed to fight his way out and in doing so, make his group on the upper right strong. From nowhere, black has gained about 15-20 points in the upper right. And yet, black's single stone in the upper left looks almost totally cut off. If white does not make

enough territory on the top and in the upper left, it is doubtful he can win the game.

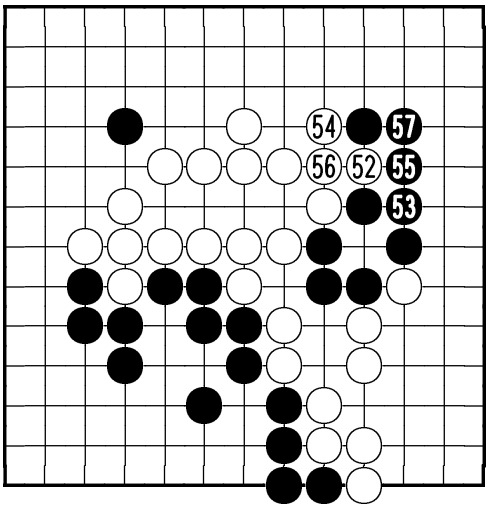


Figure 8 (52 - 57)

This sequence of moves is not as efficient as it could be. For example, black 53 should be at 55 right away. Moving at 53 first allows white the severe move of pushing through at 55 himself. However, white does not take that opportunity, and by black 57, black's territory on the upper right is secured.

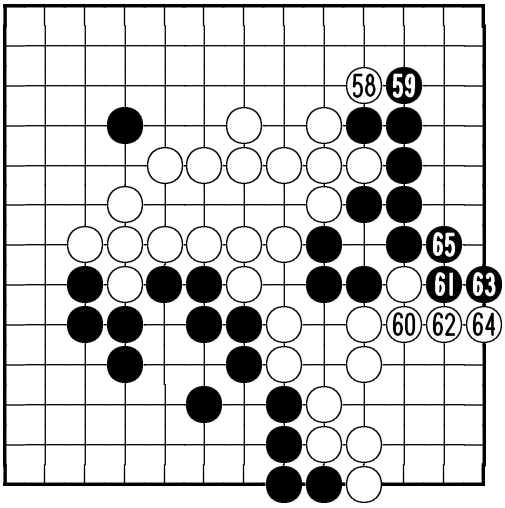


Figure 9 (58 - 65)

After 58, white protects his weak area with 60. Black then moves 61 and a common endgame sequence results. Black 63 allows white to move at 64 as a forcing move, and black must connect at 65. For this reason, it would probably be better for black to move at 65 first - that way black can move 64 later. This is a common endgame sequence - if black moves 63 first, w takes 64 in sente. If black moves 65 first,

the action in that sector comes to a halt.

To count, we see again that w has 13 points in the bottom right plus 8 in the center (4 + the 4 captured stones). If we give him 10 points on the top, then w has about 30 points. Black has nearly 30 points in the bottom left alone, plus about 15 in the top right. Therefore black is leading by about 10-15 points. But, again, that's only if the stone in the upper left lives. If that area becomes owned by white, then white is actually ahead by at least 15 instead.

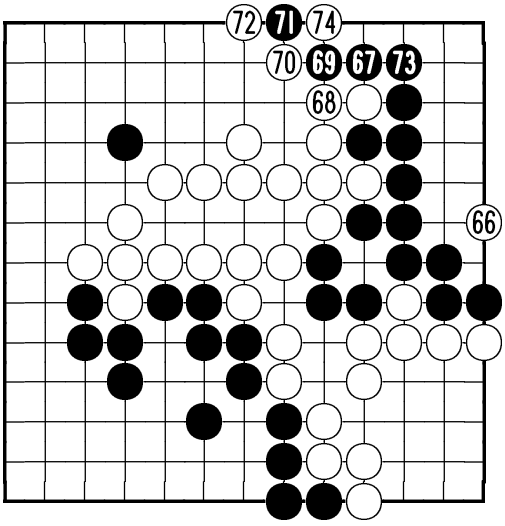


Figure 10 (66 - 74)

White 66 is a mistake. It does not have a chance of killing black because black's area in the upper right is too large, and yet, small enough to easily defend. Black has obviously been studying his tsumego for life and death, as he ignores the attack at 66 and moves 67. Black 67 is a severe move which proposes that white 66 is already dead and does not need to be dealt with (in essence white might as well have just passed) and because it enlarges black's territory in the top right corner. Towards the end of the sequence though, black gets greedy. 71 should be at 73, at which point this common endgame sequence would end.

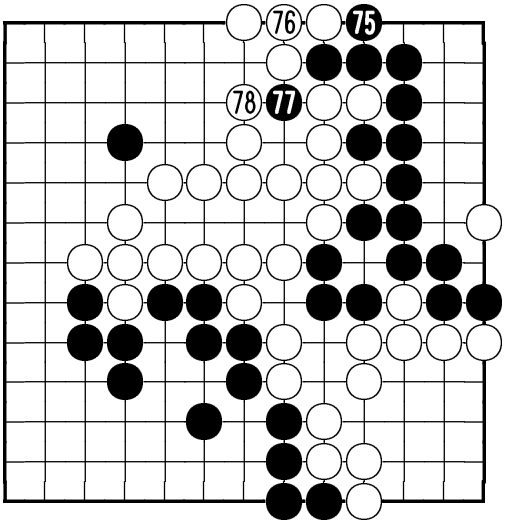


Figure 11 (75 - 78)

The question of the life of the upper left black stone is becoming more and more dire. White now has virtually surrounded the black stone there. If black does not make a move to protect it soon, it will die. One way he can make life in the upper left corner is by moving at the 3-3 point. But, assuming that stone is dead, we can count all the territory in the upper left as white's. This would mean white has over 30 points in the upper right. Compared with the 21 in the center and bottom right, that would make 50 points to black's 45.

Therefore, the upper left area of the board is the most important area right now.

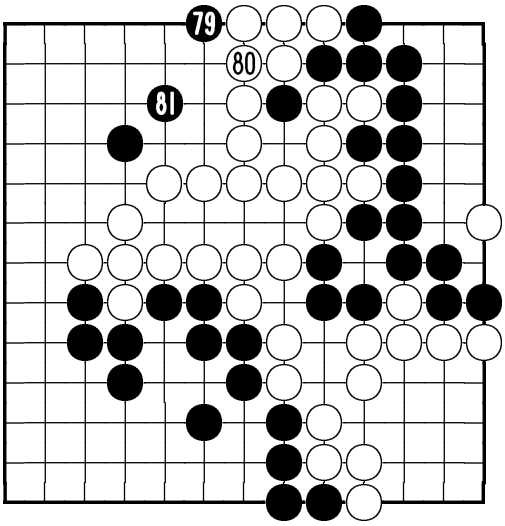


Figure 12 (79 - 81)

Black sees this situation and fights back hard with 79 to 81, trying to make two eyes in the corner.

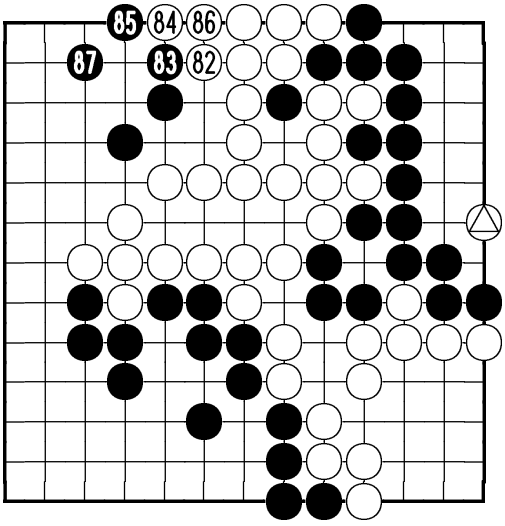


Figure 13 (82 - 87)

White pushes in with 82 and takes with 84. White instinctively connects the ko at 86 to avoid a complex ko fight, and so black makes good eye shape with 87. Although it looks like black has more territory than white now, it's white's move and there are many endgame plays white could make to try to shift the balance of territory.

At this point, the middle game is over and we enter *yose* (the endgame phase). The endgame is marked by a settling of borders around the edges of the board, and a general slowing down of the size of the plays – although *yose* often includes moves in the center as well.

Of course, there can still be an upset in the endgame if someone makes a mistake.. as we still may see!

11.1.3 The Endgame (*yose*)

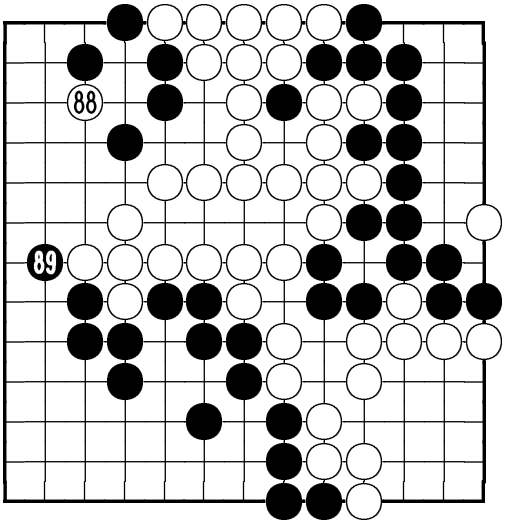


Figure 14 (88 - 89)

White makes an attack deep into the black stones with 88. Black ignored it, probably thinking it was on the same level with white 66. It was not.

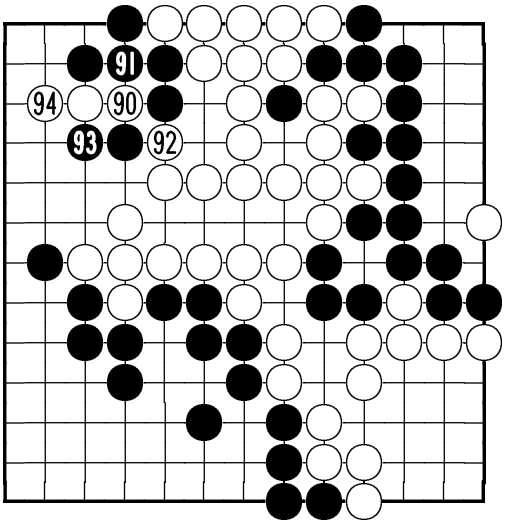


Figure 15 (90 - 94)

White flies into action with 90, and by 94 he has split up the black stones. Black is faced with a terrible choice: if the corner stones die he will lose the game, but if trying to save them fails, he might not have time to do anything else and will have a bigger loss.

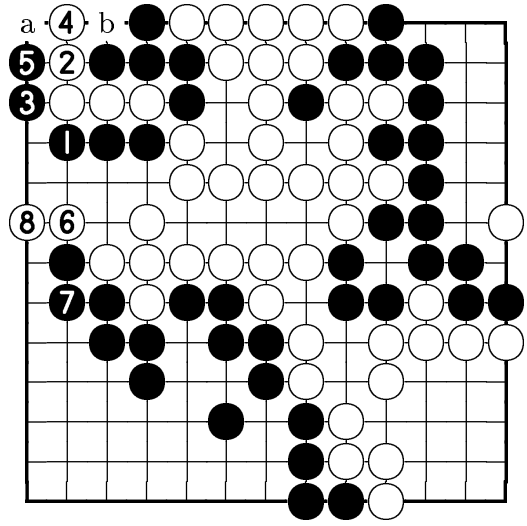


Diagram 1

This is a critical juncture for black, so some reading is required. Let's examine first what would happen if black moves at 1 in diagrams 1 and 2.

Diagram 1: If he moves at 5, white moves at 6 and cuts black off, and black cannot move a or b because it would put his own stones in atari. If black connects 1 to 3 hoping to atari white, white will simply place the 5 stones into atari from the right, and white will win the capturing race. Therefore this line of play can't be right, and black should move on and read out a different sequence.

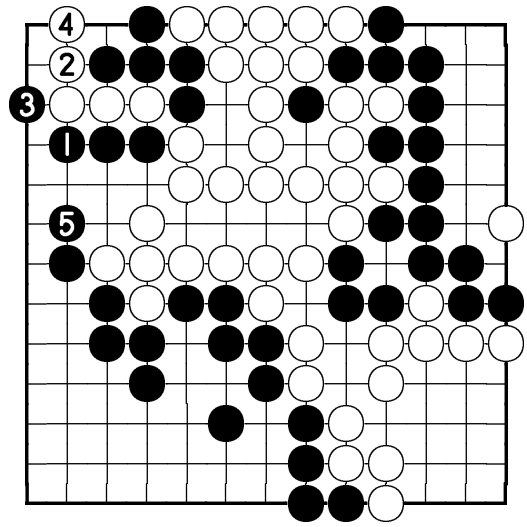


Diagram 2

Diagram 2: What other options does black have? Black 1 and 3 in diagram 1 are forcing moves, but 5 is black's option. If black moved 5 as in diagram 2, the score would be approximately 10 points in black's favour, even though black would have to give up the five

stones in the corner. Plus, all of black's groups would relatively safe from attack.

Now that black has read out a sequence which can win him the game, there is little point in reading out anything more. Black should make the moves in Diagram 2 to win the game unconditionally.

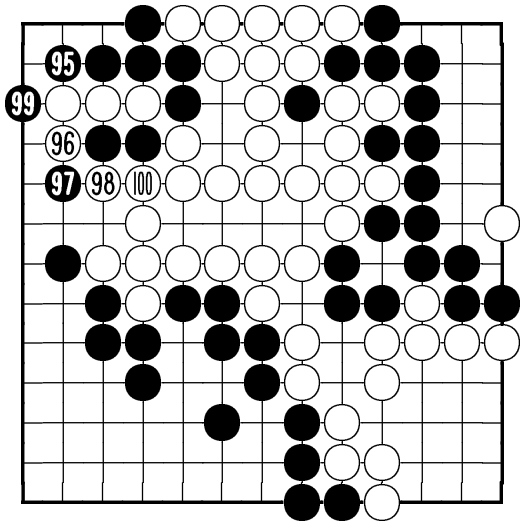


Figure 16 (95 - 100)

In the actual game, black chose to move from the other side. Black is still in trouble after this move. What probably happened is that black only read up to the capture of the five stones in the corner (in diagram 1 and 2), and did not understand that giving them up would enable black to win the game. Instead, by trying to save them, he has risked them all.

Let this be a lesson; In a dangerous position, not only is reading important, but you must count the score as well. No one is saying you need to pull out a calculator and count every move, but keep in mind that if black could visualize Diagram 1, Diagram 2 and Figure 16, it would be easy to decide that Diagram 2 was the game winning strategy. Over time reading becomes like second nature, so the sooner you start the sooner you can move like a ninja on the goban.

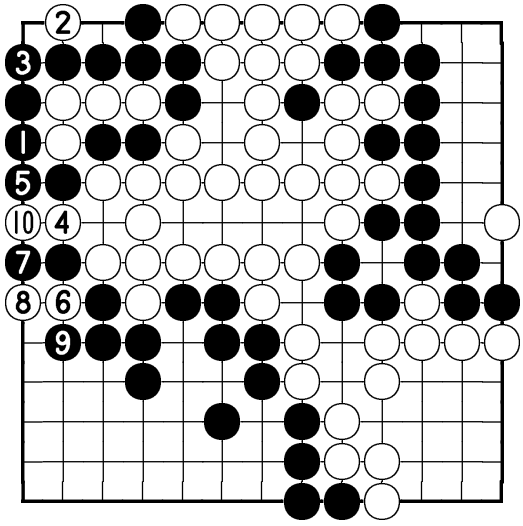


Figure 17 (101-110)

Still, it is not white's place to be complacent. White 102 was a game losing mistake. White should immediately move 104. Black ends up responding at 103, but if black merely connected at 104, he would have certainly won the game by a few points.

Sadly, both players seemed have stopped trying at this stage. Not even looking one move ahead, black plays 105, not realizing that making ko at 110 is his last chance to win. And white moves 106, not realizing that moving at 110 kills black.

Finally the game ends totally when black makes the good move of 107 but fails to connect when white moves 108, losing the game once and for all. There is no going back after this sequence. It's strange, but at the most crucial stage of the game, looking ahead only one or two moves would have been sufficient to get a result that felt good; but the players seem to have lost sight of the big picture.

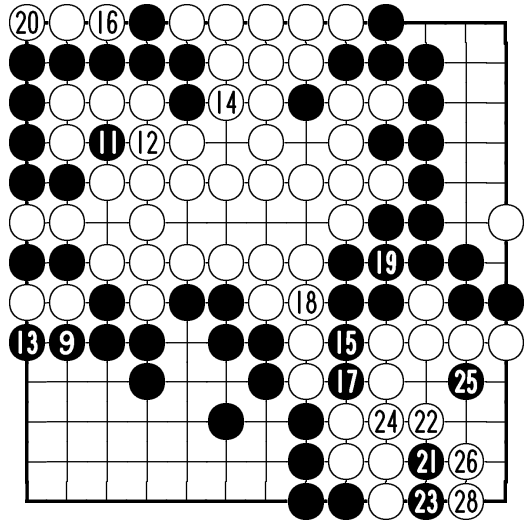


Figure 18 (111 - 128)

㉗ : pass

128 moves. White wins by 13 $\frac{1}{2}$ points.

In conclusion, we can see that even towards the end of the game, there are many opportunities to win and to lose. One of the most important things black should have done to win is save his stone in the upper left, perhaps by moving at the 3-3 point, or perhaps by simply connecting as in Diagram 2.

If your games can be as close and exciting as this one, then you are doing very well.

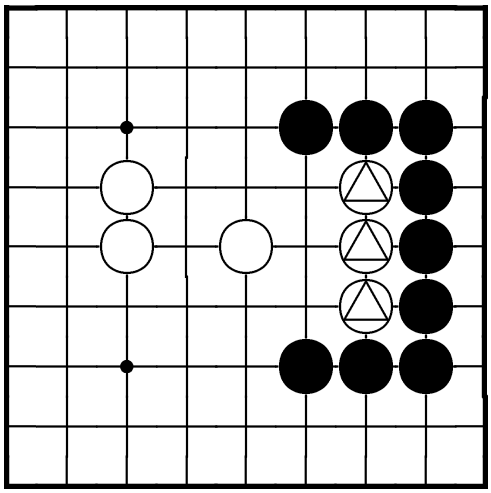
Chapter 12

Basic Tesuji

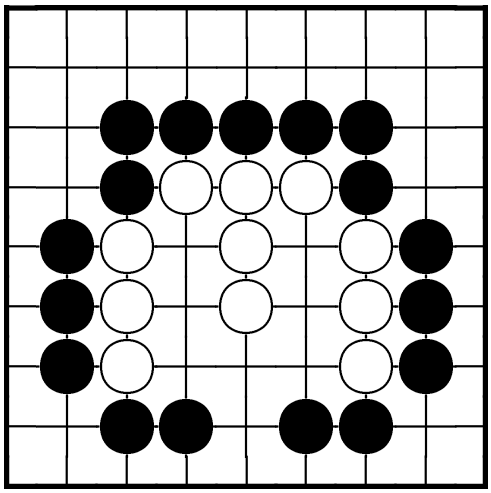
All of the following problems require you to read at least 2 and perhaps more than 4 moves ahead. This is good basic training. Most of the solutions include one or more tesuji, or skillful plays. While not immediately obvious, if you read out all the possible moves, you will eventually find the one which works. One more thing. All the tesujis in this section are common enough to memorize. They will serve you well as you cross the 20 kyu barrier.

Two important tesuji-related concepts which I wish to mention in passing are the notions of *geta* and *damezumari*. Geta simply means 'net', and is a trap from which the enemy stones cannot escape. White 2 in Diagram 2, page 40 is a basic form of the net tesuji. Other basic geta apear in the tsumego shown on pages 99 and 112. Damezumari describes a situation where stones naturally encounter a shortage of liberties, usually as they are trying to escape. These two concepts are invaluable for understanding the nature of tesuji. It can be said that stones in *geta* cannot escape because of *damezumari*.

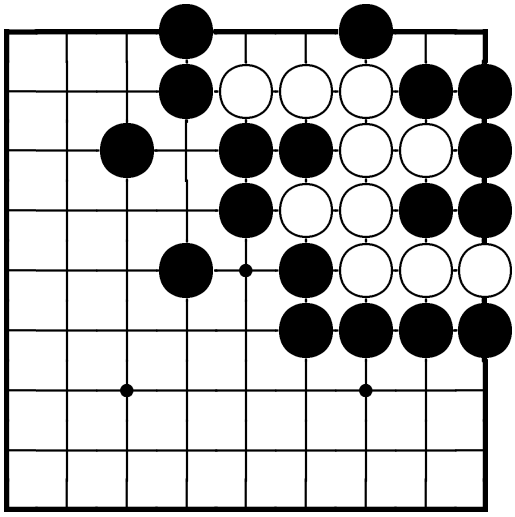
Good luck! There are 11 problems. Don't worry about the time it takes to solve them, just try to understand the problem and the right answer. You may need to read it out, but once you do, the tesuji move which starts the sequence will not be forgotten easily.



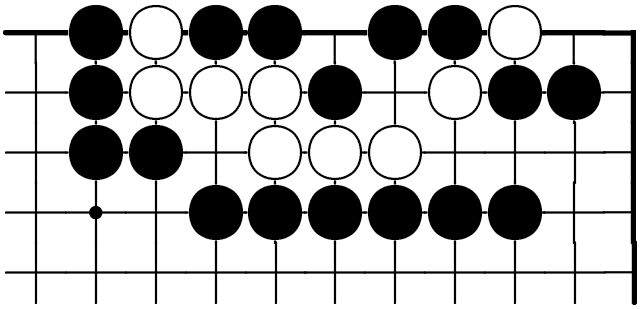
1. Black to Capture the marked stones



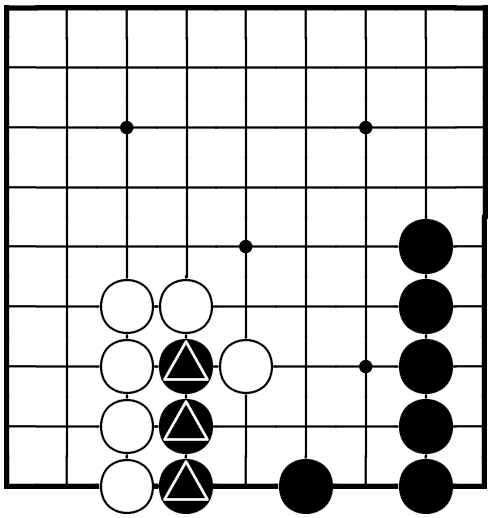
2. Black to kill



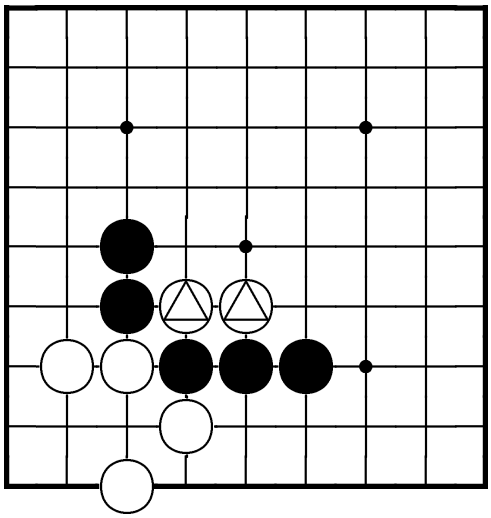
3. White to live.



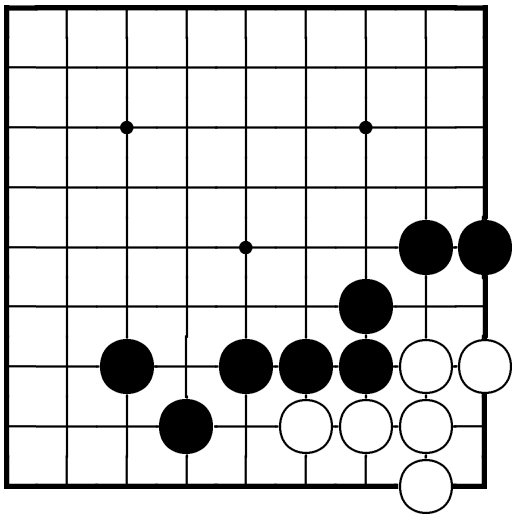
4. White to live.



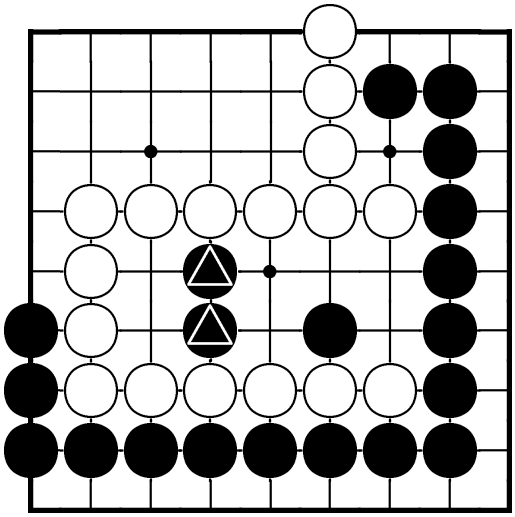
5. White to capture the marked stones.



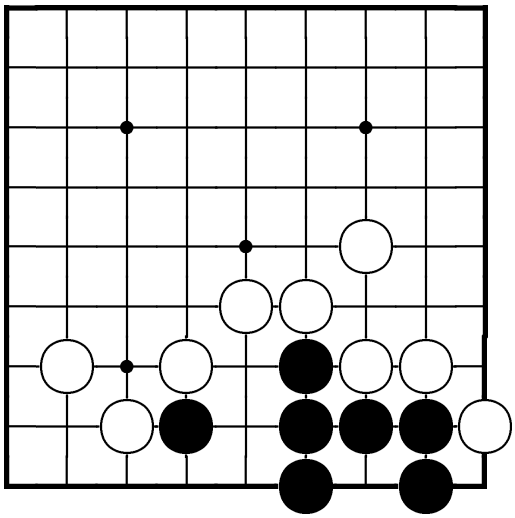
6. Black to capture the marked stones



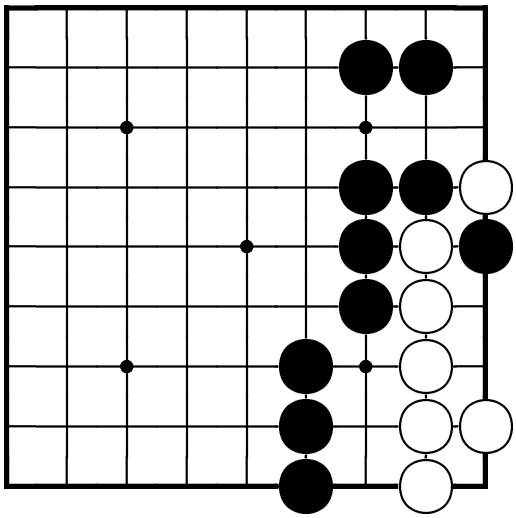
7. Black to kill



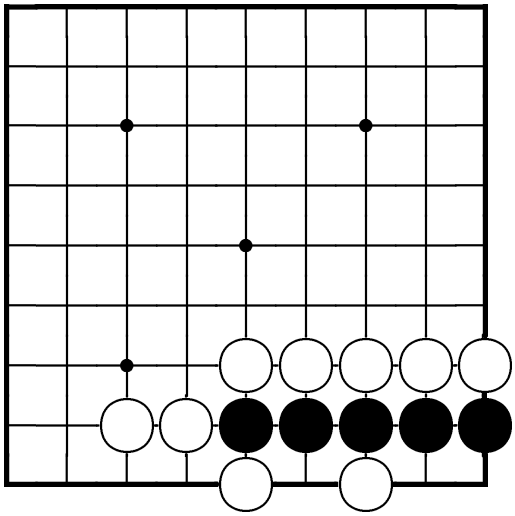
8. Black to win



9. Black to Live



10. Black to Kill



11. Black to Live

Chapter 13

Past, Present and Future

The 10 major lessons in this book so far were designed to last one week each. If you played one game per day, then you would have played about 100 games so far. If you've played at least 30 or 40 of them on 13x13, you should now start playing on a 19x19 size board, and prepare yourself for the second phase of your Go journey.

We have come so far and covered so much ground, and yet looking back it might seem like not much was learned. And yet, when you play beginners, isn't it easy for you to win?

The future will hold many exciting games for you. If you don't feel comfortable with a 19x19 size board, play a few more games on 13x13 before you switch. But don't waste much time, there are myriad exciting mysteries which await you.

The next book will cover everything you need to know to get to 15 kyu. Unlike the first leg of your Go journey, the journey to 15 kyu will not be as easy as it was so far. Things do get more difficult as you go on, and you may find that the time it takes to progress is greatly increased. Therefore the next book in this series has been specially designed for people around 20kyu in strength to help them get stronger as fast as possible.

The great thing about Go is that the stronger you get, the more interesting each game becomes. Good luck!

13.1 Internet Go Resources

If you want to play games online in a pleasant environment, visit KGS at:

http://kgs.kiseido.com

If you want to study tsumego and get stronger at your own pace, go to:

http://www.goproblems.com

Sensei's Library is the best Go encyclopaedia available, and it's free. Visit it at:

http://senseis.xmp.net

If you're going to be online, I strongly reccomend that you sign up for an account on the Kiseido Go Server (KGS). It doesen't cost anything to sign up and play Go on KGS. While there are other Internet Go sites you can play on, such as Dashn and even one at Yahoo! games, KGS is reccomended because of it's excellent teaching facilities. You can always find someone to teach you about the game in the Beginner's room on KGS. You can also easily find a game with someone of your own skill level, which is very useful.

Finally, you may wish to join *Wings Across Calm Water Go Club*. Wings is an official chapter of the American Go Association. Membership in Wings is free, and they are very friendly to beginners. They have a lot of resources on their website which you can use to learn about Go. Their website is http://www.wingsgoclub.org. On that website you can find free go books, a "test your strength" section, and more. In addition, Wings has monthly and yearly leagues if you like competitive play, and hosts online lectures by professional Go players. Joining Wings is a great way to stay current with the

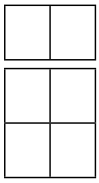
American Go scene.

Thank you for enjoying this book, and may you find *kami no itte*.

Appendix A

Glossary of Technical Terms

This section contains a list of all the technical terms of Go mentioned in this Book along with a short description of what they mean. Japanese technical terms have been given preference due to their high visibility in existing english Go literature.



Technical	English
atari	to reduce a group of stones to one move before capture
chuban	the middlegame; the stage after the *fuseki* has been played.
d	same as *dan*; a rank of **4d** is the same as saying **4 dan**.
dan	advanced skill levels: 1 dan to 9 dan

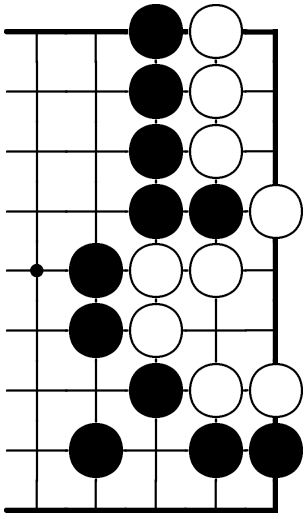
damezumari	shortage of liberties; a common mistake made in reading
fuseki	whole board opening sequence, usually comprised of several *joseki*.
geta	net - a shape from which one cannot escape from
goban	the board upon which go is played
hane	A diagonal move which 'bends around' an enemy stone.
ikken tobi	one space jump
joseki	a sequence of moves, usually in the corner, which produces an even result.
k	same as *kyu*; a rank of **23k** is the same as saying **23 kyu**.
kakari	approach move
ko	repeating sequence rule.
komi	extra points given as compensation, usually $\frac{1}{2}$ or $6\frac{1}{2}$
kosumi	diagonal move
kyu	beginner skill levels: 30 kyu to 1 kyu
miai	if two moves are miai, then if you take one, he will take the other
nikken tobi	two space jump
nobi	extension from a stone
nozoki	peep

ponnuki	death star; shape made by four stones capturing one stone
seki	dual life
shicho	ladder
tengen	the spot in the center of the board (e5 on 9x9)
tesuji	skillful move
tsuke	to attach against a single stone
tsumego	Go puzzles which train your reading skills
yose	Endgame; A settling of groups and territory at the end of the game.

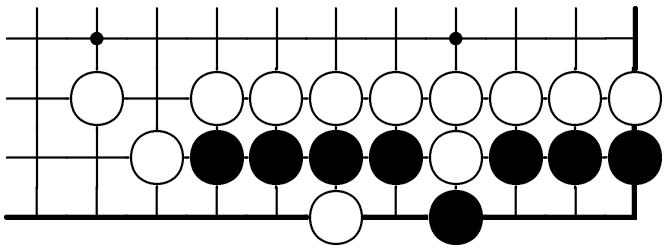
Appendix B

Tsumego for 25 to 20 kyu

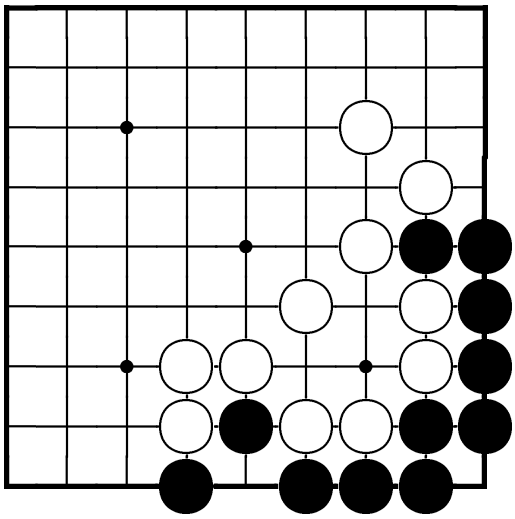
Life and Death



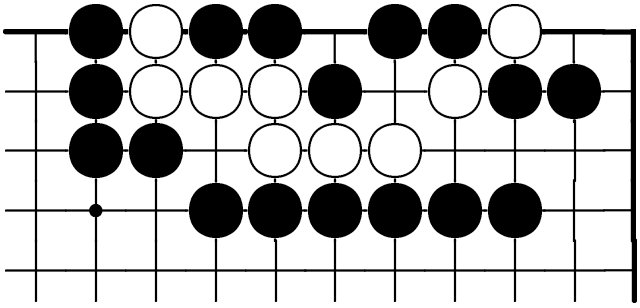
Black to Kill



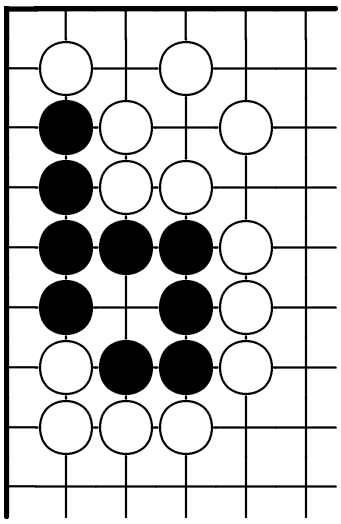
Black to Live



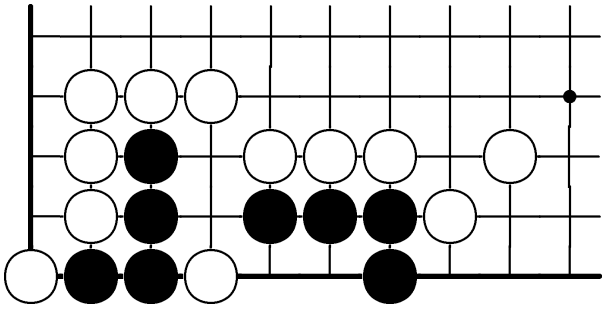
Black to live.



White to live.

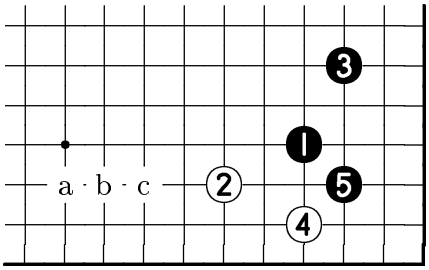


Black to live.

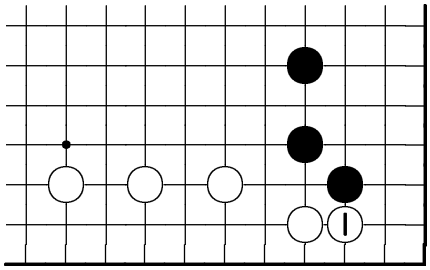


Black to live.

Best move

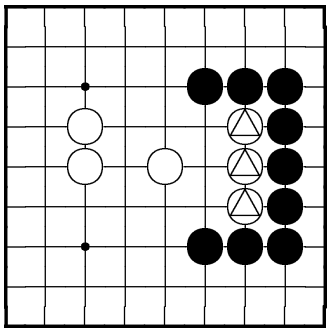


5. Best move for White.

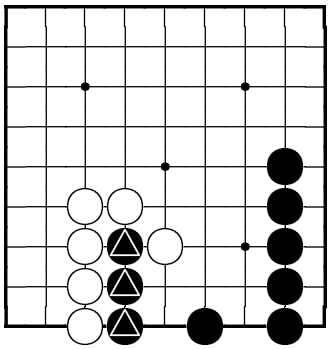


6. Best move for Black.

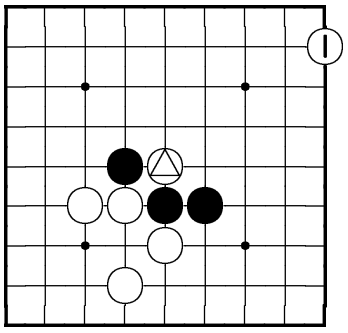
Tesuji



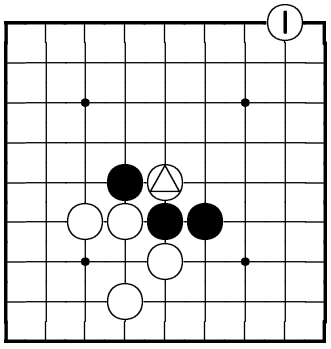
Crane's Nest



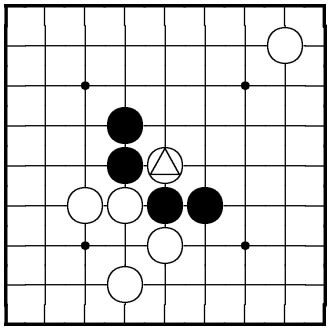
Crane's Nest Variation



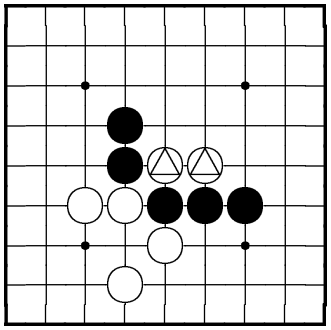
White plays ①. Does the ladder still work?



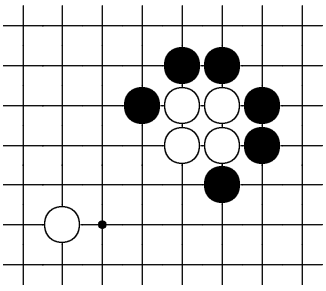
Does the ladder still work after ①?



Geta (net)

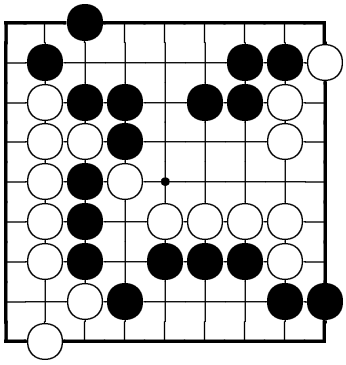


Geta Variation

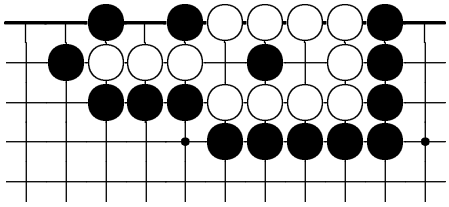


Black to kill four white stones.

Snapback

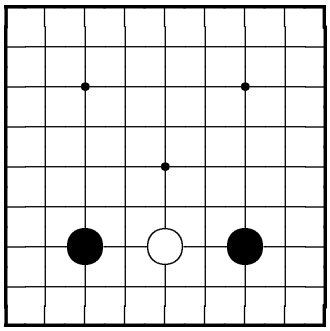


White to live

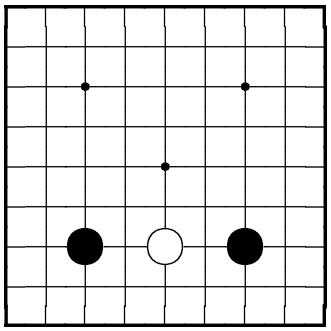


Black to kill

Connecting stones



Black to connect and enclose white.



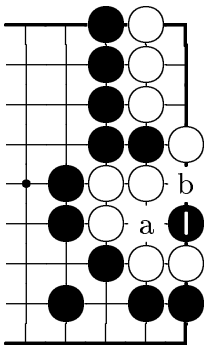
Black to connect and make Territory on the bottom.

Final Tsumego: For the last two tsumego, which solution is better?

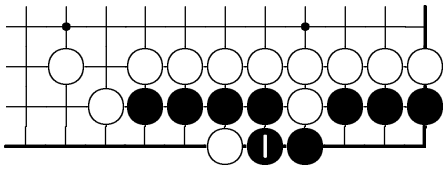
Appendix C

Answers to Selected Tsumego

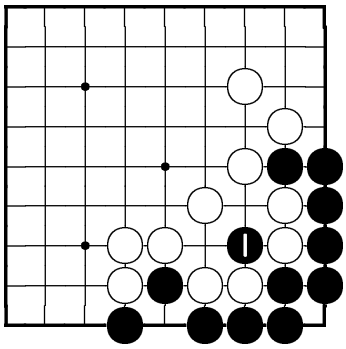
Life and Death



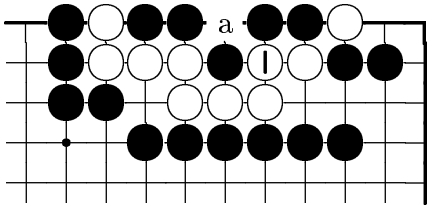
After ❶, a and b are miai.



With ❶, black can make two eyes.

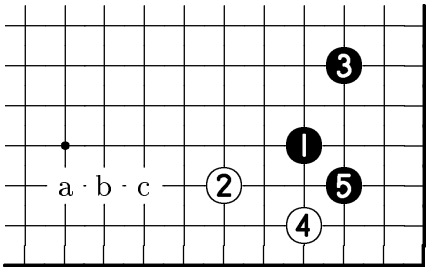


Black makes a second eye by capturing one side or the other.

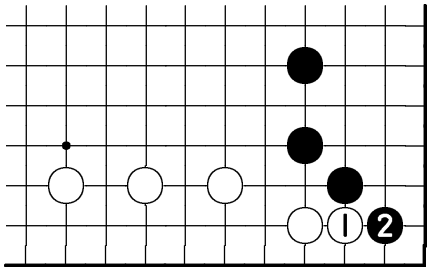


Black cannot move 'a', and white makes two eyes by capturing at 'a' next. live.

Best move

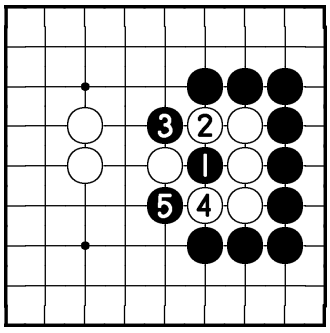


'b' is the correct distance in this joseki.

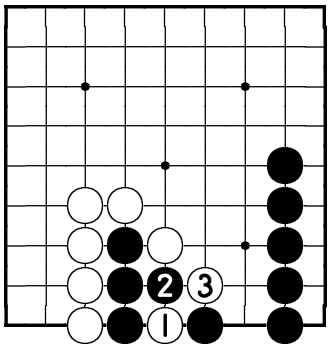


black blocks at ❷ to defend the corner.

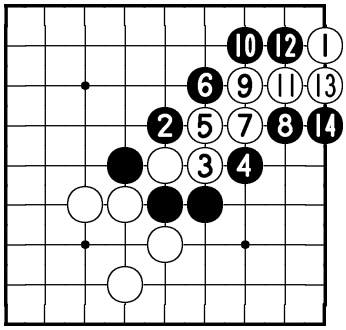
Tesuji



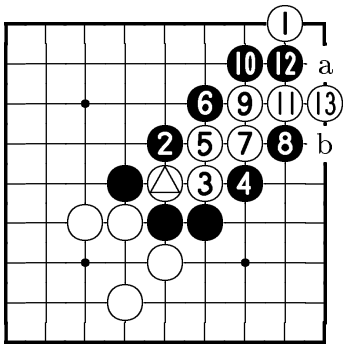
Even if white connects, black can capture some stones.



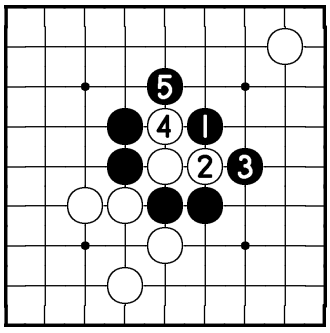
Black cannot save all of his stones.



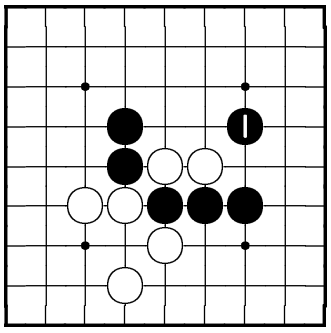
White 1 does not break the ladder, and white is captured.



White 1 still does not break the ladder. Next, black at a or b traps white.

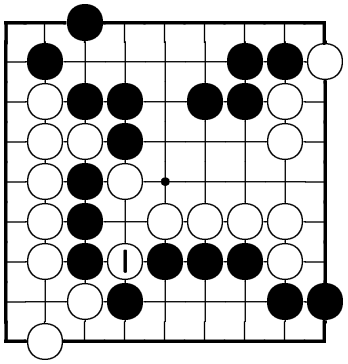


A ladder will not work. ❶, however, traps white in a net.

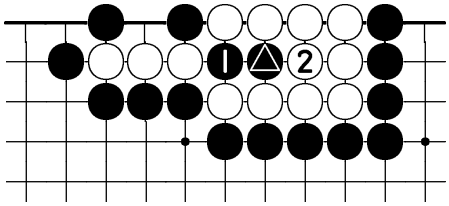


As before, black traps white using a net tesuji.

Snapbback

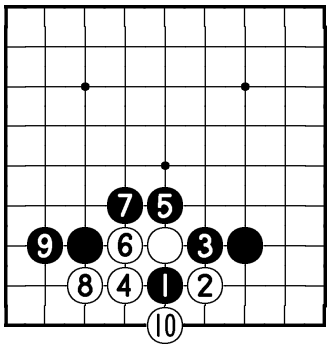


If black capture's whites stone at ①, white recaptures in snapback.

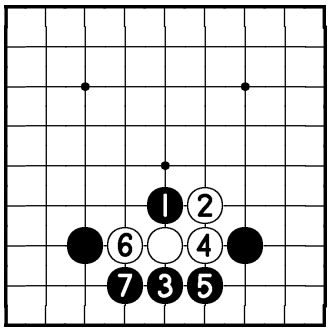


Black throws in ❸ at 1, then ④ takes black at the marked stone. Finally, ❺ at 1 captures in snapback. White cannot capture the other single black stone because that is also a snapback.

Connecting stones



White lives on the bottom, but black is strong on the outside.



Black still connects, but this way he has more territory on the bottom.

Final Tsumego Answer: The first diagram is better because black's influence on the outside is worth more than white's small life on the bottom. Later on, white will find it difficult to make points near black's strong wall. In addition, it is now black's move, and if black moves on a 3-3 point in the upper left or right, he will be well on his way to winning the game.

Appendix D

Software used to write this book

To make a long story short, the platform I used to write this book was a relatively vanilla Mandrake Linux 9.2 with LaTeX (with LyX as an editor) and igo.sty.

There was a pretty steep learning curve (about 2 weeks) with the software, however the software accomplishes more with less than Microsoft Word. I have already reaped the rewards of such a tradeoff as I finish this first book in the series.

Software I did not use to write this book: I did not use sgf2misc or sgf2tex or any other .sgf processor, because maintaining hundreds and thousands of small .SGF files is not my idea of how to write a book.

Appendix E

Appendix R: Go Book sizes and Styles

(This section may or may not be removed in a distribution copy.)

Charles Matthew's "Shape Up!" uses 5.71" x 8.28", roughly an A5 paper size by visual comparison.

Whole Board Press "long" books are 8.5" x 7", which is close to a sideways 7" x 9" (a somewhat standard size for technical manuals), and may be an interesting format to consider for whole board press. It could be considered for two smaller pages, especially if diagrams far outweigh text.

Dictionary of Basic Joseki (Ishida): 5+(14/16)" x 8+(3/16)"

Beyond Forcing Moves (Takagi): 5+(10/32) + 8+(15/32)"

38 Basic Joseki (Davies): 5" x 7+(1/8)"

Lessons in the Fundamentals (Kageyama): 4+(5/16)" x 6+(14/16)"

It does get somewhat more complex because you have margins to consider as well. Plus a lot of books (Shape Up! for instance) aren't exactly a "standard" size, as far as I can tell.

From all of the above information I have gleaned a chart, below:

Book Size	Standard Uses	Close Examples
4.18 x 6.88	Grocery Store Paperback	Lessons in the Fundamer
4 1/4 x 7	InstantPublishing Paperback	Lessons in the Fundamer
5 x 8	Standard Paperback	
$5\frac{1}{2}$ x $8\frac{1}{2}$		Beyond Forcing Moves, Sha
6” x 9”		
6.625” x 10.25”	Comic	
7” x 9”	Technical Manual	A Way of Play (90 deg
$7\frac{1}{2}$” x 9.25”	Technical Manual	A Way of Play (90 deg
$8\frac{1}{2}$” x 11”	Standard Letter Size	

And finally.. from all the available information, it seems that 5.5 x 8.5, the size of Beyond Forcing Moves, and close to the size of “Shape Up!” would be good.

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