Elementary Go Series, Vol. 1

# IN THE BEGINNING 

THE OPENING IN THE GAME OF GO
by
Ikuro Ishigure

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## About the author

Ikuro Ishigure was born in 1942 in Gifu, Japan. In 1955 he entered the go school of Minoru Kitani, 9-dan, and lived there for the next five years, becoming a professional shodan at the age of seventeen. His promotion record is:

| Shodan | 1960 |
| :--- | :--- |
| 2-dan | 1960 |
| 3-dan | 1962 |
| 4-dan | 1963 |
| 5-dan | 1964 |
| 6-dan | 1966 |
| 7-dan | 1970 |
| 8-dan | 1974 |

In 1968 he gained a place in the 24th Honinbo League, and in 1974 he won the upper division of the Nihon Kiin Oteai (ranking) tournament.

His hobbies include skiing, table-tennis, and sports in general. At present he lives with his wife, who is also a professional go player, in Shinagawa-ku, Tokyo.

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## INTRODUCTION

The opening is theoretically the hardest part of the game of go. To professional players, it is the hardest part in practice, as well; in championship games that last two days, for instance, the first day is usually spent playing about the first fifty moves, and the second day is spent finishing all the rest. Such is the consistency of professional play in the middle game and endgame that if a player comes out of the opening with a bad position, it is almost impossible for him to catch up.

Amateurs sometimes rush through their initial moves, saving their powers for the fighting later, but this is more an indication that they do not understand the opening than a sign of talent.

The number of possibilities in any opening position is so vast that a player must rely on his feeling for the game, rather than on rigorous analysis, for guidance. Here he has the greatest chance to use his imagination, play creatively, and develop a personal style. This is the one phase of go that has shown any significant evolution during the past few centuries, and it still defies absolute comprehension.

No book can develop a person's imagination or personal style, and this one does not make the attempt. In a sense, therefore, it is very incomplete: the reader will not find a prescription for every situation, and in actual play he will have to make his own choices most of the time. What we have tried to give him is a basis to start from: some sound moves, some useful ideas, some good examples. If we have succeeded, the following pages will help him to increase both his skill at and enjoyment of the game.

## CHAPTER 1

## (1) The First Moves of the Game

When Black puts his first stone onto the empty go board, he has three-hundred sixty-one points among which to choose. Even if symmetry is taken into account, there are fifty-five different possible opening moves. A little experience will show that the first line, (the edge of the board), is practically worthless in the very beginning of the game, but that still leaves forty-five possibilities for Black to consider.

If he knows something about chess, checkers, shogi, or other such games, Black may be tempted to put his first stone down on the center point. In those games the pieces attack, pursue, and try to capture each other, making the center, where they have the greatest mobility, the best area of the board. In go, however, the stones do not move, and the situation is just the opposite.

The object in a game of go is to build territory, rather than to capture pieces. Just as a house is built from the ground up, in go it makes sense to start building around the edges of the board, where there is something solid to build against. The corners of the board are the best places for making territory; it is as if the floor and one wall were already in place. The center is the least valuable part of the board.


Dia. 1


Dia. 2

Diagram 1 should make this fact more visible. Each pair of black stones shows a formation that might naturally be made during the course of the game.

The two stones in the upper right corner give Black a grip on at least ten points of territory, and his domain can be rapidly enlarged by an extension down the side of the board.

The two stones on the lower side also enclose some definite territory, although not nearly as much as the two in the corner.

The two stones in the center, however, are like lost souls stranded in the desert. They have almost no territory-making effect. As this diagram strongly suggests, the natural flow in the opening of the game is first to go after the corners, and then to stake out side territory. The center serves mainly as a place to escape into for stones that cannot make enough room to live at the edge of the board.

This applies only to the beginning of the game. Later on, after some fighting has taken place and some walls of stones have appeared on the board, it may be possible to make much more territory along the sides than in the corners, and sometimes even a large area in the center can be surrounded.

But the focus rests first on the corners, and many games start with the first four stones being arranged in the four corners of the board. There are hundreds of such arrangements possible, and since which of them are good and which are bad is still an open question, you can choose as you like.

Experience has shown that the first stone in an open corner should go on one of the points marked X in Dia.2. These points all lie on the third and fourth lines, which are of primary importance in the opening. It is unnecessary and inefficient to play closer to the edge of the board than the third line, because even when a stone is out on the third line, there is not enough room for the opponent to play advantageously between it and the edge.

Opening plays farther from the corner than those in Dia. 2 are not so very bad. There is at present one professional five-dan who likes to start at the $4-6$ points, ( $a$ in Dia.2), and the great Minoru Kitani once began a game by planting his first two stones squarely on two of the 5 -5 points.

From such distant posts, however, it is hard to lay hold of the corner territory, which is, after all, the object of playing in the corner in the first place. Most professional go players, the author included, stick with the plays in Dia.2, and of these the ones closest to the corner, on the 3 $-3,3-4$, and $4-4$ points, are currently by far the most popular.

Each of the plays in Dia. 2 has its special peculiarities and characteristic following moves, which tend to occupy the early stages of the game, and these are described next.

## (2) The 3-4 Point

The black stone in Dia. 1 has been played on the 3-4 point, where it strikes a good balance between protection of the corner and development toward the rest of the board.

In its asymmetrical position, however, it invites another play, by either Black or White, in the same corner. Such a follow-up play is just as valuable as the original play in the corner, and is one of the key issues in an opening involving any stones on the 3-4 points.


If Black makes the follow-up move, his standard choices are those illustrated in Dias. 2 to 4. They, and the formations they create, are called shimari, or corner enclosures.

A shimari takes possession, at least for the time being, of the corner territory, and forms a stable base for further development, especially, in Dias. 2 to 4, for an extension to the left, along the upper side. Much of the play in the opening is typically spent creating such bases of operations.

To point out the differences among Dias. 2 to 4, the shimari in Dia. 2 is the safest. The shimari in Dia. 3 makes a better wall from which to extend across the upper side, but if White plays $a$, the door is then open for him to step into the corner. Black 1 in Dia. 1 is in the right position to defend against White $a$, but has less influence over the upper side, which illustrates the basic difference between playing on the third and fourth lines. The shimari in Dia. 4 is a little larger than the other two, but a little looser, so that if White has any stones close by, he may be able to invade the corner.

Why make a shimari at all? Why not extend farther and try for a larger territory? Long-distance extensions, like Black 1 in Dia.5, are playable, but they leave the corner open to attack, and sometimes turn out to be in the wrong place after the corner situation has been settled.

If White makes the follow-up move after Dia.1, then he should approach Black's stone at $1, a, b$, or $c$ in Dia.6.

These plays, which are known as kakari, are just as valuable as the shimari they prevent, but they are not as simple.

Any of them is a challenge to the opponent to engage in closer combat; Dia. 7 gives one example of the kind of fight that may develop. Black strikes under White's kakari at 2, and ends up in firm possession of the corner, while White gets a base on the side, making a fair exchange.


Dia. 5


Dia. 6


Dia. 7

Sequences like the one in Dia. 7 play an important part in the openings of many games, and thousands of them have been worked out over the eons of go playing.

They are called joseki; the Chinese characters for this word, (它价), mean something like 'established stones'. A thorough knowledge of them is neither necessary nor sufficient to get through the opening, and we do not intend to get involved in them, but the reader, if he has advanced past about the nine-kyu level, would profit from looking at a book on joseki, both to learn some good moves and to get a feeling for what constitutes a fair exchange. Otherwise, he will have to copy from other players' games, or improvise on his own.

## (3) The 3-3 Point

The purpose of a play on the $3-3$ point is to defend the corner territory, and this it does with one move, although at some expense in the way of scale.

The black stone in Dia. 1 makes a small but finished fortress, and there is not the rush to play a shimari or kakari that there is with a stone on the 3-4 point. Instead, White can bide his time, and Black usually develops, if at all, with a long extension, like 1 in Dia.2.


Dia. 1


Dia. 2


Dia. 3

A shimari, such as 1 or a in Dia.3, is actually still a good move, but it is not urgent. Black can afford to extend widely first, and make a shimari later, if he gets the chance, the reason being that White does not have such good kakari moves as he had before.

The next two diagrams show the basic ways of making a kakari against a stone on the $3-3$ point. White can press with 1 in Dia.4, which usually leads to the joseki shown.

This takes advantage of the low position of Black's original stone and holds down his territory, but it does not make much territory for White.


Dia. 4


Dia. 5

This kakari is best saved for use as a tool of destruction after Black has started to build up a large area around his stone. If White wants to try for territory of his own, he will make a kakari like 1 in Dia. 5 from the appropriate direction, but here again, considered in isolation, the result seems good for Black.

Therefore, after a play on the $3-3$ point, both players usually stay away from the corner until developments elsewhere make a kakari or shimari appropriate.

## (4) The 4-4 Point

The 4-4 point is like the $3-3$ point, both in its symmetry and in that it develops more naturally with a long extension than with a shimari. It is different, however, because while a stone on the $3-3$ point is biased towards defense of the corner territory, a stone on the 4 -4 point is biased in the opposite direction.


Dia. 1

White can, in fact, invade the corner directly, as shown in Dia.2, and easily reach a living shape. This invasion is often used in the middle or later part of the opening as a way of puncturing a large territory that Black has begun to build up around his stone. It does not produce a lot of territory for White, but it does snatch the corner away from Black.

If White is building towards an area of his own on, say, the right side, then the way for him to attack the corner is with the kakari at 1 in Dia.3. (Occasionally White $a, b$, or $c$ is preferable to White 1). It is natural to reply to an attack from one direction by extending in the other, Black 2 is usually a good move. Next, White might extend down the right side.


Dia. 2


Dia. 3

White 1 in Dia. 3 does not suffer from any special draw-backs, but all the same, it is not the urgent play that a kakari against a stone on the 3-4 point is. Before committing himself, White would like to wait until the position on the whole board indicates from which side a kakari would be best, or whether a 3-3 point invasion would be better. Since his opponent does not have any very attractive shimari plays, White can afford to do so.

How should Black develop from his stone on the 4-4 point?
A shimari, such as Black 1 in Dia.4, is sometimes good, but it does not secure the corner very well. If White has a stone further down the right side, he can slide in to $a$, taking a large bite out of the corner,


Dia. 4


Dia. 5
and even the $3-3$ point invasion at $b$ is possible. Considering this, usually the best way for Black to develop his stone is with a long extension, such as 1 in Dia. 5 .

White often reacts to Black 1 by making the kakari shown in Dia.6, before Black has a chance to extend on the other side as well. The sequence up to 6 , a simple joseki, might follow, with Black being allowed a modest amount of territory on the upper side while White makes a base on the right.


Dia. 6


Dia. 7

It is helpful to see what happens when White answers Black 1 by invading at the $3-3$ point, as shown in Dia.7. The sequence up to Black 13 now becomes the appropriate joseki, and from White's point of view, Dia. 6 is much preferable to this. Black has the makings of much more territory on the outside than White is getting in the corner; Black's powerful wall will help to back up his operations all over the board, while White's group is shut off and useless. The $3-3$ point invasion must be used with care.


Dia. 1


Dia. 2

## (5) The 3-5 Point

The stone in Dia.1, resting on the 3-5 point, is poised for operations on the upper side. In its asymmetrical stance, it invites an early follow-up play -either a shimari by Black or a kakari by White - as did a stone on the 3-4 point.

The shimari in Dia. 2 is the usual way for Black to develop. His stone will, however, support an extension in the direction of 1 in Dia. 3 without the making of a shimari, and Black sometimes chooses this way.


Dia. 3


Dia. 4

If White has a chance to do so before Black closes the corner he will play a kakari at $1, a$, or $b$ in Dia.4. We refer you to a book on joseki for the subsequent details, but White generally gets the corner while Black builds himself up on the outside.


Dia. 1


Dia. 2

## (6) The 4-5 Point

A stone on the $4-5$ point, like the one in Dia.1, plays a role fairly similar to one on the $3-5$ point; it stresses the upper side, and either a shimari or a kakari is a big follow-up play. The shimari is shown in Dia.2, and three possible kakari are shown in Dias.3, 4, and 5.


Dia. 3


Dia. 4


Dia. 5

The 3-3 point kakari at 1 in Dia. 3 gives Black a chance to wall off the right side with 2, but then White can advance along the upper side, starting with 3 at a, and so White 1 is useful when White wants to play into that part of the board. The 3-4 point kakari at 1 in Dia. 4 does not give White this chance to go along the upper side, but it keeps the right side open for him. Finally, White sometimes plays 1 in Dia.5, abandoning the corner for the right side.

## (7) Example

Now let's see the foregoing ideas illustrated in a typical opening, taken from a professional game. In the example we have chosen, Black started by making an immediate shimari with 1 and 3, while White moved into the adjacent corners with 2 and 4 . Black 5 occupied the last empty corner.

At this point White, with his stones on the 4-4 and 3-3 points, had no pressing shimari of his own to make, so a kakari in the lower left corner took precedence over all else.

Black answered with 7, a pincer attack designed to keep White from extending up the left side. The sequence from 7 to 11 is a joseki, one in which White secures his eye space by diving into the corner, while Black extends out along the lower side. In evaluating the result, you should observe that while Black 7 is still in White's way, it is a weak stone, and is not yet helping Black to form any territory.

There being no other important kakari or shimari to play, White now made an extension up the right side, coming as close as he dared to the black shimari in the upper right corner. The area in front of a shimari is quite valuable in the opening, and so this extension was better than an extension in any other direction from either White 2 or White 4 would have been.

Next came Black's kakari at 13, a logical way of expanding the black area on the lower side. After White's occupation of the right side at 12 , a black kakari from the direction of a would not have served as much purpose. If Black had failed to make the $13-14$ exchange and just gone on to 15 , White could have extended to $b$, making a largescale double-wing formation around the lower right corner; it is important to try to prevent that kind of development. Black 15 marked the end of this stage of the opening.


Example
This example does not represent a fixed pattern. Go has not been analyzed to the point where opening lines covering the whole board have become established, and it probably never will be. Professionals and amateurs alike, even though they may know lots of joseki to be used in appropriate situations in individual corners, are on their own from the first move of the game.

There are, however, standard maneuvers that occur in all openings, regardless of the arrangement of the initial plays and regardless of the players' personal styles. The remainder of this chapter is devoted to them, starting with the most important one, extension along the side.

## (8) Extending Along the Side

As this is the basic way both of forming territory and of making eye space, it is the single most important maneuver of the opening. You cannot build territory with one stone, any more than you can build a fence with only one fence-post.

Extend from a stone, however, and you have two posts in the ground; then you are prepared to defend the area between them.

In extending, there are two matters to consider: how far to extend, and how high, (that is, at what distance from the edge of the board), to extend. The second question generally boils down to a choice between the third and fourth lines. The first is decided on the basis of the relative strengths of what is being extended from and what is being extended toward, the principle being to play close to weak positions and stay away from strong ones.

## Extending in Front of a Shimari

Once a shimari has been made, an extension away from it, as in Dia.1, is a large play. Here Black 1 on the right side is being made in the best direction, because it is an extension from a two-stone wall. It would be even more valuable if Black, were at a. An extension to the left on the upper side would be only an extension from ,, and would have less territorial potential.

What guides Black precisely to 1 ? This is a hard question, but as the midpoint between the black and white positions, Black 1 should seem natural. It also maintains a good balance between the shimari and the possible black kakari at 6 . Black 1 at $b$ would be another good idea here, incidentally.

It is just as valuable to extend toward an opponent's shimari as it is to extend away from one of your own, and accordingly White 1 in Dia. 2 is just as big as Black 1 in Dia. 1 .

We have shown Black responding at 2, as he may well do sooner or later. Even though Black cannot extend as far as he would like, any extension in front of a shimari is a big move.


Dia. 1


Dia. 2

How secure are the areas sketched out by the extensions in Dias. 1 and 2? As they stand, there is room for any of them to be invaded, so they are not secure at all, but if an invasion occurs, the invader will find himself fighting at a disadvantage.

While he succeeds in taking away territory in one place, his operations will cause him losses in other places. For example, if White invades at $c$ in Dia.2, Black can, while attacking, build up a strong position around his stone 2; backed up by it, he can then return White's invasion at $d$, doing as much damage as he has received, or more.

The possibility of an invasion behind a long extension always exists, but usually some preparatory work needs to be done before the invasion becomes a profitable venture. In many cases the invasion never comes.

By adding more stones to his open position at appropriate times, the player can gradually strengthen it, eliminate the possibility of invasion, and secure the territory he is aiming towards.


Dia. 3


Dia. 4


Dia. 5

So far, we have been showing extensions on the third line, but extensions on the fourth line, such as White 1 in Dia.3, are good, too. The difference between an extension on the fourth line and one on the third is that the former has more effect going toward the center, while the latter takes a better grip on the side territory. In Dia. 3 there is a certain amount of room between White 1 and the edge of the board, which makes it easier for Black to carry out an invasion of White's prospective territory.

But the fourth line is the limit. In Dia. 4 White has strayed too far from the edge of the board, leaving a gaping hole at a where Black can come in. Black also has an easy entry at $b$.

This does not mean that you should not play above the fourth line during the opening. In Dia.5, for example, after Black has already taken the best point on the edge at 1 , White 2 would be one good way of restricting Black's potential territory.

But White would prefer to have it the other way around, with his stone on the inside and Black's on the outside. For extending along the side of the board, the third and fourth lines are the most desirable.

## Making a Base

In Dia. 6 White is playing in order to give himself eye space, and the two point extension to 1 on the third line is best. Because his two stones are as close to the edge as they are, there is no way to break the connection between them. In Dia.7, for example, Black's efforts only result in a strengthening of White's position.

If White extended any further, as in Dia.8, then Black would have room to invade at 2. Various possibilities exist after Black 2, but even without going into them, it is easy to see that White is in a dangerous position, and is going to have to accept some kind of loss. He was not strong enough in this area to make a three-point extension.


Dia. 6


Dia. 7


Dia. 8

## A Narrow Extension

As the previous example should suggest, when there is enough space for it, the basic minimal extension along the third line is a twopoint one. In Dia.9, however, there is not enough room, and White has to hold himself to a one-point extension. White 1 is too narrow to be worth as much as the other extensions we have been looking at, but it is still a fairly big play, late in the opening, for it strengthens White's corner while threatening an invasion at $a$. Black should generally defend at 2 , lest the invasion be carried out.

White should not extend right up against Black's stone.
If he plays 1 in Dia.10, a greedy attempt to gain more profit than is possible, Black will reply at 2 and connect at 4 , becoming much stronger than he was in Dia.9.

White 1 has gotten buried by the surrounding plays in this sequence, and is not doing as much work as either Black 2 or Black 4.


Dia. 9


Dia. 10

## Extending from a Two-Stone Wall

The basic minimal extension from a two-stone wall is a three-point one, as shown in Dia.11. Black holds himself to the minimum in Dia. 11 because White has two strong positions on this side of the board, and could easily invade if Black extended any farther than 1. Notice, too, that Black is leaving room for a second good extension to $a$.

What if White invades the three-point extension, with 1 in Dia.12? Black should answer at 2, and although this fight can get complicated, White is at a disadvantage and deserves to come out of it with a bad result. His invasion was premature. He should first approach Black's formation at a, if he gets the chance, and then he can strike effectively at 1 .

If Black made only a two-point extension, as in Dia.13, White could crowd him from the outside at 2. In Dia. 13 the Black stones enclose too narrow a territory to be efficient, and in fact do not really have enough space to be sure of two eyes.


Dia. 11


Dia. 12


Dia. 13

The basic extension from a three-stone wall is a four-point one, and from a four-stone wall, a five-point one, provided there is enough room to make it. There is, furthermore, no theoretical upper limit to an extension from any position, except for the limits imposed by the size of the board. The next diagram will furnish us with several practical examples of extensions, both long and short.


Dia. 14
The game in Dia.14, taken from one of the Japanese professional tournaments, has just entered the post-shimari phase. Black begins with a conservative two-point extension down the left side to 1 , to make a base for his stone in the upper left corner.

White takes advantage of Black's conservatism by exchanging 2 for 3, forcing Black into an overcrowded shape, as explained on the previous page. White 4 keeps Black from making what would be a powerful play at $a$. You may wonder why White does not extend one line farther to the right, but it is better for him to make a strong extension, covering his weak point, and follow with a longer one later.

Black now has sente, and extends toward White's shimari with 5 on the lower side, leaving room for the following extension to 7 . White likewise reaches towards Black's shimari with 6 , naturally choosing the safe two-point extension. With 8 and 10 , however, White opens up and extends the limit, since he is backed up by already stable positions on both the right and upper sides, and is approaching a relatively weak black one in the upper right corner. White 8 is both an extension and a kakari.

Take note of the priorities followed in this game: first an extension to make a base for an isolated stone, next extensions in front of shimari, and then other extensions. Both Black's and White's moves illustrate sound go strategy.

Now we have a problem for you to solve: Black, in the diagram below, has just invaded the lower side with the kakari at 1, and White has made the joseki response at 2 . Black's next move is up to you; make your choice, and then turn the page.



Answer to problem 1


Dia. 1

The answer is a two-point extension on the third line, as shown in the diagram above. Nothing is so important as to make a safe base for the black stone in the lower left corner, and Black 1 is the only good move for the job.

When we say 'safe base', we do not mean that these two stones are proof against any kind of assault that may come in the future, but for the present, Black is well enough dug in.

White has his eye on a counter-extension to a, preceded, as a matter of good technique, by the exchange of White $b$ for Black $c$, but White a is too narrow to be worth making now.

Even though it is a kind of attack, Black would be able to ignore it.
Black 1 in Dia. 1 is too small an extension. By holding himself back unnecessarily in this way, Black is only inviting White 2, which can be made either now or in the near future, and which leaves Black with insufficient eye space.


Dia. 2


Dia. 3

Black 1 in Dia.2, however, goes one line too far to be safe. White can do quite a bit of damage by invading right
away with 2 , and even if he plays elsewhere, the possibility of his playing White 2 later is a terrible imperfection in Black's shape.

If Black plays on the fourth line, as in Dia.3, perhaps under the mistaken belief that he should try to aim into the open bay created by the white wall in the lower right, White will not take immediate advantage of his error, but just extend up the left side. Black's position is a bit unsteady: White $a$ would threaten it-this will help White to make territory on the left-and there is the weak point at $b$ which White can use by playing $c$.

Now another problem: after Black's correct play, ( , in the diagram below), White should make an extension on the left side. As a test of your go judgement, choose a point on the third line for him, then look at the explanation on the next two pages.



White 1 in the diagram on the left above is the best answer. This is a bit hard to prove-good and bad are not as clearly defined as they were in the problem before-but notice that White is leaving room for a second extension to a. He is safe in reaching out as far as 1 because he has that second possible extension in front of him, and because the two stones he has in the rear are in no imminent danger of being attacked.

White 1 in Dia. 1 is almost as good; if this was your choice, you can still be satisfied with your feeling for the length of an extension. The only slight complaint that can be made against it is that it leaves Black a bit more room than is really necessary. Black will play 2 without delay.

But from this point on, the farther back White pulls his extension, the worse it gets. Against White 1 in Dia.2, Black will be extremely happy to be able to make a four-space counter-extension with 2 . In go, the meek do not inherit the earth.

Black 2 in Dia. 3 shows what can happen to White if he goes too far; even one line beyond the correct distance is a serious error. White has only room for a one-space extension to 3 while Black can make a proper two-space extension to 4 , and it is easy to see who is coming out ahead on this exchange. A more interesting way for White to play, after Black 2 has exposed his mistake, is to attack with 3 in Dia.4, causing Black and White to shoot out with the plays from 4 to 10 , but this still gives him a bad result.

Black's spearhead in the center greatly reduces the usefulness of the white wall in the lower right corner, but White 1 to 9 fail to have any very strong effect on the black shimari in the upper left corner. This sequence could also come about, by the way, if White played 1 at 3 and Black counter-extended to 2.


Dia. 3


Dia. 4

## (9) Pincer Attacks

A pincer attack is a play that attacks an enemy stone by taking away its room for extension along the side. The function of a pincer attack is to keep the opponent both from getting territory and from forming a basis for eye shape.

This kind of play is at its best when it works with other friendly stones to build territory while attacking.


Dia. 1


Dia. 2

White 1 in Dia. 1 is an ideal pincer play, since it also happens to be an extension from the enclosure in the lower right corner. Black now has neither territory nor room for eyes at the edge of the board, so if he is going to put his beleaguered stone in motion, there is no place for him to extend except up into the center, where he faces a doubtful future.

Black would heave a sigh of relief if he could extend to 1 in Dia.2, making his position safe, at least for the time being, and taking over the territory at the edge that White got in Dia.1. The difference between these two diagrams is enormous.

Pincer attacks are common starting points for joseki, especially in answer to a kakari against a stone on the 3-4 point. Black 1 in Dia. 3 is typical. Once again the basic


Dia. 3


Dia. 4
idea is that White does not have enough room to form two eyes at the edge of the board, so he must run upwards into the center. His hope is
that he will be able to make a counterattack against one or the other of the black stones hemming him in. Black $a$ and 6 , instead of 1 , are two more possible pincer attacks in this position. Even Black c might be called a pincer attack, although it is not much of one, since it leaves White room to make a two-point extension to $a$.

Pincer attacks can be made on the fourth line, too, as at 1 , a or $\&$ in Dia.4. A pincer attack on the fourth line gives the opponent some room to move around in at the edge of the board, while a pincer attack on the third line is subject to pressure from above. To make this idea more concrete, and to illustrate some of the ways of dealing with a pincer play, here are two of the joseki that Dias. 3 and 4 can lead to.


Dia. 5


Dia. 6

In Dia.5, where Black, is on the fourth line, White jumps out to 1 , then makes a counter-pincer play at 3 .

When Black jumps out to 4, White can connect underneath by playing 5, reaching a stable position. This is a possible stopping place for the joseki.

In Dia.6, where Black, is on the third line, White again plays 1, but now after Black 2 he strikes from above with 3, and Black runs along the edge of the board while White spreads out in the center. White comes out of this joseki with no definite territory, but Black does not have so much himself, and both of his positions are still vulnerable to attack.


Dia. 7
$\wedge$ elsewhere


Dia. 8


Dia. 9
$\wedge$ elsewhere

In Dia.7, Black usually answers White's kakari by extending to a, but there are times when, for one reason or another, he does not defend. White can then move in from the other side by playing 3. Although this pincer attack does not keep Black from making two eyes in the corner, if he plays 1 in Dia.8, which gives him a living shape, White will barricade him in with 2 . This exchange of a small corner territory for an outside wall is generally in White's favor, since his stones have potential for development, while Black's have practically none. Black usually plays 1 at 2 , a, or b and fights his way out, even though the resulting joseki have a way of awarding White the corner.
Dia. 9 shows a similar example in which Black's stone is on the $3-4$ point. After Black 8, White can be expected to extend out from under Black's overhanging wall on the lower side, and Black will, perhaps, aim to attack White 3,5 , and 7 with a pincer play from farther up the left side.

Extensions are the basic building blocks of the opening, pincer attacks are the basic offensive weapons, and moves which are both extensions and pincer attacks are the ideal.

This is a fundamental strategic principle. A clear awareness of it is worth far more than any detailed knowledge of joseki, or of the other techniques presented in this book.

## (10) Invasions

White 1 in Dia. 1 lands squarely between two black positions, and is therefore an invasion. Either a black or a white play at 1 is extremely large. If Black played 1 first, extending from two corners simultaneously, White would have no easy way to establish himself on the left side, which could fall entirely to his opponent. In Dia.1, however, White has a safe foothold from which he cannot be dislodged.

If Black threatens White from below with 1 in Dia.2, White has room to extend upward to 2. If Black approaches from above, as in Dia.3, White has room to extend downwards.

This makes White 1 in Dia. 1 an Irreproachable move.


Dia. 1


Dia. 2


Dia. 3

Dia.2, incidentally, is better for Black than Dia.3. In Dia.2, Black 1 is a good extension from the lower left corner, and Black can still make good use of his stone in the upper left corner, by playing 3 at $a$, for instance. In Dia.3, however, White has pitched his camp on the fertile ground in front of the shimari, and there is nothing Black
can do about it. Black's position in the upper left corner is still open to invasion at $a$ and $b$, and it will be hard for him to reach a satisfactory arrangement of his stones.


Dia. 4


Dia. 5

When a double-wing formation, a very desirable structure, has been made around a stone on the $4-4$ point, as in Dia.4, it is always easy to invade at the 3-3 point. Sometimes this is a good idea and sometimes it is not; when White is able to attack one of Black's two outposts on the sides, and in various other circumstances, he may do better to make a kakari from the appropriate direction and fight on the outside. White 1 at the $3-3$ point does have the virtue, however, that in all of the joseki variations following it, White quickly makes a stable, living shape. If White does not invade this formation somewhere, Black can fortify the corner by playing $a$, and then White's job will be much harder.

Dia. 5 shows the counterpart of this formation in which Black's corner stone is on the 3-3 point. This time there should be no hesitation about playing White 1 , an important shimari-preventing move. Black will get some territory around the edges while White lives in the center.

Dia. 6 introduces another kind of situation in which an invasion is practical. This time White does not have enough space at the side to be sure of an easy life for himself, but he is making a pincer attack as well as invading, and Black, has even less elbow room than White 1. This will make it hard for Black to overpower White 1 ; if he tries, White has ample means of fighting back.

The relative strength of White 1 and Black , is the key to this example, and if Black, were not so insecure, White 1 would not be such a good move. On the other hand, if the black stones in the lower left corner were weaker, then White 1 would be even better.


Dia. 6

While we are looking at this position, note the placement of White 1. White $a$, on the third line, would also be correct, but White should play neither farther up nor farther down the side than either of these two points.


Dia. 7

If he invades at 1 in Dia.7, in order to make more of an attack on Black ,, Black will just extend to 2, a good example of light play, and his profit will be greater than White's.

If an invasion is made into an area that does not furnish enough room for easy eye formation, and the invasion does not act as a pincer attack, then the invader is going to be in for a hard time of it. Even if his invading force manages to survive, its struggles to live are as likely to do damage to his own positions in other parts of the board as to his opponent's territory. Such invasions are contrary to go sense in the opening, and although they are occasionally necessary, they are usually wrong.

## (11) Extending into the Center

Both pincer attacks and invasions tend to force the play upwards, and for this and other reasons, extensions into the center turn out to be just about as common during the opening as extensions along the side.

They often have important offensive and defensive implications, and sometimes they serve to build territory directly.

It is not safe to extend as far in the center as it was near the side of the board. The basic tools now are the one-point jump, the diagonal play, and the keima, which we shall take up in that order.

## The One-Point Jump

Dia. 1 shows a hypothetical opening situation. After Black has taken the ideal point between the two shimari and White has made his counter-extension at 2 , the next order of business on this side of the board is for Black to make a one-point jump to 3 . White follows suit with 4. If Black did not play 3, White would find it rather easy to eliminate Black's prospective territory on the side by invading at $a$, but after 3, it is hard for him to do more than reduce Black's territory by playing 6, (which Black can answer at a).


Dia. 1

If White does not play 4 in Dia.1, then Black can make another onepoint jump, as shown in Dia.2, forcing White into a low position and extending his influence toward the left side.

White should patiently withdraw to 2 and wait for a chance to poke into Black's weak point at $a$.


Dia. 2

What about Black's making a 2-point jump, as in Dia.3? The trouble with this move is that it is too easy for White to break the connection between 1 and 3, so that Black is likely to be forced to strengthen his extension with a third stone, something he cannot do very efficiently. If White plays $a$, for example, Black will be hard put both to defend his side territory and to keep Black 3 from being cut off.


Dia. 3

From a two-stone wall, however, it is usually possible to get away with a two-point jump into the center-we see Black enlarging his territory with such a move in Dia.4- and from a three-stone wall a three-point jump may be safe.


Dia. 4


Dia. 5

There are some common pincer joseki in which a two-point jump into the center from a single stone is made. In Dia.5, to take one of them, White 2 is a popular answer to Black 1, although the one-point jump, (White 2 at 3), is also playable. It is not that White 2 cannot be cut off-Black 3,5, and 7 show that it can be-but if Black plays the cutting variation, White manages to build up a powerful attack on Black 1 in return.

But the standard response, if there is such a thing, to a pincer attack is a one-point, not a two-point jump. Two examples of this have been shown already, on page 33 . Dia. 6 shows a third, in which Black responds to White 1 by jumping out with 2 . He is threatening the white group to the left as well as running for his life, and White has to defend at 3, prodding Black into another leap forward to 4 .


Dia. 6

## The Diagonal Play

White 2 in Dia. 1 is a diagonal play. It is slower than the one-point jump, but stronger, and in the particular shape illustrated in Dia. 1 it is a standard idea. Besides just running out into the center, White is aiming to attack at a or $b$, and is keeping Black from connecting his two stones.

If White played a one-point jump, as in Dia.2, Black would play at 3, and there would be no way for White to disconnect Black's position, a fact which you should be able to prove for yourself. If Black tried to make this connection after Dia.1, however, he would fail, as shown in Dia.3. White sacrifices a stone at 2 in order to drive down with 4 and 6 , then continues as in Dia.4, and Black's crude tactics have given White a superior result.

This same shape appears in a different position in Dia.5, where Black has just invaded at 1 . White 2 cuts him off and moves out toward the center, in anticipation of a running fight.


Dia. 1


Dia. 3


Dia. 2


Dia. 4


Dia. 5


Dia. 6


Dia. 7


Dia. 8

Dia. 6 shows the diagonal play at work again, this time making a determined attack on White .. White can get away, as shown in Dia.7, but Black pressures him in sente up to 8 , then plays 10 make some eye shape for his own group.

In this kind of position it is always a difficult question whether the diagonal play or the one-point jump is better, and in fact Black could also play 2 in Dia.8. This permits White a somewhat easier escape than before, but is not necessarily wrong. There is also the possibility that White will fashion some kind of connection underneath at $a$. (We leave the details for you to work out). Black can prevent that by exchanging 6 for c , but he is reluctant to do so, since that strengthens White's line and deprives Black of moves like $d$ and $e$.

## The Keima

White 1 in Dia. 1 is a keima. This word was borrowed from the Japanese game of shogi, where it is the name for the piece analogous to a knight in chess, and in some English go writings White 1 is called a knight's move.

The idea behind White's keima at 1 is to nudge Black toward the edge of the board, that is, to have him play at a on the second line. White 1 is better than the one-point jump to $b$, which would let Black extend on the third line unhindered. In this joseki, Black usually plays 2 at $c$.

The keima is a move which must be made with care, since it can often be cut. Black 1 and 3 show the basic cutting maneuver. Here they are not usually very effective-even if White cannot capture Black 1 in a ladder at $a$, he seems to have the upper hand when he plays 4 -but this shows you what to watch out for.


Dia. 1


Dia. 2

One common use for the keima is to advance from the third line to the fourth in answer to a capping play. In Dia.3, for instance, Black 1 aims toward a large territory in the lower left quarter of the board. White has to get into this area, and his keima at 2 is the right move for the job. (If White were not so concerned with moving upwards, then a one-point extension to a on the third line would be a stronger play).


Dia. 3
Since this keima is so close to the edge of the board, it can not be cut through as the previous one was, but all the same, there is a soft spot between the two white stones that Black can exploit, as shown in the next diagram. Black sacrifices a stone at 1 , cuts at 3 , plays atari with 5 and 7, and throws the lower side into confusion by bringing about a ko fight. White should not try to evade the ko by playing 6 at 7 , since that would leave Black with a good attacking move at $a$. Whatever the outcome of the fight, it illustrates the fact that the keima is always a move with a weakness.


Dia. 4


Dia. 5
Some more typical keima moves can be seen in Dia.5. This game started with an involved joseki in the lower right corner that left Black and White with one weak group apiece in the center. When White connected at 1, Black played keima at 2. Even though there was some danger of an invasion between 2 and Black ,, it was better for Black to keep on the heels of White's weak group by playing 2 on the fourth line than to make the safe, but flat extension at a.

Now White played 3 to give his group some breathing space, something that he had to do before he could think about invading the lower side or attacking in any other part of the board. This keima, being backed up by White 1 as well as White ., could not be cut. Since it outflanked Black's weak center group, Black had to make an extension of his own, and chose 4 . This kind of extension into the center sometimes comes hard to inexperienced players, for it does not seem to have anything to do with territory, so we want to be sure that the reader understands the reasons for it.

Firstly, it took the pressure off Black's center group. Other extensions, closer to the right side, would have done so too, but Black 4 had the virtue, secondly, of putting some pressure back on White's center group-not very much, perhaps, but enough to keep White from risking an immediate invasion of the lower side. White therefore played 5 , and the third purpose of Black 4 became manifest, namely, that it enabled Black to play 6, blocking White on the right side and obtaining tangible profit there.

## 12) Pushing and Crawling

Dia. 1 below gives us an example of another of the standard maneuvers of the opening. Black has played keima at 1 and is pushing White along the side of the board, further isolating White . and building toward a large exterior territory. White, by crawling along the third line, is gaining secure territory at the edge.

Dia. 2 shows an idealized version of this situation. Considered by themselves, White's third line territory and Black's outside wall are about equal in value, although in actual play this position would probably be favorable to one side or the other,


Dia. 1


Dia. 2
depending on the extent to which Black could make use of his wall for building territory or attacking.

This idealized version would not be likely to occur, however, in actual play, for in a pushing and crawling battle, one side is always a step ahead of the other, and the competition to stand in that privileged position causes breaks and bends to appear in the solid lines.

The man behind in a crawling battle will always try to jump out and get ahead. For example, in Dia. 1 White was the man behind, and his next move, if he is going to keep going along the left side, should be White 6 in Dia.3, jumping one line ahead of Black. If Black answers 6, Black $\mathrm{a}, b$, or c would be correct. If Black does not answer, then White can start pushing to the right, as in Dia.4, extending his sway in new directions while forcing Black into a constricted shape. If, on the other hand, White does not play 6 in Dia.3, then Black 1 in Dia. 5 stops him for good, and puts Black in a position to make territory in all directions. The value of the moves in these three diagrams depends upon what lies out of view in the surrounding areas, but generally speaking, they are all quite big.



Dia. 6


Dia. 7


Dia. 8

The man ahead in a pushing and crawling battle will try to press his advantage as soon as possible by playing a move known as a hane, (pronounced ha-neh), in front of his opponent's stones. In the joseki in Dia.6, for example, Black loses no time in playing hane at 4, forcing White down to the second line. Notice, however, that he plays straight out at 8 instead of trying a second hane at $a$, since Black a would leave too many cutting points for White to chop into.

White, for his part, does not want to crawl along the second line any farther than necessary, so instead of continuing with $a$, he plays 9 and 11 in Dia.7. He can do so in sente, since the cutting point at $b$ forces Black to connect at 12 . White has gone far enough along the second line that Black cannot play a in sente, so if White wants to crawl farther up the left side at some time in the future, chances are that he will be able to do so.

Dia. 8 gives another variation of this joseki, in which Black plays a second hane with 1 , instead of playing 6 in Dia.6. Although 1 becomes a sacrifice stone, Black gets to make a solid wall with 3 and 5, and White can no longer be sure of playing $a$ in sente.

Many joseki involve pushing and crawling of one kind or another; Dia. 9 shows another of them. First Black jumps out at 4 to get a step ahead of his opponent, then with hardly time to catch his breath, he bends upward with 8 and 12 . His position seems to be full of cutting points, but White can gain surprisingly little advantage from them.

You can see this joseki being used in an actual game in Dia.10. After the moves from White 8 to Black 19, which duplicate the sequence in Dia.9, White takes time out from the pushing and shoving to cut at 20, forcing Black 21, and then play 22. This is as much as he can do with all the cutting points at his disposal. Black plays atari at 23, offering to give up 1 and 9 in return for White 18 .


Dia. 9


Dia. 10

This hypothetical exchange is pictured in Dia.11, where for the sake of clarity we have removed the captured white stone from the board. White's profit in the corner is not small-twenty points would be a good estimate for the value of White 1 -but Black's capture completely overshadows White's wall, as well as every other part of the board, and is even more valuable.

The actual game continued as in Dia.12, with White and Black saving their stones at 24 and 25 respectively, then continuing the pushing battle up to White 40 . Black played 41 , for he could not allow White to take that point and start a second wall, and the game entered another phase. On the left side, Black had roughly fifty points of territory in the bank, but White's wall, in cooperation with the two stones marked ., gave him a fully equal position.


Dia. 11


Dia. 12

By now you should begin to have a fair idea of what pushing and crawling are all about. To help you refine your technique in this important part of the game, we are going to end this section by working through a few more examples.

In Dia.13, (another joseki), we see a position in which White has done some crawling along the fourth line. This is an advantageous line along which to crawl, but in spite of that, if it is White's turn to go next, he should play the keima at 1 , giving up altitude for speed. If it is Black's turn, then of course a is a big move.

Should White just plod ahead with 1 in Dia.14, Black will push him to the side of the board with the double hane at 2 and 4. Although Black seems to be running a risk in leaving two cutting points open, the best that White can do is to play 5 , letting Black connect at 6 . This is clearly much worse for White than the previous diagram.

If White tries to resist, instead of letting Black connect, his strongest play is 1 and so on in Dia.15, but Black 10 threatens both $a$ and $b$, and White has failed. Even if the ladder does not work, so that White can capture three black stones by playing $c$, the sequence of Black $a$, White $d$, Black $e$ gives Black the strong outer wall he is seeking.


Dia. 13


Dia. 14


Dia. 15


Dia. 16
So far we have been looking at pushing battles that ran along the edge of the board, so perhaps it is time to show one that goes upwards. White 1 in Dia. 16 is played both to develop the weak stone . and to attack Black ,. Black pushes back with 2 and 4 , then sprints out with a keima to 6 . White also jumps ahead, to 7 , and Black goes back to make some eye space for himself by playing 8 . Later on, a will be the key point in the center for whoever wants to continue the running fight. This kind of side-by-side flight into the center for freedom is a common theme in the opening and early middle game, and we have already observed several other variations of it.

We close this section by studying one more case involving a pushing battle in the center of the board. In Dia.17, Black very badly wants to get the point 7, making a nice extension from his stone ,, avoiding a white pincer, and attacking the two white stones in the upper left corner.

First, however, he plays the aggressive double hane at 1 and 3. The exchange up through 9 sees White with a strong, influential center position, while Black has gotten to make two moves on the upper side, and has some chance left to put 3 to work in the future. This whole sequence will be examined in the next five diagrams.


Dia. 17
To begin with, if Black plays 1 in Dia. 18 without making any preparatory moves, White will jump out to 2 . This may not seem so different from the actual sequence, but now White is developing effortlessly, and the black stones marked, are much weaker than they were after White 6 in the previous diagram.


After Black tries to push White aside with 1 in Dia.19, White may feel inclined simply to extend down the side to 2 , but then Black 3 forces White 4, and when Black attacks with 5, he has a considerable amount of strength and territorial potential in the center. Rather than accept this, White should push back by playing 2 at 3 .


Dia. 19


Dia. 20

Now it is Black's turn to be wary of playing in too relaxed a manner. If he just goes along with 3 and 5 in Dia.20, then after White 6 and Black 7, White's side is much larger than in the last diagram, and Black does not have anywhere near the prospects for expanding in the center that he had before. Furthermore, if White does not mind being attacked on the left, he can play 6 in Dia.21, and Black will get nothing at all on the upper side.


Dia. 21

So it is imperative that Black play the double hane at 3 in Dia.22, and after atari at 4, White has to defend at 6 . Black is rewarded for his energetic tactics by having built up his position in sente, so that his attack at 7 assumes much greater significance when finally it comes. White 4 is a more important stone than the two in the corner, which are alive but no longer have much scope for action, so next the exchange of White a for Black $b$, followed by eye-making moves by White on the upper side, is natural.


Dia. 22

## CHAPTER 2 Nine Concepts

## (1) Make Your Stones Work Together

You can probably imagine how the first twelve stones of the game in Dia. 1 were played. Black has made a shimari and extended down the right side, while White has just made a kakari in the lower left corner and established himself on the left side. Now it seems to be Black's turn for a kakari in the upper left corner. Which side should he attack from?

No experienced player would miss Black 1 and 3 in Dia.1.
These moves combine with the three black stones on the right to give Black immense territorial prospects in the upper right quarter of the board, and he is gaining momentum with every step. Each one of his stones heightens the value of the others. Next Black a, which would have been rather strange before 1 and 3 , has become a large point, and we shall return to this position a little later.


Dia. 1

There is a certain kind of go player who cannot bear to see his opponent make any territory, and who would therefore be tempted to break up the left side with Black 1 in Dia.2. The joseki through Black 5 follows. Black's newly formed group is crowded in between two stronger white positions, and has no relation to any of the other black stones on the board. The territory that White cannot get on the left side he will take on the upper side, and he has his eye open to the possibility of attacking Black 1, 3, and 5 when he gets the chance. Black has completely lost step.

But if the position in the lower left corner were slightly altered, as in Dia.3, Black 1 would become reasonable. Now Black's plays would be working with his shimari to squeeze the two white stones caught in between, which would be even weaker than the black group above them. Relationships like these are what make plays work, or fail to work, in the game of go.


Dia. 2


Dia. 3

## (2) Efficiency

Efficiency means making the maximum of territory with the minimum of stones. This is what go is all about, and all of the advice in this book is really just guidance on how to play efficiently. During the opening, besides going for the corners and extending along the sides, efficient play means always searching the board for the area where the largest play is possible, taking all the advantage you can of your own strong positions and your opponent's weak ones, and never wasting time on unnecessary moves. Let's look at one example.

The game in Dia. 1 began with Black playing on the 4-4 points and White on the 3-4 points. Next came Black's kakari at 5, chosen over a possible kakari in the upper left corner because it was also an extension from Black 3. White 6 started a common joseki, which Black finished by extending to 11 , picking the fourth line instead of the third just as a matter of taste.


Dia. 1

Against White's kakari at 12, which kept Black from making a double-wing extension, Black used the pincer play at 13, and the moves from 14 to 22 followed.

This joseki often ends with Black next playing $a$, but here that move would be inefficient.

Black's best play is shown in Dia.2, where Black 1 and 3 work beautifully with Black, and the two stones farther up the right side to map out a really large area. White cannot get up off the third line on the lower side. It is best for him to play 2, then leave that part of the board for the time being, perhaps choosing the kakari at 4 for his next move. White . has its back to a solid wall of black stones, and must be abandoned for the forseeable future.

If it does not occur to Black to play 1 and 3, then an extension to $b$, or a kakari in the upper left corner, would be almost as good, but Black $a$ would be a mistake.


Dia. 2


Dia. 3


Dia. 4

This play, shown in Dia.8, does not take advantage of Black's strength, and becomes a sort of wasteful overkill directed against White ., while doing nothing to halt White's movements on the lower side. Considering the number of black stones in the area, White . should die a natural death without Black 1 having to be played at all.

In a position like Dia.4, however, where Black does not have the reinforcements that he had before, Black 1 is a good move. This time, if White . got loose, Black could find himself attacked both above and below. Black would no longer want to push with 1 and 3 in Dia.5, because White could climb up onto the fourth line with 4 and 6.


## Dia. 5

Dia. 6

If White had a stone already in place further to the left, he could even reach the fifth line by playing 6 at $a$. If Black tried to cut under White 4, as in Dia.6, White would push him down with 6, block at 8 , and Black would have to crawl away, if he could, along the second line.

## (3) Play Away from Strength

This is an important principle of the game, and it applies both to your opponent's strong positions and to your own. To play close to enemy strength is ineffective, and sometimes dangerous; to play close to your own strength is inefficient.

The professional game introduced in Dia. 1 below started with shimari and extensions all around the board, followed by a joseki in the lower right corner that gave both sides strong positions. Immediately after it, White played 1 and 3 to trim down Black's territory on the right aide, choosing,


Dia. 1
as only made sense, the more open part of it for his intrusion.
His choice serves as the first illustration of the main point of this section.

For comparison, see what happens in Dia.2, when White plays 1 on the wrong side, and Black drives to the left with 2 and 4 . Black is doing a great deal to strengthen and enlarge his area in the upper right with these moves, while White 1 and 3 fail to harm Black's strong lower right corner at all. The few points of territory that White may be able to take away from Black in the area around 1 do not add up to much of anything.

But we are mainly interested in the plays that followed White 1 and 3 in Dia.1. White was thinking, perhaps, of Black 1 and 3 in Dia.3, which are a kind of joseki in this shape, and which give him the chance to play a very nice keima at 4 . He is threatening to cut off and surround the shimari in the upper right corner, but if Black defends with 5, White can combine 4 with another keima at 6 to take control of a huge potential territory on the upper side.


Dia. 2


Dia. 3

This sequence, in which White simultaneously reduces Black's territory and builds up his own, puts him well out in front. The reason is that Black 1, 3, and 5 violate the principle of playing away from strong stones, in this case, the stones in the lower right corner.

Black, being a professional player, was well aware of this, and so he came up with a more interesting and effective sequence. In order to attack White without causing a redundancy of power, he played 1 in Dia.4. White defended his weak stones with 2, and Black drove deep into his opponent's potential territory with 3,5 , and 7 , revenging himself fully for the damage that White was causing on the right side. Black 1 is not the kind of extension to be played all the time, but the particular circumstances of this game made it work well. The trick of leaving strong stones to look after themselves in order to break ground in some new direction is always useful, one of the easier techniques to learn and one of the most rewarding to put into practice.


Dia. 4

## (4) Thickness and Walls

A wall, as the word is used in go, is a solid, or nearly solid, line of stones that does not face the edge of the board. Thickness refers to a position with no weak points. Pushing operations and joseki often produce walls, or thickness, or thick walls, in the opening, and the key to handling them can be partly found in the principle of the previous section. It is always wrong to play close to thickness. It is similarly unwise to play close to a wall, since that either causes an inefficient formation, if the wall is one of your own, or leads to being attacked, if the wall is one of your opponent's. A wall, however, is inherently useful for making territory, and is foolish to ignore. It is extremely desirable to extend from your own walls and towards your opponent's, but at the same time, it is desirable to do so at a distance that does full justice to the power of the wall. The professional game which we have taken to illustrate this section shows several examples of the proper technique.

Dia. 1 gives the moves that we are interested in. The joseki played in the lower left corner has left Black a thick group with a wall facing up the left side, and White sets about trimming down Black's area by pressing on the black stone in the upper left corner with 1 .

White 1 does not keep Black from taking territory on the left side, as eventually be did by playing 8 , so it is fair to ask why White did not put his stone down at 1 in Dia.2, invading the left side and also making a pincer attack against Black,

Actually, this gets White into trouble. Black counters with 2 and 4, creating a serious cutting point at $a$, and with his thickness in the lower left, he has White 1 in an uncomfortable position, too. White has very little to hope for in the coming fight. 'Stay away from thickness' is a basic principle of go, which White 1 in Dia. 2 blatantly violates.


If we turn things around as in Dia.3, however, White's pincer attack at 1 becomes a good move, better now than White a would be.


Dia. 3
But in the game under consideration, White 1 in Dia. 4 was correct. White was hoping that Black would answer at 2 and let him extend across the upper side to 3 . In order to take advantage of the wall made by 1 , he should go that far, or to a at the very least.


Dia. 4
Black 2 in Dia. 4 is a big move, but somehow it looks narrow and inadequate in relation to the thickness in the lower left corner; you do not have to be a strong player to appreciate this. White's full extension to 3 is a more efficient play, and so Black rejected this diagram.


Dia. 5
Instead, he took the point on the upper side for himself, as shown in Dia.5. Since he was extending toward a white wall, he did not want to get too close, but at the same time, he did not want to play too far away. Practiced judgement wavers between Black 1, the move played, and Black a, which would still have left White not enough room for a fully efficient counter-extension.

If Black had extended one line further than he did, playing 1 in Dia.6, White would have cut in behind him at 2, with space for a good extension to 4 in front of him.

Black would lack a similar amount of space to the left of 1 . His best extension would be into the center with 3, but Dia. 6 is a clear failure for him.


Dia. 6

To return to the actual game, White next played 1 and 3 in Dia 7, building a thick, high wall, and Black immediately extended toward it with 4, to forestall a kakari against the upper right corner. A move like 4 is so important that it becomes almost a reflex in an experienced player. It is not necessary to come very far down the side to keep White from getting full value for his thickness. Black could, as a matter of fact, have afforded an extension to $a$, but he did not need to go that far; it would have been unsafe for him to exceed the point $a$.

Black 1 in Dia. 8 comes one step too close to White's thickness, and invites disaster. After preparatory plays at 2 and 4, White invades at 6 , whereupon he and Black chase each


Dia. 7


Dia. 8
other out into the center in the sequence through 10. Black gets away, but White 12 strikes into the upper side.

Black is going to lose quite a bit more there than he has taken away from White in the lower right, and the weakness of Black 1, 7, 9, and 11 may plague him for the rest of the game.

Looking back to Dia.7, in the actual game both players had managed to deal successfully with each other's thickness. The positions on the left and right were roughly parallel to one another, neither player having as much room to extend up the side as he would have liked. In spite of that, however, there was still room enough for two quite large plays, and the players did not let their disappointment deter them from making what use they could of their strong positions.


Dia. 9
White's next play was 1 in Dia.9, and Black matched it with 2 on the other side of the board. These plays seem about equally valuable; White could just as well have taken the upper left corner with a, leaving Black to move another length down the right side to $b$. Either way leaves the black and white positions in equilibrium, and attention shifts to the largest remaining open spaces, on the upper and lower sides.

A way for White to deal with the latter-not, as it


Dia. 10
happens, the way he chose, but perhaps the way he should have chosen -is given in Dia.10. White pushes with 1 and 3, then immediately extends toward the thick wall that this creates for Black by playing 5 , coordinating all his stones very well.

## (5) Open at the Bottom

The position in Dia. 1 is rather artificial, but it illustrates an important concept in go. White has played a joseki in the lower right that gives him a strong outer wall in return for the corner territory. Now it is Black's turn, and it would be proper for him to extend toward White's thickness by playing $a$ or 6 . Which of these two points is better? The key to this situation is the black stone marked


Dia. 1
Black 1 in Dia. 2 is wrong. White will, of course, make a kakari at 2, and after Black 3, he can build toward quite a large area with 4, or some such move.


Dia. 2

The right move for Black to make is 1 in Dia.3. White 2 and 4 are similar to 2 and 4 in the previous diagram, except that now White's flagship territory has a hole in it below the waterline, for Black can jump out from, to $a$, a play that reduces White's territory by a surprisingly large amount. Considering this, it would actually be better for White to make his kakari from the other side, at $b$, or to take the large point at $c$ on the upper side, than to play 2 .


Dia. 3
Black should not panic and jump out to a with his next move, for at this early stage of the game other points are bigger. Thus White may get the chance to plug the leak by playing at the point between a and ,, but the fact that he needs this third move to seal off his territory is enough to show that 2 and 4 are inefficient. Black, makes the lower side an unimportant place for either player to play.

This condition is called 'susoaki' in Japanese, a word that means 'open at the bottom'.

## (6) The Third Line and the Fourth

Dia. 1 shows the position after thirty-five moves in a recent championship game. A running battle had given White about thirty points of territory along the upper side, while Black had the beginnings of a sizeable territory in the lower left quarter of the board. White made the kakari at 1 to keep Black's territory under control, and then extended to 3 . In this section, we shall study his reasons for playing 3 on the fourth line, and the consequences of his doing so.

But first, while we have the opportunity, we want to mention Black 2. This is not the usual way to answer a kakari, but here the conditions on the left side made it correct. Black 2 in Dia. 2 comes too close to the three stones marked, to be efficient. Especially considering that the corner can still be invaded at the $3-3$ point, Black is getting nowhere near enough territory for his effort.


Dia. 1


Dia. 2

But to return to the main question, what made White play 3 in Dia. 1 on the fourth line?

Dia. 3 shows what happens when White plays on the third line. Black strikes with 2 and 4 ; a stone on the third line always invites this kind of pressure from above. Black's plays not only enlarge his territory, they also intensify the pressure on White's eyeless center group. Furthermore, since White . is on the third line, it will be hard for White to make a large amount of territory on the lower side, even if Black never invades there. In the opening, it is not a good idea to string all your stones out along the third line like this.

In spite of the preceding tirade, White 1 in Dia. 3 is not really a bad move; it is still too early in the game to make positive judgements. It certainly looks as if circumstances call for an extension on the fourth line, but it is impossible to criticize the extension on the third line very harshly, especially since it is right in so many other positions.


Dia. 3


Dia. 4

In Dia.4, for example, where Black has only, on the left side and White . is on the 4-4 point, White should definitely extend as shown. To play White 1 at a would only be to ask for an invasion of the lower side.


Dia. 5

A stone on the fourth line always invites an invasion, and in the game under study, Black made a landing straightaway with 2 and 4 in Dia.5. Black 4 confronted White 1, aiming under and behind it, in the same way that White's kakari at . had confronted Black, a few moves earlier, and Black now had the initiative.


Dia. 6
White 1 in Dia. 6 looks like a reasonable pincer play to make to protect the white stones to the left, but professional judgement rejected it. By playing that way, White seems to be spreading himself too thinly. Black 2 attacks the stone in the lower right corner. At the same time, White's center group is weak, and even after White 1 , the possibility of Black's invading and attacking the group on the lower side exists, so White may soon find himself in trouble in one place or another.


Dia. 7
It was better for White to play 1 in Dia. 7 and tolerate Black's extension to 2 . White 3, Black 4, and White 5 followed. After this Black attacked in the center, but since White had formed two strong groups on the lower side, he had no trouble defending. White 3 reduced Black's territory, too, another advantage in White's choosing this line of play.
(7) Reverse Strategy
'If you want to play on the right, push first on the left, sounds like a fragment of Oriental nonsense, but it is often the right strategy in go. For an example let's look back to an earlier stage of the game that appeared in the previous section.

The situation was then as shown in Dia.1, and Black's main concern was to attack the two white stones marked ., against which he had already made a pincer play. His own pair of stones in the upper left corner, however, were none too strong themselves, and in particular, White was threatening to cut through at $a$. Black's task was to strengthen himself in such a way as to keep up the attack he had started.

The trick was for Black to push against the white stones on the upper side, the ones he was not interested in attacking.


Dia. 1


Dia. 2

Black 1, 3, and 5 in Dia. 2 were one way of doing this. Although the last of these plays was clearly sacrificial, it forced White to play 6 and 8 , while Black connected at 7 and jumped out to 9 . He now had a strong, uncuttable line of stones, and had greatly improved his position in relation to the two white .'s, which were still as weak as ever.


Dia. 3

Moreover, he was threatening to shut White in by playing a, again making use of Black 5 and isolating the three white stones in the upper right corner. White had to defend with 1 in Dia.3, and Black continued to push against the upper side with 2 and 4 . When he finally struck with 6 , the attack he had been aiming toward, he had a long and solid wall to squeeze White against. This was a good example of reverse strategy being used to buttress an assault.

To see reverse strategy being used in another way, let's look at the position in Dia.4. There the part of the board that calls for immediate attention is the upper side, where a weak white stone lies next to a weak black group. White must do something right away to keep Black from playing $a$, but in the longer run, the region that is most important is on the left side. For one thing, the area that Black has mapped out there is bigger than anything else on the board, and for another, the three stones marked, are weak, so that White has a good chance to attack.


Dia. 4

Since White wants to enter the area on the left, he should start by pushing against Black on the right, by playing 1 in Dia.5. If Black answers passively with 2 , White will push along with 3 and 5 , then jump out to 7, building a canopy that promises a great deal of damage to the left side. Black 2, 4, and 6 do not have a similar effect on the right side because of the strong line of stones marked. that White has there.


Dia. 5
Rather than allow this, Black will play 2 and 4 in Dia.6, but now White is moving smoothly and naturally to the left. It is as if he has thrown himself at Black, and Black has flung him back in just the direction he wants to go, with added momentum.

In this game, Black now faced a difficult choice of moves. Eventually he decided to cast himself headlong into the attack with 1 and 3 in Dia.7, even though it meant driving White directly into the area he had been hoping for, and

left him with frighteningly little actual territory. White 2 in this sequence is another example of reverse strategy that we shall examine; first White elbowed Black in one direction, then he shot ahead in another.


Dia. 7


If White had just made another one-point jump forward, as shown in Dia.8, Black would have welcomed the opportunity to defend the left side with 3 . White 2 would not be helping White's cause very much; he would still be two moves away from getting out into the center.

If Black defended with 3 after White's diagonal extension in Dia.9, however, White could escape with one move at 4 . Once his running group is out of danger, he still has room to invade the left side or the upper left corner, and Black has a running group of his own that can come under attack.

## (8) Light and Heavy

The concepts of light and heavy play are important in the opening and the middle game. Both of them refer to the way a player handles himself in parts of the board where he is weak. 'Heavy' is a term of criticism, used to describe a stubborn, slow-witted play that only serves to make a group of weak stones bigger, without strengthening it or counterattacking in any significant way. A heavy group is one that has grown too fat to be given up, but is serving no purpose except that of providing the opponent with something easy to attack. A light group is one that, although weak, is not in a position to be effectively attacked, or if attacked, can be sacrificed. Light play refers to the kind of fast and slippery style that gives the opponent no big targets to hit. Let's look at a couple of examples.

In the game in Dia.1, White has just played ., isolating one of Black's stones and advancing toward the upper right corner. How should Black answer?


Dia. 1


Dia. 2

Black 1 in Dia. 2 is the right way to bring the isolated stone out into the center, but here it is a heavy move. White has room to extend to 2 ; now his group has a base on the side and Black's does not. Caring for this heavy group is going to be a nuisance to Black for some time to come, while attacking it will be a source of both pleasure and profit to White. He can build up his own strength by chasing it, then invade at a, for example.


Dia. 3

The correct, light play is Black 1 in Dia.3, which offers to let White have , and the territory around it on the upper side, but takes full compensation in the upper right corner. White has no choice but to accept the offer, for after Black 1, Black a would become both an escape and an attack. First White exchanges 2 for 3 -this profits him on the left side, and if he is going to capture Black ,, he will have no need to play 3 himself as an eye-making move-then he traps Black's stone with 4 and 6 . Black is perfectly happy. The $4-5$ exchange has made his upper right corner very strong, and Black ,, which has been only loosely captured, remains as a sort of tender spot in the belly of White's territory.

Light play is especially called for in reducing large areas that the opponent is building up, and as an example of this, we return to the game we left on page 59 . Dia. 4 shows the position reached. Black has laid the foundations of a giant territory in the upper right quarter of the board, and it is White's move. If White contents himself with building


Dia. 4
his own territory by extending to 1 in Dia.5, Black will play 2 . White 3
makes a double-wing formation around the shimari in the lower right corner, but Black's territory is developing on a larger scale, and can grow faster, than White's.


Dia. 5
Therefore, White should play 1 in Dia.6. This is a light move. White does not go in too far, lest he be attacked, but settles for making a modest-sized dent in Black's prospective territory. The sequence from 2 to 6 is natural, and next White leaves his new, light group as it is, to extend to 7 and 9. Compare Black's territory now with what it was in the last diagram, taking note that White can split the upper side by playing a at some time in the future. Even though White 1, 3, and 5 do not have much in the way of eye shape, since they are riding down Black's territory from above, there is no very profitable way for Black to attack them. His next move was actually an invasion at the 3-3 point in the upper left corner.


Dia. 6
What if White had made a deeper invasion, choosing, we imagine, 1 in Dia.7? In some circumstances this would be a good move, but not here, and any experienced player, seeing White 1, would think to himself, 'too heavy'.

Next, our experienced player would ponder for a bit. It is one thing to accuse a move of being heavy, and another to see how best to take advantage of the mistake.

Black $a$, White $b$, Black $c$ in Dia. 7 are one idea that comes to mind,


Dia. 7


Dia. 8
but after some thought, Black 2 in Dia. 8 seems to work better. The sequence up to White 13 flows naturally, and Black secures his territory on the right while attacking White with 6 and 12.

White has, of course, reduced Black's territory by much more in this diagram than he did in Dia.6, but on the other hand, he has not made any territory for himself. Furthermore, Black has gotten to play 2, 4, 8, and 10 , making a wall in the center which will support an effective invasion at a on the left side.

With 13 White has gotten out into the open, but his group still does not have two eyes, a fact that has consequences all over the board. On the lower side, for example, Black can extend to $b$. Normally White would have no trouble invading behind this extension, but now, with one weak group already floating in the upper right, he may not be able to afford another. All in all, White's invasion has turned out to cost him a great deal.

There is one more example for us to look at, this time of plays designed to make the opponent's stones heavy. Most of the early action in the game in Dia. 9 has taken place in the lower half of the board, but stable positions have been reached all around, and Black's low-lying, strong stone at, makes the right side an uninviting place to play, so attention centers on the large open space on the upper side. It is Black's turn.


Dia. 9


Dia. 10
Black would like to take the big point for himself with 1 in Dia.10, but that does not work out very well. White leaps on his back with 2 and 4 , forcing Black 3 and 5, and Black 1 becomes an inefficient stone. Black would never have bothered to make such a small extension from a safe position if 3 and 5 had been in place already. White builds on a large scale with 6 and 8 and takes the lead. (If Black failed to play 7, by the way, White 7 would seal him in tightly).

As a way of preventing this bad result, Black might try the diagonal extension at 1 in Dia.11. White would then take the large point at 2 . Black turns his attention toward White ., but this stone is light, and hard to attack. If Black makes a pincer attack with 3, White lives easily with 4,6 , and 8 . White 2 and the stones in the lower right pretty well nullify Black's outward-facing wall.

After White 2, it would be much better for Black to exchange 3 for 4 in Dia.12, so as to make White heavier, before attacking with 5. Now White cannot reach the living shape that he got before, and Black has something to hope for, but still, White can handle himself by playing 6 .


Dia. 11


Dia. 12


Dia. 13

The best way is for Black to make White heavy from the very beginning by playing 1,3 , and 5 in Dia.13. Again, White will take the large point on the upper side with 6 , but now when Black makes his pincer, he has three stones to attack, instead of just one or two. Black 7 takes a key point in this shape, and White does not want to move into the center with a, because Black will turn him with $b$, forcing him to make an empty triangle at $c$.

White cannot afford to prevent the attack with 1 in Dia.14, letting Black get the key point at 2. It is rather pointless for White to extend toward a stone like, ; on the right side neither he nor Black stands to make territory at any great rate.

The correct way for White to answer Black's pincer, following Dia.13, is to run into it head-on with 1 in Dia.15. Black can shut White in by playing $a$ or, as seems best here, he can come down with 2 to keep White short of eye space. White jumps out at 3, and Black 4 works well. Later on, Black will return to attack White's heavy group, using pressure against it to gain profit on the upper side, or elsewhere on the board.


Dia. 14


Dia. 15

## (9) Attack and Defense

By now the reader has seen many examples of running battles, that is, of groups without adequate eye space at the side of the board being chased out into the center, and he should have a fairly good idea of the disadvantages of being under attack. The main one is that you cannot very well stop to make territory while you are fleeing for safety. At the same time, if your opponent can manage to form territory while chasing you, then he will be making profit in the most efficient way possible. Even if he cannot build territory directly, he can usually derive some kind of advantage from threatening you. Every unsafe group you have to look after is a liability; every weakness in your position a source of profit to your opponent.

The techniques of attack and defense belong mostly to the middle game, but the battles waged there have their


Dia. 1
origins in the opening, and their strategic implications need to be understood there. We shall bring this chapter to a close by looking at three opening situations in which play was guided by considerations of attack and defense, starting with a very simple one, illustrating defensive strategy.

You may not recognize the joseki that has been played in the upper left corner in Dia.1, but it doesn't matter, since the sequence of moves there is irrelevant to our discussion. It is now White's turn. If you run your eye over the board you will see several large points, but one of them is much more important than the others. No one can afford to miss a play like this.

White must without fail connect at 1 in Dia.2. That lets Black extend to 2 on the right side, but White has no weak groups to worry about, and from this point on he can play with a free hand.


Dia. 2


Dia. 3
If White plays 1 in Dia.3, aiming at the invasion point a, Black will cut at 2 , putting the white stones in the upper left corner on the run. White will have no time to play a until this group is out of immediate danger. Furthermore, with one group drifting unsteadily in the center, he is unlikely to be able to afford an invasion at $b$ on the upper side.


Not only that, but his group on the left side is rather weak, and $c$ could easily become Black's sente; this extension is not very wide, but it strengthens the lower left corner significantly. White's thirst for profit on the right side will end up costing him dearly in every other part of the board.

White 1 in Dia. 4 is a bad mistake which we trust none of our readers would make. Closing off the left side in this way is much less important than preventing the cut. Black plays 2, and White has the same trouble on his hands as in Dia.3.

As another example of defensive strategy in operation, we shall study the moves shown in Dia.5, following Black's pincer play at 1 and extension to 3 . White's counter-extension to 4 had the advantage of keeping Black 1 and 3 weak, although White $a$ on the left side would have been just as good. Black's keima at 5 prompted White 6 and 8 in the corner, and although these moves more or less followed joseki, they were guided by considerations of attack and defense. Let's start by looking at White 4.


Dia. 5


Dia. 6


Dia. 7

One joseki variation has White making pincer attack on the right side as shown in Dia.6. In this game, however, after Black marches out with 2 and 4, White is in a predicament, for his three stones on the lower side do not have eye space yet, and the strong black stone marked , in the upper right corner leaves him with no good play on the right side. The black group including 2 and 4 is weak, but one weak group between two weak enemy ones is a strong position to have.

If, were a white stone, then White 1 would not be in so much danger, and White would have the upper hand, but as it stands, Black, makes White's pincer attack turn out badly. White 1 goes against the principle of not confronting strong stones.

Thus White played 1 in Dia. 7 instead, and Black built up the right side with 2 . White 3 and 5 were extremely important moves. They made corner territory, they undercut Black's right side, and most of all, they gave White a sure, living shape.

If White omits these moves to occupy the large point at 1 in Dia.8, Black slides into the corner at 2. White's stones are now rootless, and as he flees blindly into the center, Black strengthens himself on one side with 4 and takes territory on the other with 6 . To be attacked like this, when there is nothing to counterattack against, is intolerable. We have here the archetype of a heavy group on the run, a perfect example of a game going down the drain because of failure to take the most elementary defensive precautions.


Dia. 8


Dia. 9


Dia. 10

Before going on, it is worth noting that White can live by playing 1 in Dia.9, instead of $a$. This gives him sente, but is incorrect all the same. Black 2 strengthens the group on the lower side appreciably. White $a$, aiming under the black stones on the right side and leaving the group on the lower side in a more vulnerable condition, is a play well worth taking gote to make.

Since we are talking about attack and defense, it is interesting to see what happens if Black becomes overly aggressive and plays 1 in Dia.10, instead of the keima at $a$.

White answers with 2 in Dia.11, and pushes out into the open while Black crawls along the third line. This time Black


Dia. 11


Dia. 12
is not making so much territory on the right side, and White can make good use of his wall by attacking the two stones on the lower side. If Black answers White 2 by pushing through and cutting, as in Dia.12, White is in a good position to put up a fight, since Black has three weak groups to look after at once.

Dia. 13 shows the first sixteen moves of the last example game in this chapter. After the initial corner moves, White played 6 and 8 on the lower side, an alternative to a shimari in the lower right corner. Black made a kakari at 9 , then went to the upper left to build territory on the upper side.

After Black 15, White made a five-line extension to 16 . The key to understanding this opening turns out to be White 10 , sitting firmly on the third line.


Dia. 13

If White had put this stone on the fourth line, as shown in Dia.14, Black would have followed an entirely different strategy, playing 2 on the right side instead of making the kakari at a. Indeed, this extension in front of a shimari is the normal move to expect, and the reader may be wondering why it was not chosen in the actual game.

Black 2 in Dia.15, however, violates the principle of not playing in the direction of strong stones. It is a good move as far as the upper part of the board is concerned, but it has practically no adverse affect on White 1 . That is, White 1 is too strong to be threatened by any black extensions toward it, but it is too low for Black to have to worry about White's making a lot of territory by extending up from it.


Dia. 14


Dia. 15


Dia. 16

After White's sixteenth move in the actual game, Black would have liked, among other things, to invade the right side, but that was out of the question. If he had the temerity to play 1 in Dia.16, White 2 would give him something to think about. Two separated, weak stones like 1 and, have no business being on the board this early in the opening. Black may think that he is destroying his opponent's territory, but he is going to have his hands full keeping his invasion from turning into a suicide mission, while White does as he pleases. White was well aware of all this when he made his extension up the side.

An invasion does make sense at this point, but the place for it is not on the right. If we think of the strong, solid position occupied by White ., an invasion there does not seem like such a good idea after all, even if it could be managed without being cut apart by White 2. It does not pay to try to fight against a stone like ..

Dia. 17 shows a more promising idea. Black begins by developing his weak stone with 1 and 3 , helping his opponent, in a way, by removing any possibility of breaking open the right side, but limiting White to a modest amount of territory there, taking advantage of the low position of White .. Next, if White plays 4, Black invades at 5 . Black 1 and 3 make it that much harder for White to fight back, and although Black may not be able to capture either of the two stones that his invasion conies between, he should be able to keep White from making any territory at all on the lower side.


Dia. 17

In the actual game, White did not give in so easily to Black's tactics, but resisted by playing 1 and 3 in Dia. 18 instead of 4 in Dia. 17.

The purpose of this combination was to put a cutting point into Black's formation, so that White would have something to aim at in the fighting ahead;


Dia. 18
this, too is one of the techniques of the opening. Black, undismayed, buttressed his line with $4,6,8$, and 10 , then invaded at 12 , and what came next belongs to the middle game. In case you are worried, however, if White pushes through and cuts with 1 and 3 in Dia.19, Black can answer at 4 , and all will be well.


Dia. 19

## CHAPTER 3

## Ten Problems

It has amused us, in the first chapter, to collect and classify some of the more common moves and shapes of the opening, and in the second, to try to organize the subject on strategic principles, but we have been aware all along that what the reader is going to have to do, when it comes down to actual play, can be best described as looking for the big points on the board and deciding which is biggest. Theoretical knowledge will help him, but for the most part he will have to rely on his own powers of visualization, which are best sharpened through experience. The following are ten opening situations that have confronted the author or his opponents at various times in the past. Each is presented as a problem, and you are invited to look at the game diagram and select your move. On the three pages following each problem will be found an answer diagram showing various reasonable choices, ranked from 10 points for the best move downwards, and some explanation of what the problem is all about.

There are many times in the game of go when it is impossible to decide which of two or more likely-looking moves is better, and there are many times when one move can be probably identified as the best, but several others are close behind in merit. There are also times when we simply do not have a clue; no one can pretend to say how the first four stones of the game should be played, for instance. This is why go admits so many different styles of play, and remains fascinating even to professional players.

The situations in the following problems, however, are not of this vague type. As the answer diagrams will show, there will always be several fairly good moves, ( 7 points or above), and the reader should congratulate himself for finding any of them, but the author does not have any great qualms in ranking the best choice well ahead of the others.

Problem 1
Black to play

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The focal point of the game as it stands now is the unsettled position on the right side. Black should make a pincer play at either of the two points marked 10, attacking the white stones marked. while forming territory in front of his shimari. If you chose to play one line higher, at one of the points marked 8 in the upper right, you can take credit for finding the right direction of play, but you are being too timid.

Dia. 1 After Black 1, White should push out into the center with 2 and 4 , then jump to 6 , (or, if he prefers, keep pushing at a). This starts a four-way fight between two weak black groups and two weak white ones. It will be difficult, but Black has already staked out his claim on the best ground by playing 1 .


Dia. 1

Dia.2. Black 1, capturing two stones and tieing Black's forces together, is an important point, but White 2 makes White's position safe, too, and robs Black of territory on the right side.

Dia.3. Similarly, if Black plays 1 and 3, White will extend to 4 , with nothing to fear from Black's cutting at a.


Dia. 2


Dia. 3


Dia. 4


Dia. 5

Dia.4. If White answers Black 1 directly by playing, say, 2, Black will capture at 3 . White, his three stones on the right side sandwiched between two strong black positions, faces a dreary prospect. White cannot play this way; the fight in Dia. 1 is inevitable.

Dia.5. If Black plays on the left side, 1 looks best, but then White will play 2,4 , and 6 , and be one move ahead on the right side of where he was in Dia.1.

Dia.6. For your reference, the position in the lower right corner arose from this pincer joseki.


Dia. 6

## Problem 2

Black to play



This game has started with some heavy action in the lower right. White has lost a couple of stones, but he has lived in the corner and made good shape in the center, and the fighting in that quarter of the board is over for the time being. Now Black needs to enter the huge open space in the upper left, which could rapidly become White's territory if left unattended.

Dia.1. (correct) The joseki from 1 to 5 was made to order for this occasion. White's prospects for a large territory suddenly vanish in the face of Black's plays.


Dia. 1
Dia.2. Black 1 here is a bit off the mark. Black does succeed in eliminating white territory on the upper side, but his own stones are weaker than in Dia.1, and White can build on the left side with 6. Black has made the mistake of playing against a strong white group, when he should have put his pressure on the weaker stone on the three-three point.



Dia. 3
Dia.3. There are various other ways of playing kakari against a stone on the three-three point, which have been given credit in the diagram on page 116. To take one of them, if Black plays 1 here, ( 8 points), White will answer at 2 , making territory on the left side. Black 3 has little effect on the white group to the right, where White . is standing rock-steady on the third line. If . were on the fourth line, however, Black 1 and 3 would be good plays.

Dia.4. Black 1 here is a large play as regards the lower side, but White will take sente and make a larger play on the upper side. Similarly, if Black played a or $b$, White would answer at 4.


Dia. 4

## Problem 3

Black to play



The obvious feature in this problem is the massive wall Black has made in the lower left corner. What should he do with it? He has already started correctly by playing kakari at, ; now he should keep on by making a one-point jump, ( 10 points), setting his sights on a really large area. A more conservative extension down the left side, (5 points), would be too close to the wall to be efficient.

Dia.1. (correct) When Black plays 1, White should respond immediately with 2 and 4 . Black can afford to play 5, aiming at the invasion at a. Black 5 at $b$ would be an over-concentration of strength in relation to the lower left corner.

Dia.2. This position confronted the author in one of his games. The move he actually played was 1 here, and when his opponent answered at 2 and 4, Black got a better result than in Dia.1.

Dia.3. But if White had foregone the usual play at 4 in the previous diagram, and siezed the key point with 4 in this diagram, keeping Black from making adequate use of his wall, he would have had the lead.

If you appreciate the value of White 4 , then you can see that Black 1 at $a$, ( 6 points), provoking an immediate reply at 4 , would be bad strategy.



Dia.4. Perhaps you are worried about White's playing 1 here. This may become a serious threat in the future, but for the present White is only committing himself to the defense of a heavy group of stones while reducing his own corner territory, (assume Black a, White 6, Black $c$, etc.). Accordingly, for Black to play 2 before White gets the chance to play 1 is only a fifty per cent move right now.

Dia.5. Coming to the right side of the board, notice that Black 1, even though it is the usual idea after White has played ., is not appropriate here, because Black's position on the lower left is open at the edge of the board.

Dia.6. It would be better for Black to attack in this way, for with his outward-facing power in the lower left, he need not be afraid of getting into a running fight. But Black 1 in Dia. 1 is more important than these moves.

## Problem 4

Black to play

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In this game Black is developing a large territory on the lower side, while White is doing the same on the left side. The pivotal point in regard to both of these areas is the keima marked 10 points. The invasion on the upper side, ( 7 points), is a big move, too, but if Black plays it now, and starts a running battle, he is likely to end up by helping White to make sure territory out of the left side. Conversely, if he invades the left side, ( 4 or 5 points), White should be able to secure the upper side while attacking him.

Dia.1. (correct) Black 1 threatens to make so much territory on the lower side that White is almost forced to do something about it. White $a$ would not be enough: Black would answer at 6 . It is hard to be sure of the best entry point, but White 2 seems likely, and the moves up to 5 are a possible development. By attacking, Black is taking the initiative in the game. If he becomes strong in the center, he can invade effectively at c. If he gets some stones in place to the left of White's group on the right side, then Black $d$ may assume some attacking force.


Dia. 1
Dia.2. If White answers 1 this way, Black will play 3, 5, and 7, followed by 9 , $a$, or 6 , which would be more than White could bear to see. Black should not, however, play 3, 5, and 7 before 1 , since they reduce the value of Black c .


Dia. 2


Dia. 3


Dia. 4

Dia.3. Black 1 here is an example of bad technique. Although it does build up Black's territory, it builds up White's to an even greater extent. If Black had played 3 first, (the correct move), and White played 2, Black would not then play 1.

Dia.4. If Black plays 1 here, or at $a, b$, or $c$, White will get the key point with 2. This aims into Black's lower side, and more important, see what it does for White's prospects on the left and upper sides.

## Problem 5

White to play



It should be fairly clear that the biggest play lies somewhere on the lower side, so the issue becomes what kind of extension White should make there. To begin with, since there is nothing much for White to aim at on the right side, there is no point in extending on the fourth line. That leaves the third line, and for reasons to be explained, the ogeima, (10 points), is best. One point to the right would be too meek. Farther to the left would be too adventurous.

Dia.1. (correct) Since Black has gotten well dug in front of White's shimari with ,, White must think about defending his rear. White 1 settles things nicely. Black will then take the large point in the upper left corner.


## Dia. 1

Dia.2. If White fails to extend on the lower side, Black will play 1. White has to defend at 2 , or at the point directly above 2 . Black is expanding on a large scale, while White's corner is clearly cramped.

Dia.3. If White dares to ignore Black 1, Black 3 will follow, and White will have to resort to emergency measures - starting with $a$-to make some kind of living shape.


Dia. 2


Dia. 3
b elsewhere


Dia. 4


Dia. 5

Dia.4. White 1 here is in the right direction, but it goes a little too far. Considering the black stones nearby, White cannot afford to leave the opening at $a$. If White played 1 , Black would play at the three-three point in the upper left corner, just as in Dia.1, but later. . .

Dia.5. Black could come crashing in at 1. If White answers at $a$, he is back where he was in Dia.2. If he answers at $b$, however, Black can live underneath White's stones. Having already lost his chance to extend up the right side, White cannot afford to lose his territory on the lower side, too.


Dia. 6
Dia.6. The attachment at 1 is a big play, enabling White to take the corner, strengthen his own group, and weaken Black's, but Black will leave his group weak and play 4.

Problem 6
White to play



White's two stones on the left side need reinforcement badly, and the diagonal play, ( 10 points), which simultaneously attacks Black's upper left corner, is best. The one-point jump, ( 8 points), is another good point, but it has more to do with the upper side than with the left. The keima, (6 points), would cause an over-concentration of strength after White made the correct diagonal play. The right way to attack the two black stones in the lower left would be from underneath, (7 points).

Dia.1. (correct) White 1 transforms White's frail, vulnerable threepoint extension into a robust, invasion-proof position, and at the same time forces Black 2, giving White the chance to take the large point at 3.


Dia. 1
Dia.2. If Black lets White 1 go unanswered, White attacks in earnest at 3 . Now Black 4 does not work so well. White plays 5 , and there is no way for Black to emerge whole and healthy from his troubled position.



Dia. 3


Dia. 4

Dia.3. White 1 is so large a move that we have awarded it 9 points. It expands White's territory, prevents Black from extending, and aims at White $a$, but it does not stop Black 2 .

Dia.4. This is the sequel to Black's invasion in the previous diagram. Besides making territory, Black is strengthening himself so that he can invade again, at $a$. At the same time, White has a serious cutting point between 3 and 7, and lacks room for two eyes on the side.

## Problem 7

White to play

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A pushing battle is going on in the center, and White's next move should be the keima, marked 10 points. Another push, (8 points), would show the right thinking, but would be too slow.

Dia.1. (correct) After White 1, the natural flow would be for Black to jump out to 2 and for White to defend the upper side at 3. Next Black 4 is correct, but White 1 has made the center group strong enough that White can afford to play 5 on the left side.

Dia.2. If White defended at 1 immediately, Black would push him with 2 , etc., gaining great strength over the left side. White 3 to 9 , while necessary, would be nearly valueless because of Black's strong stones on the right side.


Dia. 1


Dia. 2


Dia. 3


Dia. 4

Dia.3. White's extension to 1 here invites Black 2. Since Black has a etc. in reserve, White . is in some danger.

Dia.4. But after the correct White 1, Black 2 is not so good. White divides Black's two weak groups with 3 and 5. If next Black protects the group on the right, White a captures the one on the left.

Dia.5. Hopefully none of our readers chose White 1 here, a heavy move that just provokes Black's connection at 2. White's center group is greatly weakened by this exchange, and Black can now attack two stones on the right side, with $a$, for instance, instead of just one.


Dia. 5

Problem 8
Black to play

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Weak stones are the key to this problem. Black wants to find some way of strengthening his group coming up from the lower right into the center. Taking note of the weak white group adjacent to it, he should make the full extension on the lower side, (10 points). Lesser extensions in the same direction, ( 6 or 7 points), would not do the trick.

Dia.1. (correct) Black 1 puts White's group on the lower side in an uneasy position. This automatically takes some of the pressure off the black group to its right.


Dia. 1
Dia.2. The author was White in this game. He could see that he needed to invade the left side, so against Black 1 he played kikashi with 2 to get his group out of immediate danger, even though that provoked a strengthening of Black's position with 3, then made a base for himself with 4 and 6 . But Black continued to attack with 7,9 , and so on, keeping White weak while enlarging his own territories.


Dia. 2


Dia. 3
Dia.3. White cannot afford to let Black 1 go unanswered. If, for example, he plays 2 here, Black will shut him in with 3 . Now there is nothing for White to do but play 4 and 6 to live on the lower side, but this has a distressing effect on the white group on the right side.

Dia.4. If Black plays 1 to make territory on the left side, White will gratefully extend to 2 . Now that his own weak group is out of danger, he can aim to attack Black's weak group, (starting with $a$, perhaps), and can easily enter one of the gaps on the left side.


Dia. 4

Problem 9
Black to play



Here it is important for Black to extend down from his shimari, and the three-point extension on the third line is best.

Dia.1. If Black does not extend-if he runs out into the center at 1 , for example-White 2 is enormous. Now White is threatening to wreck Black's corner with $a$, and on the lower side he can swell his territory with 6.

Dia.2. After playing 1, Black need not be afraid of White 2; in fact, he should thank White for giving him a good chance to play 3, threatening the cut at $a$. On the other hand, if White played 3, Black could play 2.


Dia. 1


Dia. 2


Dia.3. A four-point extension is just a bit too far, since a white invasion at $<z$ could easily materialize in the future. On the other hand, Black 1 at a would be unnecessarily cautious and too narrow.

Dia.4- And Black 1 here would leave White a good point at $a$. There would also be the lingering possibility of an invasion at 6 .

Dia.5. Black 1 here defends the corner, but White still gets the big point at 6 .

Dia.6. Here is what followed when the author played Black 1 in this position White went into action on the right side with 2. Even though Black 3 would have been better played at 6 , the result on the whole board up to 15 was in Black's favor.


Dia. 6

## Problem 10

White to play



The board has already been pretty well divided up, all the black and white groups are strong, and it is time for White to make the last move of the opening. The one-point extension on the right side is best. It may seem narrow, but it follows the principle of keeping away from thickness.

Dia.1. If White made one of the moves in the left-hand half of the board, ( 5 or 6 points), his upper right corner would be invaded. Black 1 and 3 challenge White's defenses. If White lets Black connect to the left, he takes a big loss, but if he stops Black with 4, Black can live with the moves from 5 to 11 .

In some circumstances this would not be so bad for White. He becomes solid and strong on the outside, and if there were any weak black stones around, he could recover his loss by attacking them. But in this game all the groups are safely settled, and White cannot afford the loss of his corner territory.

Dia.2. $A$ variation. This time White plays 6 differently, but Black still lives. If White plays a next, Black answers at $b$.

Dia.3. Another variation. Now White has made a diagonal play with 2, and Black has carried on through 9. White 10 keeps Black from making two eyes, but Black pushes out at 11, and White cannot win the coming fight.

White 10 at a would be better, to be followed by Black 10 and White $b$, but the possibility of Black 11 would remain, and the exchange would be in Black's favor.

Dia. 1

Dia. 2

Dia. 3


Dia.4. (correct) After White 1, the invasion at 2 does not work. White 3,5 , and 7 are as before, but now White can block Black 8 at 9 . Black plays atari at 10 and tries to live with 12 , but. . . .

Dia.5. White kills him.
Dia.6. White 1 and 3 here, ( 8 points), would also keep the corner safe, but Black would get to extend to 4 . Besides taking valuable territory along the side, Black 4 aims once more at a corner invasion.

White 1 at $a$, (6 points), or $b$, ( 5 points), would suffer from the same disadvantages.

Dia.7. We suspect that a lot of our readers chose White 1 in this diagram, but this is one of those times when even a two-point extension is going too far. For one thing, there is not much to be gained by getting this close to Black's strong group in the lower right corner. More important, Black can still invade at 2 . White 3 offers the strongest resistance, but Black plays 4 , and against White 5 he lives easily with 6 , 8 , and 10 .

Dia.8. If we read this life-and-death problem out closely, something we do not have to do to realize that White 1 is a bad move, it gets just a bit hard. What if White plays 5 this way? After Black 6 and 8, White can attack with 9 and 11.

Dia.9. Up to 19, White is very close to making the kill, but Black saves himself with 20. If White blocks at $a$, Black will play 6 and win the race to capture by one move, a fact that you can verify for yourself.


Dia. 7


Dia. 8


Dia. 9

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