

Chapter 2 Basic Concepts

1000 Basic Concepts

As for the rules, what was explained in the last chapter was concise enough. You will be able to start playing a game and learn more as you experience many actual games. However, to understand the explanation of the last chapter fully, you would have many questions such as “What do you mean by suffocation?” “Which stones are considered as prisoners?” etc.

Thus you may want to understand the details further. For that purpose, we need to clarify some basic concepts. Some of the explanations here are pretty unique and not mentioned in traditional introductory text books. The author considers them to be essential to understand the true essence of Go.

1010 Moves

A move in Go is the action of a player to place his stone on a vacant intersection of the board.



A lady professional's hand making a move.

This means you are not allowed to place your stone on top of an existing stone! Other than that, you are very free to place a stone at any intersection of the board.

There are only two exceptions to the freedom of making a move on a vacant intersection. These two exceptions are (a) a suicide move described in Article 2 and (b) a move which is recognized as reappearance of the same board pattern mentioned in Article 4.

As mentioned in Article 1, players most commonly make moves alternately. If you make two consecutive moves without allowing a move of your opponent by mistake, it will be regarded violation of the rule Article 1 and referee may judge that you lose the game if it is an official game.

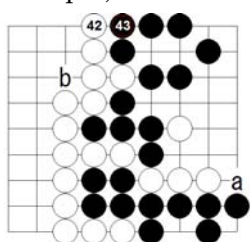
Then, is it your obligation to make a move when it is your turn to make a move? This is a pretty delicate question. There are people who insist that a move is an obligation except at the end of a game. However, it is considered more appropriate to allow a player to “pass” at any time. In fact it is a delicate matter to define the very end of a game unlike chess in which “checkmate” or a capture of the king will be a clear definition of the end of a game.

In Go, there is nothing as clear as “checkmate” of chess as the end of a game.

Passing means an action to clearly indicate to your opponent that you intentionally give up the right to make a move of your turn. Maybe you should say “Pass!” rather loudly for passing. At this point, please remember that passing during a game is not a very wise action. Only very close to the end of a game, the situation arises in which you find

that there is no possible move on the board which gives you additional advantage in scores. Moreover, the time will come, any additional move on the board is of negative value (by reducing the size of your own territory by one point or giving your opponent an additional prisoner).

Look at the sample game we saw in the last section. At White's (42) or Black's (43), if you should pass there, you will experience some disadvantage. If White's (42) were "pass", then Black would make a move at (42) and gain two points. If Black's (43) were "pass," then White would make a move at (43) and gain one point. However, after Black's actual move of (43), there is no place where White should make a move. For example, under the Japanese rules, if White should play "a", that would increase



White's prisoner and result in one point disadvantage. If White should play at "b", that would reduce the size of White's territory for one point.

1020 Three statuses of intersections

As a game goes on, the number of black stones and white stones on the board will increase by the moves of each player. Then each intersection of the board will become one of the following three patterns.

- (a) a vacant intersection
- (b) an intersection occupied by a black stone
- (c) an intersection occupied by a white stone

This is a portion of a board.

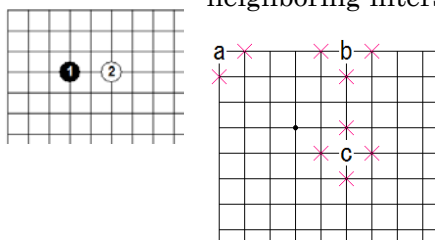
The intersection just between Black's (1) and White's (2) is a sample of (a).

Black's (1) is a sample of (b).

White's (2) is a sample of (c).

1030 Connection of Intersections

Any intersection on the board has a few neighboring intersections and you will notice that there are vertical or horizontal lines connecting the original intersection and the neighboring intersections.



As you can see with the charts above, an intersection at the corners "a" has only two

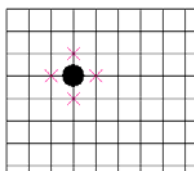
neighboring intersections marked “x”.

An intersection at the edge “b” has three neighboring intersections.

All other intersections near the center of the board have four neighboring intersections, so to speak, to the north, to the south, to the east and to the west as indicated by “x”.

1040 Liberty or Breathing Point.

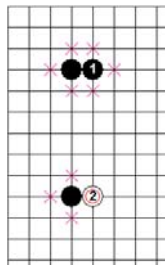
Let us assume that there is one black stone on the board as shown in the chart below. The neighboring intersections of the stone are marked “X”.



Each of the intersections marked X is a liberty or a breathing point of the original black stone.

When such neighboring intersections are vacant, we call them “liberties” and the author often calls them “breathing points”. Please imagine that the black stone is breathing through the liberty points.

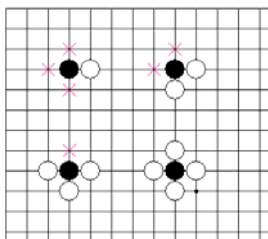
What will happen if another stone is placed at one of the neighboring intersections of it? Here is a clear answer to that question.



(a) If the second stone is of the same color as the original stone (in this case, Black’s (1)), the original stone may not be able to breath from the intersection occupied by the second stone. However, it is regarded that the first stone and the second stones are closely connected now and they form one colony. The liberties or breathing points of the colony are to be counted as the neighboring intersections of the colony itself and not those of the individual stones. In this case, the colony of two stones has six liberties or breathing points.

(b) If the second stone is of the different color from the original stone (in this case, White’s (2)), it will interfere the breathing of the original stone. At the time a second stone comes in, the original stone loses one breathing point out of four and left with only three breathing points. Moreover, if two white stones occupy two breathing points of the original black stone, there will be only two breathing points. Furthermore, if three white stones occupy three breathing points of the original black stone, there will be only one breathing point left. Finally, if four white stones occupy all four breathing points

of the original stone, what happens?

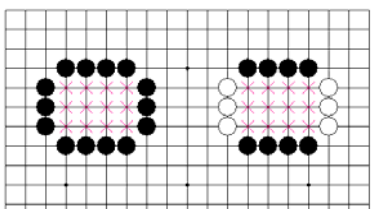


The upper left black stone has three liberties. The upper right black stone has two liberties. The lower left black stone has only one liberty. Look at the black stone at the lower right corner. This black stone has no liberty which means the black stone has been suffocated. A suffocated stone is unable to breathe and is regarded dead. In this case, the White player must capture or remove the suffocated black stone and keep it in the lid of his stone container.

Go is a game in which a stone or stones forming a colony are not allowed to stay on the board if there is no breathing point. In other words, a stone or a colony of stones will be regarded dead by suffocation if there is no breathing point. For this basic concept, we have further clarification in the following section.

1050 Set of vacant intersections

At this point, the author defines a set of vacant intersections if a number of intersections are connected with each other. The chart below will show you a sample of a set of vacant intersections.

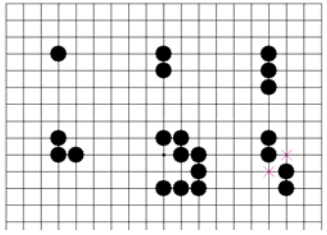


Left hand side shows a sample of 12 intersections as a set surrounded by stones of one color (black). Right hand side shows a sample of 12 intersections as a set surrounded by black and white.

1060 A set if stones of one color

A set of stones of one color is defined as follows:

If a number of stones of one color are connected with each other, we call it a set of stones of that color. A set of stones will be regarded just like a colony of stones of that color. The following charts will show you the sample of a set of stones of one color.



These are samples of set of stones of one color (in this case, black). Lower center pattern is complicated but it is one set. Lower right pattern is showing four stones forming two separate sets of two stones each.

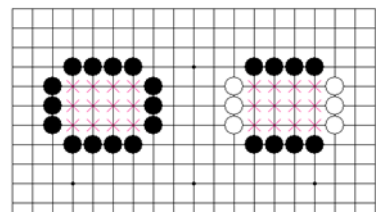
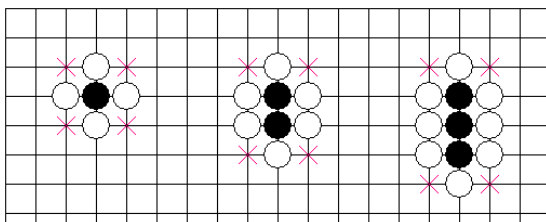
If white stones come to the intersections marked “x”, two sets are totally separate and cannot be connected to each other.

If a black stone comes at either of the intersections marked “x”, they form a single set of black stones.

1070 Territory

Now we are ready to define “territory” clearly.

When a set of vacant intersections is there on the board and all neighboring intersections of the set are occupied by stones of one color, that set of vacant intersections is defined as territory of the player holding that colored stones.



Here the same chart is shown again to show a territory.

The left hand set of vacant intersections of 12 points will be regarded black's

territory since all neighboring intersections are occupied by black stones only. The number of vacant intersections will be the number added to the score. However, the right hand set of vacant intersections cannot be regarded as territory of black or white since some neighboring intersections are occupied by black stones and some other neighboring intersections are occupied by white stones.

1080 Suffocation

As explained in section 1004, when all breathing points of a set of stones of one color are occupied by stones of the other color, the original set of stones cannot breathe freely or is completely suffocated. When this happens, the other player captures the set of stones. That set of stones shall be regarded to have been killed and the stones forming the set must be removed from the board and placed in the lid of the stone container.

The above chart shows a suffocated stone or a suffocated set of stones. At this point, please note that white need not place stones at intersections of diagonal positions marked “x”. This concept requiring no stones at diagonal positions is very important to remember. Note that there is no diagonal line from the black stones to the intersections marked “x”.

The player of the other color shall, at the time he made a move on the last breathing point of the original set of stones, remove stones of that set from the board and keep the removed stones in the lid of his stone container. This is a tradition in case of games played under the Japanese rules. If you apply Chinese rules, you need not count captured stones and you may be able to return captured stones to your opponent who will put such stones back in his own container.

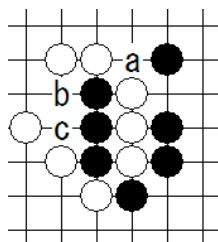
1090 Diagonal Point

At this point, we wish to clarify the meaning of a diagonal point of a stone on the board. For beginners, it would be easy to understand the important meaning of a neighboring point of a stone on the board as explained already.

- (1) If it is vacant, the stone can breathe at that neighboring point.
- (2) If it is occupied by a stone of the same color, they are defined to be connected to each other and they form a set or a colony of stones of that color.
- (3) And if the neighboring point is occupied by a stone of the other color, that stone will interfere breathing of the original stone. So far, it would not be difficult for beginners to understand.

Then, what is the meaning of a diagonal point of a stone? As already explained, a diagonal point is not defined to be connected to the original stone. A stone cannot breathe from the diagonal point even if it is vacant. Another stone of the same color at the diagonal position is not connected with the original stone to form a set or a colony. A stone of the other color at the diagonal position is not interfering breathing of the original stone.

However, a diagonal point of a stone has an important meaning which will be explained here once for all. See the chart below.

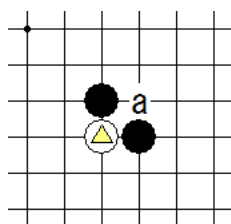


As you can see, three black stones on left are about to be surrounded by white stone. For the white to capture the three black stones, white needs moves at b and c to make the set of three black stones completely suffocated. Remember that white needs no stone at “a” to make the set of three black stones suffocated, since that point is at the

diagonal position of black stones from which black cannot breathe. However, the point “a” is very important for both the black and the white. Why? Because “a” is a point important for connection and disconnection (cutting). If white can play at a, that new white stone will connect three right hand white stones and two top white stones. Once they are connected, there is no risk of being captured except the case in which the connected set itself is suffocated. At the same time, “a” is a point for the black to be able to interfere connection of white stones. It is a point where the black can cut the white stones into two separate groups. Thus if black can play at “a”, the three white stones will be completely separated from the top two white stones.

Therefore, if this is an actual board pattern and it is white’s turn to play, white can play at “b” trying to capture three black stone, but for the white, it would be wiser to play at “a” to connect white stones so that three black stones will not be able to survive. If it is the black’s turn to play, black would play at “a” to cut the white group and win the capturing race to kill three white stones. For the black, it is not wise to play at “b” in an attempt to escape from the fishing net since the exit to that direction is not very free.

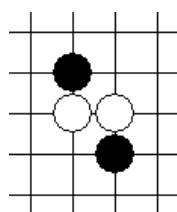
Here is our conclusion: See this chart to confirm it.



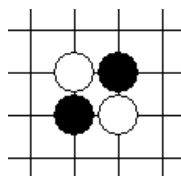
For the white stone \triangle , the diagonal point “a” is not valid for breathing. The point a is not connected to the white stone \triangle .

However, “a” is valid for the white to cut black stones to two groups interfering black’s connection. For the black, if he can play at “a”, three black stones including “a” are connected completely.

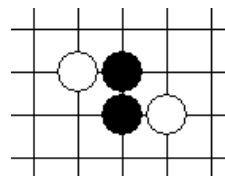
Just look at the chart below showing three basic patterns of two black stones and two white stones.



Black disconnected
White connected
Black has a disadvantage



Black disconnected
White disconnected
Balanced



Black connected
White disconnected
Black has an advantage

This whole concept is of essential importance for the understanding the essence of game of Go.