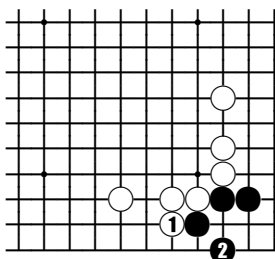
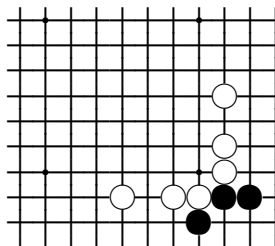


Pattern 20

Black is alive

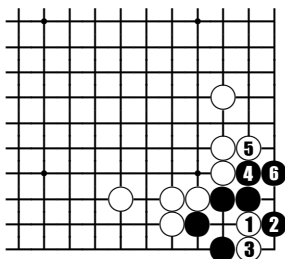
No matter how frail this black group appears, it is very efficiently alive. If only because this position comes up often in actual play, you should learn to recognize it as a basic living pattern.



Variation 1

Variation 1. The open connection

If we begin with White's turn, then White 1 is normal. Black's open connection at 2 makes good shape, making a group which is impossible to kill. Having said this, however, White can still launch an effective attack against the black group. Lets investigate this a little further.

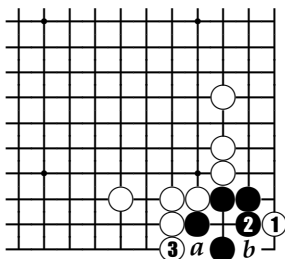


Variation 2

Variation 2. Responding to the attachment

After the last diagram, White 1 is the vital point for destroying the eye shape. In response, however, Black lives easily with the hane at Black 2, followed by Black 4 and 6.

There should be a better route for White than this.

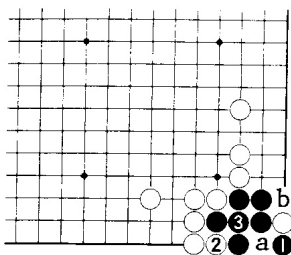


Variation 3

Variation 3. A troublesome play

The placement at White 1 can be troublesome for Black. If he's not careful, he could end up dead.

There is no other choice for Black 2, but how should Black respond to White's descent at 3? Playing at 'a' is rash since White will throw in at 'b' and force a ko.

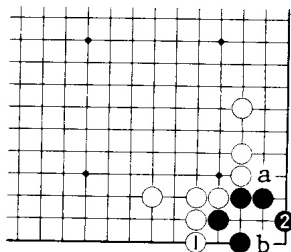


Variation 4

Variation 4. Squeeze play

Continuing from the previous diagram, throwing in with Black 1 is advisable. In response to White 2, Black can connect at 3, and when White captures at 'a', Black can atari at 'b' instead of fighting a ko.

Even if White uses 2 to capture immediately at 'a', Black 'b' is good enough.

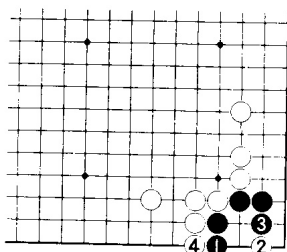


Variation 5

Variation 5. The diagonal move

White's quietly descending to 1 is also a play which Black needs to answer carefully. The diagonal move of Black 2 is correct, making *miai* of 'a' and 'b'.

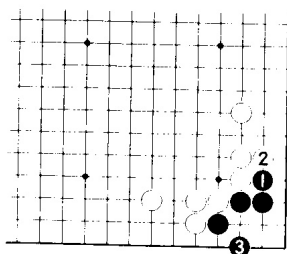
Black 2 is the only way for Black to be sure of living, so be careful.



Failure 1

Failure 1. A weak point

Instead of the open connection, what about descending to Black 1? This play, however, creates a weak point and when White plays 2, Black is at a loss. White will answer Black 3 at 4 and, needless to say, Black is dead.



Failure 2

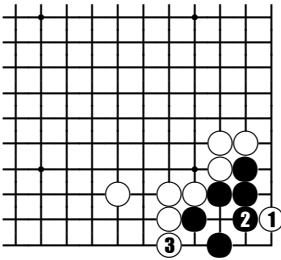
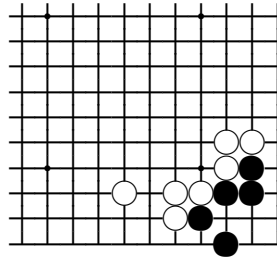
Failure 2. A bad move

Let's imagine that before making the hanging connection, Black forces by turning at 1 in sente. When White blocks at 2, Black plays 3. After this Black might well think he can live easily, but he is mistaken. Black 1 is a blunder. The reasons why will be the topic of the next section.

Pattern 21

White to play and get a ko

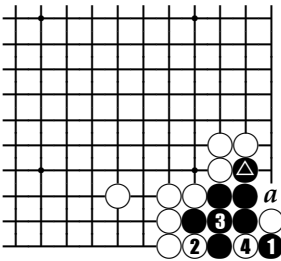
This is the position after Black has played the marked stone. If this stone were not present, Black would be alive, but as soon as he played this extra stone, he was no longer alive unconditionally. How should White proceed?



Solution 1

Solution 1. What's the difference?

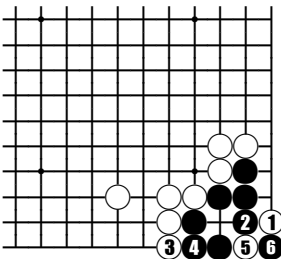
The placement at White 1 now works, and then has an opportunity. In response to Black 2, White descends to 3. We examined this sequence in the previous pattern as well, but something is different. The continuation after 3 is shown in the next diagram.



Solution 2

Solution 2. Ko

Black will throw in at 1, then when White plays 2, connect at 3. But now when White starts a ko with 4, Black can no longer plan to atari at 'a'. You should be able to see that the exchange of the marked black and white stones has created a shortage of liberties, which prevents Black from playing at 'a'.



Solution 3

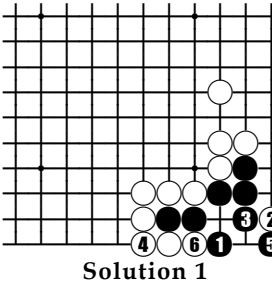
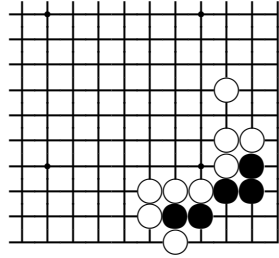
Solution 3. Starting the ko

After White 1 to 3, it should be noted that it's better for Black to connect at 4. This is because it forces White to throw in at 5 and lets Black take the ko first. In the previous diagram White was able to capture the ko first.

Pattern 22

Black to play and live

This shape looks similar, but there are some differences. You can imagine that White has just played a hane on the left side. Try to read out the order of Black's moves all the way to the end.

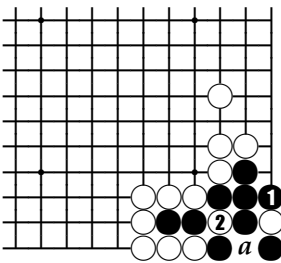


Solution 1

Solution 1. The same move

Black doesn't really have any other choice but to begin with the open connection at 1. The question is, what happens after White makes the placement at 2?

In response to Black 3, White will connect at the bottom with 4 and then after Black 5, push in at 6, but is Black really alive? Continuing in the next diagram –

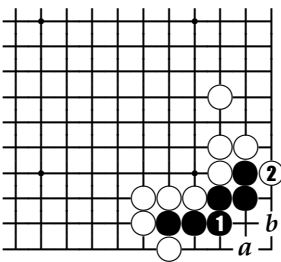


Solution 2

Solution 2. Recapture

Black must not connect to the right of the two stones. Instead he should simply capture a single stone at 1. Then, when White captures at 2, notice that Black can recapture with 3 to the left of 2. It's because of the possibility of this recapture that Black is alive.

Should Black connect at 2, White will start a ko by capturing at 'a'.



Failure

Failure. Tight connection

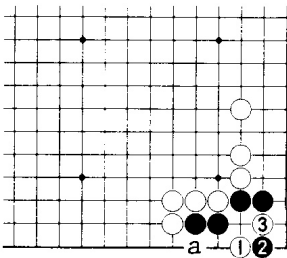
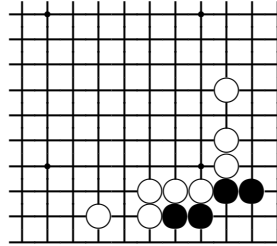
Connecting at 1 makes the black shape too simple. Once White plays the hane at 2 there is no way for Black to live. To continue, if Black 'a', White 'b'.

In most cases, the open connection creates much better eye-shape potential than a solid connection.

Pattern 23

White to play and get a ko

Once again the position has been slightly modified. This time the question is whether or not White can do anything if he gets to play first. With what you've learned thus far you probably realize that a simple move is not going to be successful.

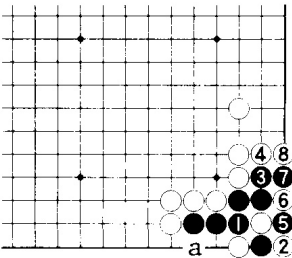


Solution 1

Solution 1. Placement

A straightforward play would be the hane at 'a', but then Black makes open connection at 1 and lives.

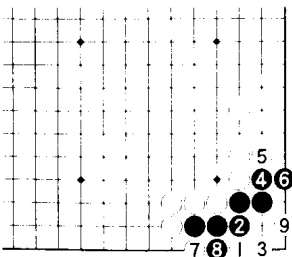
The solution is the placement at 1. When Black attaches at 2, White plays atari at 3. However, after this Black gets an approach-move ko.



Solution 2

Solution 2. One-step approach-move ko

After the previous diagram, once Black connects at 1, White is forced to capture at 2. Black 3 and 5 next are the right order. Black answers White 6 by blocking at 7, and when White plays 8, Black starts the ko. But even if Black decides to play elsewhere and let White play at 'a', it's still a ko, so this is a one-step approach-move ko.



Variation 1

Variation 1. Connection

In response to White 1, let's look at what happens if Black connects at 2. White's only choice is to extend to 3. Black continues by expanding his base with 4 and 6, but White 7 to 9 make this a dead shape.

Since there is still one aspect of this shape which is unclear, let's investigate it a little further.