SanQi  
"The Game of Three"  
by L. Lynn Smith

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1.0 Introduction

The inspiration for this game came while studying Ling Ch'i Ching, "Spiritual Game of Change". The three symbols used by this oriental work of divination made an impression upon me. Rather than creating a three-player game, I decided on a game of three types of pieces used equally by two opponents.

Needless to say, there began a long period of development. The decision of the playing field being the most significant. Once it was decided to use the hexagonal pattern for the field, rather than the plain square, rules began to fall into place.

2.0 Rules of the Game

One of the primary objectives in the development of SanQi was simplicity. But there also needed to be strategic depth for enjoyability. Often complicated games are good but suffered because of the difficulty in learning the rules, and simple games can be bad if they offer little strategy to hold the attention of the hard-core gamer.
This is a two-player game. These players will be referred to as the FIRST and SECOND according to the initial order of their turns.

2.1 Playing Field

The game will be played on hexagonal cells of an equal-sided field. This can be as small as 4 cells to the side and up. The smaller fields can be considered for learning and practice. Players may opt for larger fields as their skill becomes more pronounced. At this point, the 10-cell sided field appears to be the optimal size but players may choose even larger playing areas.

2.2 Pieces

The playing pieces consist of three distinct types of tokens. Colors, such as Red, Yellow and Blue, can be utilized but the following symbols were the original markers. These are the three Kanji used in Ling Ch'i Ching.

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|____|
|    |
S "Shang", or "Above". This was used to represent Heaven.

|     |
|____|
|     |
Z "Zhong", or "Middle". This was used to represent Man.

|     |
|     |
|     |
X "Xia", or "Below". This was used to represent Earth.
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(For the remainder of the document, the above kanji will be represented in diagram with the simple initial of each. "S" for Shang, "Z" for Zhong and "X" for Xia.)

There should be a generous quantity of each of these markers. They begin the game off the field, and are the mutual property of both players.

2.3 Types of Moves

On each turn, a player may perform one of the following: PLACEMENT or REPLACEMENT. It is mandatory that each player perform a move during the turn. There is no passing.
2.31 Placement

At a turn, each player may PLACE any one of the three types of pieces on any vacant cell of the playing field.

2.32 Replacement

At a turn, a player may REPLACE any one type of piece on the field with one of another type under the following restrictions. There must be at least two more of the REPLACEing type adjacent to the REPLACEd piece as there are of the REPLACEd type.

For example:

```
\___/   \___/   \___/   \___/   \___/
\___/ S \___/ S \___/  
\___/ S \___/  
\___/ X \___/  
\___/ Z \___/  
\___/   \___/   
```

The Xia and the isolated Zhong can both be REPLACEd by a Shang. But none of the others can be REPLACEd because there does not exist the necessary majority to effect a REPLACEMENT.

A player may not immediately REPLACE a piece which was played by an opponent for at least one turn, but the opponent can REPLACE the same piece on the next turn. Using the above example, if the player had just PLACEd the Xia, it could not be immediately REPLACEd by an opponent.

2.4 Goal

Each player has different goals within the game. FIRST wins if there is a CIRCLE of six pieces of one type, regardless of the condition of its center cell, at the end of that player's turn. SECOND wins if there is a LINE of six pieces of one type at the end of that player's turn. Either player wins if there is a simple TRIANGLE of six pieces of one type at the end of their particular turn.
Of course, the CIRCLEs, LINEs and TRIANGLEs can be formed from other types of pieces. And the LINEs and TRIANGLEs can have several orientations on the playing field.

3.0 Opening Moves

Basically, FIRST should concentrate on forming CIRCLEs and SECOND on forming LINEs. The TRIANGLE threat is used to obtain positional advantage.

A player could begin the game by attempting to obtain their particular goal or, better yet, concentrate on staking out territories by PLACEing ANCHOR pieces. These PLACEMENTs might be mis-interpreted by the opponent as mere random scattering of various pieces on the field. But what you would actually be doing is creating points for pattern growth. As these various patterns start to grow they will encounter neighboring ANCHORS and/or growing patterns.

FIRST should be on the look-out for two or more pieces of one type in a direct orthogonal LINE of six cells or less. While SECOND would be on the look-out for two or more pieces of one type within the six cell pattern of a CIRCLE.

Playing off the opponent's PLACEMENT allows the player to gain an advantage of a turn. But the player must be careful not to aid the opponent in their particular goal.

4.0 Blocking Moves

Being able to BLOCK an opponents developing pattern will become the foundation of much of the game-play. But being able to BLOCK is not enough, the player must be able to recognize and respond to the potential threats in good order or will quickly suffer defeat. Each
player must watch for the developing patterns of CIRCLE, LINE and TRIANGLE.

In the above example, SECOND has made a PLACEMENT three cells orthogonal to the FIRST. This is outside the goal pattern of a CIRCLE, and immediately gives SECOND two pieces within the goal pattern of a LINE.

At this point, FIRST has several options as a reply. Continue with a CIRCLE pattern, BLOCK the potential LINE pattern or begin the formation of a TRIANGLE pattern.

(An asterisk will be used to indicate potential cells of play.)

PLACEMENT at either of the two indicated cells will give FIRST several advantages. With the PLACEMENT of a Zhong piece, it offers a multiple potential of CIRCLEs with either of the two initial pieces and deters SECOND from immediately PLACEing another Zhong on either of the two intervening cells of the potential LINE. With the PLACEMENT of either a Shang or Xia, it gives FIRST the ability to effect a strong BLOCK. The latter is extremely important. Let's look at a weak BLOCK FIRST.
This example shows the position if FIRST had merely PLACEd a dis-similar piece within the threatening LINE. SECOND would then be able to force a series of PLACEments for the next three turns.

SECOND now threatens to capture the Xia on the next turn, thus completing two-thirds of the LINE. FIRST is now forced to protect the Xia by PLACEing more Xia around it. SECOND can play the following moves to advantage, but FIRST can also effect a basic TRIANGLE trap. (see 5.0 Tricks and Traps)

But if FIRST made the following PLACEMENT instead. This piece would support a similar BLOCKing piece in either of the two cells within the potential LINE. Thus giving FIRST the advantage of initiative, SECOND does not immediately threaten capture of the future BLOCKing
piece and FIRST has the opportunity of choice in moves rather than responding to SECOND's threats.

With this BLOCKing maneuver, FIRST has gained a significant advantage. This move allows FIRST to develop several potential CIRCLEs. If SECOND was to PLACE a Zhong in either of the two cells of the initial LINE, FIRST would then be able to take advantage by continuing the potential CIRCLE and forcing SECOND to subsequently respond with defending moves.

For LINE threats of two pieces either adjacent or one cell apart, FIRST need only incorporate them into a developing CIRCLE. For LINE threats of two pieces of three cells or more apart, FIRST need only PLACE a dis-similar piece within the potential LINE to begin an effective BLOCK.

Now, let us look at some BLOCKing moves for the CIRCLE threat.

If FIRST PLACEs two pieces adjacent within a potential CIRCLE pattern, SECOND can easily threaten a LINE by PLACEing similar pieces in either of the following cells. With this maneuver, SECOND would have the advantage of a move and could easily effect a LINE.
If FIRST PLACEs two pieces one cell apart within a potential CIRCLE pattern, SECOND can again easily threaten a LINE by PLACEing a similar piece directly between them.

This is a simple example of BLOCKing a CIRCLE by playing to its CENTER. FIRST is unable to continue PLACEing pieces within the initial pattern without creating a potential TRIANGLE (see 5.0 Tricks and Traps).

If FIRST PLACEs two pieces similar to the Zhongs in the above example creating two distinct CIRCLE threats, SECOND has several options for response. These are indicated by the two blanks. PLACEing either a Shang or Xia, FIRST is unable to REPLACE them until at least one turn. And if FIRST does not add another Zhong around this PLACEMENT, SECOND can re-inforce it. But if FIRST does add another Zhong around this PLACEMENT, SECOND could REPLACE the Shang or Xia and begin the development of a TRIANGLE threat.

SECOND can often BLOCK a CIRCLE by playing a similar piece to the CENTER of its pattern resulting in a potential TRIANGLE threat.

Even if SECOND has allowed FIRST to build a CIRCLE to these points, there are effective BLOCKing maneuvers.
In the first pattern, SECOND need only PLACE a Shang or Xia to one of the two vacant cells of the CIRCLE pattern. If FIRST attempts to surround this PLACEMENT in order to REPLACE it, SECOND need only to leave the CENTER cell of the CIRCLE pattern to last. Thus thoroughly securing this BLOCKing piece since FIRST cannot REPLACE the CENTER PLACEMENT without offering a potential TRIANGLE to SECOND.

In the second and third pattern, SECOND need only PLACE another Zhong to the CENTER cell of the CIRCLE pattern creating a TRIANGLE threat. These PLACEMENTs also offer SECOND potential LINEs.

5.0 Tricks and Traps

Because of the basic BLOCKing maneuvers, the initiative will often swing back and forth between FIRST and SECOND. So, the player will need to make the most of this advantage.

Pieces which are PLACEd without any apparent positional advantage will be referred to as ANCHORS.

Pieces which create the potential of multiple patterns will be referred to as PIVOTS.

5.1 Positional Tricks

The basic TRICK is to create the potential of multiple win patterns. FIRST will look to make several possible CIRCLE patterns and SECOND several possible LINE patterns.

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   ___ ___ ___ ___ 
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   |___|___|___|___|
   |   |   |   |   |
   |___|___|___|___|
   |   |   |   |   |
   |___|___|___|___|
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This demonstrates a simple multi-CIRCLE threat. The two Xia ANCHORS are not directly part of any particular pattern. By playing another Xia at the indicated cell, FIRST now has the potential of four separate CIRCLEs. If SECOND did not spot this threat, it can result in an excruciating series of forced PLACEMENTs.
If SECOND attempts to effect a BLOCK, FIRST can continue to create further potential multi-CIRCLE threats. The above example shows that SECOND PLACEd a Zhong between the two initial Xia, FIRST then replies with the PLACEMENT of a Xia PIVOT at the indicated cell. FIRST now has two distinct multi-CIRCLE threats which SECOND must contend.

This also demonstrates the potential of a multi-CIRCLE threat.

But SECOND is not helpless. There are several maneuvers which will aid SECOND in creating multi-LINE threats and taking the initiative. Similar to the TRICK pattern of FIRST except that the pieces are located along orthogonally connected cells.
FIRST has attempted with the Zhong to BLOCK the LINE defined by the two Shangs. SECOND creates a double threat with PLACEMENT of a Shang PIVOT at the indicated cell. This type of maneuver can take place with pieces which are of various distances, both shorter and longer. The example shows two threat of equal length.

Here demonstrates a double threat of un-equal length. The two Shang ANCHORS do not offer FIRST any particular positional advantage and SECOND is able to incorporate both in a direct double-LINE threat when PLACEing a Shang PIVOT to the indicated cell.

The double threat is not the only one that SECOND can use. There are possible triple, quadruple, quintuple and sextuple threats depending upon the size of the playing field.

5.2 Attack Tricks

When responding to the various multiple pattern threats, players should first concentrate on ATTACKing the PIVOT then particular ANCHORS. ATTACKing a piece, with the intent of REPLACEing it or negating its influence, can be divided into two categories, SOLITARY and SUPPORTED.

A SOLITARY piece is one that is at least two cells from another similar piece. An ATTACK on such
a piece could be initiated with the intent of REPLACING the piece, or to merely misdirect the potential pattern.

The above example demonstrates an ATTACK on a SOLITARY ANCHOR piece. Rather than making a PLACEMENT directly adjacent to the Shang which would only result in a series of forced moves for the ATTACKer, PLACEMENT is made one cell away. This does not guarantee the REPLACEMENT of the Shang but it does offer support for any following PLACEMENTs, regardless of the defender's immediate response. This PLACEMENT can then be built upon to interfere with the opponent's possible patterns.

The two examples above show ATTACKs on SUPPORTED pieces. The one on the left shows FIRST's response by PLACEMENT of another Shang to the indicated cells resulting in the piece being incorporated into a potential CIRCLE. The one on the right shows SECOND's response by PLACEMENT of another Shang to the indicated cells. The orthogonal PLACEMENTs aid SECOND by expanding the SUPPORTED pieces into a potential LINE. The other two impede FIRST's ability to form a potential CIRCLE (see 5.2 Triangle Tricks).

5.2 Triangle Traps
As stated earlier, TRIANGLEs are the foundation of threats within the game. Since both players benefit from their formation, the trap is to force an opponent to PLACE the fifth piece of such patterns, or to abandon a developing pattern because of this potential threat.

(An ampersand will used to indicate cells which have been previously played.)

The above diagram demonstrates the various possible PLACEMENT cells within and without a potential CIRCLE pattern. There are several opportunities for such between the second and fourth PLACEMENTs by FIRST in this CIRCLE pattern.
The above diagrams show the various positions that similar pieces might be placed to turn a potential CIRCLE into a TRIANGLE threat. Most do not need follow-up placements to complete the threat, so that if FIRST continues completion of the intended CIRCLE pattern, this will result in offering SECOND a potential TRIANGLE pattern.

The above pattern is a very strong one for FIRST. Though even at this point, SECOND can prevent a CIRCLE by making placements within and without the pattern. But FIRST can take most blocking maneuvers of similar pieces and generate other potential CIRCLE patterns.

FIRST also has the ability to produce TRIANGLE threats with the LINE pattern.

The diagram to the left demonstrates FIRST attempt to block the potential Xia LINE with a Zhong. Since SECOND is unable to replace the Zhong for at least one turn, SECOND replies by
PLACEing another Xia adjacent to the Zhong and a SOLITARY Xia. FIRST would then finish the TRIANGLE threat by PLACEing another Xia at the indicated cell thus assuring that SECOND will offer a TRIANGLE pattern by REPLACEing the Zhong.

The diagram to the right shows if instead SECOND responds to the BLOCK by PLACEing adjacent to a SUPPORTED piece. FIRST need only PLACE another Xia at the indicated cell to complete the TRIANGLE threat.

In both of these TRIANGLE threats, FIRST is also able to form a large portion of a CIRCLE pattern to which SECOND must now respond.

5.2 Summary

By now the reader must realize that SanQi, although apparently simple, is quite complex in strategic depth. And this paper contains only the basic tactics to play an effective game. Establishing territories and blending abandoned patterns would take several more chapters to fully discuss. Yet the reader should be able to visualize these.

It is extremely difficult for a player to keep the initiative in this game. Each player will have the opportunity to play offensively and defensively throughout the game.

But another aspect of this game is that even after the playing field has become filled with pieces, the game continues. Pieces can still be REPLACEed. The strategic foundation for this phase must be developed throughout the game and the tactics can be numerous.

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