Abstract Games

...for the competitive thinker

- **Analysis**
- **Reviews**
- **Design**
... and more

FRONT COVER

The front cover and below right images show part of a game of Władysław Gliński's Hexagonal Chess. The board is a commissioned work by Ryan Andrew, with walnut, maple, and rosewood hexagons for the three colours of Hexagonal Chess. The wooden pieces are an original Christian Freeling Grand Chess set. One of the three Bishops of Hexagonal Chess is slightly stronger than the other two, and the Grand Chess Cardinal stands in for this third Bishop.

John Jaques & Son of London manufactured a nice set in 1976, but these original editions are hard to find and expensive. Other versions of the game were published in Eastern Europe in the latter part of the 20th Century, and these, too, are difficult to obtain. A modern set is available on Game Crafter, which comes with a set of disc-shaped pieces; the board alone can be purchased if you prefer to use your own figurines. Gliński's Hexagonal Chess is playable on GreenChess, which has a clean, efficient interface. The game may also be played at hexagonalchess.com.

According to Jean-Louis Cazaux in *A World of Chess*, the first version of hexagonal chess was developed by Thomas Hanmer Croughton in 1853. Subsequently, John Jaques of London, mentioned above, published Hexagonia in 1864, which was the first commercial version of chess on hexagons. Since then, many other varieties of the game have been developed in addition to Gliński's game, which itself dates from 1936. I will refer to Glinski's Hexagonal Chess specifically as HexChess, which parallels the Hungarian name for the game, Hexasakk.

The rules and some of the history of HexChess up to 1998 are available on the Chess Variants website. The game was first launched in Britain in 1949—Gliński was a Polish national, who moved to Britain after WWII, and it was from Britain that he tried to popularize his game. He finally completed the rules in 1972, with a change in the significance of stalemate. He published the book *First Theories of Hexagonal Chess* in 1974—which we reviewed in *AG7*. The first British Championship was held in 1976. A first European Championship followed in 1980. Subsequently, numerous national championships took place in Eastern Europe. Importantly, the first Hungarian National HexChess Championship was held in 1982. The Hungarians have continued to organize tournaments to this day, without interruption, which is a marvellous feat of longevity for a modern abstract game. The winner of the first International Tournament in 1984 was Lázló Rudolf of Hungary. Rudolf went on to split with Marek Mackowiak of Poland the first (and only) World Championship, held in Beijing in 1990-1991. Both players were awarded the title of World Champion.

David Pritchard, in his *Encyclopedia of Chess Variants*, claims that HexChess once had half a million players in Eastern Europe, a huge number for a modern game. Gliński, however, died in 1990, and the game subsequently slipped from the high point of its popularity. International organization of the game lapsed until 1996. That year, the International Hexagonal Chess Federation (IHCF) was founded. With Gliński out of the picture, the headquarters of the IHFC were moved from Britain to Hungary. Already, at this point, the future of HexChess would depend on a cadre of expert Hungarian players.

After 1998, we have to turn to the records of the Hungarian players for further history of HexChess. Hungarian webmaster Sándor Bódor has created a stupendous resource over the decades. In addition to what looks to me like a complete tournament history of HexChess, including game scores, he has recorded substantial opening analysis, and a huge number of HexChess problems. These websites represent a unique and priceless resource for abstract game players who wish to explore Gliński's game. The language is Hungarian, but Google Translate is quite effective for those who don't read this language. Of course, there is good intr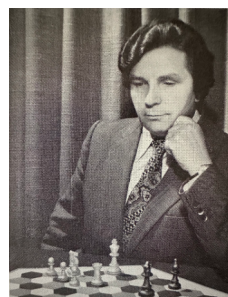oductory material in Gliński's own *First Theories of Hexagonal Chess*, but Gliński's work has been far superseded by the efforts of top Hungarian players, people like Sándor Bódor and first HexChess World Champion László Rudolf.

The Hungarian records show the tournament history of HexChess from 1980 to 2013. Here, we can find games from the European Championships, International Tournaments, and first World Championship, as well as games from many other local and national tournaments. The last European Championship took place in 1998, and there was no subsequent World Championship after the first. The website includes a second listing of tournament history from 2014 to the present. The schedule of local and Hungarian national tournaments continues unabated. The Hungarian HexChess Federation has maintained its national championship from 1982 to the present.

HexChess is very much its own game and feels quite different to chess variants on squared boards. The non-Pawn pieces have six or twelve directions of movement, rather than the equivalent four or eight, which considerably increases the number of combinations in HexChess. The pieces are more flexible in attack, but this is balanced in that they are more flexible in defence, too—the King has twelve directions in which to flee. The HexChess Knight is clearly more powerful than the Bishop, unlike regular Chess, where they have similar values. Players need to be careful in the exchange of minor pieces. The HexChess Pawns behave quite differently. Two side-by-side HexChess Pawns, for example, can march up the board in unison, taking turns to protect each other. The equivalent switch of protection in Chess takes two moves rather than one. The larger board, with the lower density of pieces more powerful than in regular Chess, often creates board-spanning networks of threat and control, to a more significant degree, I think, than in regular Chess. HexChess has its own unique character.

In *First Theories of Hexagonal Chess*, Gliński expresses the conviction that HexChess is a game for the 21st Century. Despite its initial promise, HexChess may never rise to become the widely played world game he hoped it would be—perhaps no modern abstract ever will. Nevertheless, the Hungarian players have kept the flame alive over the intervening decades, and maybe Gliński's Hexagonal Chess will one day return to international competition.

We plan to cover HexChess more in *Abstract Games*. For now, this issue contains two puzzles from the top HexChess problemist, Schenkerik Csaba, on pages 18 and 32. ~ KH

Władysław Gliński

HexChess References
Hungarian HexChess website:
https://sites.google.com/site/hexasakk/
HexChess on Chess Variants website:
https://www.chessvariants.com/hexagonal.dir/hexagonal.html
HexChess on Game Crafter:
https://www.thegamecrafter.com/designers/catamount-games
hexagonalchess.com: https: hexagonalchess.com/
Green Chess: https://greenchess.net/

CONTENTS

形棋

Editorial

Several interesting developments are presented in this issue. We are very pleased that investigation of Redstone theory was picked up by Stephen Nulty. His ideas provide further evidence that Redstone is a game worthy of study—like Go, but strangely different, and likely just as complex. Likewise, Kevin Kane speaks further about the endgame strategy in NXS, which I highlighted in the review in *AG20* as Shogi-like in its speed and timing. Fredrik Ekman returns to Jetan, with a discussion of the Princess and a sample game of Thuria Jetan—a variant which seems to be to be particularly worthy of study. Otherwise, we have several other chess variants represented, including of course Gliński's lovely Hexagonal Chess, and the brilliant 3D XYZ Chess. For a change of pace, here also are a two-player version of Swiss Jass that is very similar to Offiziers-Skat, a two-player version of the classic German game, and a solitaire domino game from Don Kirkby.

The genre of pencil and paper games may seem old-fashioned, but nevertheless, it's fun to know some good games to play with this absolute minimum of gaming equipment. Eric Solomon's classic *Games with Pencil and Paper* (Dover, 1994) is an excellent resource, but there are many more interesting pencil and paper games. We introduce two of them here, in what I hope will become a regular series.

I was fortunate to connect with a group of game developers and players in China, whose activities were almost unknown outside of China, as far as I can tell. They have a collection of interesting and original games, some of which we hope to cover in *Abstract Games* in future issues. The first of these, in the current issue, is Shape Chess, which is an alignment game (not a chess game!) with the goal of creating symmetrical structures. The objective is unusual and beautiful. Shape Chess has been under development for a number of years and has been thoroughly tested. It works, and in fact it's brilliant. Tournaments have been held in China, and I'm glad we are learning of this game.

Represented on the outside back cover of this issue is a board for Nibelungenlied. This was one of the very best games from our Simultaneous Movement Game Design Competition from 2003. It deserves not to be forgotten.

We haven't begun yet to organize the next game design competition—but that is coming. I still wonder, however, about what we may call the "cult of the new," a phrase introduced by John Owen on BoardGameGeek. The abstract gaming community churns through a large number of new games. I've written about this in past issues, and I've lamented that so many brilliant and original games are hardly played at all before they disappear. In *Abstract Games*, one of our goals is to pick up on some of these new games, provide good reasons for playing them, and perhaps slow down their slide into obscurity. Our efforts, nevertheless, are a drop in the ocean. So many new games come and go that it's hard to find time even to read the rules.

Having said that, it's difficult not to be excited, even briefly, by some of the brilliant inventions that keep coming. Perhaps the next game will be so fascinating tactically and strategically that it will grab a substantial number of players who'll devote a lifetime to its study. Maybe Shape Chess is one of those games. And so, we will continue with the game design competitions. I am still leaning towards abstract games with an element of bluff for the next game design competition, with the incomparable Mentalis as the paradigm. More about the game design competition will follow in the coming issue. In the meantime, happy gaming!

Kerry

A Game of Territorial Control

Review by Kerry Handscomb

At first glance Stymie looks like another checkers variant, with a small 7x7 board. Pieces are dropped on the board in a turn, or moved once are on the board; the pieces jump like checkers, and one of the objectives is to capture 7 opposing pieces by jumping over them. Designer, Marc White, has augmented this basic system in several important ways that make of Stymie an interesting and unusual game—still a checkers-type game, but with a selection of strategies and tactics.

As mentioned, the Stymie board is 7x7, but the perimeter spaces and the centre space are marked differently. The remaining 24 spaces are the "prime spaces." Each player has 13 pieces of their colour, gold or silver; the final piece is the "antipode." You win by getting 7 pieces in prime spaces; you lose with no pieces in prime spaces. As mentioned, you can also win by capturing 7 opposing pieces.

The board starts empty except for the antipode in the centre, which starts silver side up. The players take turns to place stones, with the proviso that a stone may not be placed orthogonally or diagonally adjacent to any other stone, friend or enemy. When no more pieces can be placed in this way, the movement options change to move, jump, or drop. Pieces are moved one space orthogonally, or a piece can jump in checkers-fashion orthogonally over friendly and opposing pieces, capturing any opposing pieces jumped. Manoeuvres on the board may open up spaces where new pieces can be dropped on the board, where they are not adjacent to any other piece.

The antipode can be moved by the player whose colour is uppermost. The antipode can move any number of spaces orthogonally, instead of just one, but the antipode can neither be captured nor jump. The antipode is flipped upside down when it is jumped, to the opposite colour.

The author has published several Stymie articles on the game's website, but there is very clearly much more to the game. The author himself lists four formations in Stymie: Line, Diagonal, Triangle, and Square—but only Line and Diagonal articles are posted so far. How to use the antipode effectively is an interesting topic.

At root, I think this game is about control of territory, building strong structures, so that when the board is crowded, and the enemy is forced to approach, you are both protected and can strike back rapidly. Capture is not forced, so many of the sharp tactical manoeuvres of checkers are lacking. With forced captures, however, perhaps the game would be too unstable. Nevertheless, Stymie does not pretend to be a checkers variant and does not need the mandatory capturing of checkers.

Stymie has three different objectives, capturing 7 pieces, getting 7 pieces on prime spaces, or forcing your opponent completely off the prime spaces. The three objectives are compatible and mutually reinforcing. Capturing opposing pieces naturally tends to thin them out on prime spaces; building strong formations and capturing pieces naturally tends to increase the number of your pieces on prime spaces. Perhaps a good strategy is to go all out to capture opposing pieces, making sure not to get wiped out in the prime spaces or beaten in the capturing race.

The dynamic relationship between the different ways to win is interesting, and herein lies the sophistication of Stymie. I'm only a beginner in this game, but it engages my interest. The author uses familiar mechanisms, but puts them together in a way to create something genuinely new. ∎
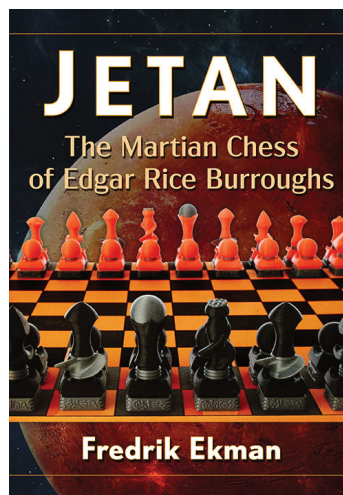
The Definitive Guide to Martian Chess

Review by Kerry Handscomb

Swedish Jetan expert Fredrik Ekman has written about Jetan in *AG19*, *AG21*, and the current issue. (Previously, we covered Jetan in *AG6*, *AG7*, and *AG8*.) The original rules of Jetan from Edgar Rice Burroughs' *The Chessmen of Mars* are confusing and result in a flawed game—whichever way you read them. Nevertheless, Jetan has a unique attraction as one of the first extraterrestrial games, and fans of Burroughs' fantasy writing will always be drawn to this bizarre, large, chess-type game. On the other hand, as a game in itself, Jetan has some original elements that are perhaps unique among the chess variants. Primarily, the pieces all move in a series of step moves, giving rise to a variety of interesting tactics. In addition, the rules concerning the Chief and Princess, while the main source of the Jetan flaws, can provide a range of unusual decisions.

A thorough investigation of Jetan has been seriously lacking up to now. Ekman has filled the gap with his new book, *Jetan: The Martian Chess of Edgar Rice Burroughs*, published recently by McFarland Books. This book brings together a large amount of Jetan history and commentary from all available sources. The book is over 200 pages long, with five pages of references. I can say confidently that *Jetan: The Martian Chess of Edgar Rice Burroughs* is now the definitive guide on the topic. Everyone interested in Jetan, or simply collectors of game literature, will need to have a copy.

The first half of the book contains chapters on the history of Jetan and places Jetan within the context of The Chessmen of Mars, and Burroughs' wider project. Ekman also examines the way that Jetan has impacted popular culture and he documents previous attempts to understand the game. As the author writes, "The main reason for my interest is that Jetan has a history, a rich culture both in fictional and in real terms. Jetan is part of a greater literary legacy." The fictional context of Jetan is its "virtual theme," a concept that I discussed with respect also to Zhadu and Tak, for example, in *AG17*.

Burroughs' original rules are notoriously ambiguous. Moreover, as Ekman writes, "Ever since the 1960s, critics of jetan have argued that jetan is a flawed game; that it needs to be

changed in order to be playable. They are partly right, I think. Burroughs was a writer, not a game designer, and as a consequence, the game has some pretty serious flaws." Over the decades, players have tried various ways to overcome the deficiencies of original Jetan. Nevertheless, the author argues that we have no choice but to begin a serious investigation of Jetan with the rules as given to us by Burroughs. And this is exactly what he does. He complements and interprets the rules to make them complete and unambiguous, while sticking to the letter and spirit of Burroughs' original. Additions to Burroughs' version are clearly marked, so that the reader knows exactly what adjustments have been made. With admirable humility, the author does not claim to have produced a universal standard form of Jetan, but given his scholarship and the great care that he takes to stick as closely to Burroughs' original as possible, we can confidently take these rules as the standard, playable form of original Jetan.

While the historical and contextual material is interesting, the major sections of the book of value to potential players of Jetan will be Chapter 1, with the rules, and then Chapters 7, 8, 9, and 10, concerned with tactics, sample games, problems and exercises, and variants, respectively. The discussion of tactics is of special interest because each of the Jetan pieces moves in a series of steps. The tactics of Jetan present an entirely different set of problems than more "normal" chess variants. The pieces interact sometimes in unexpected ways, and this for me is one of the joys of discovering Jetan.

The flaws of Jetan are still present in the standardized rules, but the author discusses tactics that help to minimize these difficulties. The major problem is that capture of the Chief by any piece other than a Chief is a draw. A player who has fallen behind in material can send his Chief on a rampage through enemy lines, hoping to force a capture of his Chief, resulting in a draw. The main way to avoid the rampaging enemy Chief is to station your own Chief so that the enemy Chief stepping beyond its own ranks may be captured by your Chief, rather than by any other piece, thereby winning the game. Otherwise, the author's advice to avoid a draw if you don't want one is to be careful in the placement of your own Chief, so as not to put it at risk of capture by a non-Chief.

The key for any player who is not significantly behind in material is to avoid positions where a draw can be forced. Nevertheless, the author writes, "For two players of equal positional strengths, it is very difficult to stop an opponent who really wants to draw." In order to make Jetan work better with the original rules, then, the players have both to play not to draw—not to draw, that is, just because they can. Of course, relying on the sportsmanship of players to make a better game of Jetan will not work in serious games or tournament games. A player who is nominally much stronger may not be able to prevent a weaker player from forcing a draw, game after game. The author cites Richard Glass, that Jetan is "... a game of honor." Yes, it is in its current form, I agree. Perhaps for native Barsoomians, with their highly developed sense of honour, Jetan in its original form is not flawed; we Earthlings, however, cannot likewise rely on the players' shared sense of honour to make Jetan a better game.

The chapter on tactics contains some of the strongest portions of the book, at least for me. Ekman writes about opening, middle game and endgame tactics. He speaks of interesting concepts involving the Chief, such as "suffocation" and "sandwiching," as well as tactics such as the pin, fork, and skewer, which would be familiar to Chess players. A further investigation of tactics, perhaps beyond the scope of the book, would be to compare small sets of pieces—for example, in what manner do specific pairs of pieces interact defensively or offensively because of the unique capabilities of their respective step moves. *(Continued on page 16.)*
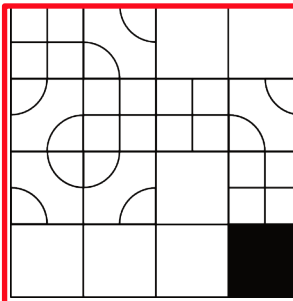
A Paeon to Pencil & Paper Games

Part 1

by Kerry Handscomb

The pencil and paper games, obviously, are games playable with pencil and paper. This definition would include connection games like Hex and Gomoku, which can be played either with pencil and paper or with physical equipment, or at least the electronic verisimilitude of physical equipment. We could argue, however, that Hex and Gomoku are best played with physical equipment. A pure pencil and paper game is not playable with a physical set or is at least difficult or awkard to play with a physical set.

Sprouts is the perfect example of a pure pencil and paper game. Dot & Boxes likewise is pure—all you need do is construct a 5x5 array of dots that would be the vertices of a 5x5 grid. Dots & Boxes is easier to play with physical equipment than Sprouts, but again unnecessary given the ease and clarity of a pencil diagram on paper. The reader can probably think of many other examples.

Black
by Dr. Black

This first game is one I have played throughout my life. It's not deep, but it's definitely a step up from Tic-Tac-Toe. I remember reading somewhere about Black in the mid-1970's, when it was attributed to a mathematician and named after him, presumably, "Dr. Black." If anyone knows more about the origins of Black, please let me know.

The board for Black is shown below.
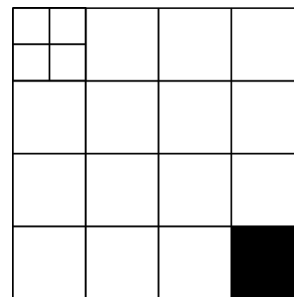
The best way to think of the cross in the top left is that it is two paths crossing, starting from two sides. first player chooses one of these two paths and extends it using one of these three options:

The second player extends this same path into another square, and so on. The same path chosen at the start must be continued throughout the game. Connecting to a square already occupied by path segments, the path automatically continues through this square. If a player connects the path to the black square, the player wins; if the player connects the path to an edge, the player loses. You can see a completed game in the header.

形棋 *Shape Chess*

by David Ploog

This game was invented by 日出 (Richu) from Guangzhou, China. The Romanized version of the title is Xingqi (pronounced "Shingchee"). Shape Chess caught my attention right away, for two reasons.

Foremost, I was struck by its goal: when charting win conditions of abstract games, I didn't encounter this one. It's a pattern game in the sense that making specific shapes is necessary to win. Classically, this means explicitly specified patterns, always understood up to translation, reflection, rotation. Oldest are lines of fixed length, as in Connect4, Renju, Connect6. Other games ask for squares where the size is generally not specified, as in Quartetto or Morelli. Sometimes there is a set of possible patterns: in Hexade, SanQi, or Six, the goal is to make a line, triangle or ring out of six stones on a hex board. Going beyond specified patterns, Manalath is partially about forming a hex pentomino—here the winning pattern is specified by size (there are 22 hex pentominoes). Deviating from all that, Shape Chess defines the patterns by a geometric property: mirror symmetry.
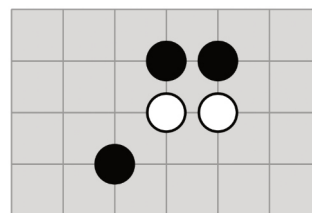
The other striking feature of this game is its origin: it is the product of a gaming community I never heard of before. By chance, Kerry established contact with a group of Chinese players and designers of abstract games, and Shape Chess is one of their fruits. I am imagining that one can see the unique style of that group reflected in the rules.
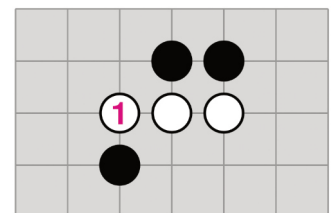
The rules
• Any square board of size 12×12 or larger, for example, a Weiqi (Go) board of size 13×13 or 19×19, or a 15×15 Renju board.
• A *shape* is a stone together with all same-coloured stones that can be reached by orthogonal or diagonal steps. A shape is *symmetric* if it is preserved by reflection along a line.
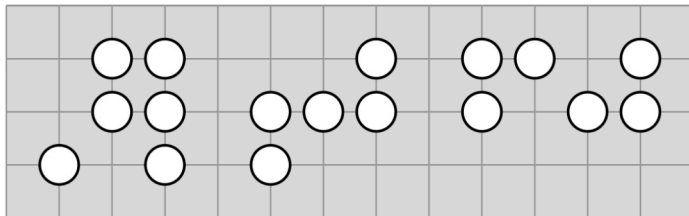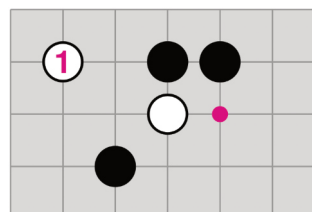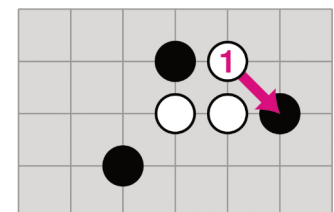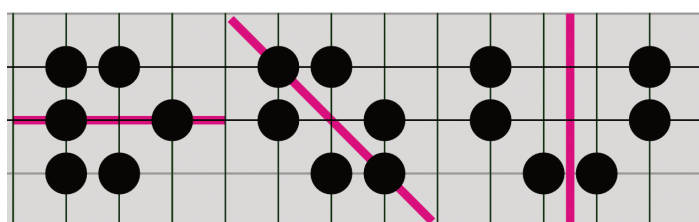

*Three non-symmetric white shapes*

Three symmetric black shapes.

• Black begins. A turn is either a Drop, a Jump or a Push:
  — *Drop* an own-stone on an empty point.
  — *Jump* an own-stone from its current point to an empty point, anywhere on the board.
  — *Push* an opposing stone to an adjacent empty point and place an own-stone at the origin.
• If after a player's turn there are symmetric shapes of ≥ 6 stones of the player's colour, then
  1. these shapes are removed from the board,
  2. the player scores n − 5 points for a shape of n ≥ 6 stones,
  3. the player takes another turn.
• The first player to reach four points wins.

For me, the symmetric shapes and the push action took getting used to, so here are diagrams explaining the rules. The diagram below deals with shapes. Note that two of the white positions have a rotational symmetry but do not count as symmetric shapes according to the rules. The three black shapes are all symmetric, each consists of six stones and would score one point.

The next diagrams explain the three types of action in Shape Chess. Each of these is relevant. The most common action is the push, followed by the drop—these add a stone which is what you generally want. The jump, on the other hand, allows splitting a larger shape into smaller ones. Used less often, it can be crucial in making, or threatening, symmetric shapes.

There is a certain symmetry to the action types if you want to see it: an own-stone can interact with an empty spot (drop), with an opposing stone (pushing it aside) or with another own-stone (making it jump in a leap of faith).

White's turn

Drop

Jump

Push

The last batch of rules diagrams shows how to score:
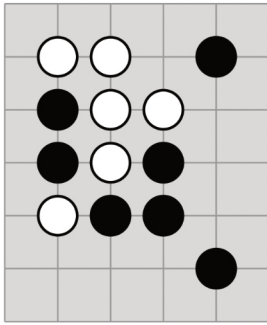
Black to play and score
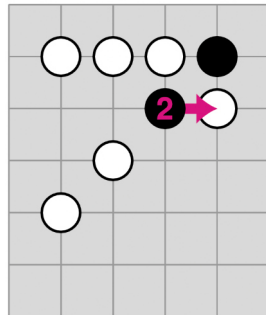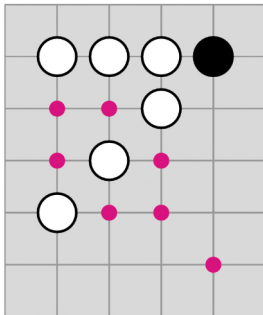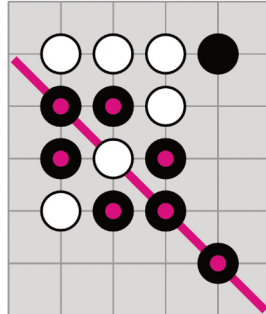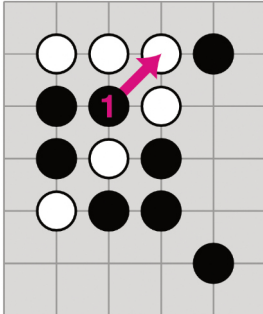
This push creates a symmetric shape of seven black stones which are removed and score 7 − 5 = 2 points for Black. Afterwards Black gets to make another turn.

History
The first version of Shape Chess is from 2010. The goal of the game—to score symmetric shapes—was kept throughout its evolution, as was the name. Incidentally, "chess" is used in the Chinese language environment for any game requiring a board. What did change was the movement protocol, attempting to fit it best to the win condition. Previous versions had various kinds of toggle capture, like Reversi. The rules given here are from 2022 and have no such toggling. Instead there are now three types of actions, of which the push interacts with opposing stones. In this form, the game is conveniently playable with standard equipment, and I like it a lot for that. Keeping track of points is also easy: when removing the stones from a symmetric pattern, discard five stones into the bowl and put the remaining ones aside; these form your score.

Basic scoring strategy
While the goal is to accumulate points, each scoring action comes with a drawback: the loss of stones, making it easier for the opponent to build symmetric shapes and harder for oneself to make more points. This is why it is usually better to aim for one's first symmetric shape to contain at least seven stones. On the

other hand, after having two points, it can be worthwhile to score a 6-shape. With a score of three, every future threat towards any symmetric shape is absolutely forcing.

Spotting symmetric shapes
Players have to anticipate mirror-symmetric patterns. This is an unusual task, made even harder as the position is ever-changing from all the pushes and jumps. Nonetheless, you can get a feeling for shape. In the first problem below, you are asked to create the largest possible symmetric shape with just one move. In the second problem, find a move winning immediately (this works for either side) — remember the bonus action after making a symmetric shape! *(All Shape Chess puzzle solutions are on page 38.)*
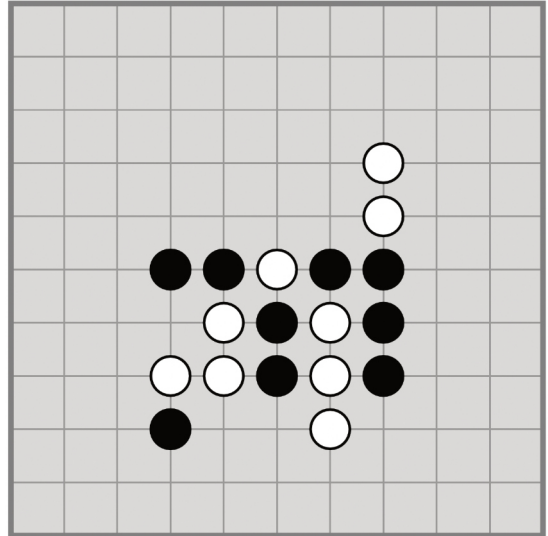
*Black to move and score 3. White to move and score 3.*
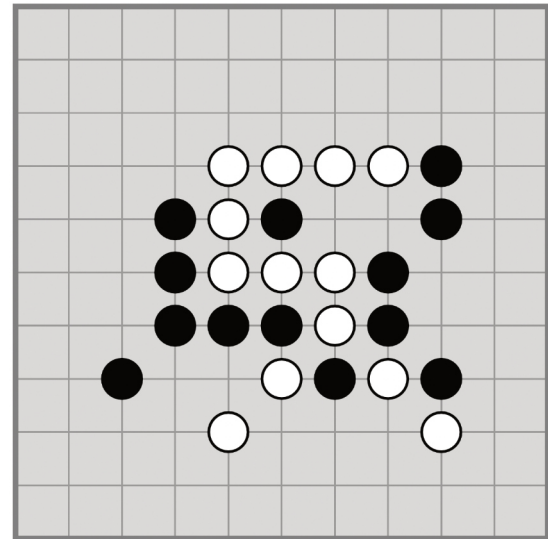
Black to move and score 4. White to move and score 4.

Secure shapes
During play, sprawling clusters often form. As the number of stones on the board grows, so do the opportunities to make a symmetric shape. Of particular value are patterns that can be made symmetrical in many ways. For example, symmetry along grid lines and diagonals is easier to make and to extend than symmetry along half-grid lines.

An asymmetric shape of size six or larger is called secure if the opponent cannot prevent it from becoming symmetric in a

single turn. Here are some secure shapes. If White is going to do something about it (not always necessary because Shape Chess is a game won on a score, not on a particular board position) then the best bet is to push a black stone away, making the shape smaller:
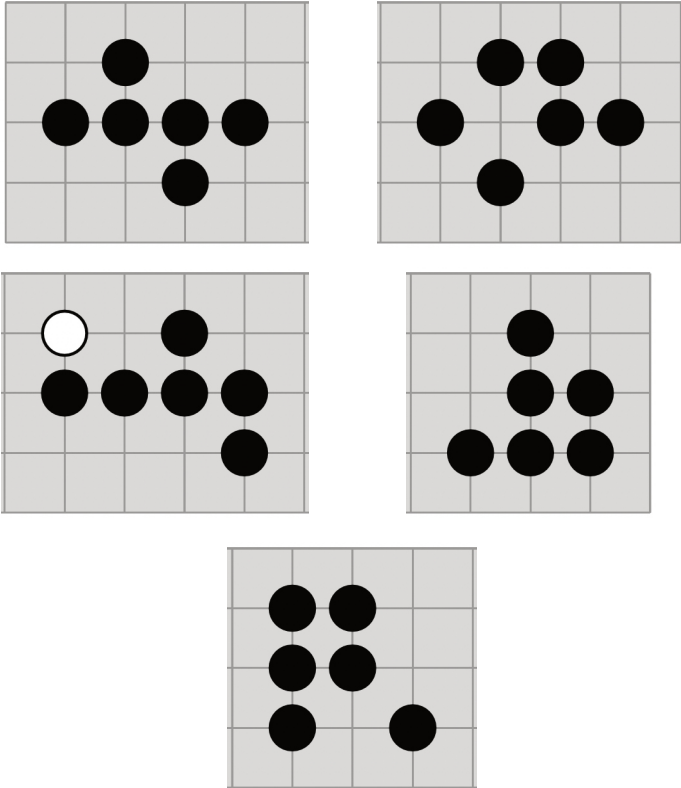
Secure 6-stone patterns: White has no move to prevent Black making a symmetric shape in the next turn.

Note that these secure shapes aren't equally valuable to Black either: two of them can be made symmetric only by a jump (which ones?), the others by a drop. The latter is more attractive for its additional point.

**The three actions: drop, jump, push**
On each turn, a player has to choose the type of move. Drops and pushes add an own-stone to the board which is generally desirable. Jumps allow one to split shapes. Often, drops and jumps have no strong impact on the opponent's position because the other player can push the stone away — unless that stone has no liberties. Therefore the main interaction, including defence, is pushing and that's why it is the most common move in Shape Chess.

A pushing battle. Opposite and on the next page is a sequence of pushing moves coming from a real game.

This kind of sprawling growth is typical for the opening. Each move **1**, **2**, **3** is a 1-point threat and **4** is a 2-point threat. Afterwards, the shapes are too large and twisted for immediate threats. Again, this is common and once this stage is reached, jumps become attractive.

When White places **3**, that stone has no liberties left, i.e. empty adjacent points where diagonally adjacent points are included. Thus this white stone is fixed for the time being, and exactly the same holds for **4**. Pushes have one limitation in being short-ranged but they are also sensitive to the position of opposing stones. This means that when there is no need to react to a threat one is often better off with a drop or jump.
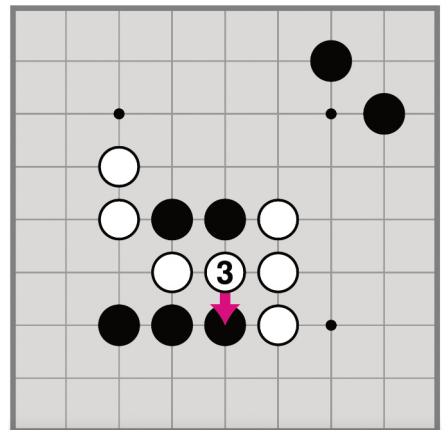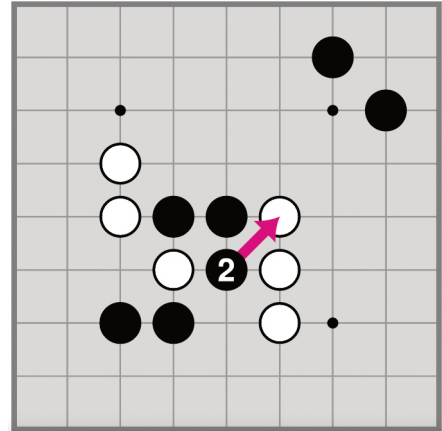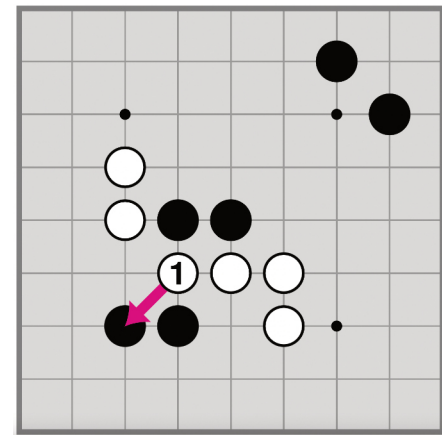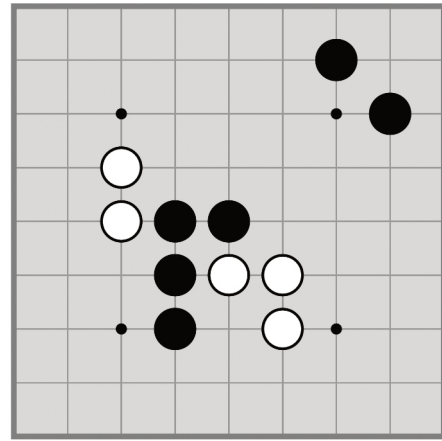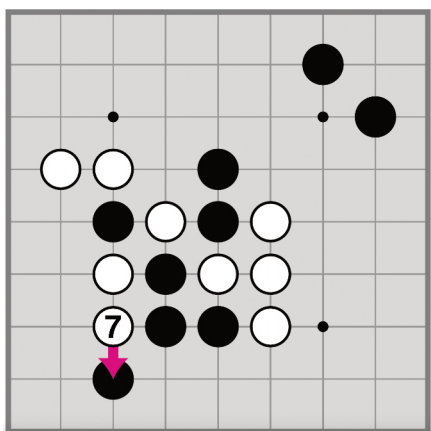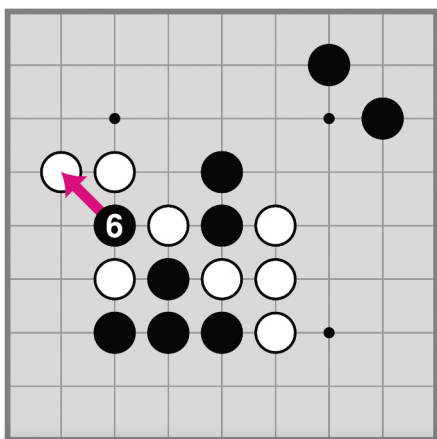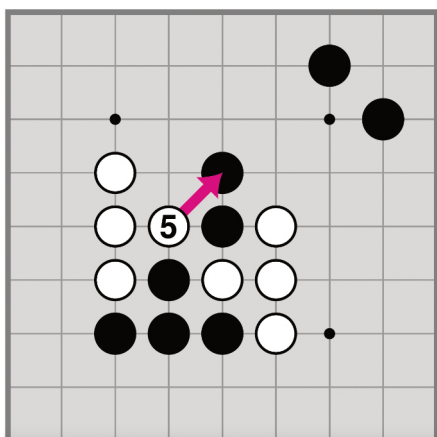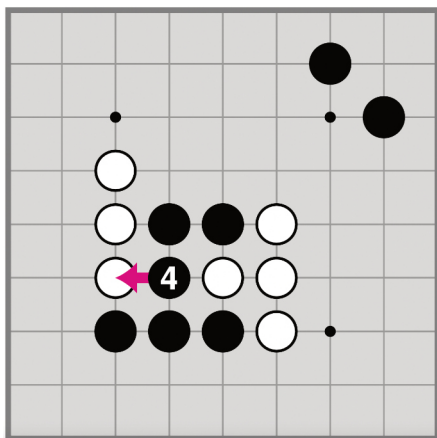
Jump. These provide flexibility as they can connect or dissect shapes. The double threats so typical in pattern games often arise in Shape Chess from jumps. Sometimes, they can perform defensive duties too.

In the following position, White uses a jump to split a large shape into two, setting up a double threat: jumping either **A** to **a** or **B** to **b** scores three points. White is active and on the attack.
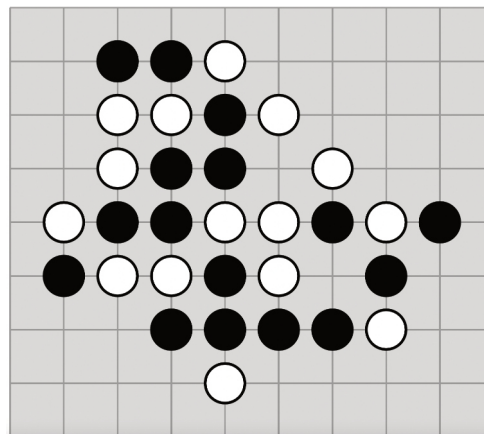
White to move, free from threats
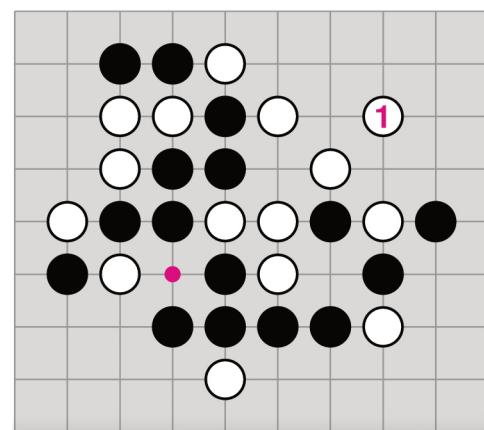
White jumps and. . .
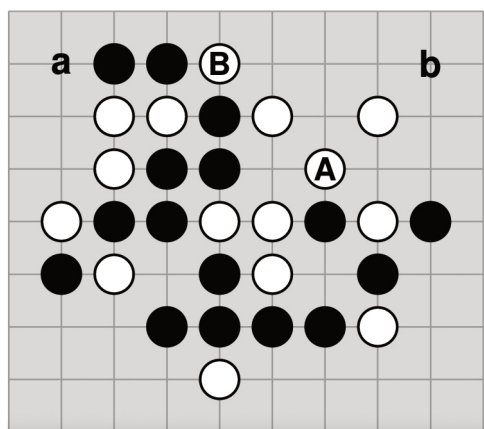
. . . sets up two 3-point threats.

"*Miss Dartle played backgammon as eagerly as she did everything else. If I had seen her, first, at the board, I should have fancied that her figure had got thin, and her eyes had got large, over that pursuit, and no other in the world.*" ~ *Charles Dickens in* David Copperfield.

Final Problem
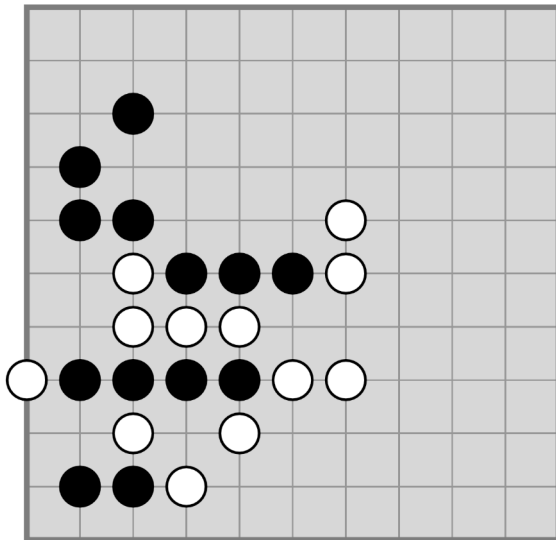
Black to mate in 3. Score 3:3.

Concluding remarks

Hopefully I could convince you that Shape Chess brings something new to the abstract board game table. Another scoring game whose points come from patterns, and perhaps closest in spirit, is Yinsh (Kris Burm, 2010), where lines-of-five are scored. In both games, scoring shapes are removed by self-capture—a natural mechanism creating tension between scoring and a weakened board position. Moreover, either game is over if a certain score threshold is reached (four in Shape Chess, three in Yinsh).

By the way, Shape Chess has an unusually high branching rate. This comes from its three actions, and there are already very many pushing moves in any midgame position. Moreover, unlike sudden-death pattern games, such as Renju, playing for a score threshold allows for tactical *tenuki* (i.e., not answering a scoring threat).

As with most point-scoring games, players of different skill can introduce a handicap by letting the weaker player start with one or two points. Because Shape Chess games end on reaching a point threshold, players can also agree to use a limit other than four for a longer or shorter match.

The game is actively played in the mainland Chinese online network QQ Channel. There, ten players had a tournament running from July 15 to August 14, 2022. Some beautiful winning patterns from this tournament are shown opposite. It's hard to take part in QQ from elsewhere, especially if unable to write Chinese. However, there are attempts to reach out: the game has a BoardGameGeek entry and is playable in Ai Ai. Hopefully, online playing for English speakers will come too. ∎

Games mentioned

Connect4: Ned Strongin, Howard Wexler, 1974.
Renju
Connect6: I-Chen Wu, 2003.
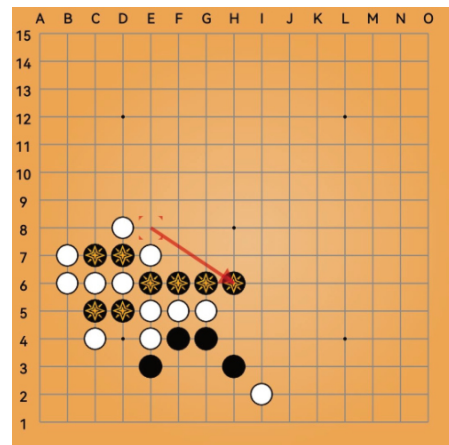Quartetto: Artyom Tchebotaryov, 2008.
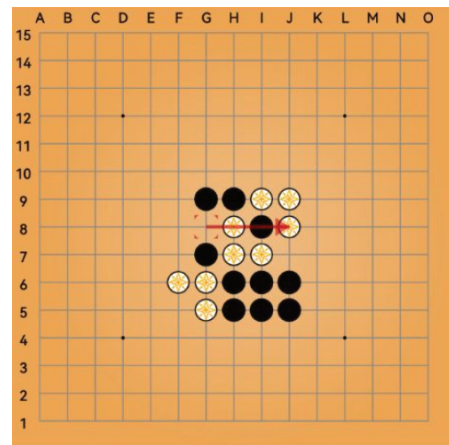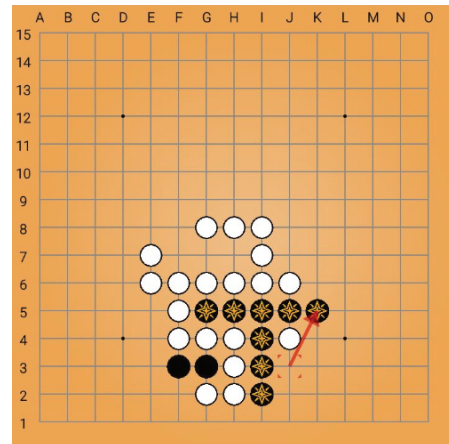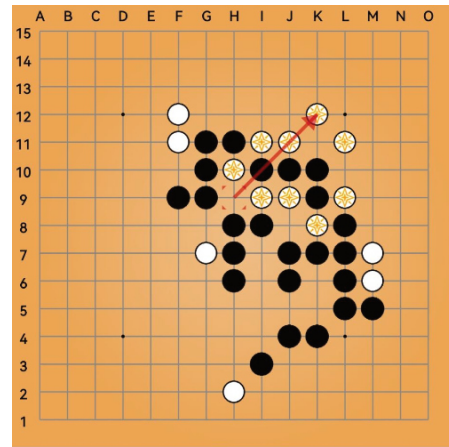Morelli: Richard Moxham, 2011.
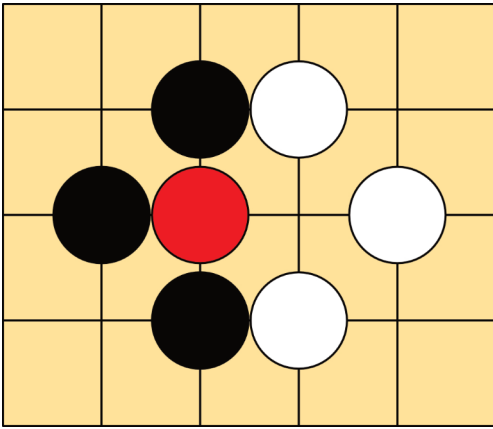Hexade: Christian Freeling, 1992.
SanQi: L. Lynn Smith, 2003.
Six: Steffen Mühlhäuser, 2003.
Manalath: Dieter Stein, 2012.
Reversi: John W. Mollett, Lewis Waterman, 1883.
Yinsh: Kris Burm, 2010.

A First look at

Redstone

Tactics

by Stephen Nulty

This is the start of some exploration into tactics for the game of Redstone. As a Go variant some tactics can be quite similar to Go but one can make use of Redstone's immortal red stones when capturing in new tactical ways!

If you haven't heard of Redstone, previous introductory articles can be found in *AG21* and *AG22*.
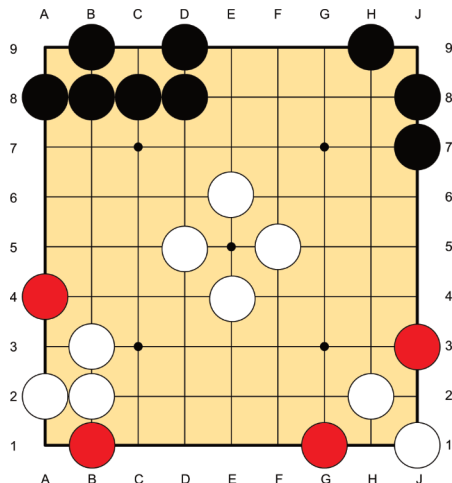
In short, the goal of Redstone is to capture all the opponent's stones, and with passing forbidden, one player will always lose all of their stones! The stones are played on the corners of squares (intersections) of the grid like in Go, and vacant adjacent (horizontal and vertical) intersections to a stone count as its liberties (lives). Adjacent stones of the same colour share life and are called a group. When a move by either player would take away the last liberty of a stone or group, the move played must be a red stone and captures all stones with no liberties. Suicide is legal, and you may capture your own stones. Sometimes a player makes a choice between extending a group or capturing it with a red stone. Red stones cannot be captured and are immortal.

Redstone is currently playable at BoardGameArena (BGA). In Go typically the letter I (capital i) is skipped when labelling the board with coordinates, while on BGA the letter I is used. We've consistently followed Go usage.

As a Go variant it seems useful to try to apply some ideas and tactics from Go as a starting point for Redstone tactics.

1. Eyes

One important concept that will be useful for fighting and capturing as well as for endgame is that of eyes. This is a concept that appears in Go and loosely speaking an eye is an intersection that is surrounded by stones only of your colour. In Figure 1 Black has eyes at **J9**, **A9**, **C9**, while White has an eye at **E5**.

In Redstone one can also make use of the red stones in order to make eyes. White has used red stones to make eyes at **H1**, **J2**, and at **A1**, **A3**.

In Go, groups with two separate eyes, like the Black group in the upper left are said to be alive because they can't be captured. If the group was surrounded both of the eye points need to be played to capture the group. Any capture must be with a red stone. However, neither move captures the group by itself and White can't make two simultaneous moves to capture the Black group.

In Redstone, however, Black's group in the upper left is only uncapturable until Black runs out of moves to play elsewhere. If the group is surrounded, Black might have to fill in one eye, and White can then capture with a red stone in the other! See the example in Figure 2, from the upper left clockwise, different stages of Black's group being captured.

Figure 2

2. Eyespace

In Go players want to surround the most area, so typically players begin to surround bigger areas of space at first rather than surrounding one point at a time. Surrounded space where one has the possibility to make eyes is usually called eyespace (although in Go there can be other terms like area, territory etc).

Typically in Redstone it pays to have eyes both to keep groups alive and in the late game to have points only you can play in. This could be the difference between saving and losing entire groups of stones!

A nice example of this was given by user antonTobi in the Online-Go.com (OGS) forum, as shown in Figure 3. Black has created three eyes, while White has created only two eyes, one eye at **A1**, and a two point eyespace at **D1** and **E1**. White cannot play inside Black's eyes, and Black cannot play at **A1**. However this brings us to the next tactic.

Figure 1

Figure 3

In Figure 5, above, we see a game where there's a fight between one large White group and two Black groups, and we will focus on the upper right corner. White has a nice idea to play throw-in stones at **F9** and **J6**. These stones can be immediately captured by Black but doing so will end up putting red stones at key positions in order to make two eyes for White's stone at **H8**. Let's see how it could play out.
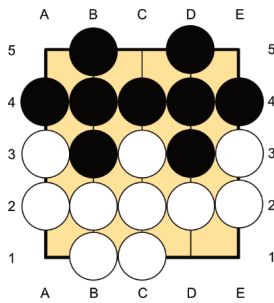

Figure 6

3. Playing in the opponent's eyespace

In the example in Figure 3, if it is Black's turn to play Black can't win by filling in Black's eyes alone. Both Black and White have three points to play in, and Black will fill in and be left with one eye before White.

However, Black can choose to play either **D1** or **E1**, let's say **D1**. White then has to play either the **E1** point as a red stone to capture or **A1**. If white plays **A1**, White's stones immediately get captured with a red stone at **E1**. If instead, White plays E1 to capture, as in Figure 4, Black can safely play one of the three Black eyes and wait for White to reach one eye first.
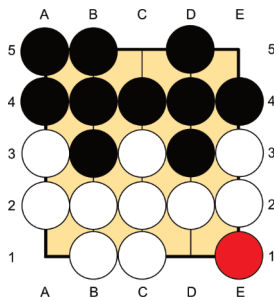

Figure 4

Okay, now for some sharper tactics to make two eyes or to capture!

4. Throw-ins

In the following few examples we'll see a tactic normally referred to as a throw-in in Go. Essentially, it's a tactic where one plays a stone knowing it can be captured but the sacrifice can give some benefit like reducing liberties, helping to prevent two eyes forming for a group, etc.
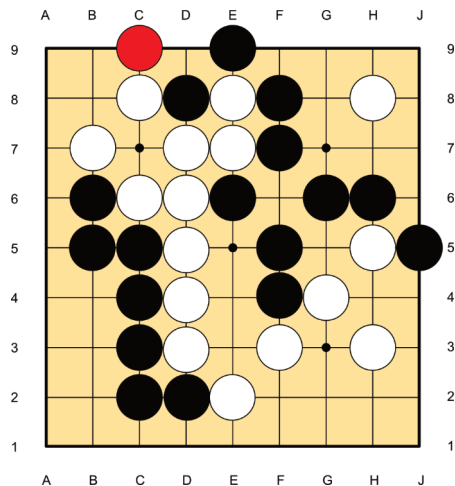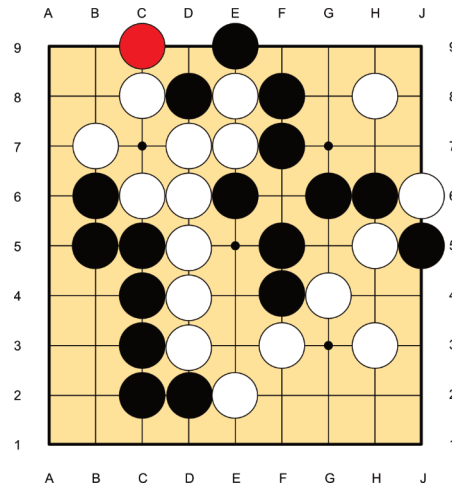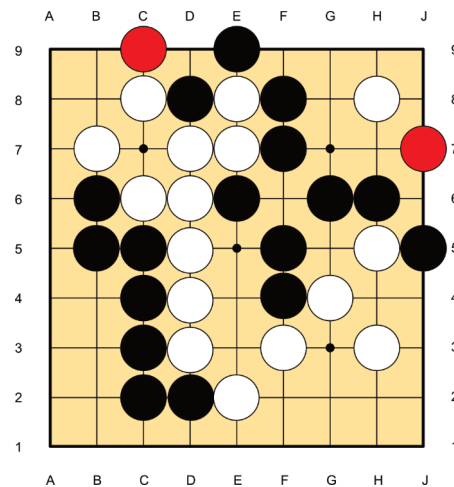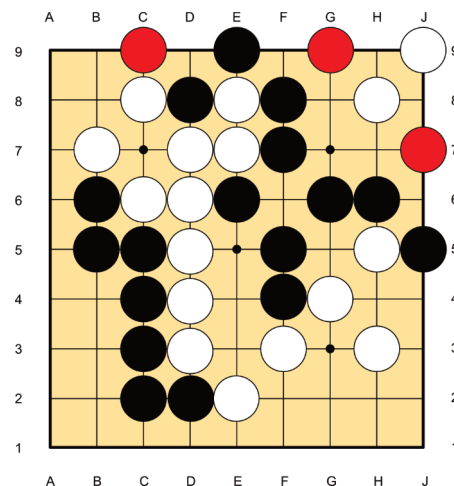

Figure 7

Figure 5

Figure 8

White plays the first throw-in at **J6** (Figure 6, above), and Black captures the White stone by putting a red stone at **J7** (Figure 7, above).

Then it's followed with another throw-in at **F9**. When captured again by Black, White plays **J9**, and in Figure 8, above, we see a familiar formation with two eyes.

So if Black plays this way White has managed to live in the corner with this throw-in technique, which is what happened in an actual game. Black might try to resist in other ways like with **G8** or **H7**, or potentially **J9** herself, but further analysis might be too deep for our current tactical exploration.

Figure 9 shows an example of a clever use of a throw-in and the usage of a red stone at a key spot to capture some stones instead. In the following game we focus on the Black stones on the bottom of the board.
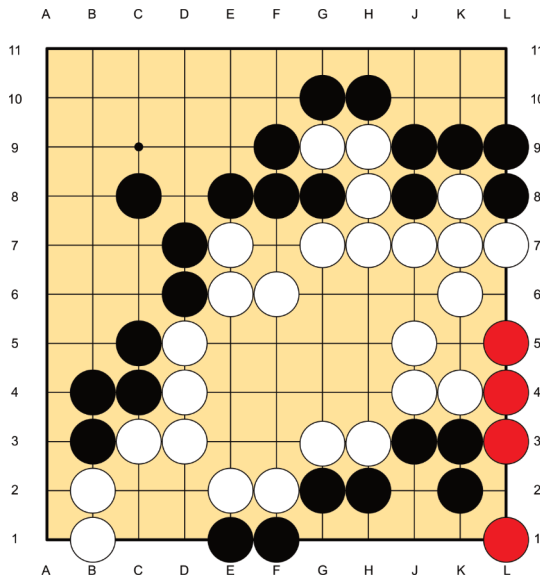

Figure 9

White plays a clever throw-in at **G1** (Figure 10), which will ultimately lead to capturing Black's two stones on the first line (edge of the board). Let's see how.
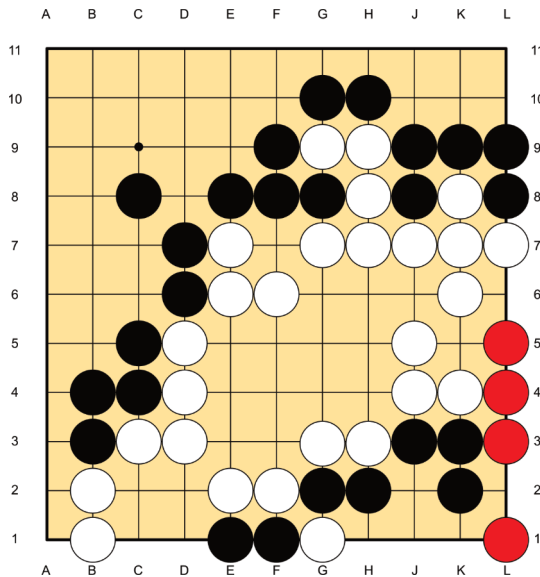

Figure 10

Black captures the throw-in with a red stone, and then White threatens to capture (*atari* in Go terms) the two Black stones by playing **D1**, as shown in Figure 11.
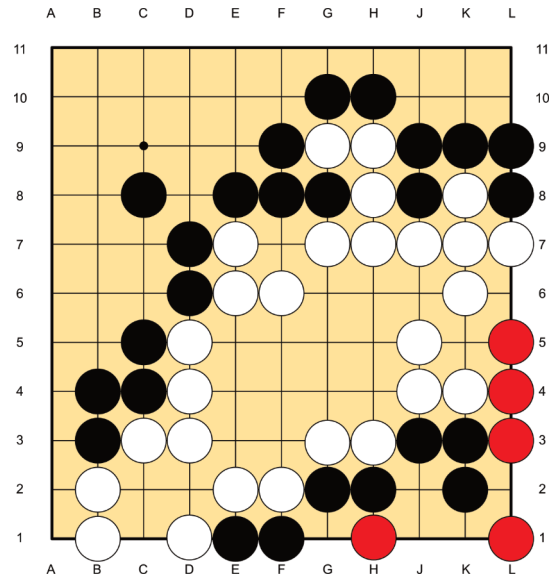

Figure 11

It turns out that the red stone from the throw-in plays a key role in stopping Black from saving the two stones. Let's see what happens if Black tries to save them.

Black plays **G1** to connect her stones, but with the red stone at **H1** Black has only one liberty after connecting. White then plays a red stone at **J2**, capturing all five Black stones! (See (Figure 12.) This is usually referred to as a shortage of liberties or *connect and die* in Go.
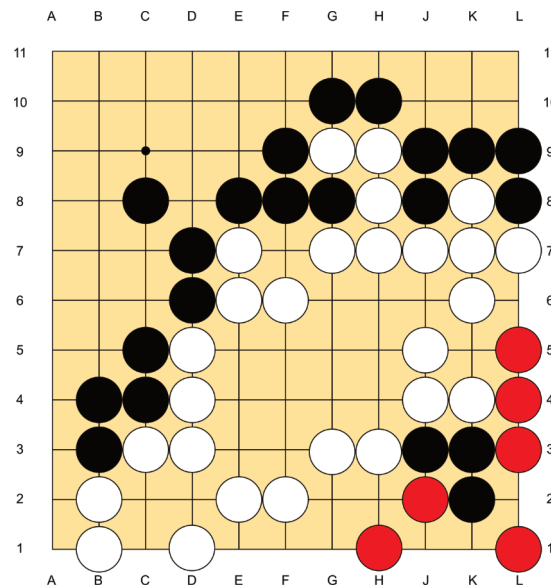
Figure 12

5. Redstone squeeze

Here's another tactic which uses the red stone from a capture to fill the opponent's liberties and ultimately capture more stones. I've termed it a Redstone squeeze, as this type of tactic is usually referred to as a squeeze (squeezing the stones, and keeping their liberties low) in Go.

In the following position in Figure 13, Black has played the unusual move of **C6**, while in a normal Go game a knight's move of **B6** might be more usual. However, this is Redstone, and the natural Go sequence that follows leads to some tactics.

Figure 13

White plays **C5** to separate the Black stones, Black blocks at **B5**, and then White cuts at **B6** threatening to capture the Black stone. Now Black cuts at **E7**! (See Figure 14.)
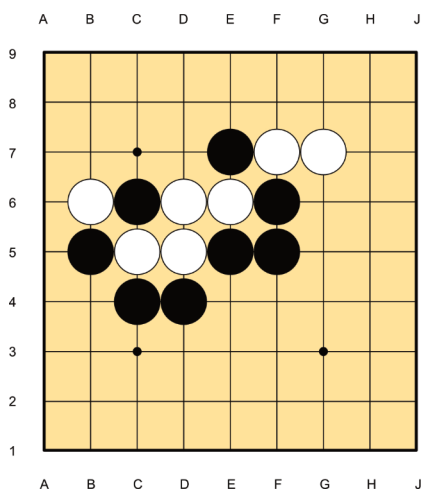
Figure 14

Normally this wouldn't work out well for Black in Go, but if White captures with **C7**, which happened in the game, we will see that the red stone is detrimental to White.
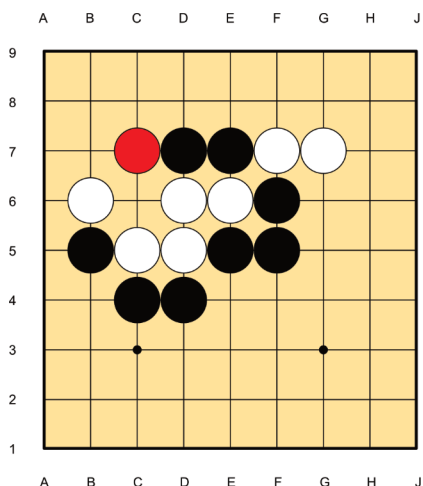
Figure 15

Black follows the capture with the *atari* of **D7**, threatening to capture the four White stones. (See Figure 15, above.)
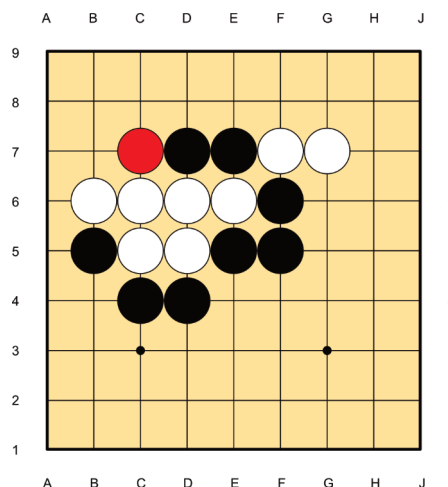
Figure 16

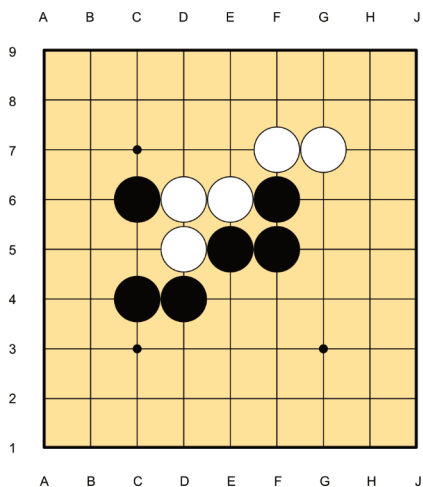If White connects at **C6**, as shown in Figure 16, above, White will lose all the stones. Let's see how.

Although White connects, the red stone keeps White at two liberties and now Black plays **B7**, threatening to capture and driving the White stones toward the edge of the board.

If White extends with **A6** Black can follow with **A5** (Figure 17), and there's nowhere for the White stones to go . They're captured!
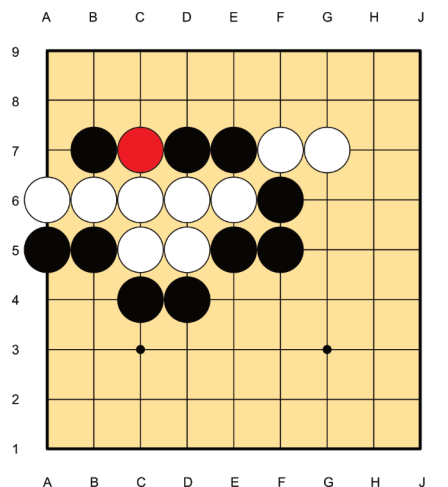
Figure 17

Stepping back a bit to Black's cut at **E7** in Figure 14, if White instead threatens to capture the **E7** stone, Black can give it up, threatening to capture the White stones and ultimately capturing the White **B6** stone instead. (See Figure 18, below.)

Again if White extends to **A6**, Black can follow with **A5** and capture as before.
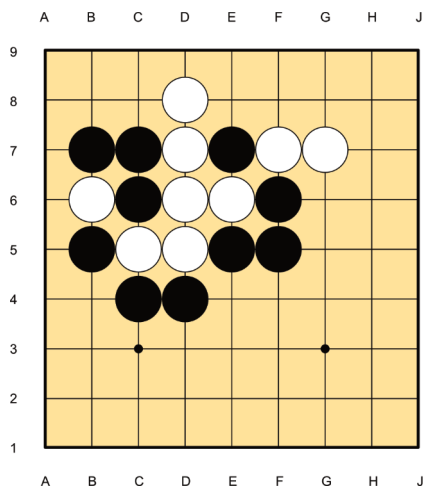
Figure 18

Figure 20

6. Mutual capture

Now, one interesting feature of Redstone that is distinct from Go is that when captures occur there isn't any priority to removing stones with no liberties. All stones with no liberties get removed simultaneously when a capture occurs and this can lead to some interesting ways to try to survive.

If we look again at Figure 17, White can think of making the best of a bad situation with the loss and choose to play on instead of resigning. One idea is the *atari* of **B8**. White knows she can't save the stones but can try make the most of the capture by putting the red stone in a good location. When Black captures (capturing the single Black stone on **C7** as well as the White group), it puts a red stone at **A7**, and White can think of a move like **D8** to live in the corner. (See Figure 19.)
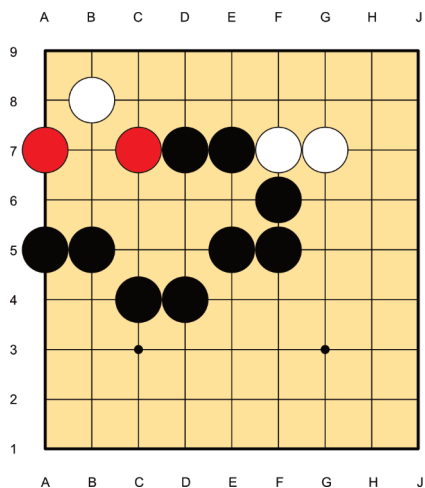
Figure 19

Figure 20 shows an example from a game, where White has got into a lot of trouble in the upper left. Black played a standard capturing sequence from Go problems to effectively capture the White stones, except one has to be careful how one captures stones at times in Redstone.

White tried to escape with the two stones with a move at **B3**. Black keeps the liberties to one and pushes White toward the edge, which is a common tactic for capturing in Go. (See Figure 21.)
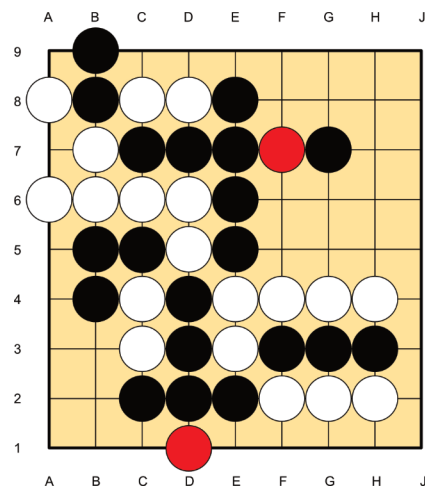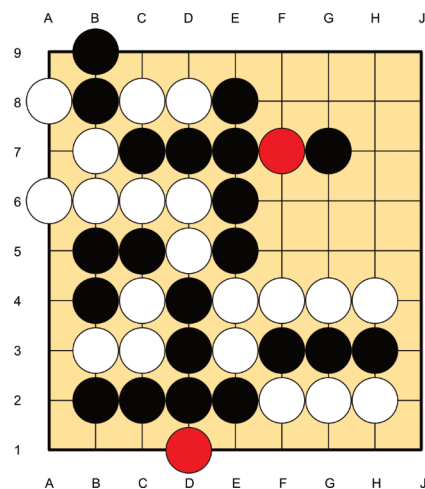
Figure 21

However, when White reaches the edge and Black plays **A2**, white plays the atari of **A5**! (See Figure 22.)
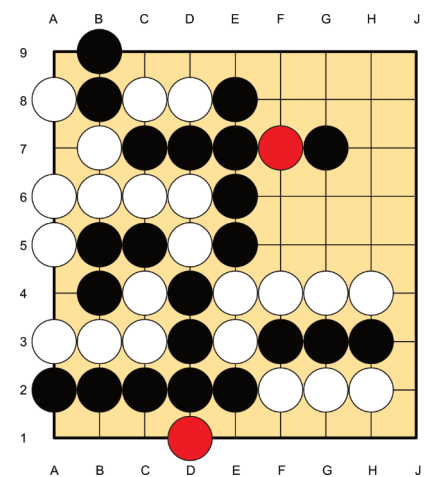
Figure 22

With the simultaneous capture rule, if Black captures the four White stones, the three Black stones are captured also! (See Figure 23.)
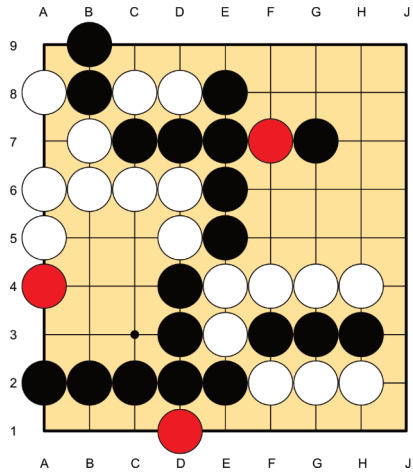
Figure 23

Now, this simultaneous capture doesn't give White two eyes, but it does give White some time before the stones are captured, and White has the first move if Black captures. In fact, White managed to turn this game around and win, too. There was a nice sacrifice tactic later in the same game, so we'll cover that later.

7. Redstone snapback
Before we continue with the previous game, let's look quickly at another tactic that uses the mutual capture tactic in Redstone in an interesting way.

In Go there's a term called a snapback, which can show up in many forms, but a simple example is given in Figure 24.
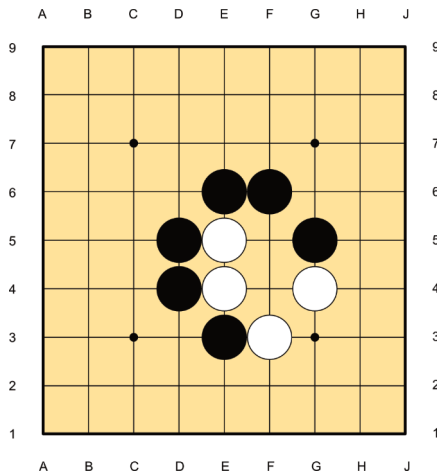
Figure 24

In Go, Black would play **F4**. Then, if White captures with **F5**, Black "snaps back" to capture the three White stones with another move to **F4**. The same position in Redstone works differently.

If Black plays **F4**, the White move to **F5** immediately captures the two White stones and one Black stone with a red stone, as shown in Figure 25.

With the simultaneous capture there's not so much "snap" in the capture, but still the Black move of **F4** captures the two White stones and the Black stone at **F4**.

A similar idea can be seen in the following game in Figure 26, although it uses the fact that captures must be red stones in a sneaky way.
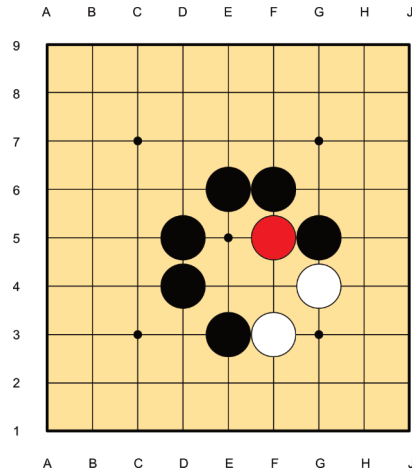
Figure 25
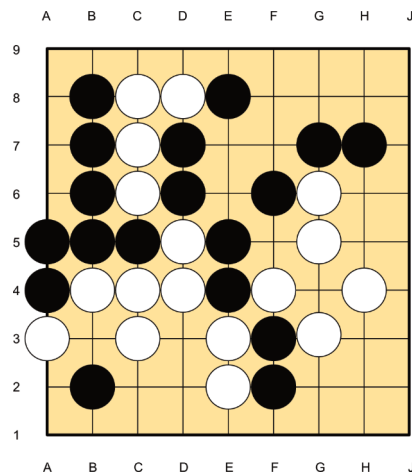
Figure 26

White's four stones at the top are in trouble, but luckily in Redstone we have a tactic available.

White cuts at **E7** with an atari, and Black connects at **E6** to save the two stones. However white has another atari at **F5** (Figure 27) and this is the sneaky tactic.
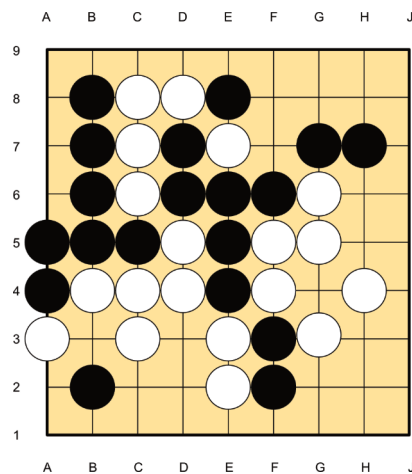
Figure 27

Black would like to play **F7** in this situation to capture the White stone and connect the Black stones, but captures must be red stones. So the Black stones in the centre and the lone White stone are captured as they stand (Figure 28), similar to the snapback above, although this time it looks a bit more jarring because of the empty space at **F7**!

Actually, either player can play **F7** to remove the captured stones and White has successfully saved her stones!
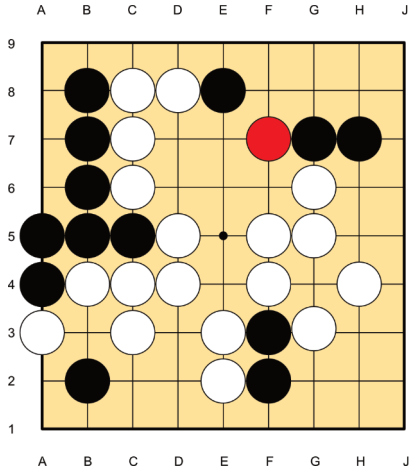
Figure 28

8. Tactical sacrifices

In strategy games, making small sacrifices to make a larger gain overall is a common tactic. One idea in Redstone is to choose to sacrifice stones such that red stones end up in good tactical locations, and an example was already seen previously with throw-ins. Here's another example.

The following position continues from Figure 22, and we arrive at the position in Figure 29, where neither player has played out the left-hand side captures for the moment.
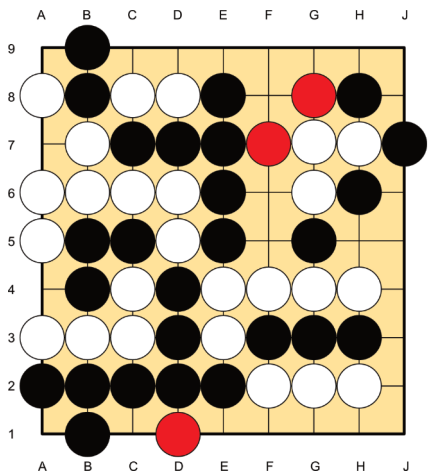
Figure 29

White plays **F5** threatening to save the three stones and Black connects with **H5** (Figure 30), which is clever since White still can't connect the stones (connect and die).

So instead White threatens to save the three stones by taking the three black stones (**F3**, **G3**, **H3**) off the board, removing the liberty problem mentioned previously.
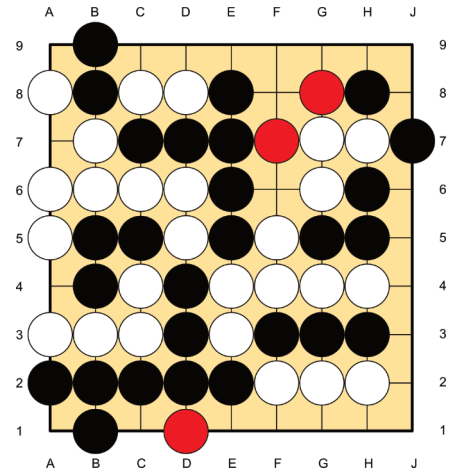
Figure 30

However, this is only a threat. The real plan is to target the Black central stones that only have three liberties. White will happily sacrifice the three stones in the top right because if Black captures them (Figure 31), as happened in the game, the red stone reduces the liberties of the Black central stones to two, enough for White to capture.
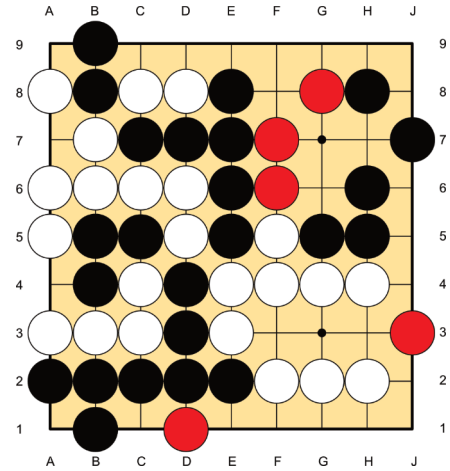
Figure 31

White can revive the **C8**, **D8** stones and capture with **E9**, as shown in Figure 32.
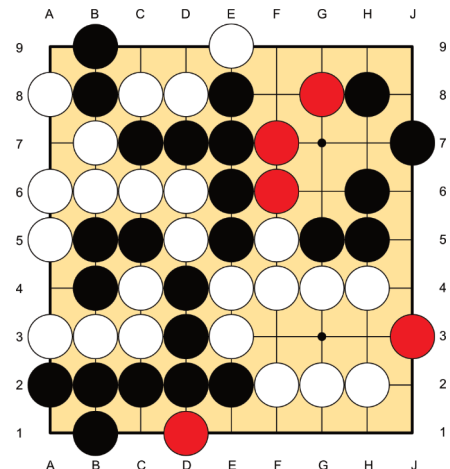
Figure 32

That's all for now, but hopefully it gives a nice introduction to the tactical features Redstone offers in addition to ordinary Go tactics. It might be useful for Redstone players to review some Go fighting tactics. I won't detail all of those here, but I recommend the interactive Way to Go tutorial as a nice starting place for Go tactics. ◼

Redstone's tactics are similar to Go's, but different, like an echo of Go. Beyond tactics, the position in Figure 3 suggests the "hard problem" in Redstone. As in Go, players will tend to form large eyespaces (i.e., territories). The question then is, whether to play in your opponent's eyespace to reduce their capability to make eyes, or whether to play in your own eyespace to create eyes. This dilemma comes up in almost every game of Redstone, even on the smaller boards, although it's a much more significant issue on the larger boards. My guess is that play in your opponent's eyespace is more efficient than playing in your own eyespace in terms of increasing the differential number of eyes between you and your opponent: it's easier to destroy eyes than create them. If this is true, then it would simplify the Redstone endgame. But it's just a guess, and even if it turns out generally to be true, there will be many exceptions. Anyway, if anyone has any ideas in this direction, we'd be happy to showcase them in Abstract Games*! ~ Editor*

In this manner, we may reach some of the features of Jetan that make it such an interesting game.

Chapter 9 covers Jetan problems and exercises. After the section of the book dealing with tactics, the problems are particularly welcome. Ekman presents ten Jetan problems with some detailed analysis of their solutions. This is fascinating stuff, and the first I have seen of constructed Jetan problems. In addition, the author presents five artificial Jetan positions, which readers may play around with to learn more about some of the key concepts for good play. For me, the book would be worth getting for this chapter alone. It contains the original fruits of Ekman's extensive investigation of Jetan.

Towards the end of the book, Ekman includes a chapter on Jetan variants. Some of these look interesting. In particular, however, he discusses Thuria Jetan, which I am partial to, as I was involved in developing the game. To my mind, Thuria with the "major win" and "minor win" distinction resolves all the difficulties of the original game. We still have the fascinating interaction between the step moves of the different pieces, but the strength of the Chief is substantially diminished compared with that of the Fliers. The pair of Fliers on each side combine to provide much of the power in the game, at least until many of the Panthans have been cleared away and the Dwars and Thoats can get into the action. I may be biased, but I think Thuria Jetan is worthy of serious investigation and a potential tournament game.

So there it is, a unique book on an unusual game. Over the years, because of its perceived flaws, Jetan has struggled to achieve recognition among serious gamers; in addition, fans of Burroughs' fantasy fiction, though intrigued by the game, have overall failed to demonstrate effectively why Jetan is worthy of further study. This new book by Fredrik Ekman is an excellent introduction to the game, complete as far as it goes in bringing together the various strands that make up Jetan culture. The author makes a clear and compelling argument for coming back to Jetan to better understand its special fascination, both as a game in itself and because of its "virtual theme." The author concludes, "Let there be jetan!" and his enthusiasm is infectious. I highly recommend this book. ◼

Jetan: The Martian Chess of Edgar Rice Burroughs was written by Fredrik Ekman and published by McFarland Books in 2022.

Gemini
A game by Fred Horn

Gemini was invented by Fred in 1990, and first published in the Dutch magazine *Natuurwetenschap en Techniek* [*Science and Technology*] in April, 2002.

Gemini is a pencil and paper game for two players, Horizontal and Vertical. It can be played on any reasonably large grid, perhaps 12x12 or bigger.

Horizontal begins by drawing a horizontal line between two points of the grid, marking two dots at the end. There must be an odd number of points between the two dots, with a minimum of 3 points between the two dots, not counting the endpoints.

Horizontal marks the centre of the line with a cross. Vertical now must draw a vertical line, with the same constraints, except that it must be drawn somewhere on the vertical grid-line that passes through the centre of Horizontal's line. Horizontal then draws another Horizontal line somewhere on the grid-line that passes through the centre of Vertical's line, and so on. Horizontal always draws horizontal lines; Vertical always draws vertical lines; each line must have an odd number of grid-points between the dots, numbering at least 3, not counting the endpoints; each line drawn must lie somewhere on the grid-line passing through the centre of the line last drawn by the opponent.

A line cannot be drawn so that its end point dots lie on a previously drawn line; neither can a line be drawn so that it passes through a previously existing end-point dot. Horizontal cannot draw a line so that the centre cross is vertically aligned with a centre cross Horizontal has already drawn—and equivalently for Vertical. Lines can cross any number of previously drawn lines.

The diagram below shows a game won by Vertical. The order of the moves is indicated by the numbering of the centre-point crosses. Vertical has won, because after move **(18)** Horizontal cannot now draw a legal line.
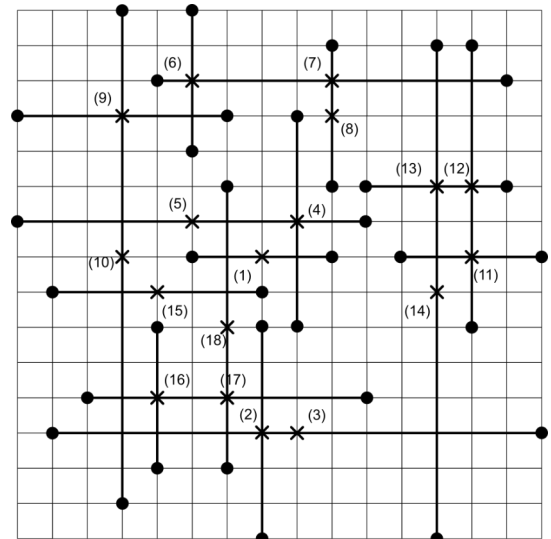
Gemini, or "Twins," refers to the pair of dots at either end of a line. Gemini can be played with a Go set, with Go stones marking the end-points, where Horizontal uses the Black stones and Vertical the White. You have to imagine the mid-points, and you don't actually draw the line connecting the two endpoints. However, I think it works better as a pencil and paper game, with dots and crosses and lines. It's best to use grid paper, but otherwise Gemini is a an example of a game that fits the genre well—it is playable with nothing but pencil and paper, and is best played with pencil and paper. Gemini is an interesting concept—now what constitutes good play? ◼

Finitude and Aesthetics

by Mark Steere

I had never been a player of games. In my early thirties I learned of Go and Reversi and Hex and Y, and though I had never played these games, I was smitten by them. It occurred to me that people had designed these games. They weren't just "there." My next epiphany was that I too might be able to design an abstract game. And I did. I designed Quadrature (winner of the Mensa Select award). After playing it around 1000 times with my downstairs neighbour, we got into what seemed like a cycle. I was horrified. I didn't want to believe it. We played the game out for a few more moves and yes. We were caught in a cycle. Neither of us could break out of it advantageously, so we called it a draw. I was totally devastated.

I set about to remedy my melancholy by designing a finite game with the elegant equipment of Go (with which I was enamoured, though I'd only seen pictures of it). After weeks of pacing around in my bathrobe in a trance, staring at my bathroom and kitchen floor tiles, trying to imagine a possible finite game mechanism.... Tanbo dawned on me. A phosphorous bomb exploded in my head. My vision was literally flooded with pure, bright white light for a few seconds. Whatever you may think of Tanbo, for me its discovery was a beautiful moment that I will never forget. For the record, full size, 19x19 Tanbo is extremely robust. There's a statistic on SuperDuperGames, a combination of 9x9 and 19x19 Tanbo data, that shows an advantage for Player 1. For Tanbo, 9x9 is, a tiny board. Strong turn order advantage, if not an outright solution, is to be expected in any tiny game.

I was still very naive at that time about the world of abstract games. I thought everyone hated draws. A game is like a judge. Its function is to determine a winner and a loser—every time. Anything less would be a failure. Years later I would come to understand that some people don't mind the occasional draw. They even like draws, as long as they don't happen too often. To me, draws are a weak conclusion to a hard fought battle.

I should be calling finitude "hard finitude" since the emergence of the concept of "soft finitude." Soft finitude is where the game is supposedly finite because there would obviously never be any advantage to entering into a cycle. In reality, soft finitude is difficult to prove, and the definition defaults to, "I played my game 100 times and never had a cycle, so it must be soft finite." Henceforth in this article, finite will mean hard finite: You couldn't have a cycle even if you and your opponent wanted.

The only game that I'm convinced is soft finite is one contrived by Corey Clark. Call it Hex SF. It plays exactly like Hex, except you have the option of removing one of your stones from the board on your turn. Cycles would certainly be possible, but nobody would ever remove one of their own stones. Corey proved a point. Soft finite games exist. But I think one general principle remains valid. If cycles do occur in a particular game, then with increasing skill, cycles become ever more likely, as we see in Chess and Checkers. Christian Freeling reminded me that I once said cycles are like cancer. They eventually kill a game. I

had completely forgotten having said that—but yes. No modern game will ever be played as much as Chess or Checkers, but if it were, it could befall the same fate: Death of a thousand cycles. At the very least, for me anyway, it's a question of aesthetics. I don't like cycles, however likely or unlikely they may be eventually to overwhelm a game.

Aesthetics are subjective. You can't really make a logical argument about the preference for finitude in games, but that hasn't stopped anyone, including myself, from arguing about it. Some people have claimed that in non-finite games, perfect play results in a cycle, and this is aesthetically more pleasing than perfect play in finite games, which must end with an unseemly automatic win for Player 1 (or Player 2).

There are problems with this argument. One problem is the assumption that perfect play is relevant. If play ever becomes perfect or even near perfect, the game is no longer a game. I think there's a sweet spot there. You don't want gameplay to be too close to perfect—or too far from it. Enter scalability, which is an important practical consideration. If players are becoming too skilled (approaching perfection), and first (or second) move advantage is becoming an issue, you can usually just change up to a larger board to fix the problem. Almost all of my games are scalable for this reason (and because board size independence is an aesthetic bonus).

The other problem with non-finite games ostensibly being "balanced" is a false premise. Non-finite games played perfectly do not necessarily end in a cycle. If I may draw upon Corey's game again, perfect play in Hex SF doesn't result in a cycle, it results in a win for Player 1. This soft finite game has the same high level of first move advantage as Hex, though Hex's first move advantage can be greatly alleviated with the pie rule. The pie rule is a blemish on a game, but if it can salvage an otherwise outstanding game, as it does with Hex, I believe its use is warranted. It pulls its own heavy weight.

In non-finite games in which expert play usually leads to a cycle, if there isn't a cycle then there will be an advantage for one of the players. If a cycle doesn't occur in Chess, Player 1 is more likely to win. I've never heard anything to convince me that there's anything even remotely redeeming about cycles.

Finite decisive games are the most challenging to design. Inventing a game is like digging for gems. Designing a soft finite game is like finding a chunk of amethyst or onyx. A true finite game is more like a sapphire or diamond.

One more modifier for finite: "Natural." Naturally finite, decisive games don't have to be sullied with aesthetic abominations like *ko*, the fifty move rule, and *komi*. I've seen designers introduce their new game as "draw free," only to read a little further and have my initial excitement dashed by the game's reliance on *komi*.

Beyond finitude, I believe a game should use standard, generic equipment. I don't like rings, balls, cones, pawns, meeples, gates, bridges, toothpicks, or any other kind of non-standard equipment. I generally am not a fan of neutral pieces, though I am willing to break this rule, if compelled to do so, as with Redstone. Boards should be standard square checker boards or standard hexagonally patterned boards. Though again, I will break this rule (or any other rule) if sufficiently motivated along a design line. My use of generic equipment is mainly aesthetically motivated, but I'm glad if makes the game available to anyone with a Checkers set, for example. I designed Byte and Impasse to use the exact equipment of Checkers; likewise, Monkey Queen uses the equipment of International Checkers. I don't remember why I called it Monkey Queen. There's no obvious connection to the behaviour of primates. I don't have the imagination now that I once had.

I'm not a big fan of "with a twist" games. The design process presents me an opportunity to showcase my originality, and that's

what I like to do. There's nothing like Cephalopod. There's nothing like Kubodai. The more unique, the better. That being said, I've designed a ton of connection games, all of which are Hex or Y with a twist.

When designing a super simple game, the design universe shrinks considerably. Icebreaker turns out to be similar to Hey That's My Fish and other games in the "tile claiming" class. The difference with Icebreaker is that cells can be revisited. You can traverse open ocean. And of course, Icebreaker is decisive.

My initial exuberance, some 30 years ago, about finitude in games was not well received. It was met—I was met—with indifference, even resentment. At the time I was pounding out a new finite game every two weeks. Aaron Dalton, a truly nice guy, was agreeing to program my new games for his new game site, SuperDuperGames, sight unseen. I remember when Mark Steere Games games comprised about half of SuperDuperGames. Aaron's support motivated me back then. Now, finitude is kind of a "thing." Some negativity still lingers, like cosmic microwave background radiation. I'm not blaming anyone, other than myself. I was brash and I made a big splash. Or maybe more of a tsunami, with all the welcome of an actual tsunami. But now I feel appreciated, by some, and I appreciate the appreciation.

Architecture, the beauty of a rule set, somewhat independent of the gameplay, is what matters to me. I say "somewhat" because gameplay has at least to be robust. A rule set shouldn't be an arbitrary hodgepodge of discordant rules thrown together. There should be only the minimum rules necessary to embody a simple core concept. Arbitrariness is subjective of course. Other designers may think my games are arbitrary in the sense that they could have been put together a little bit differently to embody the same principle. And they're probably right. But my games are never hodgepodge. There are no ornamental, gratuitous rules.

I don't use rules that I consider to be cliches. This is just a guideline for my own designs and is not intended to impugn other skilled designers or their fine games. But I have rarely employed the jump, and have never used the jump-capture. It's too Checkers-like, already employed in the vast expanse of Checkers variants. Likewise, I would never use the Knight move. It would be like living on a deserted island and preparing coconut fricassee, coconut flambé, coconut souffle.... I have, however, often used King and Queen moves. They're elemental and generic, and don't reek of Chess. Chess and Checkers variants are valid and interesting. There are many critically acclaimed, well thought of such games. While I truly appreciate them, they're not in my wheelhouse.

I haven't thus far mentioned the subjective experience of a game's quality of play. Other designers, like Dieter Stein, are acutely attuned to a new design's gameplay. They start with a concept, play-test it, tweak it, and play-test it again until they arrive at a game with a quality of play that meets their high standards. I can't do that. I do play-test sufficiently to make sure the game is robust. If it isn't, I toss it out. Very rarely have I tweaked a game. Usually the fundamental concept is so simple that it can't be tweaked without drastically altering it. Better just to start from scratch. Silo had developed a strong first move advantage. (I think, by the way, I'm about done designing one-dimensional games. I can see now that they're more subject to "patterns of play" than their higher-dimensional cousins.) Michael Amundsen suggested a tweak that cleared up Silo's issue, so I adopted it. I was already in discussions with the management of BoardGameArena about withdrawing my Silo program, but Michael's tweak saved it from the chopping block. Gopher was solved by Drew Edwards (designer of Mattock) for odd size boards, so I changed my Gopher BGA program (while still in development, fortunately) from size 5 to size 6. Those are the only two tweaks I've ever made to my games that I can think of. I'm loathe to collaborate with other designers. It's a selfish

thing. I want to have complete control—but if I had to collaborate, Michael would be a good choice. I consider him to be the current torch-bearer in this thin slice of the design universe we've found ourselves in. (I should also mention Alek Erickson, Mike Zapawa, and Luis Bolaños Mures.) I'm past my prime at age 62. I couldn't have done Rive at this age. Or Oust. Lately, I can't design anything, and I've hit a brick wall. So now I'm programming. I have a large reserve of candidates to draw upon.

For me, a new design's gameplay has always been hit or miss. Usually miss. As luck would have it, a small percentage of my games ended up having quality play. And... I believe players appreciate an elegant set of rules, separately from the gameplay, though a game must play well if players are to stick with it. I appreciate what other designers do in their tweak cycle pursuit of excellent gameplay. It's not what I do, but not everyone has to do what I do.

I like Urbino, though I've never played. I like the name, the theme, the architects, the finely crafted wood board and pieces from various publishers. It has an appealing overall package. Urbino would never occur to me, and I wouldn't release it if it did—but I appreciate other artists and their work, however dissimilar to my own. (Game design is also a science. My games have drawn the attention of mathematicians and computer scientists over the years. Recently, Jonathan Baker of Virginia Tech wrote an elegant proof of Silo's finitude, which I posted on Mark Steere Games.)

Publishers generally do not like to produce games with generic equipment. They don't want to expend a lot of resources promoting your game when players can just go out and buy a $5 Checkers set and play it, and that is perfectly understandable.

Designers are always hoping for a hit. We put a lot of work into our games and it's nice when our work is appreciated. But we know our game won't be the next Chess. A shot at fame isn't what drives us generic-equipment, abstract-game designers. What drives us is creative self-expression. We'd design games even if nobody would ever see them. It's a hobby, just like building and flying remote control planes that may not fly well or might even crash. We just go back to our garages and build another one.

A word on integrity: If your new game landed in the immediate vicinity of an existing game, credit that game. It doesn't matter where your train of thought began. It matters where it arrived. If you've designed what's obviously a minor variation of Reversi, for example, don't make the ridiculous claim that your game has nothing in common with Reversi. ∎

References
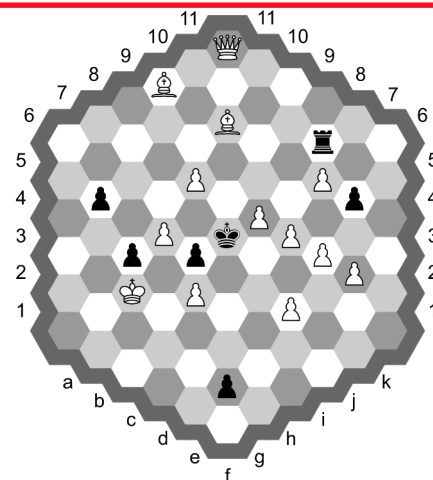
Super Duper Games: http://superdupergames.org/
Board Game Arena: https://boardgamearena.com/
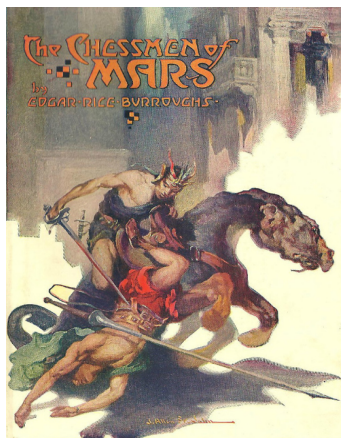Mark Steere Games: http://www.marksteeregames.com/

HexChess Puzzle 1

by Schenkerik Csaba

White to play and mate in 2.

Solution on page 28

The Jetan
Princess under Threat

by Fredrik Ekman

Edgar Rice Burroughs' Jetan rules are, in some respects, vague and ambiguous. That has been known for a long time, and remains one of the reasons why the game has never gained wider recognition. The reasoning in this article is equally valid for Jetan and Thuria Jetan.

One Jetan ambiguity that has received very little attention regards threats to the Princess. The original rules simply state: "The Princess may not move onto a threatened square." The reason why this is ambiguous is best understood when compared with Chess. Consider the corresponding FIDE law: "Leaving one's own king under attack, [or] exposing one's own king to attack ... is not allowed."

In reality, there are three different situations that need to be covered by this kind of rule:

1. An opponent's piece moves to attack the Princess/King.
2. The moving of another friendly piece would put the Princess/King under threat (called a "pin" in traditional Chess tactics).
3. The Princess/King is actively moved onto a threatened square.

Only the last of these situations is covered by the Jetan rule, whereas the corresponding Chess law covers all three (the second phrase covers both situations 2 and 3).

George Fergus, who wrote a proposal for Jetan standard rules around 1965, was probably the first to address this problem. Fergus notes exactly the same division that we find in the Chess laws: "It is my feeling that consistent board games should have both of these rules rather than one or the other of them alone, since they are essentially two aspects of the same idea—that a player may make no move which would expose his Princess to attack." Fergus comes to a pretty radical conclusion, noting that "neither of these two rules is necessary to the game, since anyone who is foolish enough to expose his Princess to attack <u>ought</u> to lose the game" (original underlining). He therefore suggests that the rule should be omitted, rather than amended or revised.

There is one aspect, however, that Fergus failed to consider, an aspect that topples his tower of arguments: Jetan has two royal pieces.

In a 1999 article, Taylor Kingston approaches the same problem from a different angle. How, he wonders, can you force the capture of Chief by Chief? One possibility that he comes up with is a situation such as described in the diagram opposite.

Kingston writes: "In this position Black's Dwar on **C5** is pinning the orange Chief, as he cannot move off the **C-file** without exposing the Princess to check. Now by moving his Chief to **B4**, **B5**, **C4**, **D4**, **E4**, or **E5**, Black would be in position next move to capture his paralyzed counterpart and win." Some of Kingston's square references are wrong, and have been corrected. (It should be noted that Kingston missed one step in his

analysis, so that if Black were to move to **E5**, for example, orange Princess would be threatened by black Chief, after which moral constraints no longer stop orange Chief from moving out of his pin to attack black Chief. This kind of situation is covered in no version of the rules, neither Burroughs' nor Fergus' nor mine. I will not further discuss this situation here, since it is beside the point I want to make.)
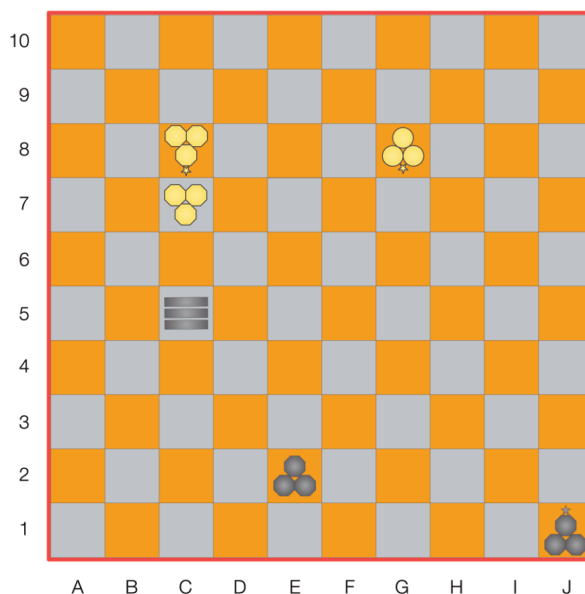

Figure 1: Capture of Chief by Chief

A situation such as described by Kingston requires clear rules for how to handle the Princess under threat. In Fergus' interpretation, orange Chief can capture black Chief, because there is no rule against passively or actively exposing your Princess to threat. In fact, Kingston comes to the same conclusion, but through different reasoning: "My view is that the Chief capture, by occurring first, would take precedence, and thus Orange could capture and win."

Even so, Kingston's analysis shows exactly why Fergus' conclusion, that these rules are unnecessary, is wrong—because it is not only about the Princess. The Chief is there, also, and whenever the Chief is nearby, the dynamics involved when threatening the Princess change dramatically, as seen in Kingston's example. The main reason for this is that the Chief and Princess are not equal: The Princess constantly needs to be protected from the other player, whereas a Chief by Chief capture is very difficult. This inequality, built into the rules, must be the reason why Burroughs added his incomplete rule about the Princess under threat, and it is also the reason why the rule should be amended, rather than deleted.

Another aspect is Jetan's infamous tendency to draw often. The problem with the many draws depends to a large extent on the playing styles of the players, and there are too few recorded games to say anything certain about how widespread the "draw issue" really is. Yet, it is generally perceived as a problem, and therefore needs to be addressed. Amending the rule here discussed would potentially allow for more "Chief captures Chief" victories, thereby possibly decreasing the number of draws. Even though it would perhaps be a very marginal difference in practice, I feel that every rule or interpretation that helps to reduce the number of draws is a good thing.

Now I am going to be honest: In my own games of Jetan, or in any other people's games that I saw recorded, I only experienced a single occasion where such a rule would make a difference to the outcome. That was in the Thuria Jetan game recorded and annotated below. After move **39**, Black has the option to move his Flier to **B7** to threaten orange Chief, but if he were to do that, Orange could have moved **40....Pt E3–E2 (+)**, thereby winning material (the Panthan avoids capture), gaining a tempo and forcing the Princess to retreat, because Black must move out of the threat to the Princess before he can address his attack on the orange Chief. Thus, Black had to consider other options and decided to capture Panthan with Warrior, forcing his Warrior into an exposed position, which eventually decided the game in the Orange player's favour.
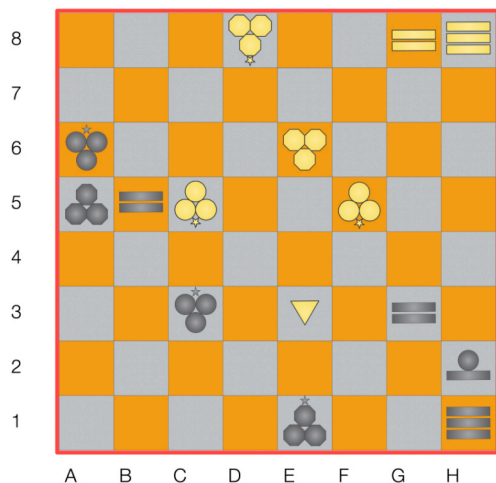
In my book *Jetan: The Martian Chess of Edgar Rice Burroughs*, I divided the rule for the Princess under threat into two segments (these being identical for Jetan and Thuria Jetan). The first reads thus: "A piece may never move in such a way that, by the execution of such a move, its own princess is put in direct threat from an opponent piece..., even if that move would otherwise win or draw the game." And the second: "[The Princess] must not end its move on a square threatened by an enemy piece. When in direct threat from an opponent piece, the princess must move away (if possible), unless the threat can be voided in some other way or unless the opponent princess is already under threat."

A Game of Thuria Jetan

The following game of Thuria Jetan was played between Kerry Handscomb (Black) and Fredrik Ekman (Orange). The majority was played over a video link on 23 April 2022; the last few moves were played out over e-mail in the ensuing weeks. The game was played with the optional rule that the capture of a Chief with a piece other than the other Chief is a "minor win."

Abbreviations: Th – Thoat, Wa – Warrior, Pt – Panthan, Dw – Dwar, Fl – Flier, Ch – Chief, Pr – Princess, + – Princess threatened, e – escape, c – Chief taken, minor win

Figure 2: Position after 39.... Pt×E3

Figure 3: Thuria Jetan setup

But if this rule only comes into play that rarely, then what is the big deal? What is the point of including it? For me, the reason is simple. It is about the beauty of the game. Because even if it only happens in one game out of one hundred (to be honest, all the games I have played do not come close to a hundred, even when added up with other people's recorded games that I have studied) it is bound to happen sooner or later, and when it does happen, it is all the more satisfying. It is like that perfect Queen sacrifice in Chess. It happens in maybe one game out of hundreds, but every fan of the game experiences a feeling of wonder when it does happen. And it adds depth to the game. A layer beyond the superficial—a step above the norm.

In conclusion, then, I suggest that Burroughs' Jetan rules should be amended in the following way (added text in italics):

"The Princess may not move onto a threatened square, *nor may a player move another piece in such a way that, after the move is completed, that player's princess is under threat from an opposing piece, even if the move would otherwise win or draw the game. The Princess may not capture an opposing piece.*"

NXS endgame puzzle:
What is Black's best move?
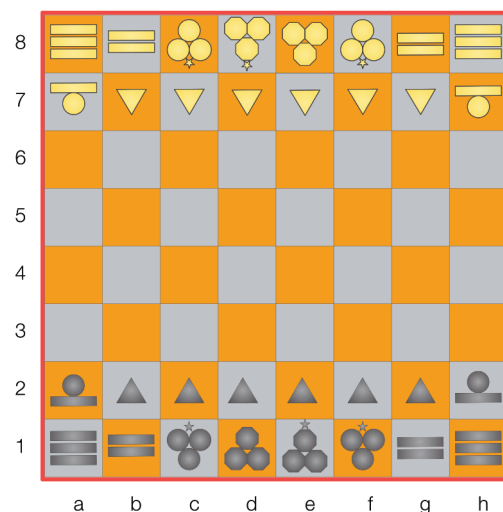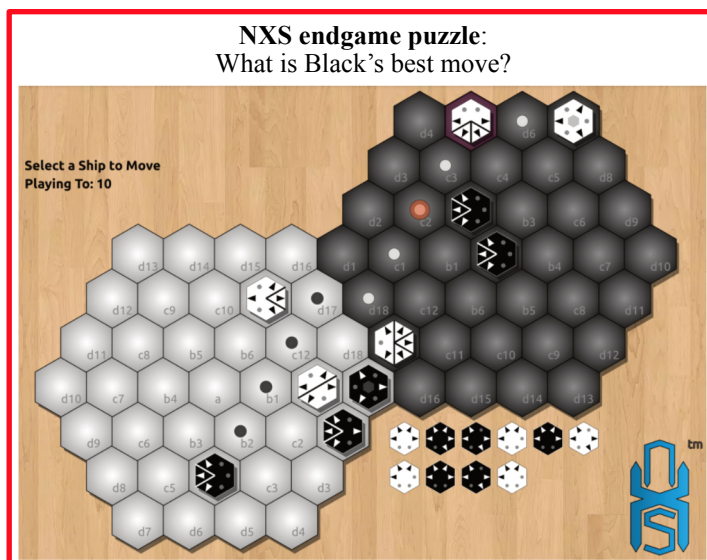
1.PtB2–C3 PtF7–E6, 2.Wa–B3 PtG7–G6 3.PtG2–F3 Th–F6, 4.Wa–G3 PtG6–F5, 5.PtC2–D3 PtB7–B6, 6.PtF2–E3 Pt–C5, 7.Fl–F2 Th–C6, 8.PtD3–C4 PtD7–D6, 9.Fl–C2 *(Positioning of the Fliers is crucial in Thuria Jetan. Black's choice to place them on C2 and F2 gives them good coverage of half the game board, with a view to attack Chief or Princess in the future. Orange, on the other hand, creates a "terror balance" over most of rank 5 by allowing his Fliers to remain in their initial positions. Thus, no Flier can make an aggressive move without risking an immediate trade. See Figure 4.)*
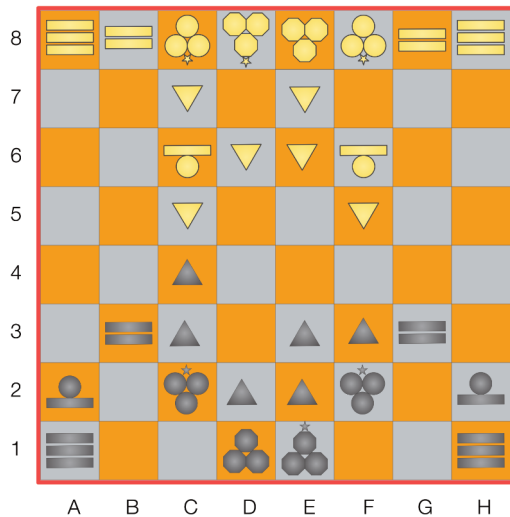

Figure 4: Position after 9.Fl–C2

9....Pt×C4, 10.Pt×C4 Pt–B6, 11.Pt–C3 PtE6–D5, 12.PtE2–D3 PtE7–E6, 13.PtC3–B4 PtD5×C4, 14.PtD3×C4 Pt–A6, 15.Th–C3 Wa–B6? *(This opens for a triple fork after Black's next move, which will force orange to retreat with his Thoat, causing a tempo loss, and to trade a Warrior for a Panthan. Both are weak pieces, but the Warrior is usually regarded as the stronger in traditional Jetan, and this difference should be emphasized in the Thuria Jetan endgame. See Figure 5.)*
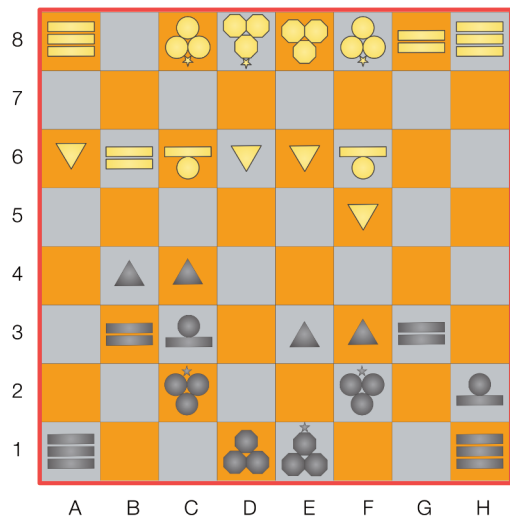

Figure 5: Position after 15....Wa–B6?

16.PtB4–B5 Pt×B5, 17.Pt×B5 Th–B8, 18.Pt×B6 Dw×B6? *(Orange exposes a power piece without adequate backup, allowing Black to chase it around and finally trade it advantageously for a Thoat.)* **19.Th–B5! Dw–A6!?, 20.Wa–A4**

Dw–C5, 21.Th×C5 Pt×C5, 22.PtF3–F4 Ch–C6!? *(Black now has a considerable advantage, with much better developed pieces and a slight material advantage. Orange, however, has control of the centre, which will turn out to be crucial. At this point, Orange would have been wiser in developing some more of his pieces, instead of throwing the Chief into the fray, to be chased around the board for a bit. See Figure 6.)*
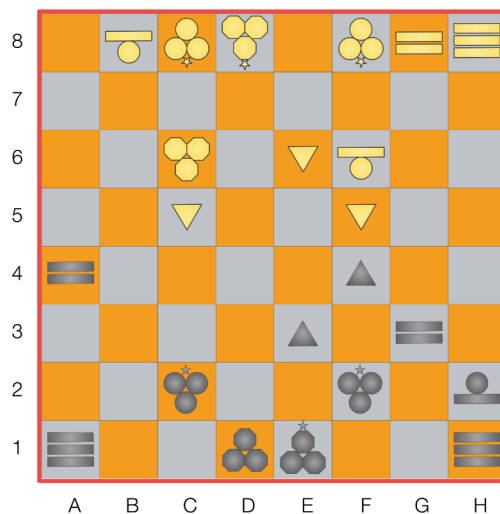

Figure 6: Position after 22.....Ch–C6!?

23.Fl–D3 Ch–B4?, 24.Fl–C3 Ch–A5, 25.Dw–B3 Ch–C7, 26.Fl–B6 Ch–D7, 27.Ch–C3 Th–C6, 28.Fl–A6 Ch–D6, 29.Fl–A3 Ch–C7, 30.Ch–D3 Pt–B4 *(Forces a trade of Panthan and Thoat for black Dwar; this should in theory be fairly equal, but Black gives up some of his command of the centre.)* **31.Dw×B4 Th×B4, 32.Fl×B4 Ch–B6, 33.Wa–B5 Pt–D5, 34.Fl–C3! Ch–C7, 35.Fl×F6 Ch–E6, 36.Pt×F5!?** *(This is perhaps the game's turning point. It would have been more aggressive, and possibly better, for Black to protect his Flier with either Warrior or Thoat. See Figure 7.)*
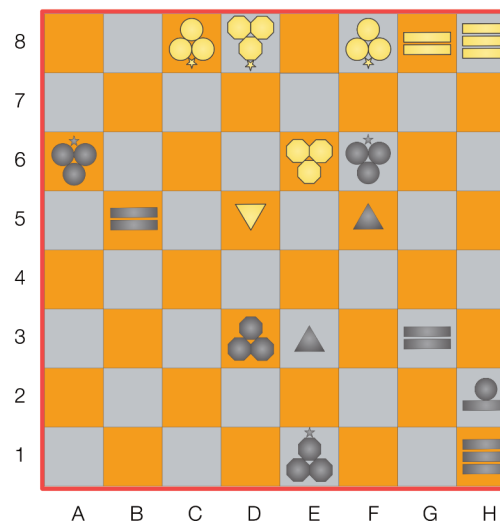

Figure 7: Position after 36.Pt×F5!?

36....Fl×F5, 37.Fl–C3 Pt–E4!, 38.Ch–B4 Fl–C5, 39.Ch–A5 Pt×E3, 40.Wa×E3 Ch–E4, 41.Ch–C7(+) Pr–H6(e) *(Escape is necessary at this point, as Black will otherwise catch up, e.g. 41. ... Pr–F7, 42. Ch–E7(+) Pr–H5, 43. Ch–H6(+) and Orange is forced to escape into a more vulnerable position. See Figure 8.)*
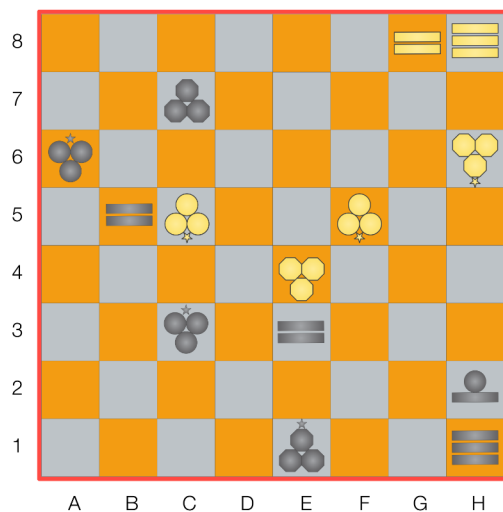
Figure 8: Position after 41....Pr–H6(e)

42.Fl–D4? *(Not a very good move, since the Warrior is lost anyway. This move gives Orange two options. 42....Fl–B4(+) inevitably leads to a minor win (or a draw, if the optional rule about minor win is not in force), since he forks Black's Chief and Princess and will go on to capture Chief after the Princess has escaped. The other option is to play 42....Fl×D4, 43.Wa×D4 Ch–E2(+), 44.Pr–A7(e) Ch×D4, which wins Warrior. The order is important, or Orange will lose tempo and his Chief will be left behind on second rank. In this line, Orange can look forward to a long and complicated endgame where black has a material advantage, but two of Black's pieces are cut off from the main force and initially of little use.)* **42....Fl–B4(+), 43.Pr–A8(e) Fl×C7(c)** *Orange wins.* ■

References
Header image: Edgar Rice Burroughs (1922). *The Chessmen of Mars*. A. C. McClug. [front cover], painted by J. Allen St. John.

• Edgar Rice Burroughs, *The Chessmen of Mars*, Gutenberg edition, Appendix (in the Gutenberg e-text, the Appendix is appended to the end of Chapter 22, rather than as a separate segment) https://www.gutenberg.org/ebooks/1153
• Fredrik Ekman, *Jetan: The Martian Chess of Edgar Rice Burroughs*, published July 2022, McFarland
• *FIDE Laws of Chess*, adopted at the 88th FIDE Congress at Goynuk, Antalya, Turkey, in force from 1 January 2018 (paragraph 1.4.1) https://www.schachschiri.de/fide_18_eng.pdf
• George Fergus, "Jetan (Martian Chess)," *The Gamesman* #5, The Games Bureau, 1970 (the article was first published in *The Gamesman* #1, but reprinted in #5 along with a new appendix; the discussion referenced here is from the appendix)
• Taylor Kingston, "Is There Chess on Mars?," 1999 https://www.chesscafe.com/text/jetan.txt
• Edgar Rice Burroughs & Fredrik Ekman, "The Rules of Jetan, or Martian Chess," edited 2019 https://www.erbzine.com/mag70/7030a.html


Whist
"The rubber was conducted with all that gravity of deportment and sedateness of demeanour which befit the pursuit entitled 'whist'—a solemn observance, to which, as it appears to us, the title of 'game' has been very irreverently and ignominiously applied." ~ The Pickwick Papers, *Charles Dickens*

Chigorin Chess

by John Vehre

This is an interesting variant with unequal forces, invented by Ralph Betza and not by the great Russian Chess player himself. Chigorin Chess is one of the last variants that I have tried before writing this column. The idea behind the variant is to pit Leapers against Sliders. On a regular 8x8 board four Bishops face off against four Knights. The Knights are also joined by a Chancellor and the only Sliders that White has left are his King and Rooks. Below is the starting array.
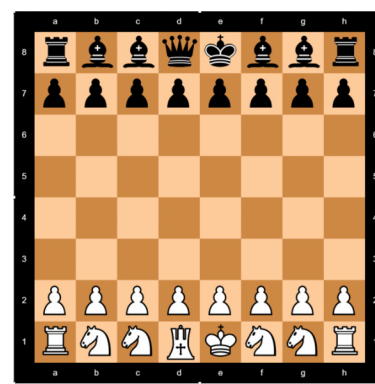
Chigorin Chess opening setup

All the basic rules of Chess apply in this game. Both sides can castle and the only unique "Fairy" piece is the Chancellor, which as usual, moves like a Rook and a Knight. In Green Chess play, programming only allowed White to play the Knights and Black the Bishops.

Mikhail Chigorin did not invent this variant and the name derives from Chigorin's supposed fondness for Knights over Bishops during his career. This preference was shared by many others in the 19th century. Similar to many inexperienced players, the players of that time overvalued the Knight's ability to reach all the squares on the Chess board as well as his ability to hop over obstacles. In Chigorin's case, this fondness for Knights perhaps is more myth than reality. Still, his classic win over Emanuel Lasker at the Hastings 1895 tournament does show how well a Knight pair can be handled successfully against a Bishop pair in certain types of closed and blocked positions, even against a World Champion! The game remains a classic worth studying by players of all levels.

The Question remains: how balanced is the game? From a material standpoint things look about equal. Bishops and Knights are supposed to be of equal value and the Chancellor on an 8x8 board usually is considered to be only slightly weaker than the Queen. Certainly no more than a half Pawn. Still the mighty Bishop pair has been seen to be worth as much as a half Pawn over the Knight pair and Black has two such pairs! If one adds up all these factors then perhaps White is playing under a Pawn and a half handicap!

If there is a bright side for White, he can certainly develop much faster than Black. White may only need to make a couple of Pawn moves in the opening, mostly to battle for the centre.

Otherwise, White's Leapers can enter the fray without making Pawn moves. Black on the other hand does not have this luxury and must move at least four Pawns plus additional Bishop moves to bring his pieces into play. The White development lead may compensate for the long term advantage the two Bishops do offer, at least in the opening stages of play. If White is up three tempos in the opening maybe he "gets a Pawn back" if we are trying to value dynamic factors.

White also can take some solace in the redundancy factor that Black faces by having each of those sets of two Bishops riding on the same limited 32 square colour complex. One can certainly ask, does Black having two pairs of Bishops on the same colour add tremendous force there or does having a second Bishop just result in the two getting in each other's way? Scenarios can and do arise where Black may have been forced to exchange off both Bishops of one colour, being then stuck with his two remaining Bishops on the same colour. That colour complex may certainly be well controlled, but what about the other one now empty of Bishops? How do two Knights match up against two Bishops on the same colour? The general impression is that this is not a good thing and if possible players in practice try to avoid this scenario!

So how do we answer the balance question? In the games that I have tried with this variant, I have won equally from both sides of the board. Still, my experience has been rather limited to only a handful of games either through Green Chess or playing my friend and fellow variant fan, Jesse Berry at his tea shop in Greenville. My opinion of the game is prejudiced to some extent. By nature in more than 50 years of playing Chess, I have been more the serene positional Bishop player than the maniacal tactical Knight player. In the games of Chigorin Chess I have played, I have found it easier to win with the Black Bishops than with the White Knights. My instinct tells me there is not a complete balance here and the Knight side may need more help— but more on that later!

A Question of Time
The following game shows many of the problems both sides face in this variant. White using his more agile Knights quickly gains a lead in development that allows him to obtain a space advantage and a dangerous attack. The game becomes critical, but Black defends carefully and manages to keep White's avenues of attack closed. Behind his barricades, Black then slowly builds up dangerous counter threats. As happens many times with Knights, White is unable to mark time and finds himself in a position where he practically is in Zugzwang. The obvious waiting moves available to him just seem to lead him into ever more unpleasant situations. Like the boy riding the tiger in the old children's story, there is no good way off and staying on the tiger will soon not be a good option either! Lacking any decent waiting moves I decided to keep riding the tiger and tweaking his nose, charging head on with a speculative piece sacrifice. This sacrifice, while perhaps not totally sound, does require time to refute. Playing 50 or more games beside this one, Doug may not have that time and decides basically to ignore the sacrifice. Instead, after a few less than optimal moves Black ends up drifting into a lost position when he allows the Chancellor to infiltrate into his position.

Green Chess Website Game
*October 3-November 20, 2020*
White : John Vehre
Black : Doug Dysart

1.e4 e5, 2.Nf3 c6
This is a developing move in this position, opening the diagonal for the b8 Bishop while defending the threatened pawn on e5. Black has a lot of choices. 2....d6, 2....f6 and even the Latvian

Gambit-like 2....f5 all seem like decent defences. In this variant, White lacks a white-squared Bishop and far roaming Queen. Moving the f-Pawn one or two squares is perfectly safe and Black's King does not feel so drafty as he might in a regular Chess game. Moving the f-Pawn even has many advantages. It is a developing move and psychologically making a move like 2....f6 might throw off a classically trained player. One of the first traps you learn is 3. Nxe5 in regular Chess, which of course does not work here. If White continues with 3. d4 Black can advantageously play 3....ed4, 4.Nxd4 c5!? [Another ugly move in regular Chess!] 5.Nf3 d5 and all the Bishops have open diagonals and easy development into the game. White should play in a more restrained fashion with 3.Ne3 or 3.Nc3 before advancing so precipitously into the centre of the board.
3.d4 ed4, 4.Nxd4 f6, 5.Ne3
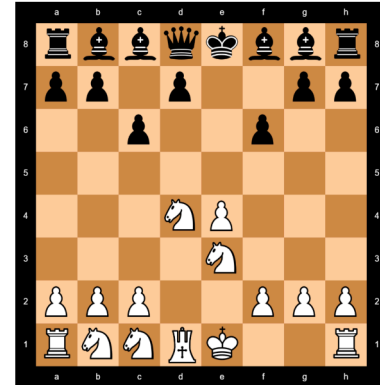
Position after 5....Ne3

5....Qc7
Black wants to prevent White from castling King-side. Black could have also considered the sharper isolated pawn position that arises after 5....d5, 6.ed5 cd5, 7.Nc3. I like playing this position as a gambit and probably would try 7....Bfd6. White can grab the pawn right away with 8.Ncxd5 Bxd5, 9.Nxd5 but with 9....0-0 Black has good compensation for the Pawn. The position is nice and open for the Bishops and it is tough for White to castle in the next few moves without returning his ill-gotten gain. White also can win a Pawn with 8.Ndb5. Black can continue to play in "gambit" style with 8....Bge6, 9.Ncxd5 0-0, 10.Nxd6 Qxd6. This again yields a pleasantly open position for the Bishops, where White again needs a few moves to bring his King into safety. Black seems to have good play for his Pawn. Doug may not have wanted to play so aggressively or just distrusted being down a Pawn.

Of course there is nothing wrong with the move chosen in the game. It stops castling for a long time, without having to give up material. The down side is that Black remains in a somewhat cramped position. The position also remains pretty closed, something that Knights tend to prefer over their diagonally bound comrades.
6.Nd3 Bf7
Both sides calmly develop their forces. The Knights naturally gravitate towards the sub-central squares c3, d3, e3 and f3. Black, on his side of the board, decides to prepare for castling. As usual in such unbalanced games, there are always unusual or even ugly tactical tries that must be considered. 6....c5 was something I examined with the idea of disrupting the calm promenade of White's cavalry. Under the laws of regular Chess it should not work and it really does not here either. After the retreat 7.Nde2 White will soon occupy d5 under very favourable circumstances. Less good would be 7.Nb5 Qa5+, 8.Nbc3 a6, 9.Na3 b5 justifying Black's sharp reaction. With a Black ....c4 coming quickly White's Knights while fully developed are not feeling very

comfortable in the face of Black's onrushing Pawn phalanx! One could also say that three of the four Black Bishops are fully developed just sitting on their home squares!

7.Nc3 Be7

This time against 7....c5, I had planned the Pawn sacrifice. 8.Ncd5 Bxd5, 9.Nxd5 Qa5+, 10.b4!? cb4, 11.0-0 followed by Ce3 and e5 under the right circumstances.

8. N4f5?!

When I made this move, I thought it was rather clever since it practically forces a Black fianchetto on the King-side and creates a target for me to attack. Unfortunately it also will end up losing a tempo and the h-Pawn attack will look more threatening than what it actually is! I should have waited and withheld Nf5 until Black had castled. Continuing my development with 8.Cd2 looks more natural and it is probably anybody's game after 8....0-0, 9.f4. In this position, White will have to decide on which side of the board he is brave enough to castle or whether he even wants to castle!

8....Bf8, 9.h4 g6, 10.Nd4 Bg7

Position after 10....Bg7

11.N4e2

Remember move 8? Here we are again except I have made the move h4, and Black managed to squeeze in g6 and Bf8-g7. I think Doug more than managed to have the better bargain out of that transaction of tempos! When I arrived at this position, I had considered a number of other replies, but could not come up with anything better than this meek retreat. I really wanted to play the more aggressive 11.h5, but after the central counter-thrust 11....f5, I did not like my position after the forcing sequence 12.hg6 hg6, 13.Rxh8+ Bxh8, 14.Nf3 [With the idea of playing e5] 14....f4!, 15.Ng4 [The ugly 15.Nf1 probably is necessary with just a bad rather than a lost position!] 15....d5, 16.Nh6 Bfe6 and it looks like I will soon drop that stalwart steed on h6. I also examined 11.f4. The idea was to meet 11....f5 with 12.e5 and the resulting closed position could end up being a "Knight" game. Black can play to open the game with 12....d6, 13.Nf3 a5 [To harass the e3 Knight] 14.Cd2 Ba7, 15.Ce2 d5, 16.0-0-0 Bce6 with chances for both sides, but hardly any of that is forced. Black can also play more patiently with 11....0-0 not rushing forward with ...f5. In my notebook I considered 12.Cf2 d5!?, 13.0-0-0 [Taking the Pawn allows ...Re8 and the Ne3 is not feeling the "love."] 13....Qb6, 14.Cf3 de4, 15.Nxe4 f5 winning. 11 f4 just seemed to leave all the Knights in too unstable a situation! Knights by their nature like support in the centre, whether from Pawns or Bishops. Lacking Bishops White needs to be extremely circumspect with any Pawn moves.

Withdrawing the Knight allows White to prevent Black's ...f5 and White keeps more control over the position with this retreat. At least for the moment Black lacks a direct hook into White's position.

11....b6

Black could have considered playing 11....f5 anyway! The Pawn sacrifice looks pretty strong after 12.ef5 d5, 13.fg6 hg6, when Black has a great game. He is threatening ...d4 and it is hard to see how White will be able to avoid the total dispersion of his cavalry. White does better to decline the poisoned Pawn and should instead prepare to castle long with Cd2 or play h5 and just hope for the best!

12.h5 d6, 13. h6

White gains a little space with this double-edged thrust and maybe a tempo or two back. On the other hand it will be hard to open lines for an attack if Black finally decides to castle King-side. Still keeping the position closed makes it more comfortable for the Knights than the Bishops.

13....Bf8, 14.Cd2 Be7, 15.f4 0-0, 16.0-0-0?!
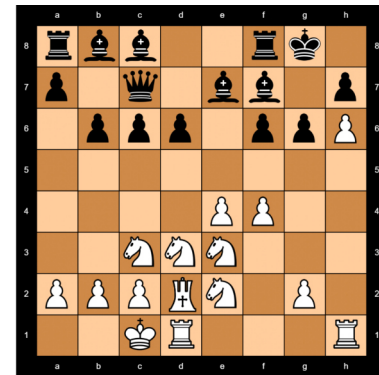
Position after 16.0-0-0?!

This was a hard move to make. White clearly wants to attack on the King-side, but his Pawn on h6 has closed off many avenues of attack. Black can easily evade line opening tries such as a possible future White f5 with ...g5 or g5 with f5. This is the down-side of the space gaining thrust h6. To break through White probably must sacrifice a piece. Black on the other hand is behind several tempos in his Queen-side attack, but he has a full range of possible line-opening Pawn thrusts available to him.

16.Cf3 was a logical alternative. White would make a useful move, both supporting the loose Knight on e3 and bringing his Chancellor over a little closer to the Black King. It is a move that he probably needs to make anyway with or without castling and again has the advantage of not committing himself too early to an opposite side castling battle that he might not be able to win.

Still, looking at my notes, I had hoped with castling to introduce concrete play in an otherwise murky position. By encouraging Black's Pawns forward, I thought there was a decent possibility of gaining useful Knight outposts, especially on d5! Whether this outweighs giving Black a clear target to attack is doubtful and the Chancellor move was better than the move chosen in the game.

16...a5

Black begins his Pawn storm, and at the same time gives his b8 bishop another developing square on a7. 16....b5 was worth considering, contemplating bringing the Queen to a5 and starting a quick attack with his pieces rather than relying on the slow march of his pawns. In my notebook, I also looked at two less logical moves. First the counter-blow in the centre with 16....f5 just looks too risky, although it may be just barely okay. I then examined an equally risky antidote 17.ef5 gf5, 18.g4!? fg4, 19.Nxg4 Bxg4, 20.Rdg1 Be6, 21.Nd4 Kh8, 22.Nxe6 Bxe6, 23 Rg7 considering I had compensation for my piece although this may be doubtful even in the line I considered, 23....Rf7, 24.R1g1 Rxg7, 25.Rxg7 Qd7. 16....Bce6 is another doubtful try. Black really does not need to rush and sacrifice a piece in search of counter-play. Still 17.f5 Bxa2, 18.Nxa2 Bxa2, 19.fg6 hg6, 20.h7+

Kg7, 21.h8 Rxh8, 22.Rxh8 Kxh8, 23.Rh1+ Kg7, 24.b3 a5, 25.Nc3 [Not 25.Kb2 a4, 26.Kxa2 ab3+ and Black does have a nice attack for his piece.] 25....a4, 26.Nxa2 ab3, 27.Nc3 Ra1+, 28.Nb1 Ra2 yields a rather complex position where Black has three pawns for his piece. Even so White probably is close to winning after 29.Cf3.
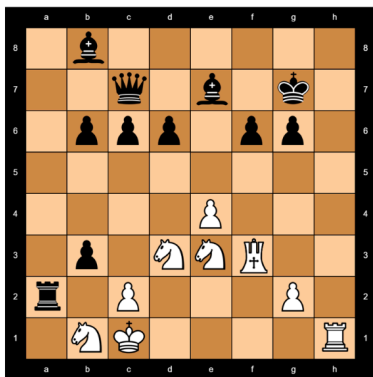

Position after analysis to 29.Cf3

White is threatening Ch3 followed by a dangerous penetration to either h7 or h8 with a quick mate as well as Nf5+ in some lines. For example if 29....bc2, 30.Nf5+ Kg8 [Taking the piece with 30....gf5 is no fun either and Black is mated after 31.Cxf5+ Kf7, 32.Rh7+ Ke8, 33.Cg7+ Kf8, 34.Cg6+ Ke8, 35.Cg8+ Bf8, 36.Cxf6 Kd8, 37.Cxf8.] 31.Rh8+! Kxh8, 32.Ch4+ Kg8, 33.Ch6+ Kf8, 34.Ch8 mate. A Chancellor and a Rook combining against a lone King is a deadly combination!

17. a4
This is again a brave if somewhat foolhardy choice! The idea is to exchange on b5 if and when Black makes a Pawn advance to that square. White then will not only have an outpost for one of his Knights on d5, but a weak Pawn to pressure on d6. In a positional sense, this is all well and good, but White concedes to Black a very dangerous potential passed Pawn on the a-file that not only can become a Queen, but also set up mating threats once it arrives on a3!

17....Qb7, 18.Cf3 b5, 19.ab5 cb5, 20.f5
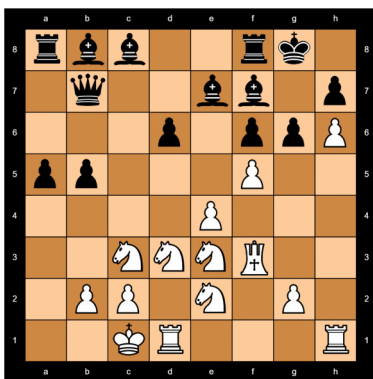
Position after 20.f5

20....g5
No doubt this is the safest and most natural response to White's efforts to open lines on the King-side. White does have real threats if Black hurries with his own play on the Queen-side. 20....a4 is playable, but Black has to be careful. White does have a surprising breakthrough after 21.fg6 hg6, 22.h7+ Kg7?, 23.h8(C) Rxh8, 24.Rxh8 Kxh8 ,25.Ch4+ Kg7, 26.Rh1 [Threatening a mate in 3!] Now if 26....Bg8, 27.Nef4 g5, 28.Cg6+ Kf7, 29.Rh8 wins. In the above line 22....Kh8 is more

resilient. I intended to play 23.Ncd5, but 23....a3 does yield dangerous play for Black. Then a defensive arrangement with Knights surrounding my King say with 24.ba3 Rxa3, 25.Kb2 Qa7, 26.Ra1 and with the idea of playing the d3 Knight to b4 after the exchange of Rooks seems to be the way to go. A similar defensive arrangement is possible if Black had advanced his other pawn on the Queen-side with 20....b4. White then needs to play 21.Ncd5 when he seems to have an adequate defence against the Pawn sacrifice 21....a4. 22.N3xb4 a3, 23.ba3 Rxa3 with 24.Kb2 followed by Ra1. But again Black need not hurry and 21....Ba7 looks like a better try. Black now threatens to go into a favourable ending with 22....Bxe3 and 23....Bxd5 if White would recapture with the Chancellor. Here is where one of the advantages Bishop pairs have over Knights shines pretty brightly. There often arises an opportunity to give up one of the Bishops in return for some other positional advantage—in this case trying to take advantage of White's overextended Pawn structure.

21. Ncd5 Bd8
It makes sense to hold onto this Bishop. Black's f6 does need some protection and it is not beyond the realm of possibility for White to sink Knights onto g4 and h5 putting a lot of pressure on Black's little fellow on f6. The Bishop also from d8 may emerge later onto a5 and perhaps make White regret his Queen-side castling. Certainly with the Bishop on a5 there won't be any easy "Petrosian-like" King marches back to the King-side.

Black of course could play 21....a4 again and I had thought about meeting it with something like 22.N3b4 a3, 23.ba3 Ra3, 24.Kb2 followed by Ra1 contesting the a-file. I liked my chances, but play probably is just even. Still, Black does not need to hurry like this and White does not have immediate threats. Consequently there is plenty of time for Black's a-Pawn to do his thing.

22. Cg3 Kh8
This is good prophylaxis. Why permit White a free Ne2-f4-h5? The move also makes room for the Bishop to drop back to g8 allowing further protection of the vulnerable f6 point.

23.Cg4
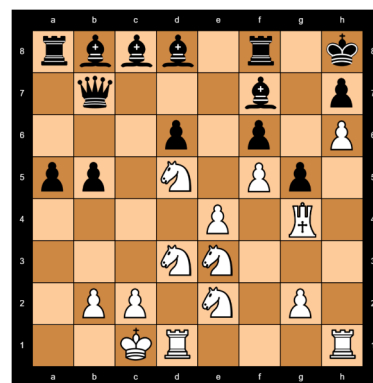
Position after 23.Cg4

23...Bg8
Doug keeps his cool and continues with his plan. At about this time he mentioned something about conducting a rope-a-dope strategy. Both players are dancing around the ring, but nobody has yet landed a good jaw-breaking blow. I have to admit that I don't always have the patience that I should have in Chess and certainly would have been tempted to play 23....Bxd5. The point is that Black can win a Pawn against the natural recapture 24.Nxd5 Bxf5, 25.ef5 Qxd5. Unfortunately for White the f-Pawn is also weak and he can not immediately play any tricks like Nd3-f4 with a further hop to e6 or maybe even g6+ in some lines. Still, maybe he is doing okay. After 26.Ng3. Nf4 is again a threat and there is a good chance he can gain further compensation for his

Pawn deficit by controlling the e-file. Finally Black also is stuck with two Bishops on dark squares, which as mentioned earlier is not something Black strives for in Chigorin Chess!

White also need not give up the Pawn, but the reply 24.ed5 Re8, 25.Rh3 Ba7 followed by ...Qe7 puts White's somewhat overextended position under considerable pressure.

24.Rh3

White takes his own prophylactic measures and in some lines the rook may even be able to slide over to the Queen-side and help with defence. For the moment he gives the e3 Knight another defender and eyes the g file as well in case some vague sacrificial operation might arise.

24....Ba7, 25.Nd3f4!?

Position after 25.Nd3f4!?

"Half a league, half a league, / Half a league onward / All in the Valley of Death / Rode the six hundred...." The sacrifice is not so vague after all, and what was I saying about patience! At this point, I thought I had improved my position about as much as I could and if I started waiting, say by shuffling around my Knights, my position would just continue to deteriorate. Additionally what Knight should I shuffle? The e2 Knight is the logical candidate since he is the worst placed of the herd, but after 25.Ng3 a4, 26.Nh5 an old unfriendly tactic again arises and Black can again land the blow, 26....Bxd5, 27.Nxd5 Bxf5, 28.ef5 Qxd5 under more favourable circumstances. A further Black ....Bd4 and ...a3 make this position much more threatening for Black than it was two moves ago. Taking back with the Pawn is not an option either on White's 27th move. If 27.ed5 Bxe3, 28.Cxe3 Bb6, 29.Cg4 Qxd5 and now 30.Nxf6 is bad because of Qxf5 and White's position is just falling apart.

25....Bxe3+

Black signals his intention that he will just ignore the prancing cavalry and continue with his own counter play on the Queen-side. I spent a lot of time on the passive Knight sacrifice and my main line ran 25....gf4, 26.N2xf4 Bf7, 27.Nxf6 Bxf6, 28.Cxf6 **Qe7.**
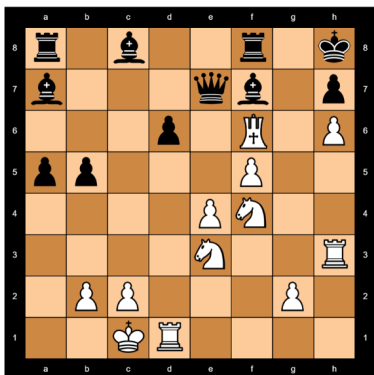

Position after analysis to 28....Qe7

White now has a number of choices, but none really seem to give an equal game. Taking the d-Pawn of course is the most natural way of playing, but unfortunately proves to be a losing blunder! If 29.Cxd6 White drops a further piece to 29....Qxd6, 30.Rxd6 Bb8. 29.Rxd6 Bb8 does not look any better. 29.N3d5 may be White's best shot. Now 29....Bxd5?? would be a losing blunder. White has the shot 30.Ng6+ hg6, 31.Cxg6+ winning. Still that line is too good to be true and better for Black is 29....Qxf6. At this point we can leave human analysis behind and switch to our ever popular silicon friend. Houdini evaluates the position after 30.Nxf6 Bb7, 31.Rg3 Bc5, 32.Rg7 Bg8, 33.N4h5 Bc6, 34.g4 to be somewhat better for Black, around a half of a Pawn. White has a little compensation with his swarming pieces on the King-side for his material deficit, but not really quite enough. Still in some ways it would be a tough position for humans to conduct the defence. Having a cornered King and enemy pieces ready for Arabian-like mates is not the most fun situation to have to defend.

26.Rxe3 a4

Black could still take the piece, but I think Doug correctly chooses to decline the sacrifice. With the greedy 26....gf4 there are many ways to go wrong. After 27.N2xf4 Bxd5?, White would have the strong reply 28.Ng6+ and could even force a draw after 28....Kg8 [The Knight is taboo since White mates against 28....hg6, 29.Cxg6+ Kh7, 30.Cxf8 mate. This is a classic Chancellor mate pattern, attacking from behind the lines.] 29.Ne7+ since 29....Kf7, 30.Cg7 mate is out of the question. White could also consider keeping the position alive with 29.Nxf8+ Kxf8, 30.Rxd5. With a Rook and Pawn for two Bishops White still has chances, especially considering Black's exposed King and broken Pawn structure. This is probably the way I would have proceeded considering the rating difference between the two players as well as our previous scores in chess variant games.

27.Rc3 Bxd5
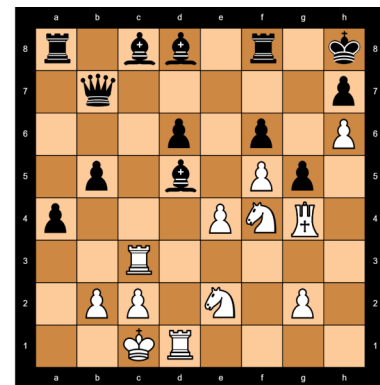
Position after 27....Bxd5

If instead 27....b4 White had in mind a flashy little combination starting with 28.Rxc8 Qxc8? [Unfortunately the more stubborn 28....Rxc8, 29.Ng6+ hg6, 30.fg6 Be7, 31.g7+ Kh7, 32.gf8(C)+ Rxf8 probably still favours Black slightly.] 29.Ng6+ hg6, 30.fg6! Qxg4, 31.g7+ Kh7, 32.gf8(C)+. Nice but too good to be true!

Also deserving attention was 27....Ba5. I again examined 28.Rxc8 where if 28....Qxc8?? 29.Ne7 wins on the spot. Better again is taking on c8 with the Rook. After 28....Raxc8 [28....Rfxc8, 29.Ng6+ hg6, 30.fg6 Bxd5, 31.g7+ Kg8, 32.Cxf6 is another pretty mate.] 29.Ng6+ hg6, 30.fg6 Bxd5, 31.g7+ Kh7, 32.gf8(C)+ Rxf8 and regardless of which way White takes on d5 after a further ....Qd7 Black again stands a little better.

Taking the piece also is possible, if rather messy after 27....gf4, 28.N2xf4 Bf7 when White does not appear to have anything better than capturing the Pawn with 29.Nxf6. I now was

a little afraid of 29....a3, but 30.ba3 b4, 31.Rg3 shows that White has some fangs also. Whether Black can beat off this attack or not there probably is no reason to risk such a continuation when Doug can maintain an advantage by much simpler means. Doug's move does simplify the position and at least to human eyes gives his King much more breathing room!

28.Nxd5 b4, 29.Rcd3 Bd7
Doug continues to play cagily and decides to improve the position of his Bishops before committing himself to any decisive action. Still the plan seems to be slow and 29....a3 deserved serious consideration. After 30.b3 Black could have at least forced a draw with a continuation like 30.... a2, 31.Kb2 a1(Q)+, 32.Rxa1 Rxa1, 33.Kxa1 Qa7+, 34.Kb1 Ba6, 35.Rd2 Bxe2, 36.Rxe2 Qg1+, 37.Kb2 Qd4+, 38.Kc1 Qg1+. Playing for more with 38....Be7!? 39.Ce3 Ra8, 40.Cd3 looks a little too risky.

    Against the other breakthrough attempt 29....b3, 30.Nd4 I can just hold on after 30....bc2, 31.Kxc2 Rb8, 32.b4 even if the airy King-position is totally scary!

30. Nd4 Bb5
I don't like this move, which surrenders the last pair of Bishops, but 30....a3, 31.b3 a2, 32.Kb2 Qa7, 33.Ka1 Qa3 is not any better. Both sides' Kings are hanging on a precipice, but despite their unseemly perches seem relatively safe. Still appearances are deceptive and 34.Ne6 reawakens White's dormant attack and the move is very awkward to meet. It is hard to see how Black avoids material loss or even find the necessary compensation for the Pawn he is about to lose. 34....Bxe6, 35.fe6 Ra7, 36.Rf3 picks up the f6 Pawn and Black's castled position finally collapses. 30....b3, 31.cb3 ab3, 32.Rxb3 Ra1+, 33.Kd2 Rxd1+, 34.Kxd1 Qa7 looks more like realistic compensation for the Pawn. Despite surrendering the last Bishop pair, Doug's move holds the balance, but one is starting to have the feeling that his position is drifting downwards.

31 Nxb5 Qxb5 32. Ce3 Kg8 33. Kb1 Kf7?!
This is an interesting idea. Black starts to centralize his King for the upcoming ending. Still the move can become dangerous, especially if Black forgets to enter the ending he is contemplating playing! Still, the good Knight vs. bad Bishop ending would not be my first choice for conducting a defence. I tend to like complications and would have preferred 33....Re8, which stops White's next move and easily maintains the balance. Black could then contemplate playing ideas like ...Rc8 and ...Qc4 that put pressure on both the centre and White's Queen-side.

34 Cf3 Qc5 35. Cd4 Rb8?
During the game, I thought this was the losing moment, but perhaps Black's 33rd move is more the culprit after all. It looked like Black's best chance was to enter a regular Chess game with 35....Qxd4 and that did seem to be the point behind Doug's earlier King move to f7. However, my computer says Black already is basically lost and already evaluates this ending as being roughly two pawns in White's favour! I had examined 36.Rxd4 b3, 37.cb3 ab3, 38.Rb4 Ra7, 39.Rxb3, although the computer's 39.Rd3 Ba5, 40.Rb5 playing for an attack along the 7th or 8th rank is much stronger. I remember seeing some similar ideas in my line when analyzing the position during my trip to California in 2020. 36....Ba5 may be more stubborn. After 37.Nxb4 the computer likes the sacrifice 37....a3!?, 38.ba3 Rfb8, 39.c3 Bc7, 40.Rc4 Rb7, 41.Kb2 Ke7. The plan now is to eventually play a4 and gradually push the broken Pawns up the board. This requires some patience and hard work to realize the advantage. Doug's move unfortunately allows White to demonstrate a nice mating attack.

36.Ce6!
Already threatening 37.Cg7 mate!
36....Rg8, 37. Ne3 Be7
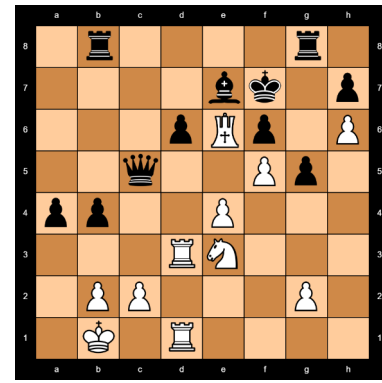
Position after 37....Be7

38 Rxd6! Qxe3
Black has nothing better and has to give up his Queen to avoid mate after 38....Bxd6, 39.Rxd6 Qxd6, 40.Cxd6+. Still, there is no rest for the wicked and he loses the a8 Rook to 40....Ke7, 41.Cb7+ Kf8, 42.Cxh7+ Ke8, 43 Cc7+.
39.Rd7 Rbe8
Black's position is now hopeless, but a bit more stubborn is 39....Rge8, 40.Cg7+ Kf8, 41.Cxh7+ Kg8, 42.Rxe7 Rxe7, 43.Cxe7+ Kf8, 44 Cd7+, when moving the h-Pawn decides the battle after both ...Kg8 or ...Ke8.
40.Rxe7+
Sacrifices are easy in such positions. This mating pattern shows the dangers of letting a Chancellor approach too closely to a King hemmed in by his own forces!
40....Rxe7, 41.Cd6+ Kf8 42.Cd8+ Re8, 43.Cd7 mate. (The Chancellor's version of a smothered mate!)

    This was a difficult game for both players and for me perhaps too difficult if one considers the rating difference and experience of a former Correspondence Master playing a low-expert over-the-board rated player, not to mention the time advantage of my four or five online games that I was playing at a time against Doug's 50 or so! Considering I won my Black game against Doug relatively easily, I tend to think this variant isn't completely balanced and may need some tweaking. That said, I still think it is an interesting game and if nothing else another way of testing one's skill at handling a bishop pair against a Knight pair or visa versa that would be useful training for regular Chess.

    I always like to tinker with rules and I might encourage readers, who also think that Chigorin Chess might need more balancing, try enhancing the Chancellor piece slightly by adding a single square diagonal move to its Rook and Knight compound move. This probably makes the piece slightly better than a Queen and in the few games I have tried with it also seems to make a nice playable game for the Knight side even playing Black. Unfortunately, to play this way you would have to forego server play and revert to old email-style games or play live. I would be interested in hearing back from anybody who has tried working with this suggested enhancement. ∎

Header image
Portrait of great Russian Chess player, Mikhail Chigorin. Unknown author, Public domain, via Wikimedia Commons

John Vehre is a an expert in Chess and its variants, and was one of the world's strongest Grand Chess players around the turn of the century. Indeed, he wrote about Grand Chess in AG13 *and* AG14. *Initially I had contacted John to see if he would be interested to return to Grand Chess in the pages of* Abstract Games. *I am glad he selected Chigorin Chess to write about instead, as it is one of those particularly interesting chess variants which pit unequal forces against each other. ~ Editor*

Superschaak
... with Joker, Femme Fatale, and other Fairy Pieces

Annotated by Rob Stolzenbach

Steinitz is thought to have said that the best position for a Pawn is its original place: in other words, don't move them! The Black player in this game is "famous" for throwing his pawns forwards at will. Why doesn't he do so in this game? Some premonition?

Jan Smit – Rob Stolzenbach 15-11-2016
Regular Chess board and setup, except for the following:
Femme Fatale (F): c1 and c8
Two step moves to any empty vacant square—the Femme Fatale cannot capture. Any enemy piece adjacent to a Femme Fatale cannot capture or check.
Joker (J): d1 and d8
The Joker moves and captures exactly like the piece that the opponent last moved.
Princess (Grand Chess Cardinal) (P): f1 and f8
Moves like a Knight or a Bishop
Empress (Grand Chess Marshall (E): g1 and g8
Moves like a Knight or Rook
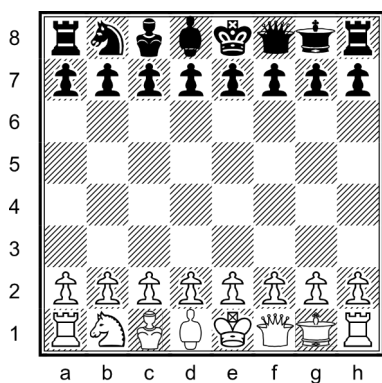
Setup for the game

1. e4 Nc6, 2. g4 *(Very usual pawn move in Superschaak!)* **2....Pe6, 3. Fd3 Jd6** *(Quite early)*
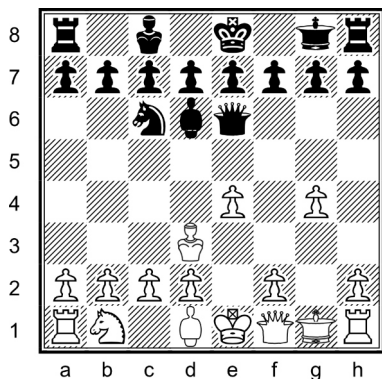
Position after 3...Jd6

4. Nc3 Nb4, 5. Fb5 Jd4 *(Daring!)* **6. a3 Nc6, 7. Fd5** *(The hyperactive Femme Fatale, the White player's specialty)*
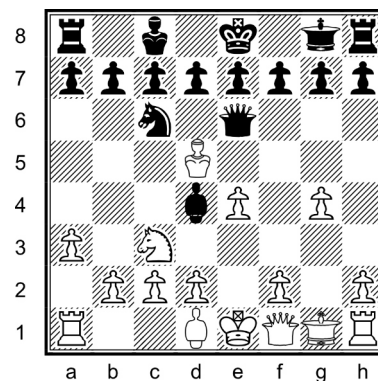
Position after 7.Fd5

7.... Ne5, 8. Nb5 Fc6, 9. c3 Pg5 *(According to plan)* **10. cxd4 Nf3+**
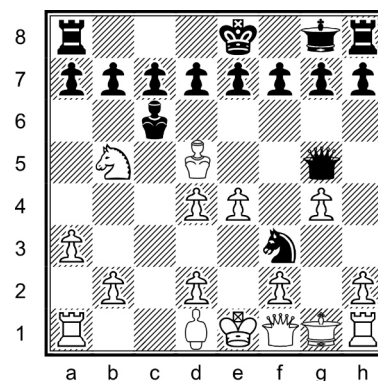
Position after 10....Nfe+

11. Ff4 Ef6, 12. Fg3 Exe4+, 13. Ff4 Ee6+
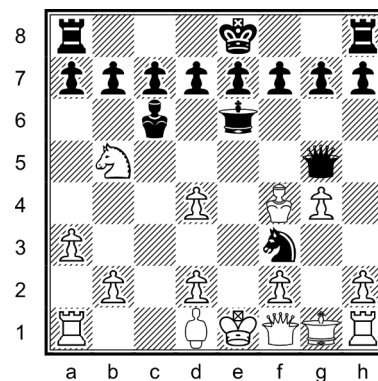
Position after 13.... Ee6+

14. Je3 Exf4+ *(Check by the Black Knight, since White's Femme Fatale is taken)* **15. Exf3 Pxf3 mate** *(15. Jxf3 would have been better. The final diagram is on the next page.)*

Black jokingly thought this was his best game ever! ∎
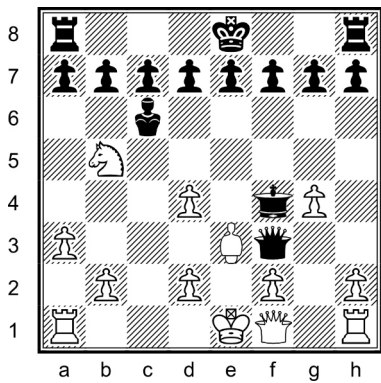
Final position after 15.... Pxf3 mate

An amazing finish to the game, with Black moving neither a Rook, Pawn, nor his King, and a very clean mate. The game also demonstrates use of two of the strangest Superschaak pieces, Joker and Femme Fatale. Superschaak in this form can be played with a regular Chess set, provided the fairy pieces are marked in

some way. The Superschaak website give further examples of unusual pieces for experimentation, and sets of custom pieces can be purchased. Remember, in a Superschaak game, the choice of armies should be the same, but the setups can be different; Superschaak pieces simply displace the Chess pieces they replace, with the regular Chess pieces remaining in their standard positions; the Emperor, if used, must be centralized next to the King.

Although I reviewed the Superschaak summary booklet myself in AG23, here is another review, below, by David Pritchard, dating back to February 2000. David's review covers the main hardcopy book as well as the summary booklet. We rediscovered this document recently in the archives of the old series of Abstract Games.

Connie and I visited David and his wife Elaine at their home in Godalming, England, in 2000. He taught me the game Lost Cities, which was new at the time, and which he recommended. David and Elaine were lovely people, and we were very sad at David's passing in 2005. So, here is David's review, saved from obscurity. I have left his original wording, where he uses the English "Superchess" rather than the Dutch "Superschaak." ~ Editor

Superchess by Dr. H. van Haeringen, *Reviewed by David Pritchard*

Dr. van Haeringen published the rules of his game Superchess and a related game, Monarch, in English back in 1993. In 1999 he published what must be one of the handsomest books ever produced on a chess variant. The large-format hardback Schaak en Superschaak (in Dutch) has 176 double-column pages with big, clear 4"x 4" diagrams. The text is a greatly enlarged version of the 22-page English booklet which was confined to rules of play. The new book includes annotated games, positions and problems as well as the laws of the games.

Superchess is is not itself a game; rather it is a menu of options. This is chess free-style, with players determining prior to play which pieces, starting position and board they want to play with. Superchess offers a mind-blowing fifty new pieces to choose from. The moves of all fifty pieces are fully described and in addition these are conveniently illustrated on a double-sided card included with the book. A few of the pieces will be familiar to variant players but most will not as they are the creations of the inventor's imagination. The game concept is not original. Ralph Betza's Simple Armies (1980) and Bruce Gilson's Free Choice Chess (1984), which offered a selection of 17 different pieces, had much the same do-it-yourself idea.

The book includes four annotated games of which the first three involve the Princess (B+N) and the Amazon (Q+N). Game 3 runs to just ten moves when the author offers two diverging lines running to 19 and 32 moves respectively. This game covers no less than nine double-column pages, nearly all analysis. In game 4 two new pieces are introduced, the Elephant and the Herald. The Elephant moves as a queen up to two squares but can also capture on the first square of a two-square move so two men can be captured in the one turn. The Herald moves one or two squares diagonally, leaping if necessary, and when reaching the end rank can also move one square horizontally thus changing square colour. One Herald moves once in this game. I would have much preferred to see the considerable space taken up by these games to have been used to demonstrate the interaction in game situations of some of the other pieces.

Anyone can of course invent chessmen with new moves. But it is not as easy as that. Arguably, certain combinations of pieces harmonize whilst other do not (one reason that the established forms of chess are such good games is because of the interaction of their pieces). The author does not mention this important aspect of chess games and the reader is left to discover which

pieces work well together and which do not.

Van Haeringen has produced many of his pieces in turned wood in neo-Staunton design intended to harmonize with standard chessmen. A selection of these pieces, which can be purchased through the author, is illustrated on the book's cover.

My initial reaction to Superchess was to be totally overwhelmed by all the new pieces. However, it must be borne in mind that one is not expected to digest them all at a sitting. The idea is to agree perhaps one or two new pieces in place of existing pieces when first playing a game, and then to absorb selected new pieces gradually.

Monarch I found a somewhat perplexing postscript as the game seems to be simply a version of Superchess played on a 10x8 or 10x10 board. The inventor considers Chess to be an imperfect game (many would agree). His aim is to improve chess (an aim held by other ambitious but failed variant inventors of the past). He is hopeful that Superchess will one day be developed into the "perfect" game. Something of a pipe-dream I fear, for who is to determine what constitutes "perfect"? Apparently a consortium of expert chessplayers according to van Haeringen. He foresees that these, "after years of practice," will eventually achieve the ultimate chess game—best possible piece combination, starting position and board size.

I regret that I do not share van Haeringen's optimism. An inventor of a chess variant, however good the game, must face some unpleasant facts:

1. Recruits to chess variants come almost without exception from the ranks of chessplayers often, let it be sadly said, because they failed as chessplayers;

2. In adopting a new variant, a chessplayer is being asked to discard the accumulated knowledge of years, perhaps decades of experience and study;

3. A new chess variant (and nearly all old ones come to that) lacks the infrastructure that chessplayers enjoy—the clubs, tournaments, national and international events and the vast library of information and literature that has grown over the centuries .

It is small wonder that support for chess variants has always been limited but at least in one direction there is light: each new variant will offer original themes for problemists, and Superchess, with its horde of new pieces, must offer enough new themes to fill anyone's lifetime. ∎

A game by Rick Hewson

3D XYZ Chess

Game annotation by Jake Mandoshkin
Rules summary by Kerry Handscomb
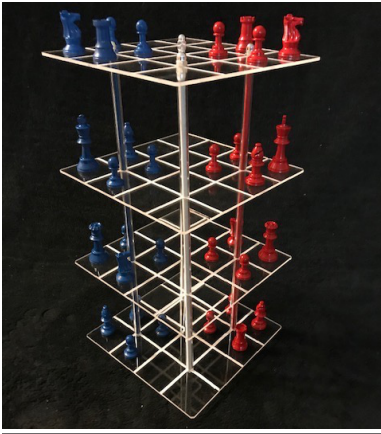
The game 3D XYZ Chess has been developed and perfected by Rick Hewson over several decades. The game is played on a 4x4x4 board with 64 spaces, the same number of spaces on a regular Chess board. Also, 3D XYZ uses the same 32 pieces as a regular Chess set, with the initial setup shown below. Note that the sets sold by the designer use Red and Blue instead of Black and White, and the boards are not checkered. You can see that the players usually face each other from opposite vertical corners of the board rather than from opposite sides.
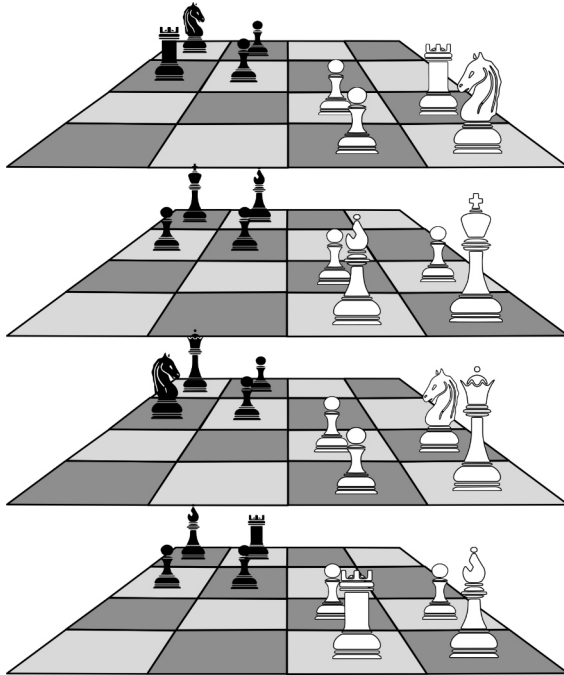
3D XYZ Chess initial setup

White moves first, and the players take turns to move. The objective is to checkmate the opposing King. The moves of the pieces generally follow their regular Chess moves in vertical planes as well as horizontal planes.

The King in 3D XYZ, however, does not have the power that a King has in regular Chess. The King is permitted to move one square orthogonally, not diagonally, as shown above right. Otherwise, if the King were permitted diagonal moves, too, the third dimension would give the King a lot of space, to escape potential mating nets.

The Queen does follow the Queen's move in regular Chess, as shown below right.
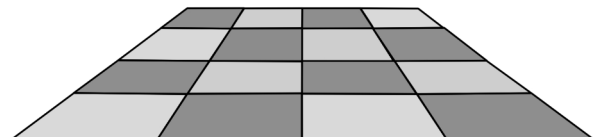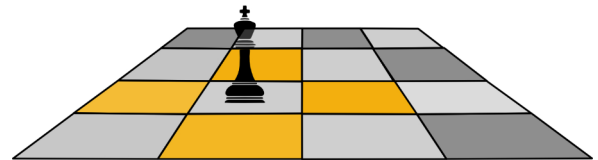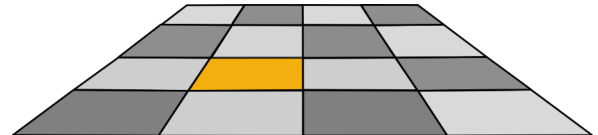
King's possible moves
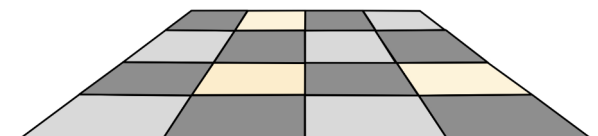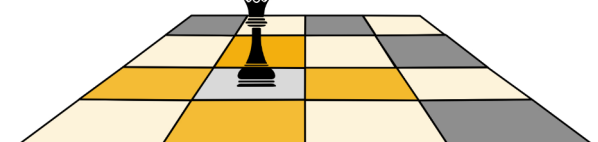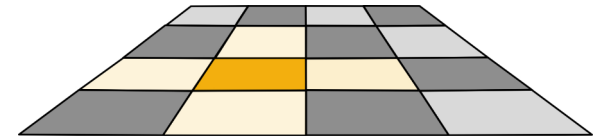
Queen's possible move

Likewise, the Bishop, below, follows its regular Chess move, although in three dimensions.
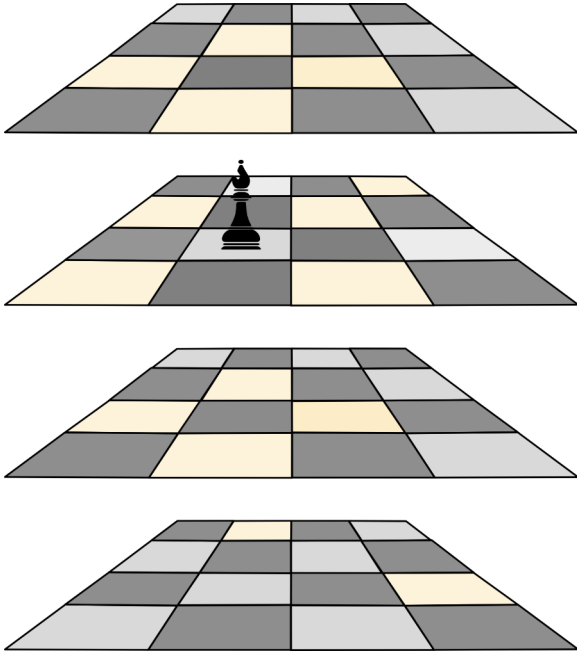
Bishop's possible moves

The Knight's move, shown below, is nothing like the Knight's move in regular Chess. In 3D XYZ Chess, the Knight moves one space "triagonally." The Knight must change levels. The power of the Knight is considerably reduced compared with similar games, although the special triagonal move can be very useful tactically.
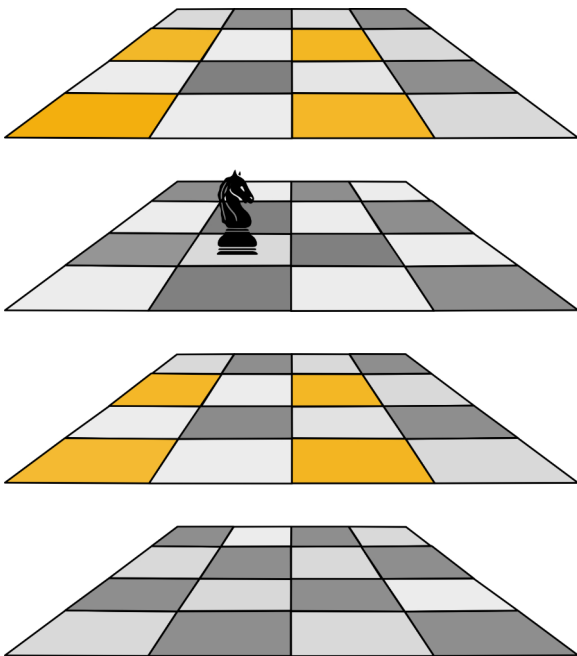
Knight's possible moves

Like Queen and Bishop, the Rook in 3D XYZ also follows its move in regular Chess, again in three dimensions, of course, as shown above right.
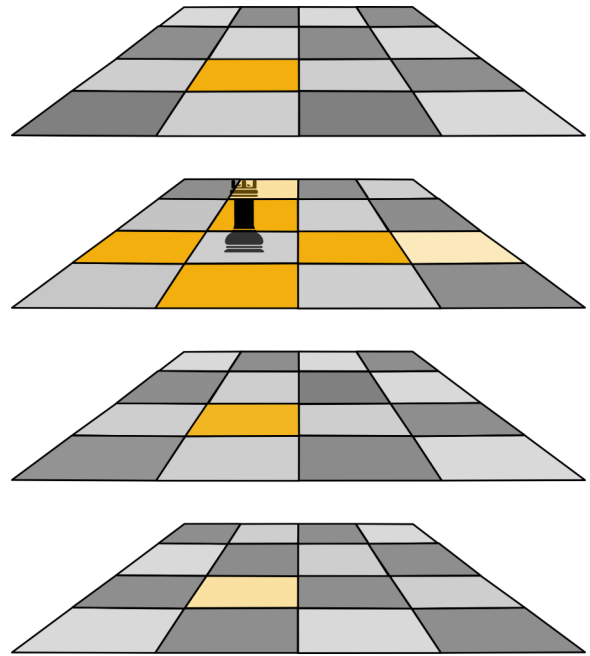
Rook's possible moves

The Pawn's move is quite different from regular Chess and other versions of three-dimensional chess. Pawns cannot change level. The Pawn moves orthogonally on its level towards its opposite corner. The Pawn usually moves one space orthogonally, as shown below.

On its initial move, a Pawn that starts off on the edge of the board can move two spaces orthogonally provided the first space is unoccupied, as shown on the next page.

Upon reaching the opposite corner on its level, the Pawn promotes to a Queen.
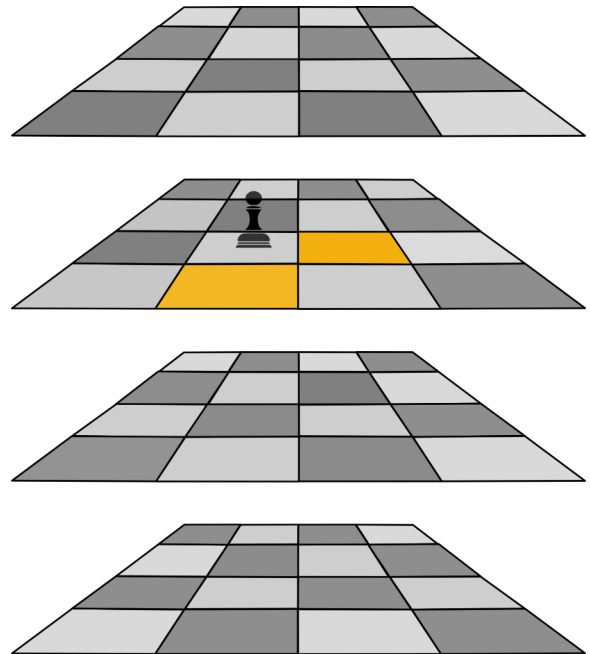
Pawn's possible moves

Like (almost) all chess-type games, capture of opposing pieces is by replacement. As mentioned above, the objective is to checkmate the opposing King. Stalemate is a draw.
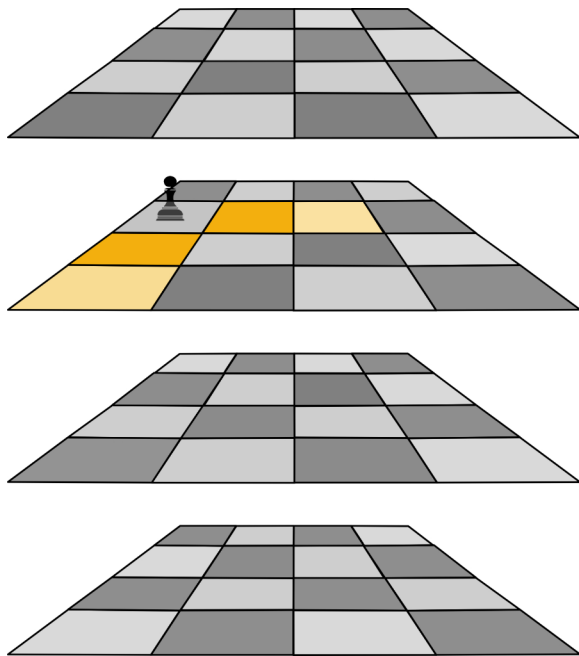
Edge Pawn's possible initial moves

Notation system: The levels of the board are A (top), B, C, D (bottom); on each level, the columns are named a (closest), b, c, d (furthest); on each level, the rows are names 1 (furthest to the right), 2, 3, 4 (furthest to the left).

Rick Hewson (White) and Jake Mandoshkin (Black)
March 28, 2022

The following annotated game is a good demonstration of how 3D XYZ Chess works. In order to make some of the exchanges comprehensible, we should make some comments about the relative values of the pieces. Firstly, and most importantly, note that the Rook can move to a maximum of nine spaces from the centre of the board, whereas the Bishop can move to a maximum of 15. Perhaps surprisingly, the Bishop is a more powerful piece than the Rook in three dimensions, despite being restricted to only half the board spaces. On the other hand, the triagonal Knight is perhaps a little less valuable than the Pawn. A Knight has potentially eight spaces to move to, but a Pawn has the possibility of becoming the massively powerful Queen.

HexChess Puzzle 2

by Schenkerik Csaba

White to play and mate in 2.

Solution on page 28

1.Rb1A-c1A *(A strong and safe opening move)* **1....Pd3-d2C** *(Allowing more space to the Bishop and Rook on level D, and the Queen on level C)* **2.Pa2C-a4C** *(A similar move to Black's, but also White threatens to trap Black's Knight on c4C.)* **2...Bd3B-d2A** *(Threatens White's Rook and makes more space for Black's pieces including the Knight at c4C.)*
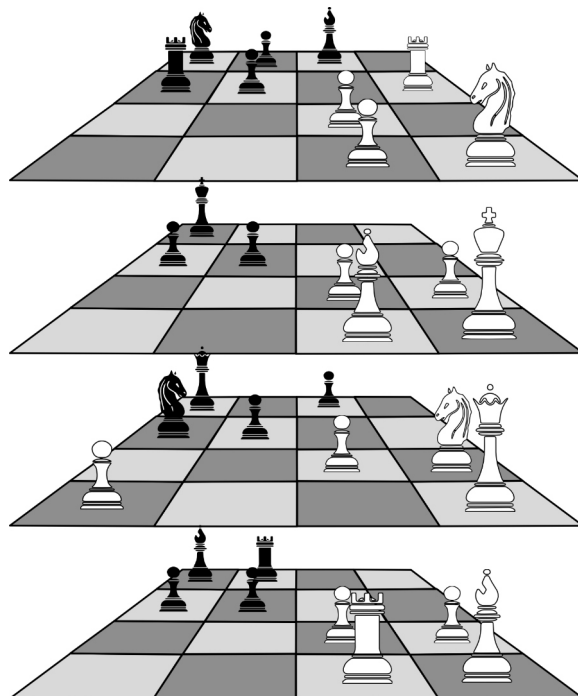
Diagram 1: Position after 2...Bd3B-d2A

3.Rc1A-c1B (Improving the position of the Rook) **3....Rd3D-d3B** *(Countering White)* **4.Ba2B-a3C** *(Opening the square at a2B)* **4....Nc4C-d3D** *(Giving more space to the Queen and hiding the d4D corner)*
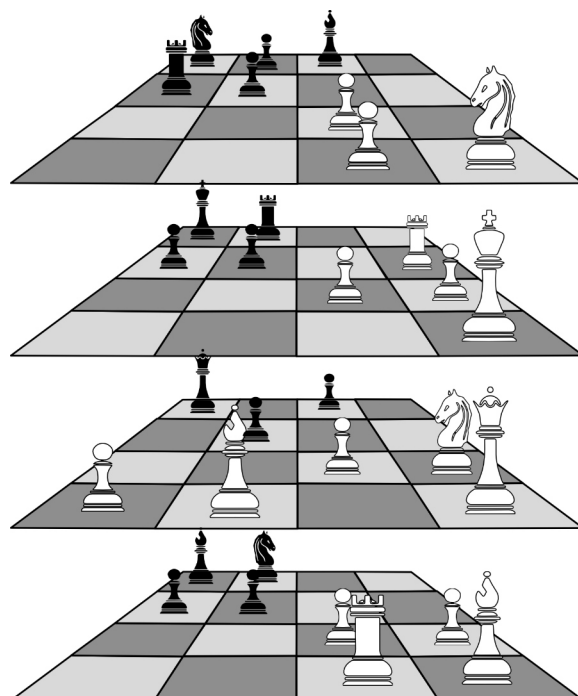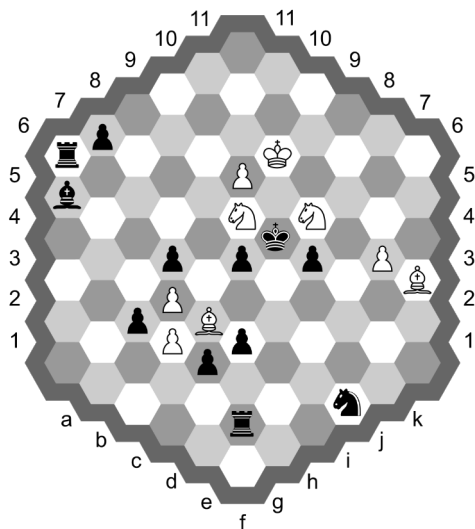

Diagram 2: Position after 4....Nc4C-d3D

5.Pa4C-b4C?! *(Prevents Black from moving to c4 but seems to overextend the Pawn and give equality to Black; however White has done some trickery with this move in the past.)* **5....Rc4A-b4A** *(Developing the Rook and attacking the Pawn at b4C)* **6.Pb2B-b3B Pc3B-c2B**
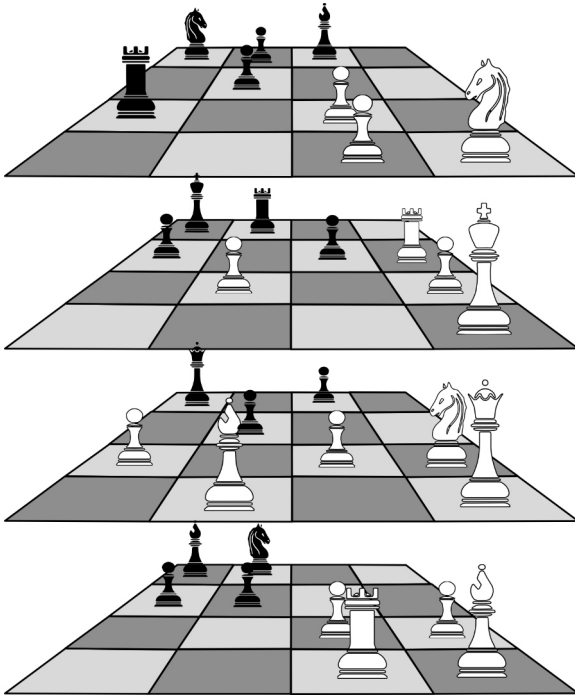
9.Pb1BxBd1B Rd3BxPd1B+ *(Gaining tempi, but White has both Bishops, which control a lot of squares!)* **10.Ka1B-a2B Rb4AxPb4C** *(Brings the Rook into play while removing some restrictions)*
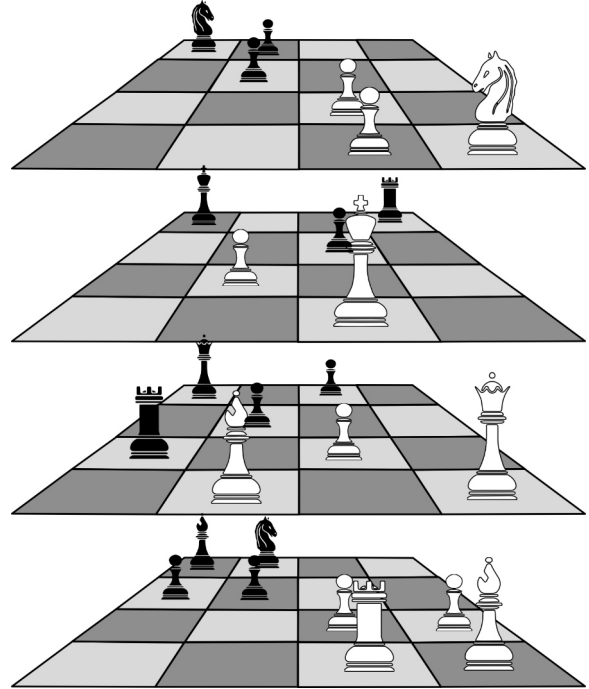
Diagram 3: Position. after 6....Pc3B-c2B

Diagram 5: Position after 10....Rb4AxPb4C

7.N b1CxPc2B!? *(Weakens Black's King's defences)* **7....Pc4BxNc2B, 8.Rc1B-d1B!?** *(Complicating the King's level)* **8....B d2AxRd1B**

11.Ba1D-a3B *(Defends and threatens to attack at the same time)* **11....Pc3C-b3C** *(Pushing the Bishop from a3C; White's Pawn on b2C cannot capture the Pawn, as it would allow Black's Qd4C to capture White's Queen on a1C with check.)* **12.Ba3C-a4B Qd4C-c4B** *(Pins the weak Pawn at b3B to the King and attacks the Bishop at a4B)*

Diagram 4: Position after 8....B d2AxRd1B
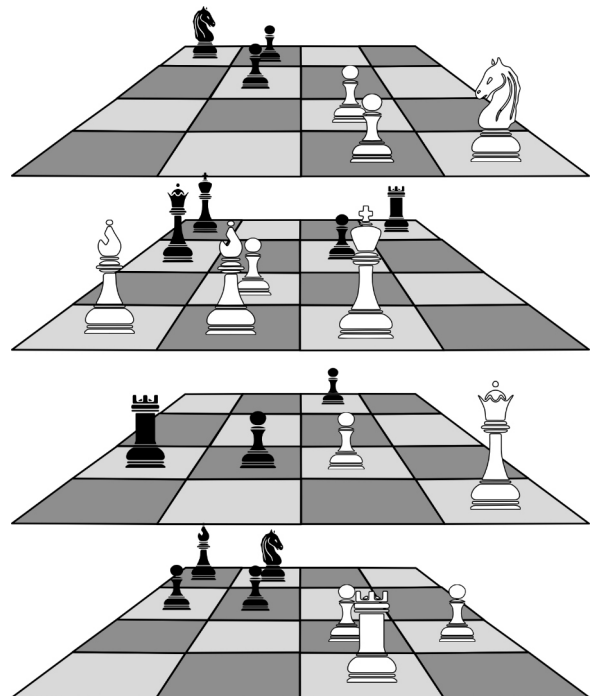
Diagram 6: Position after 12....Qd4C-c4B

13.Ba4B-a3A Bd4D-b4B *(Keeping up pressure while developing)* **14.Na1A-b2B!** *(Strong move; if 14....Pc2BxNb2B+ then 15.Ba3BxPb2B+, putting Black's King in danger while gaining tempo and disabling Black's Knight at d4A)* **14....Pc3A-b3A** *(To remove the Bishop defender of the Pawn at b3B)*
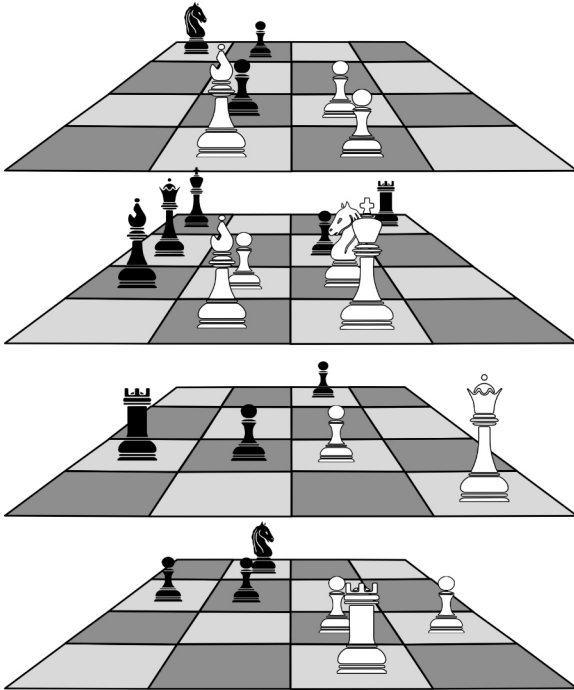

Diagram 7: Position after 14....Pc3A-b3A

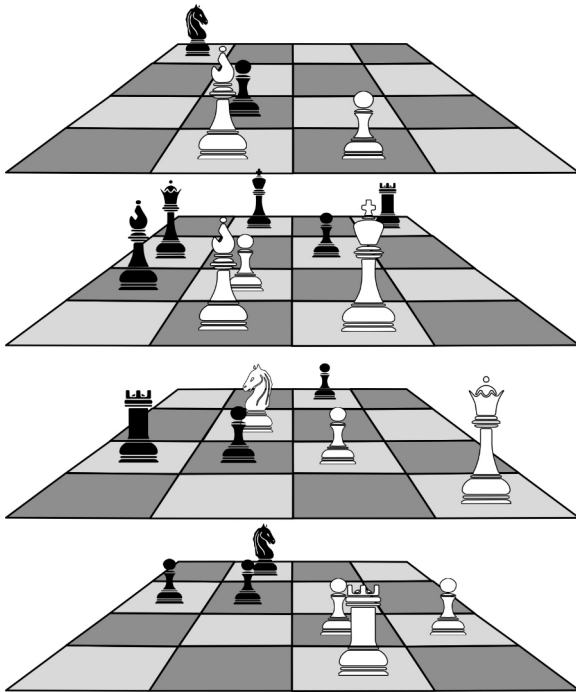**15.Nb2B-c3C+ Kd4B-d3B, 16.Pb2AxPb3A Pd3AxPb3A**

Diagram 8: Position after 16....Pd3AxPb3A

17.Nc3CxBb4B Pb3AxBa3A, 18.Ka2B-a2C? *(Trying to escape danger, but walks into a mating net)* **18....Pb3CxPb2C+**
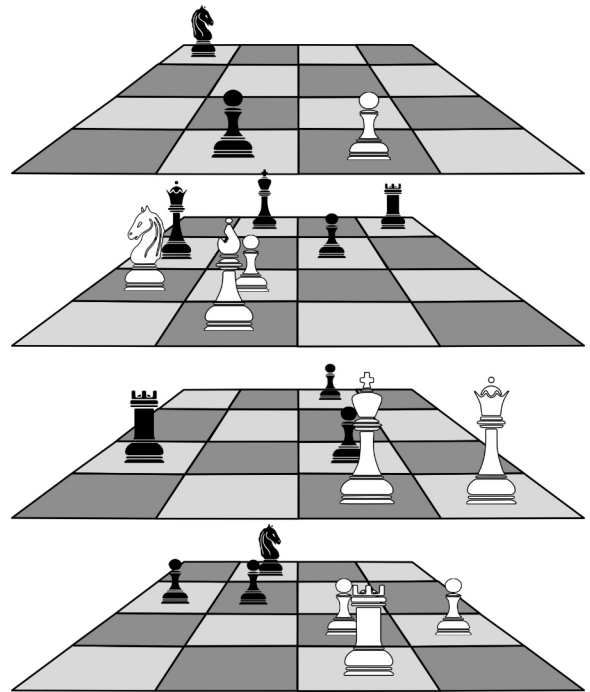
Diagram 9: Position after 18....Pb3CxPb2C+

19.Ka2C-a3C Qc4BxPb3B+, 20.Ka3C-a3D Qb3BxBa3B+
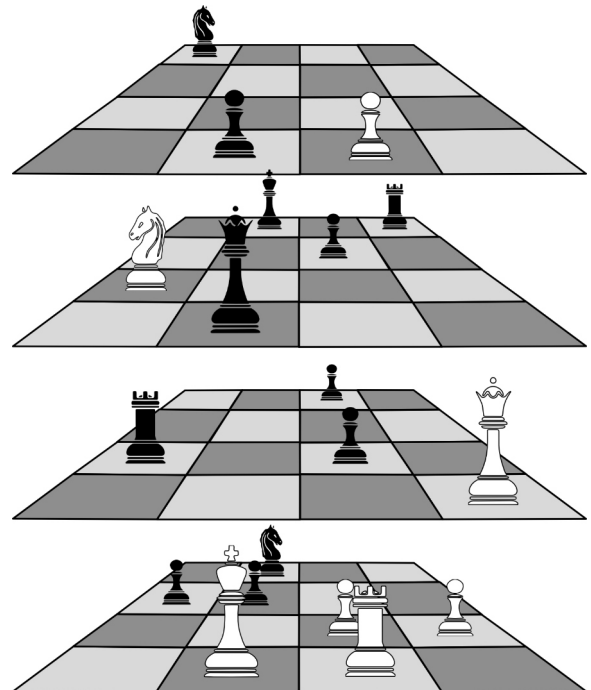
Diagram 10: Position after 20....Qb3BxBa3B+

21.Qa1C-a3C Qa3B-c3B+, 22.Qa3C-b3C Qc3BxQb3C# ∎

A Swiss Jass for Two

by Kerry Handscomb

The following version of traditional Swiss Jass for two was taught to me by a Swiss friend in Luzern in the summer of 2016. Information on-line about Swiss Jass mostly concerns the standard game with four players. Rules are available for two or three players, but I haven't found the particular version described here, which I refer to as Luzern Jass. Of course, Luzern Jass isn't the real name of the game, but I'll use it until someone can identify the correct name.

Luzern Jass is very close to the German game Offiziers-Skat, which is a version of Skat for two. The two game mechanisms are so similar that it seems unlikely they evolved separately, although which game came first is unknown.

For players unfamiliar with Jass, I suggest playing without the complex rules for combinations, at least to begin with. The combinations are less significant for Luzern Jass than some other versions of the game. Unless you are dealt one of several fours of a kind at the outset, scoring for a combination will not affect the game in any way aside from being a lucky bonus.

Rules

The game progresses in the following order:

- Deal
- Non-dealer chooses game
- Combinations are scored
- Tricks are played
- (Marriage may be scored during trick-play)
- Scores are totalled, including multipliers.

The cards
A Jass deck has 36 cards. Jass is played with German-style cards or French-style cards. The German-style cards have suits of bells, shields, acorns, and flowers; the cards in each suit are Ace, King, Ober, Under, Banner (i.e., Ten), Nine, Eight, Seven, Six. The French-style cards have the four regular Bridge suits; the cards in each suit are the regular Ace, King, Queen, Jack, Ten, Nine, Eight, Seven, Six.

With either style of deck there is a well established terminology for the game in Swiss German. Throughout the following description of the game, I will refer to the French-style cards exclusively, with Anglicized terminology.

The deal
The host deals first to the guest, however host and guest are decided. The deal alternates between the two players.

The dealer deals five cards face down in a row in front of the non-dealer, and then five cards face down in a row in front of the dealer. The dealer then covers these ten face-down cards with face-up cards dealt in the same order. The dealer then deals a second row, of four cards, face down just in front of the non-dealer's first row of cards; and then likewise a row of four face-down cards in front of the dealer's own first row. The dealer then covers these eight face-down cards with face-up cards in the same order.

At the end of the deal, all cards have been dealt, and each player has nine pairs of cards in front of theirself, each pair consisting of a face-down card covered by a face-up card. See the example below of the cards dealt out.

Example deal

The nine face-up cards of each player are the player's "hand." The deal is unusual for a trick-taking game in that the players can see each other's hands.

Face-up cards are available to play to tricks. As each face-down card is uncovered by the play of a face-up card, the face-down card is turned up, but only once the trick has been completed.

A player's "hand" may thus stay at nine face-up cards for several tricks, or may vary downwards, depending on the order that cards are played.

Types of games
The game is played in a series of 18 tricks. Points are won for cards captured in tricks and for taking the last trick. There is a bonus for capturing all 18 tricks. Points are also scored for combinations of cards in the hand and for Marriage, which means playing the King and Queen of trumps from the hand, when there is a trump suit.

- Each hand may be played either with a trump suit, or as high-to-low, or as low-to-high, the latter two played without trumps.
- Before leading to the first trick, the non-dealer has the option of which game is played, and must make a choice.
- The non-dealer can choose a suit as trumps or choose high-to-low, or choose low-to-high.
- Card ranks, card values, combinations, and game multiplier vary in each type of game.

Card rank and value
When there are trumps, the card ranks and values are different in the trump suit from the other suits. Both high-to-low and low-to-high are games in which there is no trump suit. The rank of the cards in each suit, from highest to lowest, and their values in card points are given as follows:

Trump games		No-trump games	
Trump suit		**High-to-low**	
Jack	20	Ace	11
9	14	King	4
Ace	11	Queen	3
King	4	Jack	2
Queen	3	10	10
10	10	9	0
8	0	8	8
7	0	7	0
6	0	6	0
Non-trump suit		**Low-to-high**	
Ace	11	6	11
King	4	7	0
Queen	3	8	8
Jack	2	9	0
10	10	10	10
9	0	Jack	2
8	0	Queen	3
7	0	King	4
6	0	Ace	0

Rank and value of cards, depending on type of game

A player scores points for the values of the cards they win in tricks. In addition, five points are scored for taking the last trick in all types of games. Thus, for all types of games there are 157 points to be won in each hand. The feature where points for the different kinds of game total 157 is common to all Jass variants; the values of the cards for high-to-low and low-to-high are carefully chosen to accomplish the 157 total.

If a player takes all tricks, in any type of game, that player scores a bonus of 100 for "match," which makes the point total 257.

Combinations
Aside from points scored in tricks, points may be scored for holding combinations of cards in the hand. Sequence combinations are the same for all types of games, whereas four-of-a-kind combinations vary according to the type of game.

Sequence
With a trump game (even in the trump suit) and a high-to-low game, the order of the cards for sequence, from highest to lowest, is Ace, King, Queen, Jack, 10, 9, 8, 7, 6. In a low-to-high game, the order of the cards for sequence, from highest to lowest, is 6, 7, 8, 9, 10, Jack, Queen, King, Ace.

Four of a kind
Which four's of a kind count varies on the type of game, as shown opposite.

Combinations are ranked in the following ways:

• Every four of a kind beats every sequence.

• The highest four of a kind is always four Jacks.
• The second highest four of a kind is always four Nines.
• Thereafter, for high-to-low and trump games the fours of a kind rank, from highest to lowest, Aces, Kings, Queens, Tens, Eights (the last only for high-to-low).
• Thereafter, for low-to-high games the fours of a kind rank, from highest to lowest, Sixes, Sevens, Eights, Tens, Queens, Kings.

• A longer sequence beats a shorter sequence.
• With sequences of equal length, the one with the highest top card wins.
• If two sequences of equal length have the same highest card, a sequence in a trump suit wins (if there are trumps).
• If two non-trump sequences are identical in every way, except suit, then the non-dealer wins.

Sequences

Sequence of three cards in suit	20
Sequence of four cards in suit	50
Sequence of five or more cards in suit	100

Four of a kind

Trumps		High-to-low		Low-to-high	
Jacks	200	Jacks	200	Jacks	200
Nines	150	Nines	150	Nines	150
Aces	100	Aces	100	Sixes	100
Kings	100	Kings	100	Sevens	100
Queens	100	Queens	100	Eights	100
Tens	100	Tens	100	Tens	100
Eights	0	Eights	100	Queens	100
Sevens	0	Sevens	0	Kings	100
Sixes	0	Sixes	0	Aces	100

Combinations

After non-dealer has chosen game, but before trick play starts, players look at their face-up cards to determine if either has a scoring combination. Only the initial nine face-up cards are used to determine combinations.

A card may not be used in two separate combinations.

Only the player with the highest combination can score for combinations, and then that player scores for all combinations they can count. The ranking of combinations depends on the game.

Trick-taking rules
Non-dealer leads. A player with the lead may lead any of their face-up cards. The opponent plays one of their face-up cards to the trick. The winner of the trick gathers up the cards and places them face down to one side. Cards in tricks won may be collected in a single pile for each player, as only cards won in tricks count, not the number of tricks. (Exceptionally, the last trick counts for a bonus of five points.) The winner of a trick leads to the next. Cards uncovered are turned face up once the trick is completed.

The game may be played with trumps or without trumps. Trick-taking rules differ in each case.

Trick-taking with trumps
Any face-up card can be led. If a non-trump is led, the opponent may follow with a face-up card of the same suit or a card of the trump suit. The player may follow with a trump even if they have face-up cards of the suit led, contrary to most trick-taking games. When not following with a trump, the player must follow with a card of the same suit led, if possible, and otherwise may follow with a card of any suit if they have no face-up cards of the suit led.

If a trump is led, the opponent must follow with a trump, if possible. The one exception to this rule is if their only face-up trump is the Jack, in which case the player may decide not to follow with the Jack of trumps, but may follow with any other face-up card instead.

If the two cards of a trick contain no trumps, the highest card of the suit lead wins the trick. If either of the two cards in a trick is a trump, the highest trump wins the trick.

Comments

Trick-taking with no trumps

Any face-up card may be led. The opponent must follow suit if able, otherwise they may play any other face-up card. The highest card of the suit led wins the trick.

Marriage

If there is a trump suit, a player may score for marriage. Unlike combination, the cards of the marriage do not have to be present among the first nine face-up cards. However, as cards are played and other cards are turned face up, the two cards of the marriage both have to be present face up at the same time.

Twenty points is scored for marriage when the second of these cards is played from the hand.

Marriage is completely independent of the combinations, and a player can score for marriage even if their opponent wins the combination.

Marriage	
King and Queen of Trump suit Scored when playing second from hand	20

Marriage

Multiplier

All points won in tricks (including the bonus for last trick), the bonus for match, points for combinations, and for points for marriage are multiplied, depending on the colour of the trump suit or whether the game is played at no-trumps.

Multiplier	
Red trump suit	x1
Black trump suit	x2
No-trumps	x3

Multiplier depending on colour of Trump suit or No-trumps

Winning

The game is won by the first player to score 2500 points, which is usually achieved over a series of hands.

Claiming game

Traditional Swiss Jass games have complex rules for claiming a game before the end of a hand. These rules are important for serious Jass players, but unnecessarily complex for friendly games. (That's my view, of course, though perhaps serious Jass players would disagree.)

The slate

Traditionally the running total of scores is kept on a slate in groups of 100, 50, and 20—see below. Players may wish to keep a simple running total with pen and paper.
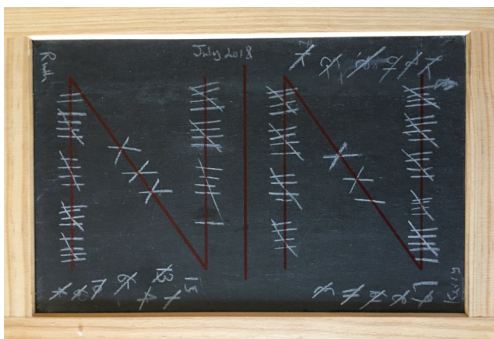
Traditional Swiss Jass scoring

Comments

The presence of a combination may effect non-dealer's choice of game. For example, if a player has four 6's, they will be strongly disposed to select low-to-high, no matter what their other cards are. Likewise, if the opponent has four Aces or four Kings, the player may select low-to-high to prevent them from scoring.

Actually, these and similar situations involving fours of a kind are likely the only times where combinations affect choice of game—and they are quite rare. Otherwise, the scoring of combinations is a gift of points by pure luck and doesn't affect the flow of the game. Players may decide for simplicity not to utilize the complex additional rules for combinations. You may keep Marriage, even if you forgo combinations.

Like Offiziers-Skat, Luzern Skat is unusual in that the players have equal knowledge of the hands of each. Neither player knows which cards are hidden and waiting to be revealed. The choice of game is a gamble depending on a comparison of the starting array of up-cards of the two players.

One of the really interesting features of Jass games is the multiplier depending on the colour of trumps or whether the game is played at no-trump. You need to be more sure of winning when selecting low-to-high or high-to-low, and even the possibility of losing a few points with a red trump suit may be preferable to a dangerous risk at no-trumps.

Sample deal

We will start with the deal given in the diagram on page 38. Non-dealer decides to play low-to-high because of the four Eights. Low-to-high is the only game where four Eights count. Eights are outranked by Sixes and Sevens for trick-taking, but non-dealer has a Six and dealer has a collection of low cards (for low-to-high), including three Kings and an Ace.

Non-dealer notes the 100 for four Eights, and leads. Non-dealer's play is noted first, then dealer's. The winner of the trick is marked with a "W." Cards exposed by the play of the card above them are shown in parentheses.

1.8♥(Q♦)W K♥(9♣) *(Non-dealer cashes the J♥.)* **2.J♥(K♣)W A♣(7♦)** *(Non-dealer plays the worthless A♥ for dealer to discard on it.)* **3.A♥(10♥)W 9♣.**
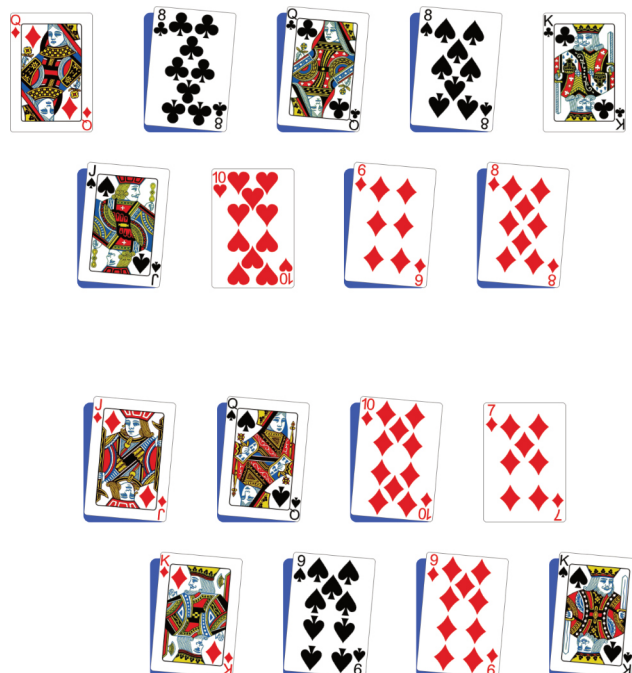
*(Dealer has no clubs, and non-dealer cashes the 8♣.)*
4.8♣(A♦)W 9♠(10♣) *(The 10♣ is a tricky turn-up, but it beats non-dealer's K♣ and Q♣ now the 8♣ has gone. Non-dealer cashes the 8♠.)* **5.8♠(6♥)W Q♠(A♠)** *(The A♠ is another lucky turn-up for non-dealer.)* **6.J♠(9♥)W K♠(J♣).**
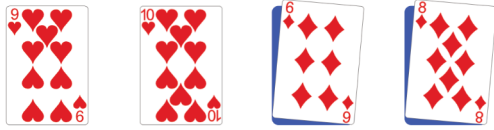
(Most cards are known now. Three of the high scoring 10's are face up, a large part of the points left now the 8's have gone. Non-dealer has two Sixes showing, and non-dealer plays through their hearts.) **7.10♥W A♠, 8.9♥W J♣, 9.6♥W K♦(6♠)**
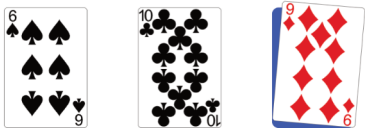
(Non-dealer has a winner left in Diamonds, but sooner or later has to give up the lead.) **10.Q♣(7♥) 10♣W, 11.8♦(10♠)W 9♦(Q♥), 12.7♥W Q♥.**
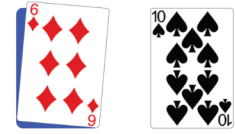
13.K♣W J♦(7♠), 14.A♦ 10♦(7♣)W *(Non-dealer gives dealer the 10♦ to keep a diamond winner. It is to no avail, as non-dealer loses the remaining tricks.)* **15.10♠ 7♠W, 16.Q♦ 7♣W, 17.6♦(6♣) 6♠W, 18.6♣ 7♦W**

Non-dealer scores 83 plus 100 for the four Eights = 183
Dealer scores 69 plus 5 for last trick = 74

Because low-to-high was played, all scores are tripled.

Non-dealer's total for the deal is 549
Dealer's total for the deal is 222

So there it is—a form of Swiss Jass for two, very much like Offiziers-Skat. These rules are as accurate a representation as I could get, but were constructed through a series of questions rather than having them explained in an organized fashion. I am not a Jass expert, and perhaps there are places here and there in the rules that don't quite sit right according to Jass tradition. Please let me know if you are a Jass expert and you spot an inconsistency, I'd be very happy to publish a correction. ∎

Header image
Ravensburger Jass-Karten. Museen der Stadt Kempte, circa 1805. Johann Jacob Kutter, Public domain, via Wikimedia Commons.https://commons.wikimedia.org/wiki/File:Kutter_jass_karten.jpg

---

Shape Chess Solutions
1. Black jumps **h4-d5**. White jumps **g4-g7**.
2. White **f6-d9(1)**, **e5:e4(3)** or **f6-g3(2)**, **e5:e4(2)** or **f6-e9(1)**, **e10(3)**, or **f6-e10(1)**, **e9(3)** Black **g4-j7(1)**, **g6:g7(3)**.
3. White threatens to win with the jump **d5-d1**. The Black push **f4:g5** is a very clever move. The white stone must go to **g5** as any other destination lets White win. Afterwards, Black threatens to score a line of six by pushing one of the white stones at either end. White's only option is to push, making Black's line larger. Most of these pushes are refuted in a single turn by Black. For example, **b2:a3**; **c2-a5** or **c4:b5**; **c7-f5**. Some White replies require Black to make an unstoppable double threat, for example **b4:b5**; **c4-b9** (or also **c4-a9**).
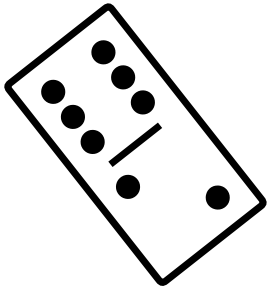
Mountains and Valleys

by Don Kirkby

S id Sackson is one of my favourite game designers. He designed Acquire, Can't Stop, and I'm the Boss, among many, many others. I first got interested in designing board games when I found his book, *A Gamut of Games*, in the basement of our city's oldest library. He described so many different kinds of games designed by him and his friends that I started to come up with my own game ideas.

In 2015, I started designing new puzzles and games to play with a standard set of dominoes. After creating a couple of my own, I was pleasantly surprised when I found a copy of his *Beyond Solitaire* book, and it included Mountains and Valleys. I adapted it from paper, pencil, and dice to use dominoes, and included it in my *Donimoes* collection, which I recently published as a book of a dozen puzzles and games.

To start, shuffle a set of double-six dominoes face down, then turn 18 of them face up. The remaining 10 aren't used. Then arrange the dominoes into a 6x6 square of numbers that represents a map of mountains and valleys, where blanks are at sea level, and sixes are the highest peaks. The goal is to make a map where you can walk to every square. You can walk from one square to its neighbour if the two heights are the same or differ by one. (You can't climb cliffs.)

For example, this set of 18 dominoes can be arranged into the solution below, where the grey lines show the paths you can walk along:
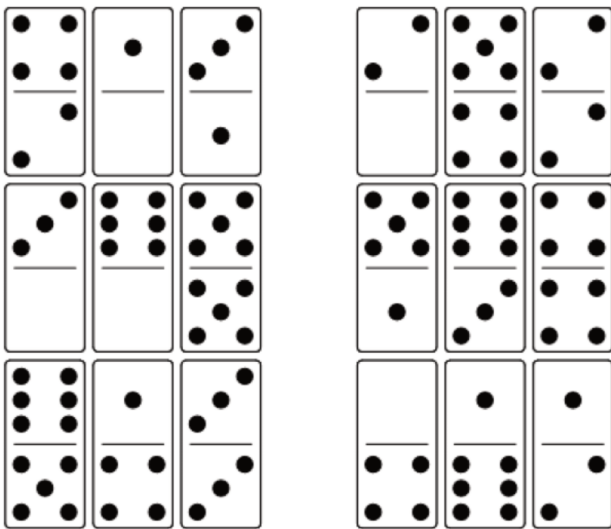
Sample collection of 18 dominoes

I like this solitaire, because it can almost always be solved, though finding a solution can be very difficult. There's usually more than one solution. For example, you can flip the 5-6 domino in the solution, below. There is a trivially unsolvable situation, but it can be quickly checked after dealing. Luckily, it only happens roughly once in every 2000 deals, and I haven't found any other unsolvable combinations after running thousands of simulations.

Readers might enjoy working out how to check for unsolvable deals and calculating the exact odds.
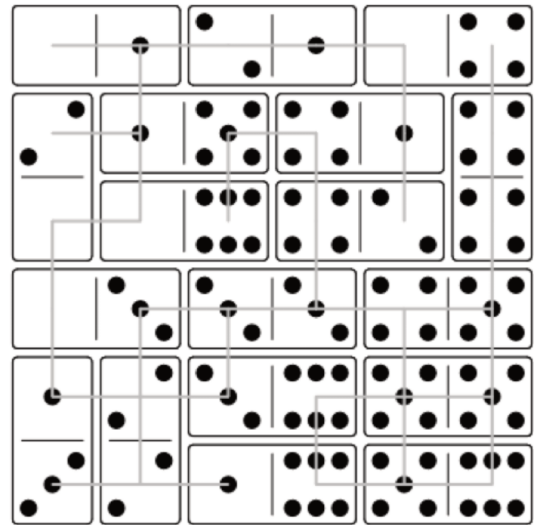
Possible solution

Extra Difficulty

If you want to make it harder, draw 18 dominoes, but only turn five of them face up. Each time you play a domino, turn another one face up, until you've turned up all 18. Then play the last five. After the first domino, all dominoes must be played so they have at least one neighbour, and they can't be moved after they are added.

When the 6x6 square is complete, see if the whole map is connected as described in the regular game. If you need a step of more than one level to get from one section of the map to another, you get a penalty of the number of levels. For example, if a map is completely connected except that you need to go from a 3 to a 5, then you would have a 2 point penalty. A perfect game is zero, and anything under 5 is a good game. ∎

Don Kirkby has written a book on competitive and solitaire domino games, Donimoes: New Games and Puzzles*, available for order from his website: https://donkirkby.github.io/ donimoes/.*

I hope to review Don's book in the next issue. Don's investigations in dominoes are significant, in my view. The domino system has tended to take a back seat to the playing cards, although the structure of the domino set is mathematically perfect. The cards have suits and numbers; the dominoes just have numbers, but the two numbers on a single domino can play the same or contrasting roles. There is plenty of untapped opportunity for game designers. ~ Editor

Green Chess
The Green Chess website was mentioned in this issue for HexChess on the inside front cover and in the article on Chigorin Chess on page 22: https://greenchess.net/. Green Chess is implemented and maintained by Hungarian Uray M. János.

Green Chess permits play of a great number of other chess variants, although not Grand Chess, apparently, because of the unusual Pawn promotion rules in Grand Chess. Nevertheless, Green Chess offers Capablanca's Chess, Gothic Chess, several other varieties of hexagonal chess, and chess for three or four players, as well as a large number of other options.

The interface is clean and easy to use. We highly recommend Green Chess.
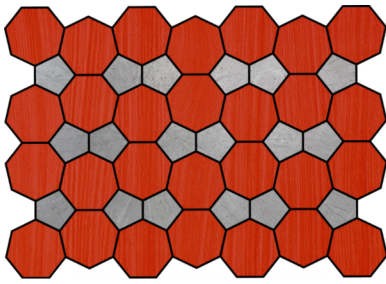
Evl

Unique play
on a unique board

by Christopher Field

Unstacking examples

The first thing everyone notices about EVL is the board, shown above. Unique in the world of abstracts, it consists of four rows of seven heptagons with three rows of six disconnected pentagons squeezed between them. And this is just the start of the wonderful things about this game by Kevin Kane of Nexus Games. The rules of EVL are given in *AG22*, and are recalled here briefly.
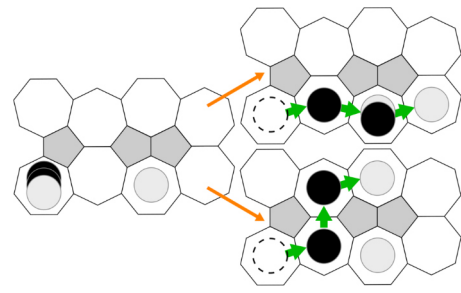
The board starts empty. The goal is to control ten of the pentagons on the board. How you gain control over the pentagons will be covered later, since the action occurs solely on the heptagons.

On each player's turn, they must choose to do one of the following: take a piece from their limited set of reserves and place it onto the board, or "unstack" a stack that they control. If the player no longer has pieces in reserve, they must unstack.

When placing a piece onto the board, the player may put it into any empty heptagon, or they may put it on top of one of their pieces. This is one way that "stacks" can be created. Stacks are, by definition, two or more pieces tall. Players control stacks that are capped by a piece of their colour. But, and this is extremely important, stacks can never be more than four pieces tall. No game action, neither placing nor unstacking, can ever make or leave behind a stack with five or more pieces. For this reason, four-stacks are "walls," and these are the primary way that the board is carved up into controlled territories.

To "unstack," a player takes any two, three, or four piece stack that they control and moves it. As the stack is moved, one piece from the bottom of the stack must be left behind in each heptagon that is passed through. The movement does not need to be in a straight line, but it must not double back on itself. For example, you may move a four piece stack one heptagon over without changing it, or you may move it three spaces over by leaving the bottom piece in the immediately adjacent heptagon, the next bottom piece in the next heptagon, and the final two pieces in the third. As you leave these pieces behind they cover whatever pieces were already in those heptagons. In this way, you may cover your opponent's pieces, creating or gaining control over new stacks along the way. As a reminder, you must leave pieces as you go, and you cannot ever create a stack higher than four pieces. Thus, depending on the board state, you will not be able to spread through "walls."

The last parts of the game are the pentagons. These are the territory of the game, and the goal. If you control ten of them at the end of your turn, you win the game. Pentagons are captured only through an unstack, and specifically, they are captured with custodial capture. During an unstack move, if any pieces of your colour are placed such that they form a pair with one of your pieces or a controlled stack in either of the two heptagons on the opposite side of a pentagon, then that pentagon switches to your colour. Pentagons stay your colour even if the pieces that originally scored them move.

The last parts of the game are the pentagons. These are the territory of the game, and the goal. If you control ten of them at the end of your turn, you win the game. Pentagons are captured only through an unstack, and specifically, they are captured with custodial capture. During an unstack move, if any pieces of your colour are placed such that they form a pair with one of your pieces or a controlled stack in either of the two heptagons on the opposite side of a pentagon, then that pentagon switches to your colour. Pentagons stay your colour even if the pieces that originally scored them move.

Capturing pentagons

And that's it. The only other points to make have to do with edge cases. The first is regarding what happens when one player cannot make a legal move (something that is very rarely seen and will be left to the official rules). Second, in an oversight, the rules make no mention of draws. Situations can occur where opponents have no good moves left and simply play waiting moves back and forth. In this situation, players should just agree on a draw.

Strategy

This game is new enough that there are no truly skilled players yet. What is written here is bound to be expanded upon or rethought and refuted. Still, the things herein are emergent, and it is worth noting them as you sit down for your first game.

• First, don't be fooled by the capture goal. EVL is a game about influence and territory. A tall stack is extremely powerful. Not only does it threaten to capture anything within four heptagons of it, but it also stands as an anchor for other spreads to score with, and as a wall to resist your opponent's stack's influence. In most games, the first four moves by each player are simply to build a four-piece stack.

• Building walls is so important that it is almost always incorrect to unstack them until your position is dominant. As a consequence, the art of "walking" a stack is a good skill to learn.
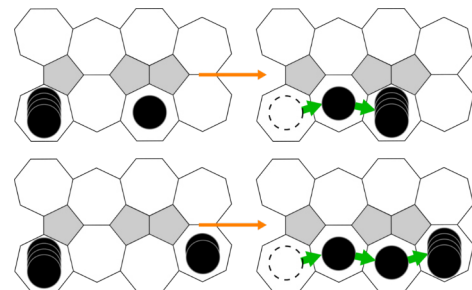
"Walking a stack"

For example, a four stack can be unstacked two heptagons to cover a lone piece and in so doing you will retain a four stack. Similarly, a four stack can cover a two stack three heptagons away, etc. Setting up these "landing positions" smartly is critical to eventually gaining the upper hand.
• Avoid vulnerable three-stacks. With smaller stacks, you can often position them so that if the opponent tries to capture them, you can capture them back—but not with three stacks. Once the opponent captures them, those stacks are now walls.
• Single pieces are not stacks, are very weak to capture, and do not project any influence. It's tempting to place a lot of singletons around the board with the hope that they will help you score as you unstack, but they do not meaningfully contribute to board dominance. If you place a single piece down, do so because you plan to build it into a stack.
• Do not overestimate the weakness of having an off-colour piece on the bottom of a stack. It can be a little annoying to keep in mind, but often it just means that you leave a single enemy piece somewhere as you unstack. Again, singletons are weak and it generally isn't a big issue.
• Corners are great places to build attacks from. Though they project the least influence into the centre of the board, they are very difficult for an opponent to capture. If your opponent doesn't have the time or pieces to trap them in the corner, they can be an effective way to get into their backline.

The game is now available to play on Board Game Arena, and I hope to meet you there for a game! ∎

References
Game homepage: https://nxsgame.com/evl/evl%20rules.pdf
Board Game Arena: https://boardgamearena.com/

Endgame Transitions in
NXS

by Kevin Kane

NXS was reviewed in *AG20*, and full rules are available on the game's website. You win a game of NXS by invading and capturing your opponent's territory. Along the way, however (particularly in the medium and long games), you will encounter your opponent's ships. Due to the shape of the (two-player) playing surface, your ships will often meet in a crunch at the border between territories. The opposing fleets will typically engage in a tactical battle at the border, each side attempting to capture opponent's ships unanswered, offer exchanges in their favour, and generally maneuver themselves to be able to enter their opponent's territory (preferably with their fastest ships).

This crunch / rugby scrum / trench warfare phase is NXS' middle game, with the endgame being the time when players mostly abandon this ship-to-ship fight and race their ships into enemy territory. NXS endgames can be quite exciting, with both players walking a knife edge between attack and defence.

But when and how do you make this transition to the endgame? That, I would argue, is one of the most important skills that an NXS player needs to develop. If you try to move too early, you will encounter too many defenders and leave your border unguarded. If you wait too long, your opponent will be racing for territory while you are still worried about exchanging a Frigate for a Brigantine.

And so, I started collecting what I call "there it is" moments. That point in the game where it was clear to me that it was time to stop worrying about border tactics and race for territory. All screenshots are from Board Game Arena.

*[Coordinates are difficult to discern in the diagrams. NXS uses radial coordinates for each player board. The centre of each board is **a**, and succeeding layers are labeled **b**, **c**, and **d**; for White, the hex directly east is numbered **1**, and for Black the hex directly west is labeled **1**; for both players, numbering proceeds clockwise. For example, **W:a** is the centre hex of the white board and **B:d10** is the eastmost corner of the black board, etc. ~ Editor]*

Example 1: Black has just moved from **B:d2/d1**, threatening White's **W:c11** Brigantine. Rather than worry about losing that piece, White is going to transition to the endgame with **B:c1/d5**. If Black takes the **W:c11** Brigantine, then White can move their Merchant **B:d18/b5** and Black is in trouble. White would have two fast ships deep in Black's territory, and be one move away from a win.
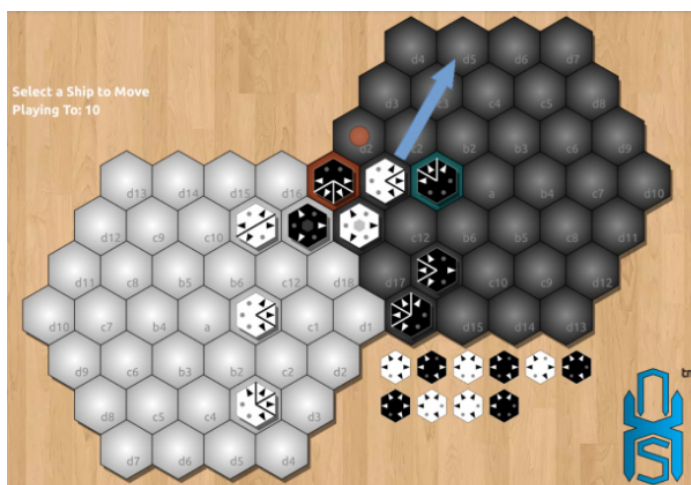

*Example 1: Position after **B:d2/d1**, and White transitions to the endgame with **W:c1/d5**.*

Example 2: This one is tricky. Even though the next several moves are ship exchanges, as you will see it's actually a transition to the endgame. Black moves **B:d14/d16** and threatens the pieces on **W:d2** and **W:d18**.


*Example 2: Position after **B:d14/d16**, where Black threatens **W:d2** and **W:d18**.*

White will kick off a chain of ship exchanges that (unless Black wants to end up down a piece) are almost forced. **W:d2/B:d16!**, **B:c10/d16!**, **W:d18/B:d16!**, **B:c12/d16!**. This leaves White's **W:c2** Cutter wide open for a move to **B:d18**. Black's only piece in White territory is hemmed in by White's two Frigates.
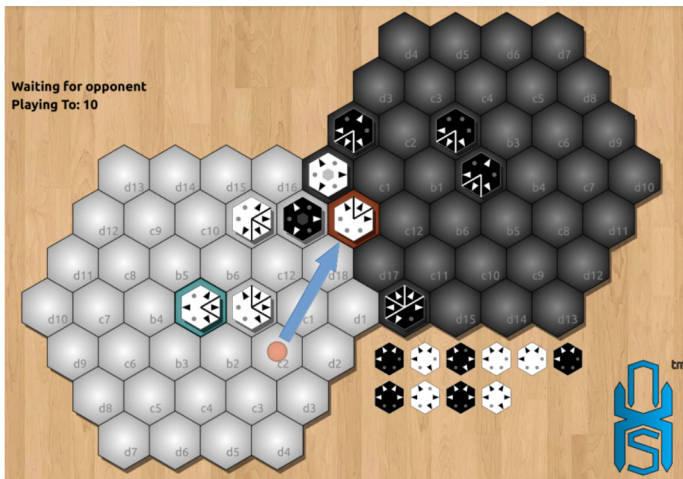
*Example 2 (cont.): White now has the move **W:c2/B:d18**.*

Example 3: Black is in a tough position. White has captured the Frigate at **B:d18**, threatening Black's **B:d2** Cutter. If Black takes White's **W:c5** Cutter, then Black will lose the **B:d2** Cutter. Not only that, but White would have two clear paths to capture territory. Black's best move is **B:d2/W:c12**, starting the endgame.
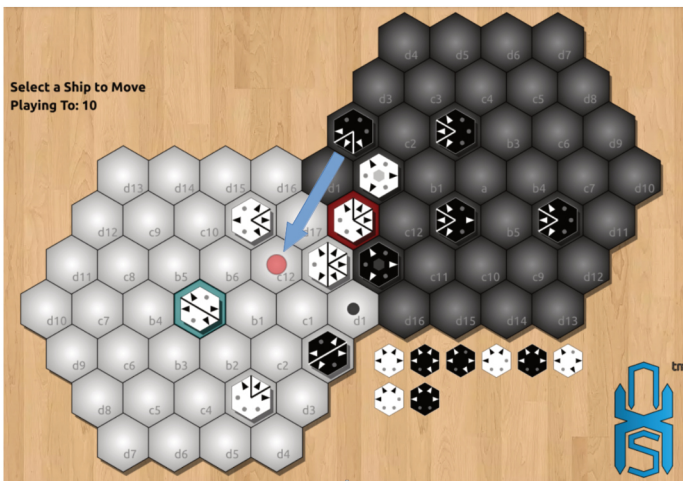
*Example 3: Black's best move is **B:d2/W:c12**.*

A bonus endgame puzzle for NXS is given on page 20. The puzzle solution is on page 34.

The NXS base game can be supplemented now with the Admiral Skill Pack, available from The Game Crafter. They are cards that add special abilities to the pieces. ■

References
- NXS website: https://nxsgame.com/tutorial.html
- Admiral Skill Pack on Game Crafter:
https://www.thegamecrafter.com/games/nxs:-man-o-war:-admiral-pack

ⓒader opposite
Hildebrant battles King Gibica in Der Rosengarten zu Worms. Anonymous, Unknown author, 1300. Public domain, via Wikimedia Commons

A game by Richard Vickery

Nibelungenlied

by Kerry Handscomb

Nibelungenlied is a game by Richard Vickery, entered for the Simultaneous Movement Game Design Competition in 2003 and described in *AG14*. The game is unusual because it has simultaneous movement, shared pieces, and unequal objectives. It deserves to be revisited. A board is on the outside back cover of this issue. We're repeating the rules here, with diagrams, so hopefully the rules are clearer. The back-story, based on a Germanic epic poem, helps to explain the objectives. For simplicity I'll describe the game now without the context.

In addition to the board, you will need three sets of chess pieces, using just the White King (Gunther), White Queen (Kriemhild), White Knight (Hagen), Black King (Siegfried), and Black Queen (Brunhild). One set of pieces starts on the board in the setup shown below left. Pieces occupy vertices of the triangles. The three triangles in the corners are "castles." Each player takes a set of pieces each, which should be placed behind a screen.
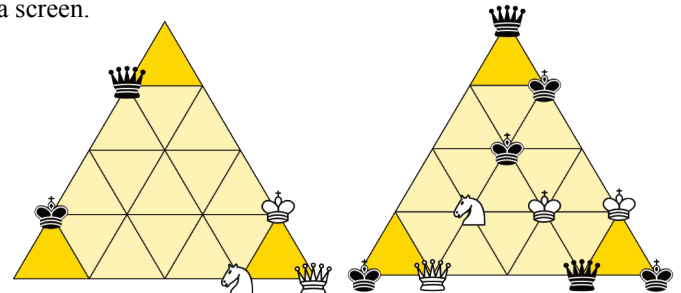
AG14 suggests a workaround using just one chess set. Perhaps a better option is to give each player a set of five cards instead, a red King, Queen, and Jack; and a black King and Queen—and then the screens aren't needed.

One player is Natural Order, the other is Tragic Destiny. Examples of winning conditions are shown above right. Natural Order wins if Siegfried occupies one of the vertices of a castle, Kriemhild or Brunhild occupies a second vertex, and the third vertex is empty, as shown in the top castle and bottom left castle. Tragic Destiny wins if Gunther, Siegfried, and Brunhild occupy all three vertices of one castle, as shown in the bottom right castle, or if Gunther, Hagen, and Siegfried together occupy the vertices of one of the four central triangles that does not have a vertex belonging to a castle, as shown in the centre. The player achieving the winning condition wins immediately, even if the turn is not completed. The order of pieces around the vertices of a triangle is irrelevant.

Each turn, both players secretly select two pieces from those they have behind their screen. The choices are revealed simultaneously. The first selection is from five pieces, and the second from the remaining three. Thereafter, all five pieces are placed back behind the player's screen to begin the cycle anew. At the start of the game, Tragic Destiny chooses two pieces to place in front of the screen, so that the first move will involve a choice from five for Natural Order and three for Tragic Destiny. Thus, the movement cycles will be "out of phase."

Pieces are moved by the player that selected them. A player can choose not to move as piece. Which pieces are permitted to move depends on the pieces players chose in common, if any:
(Continued top of next page.)

• If the players choose the same pair of pieces, then no pieces are moved and the players simply go to the next turn.
• If the players select one piece in common, then only the two pieces uniquely selected by the players can be moved, up to two spaces each, to vacant points, changing direction permitted.
• If the players choose four different pieces, each piece can move one space to a vacant point.
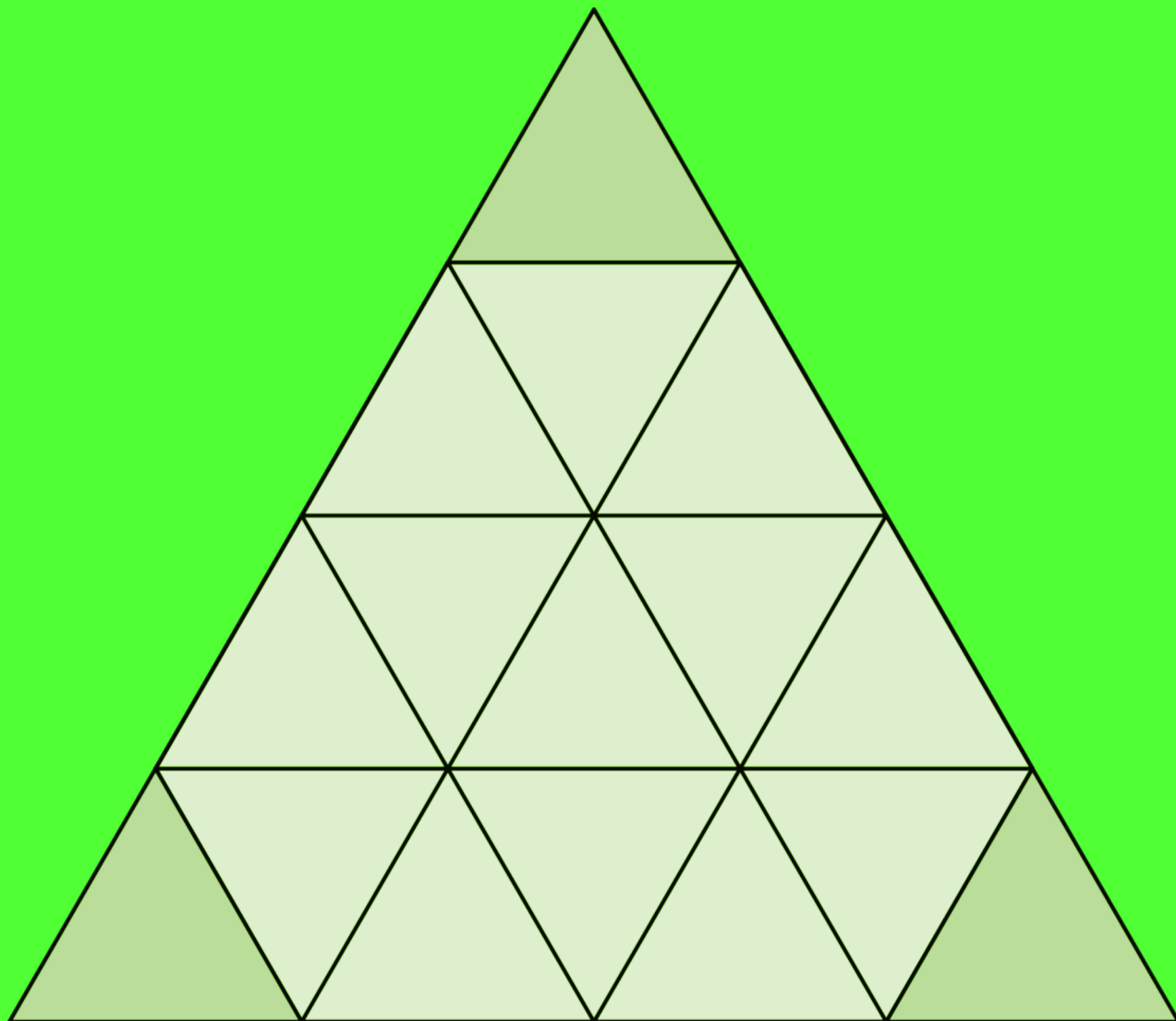
The pieces must be moved in the strict order White King (Gunther), White Queen (Kriemhild), White Knight (Hagen), Black King (Siegfried), and Black Queen (Brunhild).

Nibelungenlied can be a quick game, and experience will confirm the balance of the objectives. Otherwise, with its simultaneous movement (sort of), shared pieces, and asymmetrical objectives, it is a very unusual game. ∎

Directory of Games by Issue

Nibelungenlied

A game by Richard Vickery