

GAT 110: Game History

Course Instructor:

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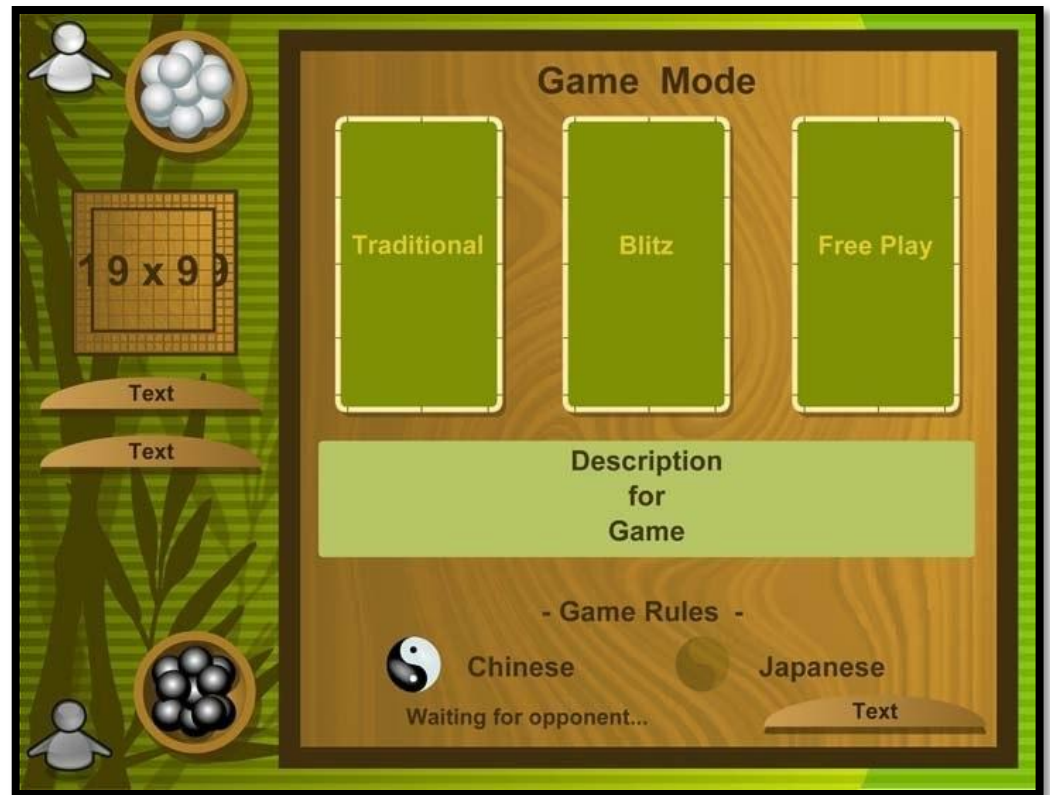
Games of Position

Games of Position

- Games of position are those in which there is a territory control element. This can be a supporting objective:
 - Chess
 - Othello
- Or a core objective:
 - Go
 - Noughts & Crosses
- Games where position matter can be described as having a Territory Control mechanic (either core or supporting).

Wei-Ch'i

Wei to Go...



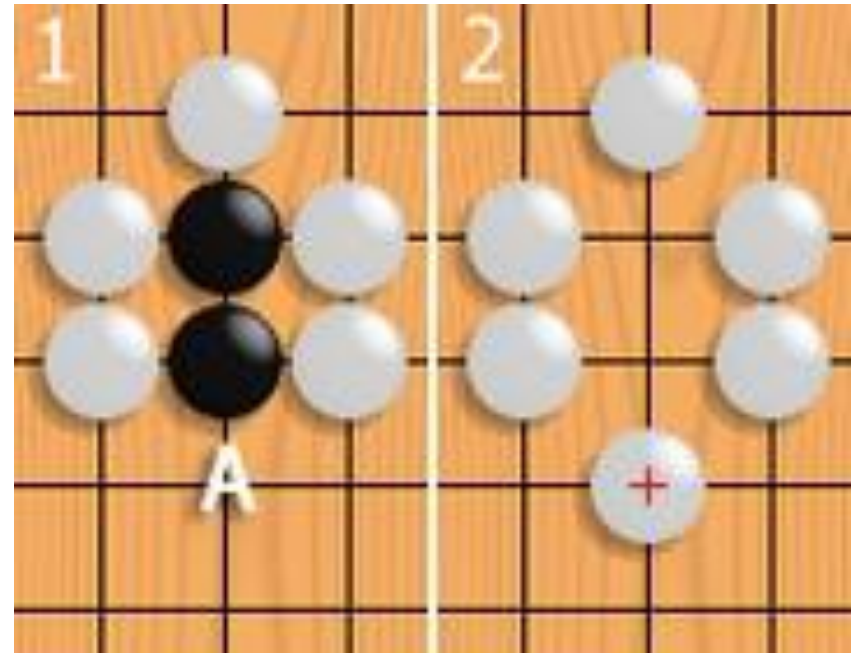
Origins of Wei-Ch'i

- Wei-chi was first mentioned in Chinese writings dating from 625 BCE.
- First known books on the game from 618-906 BCE.
- Arrived in Japan around 500 BCE.
- By the end of the first millennium, commoners were playing the game in Japan.
- State school founded in 16th Century – first professional gamers!
- Go espouses aesthetics in game play.



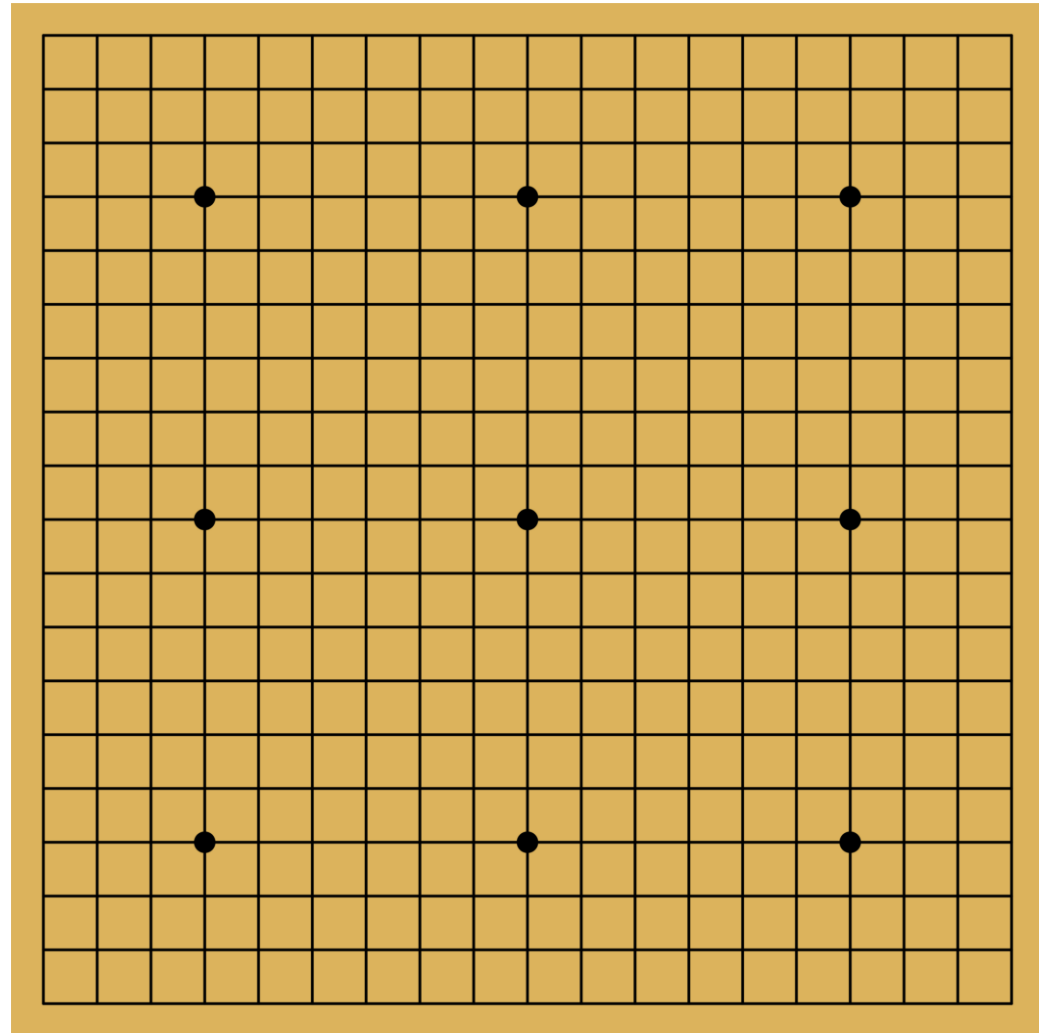
Goes with the Territory

Go is all about territory.
The goal is to capture
territory by occupying
the intersections of two
lines, so that adjacent
line combinations create
an area of adjacent
stones.



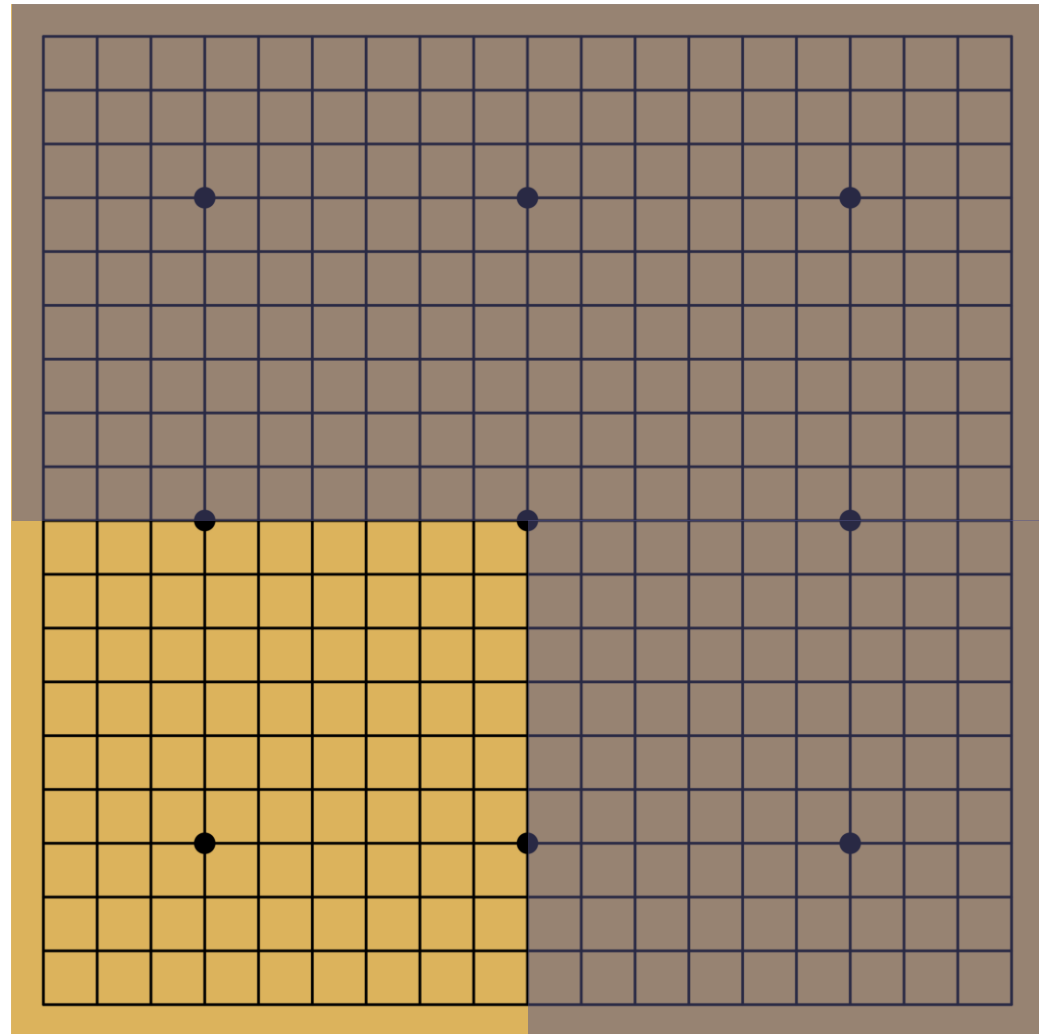
Go Board

- Go is played on a 19x19 board.



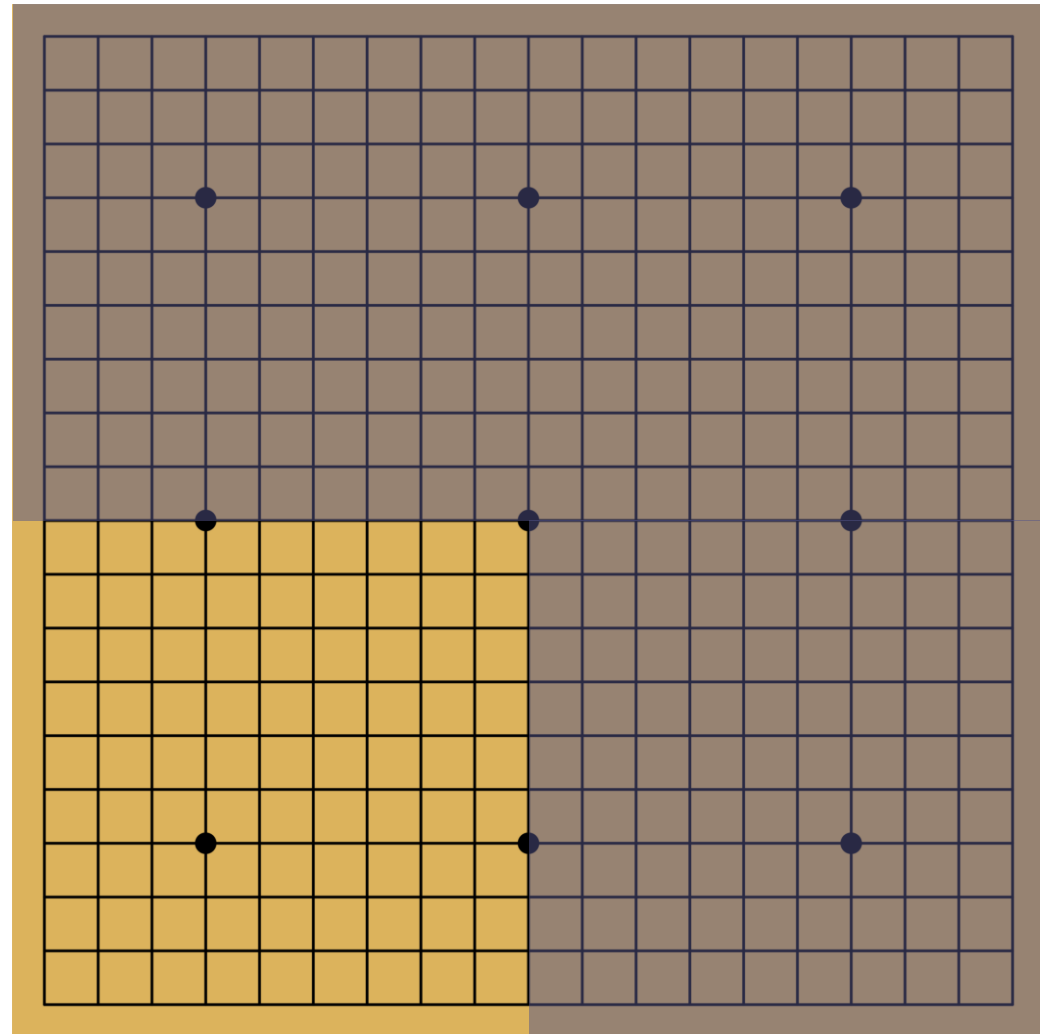
Go Board

- Go is played on a 19x19 board.
- Go is sometimes practiced on a quarter of Go board, or 9x9 board.



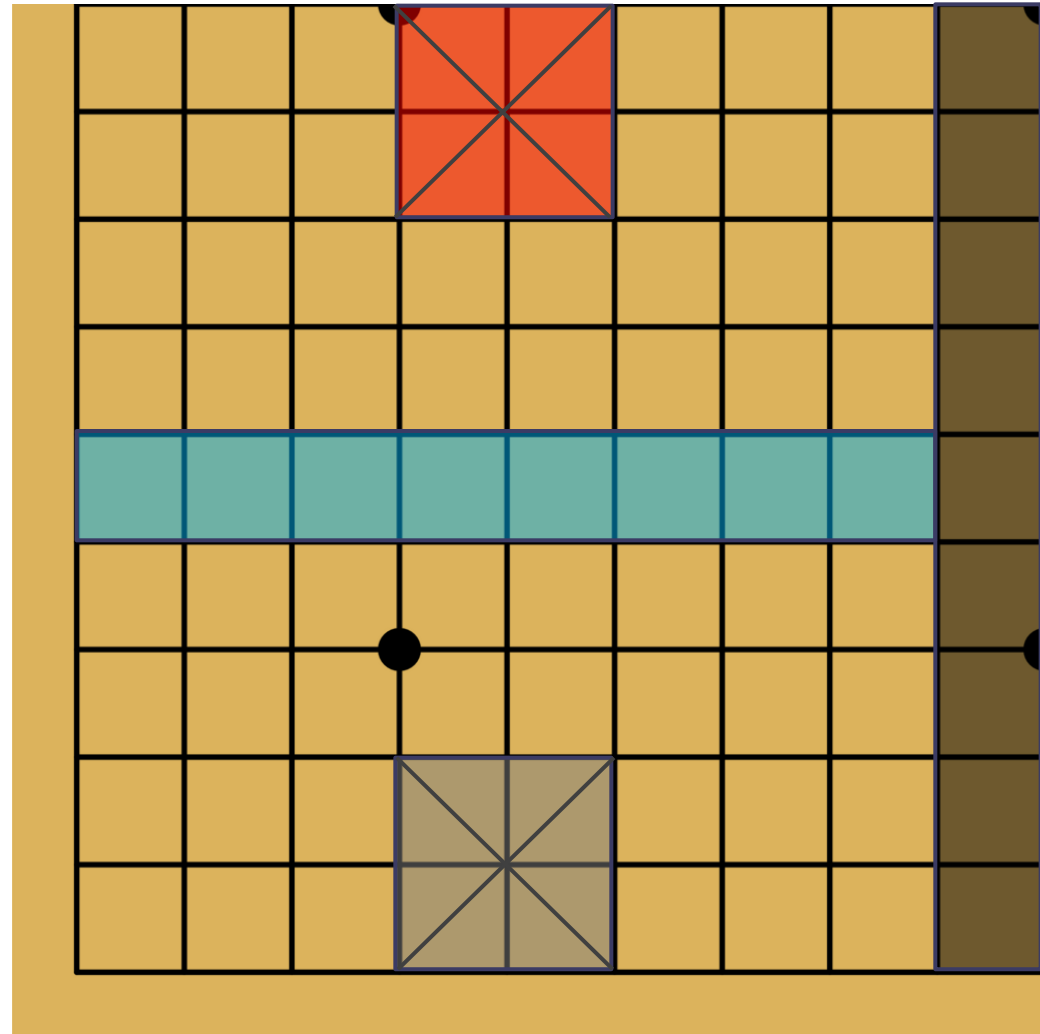
Go Board

- Go is played on a 19x19 board.
- Go is sometimes practiced on a quarter of Go board, or 9x9 board.
- Wait, why is that familiar...?



Go Board

- Oh yeah...
- Chinese Chess did come later, didn't it?

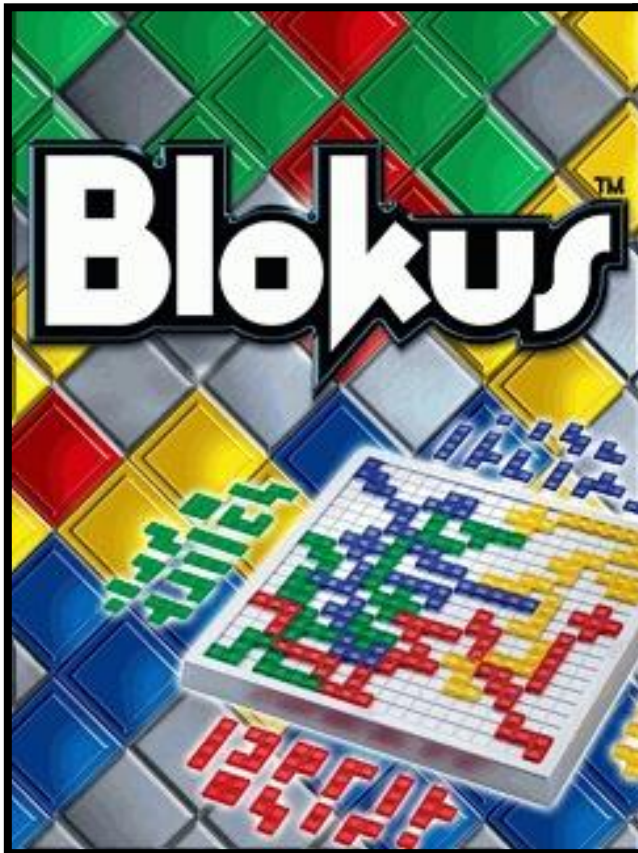


Othello

- Go is the root for Othello (a.k.a. Reversi)



Blokus



Gomoku

Gomoku

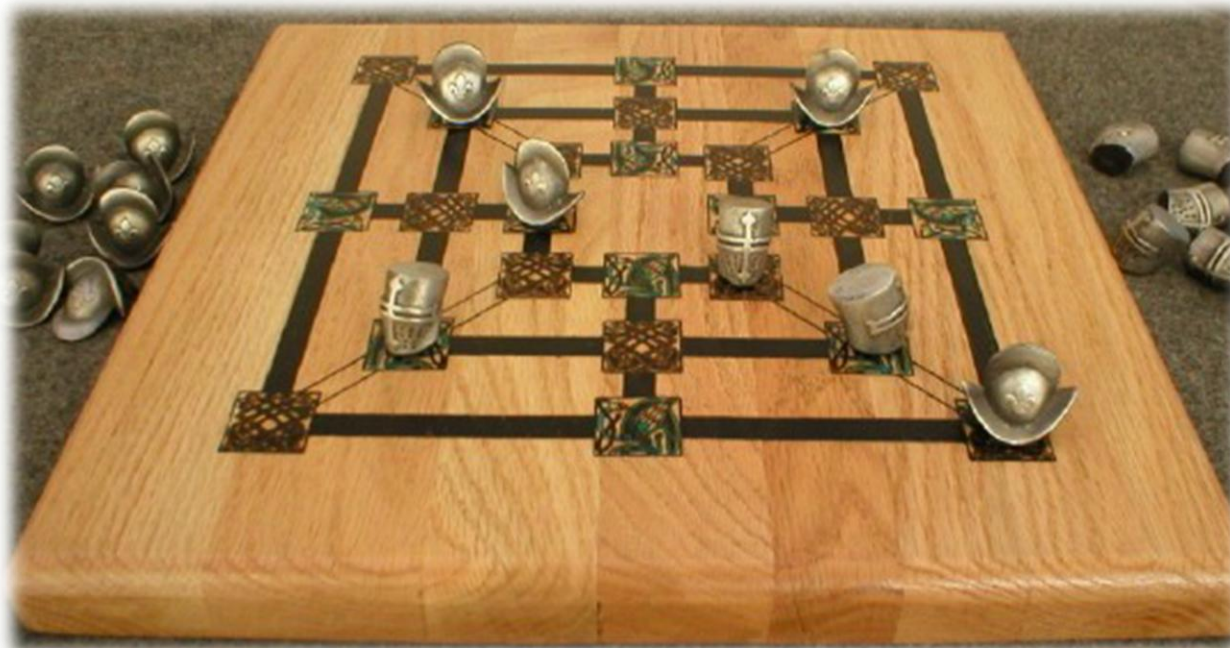
- Gomoku (or Renju or Gobang) is Japanese for “five in a row”. Generally considered a children’s game in Asia (as opposed to Go). Gomoku means “five pieces”.
- It is traditionally played on a Go board with Go stones.
- The goal is to be the first to get 5 in a row horizontally, vertically, or diagonally. Rows of more than 5 (called overlines) do not count.
- Players are not permitted to create open-ended forks of 3 stones each. Three and four or four and four are allowed, however.

Pente



- Pente was an adaptation of Gomoku by Gary Gabrel in 1977.
- Pente was acquired by Parker Brothers in 1983.
- Main difference in the game is that it allows capturing pairs of stones. Capturing 5 pairs is an alternate win condition.

Morris



Morris Games



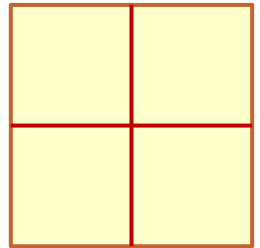
- Morris games were found at that same Temple of Kurna as the incompletequerque board (man that place must have been a gamer's paradise) from 1400 BCE.
- The game had made its way to China as Luk tsut K'i c. 500 CE.
- Boards were discovered in Ceylon, Sri Lanka, circa 10 CE.
- The game was found cut into the deck of a Viking burial ship from 900 CE.
- Versions have been found etched in Roman buildings.
- Game was discovered etched in the ground in Bronze Age Ireland.
- Versions have been found etched in English cathedral choir stalls. In fact versions have been found in churches and tombs across England.
- *How many men does it take to play? Morris better...*



Temple at Kurna, Egypt

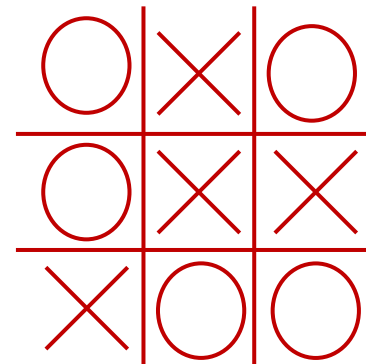
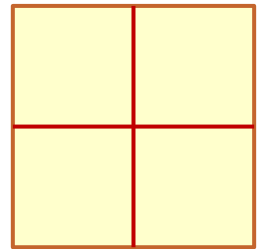
Morris Games

- In all versions of the game, players take turns adding stones to the board.
- Three Men's Morris
 - First to get 3 in a row wins.
 - Hmm... look familiar?



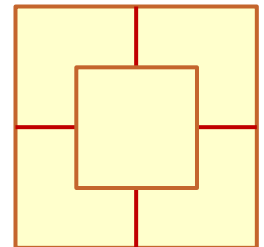
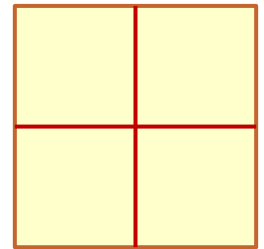
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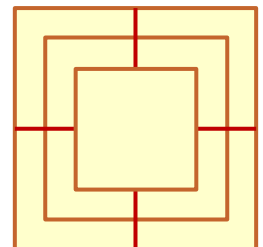
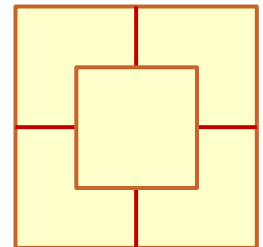
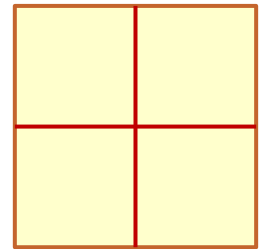
Morris Games

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- Six Men's Morris
 - After all pieces are placed, you can move to one adjacent space.
 - Getting 3 in a row let's you remove an opponent's piece.
 - Player reduced to 2 men loses.



Morris Games

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- Six Men's Morris
 - After all pieces are placed, you can move to one adjacent space.
 - Getting 3 in a row let's you remove an opponent's piece.
 - Player reduced to 2 men loses.
- Nine Men's Morris (a.k.a. Windmill)
 - Adds trapping your opponent's pieces as an alternate win condition.
 - Cannot remove an opponent's piece that is in a *mill* (3 in a row).



Connect Four



Connect Four

- First trademarked and published by Milton Bradley in 1974.
- Public domain versions pre-existed this version by the names: Captain's Mistress, Four Up, Plot Four, Find Four, Four in a Row, and Four in a Line.
- Connect Four was released on the Microvision handheld game console (first with interchangeable cartridges) and the TI-99 in 1979.



Quarto!



Quarto!

- **Quarto!** is a board game for two players invented by Swiss mathematician Blaise Müller in 1991.
- It is played on a 4×4 board. There are 16 unique pieces, each of which one of each of the following 4 attributes:
 - Tall or Short
 - Light or Dark
 - Square or Round
 - Hollow or Solid
- A player wins by placing a piece on the board which forms a horizontal, vertical, or diagonal row of four pieces, all of which have a common attribute.



Games of Attrition

Games of Attrition

- Games of attrition are those in which pieces are eliminated during play. This can be a supporting objective:
 - Chess
- Or a core objective:
 - Mancala
 - Draughts
- Games with an attrition element can be described as having an Attrition mechanic (either core or supporting)

Mancala

Origins of Mancala



- Mancala is actually a whole family of games as there are many different mancala variants.
 - Mancala comes from the Arabic word, meaning literally “to move”.
 - The use of mancala as a name for the game can be traced to Thomas Hyde, a professor of Arabic at the University of Oxford who wrote two books in Latin about games, i.e. - *De Historia Shahiludii* (1689), and *De Historia Herdiludii* (1694).
- Mancala games arose primarily in Africa
 - Fragments of pottery boards found in Ethiopia and Eritrea dating from the 6th and 7th Centuries prior to Islam.
 - May be a mancala type game in the temple graffiti at Kurna, Egypt (1400 BCE).
 - This family of games could very well be one of the oldest games in existence...
- Mancala boards have been used in rituals at weddings, funerals and in ceremonies marking the ascendance of new kings. They are also recorded as sometimes being used for divination.
- Mechanics are sometimes referred to as “count and capture” or “sowing”.

Mancala

The idea is simple: you carve out pits in the ground (or in a wooden block) and “sow” seeds or pebbles into each pit. The idea is to drop your stone into an occupied pit and capture/remove your opponents stones in that pit. There are a LOT of variant ways to play mancala...

Mancala Wiki

http://mancala.wikia.com/wiki/Main_Page



Discussion

Elements of Position and Attrition in Computer Games

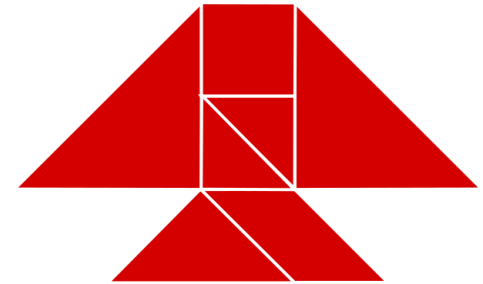
Pattern Matching Games

From Tangrams to Tetris

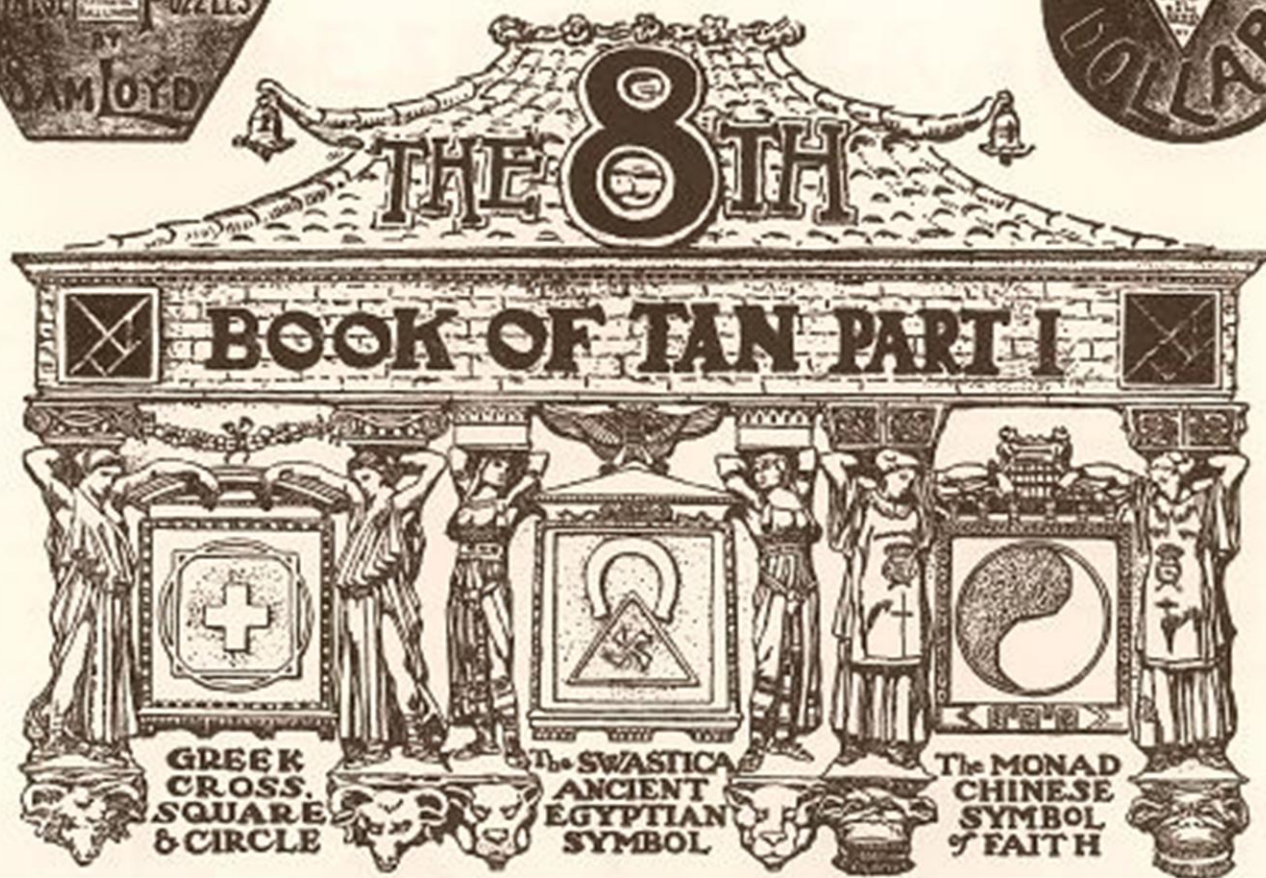
Tangrams



Origins of Tangrams



- Tangrams (qi qiao ban) were invented in China possibly during the Eastern Zhou period (770-221 BCE). The earliest known Chinese book on the subject was dated 1813, but it was already quite old by then.
- Captain M. Donaldson was gifted with a pair of Sang-hsia-k'o's books on Tangrams in 1815 and he brought them to America in 1816. The first books in America were published based on these.
- The puzzle game enjoyed great popularity from 1815 through the 1820's in Europe and the US.
- The puzzle game enjoyed a second surge of popularity from 1891 through the 1920's after being reintroduced by German industrialist Friedrich Adolf Richter as the Anker Puzzle.
- In 1903, Sam Loyd wrote his great spoof of tangram history, *The Eighth Book Of Tan*, which was responsible for greatly popularizing the game.

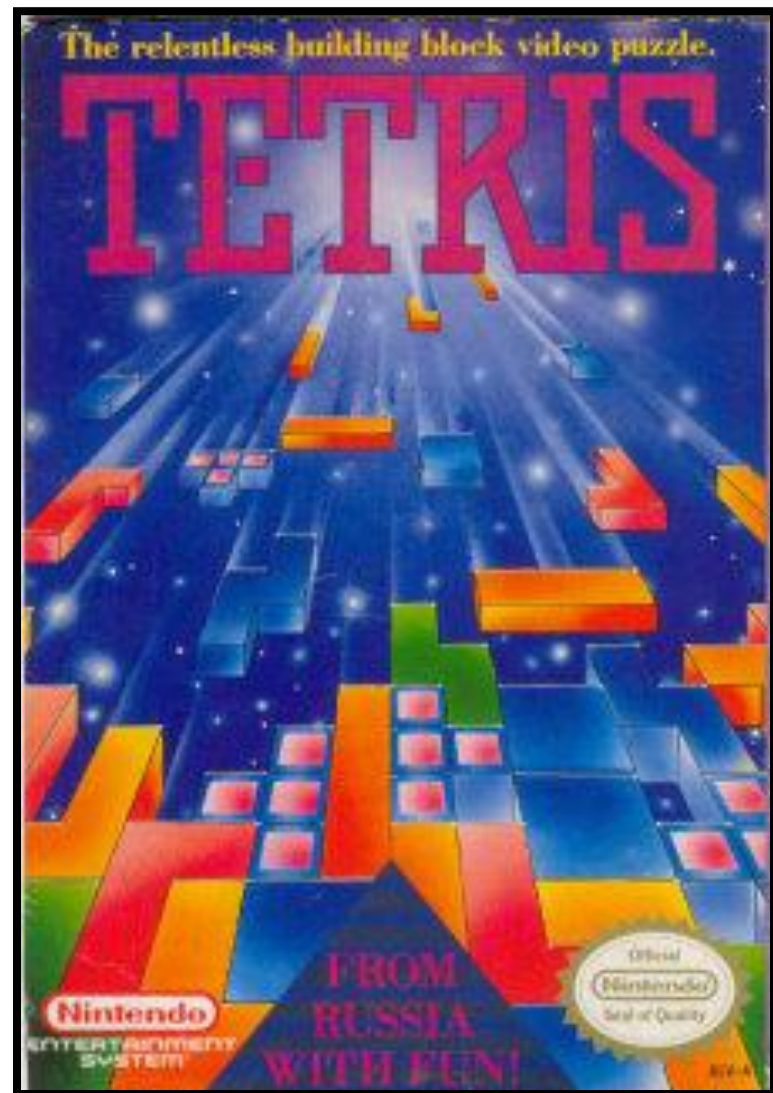


PUBLISHERS **LOYD & CO.** NEW YORK.

Puzzle Inlay

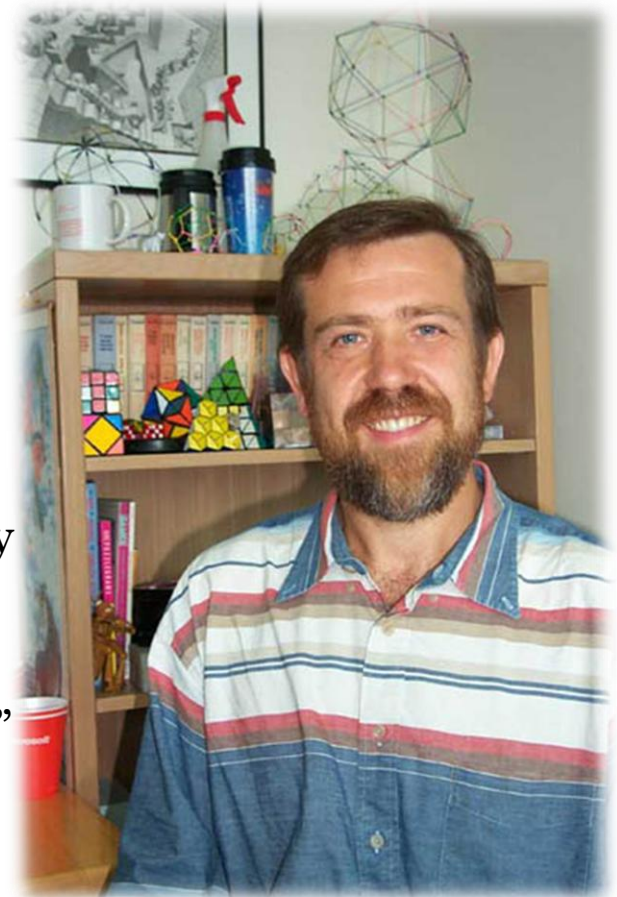


Tetris



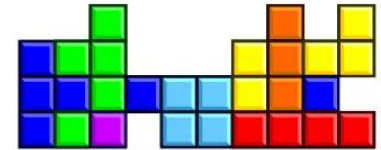
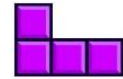
A Brief History of Tetris

- Go master long ago identified that there are 12 distinctive patterns (pentominoes) that can be formed by 5 connected stones on a Go board.
- 1907: Polyominoes begin being used in puzzles.
- 1934: Fairy Chess Review² magazine introduced recreational math dissection problems with polyominoes.
- 1953: The term “polyomino” is coined as a derivative of “domino” by Solomon Golcomb.
- 1970’s: Alexey Pajitnov discovers a set of pentominoes (polyominoes with 5 squares) in a toy store in Moscow and falls in love with the puzzle.
- 1984: Alexey Pajitnov worked at the Dorodnitsyn Computing Center in the area of AI, where he coded the first version of Tetris (named for “tetra-” prefix and his favorite sport tennis) in 2 weeks. Bootleg versions of the game begin to leak all over Russia and into Europe



2. The Problemist Fairy Chess Supplement (1930-36) and its continuation The Fairy Chess Review (1936-1958).

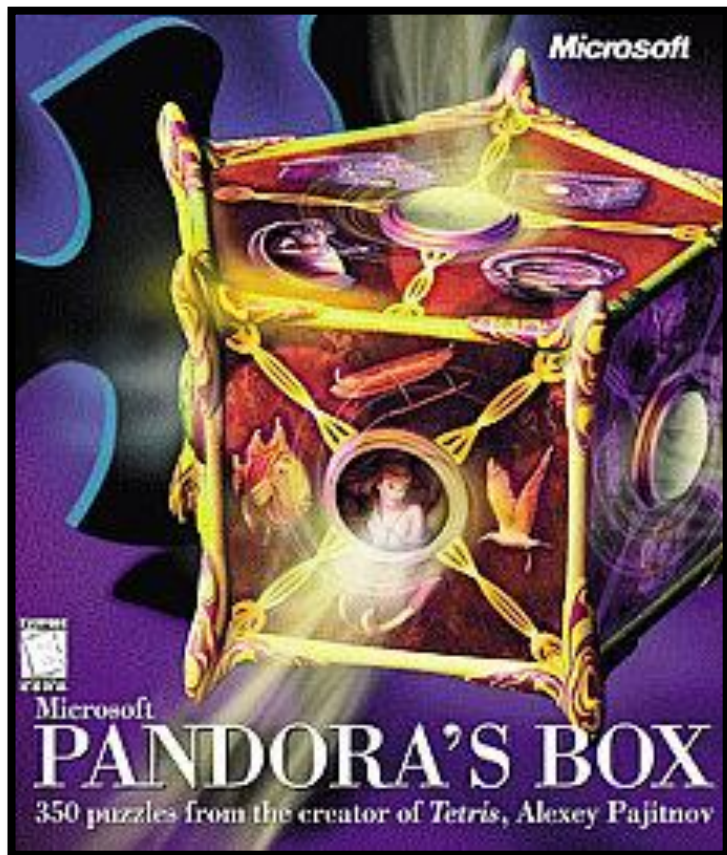
A Brief History of Tetris



- 1985-87: Various companies (Spectrum Holobyte, Tengen, and Mirrorsoft), through misunderstanding with the Soviets, believe they have the rights to Tetris and begin marketing versions throughout Europe.
- 1988: Henk Rogers sees Tetris for the first time at CES in Las Vegas in January.
- 1988: In December, Henk Rogers pitches Tetris as a pack-in for the original Game Boy.
- 1989: Rogers negotiates worldwide handheld and console rights with the Russians and the game is released as a pack-in for Tetris with over 35 million units sold.

Tetris has been distributed on over 30 platforms and been translated into 50 languages. It is ranked #2 in Guinness World Records' Top 50 Console Games of All Time (right after Mario Kart). It has inspired myriad imitators through the years.

Mind Aerobics to Pandora's Box



Bejeweled



PopCap

- 1997: John Vehey and Brian Fiete met in a freshman programming class at Purdue University.
- 1997: They finish their first game after 4 months called ARC which they released and was discovered by Jason Kapulka who offered to publish the game on TEN (Total Entertainment Network) for \$45K.
- 1999: John and Brian sell ARC to Sierra (WON) for \$100K in December and leave to start their own company with Jason.
- 2000: Sexy Action Cool, LLC is founded. In a family visit to Indiana in April, John sees an online solitaire game called Colors Game and sends a link to the guys. Four days later, a gem matching game named Diamond Mine is complete.



John Vehey, Jason Kapulka, Brian Fiete

PopCap



- 2000: Diamond Mine is licensed to MSN Gaming Zone for \$1500/month on the condition that the game is renamed Bejeweled. Sexy Action Cool changes their name to PopCap.
- 2001: PopCap releases a downloadable “Deluxe” version of Bejeweled. They make \$35K the first month. Then \$40K the next month. And so on.
- 2001-2010: Period of expansion and acquisition that leads to PopCap publishing 56 different games with over a billion people playing their games. Bejeweled sells a copy somewhere every 4.3 seconds.
- 2004: They turn down an offer to buy the company for \$60M.
- 2011: PopCap sells to EA for \$650M with performance incentives that could push the deal to be worth more than \$1 BILLION.

Next Lecture

- Domino, Dexterity & Parlor Games
 - Origins of Dominoes
 - Domino Games
 - Dexterity Games
 - Parlor Games