



Learn how to play ^{Wéi} ^{Qí} “Go (圍碁)” in 10min

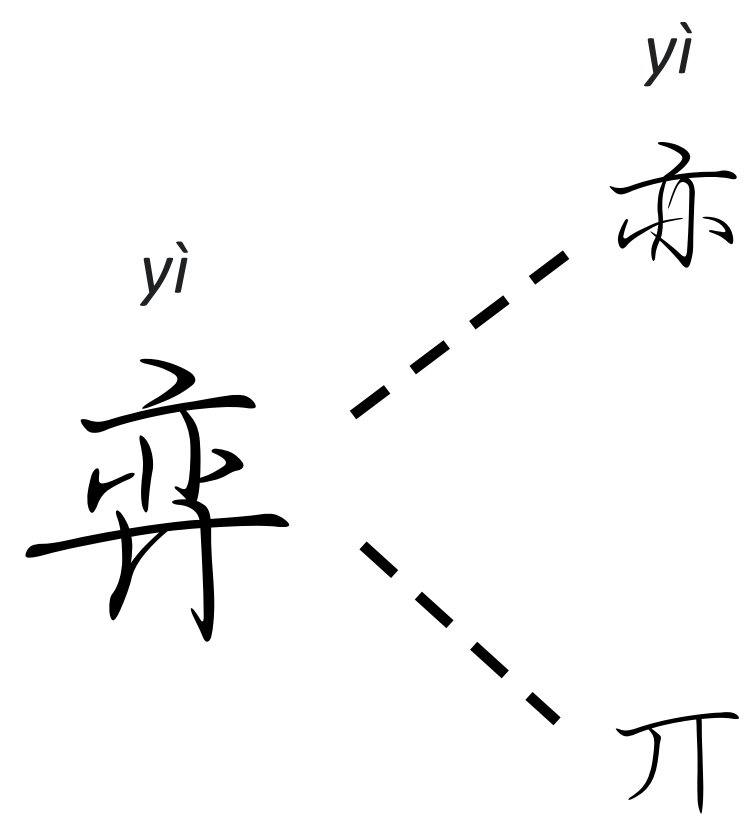
Shi Dai (代实)

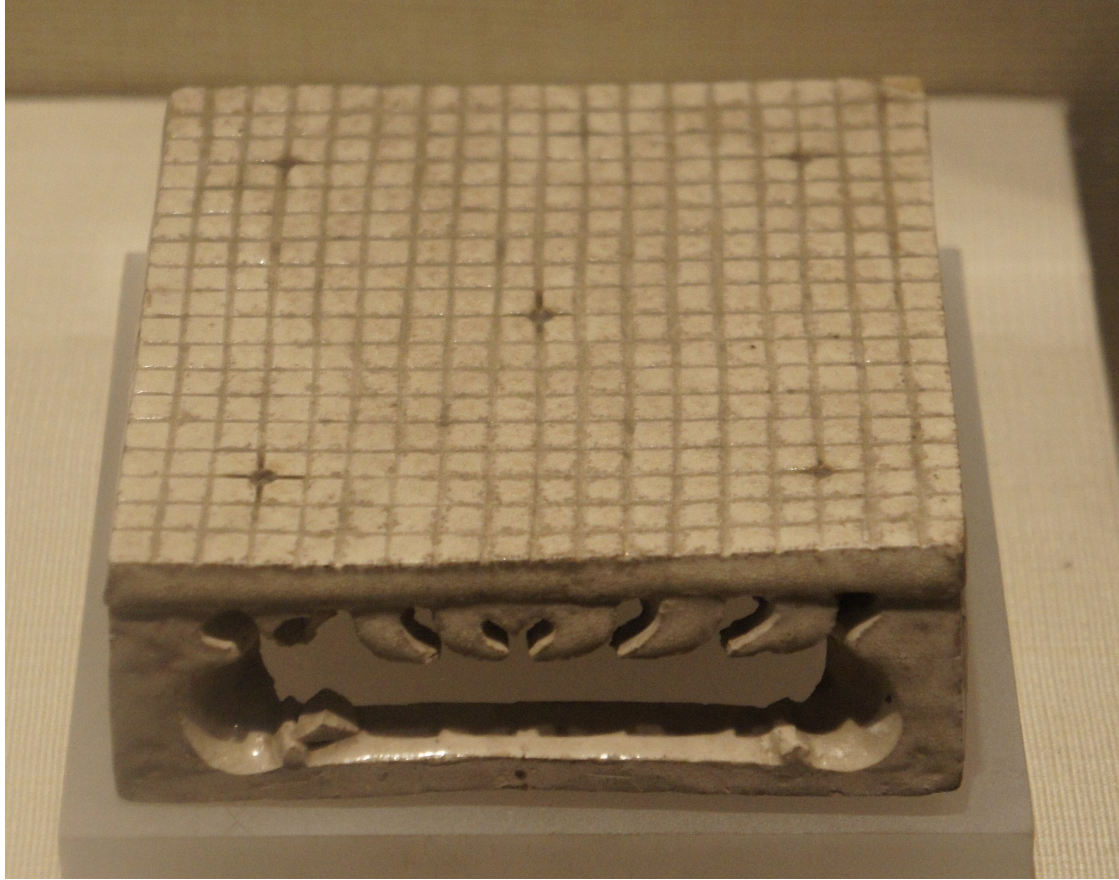
“宋人十八学士图轴”二

The Eighteen Scholars, Song dynasty (960 – 1279 AD)
National Palace Museum (Taiwan)

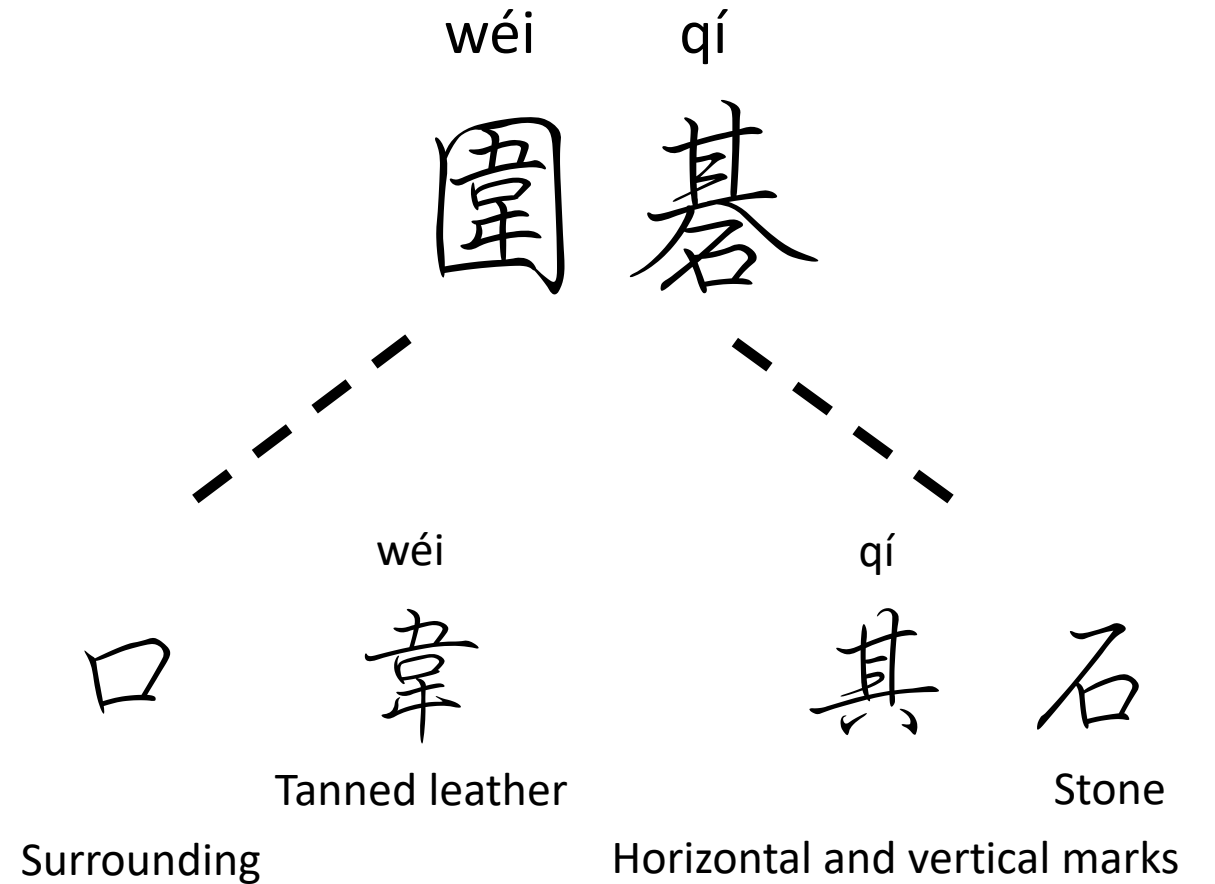


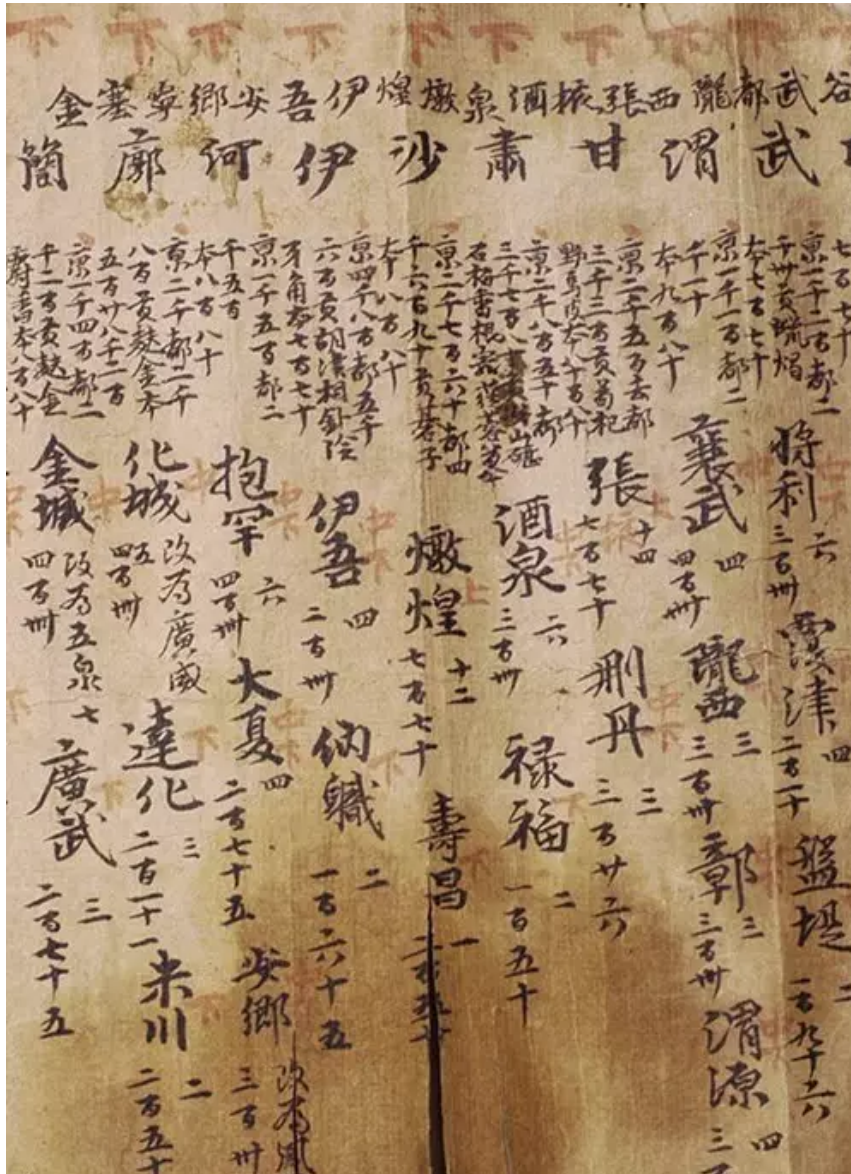
Playing **Wéi Qí** in Shanghai (from Wikipedia).





Wéi Qí board from a Sui dynasty (581–618) tomb (from Wikipedia). The standard Go board has a 19×19 grid of lines, containing 361 intersections.





Dunhuang Chorography (742 AD, from Dunhuang Academy China).
12 sets of **Wéi Qí** as tributes to the Emperor were recorded.

The earliest written reference to **Wéi Qí** can be found in the historical annal “左传 Zuo Zhuan ” (400 BC), referring to a historical event of 548 BC.

The first **Wéi Qí** master in written history is 奕秋 (Qiu Yi) during the Warring States Period (~400 BC).

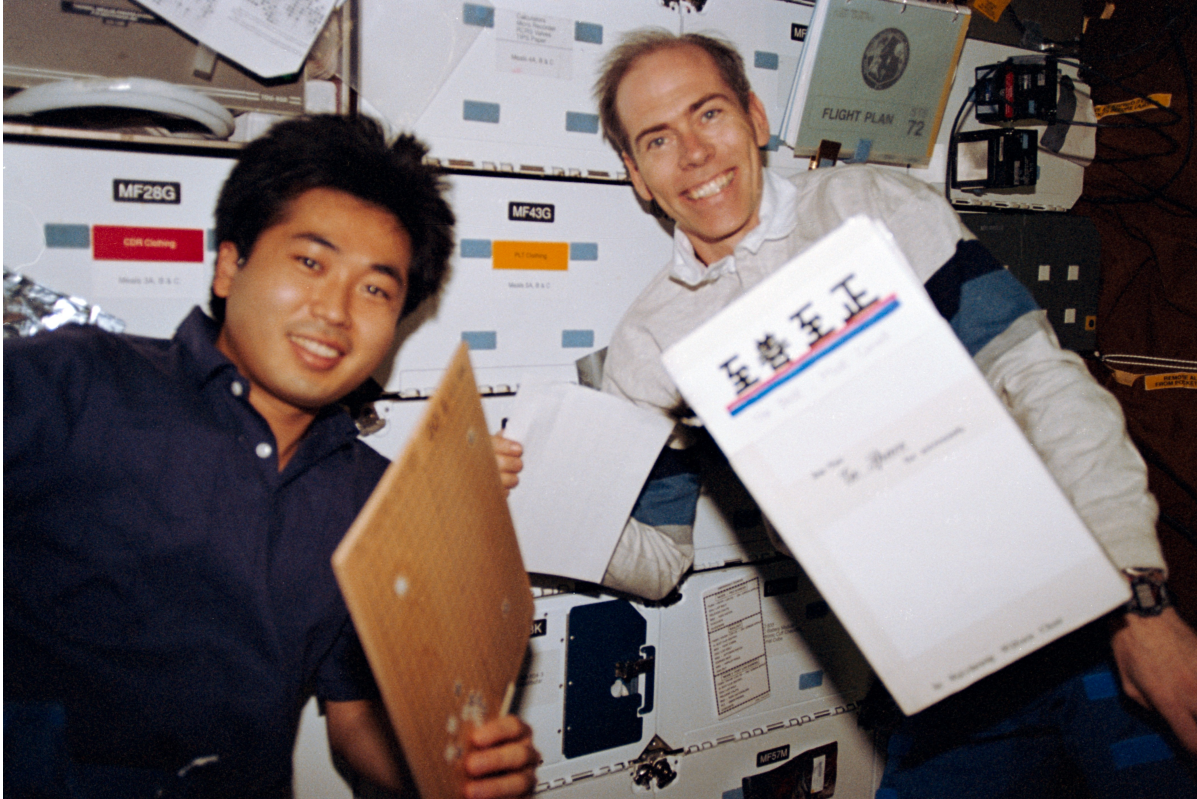
The famous 孟子 (Mencius) used the story of Qiu Yi playing **Wéi Qí** to show the importance of focus to the Emperor.



Woman playing **Wéi Qí**, Tang dynasty (744 AD),
discovered at the Astana Graves (from Wikipedia).

The first article on how to play **Wéi Qí** is called
“ 弈旨 ” (32 - 92 AD). It compares playing
Wéi Qí with ruling a kingdom.

The first official title for a **Wéi Qí** master is
“ 棋待诏 ”, invented in the Tang dynasty
(618 - 907 AD). The job is to play **Wéi Qí** with the
Emperor.



Daniel Barry and Koichi Wakata played **Wéi Qí** in the middeck of Space Shuttle Endeavour, 1996 (from NASA).

Introduced to Korea in the 5th Century.

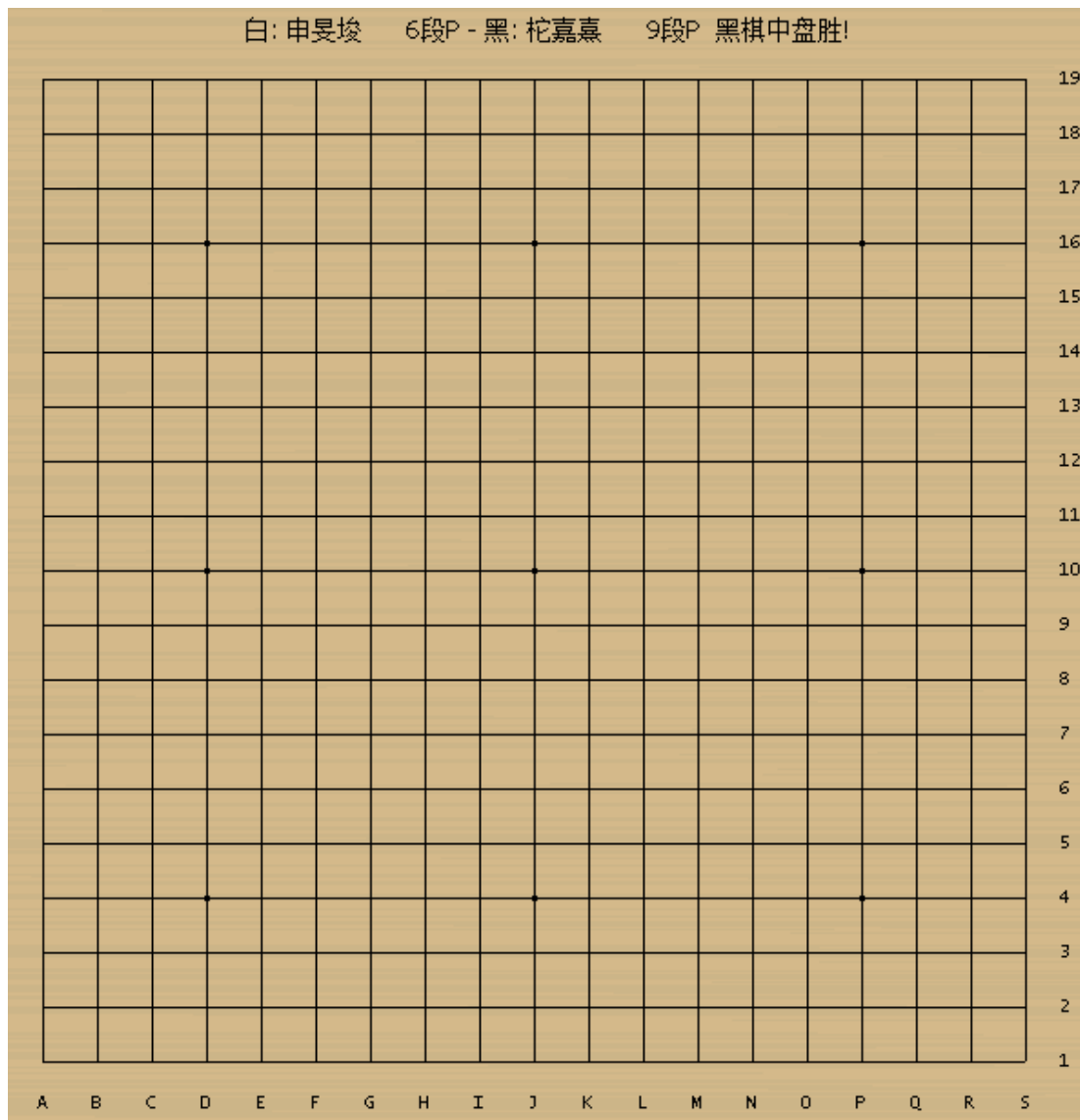
Introduced to Japan in the 7th Century.

The modern version of the game as we know it today was formalized in Japan in the 15th century.

The name of Go comes from Japanese

“ 碁 ”, The “ 段 ” (dan)

system was introduced to rank players.

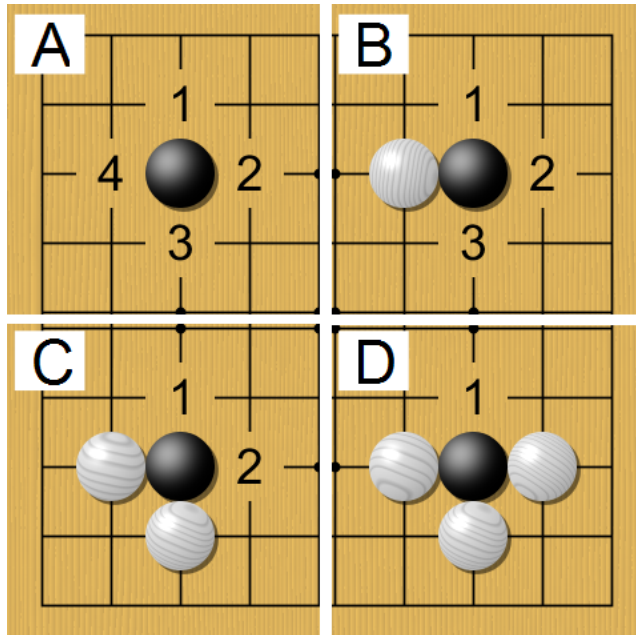


To surround a larger total area (total number of 目 or *intersections*) of the board with one's stones than the opponent.

Rules:

- I. Black and white move alternatively
- II. Black moves first
- III. One or a group of stones must have at least one “气 or *liberty*” to remain on the board. A “liberty” is an open intersection bordering the group.

Jiaxi Tuo (China) v.s. Shin Min-jun (Korea), 2017
 “Samsung Insurance World Masters Baduk”.



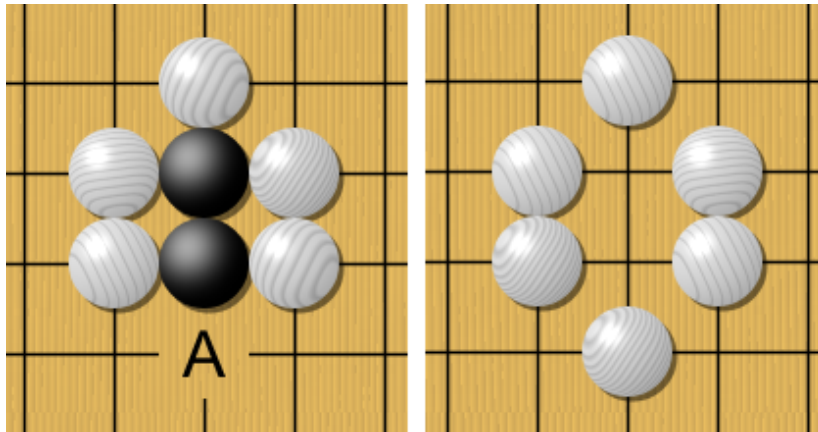
From Wikipedia

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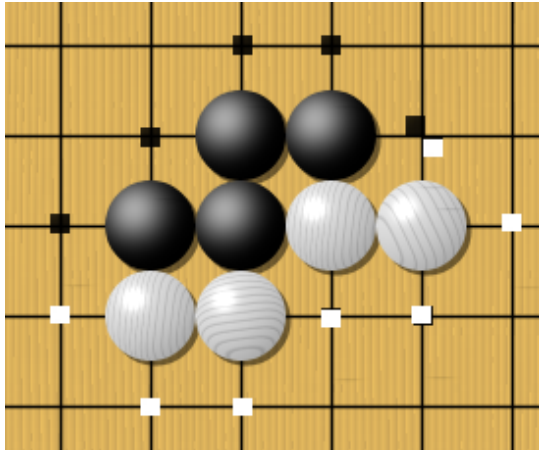
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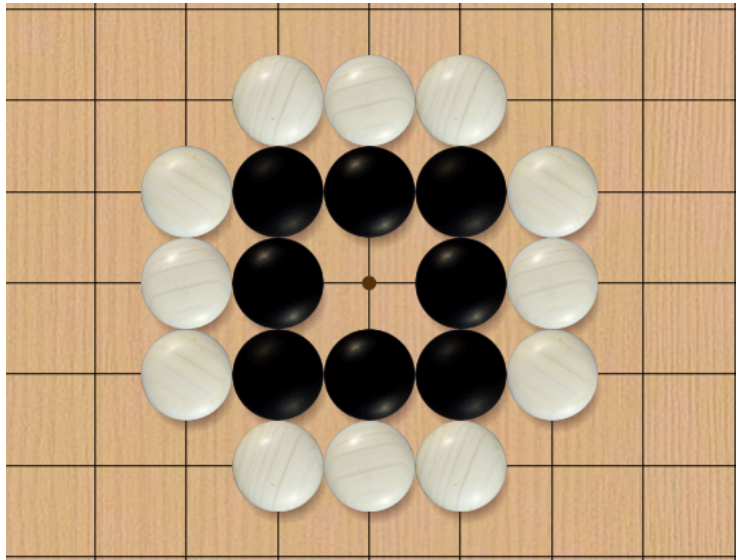


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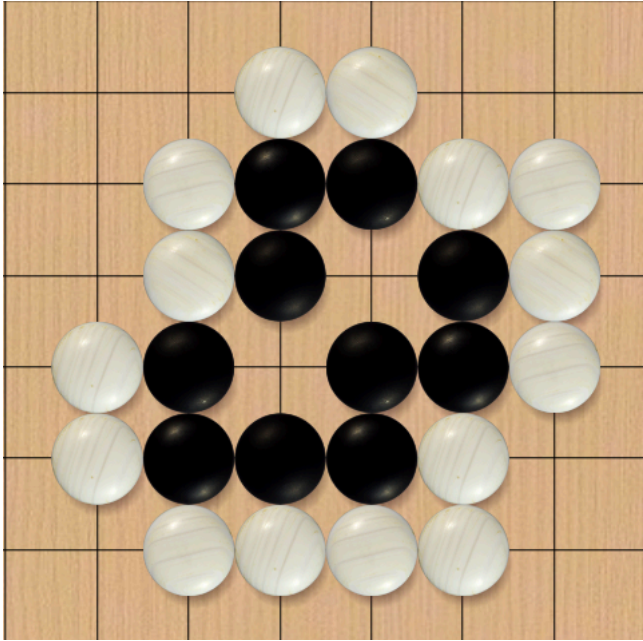
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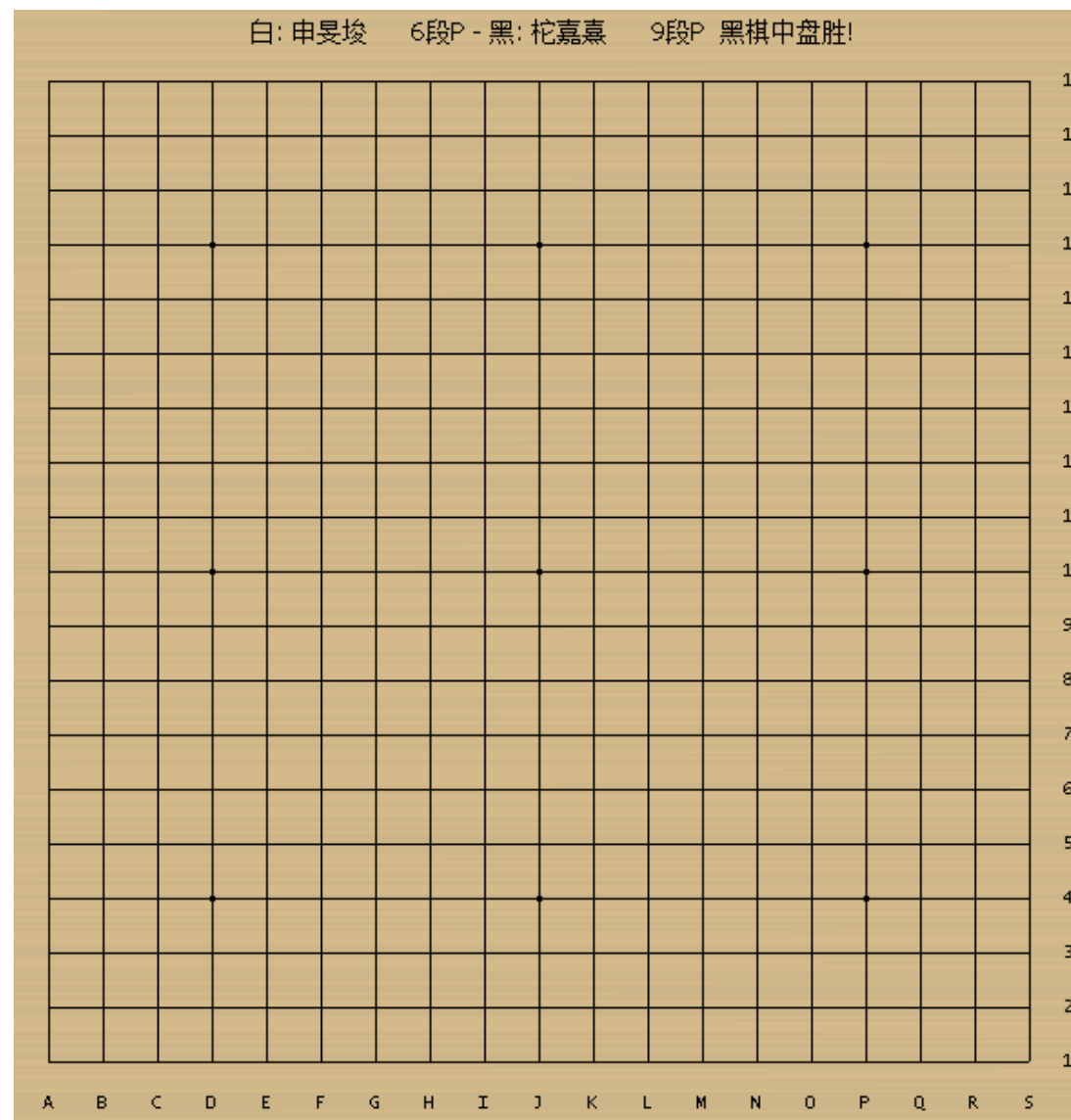
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味道 Taste

厚 Thickness

模样 Shape

力量 Strength



Jiaxi Tuo (China) v.s. Shin Min-jun (Korea), 2017
“Samsung Insurance World Masters Baduk”



Wéi Qí shares many philosophies with Taoism and Buddhism, e.g., “dependent origination”.

道可道，非常道

Principles that can be explained are not the fundamental principle.

Often taken on as a part of spiritual or mental practice by, for example, Taoist or scholars.

Shares similar aesthetics and sentiment with Chinese painting and calligraphy.

“庐山高” Lofty Mount Lu by Shen Zhou (1427-1509 AD), National Palace Museum (Taiwan)

琴 (Guqin)



棋 (Wei qi)



书 (Calligraphy)



画 (Painting)

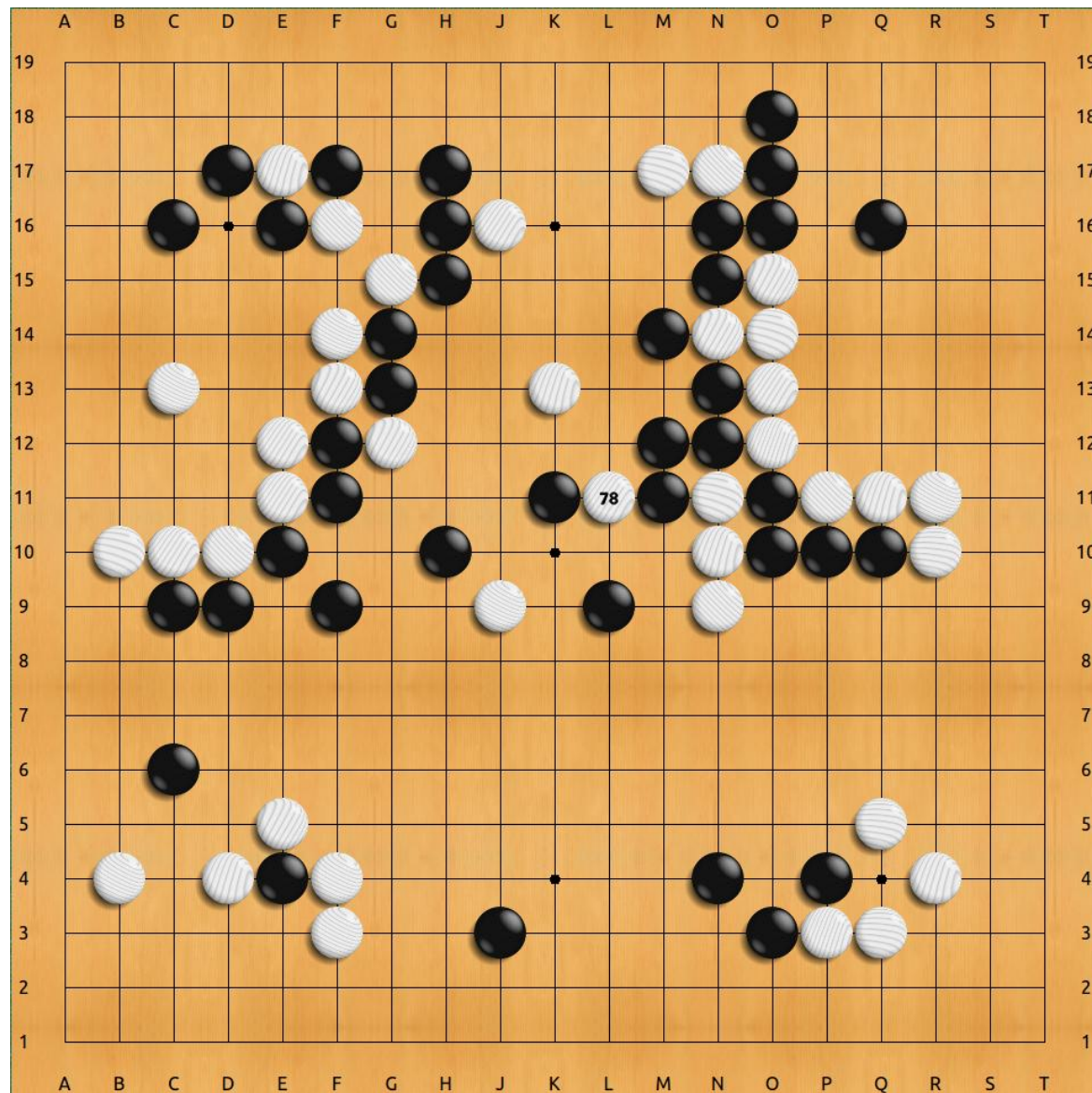


“宋人十八学士图轴” The Eighteen Scholars, Song dynasty (960 – 1279 AD), National Palace Museum (Taiwan)

Can machines learn human *intuition*?



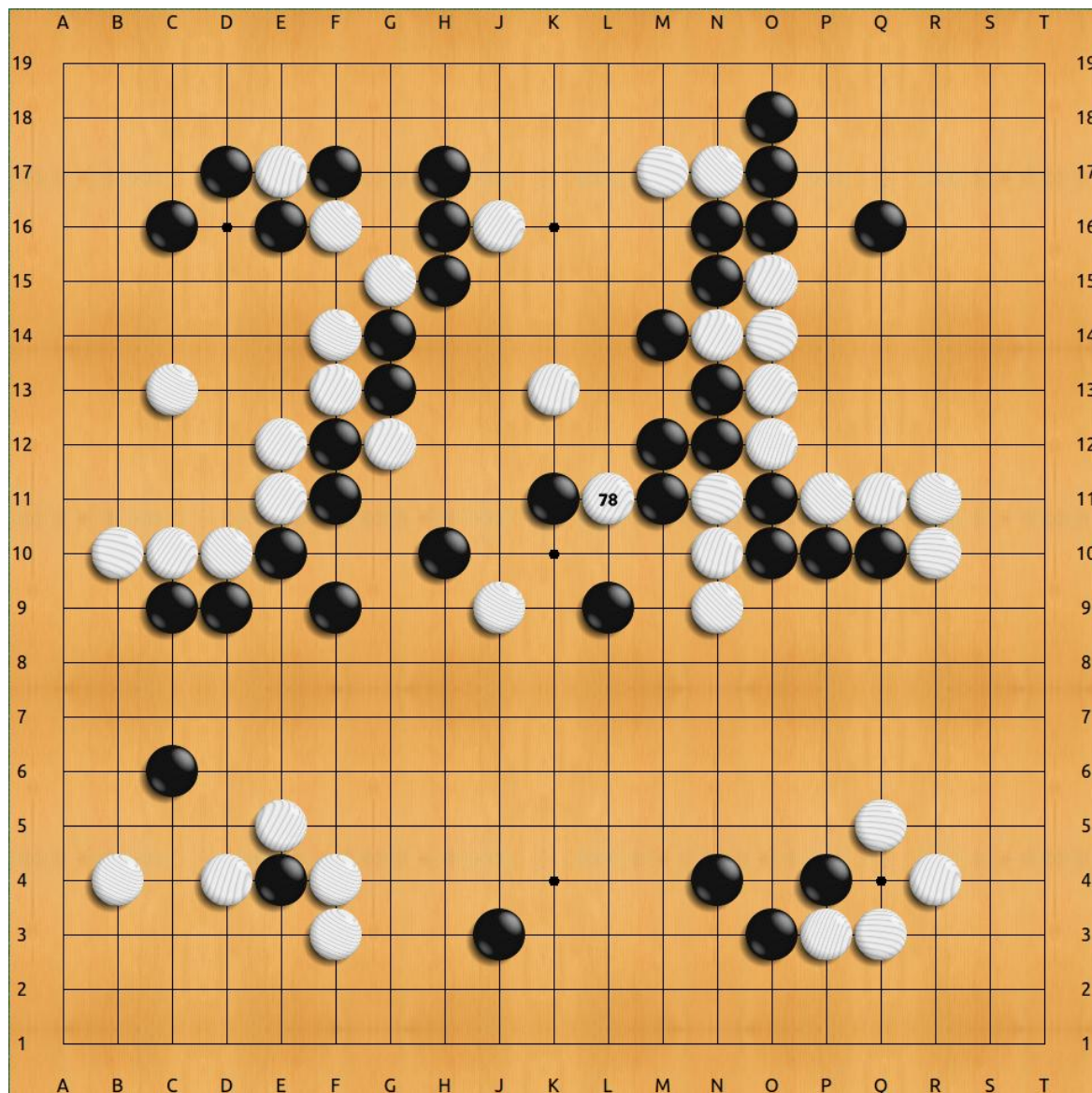
“AlphaGo”, documentary movie (from YouTube).



Lee Sedol v.s. AlphaGo, Game 4, 2016.



Lee Sedol v.s. AlphaGo, Game 4, 2016.



Lee Sedol v.s. AlphaGo, Game 4, 2016. **White 78**, the “divine move”.

Can machines learn human *intuition*?

AlphaGo Lee (48 TPUs) 4:1 against Lee Sedol – 2016

AlphaGo Master (4 TPUs) 60:0 against professional players – May 2017

AlphaGo Master (4 TPUs) 3:0 against Jie Ke – May 2017

AlphaGo Zero (4 TPUs) 100:0 against AlphaGo Lee – Oct 2017