



GAGA CIVIC CHESS STUDIES

THE SUN WU METHOD OF OTHELLO

A Complete Strategic Manual for the People of GAGA

GRAND PRINCIPLE: *Do not compete for the discs of this moment. Compete for the roads of the next move. Do not call a move strong because it flips much; call it strong when it makes the ending yours.*

TEACHING AUTHORITY: MASTER SUN WU

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GAGA

Modern original instructional work inspired by strategic ideas associated with The Art of War. It is not a historical text written by Sun Wu.

ROYAL PROCLAMATION TO THE PEOPLE OF GAGA

An Othello board has only sixty-four squares, yet it contains restraint, timing, deception, containment, sacrifice, and exact calculation. The novice sees a disc and flips it. The strategist sees a road and controls it. The novice counts what is owned now. The strategist asks what will remain at the end.

This manual is not a costume of ancient language. It is a disciplined system that can be taught, practiced, tested, and reviewed. Every maxim must return to the board: it must explain mobility, identify danger, account for parity, respect the opponent's best reply, and survive endgame calculation.

STUDY OATH: Facts before pride. Review before argument. Victory without arrogance; defeat without blame. Every move must have a reason that another player can test.

The Four Levels of the Method

1. **Read the position:** corners, edges, frontier discs, empty regions, and all legal moves.
2. **Control the roads:** reduce the opponent's useful mobility while preserving your own.
3. **Change the order:** use forcing moves, passes, sacrifices, and reserve tempos to decide who enters each region last.
4. **Calculate the finish:** when the ending is near, stop guessing and compare exact final margins.



FOUNDATION: KNOW THE RULES BEFORE THE STRATEGY

The Only Legal Kind of Move

Othello is played on an 8×8 board. Black normally moves first. A placed disc must bracket one or more opposing discs between the new disc and an existing friendly disc along at least one of the eight straight directions. Every bracketed line is flipped. If a player has no legal move, that player must pass and the opponent moves again. The game ends when neither player can move, or when the board is full. The player with more discs wins.

FIRST WARNING: A move can be legal and still be ruinous. Legality is merely admission to the battlefield; value is determined by the future it gives away.

Coordinates and Strategic Zones

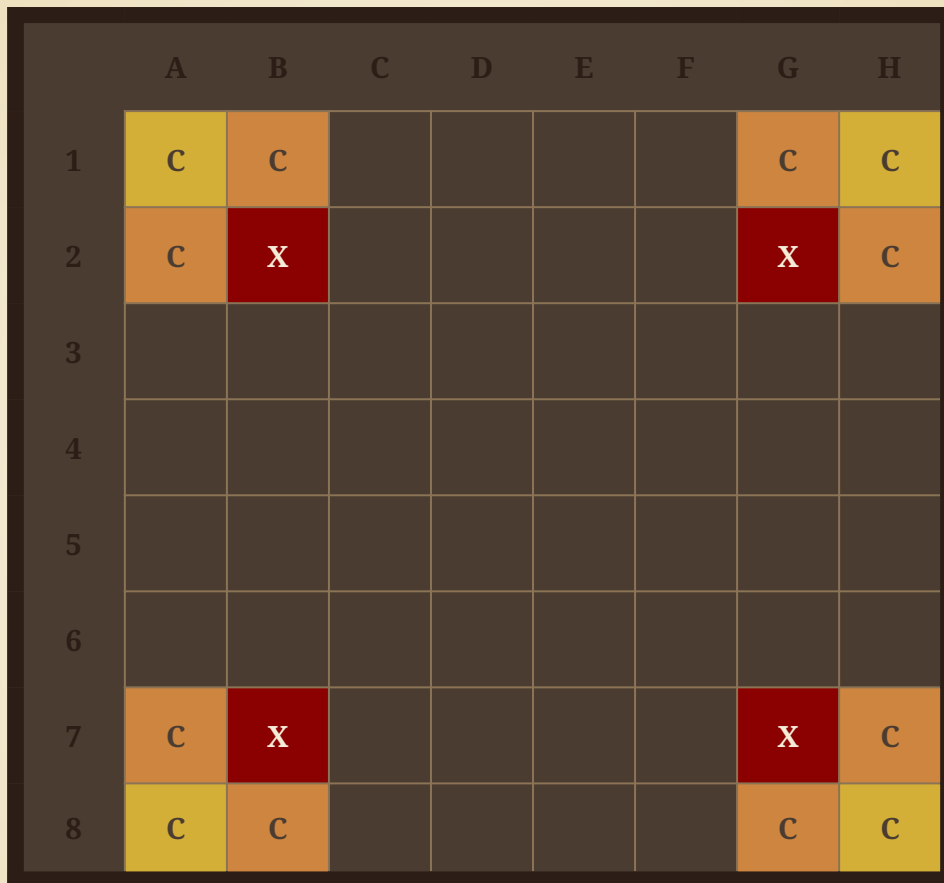


Figure 1. A1 to H8. Corners are permanently stable (Gold); X-squares (Ruby) and C-squares (Amber) are typical near-corner danger zones.

Term	Operational definition
Corner	A1, H1, A8, H8. A corner disc can never be flipped and is the most reliable permanent base.
X-square	A diagonal neighbor of a corner: B2, G2, B7, G7. Often dangerous while the adjacent corner is open.
C-square	An orthogonal neighbor of a corner. Its danger depends on the edge pattern and whether the opponent can take the corner.
Mobility	The number and quality of legal moves available now.

Potential mobility	Empty squares that may become moves because they touch opposing discs.
Frontier disc	A disc adjacent to at least one empty square; it is exposed material that can help the opponent create moves.
Stable disc	A disc that cannot be flipped for the remainder of the game.
Parity	Last-move rights created by the odd or even size of separate empty regions.
Tempo	A move that forces a reply, changes move order, or preserves initiative.

Eight Questions Before Every Move

1. How many legal moves does each side have, and how many of them are genuinely safe?
2. Does this move open a corner or make an X- or C-square exploitable?
3. How many frontier discs and potential moves does it create?
4. Are the discs I flip stable, or merely temporary?
5. How many connected empty regions remain, and is each odd or even?
6. What is the opponent's strongest reply—not the reply I hope for?
7. Can a tempo, pass, or reserve move reverse the local order?
8. Is the endgame small enough to calculate exactly?



I. INITIAL ESTIMATES

CHAPTER MAXIM: Victory can be known, but never from the present disc count alone.

The five factors: Corners, mobility, frontier, parity, and calculation. Corners create permanent bases; mobility governs choice; frontier measures exposure; parity governs last moves; calculation converts advantage into a result.

The seven comparisons: Who owns corners? Who has safe edges? Who has more useful mobility? Who has fewer frontier discs? Who controls critical empty squares? Who owns region parity? Who calculates deeper and more accurately?

Changing standards: In the opening, structure comes first. In the middlegame, mobility comes first. In the endgame, exact final margin comes first. A sound evaluation changes with the phase.

Chapter drill

- Find one recent move that flipped many discs but worsened the position. Give two structural reasons.
- Classify every legal move in a chosen position as safe, ordinary, or dangerous.
- Choose two candidates and write the opponent's strongest reply to each.

II. THE COST OF BATTLE

CHAPTER MAXIM: Many discs with few roads is not strength; it is an army without supply.

Temporary and permanent material: Most early discs are borrowed, not owned. A move that flips ten but gives a corner has acquired ten liabilities.

The full price of a move: Every move changes six things at once: disc count, legal moves, frontier, edge pattern, empty regions, and move order. Count all six.

Economy of force: Prefer quiet moves that flip little, expose little, and open little. Efficiency means denying the opponent useful work.

Chapter drill

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- Classify every legal move in a chosen position as safe, ordinary, or dangerous.
- Choose two candidates and write the opponent's strongest reply to each.

III. STRATEGIC ATTACK

CHAPTER MAXIM: *The highest attack takes choice; the lowest merely takes discs.*

Mobility pressure: If the opponent is reduced to one or two poor moves, you may command the game even while far behind in discs.

Forcing bad legality: The ideal prison does not leave the opponent move-less; it leaves only legal moves that damage edge structure, parity, or corner safety.

Winning corners without rushing: Corners are usually delivered by move order. Control the approach and compel the opponent to open the door.

Chapter drill

- Find one recent move that flipped many discs but worsened the position. Give two structural reasons.
- Classify every legal move in a chosen position as safe, ordinary, or dangerous.
- Choose two candidates and write the opponent's strongest reply to each.

IV. FORMATION AND STABILITY

CHAPTER MAXIM: *A corner is a root; an edge is a wall; an unanchored wall can be breached.*

First become difficult to defeat: Keep discipline around open corners. After taking one, build a stable chain along the appropriate edge.

An edge is not automatically stable: Edges can be wedged, broken at gaps, or flipped from a new direction. Structure—not location—creates safety.

Prove stability: A disc is stable only when every possible future line of capture is permanently blocked. When uncertain, do not count it as safe.

Chapter drill

- Find one recent move that flipped many discs but worsened the position. Give two structural reasons.
- Classify every legal move in a chosen position as safe, ordinary, or dangerous.
- Choose two candidates and write the opponent's strongest reply to each.



V. FORCE AND MOBILITY

CHAPTER MAXIM: Force is not one loud move; it is the inevitability built by many quiet moves.

Quality over quantity: Ten legal moves can be worse than three if the ten all concede a corner or destroy parity.

Potential mobility: Empty squares beside opposing discs may become future entries. Preserve yours; avoid creating the opponent's.

Accumulated force: Several low-flip, low-frontier moves can suddenly yield broad mobility. The explosion is the result of prior structure.

Chapter drill

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- Classify every legal move in a chosen position as safe, ordinary, or dangerous.
- Choose two candidates and write the opponent's strongest reply to each.

VI. FULLNESS AND EMPTINESS

CHAPTER MAXIM: What is gained is visible; what is surrendered on the next move is often hidden.

Strike at emptiness: Dense opposing discs may offer many flips but also cause you to over-expand. A quiet move in a sparse area may cut more roads.

Poison squares: A legal move is poisoned when it opens a corner, destroys region order, or creates strong opposing mobility. Poison is positional, not a fixed list.

Bait: A large flip may be left deliberately to enlarge the opponent's frontier. The bait is valid only if it works against rational best play.

Chapter drill

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- Classify every legal move in a chosen position as safe, ordinary, or dangerous.
- Choose two candidates and write the opponent's strongest reply to each.

VII. THE CONTEST FOR TEMPO

CHAPTER MAXIM: The true contest is not for a square, but for who fills it, when, and at what cost.

Initiative is not merely moving: A move has initiative when the opponent must answer. You can be the player placing a disc yet still be following the opponent's schedule.

Changing order: A move in another region, a forced pass, or a reserve tempo can reverse who enters a local region last.

Region control: When empty squares split into disconnected regions, analyze the entry points, parity, and final move of each separately.

Chapter drill

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- Classify every legal move in a chosen position as safe, ordinary, or dangerous.
- Choose two candidates and write the opponent's strongest reply to each.

VIII. NINE ADAPTATIONS

CHAPTER MAXIM: Knowing a rule is elementary; knowing its boundary is strategy.

Corners are precious, not absolute: A corner may fail to compensate for losing a much larger endgame region. Exact calculation has final authority.

When an X-square becomes safe: After the corner is yours, after the corner route is permanently closed, or when the X-move begins a verified forcing sequence.

When a large flip is correct: Late in the game, if the discs will remain stable, if the move forces a pass, or if exact calculation proves the margin.

Chapter drill

- Find one recent move that flipped many discs but worsened the position. Give two structural reasons.
- Classify every legal move in a chosen position as safe, ordinary, or dangerous.
- Choose two candidates and write the opponent's strongest reply to each.



IX. MARCHING DISCIPLINE

CHAPTER MAXIM: Do not touch a near-corner square before tracing the corner route.

Opening objectives: Keep the shape compact, limit frontier, avoid premature edge contact, and preserve several safe moves.

Symmetry and its breach: Symmetry can reduce risk but can also be copied. Break it when the resulting move order makes the opponent face the dangerous edge first.

Three-ply minimum: At least examine: my move, the opponent's strongest reply, and my next move. Search deeper around corners, forcing sequences, and passes.

Chapter drill

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- Classify every legal move in a chosen position as safe, ordinary, or dangerous.
- Choose two candidates and write the opponent's strongest reply to each.

X. TERRAIN

CHAPTER MAXIM: No square is always good or bad; corners are most constant, edges less so, regions change with order.

Four strategic heights: Corners are irreversible bases that also support stable edge expansion.

Edge patterns: Continuous chains, gaps, wedges, and access points determine edge value. "On the edge" is not a proof of safety.

Empty regions: A connected group of empty squares is a battlefield. Odd and even regions often reward different entry orders, but passes and cross-region moves can overturn the simple rule.

Chapter drill

- Find one recent move that flipped many discs but worsened the position. Give two structural reasons.
- Classify every legal move in a chosen position as safe, ordinary, or dangerous.
- Choose two candidates and write the opponent's strongest reply to each.

XI. NINE SITUATIONS

CHAPTER MAXIM: *The same disc has a different value in different terrain.*

Open and light ground: An unsettled opening is open ground; an unsupported edge approach is light ground. Preserve maneuver and avoid heavy edge commitments.

Contested and crossing ground: Corner routes are contested; multi-entry areas are crossing ground. Calculate forcing moves in the first and restrict choices in the second.

Heavy, encircled, dead, and living ground: A corner-backed stable chain is heavy ground. Vanishing mobility is encirclement. A sole move that gives a corner is dead ground. A created pass or new safe entry is living ground.

Chapter drill

- Find one recent move that flipped many discs but worsened the position. Give two structural reasons.
- Classify every legal move in a chosen position as safe, ordinary, or dangerous.
- Choose two candidates and write the opponent's strongest reply to each.

XII. FIRE ATTACK

CHAPTER MAXIM: A forcing sequence begins at one point and succeeds only through exact order.

Fire as metaphor: Othello has no literal fire. Here it means a chain in which each move narrows the opponent's reply until a corner, pass, or last move is won.

Boundaries of the chain: Every ply must be verified. If an unexpected reply creates an escape, the supposed attack burns its author.

The late explosion: Low disc count in the opening can become a flood in the ending after mobility, edges, and parity have been prepared.

Chapter drill

- Find one recent move that flipped many discs but worsened the position. Give two structural reasons.
- Classify every legal move in a chosen position as safe, ordinary, or dangerous.
- Choose two candidates and write the opponent's strongest reply to each.

XIII. INTELLIGENCE

CHAPTER MAXIM: *Knowing the opponent is inference from legal moves and structure, not mind-reading.*

Read intention: Ask whether a move seeks a corner, mobility reduction, a reserve tempo, or parity control. Do not merely report how many discs it flipped.

Conceal intention: A move in a secondary region may force a reply before returning to the true battlefield, hiding the required order.

Counter-bait: Before accepting an obvious large flip or edge entry, ask why it was offered. Write the opponent's strongest continuation first.

Chapter drill

- Find one recent move that flipped many discs but worsened the position. Give two structural reasons.
- Classify every legal move in a chosen position as safe, ordinary, or dangerous.
- Choose two candidates and write the opponent's strongest reply to each.



THE THIRTY-SIX OTHELLO LAWS

- 01. ESTIMATE BEFORE PLACING:** Count and grade both sides' roads before comparing flips.
- 02. FLIP LITTLE TO CULTIVATE FORCE:** In the opening, a small flip often reduces frontier and preserves options.

- 03. GUARD THE OPEN CORNER:** Trace every corner route before touching an adjacent X- or C-square.
- 04. TAKE A CORNER, THEN ROOT THE EDGE:** Use the permanent anchor to build stable chains in the right order.
- 05. AN EDGE IS NOT A FORTRESS:** Without corner support, gaps and wedges can break the wall.
- 06. KEEP THE FRONTIER SMALL:** Discs beside empties are exposed material for the opponent.
- 07. PREFER THE QUIET MOVE:** A move that opens no strong reply can be more powerful than a loud capture.
- 08. A FORCING MOVE MUST BE PROVED:** List all legal replies before calling the opponent compelled.
- 09. GOOD ROADS BEAT MANY ROADS:** Grade mobility by safety, not by raw count.
- 10. PRESERVE FUTURE ENTRIES:** Potential mobility is tomorrow's reserve force.
- 11. DENY FUTURE ENTRIES:** Sustained pressure removes not only today's moves but tomorrow's.
- 12. ASSUME THE STRONGEST REPLY:** Never justify a move by expecting an opponent's mistake.
- 13. SEARCH AT LEAST THREE PLIES:** My move, best reply, my continuation; deeper near corners and passes.
- 14. INITIATIVE CAN CHANGE HANDS:** Moving first in a region does not necessarily win its final move.
- 15. ENTER ODD REGIONS WITH PURPOSE:** Odd regions often reward the first entrant with the local last move.
- 16. TREAT EVEN REGIONS WITH CAUTION:** Entering first can donate the local final move.
- 17. CALCULATE BY REGION:** Total-board parity can hide the truth of separate empty regions.

18. **PRESERVE A RESERVE TEMPO:** One safe isolated move can reverse a later sequence.
19. **CREATE THE PASS:** A forced pass grants consecutive action and can reorder the ending.
20. **PREVENT YOUR OWN PASS:** Keep at least one safe reserve before mobility vanishes.
21. **BAIT THE LARGE FLIP:** Let the opponent expand frontier only when the bait survives best play.
22. **NAME THE POISON:** A poisoned move must have a specific mechanism: corner, mobility, or parity.
23. **WEDGE THE EDGE:** Enter a gap to split an edge—but verify that the wedge does not concede a corner.
24. **COUNT ONLY PROVEN STABILITY:** A disc enters the bank only when no future line can flip it.
25. **DO NOT LOVE TEMPORARY DISCS:** Internal ownership changes; structure is more durable than color.
26. **WHEN AHEAD, REDUCE VARIANCE:** Take stable gains, restrict choices, and simplify the calculation.
27. **WHEN BEHIND, CHANGE THE ORDER:** Seek forcing moves, passes, and region complications.
28. **A CORNER CAN HAVE A PRICE:** Only exact endgame calculation can authorize a deliberate corner concession.
29. **ENUMERATE THE ENDING:** With few empties, stop estimating and search each branch.
30. **RANK BY FINAL MARGIN:** First secure the win; then maximize disc difference.
31. **RECORD EVERY GAME:** Coordinates turn experience into evidence.
32. **FIND THE PRINCIPAL ERROR:** Correct the largest value loss before polishing minor inaccuracies.
33. **CLASSIFY THE FAILURE:** Was it a missed move, a wrong evaluation, or broken discipline?

- 34. SHORTEN THE CHECKLIST, NOT THE ORDER:** Under time pressure: corner safety, mobility, parity, then disc count.
- 35. REVIEW VICTORIES TOO:** Winning does not make a mistaken move correct.
- 36. DISCIPLINE AND COURTESY ARE PART OF STRENGTH:** Critique moves and calculations, never human dignity.



GAGA OTHELLO ACADEMY – TWELVE-WEEK PROGRAM

The aim is not merely to play many games. Each game must carry one training mission. A standard week contains three slow games, one timed game, and one oral review without the board. For children under ten, use 25-40 minute sessions and correct one principal issue at a time.

Weeks	Mission and evidence
1-2. Rules	Zero illegal moves; explain every flip direction; record passes and final score.
3-4. Corners	Recognize X/C danger and explain the cornering route before entering.
5-6. Mobility	Count and grade both sides' legal moves; identify potential mobility.
7-8. Frontier	Compare frontier growth and find at least two quiet candidates.
9-10. Parity	Draw connected empty regions and determine their odd/even sizes.

11. Endgame	At ten empties, calculate at least two complete principal lines.
12. Examination	Play, record, review, and defend the key choices under questioning.

The Six-Column Review

- 1. **Position:** full move record, clock times, and the turning point.
- 2. **Candidates:** what you considered and what you missed.
- 3. **Best reply:** the strongest opposing continuation.
- 4. **Indicators:** corners, mobility, frontier, stability, and parity.
- 5. **Error class:** oversight, mis-evaluation, or discipline failure.
- 6. **Correction:** one repeatable action that prevents recurrence.

Four Academy Ranks

Rank	Minimum standard
Cadet	Complete rules, coordinates, passes, final score, and basic corner safety.
Player	Compare mobility and frontier; avoid blind high-flip moves; identify the main error.
Strategist	Control regions, parity, reserve tempos, and passes; calculate small endings.
Instructor	Explain candidate differences with evidence; design age-appropriate training; preserve fairness and dignity.



APPENDICES

Appendix A: Phase Priorities

Phase	Primary attention
Opening (moves 1-20)	Mobility, potential mobility, frontier, near-corner safety. Reduce the importance of current disc count.
Middlegame (moves 21-44)	Mobility quality, corner routes, edge patterns, forcing moves, emerging regions.
Endgame (move 45 onward)	Region parity, passes, stability, exact final margin. General maxims yield to calculation.

Appendix B: Ten Oral Examination Questions

1. Why can a ten-disc opening lead be a severe disadvantage?
2. What is mobility quality?
3. When is an X-square dangerous, and when is it safe?
4. Why is an edge disc not necessarily stable?
5. How do you prove that a move is forcing?
6. What is a frontier disc, and why does frontier matter?
7. How do you divide empty regions, and why is total parity insufficient?
8. What strategic value does a forced pass create?

9. Why must every calculation assume the opponent's best reply?
10. How do you distinguish oversight, mis-evaluation, and discipline failure?

Appendix C: Exercises and Answers

Exercise 1. The tempting X-square

Corner A1 is open. B2 flips six discs; C4 flips one. What must be checked first?

ANSWER: Trace whether B2 gives the opponent an immediate or forced A1, then compare mobility and frontier. Six flips are not a decision rule.

Exercise 2. Parity is local

Twelve empties are divided into disconnected regions of five and seven. Why is "twelve is even" inadequate?

ANSWER: Both regions are odd. Entry order, access, cross-region moves, and passes determine their local last moves.

Exercise 3. Review a win

You win by twelve discs after playing an X-square that conceded a corner, but the opponent missed it. How should the game be judged?

ANSWER: The result is a win and the move remains a major error. Record the concession and the correct alternative; the opponent's oversight does not validate your move.



CONCLUSION

Othello is beautiful because strength and ownership reverse repeatedly. The discs you hold today may serve the opponent tomorrow; the square you refuse today may become the gate

of the ending. Do not be intoxicated by visible advantage or frightened by temporary shortage.

Let the people of GAGA learn three habits: judge structure before noise; calculate the strongest reply before trusting hope; and seek facts without injuring dignity. On the board: Fairness. Efficiency. Loyalty. Discipline. Beyond the board: the same.

FINAL MAXIM: The complete player does not boast of a large flip or a captured corner. The complete player shortens the opponent's roads, lengthens their own, and makes the ending calculable.

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