

THE

SUN AND MOON

A COMPENDIUM

➤ TABLE ♠ OF ♠ CONTENTS ◀

A Brief History	1
The Rules of the Terrestrial Game	2
The Rules of the Astral Game	6
Peculiarities of the Playing Pieces	10
The Geometry of the Astral Game Board	13
Positional Notation	14
Move Notation	15
Variants of the Games	16
A Set of One's Own	18

PRESENTED BY THE
COLLEGIUM SOLARIS ET LUNARIS

Preface

“ONCE UPON A TIME, in the magical land of Equestria . . .” With these words, the world was introduced to *My Little Pony Friendship Is Magic*. This half-hour television program became a surprise hit not only with the young girls for whom it was intended but with people of all ages and many cultures—thanks to the determination of its creative staff to present well-written stories, vivid characters, and a fascinating setting.

A host of artists, musicians, and writers, aspiring and established, have responded to this rich, appealing world with their own efforts at every level of expertise and effectiveness. Games, too, have appeared—but most have been digital games or “pen-and-paper” role-playing games. Few have been abstract strategy games inspired by classical motifs and using physical components. *Sun and Moon* addresses that deficiency.

The primary aim was to create a synthetic cultural artifact that fits the setting and history established in the television series. Doing so would be meaningless, though, unless the game is playable and enjoyable. Rules must be straightforward enough for a preteen to learn but should contain enough emergent complexity to satisfy an adult and even an expert player. Refinement and polish should equal, and call back to, classical games in the real world descended from the Persian *chatrang*, such as Western chess, Chinese *xiàngqí*, and Japanese *shogi*.

The Game Boards

The astral game board was the first element of *Sun and Moon* to take form, inspired by a storybook illustration featured in the program’s first episode: Against a stylized starfield and symbolic representations of day and night, the royal sisters attended to their duties of raising and lowering the sun and moon. The gold and blue shapes circling one another, each displaying its respective heavenly body, dictated the dominant structures of the playing field and the use of circles and arcs throughout.

Constructing entirely from curves a grid to control position and movement took a very long time—though it was clear from the outset that cells, such as chess and *shogi* use, would be impractical. Instead, paths and points, much as *xiàngqí* and *go* use, lent the board an exotic flavor (at least to Westerners) and reinforced its astronomical theme by suggesting *asterisms*, the “stick figures” of lines and stars that make up constellations.

Unfortunately, once the astral game was released, a significant weakness rapidly reared its ugly head. In chess, many if not most checkmates depend on trapping the king against an edge or, even better, a corner of the board. However, compared to a rectilinear board, a circular board has few edge positions—and *no* corner positions. This makes achieving a clear victory in the astral game much more difficult than in chess.

After a year or so, the urge to meet this problem with a rectilinear board became overwhelming, and the terrestrial game developed quickly as a result. Paths and points would be retained, to preserve both the flavor and a family resemblance, but how large should the board be?

The selection of playing pieces required an odd number of *files* (columns). Eleven was too many and seven was too few, but nine worked well. Multiplying by seven *ranks* (rows) yielded a total of sixty-three points, as similar as possible to the sixty-four cells of chess. As a bonus, the numbers of corners (four) and edge locations (twenty-four) are similar to a chessboard.

The other major difference between the two boards is the presence of “terrain” on the astral board: the twilight line and heavenly bodies. The earth functions mainly to prevent pieces from zipping across the astral board through its center, another consistent problem of circular boards. The sun and moon are less vital, but create some interest by acting as obstacles. Like chess but unlike *xiàngqí*, the terrestrial game board lacks terrain, as its fewer points leave less room for terrain and its corners and more edge positions reduce the need for terrain.

The Playing Pieces and Rules

Building the game’s *material*, or playing pieces, and their characteristics around the three tribes of ponies and the contending princesses was foundational. The later addition of the shooting stars gave each player sixteen pieces, the same as in chess and *xiàngqí*, and five types of pieces, only one less than in chess. (There is no real equivalent to the modern chess queen.)

Even more than the astral board, the initial draft of the rules governing those pieces proved to be critically flawed. Rectifying the myriad shortcomings took several weeks of intensive and gruelling testing, discussion, and debate. A number of enthusiastic supporters participated to greater or lesser degrees, but all final decisions were mine. The most prolific of those contributors are listed at the foot of the page.

The astral game board effectively precluded a standard set-up, but the wargame-like alternative of a custom deployment was intriguing and, in effect, became the equivalent of the opening in chess. The terrestrial game board, being much more similar to the *chantrang*-family games that inspired *Sun and Moon*, permitted a standard set-up. The moves and captures of the playing pieces, and most other rules, in the two versions of the game are as similar as the different grids permit.

The Compendium

The design of this booklet is something of a compromise. Parts of it are intended to evoke Victorian-era typesetting and graphic design, reflecting the intent of the program’s creator to give the ponies a technology and society roughly similar to Europe and North America during the 1860s through the 1880s. Other elements are thoroughly modern, as digital technology makes possible a convenience and readability beyond the capability of period printing, most notably in the diagrams.

In the “real” compendium, this page probably would contain copyright and publishing information along with a recruiting advertisement for the *Collegium Solaris et Lunaris*. It certainly would contain no depictions of human hands! ❖

Created by Dave Bryant • Revised 2 June 2014 • My Little Pony Friendship Is Magic is a trademark of Hasbro Inc.

Additional development and playtesting by Rosalio “AppleDash WINS” B., Seth “Ginger Grackle” Brodbeck, Tim Gilbert, Addison Gomez, Daniel Snersrud, “Blaze-Drag”, “Caerdwyn”, and “Ganadox”. Astral schematic diagram based on artwork originally created by Addison Gomez.

A Brief History

THE GAME OF SUN AND MOON originated in the capital some time during the second century after the events on which it is based. The details of its invention and early years are lost to history, however; even Her Royal Highness disclaims extensive knowledge, as the game concerns what was, understandably, a sensitive subject best avoided. Even so, she did not discourage the game's spread, for it belonged to her subjects, who had every right to express their creativity and to deal with the traumatic episode in their own fashion.

The most widely accepted theory on its origins posits that the terrestrial game arose among retired members of the Royal Guard and diffused to the working and artisan classes in the city, while the astral game appeared slightly later among the nobility and disseminated to the mercantile class. This dichotomy probably reflects the differences in the labor and materials costs of the two games. Crafting the astral board's sweeping, expansive curves and evocative colors required more effort and materials than the terrestrial board's prosaic, monochromatic grid of straight lines, but they produce a greater visual spectacle. Even today, a terrestrial game set more often uses simpler and less expensive disk- or spool-shaped playing pieces, while an astral game set is likelier to include figurines.

The game spread slowly at first, no doubt due in part to the difficulty of preindustrial travel and communication. More importantly, though, many of the rules apparently were quite different in ways that may have contributed to a lack of enthusiasm. The earliest known literary reference, in a scene from a prominent novel of the time, describes a playing field similar to the modern astral game board, but makes no mention of the shooting stars and presents the princess as a very powerful piece. As today, banishment of a princess resulted in immediate victory, but chasing down and confronting such a formidable foe must have been exceedingly difficult. Instead, the more common method of winning, as the novel mentions, was through attrition—capturing all of the opponent's soldiers.

As time passed and the seminal incident faded from immediate memory to history and then to myth, the games began to spread across the country and the rules began to evolve. Within a couple of centuries a plenitude of regional variations—some of them very different from one another or the original—developed in many of the nation's cities and larger towns. Most died out over time or were amalgamated into hybrid versions. Others survive to this day and can be found in active play. A few have been incorporated into what are regarded as the “official” versions, over which the games' ruling body, the *Collegium Solaris et Lunaris*, claims jurisdiction.

Foremost among the latter is the shooting star, which scholars generally agree was an innovation of pegasus players in Stratusbourg seeking to add more *material* (playing pieces) and excitement to the game. There is some evidence that initially a player was free to choose any tribe when promoting a shooting star. However, the expense of keeping what nearly amounted to a second set of playing pieces made this practice prohibitive for all but the most dedicated aficionados.

Affluent players preferred small statuary for playing pieces, already expensive enough without these additional pieces. Those who could not afford such extravagant sets used small disks or leftover spools, etched or painted with symbols, and few took the time and trouble to produce what they doubtless regarded as redundant pieces.

Perhaps the most important change the games have undergone through their history, though, is the gradual weakening of the princess and the concomitant ascendance of winning by banishment. By the time the princess reached its present form, attrition had come to be regarded as an inelegant brute-force method of achieving victory, and it eventually faded from the game a century or two before the dawn of the industrial age. Since then the games have remained largely unchanged aside from a few minor refinements designed to improve ease of play—and a reconciliation of the differences that had grown up between the terrestrial and astral games.

The Games Today

In the modern era the games have become widely popular, for casual play between friends or even strangers, as the *raison d'être* for clubs and organizations, and in tournaments large and small. The rise of such contests required a whole new set of rules to deal with eliminations and all the myriad details that emerge when large numbers of players become involved. Several tournament systems flourished along with various champion titles; many of the more prominent eventually were unified into the Collegium's national hierarchy of championships.

One vital aspect of tournament play is time control. The classic sand timer remains common for informal matches, and many still consider it an essential component of a high-quality play set. However, the recent advent of the mechanical “game clock”, with its ability to track separately each player's use of time, is revolutionizing tournament play by allowing more precise and flexible timekeeping.

Also important is a movement toward standardized playing pieces for competition, which is strongly supported by the Collegium. A player faced with an unfamiliar set of playing pieces is more likely to make errors during a game; the use of pieces familiar to every player would ameliorate this problem. Simple traditional pictograms on disks or drums (spools) are long established, but settling on a universal design for figurines is proving to be more of a challenge.

The Collegium bestows the title of *champion* on the winner of a tournament, modified with the level of the championship—for example, *county champion* or *regional champion*. A player who demonstrates reliable expertness in one of the games, even if not a champion, receives the title of *master*, modified with the mastered game: *terrestrial master* or *astral master*. The latter is significantly more difficult, but most difficult of all is becoming a *grandmaster*—one who has mastered *both* games!

Many thinkers over the centuries have recommended the games as a means to maintain a supple mind and to build good character. This author can do no less. ❁



The Rules of the Terrestrial Game



SUN AND MOON IS AN abstract strategy game for two players, based on the struggle between the royal sisters that ended with the imprisonment of the younger princess in the moon. The object of the game is to force the opposing player's *princess* playing piece into a position from which it cannot move safely and legally. The player who succeeds in doing so wins the game.

The pages immediately following the text of the rules are devoted to nineteen *figures*, diagrams designed to clarify the rules by illustrating their function and intent.

The Playing Pieces

Each player controls sixteen playing pieces: four *earth ponies*, four *pegasus ponies*, four *unicorn ponies*, three *shooting stars*, and a *princess*. All pieces other than the shooting stars and the princess collectively are called *soldiers* or, usually in older sources, *warriors*. The Collegium has settled on the former term for formal and official usage.

Play sets may distinguish playing pieces with representational statuary or artwork or, for soldiers, with symbols from traditional tribal banners. Traditional symbols are listed below and are shown on disc- and drum-shaped pieces in figure 1.

- A *hoofprint* or a *blossom* (flower) for an earth pony
- A *wing* or a five-pointed *star* for a pegasus pony
- An *alicorn* (horn) or a *lozenge* (diamond) for a unicorn pony
- A *fireball* for a shooting star
- A *tiar*a (a crown-like circlet with three “peaks”) for a princess

The Game Board

The game is played on a field consisting of three parts—*ranks*, *files*, and *stars*—as shown in figures 2 through 5. The players sit opposite one another with the board between them; each player faces one of the board's long sides.

- **Ranks** are seven parallel lines running the long way across the field. When the game board sits between the players, the ranks run from left to right.
- **Files** are nine parallel lines running the short way across the field. When the game board sits between the players, the files run from one player toward the other.
- **Stars**, also called *points*, sit at the sixty-three intersections of the ranks and files. These are the locations on which playing pieces are positioned during a game.

Setting Up the Game

Before the game begins, each player positions her playing pieces on the board as described below and as shown in figure 8.

- Place the **princess** (R, for *royal*, in figure 8) on the center star of the rank closest to the player.
- Place **pegasus ponies** (P) on the corner stars closest to the player and on the stars to the left and right of the princess.
- Place **unicorn ponies** (U) on the stars between the pegasus ponies.
- Place **shooting stars** (S) on the rank immediately in front of the princess, on the center star and to the left and right of it three stars away.
- Place **earth ponies** (E) on the pairs of stars between each pair of shooting stars.

General Rules of Movement

Once all playing pieces have been placed, play of the game begins. Starting with the moon player, the players alternate moving pieces, one at a time, until one player wins or the game ends in a draw. Certain basic restrictions on movement apply to all pieces.

A piece must begin and end its move on stars. It may not begin or end its move on a rank or file, or in a space surrounded by ranks and files, as shown in figure 6.

A piece may not move farther than the star just before an obstacle. If a player cannot or chooses not to capture an opposing piece on the path of the moving piece, the opposing piece acts as an obstacle. A friendly piece on the path of the moving piece also acts as an obstacle. The only exception is that a pegasus or princess may “fly over” the first playing piece on its path.

Threefold repetition results in a draw. If a player is forced to repeat the same pattern of moves three times in a row, the game ends in a draw. This is intended to prevent an endless game, and should not be exploited by a player in a bad position; in a tournament, doing so may be ruled a forfeit. ♦

Specific Rules for Playing Pieces

Every piece can *move* from one location to another on the game board and *capture* an opposing soldier or shooting star, removing it from play. However, a piece is not *required* to capture except under special circumstances. Each type of piece moves and captures differently, as shown in figures 9 to 19.

An **earth pony** may move to the next star along a rank or file or diagonally, or may move two stars if the first star is unoccupied. If it moves along a rank or file to the first star, it must move diagonally, farther away from its starting position, to the second star. If it moves diagonally to the first star, it must move along a rank or file, farther away from its starting position, to the second star.

An earth pony captures an opposing soldier or shooting star by moving to the star where it is, removing it, and ending movement on that star.

A **pegasus pony** may move two or three stars in a straight line along a rank or file or diagonally. It may not “turn a corner” or move one star. It may “fly over” the first playing piece (friendly *or* opposing) it encounters on its path and end its move on an unoccupied star; the occupied star is counted in the pegasus soldier’s move. It may not “fly over” more than one playing piece in a turn.

A pegasus pony captures an opposing soldier or shooting star by “flying over” it, removing it, and ending movement on an empty star farther along its path. If the pegasus “flies over” an opposing piece, it *must* capture that piece.

A **unicorn pony** may move up to two stars in a straight line along a rank or file or diagonally, and may not “turn a corner”. All stars on its path must be unoccupied.

A unicorn may capture a soldier or shooting star that is one star *ahead* of where it ends its move, on the same path along which it moved. If a unicorn does not move, it may not capture.

A **shooting star** on its first move may move one star forward or diagonally forward, toward the opposing player’s side of the board. On any subsequent move, it may move one star forward, toward the opposite side of the board.

A shooting star that moves all the way across the board to the rank at the opposite edge is *promoted*, replaced immediately with a soldier of the player’s choice from previously captured friendly soldiers. If no such soldier is available, the shooting star remains in place until one is, at which time it must be replaced, or until it is captured, whichever comes first.

A shooting star captures an opposing soldier by moving to the star (or the earth) where it is, removing it, and ending movement on that star or the earth.

A **princess** may move in one of three ways, as the player chooses, and it may use different moves on different turns. Depending on the positioning of other pieces on the board, the princess sometimes may be unable to use one or more of its moves and occasionally may be unable to move at all.

It may move exactly two stars, “turning a corner” like an earth pony as it does; all stars on its path must be unoccupied. It may not capture on a turn it uses this move.

It may move exactly two stars in a straight line, but *must* “fly over” a piece like a pegasus pony; the star where it ends its move must be unoccupied. It may not capture on a turn that it uses this move, even if it “flies over” an opposing piece.

It may move one star, if the star is unoccupied. If it does so, it *must* capture an opposing soldier or shooting star on the next star along that path, like a unicorn pony. If it does not move, it may not capture.

Only soldiers and shooting stars may be captured. Special rules deal with princesses in danger of capture.

Winning the Game

The goal of each player is to force the opponent’s princess into a position from which it cannot make a legal move that would prevent the player from “capturing” it on her next turn. The player who does so wins the game. If it becomes impossible for either player to win, the game is a draw.

Eclipse: When a player’s move puts the opposing princess in danger of capture, that player must announce the danger with the word *eclipse*. A player whose princess is *in eclipse* must end the eclipse on her next turn, by moving the princess out of danger, by capturing with the princess, or by moving or capturing with another piece in a way that removes the danger, or forfeit the game.

Neither player is permitted to make any move that puts her princess *into* eclipse. If a player cannot make any legal move that avoids putting her princess into eclipse, the game ends in a draw.

Banishment: When a princess is unable to make *any* legal move that will place it out of immediate danger of capture on the opponent’s next turn, the opponent wins and announces that fact with the word *banished*. This represents the idea that the losing princess would be imprisoned immediately afterward in the heavenly body with which she is associated. A player who asks if a situation can result in banishment is assumed to be announcing banishment.

Escape: The opponent of a player who announces *banishment* may examine the board in order to verify the claim of winning. If she discovers a legal move that the other player missed, she can announce that fact with the word *escape* and make the move. In tournament play, to discourage a player from calling banishment too casually or to bully an opponent into resigning, the escaping player may be permitted to capture, automatically, one opposing soldier anywhere on the board as a penalty. ★

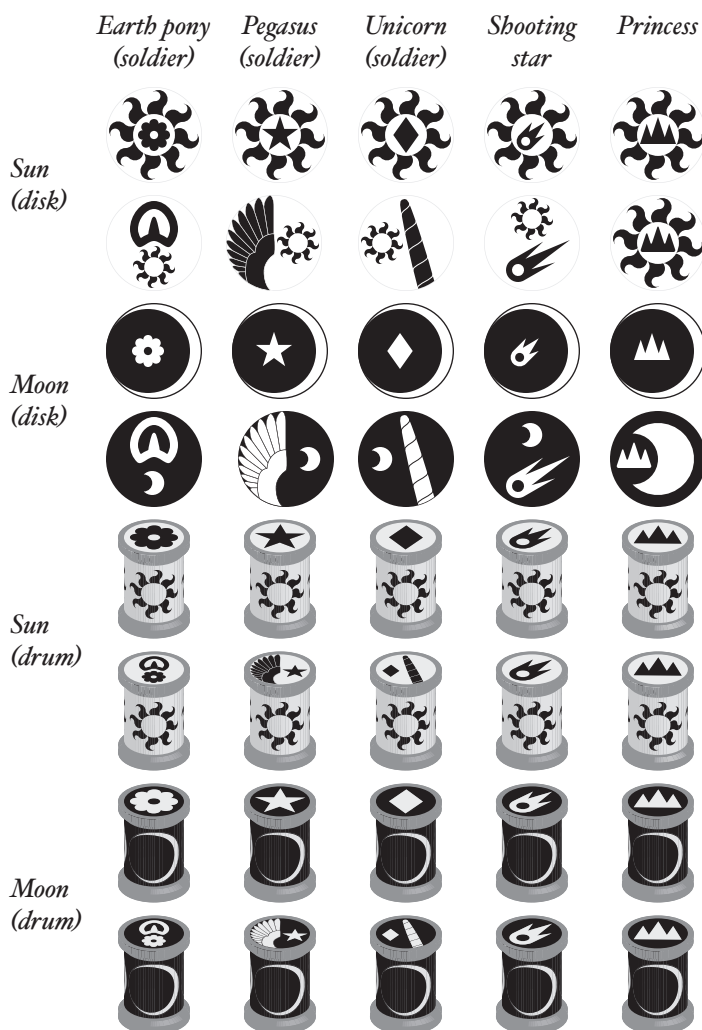


Figure 1. The playing pieces.

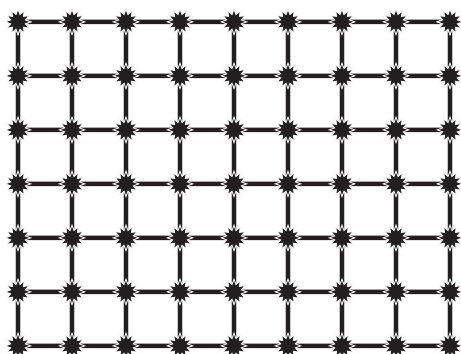


Figure 2. The lay-out of the game board. One player would sit facing the top of the board as it is positioned in this diagram; the other player would sit on the opposite side of the board.

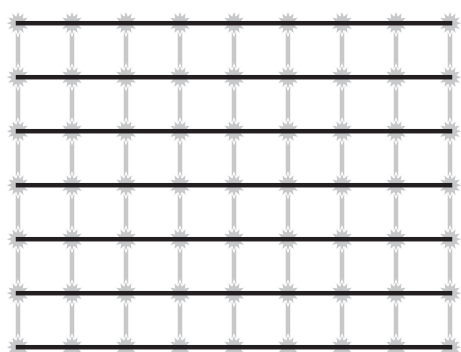


Figure 3. Ranks are seven parallel lines running the long way across the field. When the game board sits between the players, the ranks run from left to right.

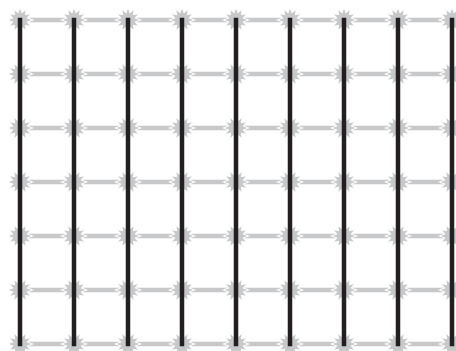


Figure 4. Files are nine parallel lines running the short way across the field. When the game board sits between the players, the files run from one player toward the other.

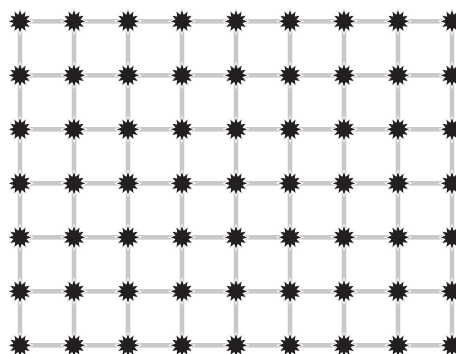


Figure 5. Stars, also called points, sit at the sixty-three intersections of the ranks and files. These are the locations on which playing pieces are positioned during a game.

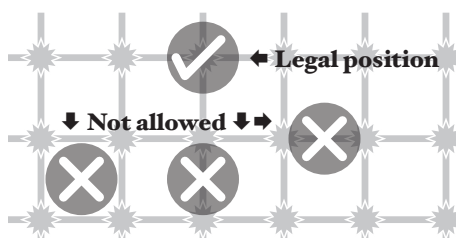


Figure 6. Any piece must begin and end its move on stars.

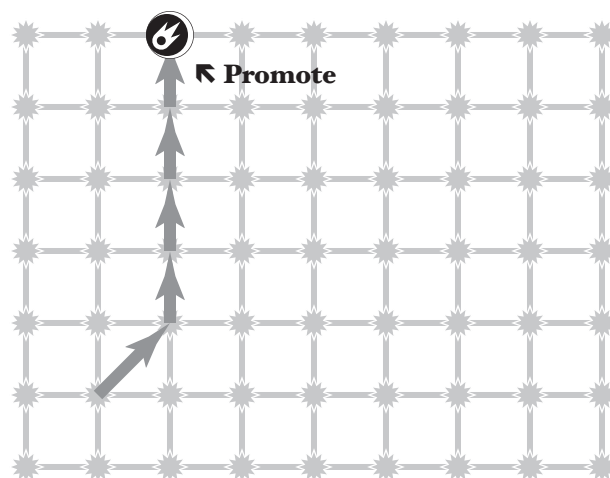


Figure 7. A shooting star that reaches the opposite edge of the board is promoted, replaced with a soldier of the player's choice.

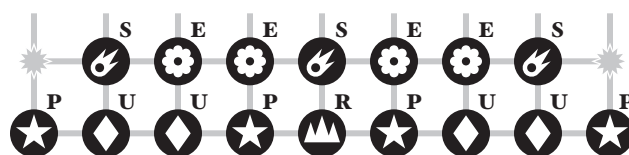


Figure 8. Starting positions for all playing pieces.

In following figures: Solid arrows are paths followed by moving pieces; dashed arrows are paths to opposing pieces captured by unicorn or princess. Small circles are ending positions; hollow circles are positions of pieces being “flown over” by princess. X marks are positions of captured opposing pieces.

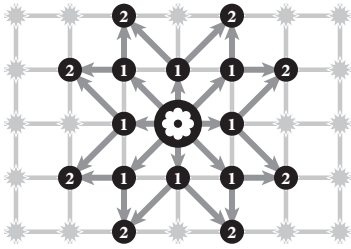


Figure 9. An earth pony may move up to two stars. If moving two stars, it must “turn a corner” and the first star must be unoccupied. It may end its move on any of the circled stars.

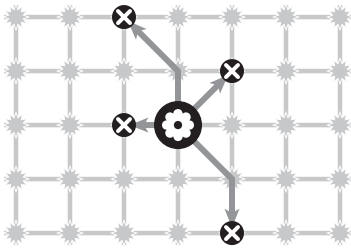


Figure 10. An earth pony captures an opposing soldier or shooting star by ending its move on the star where the opposing soldier or shooting star is.

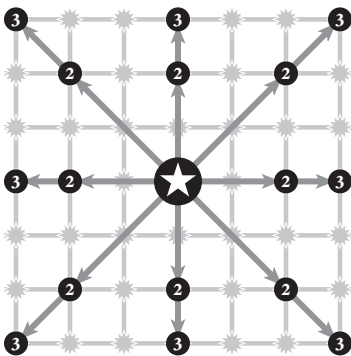


Figure 11. A pegasus pony may move two or three stars in a straight line and may “fly over” the first piece on its path, but may not “fly over” a second piece. It may end its move on any of the circled stars, as long as the star is unoccupied.

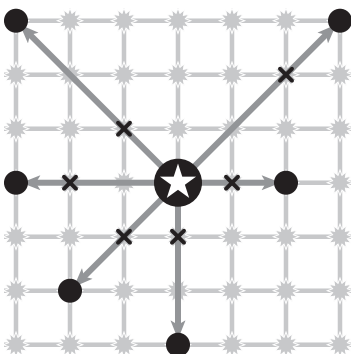


Figure 12. A pegasus pony captures an opposing soldier or shooting star by “flying over” it and ending movement on an empty star farther along the path. If it “flies over” an opposing piece, it must capture that piece.

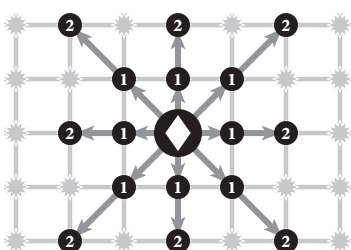


Figure 13. A unicorn pony may move up to two stars in a straight line. It may end its move on any of the circled stars, as long as every star along its path is unoccupied.

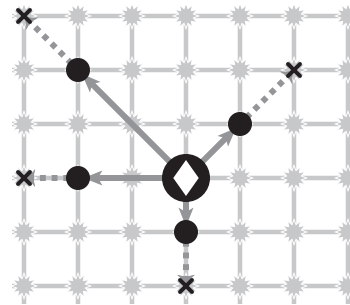


Figure 14. A unicorn pony may capture an opposing soldier or shooting star that is one star ahead of where it ends its move, on the path along which it moved. If it does not move, it may not capture.

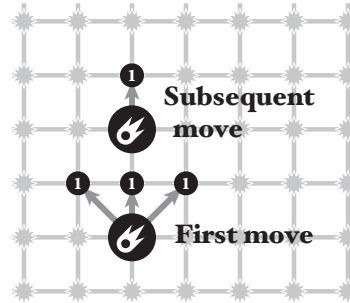


Figure 15. A shooting star moves one star forward or diagonally forward (away from the player moving it) on its first move; on any subsequent move it may move forward one star.

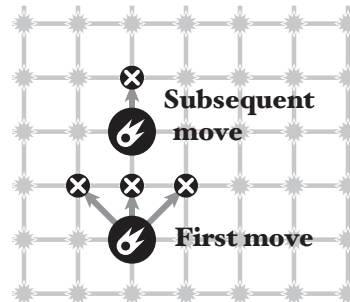


Figure 16. A shooting star may capture by ending its move on the star where the opposing soldier or shooting star is.

A princess may move in any of three ways, as the player chooses and positions of other pieces permit.

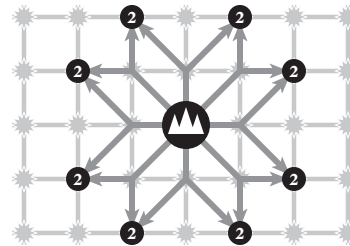


Figure 17. A princess may move exactly two stars, “turning a corner” like an earth pony as it does; both stars on its path must be unoccupied and it may not capture.

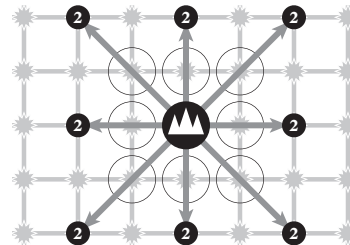


Figure 18. A princess may move exactly two stars in a straight line, must “fly over” another piece like a pegasus pony, and end its move on an unoccupied star; it may not “turn a corner” or capture.

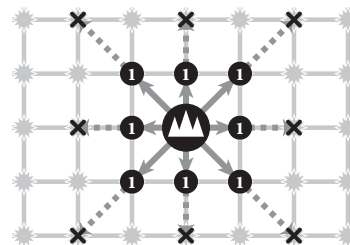


Figure 19. A princess may move one star and must capture an opposing soldier or shooting star that is one star ahead of where it ends its movement on the same path along which it moved, like a unicorn pony.

The Rules of the Astral Game

SUN AND MOON IS AN abstract strategy game for two players, based on the struggle between the royal sisters that ended with the imprisonment of the younger princess in the moon. The object of the game is to force the opposing player's *princess* playing piece into a position from which it cannot move safely and legally. The player who succeeds in doing so wins the game.

The pages immediately following the text of the rules are devoted to fifteen *figures*, diagrams designed to clarify the rules by illustrating their function and intent.

The Playing Pieces

Each player controls sixteen playing pieces: four *earth ponies*, four *pegasus ponies*, four *unicorn ponies*, three *shooting stars*, and a *princess*. All pieces other than the shooting stars and the princess collectively are called *soldiers* or, usually in older sources, *warriors*. The Collegium has settled on the former term for formal and official usage.

Play sets may distinguish playing pieces with representational statuary or artwork or, for soldiers, with symbols from traditional tribal banners. Traditional symbols are listed below and are shown on disc- and drum-shaped pieces in figure 1.

- A *hoofprint* or a *blossom* (flower) for an earth pony
- A *wing* or a five-pointed *star* for a pegasus pony
- An *alicorn* (horn) or a *lozenge* (diamond) for a unicorn pony
- A *fireball* for a shooting star
- A *tiar*a (a crown-like circlet with three “peaks”) for a princess

The Astral Game Board

The astral game is played on a field consisting of three parts: the *firmament*, the *twilight line*, and the *heavenly bodies*. Figure 2 shows the lay-out of the astral game board and identifies its various parts.

- The **firmament** includes all of the playing field except the twilight line and the heavenly bodies. Its background is light (usually yellow or gold), representing the day, or dark (usually blue or black), representing the night. Crisscrossing the background are white *arcs* connecting *stars*. Playing pieces may move only along arcs; most of them must start and end their movement only on stars.
- The **twilight line** acts as a border around the edge of the board and between the board's halves; it also serves as an arc and contains stars, similar to the firmament.
- The **heavenly bodies** consist of the *sun*, the *moon*, and the *earth*. The sun and moon serve as starting locations for the *princess* playing pieces and the earth serves as a destination for the *shooting star* playing pieces.

Opening Deployment

The astral game begins with positioning playing pieces on the board. First, the sun princess is placed on the sun and the moon princess is placed on the moon. Next, shooting stars are placed along the outer twilight line, the sun player's on dark stars on the sun side of the firmament, and the moon player's on dark stars on the moon side of the firmament.

Starting with the moon player, the players then alternate placing soldiers, one at a time, on the firmament. Each soldier must be placed on a star within the half of the board surrounding the player's princess: The sun player's pieces are restricted to the portion with a lighter background, and the moon player's pieces are restricted to the portion with a darker background. No soldier may be placed on the twilight line.

General Rules of Movement

Once all playing pieces have been placed, play of the astral game begins. Starting with the moon player, the players alternate moving pieces, one at a time, until one player wins or the game ends in a draw. Certain basic restrictions on movement apply to all pieces, as shown in figures 3 and 4.

A soldier must begin and end its move on stars. It may not begin or end its move on an arc, on the firmament, or, except under a special circumstance, on a heavenly body.

A shooting star must begin its move on a star and must end on a star or on the earth. It may not begin or end its move on an arc, on the firmament, or on the sun or moon.

A princess must begin and end its move on stars, the sun, or the moon. It may not begin or end its move on an arc, on the firmament, or on the earth.

A piece may not move farther than the star just before an obstacle. If a player cannot or chooses not to capture an opposing piece on the path of the moving piece, the opposing piece acts as an obstacle. A friendly piece on the path of the moving piece also acts as an obstacle. The only exception is that a pegasus or princess may “fly over” the first playing piece on its path.

A heavenly body also acts as an obstacle to all soldiers. In theory the sun and moon would act as obstacles to shooting stars, but the paths of shooting stars do not allow them to encounter those bodies. The earth acts as an obstacle to princesses, but the sun and moon do not.

A piece may move only along arcs. It may not cross the firmament to another star without following arcs. A unicorn or pegasus moving through the twilight line at the edge of the board circles back inward on the continuation of the arc.

Threefold repetition results in a draw. If a player is forced to repeat the same pattern of moves three times in a row, the game ends in a draw. This is intended to prevent an endless game, and should not be exploited by a player in a bad position; in a tournament, doing so may be ruled a forfeit. ♦

Specific Rules for Playing Pieces

Every piece can *move* from one location to another on the game board and *capture* an opposing soldier or shooting star, removing it from play. However, a piece is not *required* to capture except under special circumstances. Each type of piece moves and captures differently, as shown in figures 5 through 15.

An **earth pony** may move to the next star along an arc, or may move two stars, “turning a corner” to follow another arc as it does. If it moves two stars, the first star must be unoccupied.

An earth pony may capture an opposing soldier or shooting star by moving to the star where it is, removing it, and ending movement on that star.

A **pegasus pony** may move two or three stars along an arc. It may not “turn a corner” or move one star. It may “fly over” the first playing piece (friendly *or* opposing) it encounters on its path and end its move on an unoccupied star; the occupied star is counted in the pegasus soldier’s move. It may not “fly over” more than one playing piece in a turn.

A pegasus pony may capture an opposing soldier or shooting star by “flying over” it, removing it, and ending movement on an empty star farther along the arc. If the pegasus “flies over” an opposing piece, it must capture that piece.

A **unicorn pony** may move up to two stars along the same arc, and may not “turn a corner”. All stars on its path must be unoccupied.

A unicorn pony may capture a soldier or shooting star that is one star *ahead* of where it ends its move, on the arc along which it moved; however, it may not capture a piece sitting on the earth. If a unicorn does not move, it may not capture.

A **shooting star** may move to the next star along an arc leading from its starting position to the earth. Once the shooting star has started, it must follow the chosen arc to the earth.

A shooting star that moves onto the earth is *promoted*, replaced immediately with a soldier of the player’s choice from previously captured friendly soldiers. If no such soldier is available, the shooting star remains in place until one is, at which time it must be replaced. A soldier on the earth need not move immediately, but it can be captured by opposing shooting stars.

A shooting star may capture an opposing soldier by moving to the star (or the earth) where it is, removing it, and ending movement on that star or the earth.

A **princess** may move in one of three ways, as the player chooses, and it may use different moves on different turns. Depending on the positioning of other pieces on the board, the princess sometimes may be unable to use one or more of its moves and occasionally may be unable to move at all.

It may move exactly two stars, “turning a corner” to follow another arc as it does; all stars on its path must be unoccupied. It may not capture on a turn it uses this move.

It may move exactly two stars along an arc without “turning a corner”, but *must* “fly over” a piece; the star where it ends its move must be unoccupied. It may not capture on a turn that it uses this move, even if it “flies over” an opposing piece.

It may move one star, if the star is unoccupied. If it does so, it *must* capture a soldier or shooting star on the next star along that arc. If it does not move, it may not capture.

Only soldiers and shooting stars may be captured. Special rules deal with princesses in danger of capture.

Winning the Game

The goal of each player is to force the opponent’s princess into a position from which it cannot make a legal move that would prevent the player from “capturing” it on her next turn. The player who does so wins the game. If it becomes impossible for either player to win, the game is a draw.

Eclipse: When a player’s move puts the opposing princess in danger of capture, that player must announce the danger with the word *eclipse*. A player whose princess is *in eclipse* must end the eclipse on her next turn, by moving the princess out of danger, by capturing with the princess, or by moving or capturing with another piece in a way that removes the danger, or forfeit the game.

A princess on the sun or moon may be put in eclipse, even though soldiers cannot move onto or past heavenly bodies. This represents the idea that soldiers can “besiege” the opposing princess, blockading her in place until their princess can arrive and take further action.

Neither player is permitted to make any move that puts her princess *into* eclipse. If a player cannot make any legal move that avoids putting her princess into eclipse, the game ends in a draw.

Banishment: When a princess is unable to make *any* legal move that will place it out of immediate danger of capture on the opponent’s next turn, the opponent wins and announces that fact with the word *banished*. This represents the idea that the losing princess would be imprisoned immediately afterward in the heavenly body with which she is associated. A player who asks if a situation can result in banishment is assumed to be announcing banishment.

A princess on the sun or moon may be banished, even though soldiers cannot move onto or past heavenly bodies. As with eclipse, this represents soldiers holding the opposing princess in place for their princess to imprison.

Escape: The opponent of a player who announces *banishment* may examine the board in order to verify the claim of winning. If she discovers a legal move that the other player missed, she can announce that fact with the word *escape* and make the move. In tournament play, to discourage a player from calling banishment too casually or to bully an opponent into resigning, the escaping player may be permitted to capture, automatically, one opposing soldier anywhere on the board as a penalty. ♦

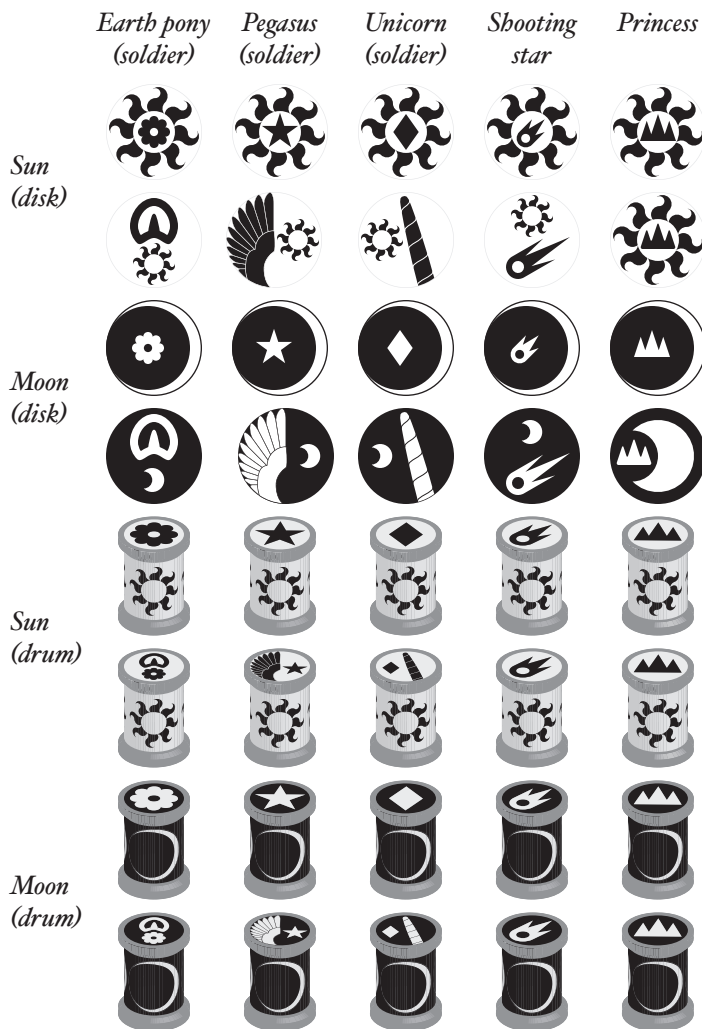


Figure 1. The playing pieces.

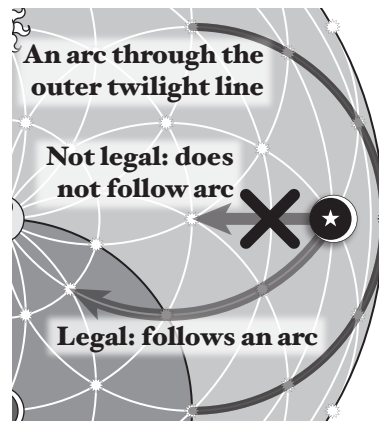


Figure 3 (left). A piece may move only along arcs; it may not cross the firmament to another star. An example of an arc through the outer twilight line is also shown. **Figure 4 (below).** Any piece may begin and end its move on stars. A shooting star also may end its move on the earth. A princess also may begin or end its move on the sun or the moon.



Figure 5 (left). An earth pony may move up to two stars. If moving two stars, it must "turn a corner" and the first star must be unoccupied. It may end its move on any of the circled stars.

Figure 6 (below). An earth pony may capture by ending its move on the star where the opposing soldier or shooting star is.

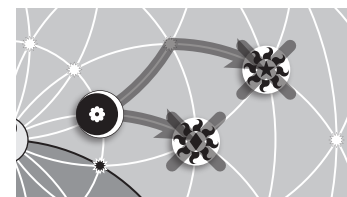


Figure 7 (below). A pegasus pony may move two or three stars along an arc and may "fly over" the first piece on its path, but may not "turn a corner" and may not "fly over" a second piece. It may end its move on any of the circled stars, as long as the star is unoccupied.

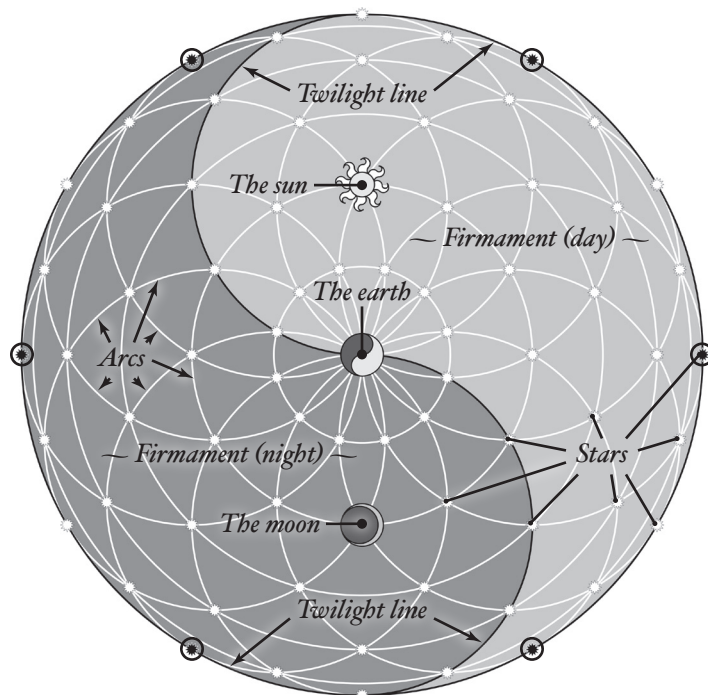
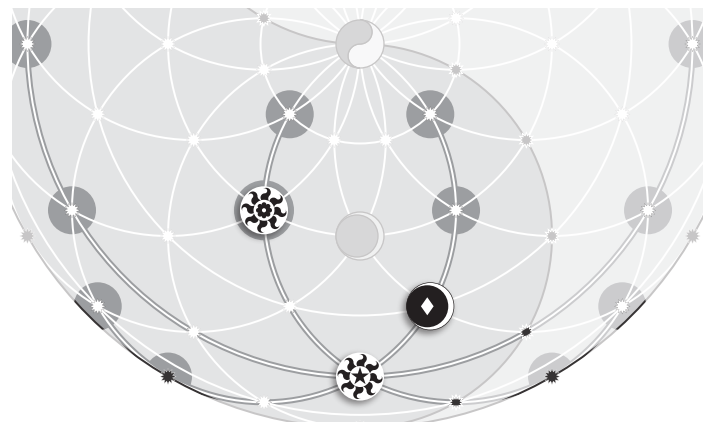


Figure 2. The lay-out of the astral game board. Circled stars are starting positions for shooting star playing pieces.

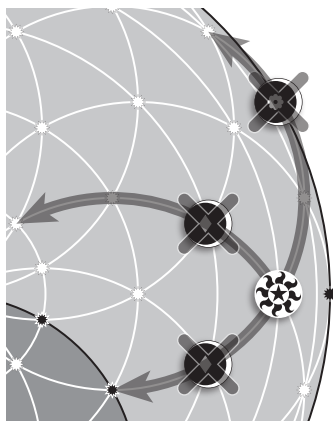


Figure 8 (left). A pegasus may capture an opposing soldier or shooting star by “flying over” it and ending movement on an empty star farther along the arc.

Figure 9 (below). A unicorn pony may move up to two stars along an arc, and may not “turn a corner”. It may end its move on any of the circled stars, as long as every star along its path is unoccupied.

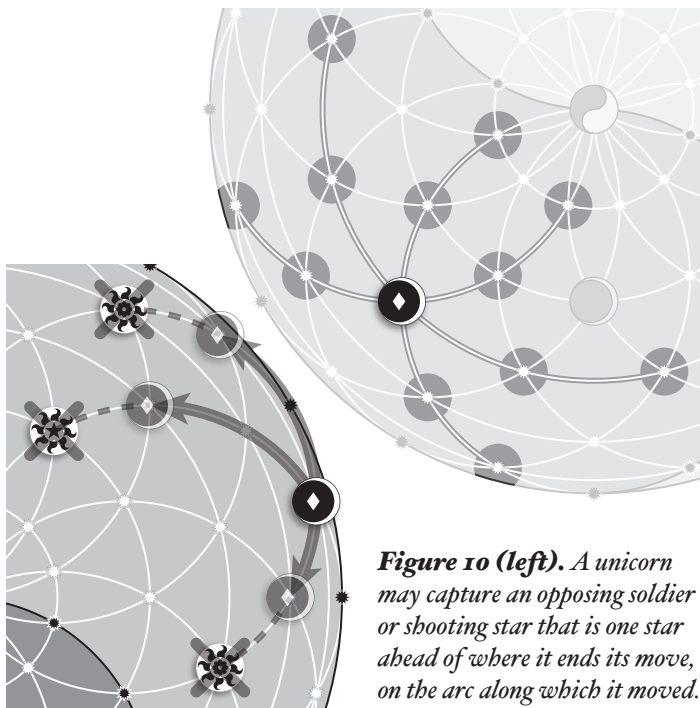


Figure 10 (left). A unicorn may capture an opposing soldier or shooting star that is one star ahead of where it ends its move, on the arc along which it moved.

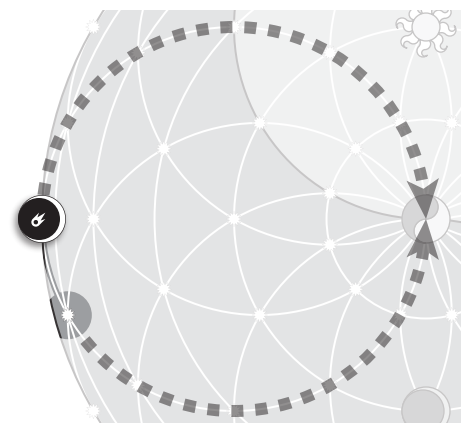


Figure 11 (left). A shooting star moves one star along an arc leading from its starting position to the earth; once it has started along an arc it must continue to follow that arc all the way to the earth.



Figure 12 (left). A shooting star may capture by ending its move on the star where the opposing soldier is.

Figures 13, 14, and 15. A princess may move in any of three ways, as the player chooses and positions of other pieces permit. Circled stars indicate possible ending positions.

Figure 13 (right). It may move exactly two stars, “turning a corner” as it does; both stars on its path must be unoccupied and it may not capture.

Figure 14 (below). It may move exactly two stars along an arc, must “fly over” another piece, and end its move on an unoccupied star; it may not “turn a corner” or capture.

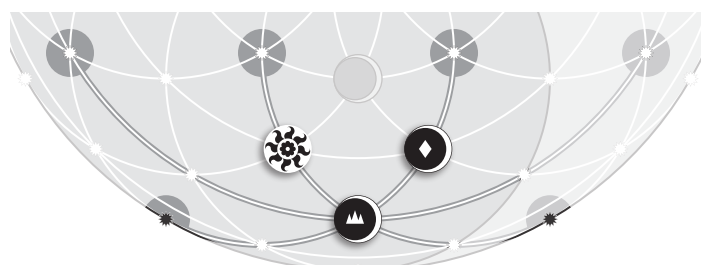
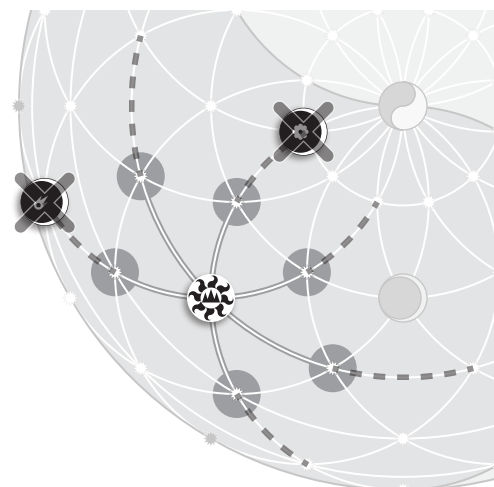


Figure 15 (right). It may move one star and must capture an opposing soldier or shooting star that is one star ahead of where it ends its movement on the same arc along which it moved.





Peculiarities of the Playing Pieces



EXPLORING METHODS OF PLAY in detail is beyond the scope of this short pamphlet, but an introductory study of the playing pieces can provide a foundation on which a new player can build. How each playing piece moves and captures other pieces form the basic elements around which players must plan and execute their tactics and strategy.

Every piece has a set of stars it can reach by moving and a set of stars it can reach for capturing. The game has evolved to balance these sets against each other, making it possible for any soldier to capture, or at least to *attack* (threaten with capture), any other type of piece. However, attacking with a soldier of the same tribe (such as unicorn against unicorn) is difficult, since any position from which it can attack is vulnerable to capture by the attacked piece.

Keep in mind that the observations and advice offered here examine each of the pieces *in isolation*. The presence of additional pieces nearby inevitably complicates any tactical or strategic circumstance. Rarely does a tactic rely on just one piece; most require multiple pieces to carry out.

A seemingly risky move can put a piece in jeopardy, but appearances can be deceiving: The piece may be protected by other pieces that could capture an opposing piece should it take the exposed piece. However, the rewards may be great enough, or the situation grave enough, that a player may consider such a sacrifice worthwhile or necessary.

Initial Deployment of Soldiers in the Astral Game

Almost as important as play of the astral game itself is deciding where to start each soldier. A careful player watches her opponent closely during initial deployment, not only to tailor her own placements in response but to catch any insight she can into that opponent's personality and style of play. Here are some points to keep in mind.

An earth pony moving two stars has a choice of corners to turn, allowing it to reach its destination even if one of those corners is blocked; this can be a small advantage in a crowded area of the board. Neighboring earth ponies can “fan out”, breaking left and right, to open the arcs where they started.

Since a pegasus is not blocked by a single playing piece on its path, pegasus soldiers can be deployed in a “second rank” behind other soldiers. Be wary, though: if the pegasus is behind a unicorn, a piece moved right in front of that unicorn creates an obstacle of two pieces in a row over which the pegasus cannot fly. If the moving piece belongs to the opponent, the unicorn would be unable to capture it and thereby remove the obstacle. If it is a friendly piece, a move must be used to clear the obstacle, which can throw off the player's timing.

The wide capture range of a unicorn can give it command of a broad area of the board—as long as the arcs emanating from its position are clear. On the outer spheres, the curving back of the hours and anti-hours can give it some of the flexibility of an earth pony, if one is careful.

The Shooting Star

Simplest of the pieces is the shooting star. Its move of a single star and its capture by landing on a star occupied by an opposing piece are straightforward. Its real value is in its ability to promote, so while it is weak offensively, a wise player does not dismiss it completely.

Since the shooting star's move and capture are so limited, it rarely is able to ambush an opposing piece. Captures by shooting stars tend to occur because the opponent cannot extricate a threatened piece—or has greater concerns elsewhere on the board and chooses to sacrifice it.

The only real choice offered by the shooting star is which file or arc to start down on its first move. One criterion for the choice of file or arc is whether the player intends to use the shooting star mostly as an additional, if weak, offensive piece, or if defensive use or promotion is paramount.

In the **terrestrial game**, aggressive play tends to move each shooting star along its original file or to move one or both of the outer shooting stars toward the center of the board. They become more effective obstacles, potentially blocking opposing pieces, but they also can block friendly pieces. It also makes capturing the shooting stars somewhat easier.

Conservative play is more likely to move the outer shooting stars outward, to the board's edge files, where opposing pieces are fewer, making it a bit easier for those shooting stars to avoid capture. It also clears the board's interior, giving the soldiers on both sides greater freedom of movement.

In the **astral game**, aggressive play selects the arc that sends the shooting star into, or closest to, the opponent's part of the firmament. This can result in a pair of opposing shooting stars on crossing paths pinning each other in place, unable to move for fear of capture by the other.

Conservative play selects the other arc, to keep the shooting star in one's own portion of the firmament. This partially shields it from enemy advances and, through its presence, provides some limited protection of that part of the firmament.

Aggressive and conservative play can be combined, using one or two offensively while retaining the remaining material for defense or promotion. In the astral game, one might play the middle shooting star defensively, in the hopes it will survive to promote, while bolstering the soldiers with the others. In the terrestrial game, one might do the opposite, playing the middle one aggressively and the outer ones conservatively.

The Earth Soldier

The earth pony is the only soldier permitted to “turn a corner”, giving it a degree of indirection unavailable to the others. In contrast, its capture by landing on a star occupied by an opposing piece is quite blunt and direct. Thus its “move range” and “capture range” are identical: every adjacent star and the stars immediately beyond them that are “around corners”. ♦

The Pegasus Soldier

The pegasus is the only soldier allowed to “fly over” other pieces, and it moves the farthest of any piece on the board. Its capture by “flying over” an opposing piece seems to be modeled after a pegasus warrior’s use of the great speed of flight to impart tremendous energy in an attack, then to escape quickly.

The move range of a pegasus is two or three stars from its starting position, while the capture range is every adjacent star and the stars immediately beyond them. Thus its ranges are offset, with the move range one star farther out than the capture range.

The Unicorn Soldier

The unicorn’s move is simple, but its unusual “capture ahead” gives it the longest range of threat. The method of capture almost certainly is intended to represent casting spells against an enemy. However, if it cannot move, it cannot capture, which dictates that unicorns should be used carefully.

The move range of a unicorn is every adjacent star and the stars immediately beyond them, while the capture range is two or three stars from its starting position. Thus its ranges are offset, with the capture range one star farther out than the move range.

The Princess

The princess is the most complex piece, having three choices for its move—but only one allows it to capture. Its range is restricted compared to soldiers, and positions of other pieces may preclude it from exercising some or even all of its options.

The need to keep it out of harm’s way also prevents it from operating too aggressively. Still, a princess moving carefully in cooperation with soldiers and even, on occasion, shooting stars can execute tactical or strategic gambits—often, late in the game when players usually have few pieces on the board.

Approaching an Opposing Piece

Before a piece can attack, it must reach a position from which to do so, generally by taking a path the opposing piece is unable to intercept. Given its limited move, a shooting star is relatively easy to approach—especially from “behind”—but advancing on a soldier or princess requires greater care. In particular, approaching an opposing earth pony with an earth pony of one’s own is very tricky.

Approaching a pegasus, unicorn, or princess is more difficult on the astral board because arcs form complete circles, making it impossible to avoid crossing arcs emanating from the piece being approached. The key in the astral game is to avoid ending a move on one of those arcs, especially within capture range of the piece being approached. ♠

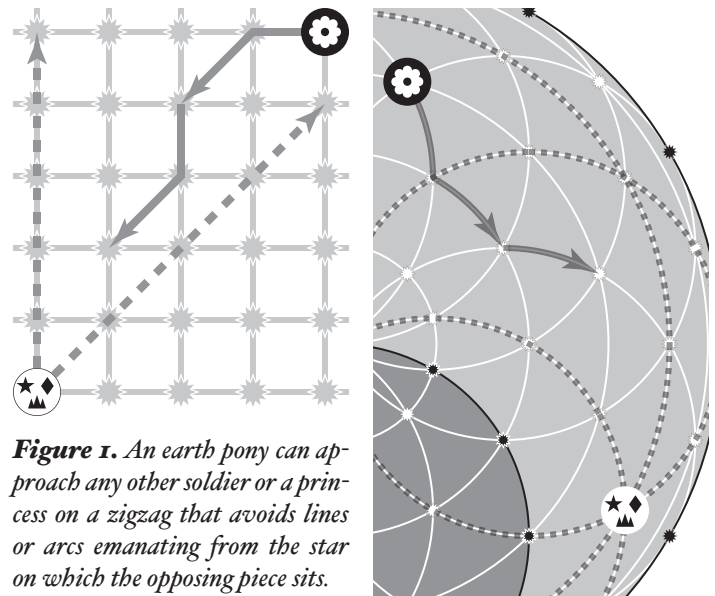


Figure 1. An earth pony can approach any other soldier or a princess on a zigzag that avoids lines or arcs emanating from the star on which the opposing piece sits.

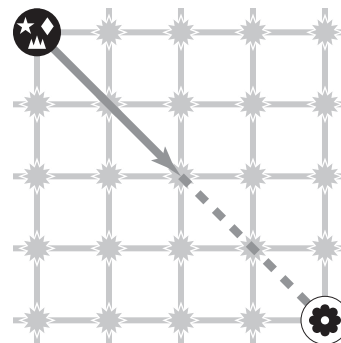


Figure 2. A pegasus, unicorn, or princess can approach an earth pony directly, along a line or arc emanating from the star on which the earth pony sits.

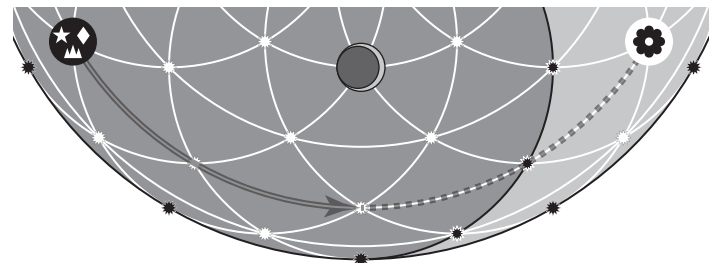
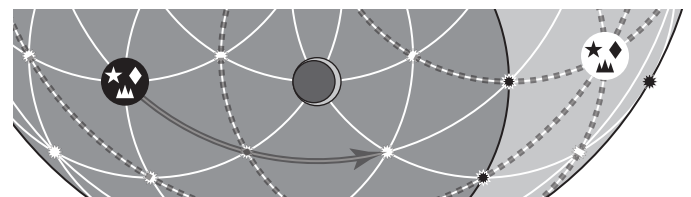


Figure 3. A pegasus, unicorn, or princess can approach a pegasus, unicorn, or princess along a different line or arc than those emanating from the latter piece’s position.



Attacking an Opposing Piece

A piece that succeeds in drawing near a potential target can threaten it, but usually only from certain positions. A miscalculation in the position of an attacking piece can result in that piece being captured by the piece it is attacking.

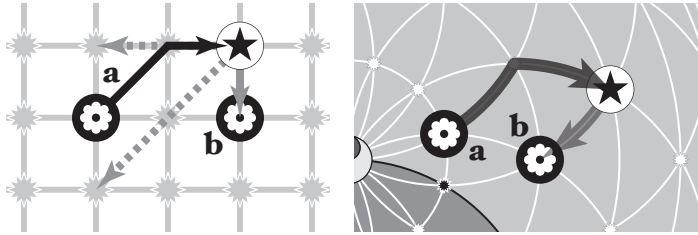


Figure 4a. An earth pony can attack a pegasus safely only from two stars away “around a corner”.

Figure 4b. Moving to an adjacent star allows the pegasus to capture the attacking earth pony.

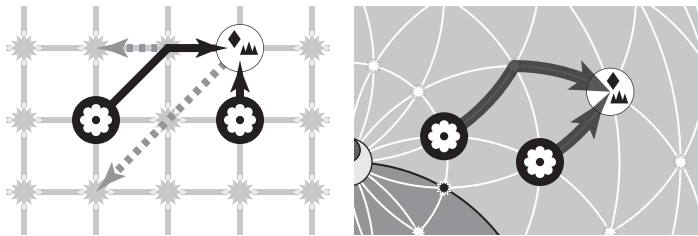


Figure 5. An earth pony can attack a unicorn or a princess safely from two stars away “around a corner”—or from an adjacent star, since a unicorn or princess cannot capture a piece on an adjacent star. Moreover, a princess cannot capture while “turning a corner” or “flying over”, and even if the princess “flies over” the attacking earth pony, it cannot move far enough to escape the earth pony’s attack.

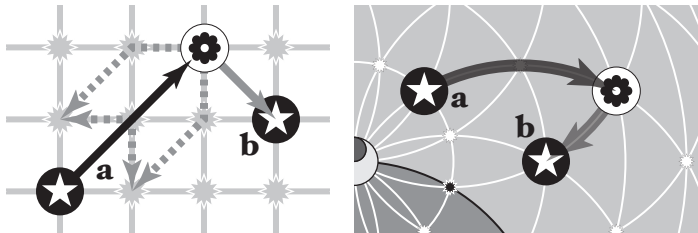


Figure 6a. A pegasus can attack an earth pony safely only from two stars away along a line or arc.

Figure 6b. Moving to an adjacent star allows the earth pony to capture the attacking pegasus.

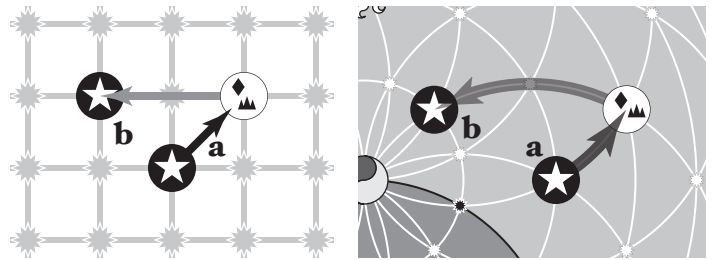


Figure 7a. A pegasus can attack a unicorn or princess safely only from an adjacent star.

Figure 7b. Moving to a position two stars away along a line or arc allows the unicorn or princess to capture the attacking pegasus.

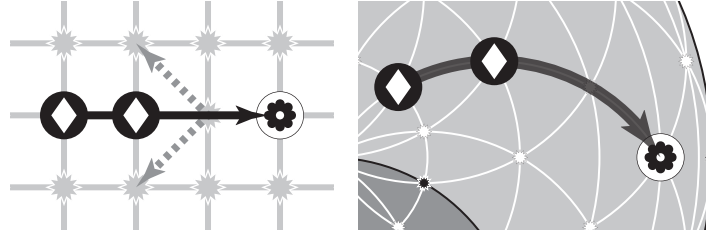


Figure 8. A unicorn can attack an earth pony from two or three stars away along a line or arc; it cannot attack from an adjacent star.

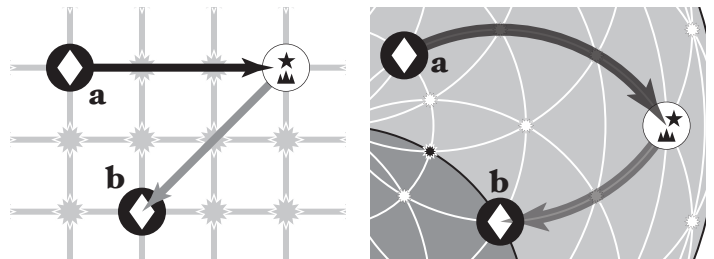


Figure 9a. A unicorn can attack a pegasus or a princess safely only from three stars away along a line or arc; it cannot attack from an adjacent star.

Figure 9b. Moving to a position two stars away along a line or arc allows the pegasus or princess to capture the attacking unicorn. ♣

⇒ The Geometry of the Astral Game Board ⇐

AT FIRST GLANCE, the astral game board may seem confusing, with arcs crisscrossing willy-nilly. Closer examination, however, will reveal a simple underlying structure; understanding it is key to visualizing how to move playing pieces across it.

The **hours and anti-hours**, in pairs, form twelve complete circles—half the diameter of the board—rotated around a common center inside the earth. Each circle intersects other circles, and it is at these intersections that the stars are placed.

When a unicorn or pegasus moves along an hour or anti-hour *through* the outer twilight line, it continues along the same circle and moves back inward. It does not “turn the corner” and continue along the outer twilight line. This can be tricky to remember at first, but after some practice at playing it should become second nature.

The **spheres** are six concentric circles, including the outer twilight line, centered on the earth. They connect the intersections of hour-anti-hour circles, completing a network of arcs that allows inward, outward, and lateral movement.

It is particularly important to remember that every sphere contains *the same number of stars*! Don’t be fooled by the fact that the stars are placed farther apart on the outer spheres. Whether it is the innermost *a* sphere or the outer twilight line, every sphere has exactly twelve stars on it.

The **heavenly bodies** effectively are special stars placed at particular intersections. The earth is at the center of the board. The sun and moon are, measured by ruler, half-way between the center and the outer twilight line—but measured by the number of spheres, they are one-third of the way out from the center.

The spheres where movement is most flexible are the middle two, *c* and *d*, with mobility decreasing as one moves inward or outward from them. The inner part of the board can be difficult and potentially dangerous to traverse, since the heavenly bodies form obstacles to soldiers. The outer part of the board is more open, affording the soldiers greater mobility, but the outer twilight line restricts a piece’s options as well.

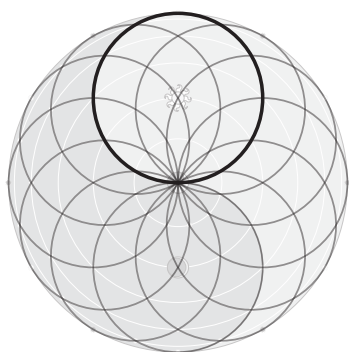


Figure 1. Hours and anti-hours form complete circles; stars and heavenly bodies mark where circles intersect. A unicorn or pegasus moving along an hour or anti-hour through the outer twilight line continues along the circle and moves back inward, as shown by the bold line.

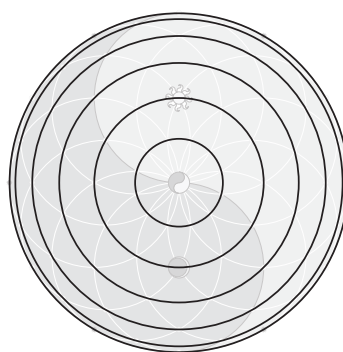
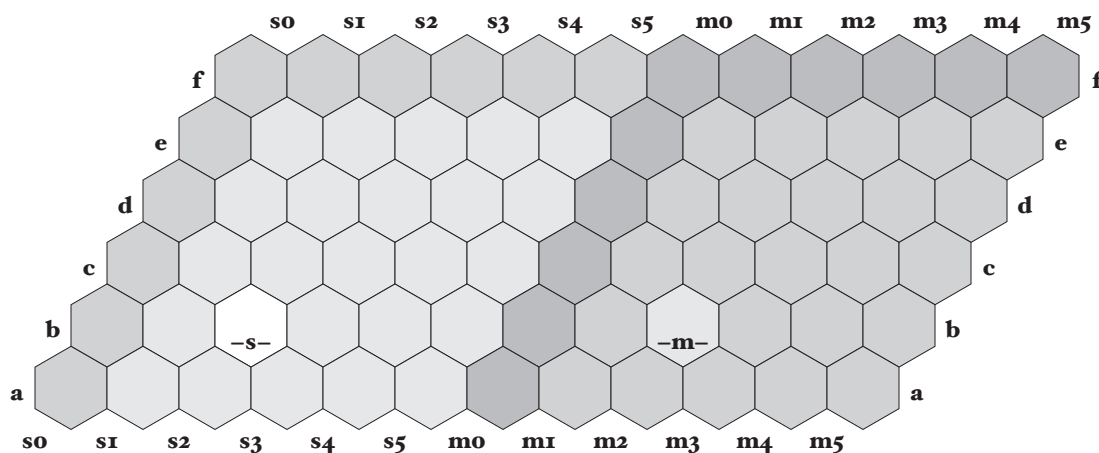


Figure 2. The spheres form concentric circles that intersect the hours and anti-hours to form a complete network. Keep in mind that the number of stars (including heavenly bodies) is the same on every sphere—twelve—regardless of the sphere’s size.



Schematic Diagram of the Astral Game Board

A simplified visualization of the astral game board is illustrated above, using cells instead of stars. A beginning player can study it to understand the astral board’s structure and order. An experienced player can plot out game problems, tactics, and strategies on it. A club or organization can display on it the course of a game in progress or a past game.

Rows *a* through *f* are *spheres*, which wrap around horizontally (for example, *sod* is adjacent to *m5d* and *m5e*.) All points

on sphere *a* are adjacent to the earth and all hours and anti-hours trace paths through the earth.

Columns *s0* to *m5* are *hours*, which ascend to the right. The anti-hours that complete the circles of the hours turn to descend to the right. For example, the circle that includes *soa* to *sof*, then through *sie* down to *s5a*.

Heavenly bodies: *-s-* indicates the *sun*, *-m-* indicates the *moon*, and *-e-* indicates the *earth*. ★

Positional Notation

Positional notation is a means of assigning unique coordinates to points or cells on a game board. Without some form of positional notation, it would be very difficult if not impossible for players and writers to describe positions, moves, and games in consistent and comprehensible terms.

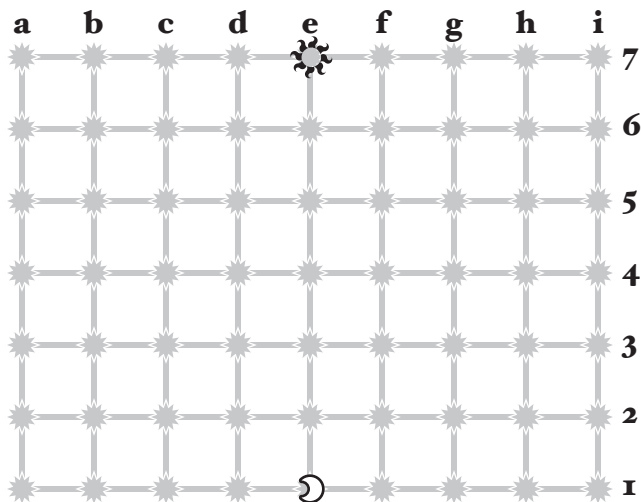
The Terrestrial Game

The terrestrial game uses the *files* and *ranks* as axes. The Collegium sanctions and promotes the modern notation described below, though the older traditional notation still is used by some players and clubs.

Files are the lines extending across the width of the board from one player toward the other. Modern notation letters each file starting with *a* on the moon player's left and ending with *i* on the moon player's right.

Ranks are the lines extending across the length of the board from left to right as viewed by a player. Modern notation numbers them 1 through 7, starting on the moon player's side and proceeding toward the sun player.

Customarily, file is listed first, then rank, though some very old writings may list rank first instead. In print the board usually is oriented with the sun player at the top and the moon player at the bottom.



The Astral Game

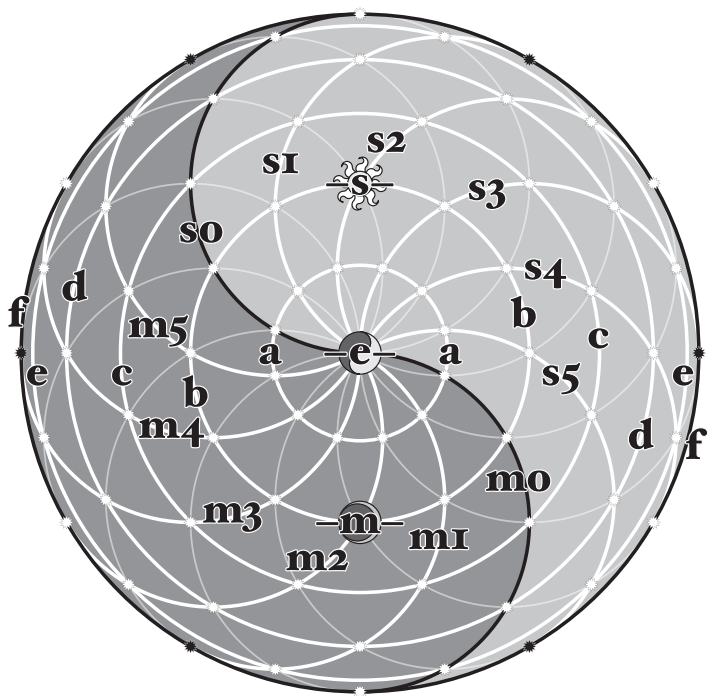
The astral game uses the *hours* and *spheres* as axes. Unlike terrestrial notation, astral notation has survived almost unchanged from its earliest beginnings. Originally the spheres used astronomical names, but this proved too cumbersome and was abandoned well before the modern era.

Hours are the arcs following the curves of the twilight line that divides the board in half, rotating around the board like the hands of a clock. The inner twilight line nearest the sun is labeled *so* (for “sun”); the inner twilight line nearest the moon is labeled *mo* (for “moon”). Numbering progresses clockwise with each arc, ending with *s5* and *m5*. (Arcs curving in the opposite direction, called *anti-hours*, are not used in notation.)

Spheres—named after the “celestial spheres”—are the concentric circles centered on the earth. They are lettered, starting at *a* for the innermost circle and progressing outward to *f* for the outer twilight line.

The Collegium generally lists hour first, then sphere, for the notational convenience that a number separates two letters. However, the reverse order is not unknown.

Heavenly bodies use the first letter of the body's name, surrounded by hyphens or en-dashes: The sun is noted as -s- or -s-, the moon as -m- or -m-, and the earth as -e- or -e-. ♦



Move Notation

A SIMPLE CODE HAS developed for use in both the astral and terrestrial games to write down moves in short form, for correspondence games, records of past games, and setting up game problems. Elements of the code are listed in order below, and may be separated by spaces for clarity.

Moves may be listed in sequence, as many as will fit on a line, but this can be hard to read. For ease of reading, a pair of moves or even a single move may be listed on each line instead.

A **move number** followed by a period comes first; each pair of moves (moon, then sun) is given the same move number. An ellipsis (. . .) or em-dash (—) after the first number in a series of moves indicates that the move was made by the sun player. This is useful when only a portion of a game is listed or commentary is interposed between moves.

The **moving piece** is listed using a capital letter to distinguish it from positions. E is used for earth pony, P for pegasus, U for unicorn, S for shooting star, and R (*royal*) for princess.

The **starting position** is listed using positional notation.

The **corner position** may be listed in parentheses for a piece “turning a corner” if a move otherwise might be unclear.

The **ending position** is listed using positional notation.

A **capture** is indicated with a leading x, the type of captured piece, and its position if necessary. If the capture causes a delayed promotion for the opponent, a plus sign (+) is appended.

An **immediate promotion** is indicated with the letter for the soldier that replaces the shooting star.

Placing a princess in **eclipse** is indicated with a circle (◉).

Banishing a princess is indicated with a filled circle (◐).

A period can be placed at the end of a move notation for visual separation from the next move.

A game that does not end in banishment—for example, a player resigns or runs out of time—is indicated with I–O (for a moon victory), O–I (for a sun victory), or ½–½ (for a draw).

Initial Deployment in the Astral Game

Initial deployment is listed similarly, using only the letter and position for each soldier or a single letter with four positions listed after. If the order of deployment matters, as it sometimes does when analyzing a game, a “move” number or, sometimes, lower-case letter may be prepended. A horizontal rule (line) may separate deployment from move listings.

Commentary

Explanatory or analytical statements may be inserted between moves in a game listing. In addition, a question mark may be used in place of a period at the end of a move notation if the writer believes the move to be a bad one; conversely, an exclamation mark may indicate a good, and often surprising, move. These marks may be doubled for exceptionally bad or good moves, or combined for moves that are ambiguous or may have mixed results. However, they are not part of the official recording code, and are not required.

An Example of Move Notation in Use

Below is a short astral game described using the standard move notation described on this page. The reader is invited to follow along, deploying and moving pieces according to the notation, to gain a familiarity with it and with the game. *[Author note: A sample game between real players, to take the place of the current algorithmically generated game, would be welcome.]*

a.	E m4a	P s3d
b.	U m3b	U s4b
c.	U m1a	E s1a
d.	E m5e	P s4a
e.	E m4b	U s5d
f.	P m1c	P s3b
g.	P m2c	E s2a
h.	P m4c	E s4d
i.	U m3d	U s4c
j.	U m3a	E s4e
k.	P m4d	P s1e
l.	E m4e	U s5c

01.	P m4c soc	S s5f moe	
02.	U m3d m2e	P s1e s3e	
03.	P m1c s5e	U s4b s2d	
04.	S m5f soe	E s1a m5b	
05.	U m1a soa	P s3d s5b	
06.	U soa m1a	P s3b m2a	
07.	U m1a mob	P s3e s2e	
08.	P soc sof	E s4e s5e xP	Sun captures pegasus
09.	S m1f m1e	R –s– s3b	Sun princess moves from sun
10.	S m1e m1d	R s3b –s–	Sun princess returns to sun
11.	R –m– m2d	R –s– s3b	Both princesses move
12.	R m2d –m–	E s5e moc	Moon princess returns to moon
13.	S m3f m3e	U s5d mod xS •	Sun banishes moon

Sample game courtesy “Relgukxilef” and “Lenkense”. ♣



Variants of the Games



IN THE MODERN ERA, a variety of new and imaginative developments have arisen to accompany the game. The best-known and most popular are *fairy pieces*, *fairy games*, and *game problems*.

Fairy Pieces

Fairy pieces are playing pieces not present in the standard game. They possess properties of movement, capture, or both that differ from normal pieces. A veritable menagerie of such pieces exists, though only a few of the most widely acknowledged fairy pieces are listed here and shown in the figures on the next page. Physical versions of fairy pieces are vanishingly rare, as they tend to be encountered mostly in game problems.

The **griffin** moves exactly two stars in a straight line (terrestrial), along an arc (astral), or “turning a corner”; it may not move only one star. It may “fly over” another piece during its move, but it captures in the same manner as an earth pony or shooting star, by ending its move on a star occupied by an opposing piece. This is one of the simplest and most common fairy pieces, and is encountered frequently in game problems.

The **dragon** normally moves a single star in any direction, and captures by ending its move on an opposing piece’s position, like an earth pony or shooting star. Rather than removing the captured piece, the dragon is stacked on top of it; no more than five captured pieces may be stacked under a dragon.

A dragon may move along an arc (astral) or in a straight line (terrestrial) as many stars as there are pieces in its stack, *including the dragon*, and may “fly over” a piece, but may not capture. Alternatively, it may move and “turn corners”, like an earth pony, half as many stars as there are pieces in the stack, rounding down; it may capture but may not “fly over”. The player may choose either method of moving at will.

A dragon without a stack may be captured normally. A dragon with a stack may sacrifice one piece in its stack instead of being captured; the sacrificed piece is removed from the board. If the capturing piece does so by moving onto the dragon’s star (such as an earth pony or shooting star), it stops one star short as if the dragon is an obstacle. A dragon that sacrifices may not capture on that player’s next move and may not sacrifice twice in a row—the whole stack is captured instead.

A physical dragon piece usually is designed for use with disk-shaped game pieces, as it would be unwieldy or impossible to stack any other type of pieces. Almost never does a game or problem allow more than one dragon per player.

The **changeling** also “stacks”, but works very differently. Without a stack, it may move two stars in a straight line (terrestrial) or along an arc (astral) but may not capture—or it may move one star and capture by landing on an opposing piece. The captured piece is placed on top of the changeling piece.

As long as the captured piece is on top, the changeling moves and captures as if it were that piece. Only one piece may be stacked on a changeling; when it captures a new piece, the player must retain the current stacked piece *or* immediately replace it with the newly captured piece. As with the dragon, a physical version works best with disk-shaped game pieces.

The **element** moves a single star in any direction; it may not capture nor may it be captured. A pegasus (or princess) can “fly over” it, but it is an obstacle in all other ways. *Either player may move it*, but once moved it may not move again until each player has taken another turn.

Once each player has made a move, that element is eligible to be moved again. A physical element playing piece usually is designed to be flipped upside down, signalling that it may not be moved. When it may move again, it is flipped right side up.

The **draconequus** may move to any unoccupied star on the board, regardless of distance or obstacles. It may not move to a heavenly body (astral) and it may not capture if it moves. If it does *not* move, however, it may capture one soldier or shooting star, opposing *or friendly*, on any neighboring star.

Like the element, either player may control it, and a physical piece usually is designed to be flipped over. A player may not control it on two of her turns in a row, but it may be controlled once by one player and once by the other player immediately after; then it would be off-limits for a turn to each player.

Fairy Games

The definition of a fairy game is that its rules differ from the standard games in at least one respect that is not accepted in a traditional or official codification. Thus, tournament regulations and regional versions of the original game are excluded.

Tournament rules, including time budgets and the game clocks used to enforce them, comprise a third category, separate from the basic rules for stand-alone matches and the inventive abundance of fairy rules and games. Whether surviving regional variants should be classified as fairy games or should receive official sanction instead is a hotly debated topic; the Collegium’s official position is to treat them as a fourth category. As with most compromises, many partisans on both sides of the debate seem to be left dissatisfied by this solution.

Now that it has been established what fairy games are *not*, one reasonably may ask what they *are*. Fairy rules may change the conditions of victory, how portions of the game board are treated, or indeed any other aspect of the game. The imagination, and the practicality of the result, are the only limits. Of course, the definition of “practicality” may depend on the object of the exercise: for a fully playable variant the standards are stricter than for a narrowly defined game problem.

Some fairy games use fairy pieces, while others restrict themselves to standard pieces—though the numbers or rosters of pieces may vary. Such variations in pieces constitute the most common class of fairy rules. In some cases, the mix is specified, but in others players may choose from a selection of pieces in much the same way they are free to deploy soldiers at the start of the astral game. Whatever the mix, each player usually, but not always, has the normal total of twelve soldiers.

Widely used tournament rules, regional variants, and fairy games may acquire their own names, usually as modifying words or phrases before or after *sun and moon*. The astral and terrestrial games are the most obvious and famous of these. ♦

Another is *sun and moon stop-and-go*, which imposes a short time limit within which a player must make her move. A player who fails to do so forfeits her move, effectively allowing her opponent to make two moves in a row. A more specific example is *sun and moon generals*, in which a princess may not move until after the first time it is placed in eclipse.

Game Problems

In simplest form, a game problem can be thought of as a logic puzzle. Part or all of the game board, with pieces in place, is shown—either on a normal diagram or, for the astral board, a schematic version such as the one shown earlier in this booklet. A required solution is stated, followed by any specific restrictions, requirements, or necessary additional information.

Fairy games and game problems, then, can be seen as two sides of the same coin. The greatest difference is scope: A fairy game is intended to be complete enough that it can be played through, just as an ordinary game can be. A game problem tends to be limited to a specified number of moves, and the rules governing it might not support a whole game.

A game problem may be completely orthodox—that is, using only the standard pieces and rules. Often this sort of problem portrays a game in progress, with one player or the other a few moves from winning. Other problems, however, involve fairy pieces, fairy rules, or unusual stipulations.

About the only aspect of the game that tends to remain unchanged in a game problem or a fairy game is the game board's lay-out. A game problem may focus on only part of it, a fairy game may alter the significance or use of elements on the astral board, but the board itself rarely if ever changes. Likely this is because the board, as much as the game pieces, is central to the game's identity. In their long history, both boards have undergone only minor transformation, the most recent being to differentiate, by color or shape, the stars on the astral board's outer twilight line where the shooting stars begin.

At least one legend recounts a celebrated game problem posed to the heroine, who solved it in an unexpected fashion (as is typical of such stories) and consequently was able to continue her quest. In more recent times, many daily newspapers run weekly columns posing game problems along with solutions for the previous week's problems.

There is insufficient space available in a small pamphlet to provide the reader with a representative sample of problems. However, a visit to the Collegium library, or indeed any local public library, should supply an ample selection of books and magazines devoted to the subject. ★

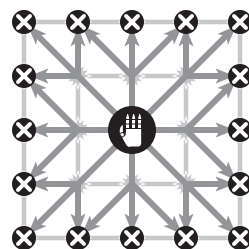


Figure 1. The movement and capture of the griffin in the terrestrial (above) and astral (right) games.

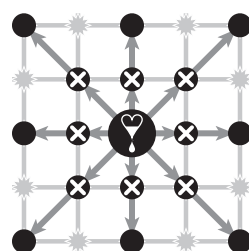
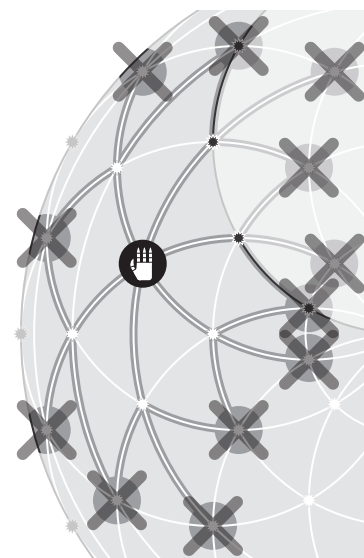


Figure 2. The movement and capture of the changeling—without a stacked piece—in the terrestrial (above) and astral (right) games.

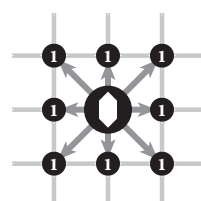
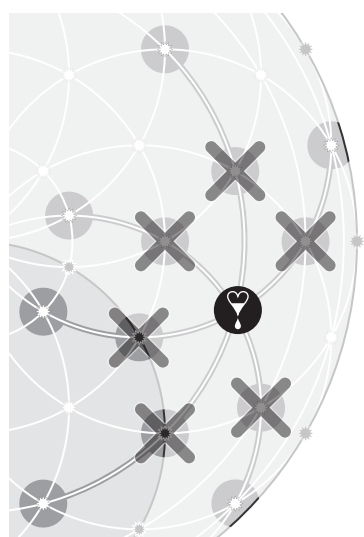


Figure 3. The movement of the element (or a dragon without a stack) in the terrestrial (left) and astral (right) games.

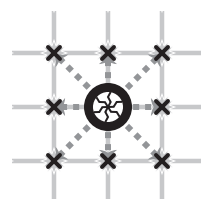
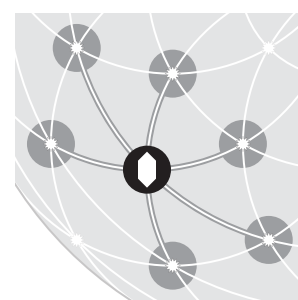
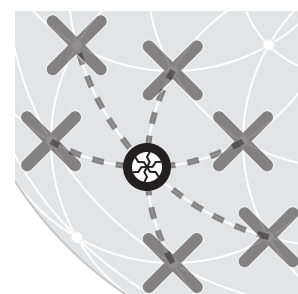


Figure 4. The capture of the dragonequus in the terrestrial (left) and astral (right) games.



A Set of One's Own

IN THE “REAL” COMPENDIUM, this section would be written from the perspective of a society in which mass-market versions of a popular game are starting to appear alongside traditional crafted sets. For readers in the real world, however, more appropriate ideas and suggestions are provided instead.

The Astral Game Board

The close spacing of the stars on the innermost sphere, and the size of the playing pieces, together dictate how large the astral board needs to be. If the outer twilight line is sixteen inches (40.64 cm) in diameter, the stars along the inner sphere are about one inch (2.54 cm) apart, so scaling up or down will affect the maximum comfortable diameter of the playing pieces. (A round format for the pieces is best because any polygonal shape's corners may interfere with neighboring pieces.)

Printing on label paper and gluing it to a substrate such as foamboard or chipboard is inexpensive and simple. Printing on card stock and laminating, then rolling and storing in a tube, is another easy solution, though curling can be a problem.

Silk-screening onto a round or square piece of heavy flexible material (such as plastic or fabric) or finished wood requires specialized equipment or a vendor. One color could suffice for a relatively inexpensive board, but multiple colors, probably over a white flood, would be fancier—and pricier.

For a wood blank, the best bet seems to be an eighteen-inch round, octagonal, or square tabletop. A cutting board or similar item tends to be more expensive than an unfinished tabletop *and* the finishing needed for it. Don't forget rubber feet!

Carving and/or inlay, whether of wood, metal, or stone, would be very expensive indeed, but this too could result in beautiful *objets d'art*.

The Terrestrial Game Board

The terrestrial board's square grid and rectangular shape make it very simple to print and use. A grid interval of one and a half inches (3.81 cm) puts the edge ranks nine inches apart and the edge files twelve inches apart, which allows the entire board to fit on one tabloid-size (11 by 17 inches) sheet—or even on a sheet that is 11 by 14 inches (27.94 by 35.56 cm), a standard size for art supplies. The distance from the center of one corner star to the center of the opposite corner star is fifteen inches (38.1 cm), so the terrestrial board can fit on the back of an astral board if one wants both to be available.

Any of the substrates described above for the astral board will work just as well for the terrestrial board: paper (laminated or not), card stock, label paper on board, plastic, fabric, or wood. For a wood “combination” board, be sure to put rubber feet on both sides; flat ones are less likely to interfere with play.

The Playing Pieces

The game-piece artwork posted that includes both circular and rectangular images was designed to be glued to decorative craft-store spools. This is inexpensive and uncomplicated; the height and edges of the spools make them easy to pick up and move.

Another possibility is using one-inch backgammon disks. The game-piece artwork posted that includes only circular images is designed to be glued to the simplest versions of these—flat disks without ornate faces. This is simple and attractive, but the pieces sometimes may be a bit difficult to pick up.

An interesting solution for a compact version, such as a travel set, is to use wooden push-pins as the bases for pieces, possibly with additional sculpture adorning the tops, and file off the points of the pins. Drill small-diameter holes in the compact game board, into which the pins would fit. The “peg holes” thus combat the major problem with compact games, which is the tendency for pieces to become disarranged.

Small molded toy figures are an obvious candidate. They'll fit just fine on a terrestrial board with a 1.5-inch grid, but they're too big for a sixteen-inch-diameter astral board. Instead, scale up the astral board by twenty-five percent, going from sixteen inches across at the outer twilight line to twenty inches, roughly the size of a competition chessboard. The PDF files are vector artwork, so there shouldn't be any loss of image quality.

Most of the molded toys aren't very stable and tend to fall over, so they should be attached to bases. In many cases, there's a molding hole on the underside of a hoof—generally a back hoof—an eighth of an inch in diameter and three-sixteenths of an inch deep. A dab of glue could be put into it and the hole slipped over a matching peg affixed firmly to a sturdy wood or metal disk. Needless to say, the figures should be customized with paint jobs and possibly sculpting to suit.

Fancier and more dignified is to modify chess pieces. Full-size Staunton chess pieces will fit on a terrestrial board with a 1.5-inch grid, but are a bit too big for a sixteen-inch astral board. The astral board can be scaled up as described above, or slightly shorter and squatter “analysis pieces”, for use on smaller boards to work out chess problems, can be used instead.

Unmodified pawns are just fine for shooting stars and unmodified knights will work for earth ponies. For unicorn and pegasus soldiers, alicorns and wings would have to be designed, fabricated, and attached, if one is sufficiently handy. For the princess, headgear also is needed, and it may be useful to make the piece taller by sawing off the knight's base and attaching one of the other bases, such as a rook or queen.

Buying enough sets of chess pieces to provide the knights needed for soldiers and princesses can get expensive, so shop around for suppliers who are willing to sell pieces individually or in bulk. Generally such pieces will be molded plastic rather than wood, which is less expensive but may be tricky to work with. Use caution when cutting, sanding, or drilling.

A dedicated craftsman could produce a carved or sculpted set, or exemplars for molds. Simplest would be one pattern for each piece type, a middle tier would be a sun and moon pattern for each type, and most elaborate would be a pattern for every piece. The results could be breathtaking—especially if soldiers and princess are clad in barding and painted or enameled. The sun pieces could be gold on white or red, and the moon pieces could be silver on black or blue. ♦