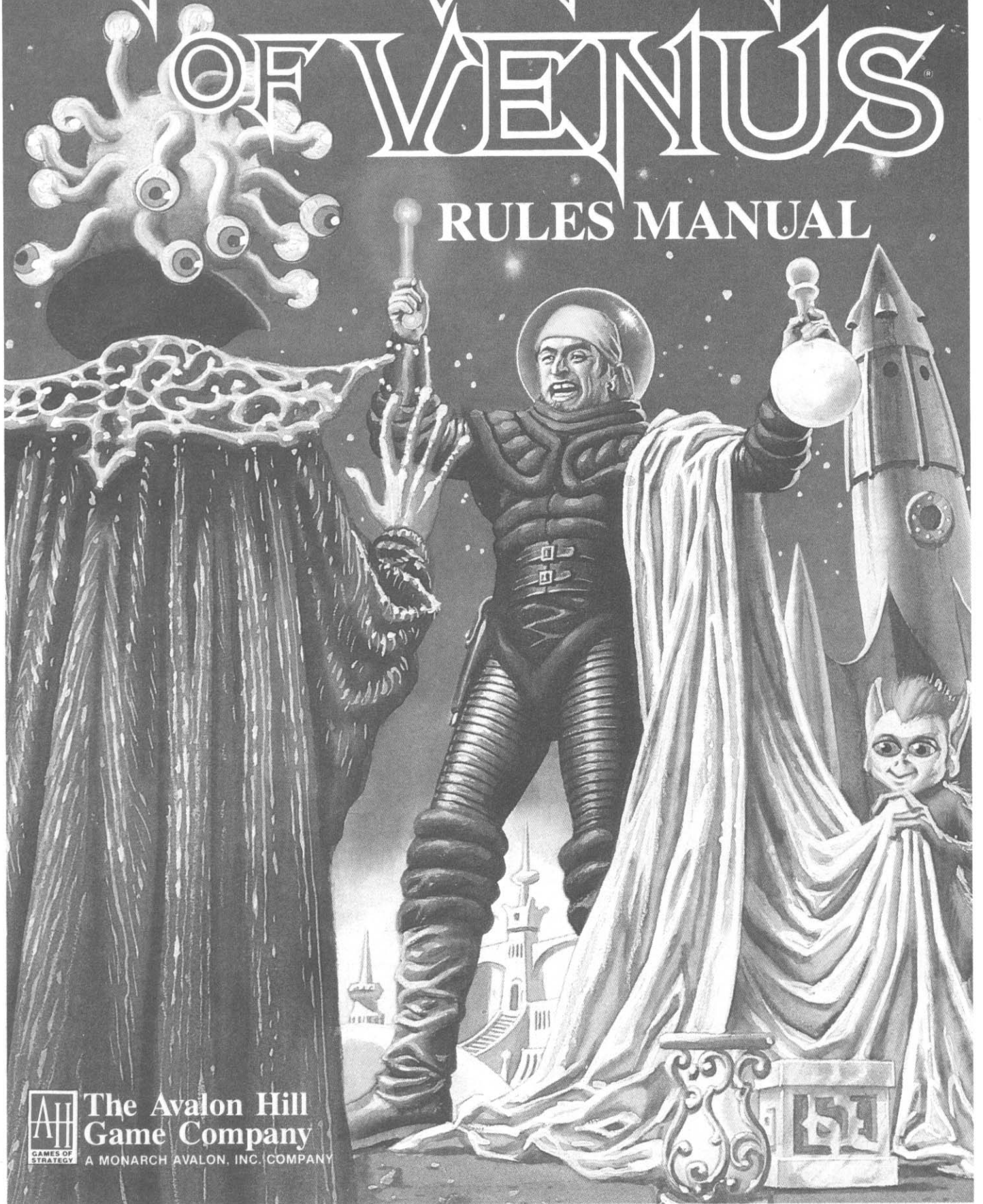


MERCHANT OF VENUS

RULES MANUAL



The Avalon Hill
Game Company

GAMES OF
STRATEGY

A MONARCH AVALON, INC. COMPANY

INTRODUCTION

Each player assumes the role of a merchant from a different species. All players start at the Galactic Base with the Cultures and other remnants of the First Empire hidden on the map. Players take turns, going in clockwise order around the board. Each time a player takes his turn, he rolls the dice to see how many dots he can traverse, and then moves by following the paths from dot to dot. When he moves onto a City, Spaceport, or Asteroid, he can land. When he lands at a City or Spaceport, he can trade with the Culture that inhabits it. When he finishes moving and trading, his turn ends. The first player to accumulate a Net Worth of at least \$2,000 during his turn wins.

The *Gazetteer of the Cluster* section briefly explains the worlds, cultures, trade goods and merchants in more detail. Reading the Gazetteer is not necessary to play the game, although it does clarify a few fine points.

CONTENTS

Players should locate and examine the various game components as they read to help understand the rules.

- one 22"×24" mapboard
- four six-sided dice
- two die-cut Marker sheets
- 12 ship cards
- 6 pawns
- 6 Reference Cards
- 39 Deeds
- Play Money (in denominations of 1, 5, 10, 20, 50, 100, 500)

QUESTIONS:

We regret that we cannot answer game questions by phone. However, we will try to answer all reasonable queries by mail provided you observe the following requests:

1. All questions must be accompanied by a stamped, self-addressed envelope bearing uncancelled U. S. postage sufficient for first class mail. Foreigners unable to secure U.S. postage may purchase an International Reply Coupon sufficient for return postage from their local Post Office. Questions cannot be returned inside other ordered merchandise—keep your questions separate from orders.
2. Do not ask questions for more than one game. If your letter has to go from one designer to another, the chances of it being lost or delayed are greatly increased.
3. Do not ask questions on design or historical subjects. This type of material is best covered in our magazine; *THE GENERAL*. Purchase of the recommended special feature issue of *THE GENERAL* covering that game is recommended.
4. Do not quote map references. You must provide us with a diagram of any question requiring reference to the board.
5. Do not ask us to rewrite a rule for you or to explain it in other terms. We cannot take the time to write individual essay responses to vague questions, nor can we possibly do so with any better results than the version you currently possess which underwent several carefully prepared drafts. Therefore, please phrase your questions in a Yes/No format and refer to the proper rule numbers when posing a question.
6. Please take the time to see if you can answer your own questions. Most questions we receive are clearly answered in the rules. When writing to us, pose your questions carefully—most that we receive are so ambiguously worded that it is impossible to give a precise answer.

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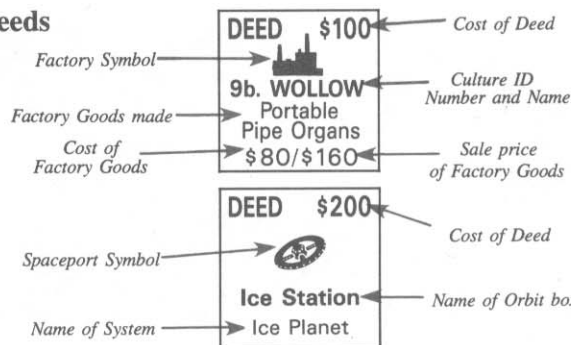
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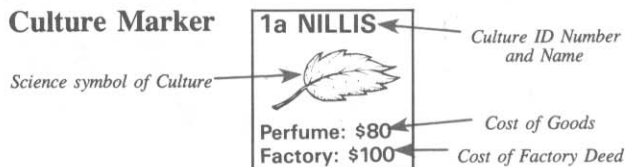
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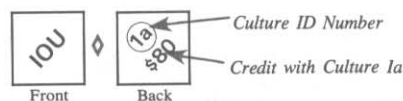
Deeds



Culture Marker



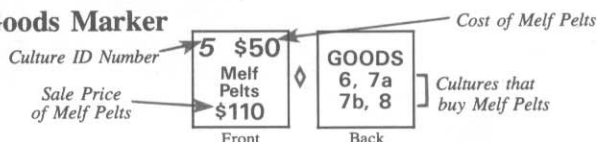
IOU Marker



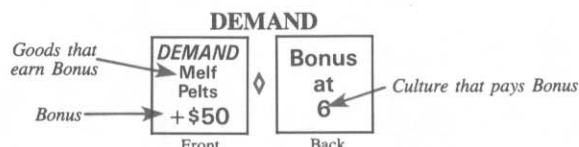
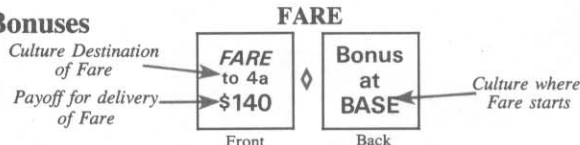
Factory Goods Marker



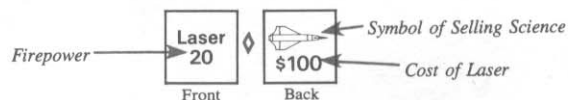
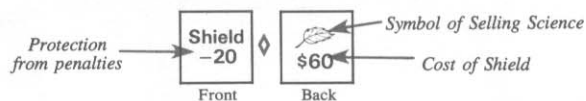
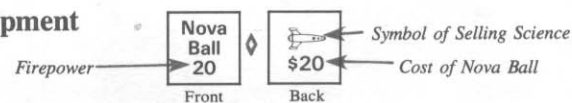
Goods Marker



Bonuses



Equipment



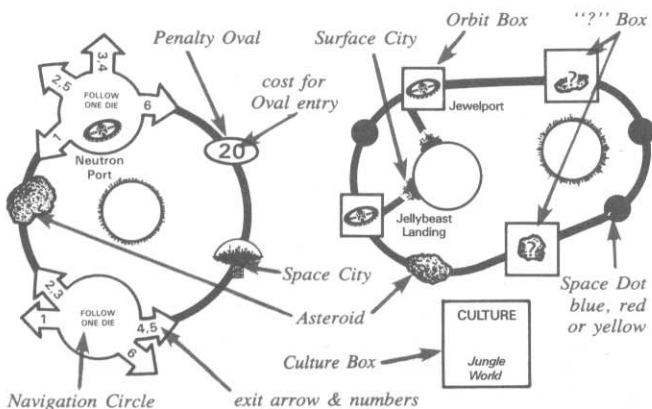
RULES OF PLAY

1. THE MAPBOARD

1.1 GALACTIC BASE: All players start the game in the Galactic Base, which is the entrance to the mapboard from the outside galaxy. Although all Space City symbols look alike, there is only one Galactic Base.

1.2 STAR SYSTEMS: The mapboard portrays a cluster of Star Systems. Each is separated from the others by the black void of space but is connected to adjoining Star Systems by paths of dots of varying colors. Each inhabited Star System is named by the adjoining Culture Box which houses a hidden civilization. Two Star Systems (Super Giant and Super Nova) have no Culture Box and are therefore uninhabited.

1.3 MOVEMENT DOTS: All space dots, Penalty Ovals, Asteroids, “?” Boxes, Navigation Circles, Orbit Boxes, Space Cities, and Surface Cities on the paths are “Movement Dots”. Surface Cities are on planets. All other Movement Dots (including Space Cities) are in space. The color of each Space Dot and Penalty Oval affects how Hyperjump Drives work there (see 8.2).



SPACE DOTS/ORBIT BOXES represent empty space that players occupy as they move their pawns.

PENALTY OVALS are radiation hazards that affect trespassers.

NAVIGATION CIRCLES represent navigational hazards that restrict a ship's movement.

ASTEROIDS are uninhabited rocks large enough to land on.

“?” BOXES are uninhabited rocks containing artifacts of the First Empire.

SURFACE CITIES/SPACE CITIES are where the native Cultures of each Star System reside. The only difference in game terms between a Surface City and a Space City is that the former requires more MP to enter and exit (see 5.21).

1.4 ORBITS: Orbits are located within Movement Dots (either Orbit Boxes or Navigation Circles). They represent areas above the Cities suitable for building Spaceports. Each Orbit is a site where a Spaceport can be built during the game and is labelled with the name of the Spaceport that can be built there. Each Orbit is also a place from which the local Culture can be observed without *discovering* (see 7.3) it.

1.5 SURFACE CITIES: The paths define which dots connect to each other. Stars and planets that do not connect to paths are ornamental only; they do not affect play. Each Surface City is at the end of a path. Paths do not run along the surface of a planet from City to City.

2. THE PLAYING PIECES

2.1 BASIC GAME PIECES: The cardboard playing pieces are referred to as “markers”. Remove the Fort, Laser, Nova Ball, and Rastur markers from play; they are used only when playing with the Optional Rules (15 and 16).

2.2 MERCHANTS: Each player receives a Merchant pawn which represents his spaceship, 12 Spaceport/Factory markers of the same color, and a Reference Card representing his species. Each Spaceport/Factory marker represents either a Spaceport or a Factory, depending on the side of the marker which is face up.

2.3 MONEY: Money represents “interstellar credits” that the players earn and spend as money. All prices and penalties in the game are expressed in terms of money.

2.4 CULTURES: The Cultures are species of beings who engage in trade. Each Culture has an identifying number (*hereafter referred to as ID*) and a “Science” symbol. Each Culture's Science defines the ships and Equipment it buys and sells (see Reference Card). Each Culture is represented by a Culture marker and an IOU marker. The ID number on each marker identifies which Culture it belongs to. The 14 Cultures are hidden at start and discovered during play.

2.41 IOU MARKER: An IOU marker is put in each Culture Box, face down, to represent the hidden Culture in that System. The player who discovers the Culture takes its IOU as his reward; the IOU can be used to buy things from that Culture up to the amount printed on the IOU.

2.42 CULTURE MARKER: When a Culture is discovered, its Culture marker is put in that Star System's Culture Box. It shows the Culture's name and ID Number, a symbol for its Science, the Goods it sells, the cost of its Factory, and (on the back) a depiction of a creature from that species.

2.5 TRADING PIECES: Goods and Equipment markers, ship cards, and Deeds are “trading pieces” that players can buy from the various Cultures.

2.51 Goods and Factory Goods markers are pieces that the players buy and sell to make money. Each marker represents one load of merchandise that can be bought from one Culture and sold to another. The marker shows the ID Number of the Culture that sells it, a low price (its cost), and a higher price (the payoff you get for selling it to another Culture). The back of the marker lists the ID Numbers of the Cultures that buy it. The buyers of Goods are always restricted to the next three ID Numbers after the seller's ID Number. “1” is the next number after “10”.

EXAMPLE: Goods numbered “9a” or “9b” are bought only by those Cultures numbered “10”, “11”, or “12”. The “9b” Culture will *not* buy Goods from the “9a” Culture.

2.52 EQUIPMENT: The various Drive and Shield markers are Equipment sold by certain Sciences. The back of each marker shows its cost and the symbol of the Science that sells it. Each Equipment marker has a “trade-in” value equal to half of its cost. The “-20” on the Shield marker has nothing to do with its cost; it is a reference to the Shield's power to subtract from any penalties its owner must pay.

2.53 SHIP CARDS: Each side of the card represents a *spaceship* (*hereafter referred to as “ship”*). The card shows the ship's speed (the number of dice it entitles its owner to roll; two, three, or four), how much it carries, its cost, trade-in value, and the Sciences that sell it.

2.54 DEEDS: There are no Spaceports or Factories on the map at the start of play. A Deed entitles a player to build the cited Spaceport or Factory. Each Deed shows the cost of its construction and names a place where a Spaceport or Factory can be built. When a player buys a Deed, he is actually paying that Culture to build a Spaceport or Factory in its System. Once placed, each Spaceport/Factory marker remains stationary for the rest of the game. Once purchased, every Deed should be displayed before its owner as a visible means of estimating his Net Worth.

2.541 SPACEPORTS: One Spaceport can be built in each Orbit. Each Spaceport Deed names one Orbit and the Star System where that Orbit is located.

2.542 FACTORIES: Only one Factory can be built in each inhabited Star System. Each Factory Deed names one Culture and the Factory Goods they sell as well as the cost and payoff values of those Factory Goods.

DEED \$100

1a. NILLIS
Guard Plants
\$60/\$140

1a \$60

Guard Plants
\$160

FACTORY GOODS

2, 3
4a, 4b

2.6 BONUSSES: Bonus markers provide greater payoffs for selling Goods or delivering Fares.

2.61 FARES: Each Fare represents a passenger who will pay a fee to be taken to a specific Culture. The front of the marker lists its destination and the fee it pays; the back identifies the Culture where the Fare must be initially placed when drawn from the cup (2.7).

2.62 DEMAND: Each Demand marker adds a bonus to the payoff that a specific Culture will pay for certain Goods. The front of the marker names the Goods and bonus, and the back lists the Culture where this bonus is placed when put into play.

2.7 THE BONUS/GOODS CUP: During play, the Bonus and Goods markers (including Factory Goods) are mixed together in a cup. All bonus markers start the game in the cup out of play; Goods and Factory Goods markers are added only as they are sold to the Cultures. Each time a marker is put in the cup, a marker is drawn from the cup and placed with the Culture listed on its back.

2.8 “?” MARKERS: Before the game, one face down “?” marker is put in each “?” Box on the map; these markers represent hidden artifacts that survived the fall of the First Empire. The 11 remaining “?” markers represent things that did not survive the fall of the Empire and are removed from play without being revealed.

2.81 RELICS: Each Relic is an abandoned Equipment marker that can be picked up for free if the ship lands in that “?” Box (thereby ending its turn). The front of each Relic marker shows the cost to buy it from a Culture (if it has been bartered to that Culture). Its trade-in value is half of this cost.

2.82 FEATURES: The other “?” markers represent structures too large to be moved. Some are hazards, others are helpful.



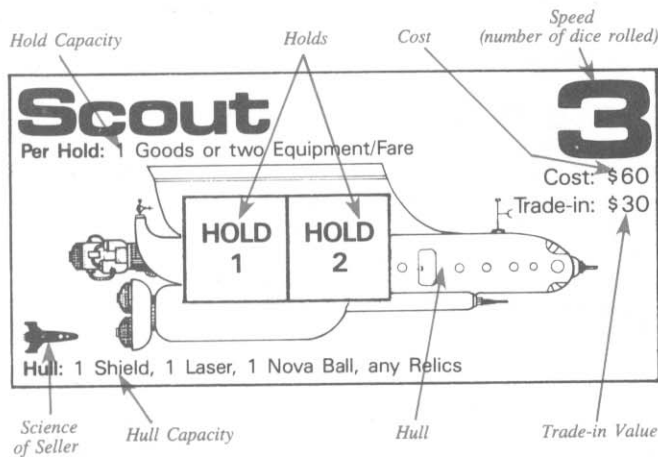
Penalty Marker

3. MERCHANTS & SPACESHIPS

3.1 ROUTINE: Each player moves his pawn on the map to trace his movement and trades to acquire money, Goods, Equipment, a better ship, and Deeds. Players may pick up Fares, unowned Relics, and IOUs for free by landing and ending their turn where they are located.

3.2 DISCLOSURE: Each player displays his money and markers off the map in plain view before him, and must reveal exactly what he owns, including his money, whenever asked.

3.3 DISCOUNTS: Each player's Reference Card lists the trading pieces sold by each Culture. It costs a player 20% less to buy Factories and Spaceports from his own species. This discounted price is listed on his Reference Card.



3.4 SHIPS: Each player starts with a Scout Ship and may own only one ship at a time. Other ships can be purchased, but each time a player buys a new ship he must trade in his old one.

3.41 There are two ship cards for each player, representing the four different ships he can own: either a Scout, Clipper, Transport, or Freighter.

3.42 SPEED: The large number on each ship card is the number of dice (two, three, or four) the player must roll when he moves.

3.43 CAPACITY: Each player must use his ship (which has a limit to the amount of Goods, Equipment, and Fares it can transport) to carry his markers; he must put every Goods, Equipment, and Fare marker he owns on his ship card. If his ship does not have the capacity to carry all of his markers, he must jettison excess markers of his choice without compensation (see 11.3).

3.431 HOLDS: Each Hold box on a ship can carry one Goods marker or two other markers (either two Equipment markers, or two Fares, or one Equipment and one Fare marker).

3.432 HULL: Each ship can carry one Shield and unlimited Relics (plus one Laser and one Nova Ball when using the optional Combat rules) on its Hull. Only one Shield can be put on the Hull; any extra Shields, and all Goods, Fare, and Drive markers must be carried in the Hold boxes [EXCEPTION: all Relics must be put on the Hull; a Hull can carry the Relic Yellow Drive, as well as the Relic Shield, in addition to a normal Shield].

3.433 PAPERWORK: Money, IOU, and Deeds are not put on Ships and take up no space.

3.44 SHIP EXCHANGE: Whenever a player changes ships he transfers all of his markers, including Hull and Hold Equipment, from his old ship to his new one.

4. SEQUENCE OF PLAY

4.1 PREPARE FOR PLAY: Select one player to act as the Banker who will keep track of the Bank's money and markers. Except for the Relics and each player's Initial Stake (4.3), all Deeds, money, ships, and Equipment start in the Bank.

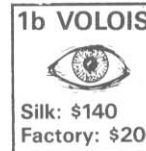
4.11 “?” MARKERS: Mix all the “?” markers together face down. Then, picking them at random, put one in each “?” Box on the map. Remove the 11 remaining “?” markers without revealing them; they will not be used.



4.12 IOU MARKERS: Mix the 14 IOU markers together face down. Then, placing them at random, put one (still face down) in each Culture Box.



4.13 CULTURE MARKERS: Line up the 14 Culture markers off the map in an area visible to all players. Put each Goods marker with the Culture that sells it. Place the Factory Goods aside until the associated Factory has been built (see 12.31).



4.14 BONUS MARKERS: Put all the Bonus markers in a cup and place it to one side. These markers will be randomly drawn during play.



4.2 STARTING PLAY: Each player rolls two dice with the player rolling highest selecting the merchant of his choice and taking that species' Reference Card, and matching pawn of the same color which he places in the Galactic Base. He moves first. Thereafter, play proceeds to the left; each time one player ends his turn, the player to his left begins his.

4.3 INITIAL STAKE: Besides his pawn and matching Reference Card, each player receives the 12 Spaceport/Factory markers and a Scout ship card of the same color plus \$20 for every player in the game. Thus, in a three-player game, each player receives \$60; in a four-player game each player starts with \$80, etc.

4.4 TAKING TURNS: Each time a player takes his turn, he can move his pawn, and then trade (if he ends his movement at a location where trading is allowed). If he is on a Spaceport or City at the end of his movement he can trade there, whether he moved that turn or not. He can never move in the same turn after trading. When he has finished moving and trading, his turn ends.

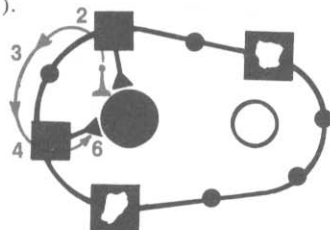
4.5 ENDING THE GAME: The first player to have a Net Worth of at least \$2,000 in money/Deeds at the end of his turn wins.

5. MOVEMENT

5.1 The only time a player can move is at the start of his turn. He moves by moving his pawn along the paths from Movement Dot to Movement Dot. He must follow the paths and he must move to the next Movement Dot along his path; he cannot skip dots (unless he has a Drive; see 8.2). He can move along each path in either direction.

5.2 MOVEMENT POINTS (MP): A player must spend *Movement Points* (hereafter referred to as *MP*) each time he moves from one Movement Dot to another. At the start of his turn, he rolls the dice to see how many MP he can spend that turn. The number of dice he rolls is defined by his ship card; a Clipper rolls four dice, a Transport or Scout rolls three dice, and a Freighter rolls two dice. After being rolled, the movement dice should not be picked up until the next player declares his opening move (so that the dice roll remains unaltered for possible reference).

5.21 MOVEMENT COSTS: The player must spend one MP each time he moves from one Movement Dot in space to another Movement Dot in space. Due to atmosphere and gravity, he must spend two MP each time he moves to or from a Surface City; when he has only one MP left, he cannot move to or from a Surface City (except with an Air Foil; see 8.41).



EXAMPLE: He must spend six MP to move from one Surface City on the Polluted Planet Culture to the other: two MP to move from the first Surface City to the first dot in space, two MP for two moves in space, and two MP to move from the last dot in space to the second Surface City.

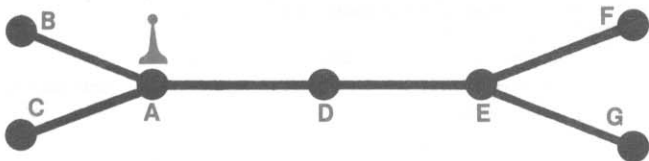
5.22 ENDING MOVEMENT: If the player is trapped (see 5.32) such that he cannot make a legal move, he loses his remaining MP. He also loses any remaining MP for his current turn whenever he lands (see 6.2), or stops on a Penalty to avoid paying that penalty (see 6.3). When a player has spent or lost all of his MP, he ends movement for the turn.

5.23 INERTIA: A player cannot stop moving while in space if he has MP remaining. He must keep moving until he lands, or spends/loses all of his MP.

5.3 CHOOSING ROUTES: The player must specify the first dot he will move to before he rolls any dice. He can choose the rest of his route as he moves, except that he cannot reverse direction along the same path in the same turn.

5.31 DECLARATION: The player can choose any path that leads away from his presently occupied dot. After rolling the dice, he must start by moving to his declared first dot if allowed to by his dice roll. If his dice roll does not allow him to move to the dot he declared, his announcement is void and he is free to move to any dot that his dice roll allows. If he rolls the dice without specifying a dot, his dice roll does not count and he must roll again, after he makes a proper declaration.

5.32 BACKTRACKING: A player can move along a path in one direction on one turn, and in the opposite direction during another turn. However, once he moves along a path in one direction, he cannot move back along that path in the opposite direction during the same turn; he can use the same path again in the same turn only if he moves in the same direction each time he uses it (thus moving in circles). If he cannot move without backtracking, he is trapped and must stop. For example, he must stop when he moves to a Surface City (unless equipped with an Airfoil; 8.41), because he would have to backtrack in order to leave.



EXAMPLE: The player starts on dot "A", so he can specify "B", "C", or "D" as his first move. He specifies "D", rolls the dice, and moves there. He cannot go back to "A" because he has already moved the other way along that path, so his next move must be to "E". At "E" he cannot backtrack to "D", but he can go to either "F" or "G" and continue his move from there.

5.4 OTHER PLAYERS: Players do not affect each other during movement (unless using the Optional Combat rules; see 15.43). They can move over each other and occupy the same Movement Dot without effect.

6. EFFECTS OF MOVEMENT DOTS

6.1 "???" BOXES: When a player moves onto a face down "???" marker, he turns it face up permanently and leaves it in its "???" Box. The "???" marker defines how the "???" Box affects play. The marker goes into effect as soon as a player turns it face up; if it is an Open Spaceport or Asteroid he can land there, or if it inflicts a penalty he suffers the penalty (or ends his move; see 6.3).

6.11 RELIC: If the "???" marker is a Relic, the "???" Box is an Asteroid and anyone who lands there can pick the Relic up for free.

6.12 NON-ASTEROIDS: If the "???" marker is an Open Spaceport, Tele Gate, or Penalty Marker, the dot is *not* an Asteroid. The revealed "???" marker stays in the "???" Box for the rest of the game (unless eliminated by combat when using the optional Combat rules; see 15.52) to show what effect the "???" Box has. An Open Spaceport is inhabited by the same Culture that inhabits the Cities in its System. Penalty markers are old weapons that automatically attack all passing players (see 6.3). Each Tele Gate is a machine that teleports players to other Tele Gates (see 6.5).

6.2 LANDING: Each time a player moves onto a Spaceport, City, or Asteroid, he can land there. If he lands, he loses his remaining MP and ends his movement. Players can land only on Spaceports, Cities, and Asteroids. Players cannot land on an Orbit until a Spaceport has been built there.

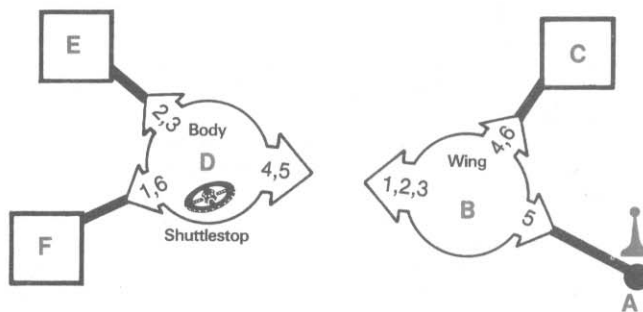
6.3 PENALTIES: Each time a player moves onto a Penalty Oval or a Penalty Marker, he must either pay the Bank the amount of money printed on the Penalty (minus any amount saved by Shields; see 8.3), or stop moving. If he pays the Penalty to the Bank, he keeps moving. If he stops on the Penalty, he pays nothing, but can move no further during that turn. If the player does not have enough money to pay the penalty, he must stop. If a player starts his turn on a Penalty, he must pay the penalty *or* move away.

6.4 NAVIGATION CIRCLES: Each time a player leaves a Navigation Circle, the Circle's exit arrows define the path he must use. He must choose a "Pilot Number", and when he leaves the Circle he must follow the arrow that contains his Pilot Number, moving along the path that arrow points to. The "Body" and "Wing" Circles in the Cloud are connected by an invisible path. If a player is in one of these Circles when his Pilot Number points to the other, he jumps to the other Circle. Like all moves in space, this move costs one MP.

6.41 PILOT NUMBER: To choose a Pilot Number, the player selects one of the numbers he rolled at the start of his turn (he does not roll again). He can choose only one Pilot Number per turn: once he chooses a Pilot Number, he must use it each time he leaves a Circle that turn (unless he has the Switch Switch Relic; see 8.46).

6.42 If a player starts his turn in a Navigation Circle, he can point out any dot leaving the Circle as his first move. After rolling the dice he *must* choose a Pilot Number that sends him to the dot he designated if he rolled that number. If none of the numbers he rolled sends him to the dot he selected, he ignores the move he declared and chooses any Pilot Number he did roll. He must move where his new Pilot Number sends him.

6.43 A Circle's exit arrows never prevent a player from entering that Circle; instead they define how he can leave it. If a player enters a Circle on a path and his Pilot Number directs him to leave along that same path, he stops in the Circle (because he cannot backtrack).



EXAMPLE: The player at "A" specifies "B" as his first move and rolls a "1", "3", "5", and "6" on the dice. After moving to "B" he must choose a Pilot Number for his next move. If he chooses the "6" he rolled, he moves to "C". If he chooses the "5" he stops moving until his next turn, because he cannot backtrack to "A". If he chooses the "3", he jumps to Circle "D", and then moves to "E"; he must use the same Pilot Number in both Navigation Circles. If he chooses the "1", he jumps to "D" and then moves to "F".

6.5 TELE GATES: When a player leaves a Tele Gate marker, the exit numbers on the other face up Tele Gates define where he goes. He must choose a Pilot Number and he must jump to the Tele Gate (if any) that shows his Pilot Number. Like any move in space, this jump costs one MP. If his Pilot Number is not shown on any face up Tele Gate, or if he is already on the Tele Gate that shows his Pilot Number, he moves away normally along a path.

EXAMPLE: If his Pilot Number is "6", he jumps to Tele Gate "6". If he is already on Tele Gate "6", or if Tele Gate "6" is not face up, then he moves away along a normal path.

6.51 The player must use the same Pilot Number for Tele Gates that he uses for Navigation Circles that turn (unless he has the Switch Switch Relic; 8.46).

6.52 A player starting his turn on a Tele Gate (or using the Relic Jump Start; see 8.43) can designate another face up Tele Gate or a normal move along any connecting path. After rolling the dice he must choose a Pilot Number that sends him to the declared dot if he rolled a number allowing it. If not, he ignores his declared move and is free to choose any Pilot Number he did roll.



7. FINDING CULTURES

7.1 SETUP: One IOU marker is randomly put in each Culture Box to identify the Culture that lives in that Star System. Hidden Cultures are represented solely by their IOUs. As long as a Culture is hidden, its IOU remains face down in its Culture Box. Once a Culture is discovered, it is represented by placing its Culture marker in its Culture Box.

7.2 OBSERVATION: Each hidden Culture can be observed from the Orbits in its System. When a player moves onto an Orbit in a System that contains a face down IOU, he *observes* the Culture without *discovering* it by privately looking at the IOU and returning it to its Culture Box, face down, without revealing it to the other players. Each Culture can be observed *only* from Orbits in its own System; Observation is not allowed from a Space City or Open Spaceport [EXCEPTION: Spy Eye, see 8.45].

7.3 DISCOVERY: The first player to land on a Spaceport or City in a System discovers the Culture in that System and receives its IOU as a credit. Each Culture can be discovered only once per game. The Goods and any already-drawn Bonus markers associated with that Culture are placed next to the Culture marker, away from the paths.

8. USING EQUIPMENT

8.1 OUTFITTING SHIPS: Equipment can be purchased from certain Cultures to enhance a ship's capabilities.

8.2 DRIVES: Each Drive allows a ship to "hyperjump" over certain colored Space Dots, Penalty Ovals, and Penalty Markers as it moves. It does not pay MP or penalties for Movement Dots it jumps over. If a player has a Red Drive, he skips over red Space Dots, red Penalty Ovals, and red Penalty Markers. If he has a Yellow Drive, he skips over yellow Space Dots, yellow Penalty Ovals, and yellow Penalty Markers. If he has a Combined Drive (or both a Red and a Yellow Drive) he skips over all Space Dots, Penalty Ovals, and Penalty Markers that are either red or yellow.

8.21 DECLARATION: When a player announces the first dot he will move to at the start of his turn, he must announce a dot that he will actually occupy, not one he will jump over.

8.22 "??" BOXES: If a player moves onto a face down "??" marker and finds that it is a colored Penalty Marker which he must skip over, it remains face up (even though it does not affect him) and he immediately skips to the next dot at no extra movement cost.

8.23 SHUTTING DOWN DRIVES: Before he rolls the dice to move, a player may declare he is turning off any of his Drives. All Drives he does not specify as being off before rolling the dice are considered automatically on throughout the turn. A player cannot turn off just one color of a Combined Drive; if he turns it off he loses both the red and yellow bonus.

Yellow Drive

Red Drive

Comb. Drive

8.3 SHIELDS: Shields protect against Penalty Ovals and Penalty Markers. Each Shield carried by a ship subtracts \$20 from any penalty it must pay (down to a minimum of 0). The player can still stop even if his Shields reduce the penalty to 0 (6.3).

EXAMPLE: A player with a Shield moves onto a \$30 Penalty Oval. He can either pay \$10 and continue to move, or stop and pay nothing. If he had two Shields, he could continue to move without paying anything.

8.4 RELICS: There are ten different Relics which can be found in the "??" Boxes during play. Each has a different effect. The Relic Yellow Drive, Laser, and Shield function normally except that they are carried free on the Hull and do not use Hold space (see 3.432).

8.41 AIR FOIL: The Air Foil allows a ship to move directly from one Surface City on a planet to an adjacent Surface City on the same planet as if the Cities were adjacent dots. This allows a player to move to a City without landing so that he can skirt the surface of the planet to another City. It also reduces the cost for moving to or from a Surface City from two MP to one.

8.42 AUTO PILOT: The Auto Pilot allows a player to roll one less die than he is entitled to and to automatically consider that missing die roll a "4". The "4" Auto Pilot die roll adds to his MP allotment and can be used as a Pilot Number. If the player does not wish to use the Auto Pilot, he merely rolls all the dice he is entitled to. The decision as to whether or not to use the Auto Pilot must be made prior to rolling the dice and is declared automatically by rolling the appropriate number of dice.

8.43 JUMP START: The Jump Start allows a player to start each turn by jumping directly to a Tele Gate providing he declares and makes it the first move of his turn. To use it, he declares a face up Tele Gate as his first move. If he rolls the number on this Tele Gate, he must choose it for his Pilot Number. If he does not roll that number, he must choose a Pilot Number he did roll. If his Pilot Number is on a face up Tele Gate, he must jump to that Tele Gate. This jump costs normal MP expenditures: two MP if from a Surface City (one MP if also equipped with an Air Foil; see 8.41), or one MP if from any other dot. If his Pilot Number is not on a face up Tele Gate then the Jump Start does not work, and he moves away along a normal path in any direction he chooses within the limitations of his already declared Pilot Number.

8.44 MULLIGAN GEAR: The Mulligan Gear allows a player to reroll any one of his dice, but only *immediately* after their initial roll during each turn, *before* he picks his Pilot Number for that turn or begins to move. He can choose any one of the dice he rolled for the reroll—including the Auto Pilot—but he can reroll only one die per turn. Once he rolls the die, he must use the new roll; he cannot use the original roll. He cannot choose to activate the Auto Pilot as his reroll.

8.45 SPY EYE: Each time a player with the Spy Eye occupies or skips over a dot that is next to a face down "??" marker, he may inspect that "??" marker without revealing it to any other player. The Spy Eye also allows a player to *observe* (see 7.2) the Culture in the System he occupies from any dot in that System. A Spy-Eye equipped ship skipping over a dot, spies from that dot as if it occupied the dot and may alter the dot it will jump to based on the results of what it observes.

8.46 SWITCH SWITCH: The Switch Switch allows a player to change his Pilot Number any time he wishes. He cannot change his dice roll, but he can change which die result is his Pilot Number. He can change his Pilot Number any number of times each turn.

8.47 GATE LOCK: A player in possession of the Gate Lock may at the outset of *his* turn before rolling his Movement dice declare *all* Tele Gates off for the balance of *his* turn. A non-functioning Tele Gate is treated as a blue dot.

8.48 LASER: The Relic Laser performs no function in games not using the optional Combat rules (15). However, it may still be picked up and bartered like any other Relic.

Shield
-20

RELIC
Air Foil
\$80

RELIC
Auto Pilot 4
\$80

RELIC
Jump Start
\$120

RELIC
Mulligan Gear
\$120

RELIC
Spy Eye
\$100

RELIC
Switch Switch
\$100

RELIC
Gate Lock
\$100

RELIC
Laser 20
\$100

9. TRADING WITH CULTURES

9.1 All of the Goods, Deeds, and Equipment are initially owned by the Cultures and can be obtained only by trading with them. Each time a player ends his turn at a City or Spaceport, he can trade with the Culture that inhabits it at the end of his turn. He can buy only what that Culture sells, and he can sell only what that Culture buys.

9.2 BUYING: When a player buys an item from a Culture, he pays its cost to the Bank. Each ship and Deed card, and Goods and Equipment marker lists its cost, although a player buying a Deed (not Equipment or Goods) from his own species is entitled to a 20% discount and therefore pays the reduced cost for it already listed on his Reference Card. A player can buy only those Goods, Deeds, and previously-bartered Relics that are currently available in that System. Only those Deeds specifying a Factory or Spaceport in that System can be purchased there.

9.21 EQUIPMENT: To buy a ship, Drive, or Shield, the player must be in a city or Spaceport inhabited by a Culture whose Science is the same as the one listed on those items.



The Galactic Base is the only Space City that sells all ships.

9.3 SELLING: Goods are the only items that can be sold for money. Ships, Equipment, and IOUs can be *traded in for credit* (hereafter referred to as "bartered") to buy other things. Deeds can never be sold or bartered.

9.31 PROSPECTIVE BUYERS: A player can sell Goods to a Culture only if the back of the Goods marker lists that Culture's ID Number. When he sells Goods, the Bank pays him the payoff shown on the marker. He then puts the Goods marker in the cup and immediately draws a new marker from the cup before selling any other Goods (see 10).

9.32 BARTERING: When a player barter a ship, Equipment, or IOU to a Culture, he can use the item's trade-in value to buy things from that Culture. He can spend the trade-in value as if it were money, but he can spend it only on the turn he barter the item; at the end of the turn he loses any part of the trade-in value that remains unspent. Each ship and IOU lists its barter value. The barter value of Equipment is equal to half of the cost printed on the marker.

9.321 IOU: Each IOU must be bartered only to the Culture whose ID Number is printed on it. When bartered, it is removed permanently from play.

9.322 EQUIPMENT: Equipment can be bartered to any Culture. When a Relic is bartered, it is put on the sun in that Culture's System, where it can subsequently be bought from any Spaceport or City in that System. Any other bartered Equipment is returned to the Bank.

9.323 SHIPS: Ships can be bartered to any Culture that sells ships (specifically, any Industry, Technology, or Base Culture). When a ship is bartered, it is returned to the Bank.

9.4 SEQUENCE: When a player trades, he performs his transactions in any order he chooses.

9.41 CITY: If a player trades at a City on the same turn he moves there, he can buy only one thing and he can sell (or barter) only one thing. He can buy only one Goods marker, or one Equipment marker, or one ship, or one Deed, whether he sells anything or not. Similarly, he can sell (or barter) only one thing, whether he buys anything or not [EXCEPTION: A player can barter an IOU on the same turn he also barter (or sells) something else].

9.42 PROLONGED STAY: If a player spends an entire turn at a city *without moving*, he can buy, sell, or barter as many things as he wishes, until he runs out of money or things to buy and sell.

EXAMPLE: You land on a City of a previously undiscovered Culture and receive the IOU for that Culture. You may keep it or barter it now or later. If you barter it in the turn of landing, you can receive a maximum of one item this turn in exchange for the IOU (and any extra money needed to match the cost of that item) because of the City first-turn trade limit. Choosing to wait until your next turn (and not moving) would permit unlimited trading and you could barter your IOU for as many items as it will buy.

9.43 SPACEPORT: If a player trades at a Spaceport, he can buy, sell, or barter as many items as he wishes, whether he moved there that turn or not.

10. BONUS MARKERS

10.1 THE CUP: At the start of the game, the 48 Bonus markers are mixed together in the cup. During play, additional Goods or Bonus markers will be put in the cup, but an equal number are *immediately* drawn out and returned to the map. Throughout the game, 48 Bonus or Goods markers are constantly kept in the cup.

10.11 GOODS: If a Goods marker is drawn, it is placed on the map with the Culture that sells it and is immediately eligible for resale.

10.12 BONUS: If a player picks a Bonus marker from the cup, he puts it with the Culture whose ID Number is printed on its back. If that Culture has been discovered, he places it in that Culture's System. If that Culture has not yet been discovered, the Bonus is stacked with that Culture marker offboard awaiting placement on the map when the Culture is eventually discovered.

10.2 DEMAND: Each Demand marker adds to the payoff that Culture will pay for that type of Goods. The back of the Demand marker lists the ID Number of the Culture that pays the bonus. The front of the marker lists the bonus that the Culture pays and the Goods that earn this bonus. When a player sells one of these Goods to that Culture, the bank pays him the indicated bonus (plus the normal payoff), and one of the Demand markers that added to the payoff is returned to the cup. The player must sell his Goods one at a time, since each sale reduces the bonus for the next sale and results in the drawing of a new Bonus or Goods marker for placement somewhere on the map.

10.21 BUILT-UP DEMAND: When a Culture buys Goods, all of the Demand markers that the Culture has for those Goods add to the payoff. Regardless of how many Demand markers add to the payoff, each Goods marker that the Culture buys causes only one Demand marker to be returned to the cup.

EXAMPLE: A player sells three Space Spice markers to the Humans who have two \$40 Space Spice Demand markers in their System. For the first Space Spice marker the Bank pays the \$80 payoff plus \$80 in bonuses (\$40 per Demand marker) and one Demand marker is put in the cup. For the second Space Spice marker the Bank pays the \$80 payoff plus \$40 (for the one Demand that remains), and the second Demand marker is put in the cup. For the third Space Spice, the Bank pays only \$80, with no bonuses. The second and third transactions assume that no additional Space Spice Demand markers for the Humans were drawn immediately after the preceding sales.

10.3 FARES: Each Fare represents a passenger who can be taken from one Culture to another for a fee. A Fare is never purchased by a player—just picked up, transported, and delivered (see 11.2). The back of the Fare lists the ID Number of the Culture where it is placed when drawn from the cup. The front of the Fare lists the ID Number of the Culture where the Fare must be delivered. When the player drops off the Fare at a City or Spaceport inhabited by this Culture, the bank pays him the fee shown on the marker and the Fare is returned to the cup. Picking up/dropping off Fares is not limited by rule 9.41.

11. OTHER TRADING

11.1 Each time a player ends his turn at a Spaceport, City, or Asteroid, he can pick up and drop off markers, and he can trade with other players (see 11.4). He can continue these transactions for as long as he wishes and in any order he chooses, regardless of the dot he is on, but he must limit his trading to the dot he occupies; he can pick up and drop off markers only on that dot, and he can trade only with those players who are also on that dot. All such trading ends his turn; he can never move in a turn after trading.

11.2 FARE/RELIC: Relics are unowned when they are on the "??" Boxes. If a player ends his turn on a Relic, he can pick it up for free. Relics on a sun can only be obtained by purchase at a City or Spaceport of the Culture that bought them; see 9.322. Fares currently at a Culture can be picked up for free at any City or Spaceport of that Culture.

11.3 JETTISONED CARGO: When a player ends his turn at a Spaceport, City, or Asteroid, he can jettison any or all of the Goods, Equipment, or Fares on his ship. Jettisoned Equipment is returned to the Bank, and jettisoned Goods/Fares are put in the cup (causing an immediate draw of a new Goods or Bonus marker for placement on the map). If a Fare is jettisoned at its destination, the player collects his fee. Otherwise, the player receives nothing for markers he jettisons. A player may not jettison a marker in the same turn that he acquires it.

11.4 OTHER MERCHANTS: If a player ends his turn on a Spaceport, City, or Asteroid, he can exchange any amount of money, Goods, Relics, Fares, Equipment, or IOUs with any player whose pawn is also on the dot he occupies, for whatever price they both agree to. Players cannot exchange ships or Deeds.

12. PORTS & FACTORIES

12.1 DEED: A Deed may be purchased only from the Culture in which that Spaceport or Factory will be built and only while in that System. Each Deed allows its owner to build one Spaceport or Factory on the map. The card specifies what he can build and where he can build it. When a player buys a Deed he puts a Spaceport/Factory marker at the place named on the card, to represent his purchase. He keeps the Deed placed before him as a token of his accumulated wealth.

12.2 SPACEPORTS: Spaceports must be built on Orbits. Each Deed allows its owner to put one Spaceport on the listed Orbit. When a player buys the Deed, he turns a Spaceport/Factory marker to the Spaceport side and places it on the Orbit. All other Spaceports and Cities in the System remain operational.



12.2.1 Each Spaceport is inhabited by the Culture that sold it. When a player lands at the Spaceport, he can trade with this Culture and buy, sell, and barter any number of things whether he moved that turn or not. Every player can trade at a Spaceport, regardless of who owns it.

12.2.2 COMMISSIONS: The Bank pays the owner of the Spaceport a 10% commission on everything that the Culture buys or sells at his Spaceport: he collects 10% of all costs, payoffs, Demand bonuses, and barter values (including IOUs) paid at the Spaceport. The owner of the Spaceport receives this commission even when he trades there. The Bank does not pay commissions on items traded between players nor on Fares.

EXAMPLE: The Human player sells a Designer Genes Goods marker at the Eep player's Spaceport for \$120. The Bank pays the Human player \$120 and the Eep Player \$12.

12.2.3 OPEN SPACEPORTS: The three Open Spaceports represent ancient Spaceports that already exist unknown to any player at the start of the game. Players cannot buy them; they pay no commissions.



12.3 FACTORIES: Only one Factory can be built in each System. Each Factory Deed allows its owner to build a Factory on any City or Spaceport in the System inhabited by the Culture named on that Deed. When a player buys the Deed, he turns a Spaceport/Factory marker to the Factory side and places it on a City or Spaceport in that System. A player does not have to own the Spaceport on which he builds a Factory.



12.3.1 FACTORY GOODS: When a Factory is built in a System, the Factory Goods marker named on its Deed is put next to the Culture marker in that System. That Factory Goods marker can be bought from that Culture by anyone, at any City or Spaceport in that System, and each time it is sold to a Culture it is put in the cup until it is drawn again. It can be bought during the same turn that the Factory is built unless the Factory was built by a player who had just moved to a City that turn—thus using that player's one allowed purchase that turn (see 9.41).



12.3.2 FACTORY COMMISSIONS: Each time a Culture (not a player) sells its Factory Goods the Bank pays the owner of that Factory a 50% commission on the cost of that marker (even if the owner of the Factory buys the Goods himself).

12.4 BANK COMMISSIONS: All commissions are paid by the Bank, not by the player who is trading. The trader spends and collects the same amount of money he normally would, and the Bank pays a commission on the transaction.

12.4.1 NO CREDIT: When an owner buys an item that also earns a commission, he must pay the full cost of the item before he collects his commission. The commission does not subtract from the cost he pays; he must have enough money to make the purchase outright without consideration of any commission due him for the sale.

12.4.2 MULTI-COMMISSIONS: If a player buys Factory Goods at a Spaceport, the owner of the Factory gets 50% of the full cost of the marker and the owner of the Spaceport gets 10% of the full cost of the marker. If the same player owns both, he gets both commissions. The owner of the Spaceport does not get 10% of the commission that is paid to the owner of the Factory for Factory Goods; the Bank never pays a commission on a commission.

13. WINNING THE GAME

13.1 HOW TO WIN: Only the accumulation of money and Deeds count towards *Net Worth* and winning the game. Deeds are worth the cost printed on them; not necessarily what they cost the owning player. Deeds are color coded to reflect their cash value at game end. Regardless of their original cost, orange deeds are worth \$100 and purple deeds are worth \$200 when determining *Net Worth*. All ships, Equipment, Goods, Fares, and IOUs are worthless at game end.

13.2 TIME LIMIT: Any time a player has at least \$2,000 in money and Deeds *at the end of his turn* he wins. If he goes over \$2,000 when it is not his turn, he must wait for his turn to win and will win then only if he still has a \$2,000 *Net Worth*.

13.3 BANKRUPTCY: Players never go bankrupt. However, if the Bank runs out of money, the game is over and the player with the highest *Net Worth* is the winner.

THE GENERAL

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OPTIONAL RULES

Employment of the Optional Rules is recommended for a more challenging game. Once players are familiar with the basic mechanics of play, use of the Optional Rules is suggested.

14. GAME LENGTH

Playing time can be varied by changing the Net Worth a player must have to win. Sample recommendations follow based on the assumption of three experienced players. Playing time will increase with inexperienced or more players.

14.1 APPRENTICE MERCHANT: Playing to \$1,000 will result in a 90-minute game ending before many Spaceports or Factories are built. Ship and equipment purchases rarely have the time to be beneficial. This version is recommended only while learning the game or for those occasions when playing time is limited.

14.2 JOURNEYMAN MERCHANT: Playing to \$2,000 will result in a two-hour game which ends just as the trade routes are being completed but before they can be fully exploited. Medium-priced ships and Drives can be profitable if purchased early enough.

14.3 MASTER MERCHANT: Playing to \$3,000 will result in a 150-minute game wherein large trade empires, better ships, and Drives are needed to win.

14.4 TRADE BARON: Playing to \$4,000 will result in a three-hour game and is recommended only for those diehards who can't get enough of a good thing.

15. COMBAT

Combat tends to be less profitable than trading, especially late in the game when trading profits are high, so players who fight tend to fall behind those who trade. Combat also tends to lengthen the game. However, if used judiciously, combat can be used to implement a winning strategy, and attacking the leader may be the only way to catch him.

15.1 FORTS: Forts are Penalty Markers that players can build on the map. Each Fort inflicts penalties on every player that enters its dot *except* its owner. The front of each Fort shows the penalty it inflicts (\$60). The back shows its cost (\$50 minus a 20% discount for buying a Fort from your own species) and the player who can buy it.

15.11 LIMITS: Forts start the game in the Bank and can be bought from any Culture like other pieces. Forts cannot be sold, bartered, or carried. Each player can have up to four Forts in play. During his turn, he can return any of his Forts to the Bank temporarily in order to build them elsewhere that same turn. When he voluntarily returns a Fort to the Bank he collects nothing for it, and he must immediately pay to rebuild it in the System he presently occupies.

15.12 SITES: When a player buys a Fort, he must put it in the System where he is currently trading. He can put it in any City, Spaceport, or Asteroid that does not already have a Fort (including Spaceports owned by another player).

15.13 EFFECT: Each player may ignore his own Forts when he moves, but enemy Forts require him to land there or pay the Bank the \$60 penalty printed on the Fort (minus any savings afforded by his Shields). He can land and trade during that turn without penalty; Forts do not affect trading. However, if he starts his turn on an enemy Fort, he must pay the penalty (less any reduction for Shields) or leave during that turn.

15.2 ATTACKS: When a player takes his turn, he can use his pawn to make attacks. While *moving*, he can fire weapons at Penalty Markers and/or other players. While *trading*, he can use money to attempt to steal Goods, Spaceports, and Factories on that dot from other players. He can continue to attack as long as he wins every attack [EXCEPTION: On a turn when he moves to a City, he can buy only one Theft attack; see 15.51]. As soon as he loses an attack, his turn ends.

15.21 ATTACK MECHANICS: The same procedure is used for all attacks. The player specifies his target and fires weapons and/or pays money to start the attack. He then rolls one die and adds any applicable bonuses to define his attack strength, while the defender rolls one die and adds any applicable bonuses to define his defense strength.

15.211 ATTACKER WINS: If the attacker's adjusted strength is greater than the defender's adjusted strength, the attacker wins. He gains the object of the attack and continues his turn; if he was moving, he continues to move, and if he was trading, he continues to trade.

15.212 DEFENDER WINS: If the defender's adjusted strength is greater than or equal to the attacker's adjusted strength, the attacker loses. His attack has no effect and he forfeits the remainder of his turn.

15.3 WEAPONS: Lasers and Nova Balls are weapons. Each weapon starts in the Bank and is bought (or bartered) like other equipment. The front of the marker lists its firepower, and the back shows its cost and the Science that sells it. Its trade-in value is half of its cost.

15.31 SPACE USED: Each ship can carry one Laser and one Nova Ball on its Hull, in addition to one Shield and any number of Relics. Each weapon not carried on the Hull fills half of a Hold box.

15.32 FIREPOWER: A player can fire any or all of the weapons on his ship, but he must specify which weapons he is firing *before* he rolls the die for the attack. Each weapon that he fires adds to his firepower (see 15.4 for Blasting; 15.54 for Revolts). Each Nova Ball can be fired only once; as soon as it is fired, it is returned to the Bank and is subject to repurchase from any "Technology" Culture. Each Laser can fire once per attack, and remains in the possession of its owner after the attack.

15.4 BLASTING: When a player is moving, he can use his weapons to blast other pawns or Penalty Markers (including Forts or Rastur) on the same dot. Each time he moves onto a dot, he can fire his weapons at one target there. When he moves onto a Spaceport or City, he can blast any enemy Fort on that dot, but he cannot blast pawns. When he moves onto any other kind of dot, he can blast any pawn or Penalty Marker on that dot, including enemy Forts. Penalty Ovals printed on the map can never be blasted, nor can Tele Gates, Spaceports, Factories, or unpossessed Relics.

15.41 MOVING ATTACKS: A player blasts targets as he enters a dot. He can keep blasting as long as he keeps moving. He can make only one attack, against one target, each time he moves onto a dot. If he moves onto the same dot more than once, he can make one attack each time he moves onto it. He cannot attack if he skips over the dot, and he cannot attack if he starts on the target's dot and leaves.

15.411 PAYMENT: When a player moves onto a Penalty, he must pay the penalty minus any reduction for his Shields before he can attack. He cannot attack if he stops without paying. After paying, he can attack any target on that dot.

15.412 STATIONARY ATTACK: If a player spends his entire turn on a dot without moving, he can make one attack before he starts trading, but must still pay the penalty (if any) before he can attack.

15.42 BLASTING PENALTY MARKERS: When the attacker fires at a Penalty Marker, he rolls one die and another player rolls one die for the Marker. The attacker's strength is ten times the number he rolls, plus his firepower. The defender's strength is ten times the number he rolls, plus the number on the Penalty Marker. If the attacker wins, the Penalty Marker is destroyed and the Bank pays the attacker an amount equal to the strength of the penalty; i.e., \$60 for a Fort. Destroyed "?" Markers are removed permanently. Destroyed Forts are returned to the Bank and can be repurchased. If the defender wins or ties, the Penalty Marker is undamaged and the attacker's turn ends.

15.43 BLASTING PAWNS: If the attacker fires at a pawn, the defender (and no one else) can immediately fire his weapons at the attacker. Both players roll one die (whether the defender fired or not). Each player's strength equals ten times the number he rolls, plus his firepower. Each player's Shields subtract 20 (per Shield) from the enemy strength. Strengths below 0 are treated as 0. If the attacker wins, he inflicts a "hit" on the defender and his turn continues. If the defender wins or ties, the attacker's turn ends. In addition, if the defender fired a weapon and his final strength is greater than the attacker's, he also inflicts a "hit" on the attacker's ship.

15.431 HITS: When the winner inflicts a hit, he can either destroy one marker of his choice on the loser's Hull, or damage one Hold of his choice on the loser's ship. All Equipment in a damaged Hold is damaged (turn the Equipment marker face down) and each Fare in it is returned to the cup. If the Hold contains a Goods marker, the loser jettisons it, and it can be immediately claimed by the winner (at his option) and put on his ship. Otherwise, it is returned to the cup. If there is no room for it on board the winner's ship, the winner may jettison other Goods or Equipment to make room for it. However, the winner may not jettison a Fare. Destroyed Relics are removed from play. Other destroyed Equipment is put in the Bank. Additional attacks against Damaged Equipment incurs no additional effects.

15.432 REPAIRS: Damaged Equipment cannot be used or bartered until it is repaired. When the player lands at a Culture, all of his Equipment which can be bought from that Culture is instantly repaired at no cost. Repairs do not count as trading.

15.44 LANDING: After winning an attack at an Asteroid, Spaceport, or City, the attacker can land there.

15.5 THEFT: When landed at a City or Spaceport, a player can attempt to steal Goods, Spaceports, and Factories from other players. If he is on the same dot with another pawn, he can attempt to steal Goods from that player in a "Swindle". If he is on the same dot with a Spaceport or Factory that belongs to a player whose pawn is not currently in that System, he can attempt to steal that Spaceport or Factory by inciting a "Revolt".

15.51 COST: To attempt a Swindle or Revolt, the player must buy the attack from the Culture inhabiting that dot. Buying a Theft attack counts as buying an item: if he buys an attack at a City on the same turn he lands there, he can buy only one Theft attack that turn, and it is the only thing he can buy that turn (9.41).

15.52 DURATION: He can keep buying attacks as long as he is successful if he is at a Spaceport or is spending his entire turn in a City. Each time he buys an attack, he can make only one attack, against one target. The target must be located on the City or Spaceport he currently occupies.

15.53 SWINDLES: Weapons are not used in Swindles. To buy a Swindle, the player pays \$50 to the Bank and specifies a pawn on his dot as the target. The attacker and defender each roll one die. Each player's strength equals the number he rolls, plus one for each Spaceport, Factory, and Fort he owns on that dot, plus one if his species inhabits that dot. If the attacker wins, he can take any one Goods marker of his choice on the defender's ship, and his turn continues. He can take only Goods—not Equipment or Fares. If the defender wins or ties, the attacker gets nothing and his turn ends.

EXAMPLE: If the Swindle occurs on a Spaceport owned by the attacker and inhabited by his species, his strength equals his die roll plus two (one for his Spaceport, one for his species).

15.54 REVOLTS: To buy a Revolt, a player must spend \$100 in firepower and money. He fires any weapons he cares to use and then pays the Bank enough money so that the sum of the money plus his firepower is 100. He must fire at least one weapon, but his firepower does not affect his strength; it just reduces the amount of money he must pay. The attacker can fire his weapons each time he starts a Revolt.

EXAMPLE: If a player fires three weapons with a total firepower of 60, he pays only \$40 to start the Revolt.

15.541 TARGETTING REVOLTS: For his target, the attacker must specify a Spaceport or Factory on his currently-occupied dot that belongs to a player whose pawn is *not in the same System*. A player is immune to Revolts in the System he currently occupies. Revolts never attack Forts or Open Spaceports.

15.542 RESOLVING REVOLTS: The attacker and defender each roll one die. Each player's strength equals the number he rolls, plus one for each Spaceport he owns *anywhere in that System*, plus one for each Factory and Fort he owns *on the dot* where the Revolt is occurring, plus one if his species inhabits that System. If the attacker wins, he takes over the Spaceport or Factory he attacked. He takes the Deed and replaces the defender's Spaceport or Factory on the map with one of his own. Any other markers on the dot are not affected by that Revolt. If the defender wins or ties, the attacker gets nothing and his turn ends.

EXAMPLE: If the defender owns a Spaceport and Fort on the dot being attacked and a Spaceport and Factory elsewhere in the same System, his strength equals his die roll plus three (one for each of his two Spaceports in the System, and one for the Fort on the dot being attacked).

15.6 COMMISSIONS: Commissions are never paid for the purchase of attacks, nor for penalty payments.

15.7 DESTRUCTION: Once built, Spaceports and Factories cannot be eliminated (even by their owners); possession can change but they never cease to exist.

16. THE RASTUR

These rules may be used to vary play either when playing with others or solitaire. Use of the Rastur is encouraged with only two players. The Rastur must be used to play solitaire (see 17).

16.1 SETUP: The Rastur represent a species of xenophobic megalomaniacs who are invading the Cluster. These markers appear on the map during the game with a profound effect on play. After determining the version to be played (i.e., Net Worth of \$1,000, \$2,000, \$3,000 or \$4,000), sort the Rastur by denomination, consult the Rastur Mix Chart, and form the correct pool of Rastur strengths for that game length. The Reserve Pool consists of all Rastur markers with strengths greater than or less than those used in the Active Pool. The Reserve pool is removed from play in a multi-player game (see 17.11 and 17.21 for the function of the Reserve pool in a solitaire game).



RASTUR MIX CHART

Game Length:	# of Rastur Markers:	Value of Rastur Markers Used:	ACTIVE RESERVE:
\$1,000	12	60—110	remainder
\$2,000	20	60—150	remainder
\$3,000	23	70—200	remainder
\$4,000	25	70—220	remainder

16.2 GENERATION: Prior to play, mix the Active pool of Rastur markers together, face down. Whenever a player rolls a "1" during his turn, during either movement or combat, he immediately draws a Rastur at random from the Active pool, observes its strength, and places it on the map. A maximum of one Rastur may be placed per turn regardless of the number of "1's" rolled.

16.21 RELICS: When a player rolls the dice to move, he must roll all of the dice his ship is entitled to unless he uses the Auto Pilot to take the place of one of his dice. If a Mulligan Gear changes a "1" to another number, that "1" is ignored.

16.22 DEFENSE NA: A player draws Rastur only during his turn. If he rolls a "1" during combat as the defender, that die roll does not cause a Rastur to be drawn.

16.23 SITE: The player can place Rastur on any Spaceport or Orbit that does not already contain a Fort or Rastur. If every Spaceport and Orbit contains a Fort or Rastur, then he can put it on any City that does not contain a Fort or Rastur.

16.3 PENALTY MARKERS: Rastur are Penalty Markers. When a player moves onto a Rastur, he must stop moving or pay the penalty printed on the marker. If he starts his turn on the marker, he must pay the penalty or leave. When he pays the penalty he can blast the marker (see 15.4), and, if successful, is paid an amount equal to the Rastur's strength by the Bank. Destroyed Rastur are returned to the Rastur Active Pool face down and are eligible to be redrawn and returned to the game.

16.4 EFFECT: Rastur cancel all Cities, Spaceports, and Factories in the dots they occupy while they occupy them. Players cannot trade on Rastur-occupied dots, but can be blasted by other players. Spaceports, Forts, and Factories cannot be built on a dot currently occupied by Rastur. However, a Culture can be observed from a Rastur-occupied Orbit. A Rastur-occupied Spaceport or Factory remains on the map, but its Deed is worthless as long as the Rastur remain there; it does not add to anyone's die roll in Revolts, nor to their Net Worth. A Culture cannot sell its Factory Goods if the Rastur occupy its Factory. Each Rastur-occupied dot (including Spaceports and Factories) returns to normal instantly if the Rastur is removed.

16.5 WINNING: Regardless of the game's Net Worth limit, the Rastur wins if the last Rastur is drawn before any player can declare victory. The players win normally (13.2).



17. SOLITAIRE

17.1 SETUP: The Rastur must be used to play solitaire. After determining the game length, prepare the Rastur pool as per 16.1. The player starts with a Scout ship and \$20. The player may find it convenient to keep a written record of his finances rather than exchanging currency.

17.11 RESERVE POOL: All Rastur in the Reserve Pool are placed face up in the Reserve Box printed on the back cover and arranged in order of their strength. As play progresses, Rastur will be added to and taken from the Reserve Pool and remain face up while therein.

17.12 ACTIVE POOL: When markers are in the Active Pool they are mixed together face down.

17.2 RASTUR GENERATION: In the solitaire version, Rastur are *not* generated by the player's Movement or Combat die rolls. Instead, at the *end* of each turn, the player rolls one die to generate Rastur.

17.21 EXPANSION: If he rolls a "1", "2", "3", or "4", he draws one Rastur marker from the Active Pool and places it on the map on any Spaceport or Orbit of his choice not already containing a Fort or Rastur. In addition, if the Transit Box is vacant, the weakest Rastur in the Reserve Pool is moved to the Transit Box. If the Transit Box

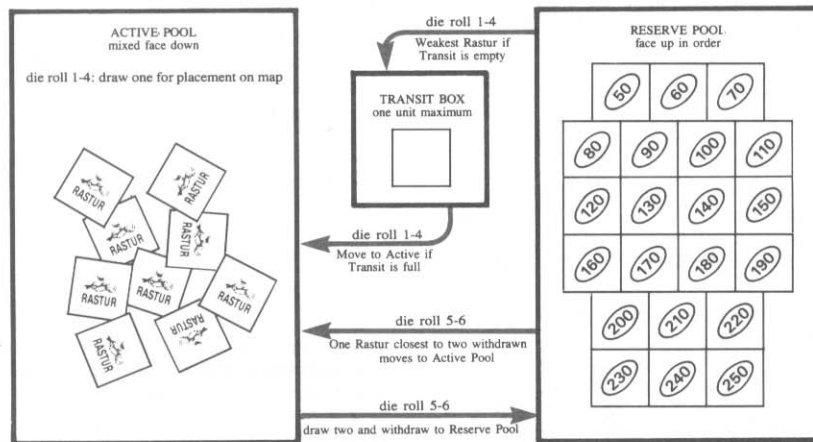
already contains a marker, that Rastur is mixed into the Active Pool face down and the Transit Box is left empty.

17.22 MERGING: If he rolls a "5" or "6", he draws two Rastur from the Active pool, turns them face up, and finds the marker in the Reserve pool that is closest to their total value (lower strength markers given preference in the case of ties). The Reserve marker is mixed into the Active Pool face down, and the two Active Rastur are transferred to the Reserve Pool. When only one Rastur is present in the Active Pool and a "5" or "6" Rastur generation die roll is made, the game ends.

17.3 RASTUR ELIMINATION: Eliminated Rastur are placed in the Transit Box if it is currently unoccupied. If a Rastur already occupies the Transit Box, it is moved to the Active Pool and the eliminated Rastur is moved to the Reserve Pool instead. There can never be more than one Rastur in the Transit Box.

17.4 OBSERVATION: Whether due to occupation or use of the Spy Eye, *observed* (not discovered) IOUs and "?" markers may be left face up for the duration of the game [EXCEPTION: Tele Gates and Open Spaceports must actually be traversed rather than merely observed in order to remain face up].

17.5 WINNING: To win, the player must amass a Net Worth at least equal to the predesignated game time limit before the last Rastur is drawn. Drawing the last Rastur in the Active Pool does not end the game if it also sends Rastur from the Transit Box to the Active Pool.



DESIGNER'S NOTES

Though set in a science fiction universe, the game illustrates the timeless realities of commerce. Once the players have located the goods and customers, the game spotlights how seed money, profit margins, carrying capacity, turnaround time, and expenses interact to define the profits that a trader makes. The optional rules add the dirty tricks and other setbacks for which a prudent trader must make allowances. The amount of money needed to win is purely arbitrary; it is defined merely to limit the length of the game.

MERCHANT OF VENUS is deliberately set in a universe where profits are high and expenses are low. Actually, the game is loosely modeled on the Spice Trade in the Far East during the 16th and 17th centuries. The science fiction setting evokes the same sense of strangeness and uncertainty that Europeans must have felt when they first encountered Zanzibar, India, China, and Japan. Shipwrecks, bankruptcy, and other catastrophes are omitted to allow players to concentrate on trading and to keep everyone in the game until the end.

As befits the futuristic setting of the game, Spaceports and Factories function according to modern theories of free trade, not the mercantile monopolies of the 16th century. Thus, each Spaceport is open to all traders, and each Factory sells to any buyer; the "owner" is treated as an investor who gets a rake-off instead of a monopoly.

STRATEGY: It is easy to make money, but the game is won by the player who makes the most. Consider the following basic principles when contemplating your overall strategy.

1. Plan ahead. Consider not only your current trip, but the next one and the one after that. When you get to your destination, you not only want to sell your Goods, but you'll need to buy others. Will these Goods take you to a destination where a supply of Goods to be purchased is plentiful or where there is a big demand for what you are carrying? How long will it take you to get to your next destination? You want

to make short trips so that you can spend as many turns as possible trading—not stuck in deep space in transit. Ideally, you'll want to form a short circuit that pays well on every trip (for example, from culture "2" to "5" to "8" to "10" and back to "2" again), and then invest in Spaceports and Factories along that circuit.

2. Invest in larger ships to increase your profit per trip, and invest in drives (or a faster ship) to reduce the average time per trip. The sooner you make these investments the more time they will have to pay off, but if you spend for equipment too soon you may create a cash-flow problem that will prevent you from buying the trade goods you need along the way. Knowing when to invest is just as important as knowing what to buy.

3. Consider the bonus markers carefully. Although they offer tempting profits, they can lure you from established routes and leave you without another paying destination. Every detour should be carefully assessed as to how it will fit in with the overall route. Time is money.

4. Be on the lookout for Relics which can enhance your capabilities—especially early in the game. Any turn which ends in space anyway may just as well be spent exploring or landing on an Asteroid to collect a Relic.

5. If you can't end your turn by trading (or even if you can), it is often wise to explore virgin systems to collect IOUs. By observing the systems already undiscovered, one can make some increasingly educated guesses on the whereabouts of those that remain.

6. Keep alert for what the other players are doing. If several players are carrying the same cargo as you, it behooves you to get where you're going first so that the Demand and Goods markers will still be available. And be ready to react if somebody starts buying Lasers and Nova Balls; the armaments race bears watching. When the Combat rules are in play, you need to consider not only the most profitable Spaceports, but also the most defensible. To that end, it helps to anchor your Trade Empire in a system populated by your own Culture.

GAZETTEER OF THE CLUSTER

None of what follows is necessary to play the game.

It is provided only as background material which may enrich the playing experiences of those who would enjoy knowing something of the species, worlds, and Goods in the game.

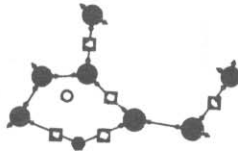
ATLAS OF THE MAP

The map shows a three-dimensional view of the Cluster as seen with the main Galaxy behind the Cluster. The larger suns, dots and paths are closer to the viewer and the smaller ones are farther away (closer to the Galaxy). The asteroids and planets have been magnified to make them visible, and large stars have been shrunk to fit them on the map. The suns are colored to show their spectral type. When viewed by eye, they would all appear to be the same color: bright.

ASTEROID SYSTEM: The primordial material in this system coalesced into a vast sphere of asteroids instead of planets. Explorers built domed colonies to mine this treasure house of minerals, and soon there was an entire civilization mingled among the asteroids. When the Empire fell, this civilization retreated to the central domes, leaving the rest to the ghosts.



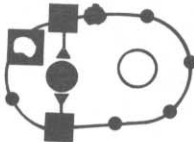
CLOUD: This is a region polluted by electrically charged particles. These sparse particles are just dense enough to interfere with navigation systems, making movement unpredictable. Everything in the Cloud belongs to the Space Station Planet's system. The Cloud does not contain any colored space dots. It consists of seven Navigation Circles, five "?" Boxes, and one Space City (the Space Station planet).



COLONY WORLD: Colonists had barely started terraforming this planet when the Empire collapsed. They managed to survive in cave cities while the terraforming continued automatically.



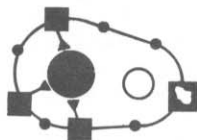
DESERT PLANET: This planet is one big desert of stone and sand, with a few small settlements at oases. The only large cities are in the greencaps at the poles.



GALACTIC BASE: This is a giant space station, built to service spaceships and passengers en route to or from the main Galaxy. When the traffic stopped, the service personnel who were stranded there converted it into a city. When the game begins, this station has already been rediscovered. The Galactic Base System consists of one city. It contains no other movement dots. No Ports or Factories can be built there. Forts cannot be built on the Galactic Base. Rastur can be put there if no Spaceports or Orbits are available.



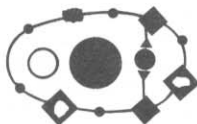
GIANT PLANET: This oversized, low-density planet has an enormous surface area but tolerable gravity. It has large and varied habitable areas and a very large population.



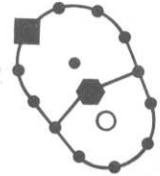
ICE PLANET: This system consists of rocks and ice. When the power plants in the system ran out of energy, one city managed to survive by inventing strange folkways to conserve heat.



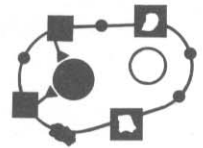
INHABITED MOON: This oversized moon orbits a gas giant planet that radiates enough energy to give the moon a temperate climate. Little energy arrives from the distant sun.



INTERSTELLAR BIOSPHERE: This technological marvel is a vast doughnut of air, floating in free-fall between its sun and a dense planet. The gravity fields of the sun and planet balance to hold the atmosphere in place, while powerful generators keep the atmosphere dense and protect it against the solar wind. This wonder has existed long enough for an entire ecology of exotic beings to evolve there, but it is a total mystery: the builders are unknown and the generators are so small and cleverly disguised that they have never been found.



JUNGLE PLANET: This hot, humid world is composed of jungle, rain forest, and swamps. Life there is a constant struggle against the billions of life forms that infest it.



MULTI-GENERATION SHIP: This giant spaceship is designed to carry a whole population of colonists for generations while they travel from star to star at sublight speeds. The ship blundered into orbit around a neutron star, and now it is trapped; it is too massive to escape the star's gravity, and its population is too large to evacuate. This system contains one city (the giant ship). There is one Orbit, in the upper Navigation Circle. Anyone who enters this Circle can look at the IOU in the System. After a Spaceport is built on this Orbit, anyone who enters the Circle can land there and trade with the Culture in this System.



POLLUTED PLANET: Overpopulation, deforestation, and industrial waste have poisoned the seas, removed the forests, and triggered the "greenhouse effect" on what was once a garden planet. This automatically cured the overpopulation problem, and the survivors are locked in battle to reverse the trend, even as they are evolving to match their new environment.



SPACE STATION PLANET: This is a space station as big as a planet, filled with uncountable cubicles and passageways. Once a trillion beings dwelt there but now only a few remain, clustered near the portals in the outer skin. The inner corridors are dark and still, forbidden places of legend. The Space Station Planet's System includes everything in the Cloud. There is an Orbit, in the "Body" Navigation Circle. Anyone who enters this Circle can secretly look at the System's IOU. After a Spaceport has been built on this Orbit, anyone entering the Circle can land there and trade with that Culture.



Galactic Base

SUPERGIANT: This blue-spectrum supergiant emits large quantities of high energy radiation. There is nothing in this system but penalty-causing radiation.



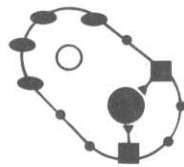
SUPERNOVA: This is a star that has exploded, emitting enormous quantities of radiation. There is nothing in this system but penalty-causing radiation.



TRAPPED ROGUE: This planet was apparently a systemless rogue planet that wandered close enough to a blue giant star to be trapped in orbit. When the planet thawed out it proved to have a nice blend of land, sea, and air, but it is a violent place of hurricanes, earthquakes, and volcanoes, caused by its elliptical orbit and the high-energy radiation from the blue giant.

WAR-TORN SYSTEM: This system survived the fall of the Empire, but it saw constant warfare in the dark centuries that followed. Finally one of the warring planets was reduced to radioactive rubble, leaving the other one, ruined and crippled, to recover in peace.

WATER WORLD: Except for a few small islands, the surface of this planet is entirely covered by water. Most of the population lives on the giant lily pads that cover the oceans.



DIRECTORY OF CULTURES

All of the Cultures are descended from colonists from the main Galaxy. When the Empire fell, each Culture kept only the science that it had developed itself. Each Culture's Science defines how it tries to control nature. Primitive Cultures personalize natural forces and appeal to them. Bioengineering Cultures direct life processes. Industrial Cultures employ physics and chemistry. Technological Cultures control electricity and atomic energy. Metaphysics Cultures manipulate the fundamental principles of reality: being, essence, and so on.

1a. NILLIS: Name means "Primeval Forest". Science: Bioengineering.



The Nillis are peaceful tree people who grow from walking saplings to rooted giants. They are mindless when they sprout, but they gain intelligence as they grow. They are most humanlike when they are stiffly mobile young trees; after that they think longer and longer thoughts that gradually pass beyond human ken. They are masters of long-term breeding projects.

1b. VOLOIS: Name means "Unity". Science: Metaphysics. The Volois are a multitude of snails linked telepathically into one gigantic intellect. They appear simple and friendly, but the laws of probability go wild near them, and it is rumored that they "adjust" reality at will, turning dreams into reality and vice versa. Others suggest that they merely create permanent illusions powerful enough to act as reality. This has led to uncomfortable speculations about what would happen if the Volois were to die out. The Volois refuse to discuss the matter: they just shrug, and smile.



2. GRAW: Name means "Degenerate". Science: Primitive. The Graw are a once-great species, caught in a biological trap. They bred themselves into specialized varieties that solved deep mysteries, tutored many species, and founded the Empire, but conflicts caused attrition of their best varieties. They reproduce slowly, by budding, and without genetic mingling they were unable to replace their losses. Now only the lowest varieties are left, worshipping their onetime students, the Qossuth. The "Base to 2" Fare is a politician looking for gullible voters. The "2 to 10" Fare is a Graw going on a pilgrimage to the Qossuth.



3. NIKS: Name means "Fluffies". Science: Bioengineering. The Niks are noisy, gregarious forest-folk who cultivate animals and plants skillfully. They are a young, uninhibited species, emotional, gossipy, mercurial, and frank: their discussions include the warmest affection, the coldest rage, and the wildest humor, all at the same time. Whole tribes nest together in tangled tree towns; when forced to live indoors, they nest in arboreums.

4a. DELL: Name means "Shifty-eyed". Science: Industrial. The Dell come from a poor planet, so what they admire is getting something for nothing. In trading, they would rather minimize their investment than maximize their profit, and they love getting anything for nothing. When the Empire fell they reverted to the pre-industrial medieval society where they spent most of their history. The "4a to Base" Fare is an embezzler, skipping out of the cluster. The "Base to 4a" Fare is a tax collector sent to audit the whole Dell Culture.



4b. HUMANS: Name means "Hands". Science: Technological. Humans are unusually nonspecialized and flexible. They invent tools and customs to fit any environment they occupy, and they invade any environment that is available. Individual Cultures are completely unpredictable: a Culture can have any characteristics that its members dream up. For example, individual Humans might or might not qualify as being intelligent.



5. SHENNA: Name means "Pride". Science: Primitive. The Shenna are feline carnivores who live and hunt in family groups. They are aggressive warriors and make first-class soldiers, but without external enemies they start fighting among themselves. The "5 to Base" Fare is a Shenna spy, disguised as a zoo animal. This is a common trick: on some planets, whole zoos sneak off to the library every night.



6. YXKLYX: Name means "Pincers". Science: Technological. The Yxklyx use biochemistry to blend life processes with machinery. They are unpopular because they see other species as research specimens; they dislike meeting aliens socially, and they have no small talk. Occasionally they team up with a rampaging Qossuth to pick up some useful material. The "6 to 4b" Fare is a specimen collector off to nab a Human, if he can.



7a. ZUM: Name means "Swarm". Science: "Industrial". The Zum are hive insects. They have individual intelligences, but they all have exactly the same ideas, tastes and opinions. They always work in total harmony: they have no visible social, political or economic structure. What goes on in their hives is a closely guarded secret: they hide their hives and allow no trespassers.



7b. EEEPEEEP: Name means "Political Machines". Science: Technological. This is a Culture of intelligent machines, presumably invented by some forgotten race; the Eeepeep themselves have only some legends of being descended from an orphaned kitchen appliance. They are friendly, honest, and totally logical. The "7b to Base" Fare is a package tour, off to see the Galaxy. The package is an Eeep, of course.



8. WHYNOMS: Name means "Horse Sense". Science: Industrial. The Whynoms are young and vigorous, proud of their cleverness and strength. They are famous for their rough humor and honesty, and they expect to solve any problem they run into. They claim to be descended from a long line of dissatisfied horses who finally invented a comfortable way to sit down. They are known for their clever hoofmade handiworks.



9a. CHOLOS: Name means "Germs with ideas". Science: Bioengineering. The Cholos are bacteria who herd other types of cells. They were discovered when an early explorer realized he was sneezing in Morse Code. They can communicate only in simple terms: complex messages are meaningless, because we do not understand the subtleties of their strange, ferocious world, and they seem to have extremely odd ideas about us. The "Base to 9a" Fare is a census taker sent to count the Cholos.



9b. WOLLOW: Name means "Peace". Science: Primitive. The Wollow are dinosaurs who converted to peaceful ways. They want only to live in harmony with their neighbors, and what they want they get! When the Empire collapsed, they went back to the simple life. The "9b to 5" Fare is a missionary of peace, sent to the warloving Shenna. They can't shut him up because he outweighs them by tons and is armored to boot.



10. QOSSUTH Name means "Tentacles". Science: Metaphysics. The Qossuth were once vigorous and ambitious, but when they discovered the secrets of existence they went quite mad. Now they switch between stupefied despair and frenzied attempts to conquer the Universe. Their architecture is profoundly disturbing: it features impossible angles, non-existent directions, and the geometry of imaginary numbers. The "10 to Base"



Fare is another manic Qossuth, off to conquer the Galaxy.

RASTUR: Name means "Warworms". Science: Technological. This is a species of xenophobic megalomaniacs who are trying to conquer the Galaxy. The Rastur arose when one downtrodden worm stood up (so to speak) and said: "I'm mad, and I'm not going to take it anymore!" From this came ambushes, revolts, conquest, and interplanetary war. Though repeatedly smashed flat, isolated colonies of Rastur always survive to rise again. The Rastur buy nothing and sell nothing. They trade with no one.



TINKERERS: The Tinkerers are the inhabitants of the Galactic Base. Science: "Base" (shipwrights). The Tinkerers are a peaceful species that fell in love with spaceflight. They abandoned their own traditions and became mechanics and shipbuilders. They sell all types of spaceships, but they do not sell Equipment and they do not buy or sell Goods markers. All Fares that begin at or go to the Base are coming from or going to the main Galaxy.



MANIFEST OF GOODS

1a. BIONIC PERFUME is long-lasting perfume that is mixed with various substances to give off a variety of odors. It consists of living cells; the odor they emit depends on what they are fed.

1b. VOLL SILK is spun by the Volois to sooth their nerves.

2. SPACE SPICE is an old Graw home remedy. Instead of being a drug, it is an anti-drug: it cancels out the effects of additives and poisons. The Shenna use it to flavor preserved meat. The Humans use it to remember what it was like to be human, before they evolved to live on stimulants, depressants, pollutants, and narcotics.

3. MULCH WINE is a gamey liquid with complex aftertastes that is composted from fallen leaves. The Dell and Shenna drink it, and the Humans and Yxklyx cook with it.

4a. FINEST DUST consists of worthless rock, ground up until it flows like water. The Shenna wash with it, and other Cultures use it where water would be inconvenient.

4b. ROCK VIDEOS are an art form mixing energetic sound and surrealist illusions. Viewers with too much imagination enjoy them, and viewers with too little imagination study them.

5. MELF PELTS are luxuriant furs that the Shenna get by hunting Melfs, incredibly quick mouse-like creatures that attack in berserk packs. The Shenna inadvertently made the Melfs fierce by over-hunting: eventually only the meanest ones were left.

6. IMMORTAL GREASE is a semi-living lubricant that keeps renewing itself. It was invented by Yxklyx biochemistry as a lubricant and liniment. The Cholos live in it for longevity.

7a. CHICLE LIQUOR is a gummy, powerful liquor that can be chewed indefinitely.

7b. SERVOMECHANISMS are slave machines such as automatons and automatic tellers. There is probably no truth to the rumor that this is how the Eepeeep get rid of unwanted relatives.

8. IMPOSSIBLE FURNITURE consists of furniture constructed by the Whynoms. After figuring out how to make chairs for horses, they started catering to other tough cases: they make comfortable chairs for dinosaurs, plants, giant tentacled slugs, and bacteria.

9a. DESIGNER GENES are genes and chromosomes hand made (so to speak) by the Cholos. The results are often bizarre, since the Cholos do not understand the nuances of larger life forms.

9b. MEGALITH PAPERWEIGHTS are giant stones carved by the Wolloos for exercise. The Qossuth use them for architecture and the Nillis use them as planters. The Volois have an unusual hobby: megalith arranging.

10. PSYCHOTIC SCULPTURES release the subconscious of whoever sees them, so that his mind is taken over by his urges and terrors. The Nillis and Volois are titillated by the sculptures, the Graw worship them frenziedly, and the Niks use them for conversation pieces.

FACTORY GOODS: Factories actually represent a variety of small businesses that can be started without much trouble or cost. Major Factories are outside the scope of the game.



1a. GUARD PLANTS are aggressive, semi-intelligent weeds. The Nillis Factory is a company that gathers them. When exported and potted, they can be trained to react to intruders: some plants will call the police, some will restrain the intruders, and some are carnivorous.

1b. CANNED TRAITS are personality traits that the Volois pack in cans. When an individual opens the can, he acquires the traits it contains. The Volois pack only those personality traits they approve of: placidity, cooperation, love of slime, and so on.

2. GLORIOUS JUNK is trash containing fragments from the Graw's glorious past, tools that can be repaired and books of lost secrets. The Graw Factory is a company of trash collectors.

3. LIVING TOYS are little animals bred for toughness and the ability to do tricks.

4a. DRIBBLE GLASS is clear glass that bends instead of breaking, so that it can be dropped, or even bounced without breaking. It is valued by Cultures that are clumsy or that fly.

4b. PRIMITIVE ART portrays real scenes without using perspective. It is valued by Cultures that have a simple outlook on life, or that have odd eyes.

5. PET MONSTERS are fierce beasts that have been tamed and trained. The Shenna stocked their hunting preserves with every variety of monster, and when the Shenna regressed to savagery the monsters escaped. The Shenna Factory is a permanent safari to trap and tame them.

6. SHINING SLIME is what the Yxklyx use to preserve their specimens. The Yxklyx Factory is a Yxklyx who is bribed to smuggle some out. It is valued as a powerful non-corrosive varnish.

7a. CUSTOM HIVES are condominiums made to order out of hive foam. The foam comes highly condensed, and when it is exposed to air it inflates into a permanent stackable dwelling.

7b. PEDIGREE BOLTS are high-quality bolts that replicate themselves automatically, when they are supplied with raw materials. They can be bred for thread, length, and head.

8. OTHER SHOES are the best imported appendagewear for beings that are hard to fit: dinosaurs, plants, bacteria, giant tentacled slugs, and snails.

9a. LIFE CONSTRUCTS are large life forms that the Cholos assemble cell by cell, much as the Egyptians built the Pyramids. The Cholos limit themselves to simple designs, but their ignorance of larger life forms causes unpredictable results.

9b. PORTABLE PIPE ORGANS are full-scale pipe organs on wheels, so they can be moved around.

10. INFINITE PUZZLES are puzzles that should have a solution, but don't.

GALLERY OF MERCHANTS

In the game, each player plays the part of one of the following merchants. Each has his own approach to salesmanship.

NIK [green] The "fast talker" . . . relies on emotional salesmanship, including youthful enthusiasm for a product, sorrow at a customer's lost opportunity, and pathetic appeals to help him through school.

DELL [yellow] The "sharp trader" . . . relies on his customer's greed. He hints that he is selling cheap because he is going out of business, or he is selling stolen goods. Of course, he is selling for the normal price.

HUMAN [blue] The "glad hander" . . . loves advertising. He puts up posters, constructs billboards, hands out handbills, invents jingles, and broadcasts continually on every frequency, until the local natives either buy his Goods, or throw him in jail for aggravated littering.

EEEP [white] The "user-friendly" . . . relies on the cleverest, cutest, most entertaining graphics you can imagine. Thousands of colors, three dimensional effects from different perspectives, realistic motion, and more subscreens than you can keep track of. He's positively user-affectionate. Who could resist?

WHYNOM [black] The "horse trader" . . . employs a brazen, straightforward sales pitch that includes a lot of haggling. He's just sly enough to keep the customer intrigued, and just honest enough to make the customer think he managed to get a good deal from a tough trader.

QOSSUTH [red] Known as "crazy Yog" . . . flunked "Meaning of the Universe IV" in school, so he is just eccentric, not crazy. He loves bizarre publicity stunts, such as eating a house, causing an island to rise out of the depths, or inventing new colors and painting the region. The natives are happy to help him finish his trading.

TRADING SUMMARY

Item:	Location:	How to get the item:	How to trade it:	Value:	Disposal:
IOU	in a Culture box	Land at any Spaceport or City in that System and take it for free. ¹	Barter it to the Culture specified on the IOU.	spend the value shown on the IOU. ³	remove from play
Relic	in a "?" box	Land at the "?" box and take it for free.	Barter it to any Culture.	spend 1/2 of the cost shown on the Relic ³	put it on the sun in the System you occupy
	on a sun	Buy it from the Culture in the sun's System. ²			
Equipment	in the Bank	Buy it from any Culture whose Science is shown on the marker. ²	Barter it to any Culture.	spend 1/2 of the cost shown on the marker. ³	put it in the Bank
Ship card	in the Bank	Buy it from any Culture whose Science is shown on the ship card. ²	Barter it to any Culture that sells ships. ⁴	spend the trade-in value the card shows ³	put it in the Bank
Goods and Factory Goods	next to a Culture marker	Buy it from the Culture in the System that contains that Culture marker. ^{2,5}	Sell it to any Culture listed on the back of the marker.	collect the payoff shown on the marker. ^{3,6}	put the marker in the cup ⁷
Fare	next to a Culture marker	Land at any City or Spaceport in that System and take the Fare for free.	Jettison it to the Culture shown on the front of the Fare.	collect the fee shown on the Fare.	put the Fare in the cup ⁷
DEEDS	Location:	How to get the item:	Markers that are put in that System:		Commissions:
Spaceport Deed	in the Bank	Buy it from the Culture that is in the System named on the Deed. ^{2,8}	Put a Spaceport on the Orbit symbol named on the Deed.		Collect 10% of everything (except IOUs) bought, sold, or bartered at this Spaceport.
Factory Deed	in the Bank	Buy it from the Culture named on the Deed. ^{2,8}	Put a Factory on any City or Spaceport. The Factory Goods named on the Deed go next to the Culture marker.		Each time the Factory Goods are bought from that Culture, collect 50% of their cost.
DEMAND	Location:	How to get paid:	Multiple Demands:	Multiple Goods:	
	next to a Culture marker	When you sell the Goods named on the Demand to that Culture, you get the bonus on the Demand and put the Demand in the cup. ⁷	If several Demands name the Goods, get bonuses for all of them but put only one Demand in the cup. ⁷	Sell the Goods one at a time. Each time you sell one Goods put one Demand in the cup, so each sale removes one bonus from the next sale. ⁷	

EXPLANATION: To trade with a Culture, you must be on a City or Spaceport in the system that contains that Culture. You can jettison items or trade them to other players anywhere you land.

Location: The item is available only when it is in the indicated location.

How to get the item: To buy an item you must pay the Bank the cost shown on the item.

How to trade it: When you barter an item, you get no money but you can use the item's value to buy other items that turn. When you collect a fee, payoff, bonus, or commission, the Bank pays you in game money. The **Value** column shows how much you get when you trade the item to the indicated Culture. The **Disposal** column describes what happens to an item when it is bartered, sold, or jettisoned.

DEEDS: When you buy a Deed, put the indicated marker(s) at the indicated location(s) in the system where you are trading. Each time anyone uses these markers, the Bank pays you the indicated commissions. In addition, the cost shown on the Deed adds to your Net Worth, like money. Deeds cannot be sold, bartered, jettisoned, or traded to other players.

DEMAND markers cannot be traded: instead, they pay a bonus when certain Cultures buy certain Goods.

Notes:

¹ When you land, you discover the Culture. Put its Culture marker in the Culture box.

² On the turn you land at a City, you can buy only one item. At a Spaceport you can buy any number of items, but the Bank pays the owner of the Spaceport 10% of the cost of each item.

³ On the turn you land at a City, you can sell or barter only one item [Exception: IOU's]. At a Spaceport you can sell and barter any number of items, but the Bank pays the owner of the Spaceport 10% of the value of each item.

⁴ Ships cannot be jettisoned or traded to other players.

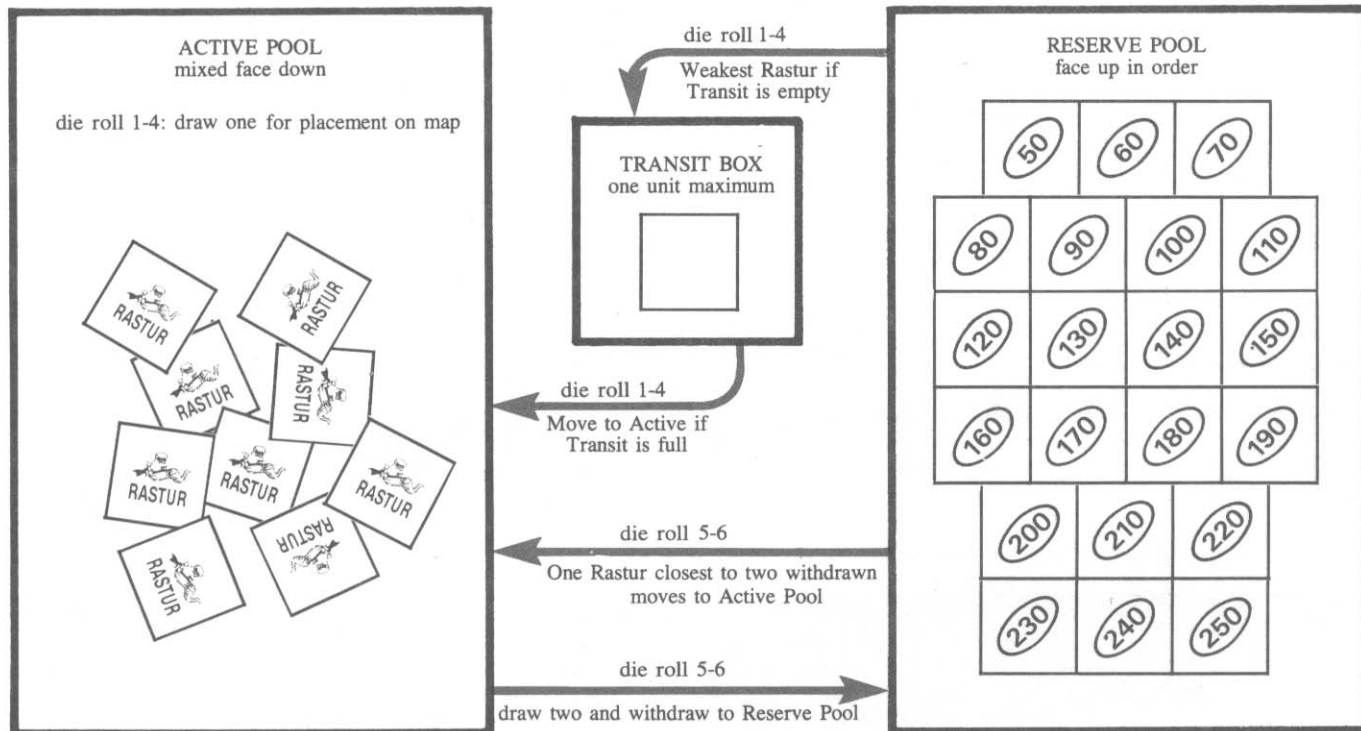
⁵ When you buy Factory Goods, the Bank pays the owner of the Factory 50% of their cost.

⁶ If the system contains any Demand markers that name the Goods you are selling, you also collect the bonuses on these Demand markers. If you are at a Spaceport, the owner of the Spaceport collects a 10% commission on the bonuses you collect.

⁷ After putting the piece in the cup, pick a piece from the cup and put it with its Culture marker. It goes into effect immediately.

⁸ When you buy a Deed from your own species, pay the cost shown on your reference card instead of the cost on the Deed.

SOLITAIRE FLOW CHART



COMBAT SUMMARY

TYPE OF ATTACK	Blasting targets (during movement)		Buying attacks (during trading)	
WHEN TO ATTACK:	Each time you move onto a dot, you can blast one target on that dot. ^{1,2}		When you trade at a City or Spaceport, you can buy attacks against targets on that dot. You can attack only one target at a time. ³	
TARGET:	Penalty marker ⁴	enemy pawn ⁵	enemy pawn	Spaceport or Factory ⁶
HOW TO ATTACK:	Fire weapons	Fire weapons; the defender can fire back	Pay the Bank \$50.	Pay \$100 in money and firepower. ⁷
RESOLVING THE ATTACK:	The attacker rolls one die to define his attack strength, and the defender rolls one die to define his defense strength. The player with the higher strength wins.			
ATTACKER'S STRENGTH:	his firepower plus 10 times his die roll	his firepower plus 10 times his die roll, minus the defender's Shields	Each player's strength equals his die roll plus 1 for each Fort, Factory, and Spaceport he owns on that dot, plus 1 if his species inhabits that System	Each player's strength equals his die roll, plus 1 for each Fort and Factory he owns on that dot, plus 1 for each Spaceport he owns anywhere in that System, plus 1 if his species inhabits that System
DEFENDER'S STRENGTH:	10 times his die roll, plus the value on the penalty marker	his firepower plus 10 times his die roll, minus the attacker's Shields		
ATTACKER WINS: (his turn continues)	He collects the value on the penalty marker, and the marker is destroyed	He hits the defender's ship ⁸	The attacker takes one Goods or Factory Goods of his choice from the defender's ship	The attacker becomes the new owner of the Spaceport or Factory he attacked. ⁹
ATTACKER TIES:	His turn ends	His turn ends	His turn ends	His turn ends
DEFENDER WINS: (the attacker's turn ends)	no effect	If he fired any weapons, he hits the attacker's ship ⁸	no effect	no effect

Firing weapons: When a player fires, he can fire any or all of the weapons on his ship. His "firepower" equals the total firepower of all of the weapons he fires.
Destroyed markers: Destroyed "?" markers are removed from play. Destroyed Forts and equipment go in the Bank.

Notes:

- ¹ When you move onto a Penalty marker or a Penalty oval, you must pay the penalty before you can blast a target. If you stop moving to avoid the penalty, you cannot blast anything.
- ² If you spend your turn on a dot without moving, you can blast one target on that dot before you start trading. If there is a Penalty on the dot, you must pay the penalty before you can blast.
- ³ Buying an attack counts against the limit of one buy at a City (on the turn you move there). It does not generate a commission at a Spaceport.
- ⁴ Includes "?" Penalty markers, enemy Forts, and Rastur markers.
- ⁵ Pawns cannot be blasted when they are on a City or Spaceport.
- ⁶ You cannot attack a Factory or Spaceport when its owner is in the same System with it.
- ⁷ You must fire at least one weapon or no attack takes place. Your firepower subtracts from the money you must pay the Bank.
- ⁸ The winner can hit one Hold of his choice, or destroy one marker of his choice on the loser's Hull. If he hits a Hold, its contents are affected as follows:
 - a. Fare markers go into the cup.
 - b. Goods and Factory Goods are taken by the winner. He can jettison them or take them aboard his ship (jettisoning other Items to make room for them, if necessary).
 - c. Equipment is damaged and cannot be used or bartered. It is instantly repaired when its owner lands at a Culture that sells it.
- ⁹ He takes its Deed, and he replaces its marker on the map with one of his own.