Notes from Hades

My final trip of the year took place in early December, once again to Geneva. I arrived on Tuesday morning, and had meetings Tuesday afternoon, all day Wednesday, Thursday, and Friday, and I left Saturday morning. Not much else to tell.

I would like to wish all of you and your families the best for this holiday season. We are getting prepared for Christmas, and I am looking forward to spending it at home.

As the end of the year approaches, I am looking at some minor changes with the zine, as well. It is now about two years since I started on my current web hosting solution, and it's working pretty well. I have plenty of space on the server, which has allowed me to put nearly the entire archive of old issues up on line in pdf format. Only the elusive issue #3 is missing. I can also keep more back issues available as html pages. There are other features that I have not yet taken advantage of which I will explore when I have time. One drawback, however, is that the cost is higher than the old solution (which, granted, was free). I did put the PayPal donation link on the main page, and the first year I was quite gratified with the response. Donations covered my entire operating expenses for the web site for 2009. For 2010, however, not so much. I have received no donations for the entire year. Given that, I am going to have to make a change. Starting next issue, there will be a game fee of $5.00 for all web-only subscribers. Games will only start after I have received the necessary game fees. If anyone wants to back out of any games they are currently signed up for due to this, I will understand. I will also increase the subscription cost for the paper zine, because other costs have gone up as well. I hate having to do this, but I don't really have a choice.

The next deadline is **Tuesday, January 25 at 5:00 p.m. Pacific Time. Please do not call or fax orders after 10:00 p.m. Pacific time**. My wife and I tend to retire early. Also, if you want to fax in orders, call first. We hang up on unannounced faxes.

Contents

Pedagoguery   Page 13

Game Openings

Purebred. Machiavelli. Have Ward Narhi, Bob Robles, Pasquale Giovine, Dave Partridge, and Walt O'Hara, Mike Scott, Kevin Wilson, Jerry Roalstad,. This game is full.

Golden Retriever. Seafarers of Catan. Have Chris Geggus, Dave Partridge, Dave Hooton, Mike Scott, Bill Scharf. Will take up to 1 more.

Rottweiler. Industrial Waste. Have Andy York, Dave Partridge, Eric Brosius, Richard Weiss. This game is full.

Pick of the Litter. Silverton. Will start after Hunter ends. Have Dave Partridge, and Dave Hooton, Paul Bolduc, will take up to 3 more.

Russian Wolfhound. Kremlin. Will start after Pateel ends. Have Walt O'Hara, Mike Scott, Bob Robles, Bill Scharf. Will take up to 2 more.

Dog Show. Outpost. Will start after Basset ends. Have Eric Brosius, Andy York, Andy Lewis, Dave Hooton, Dave Partridge, Bill Scharf, will take up to 4 more.

Wish List

Goa. Have Brad Martin, Dave Partridge, will take up to 2 more.

Power Grid. Players will have the choice of 10 maps and several deck options. Have Dave Hooton, Dave Partridge, will take up to 3 more.

Phoenicia. A game similar to Outpost set in ancient times. Have Cary Nichols, Andy York, Dave Partridge, will take up to 7 more.

Age of Renaissance. This will use the EuroGames rules. Have Paul Bolduc, Chris Geggus, Bob Robles, will take up to 3 more.

Puerto Rico. Will start after Plantation Dog ends. Have Dave Partridge, will take up to 4 more.

Machiavelli. This game will start after the next Machiavelli game finishes. Have Bob Robles, will take up to y more.

Gunboat Machiavelli. This game will start after the second Machiavelli game finishes. Will take up to 8.

Robo Rally. Map to be decided. Will take up to 8.

In general, game ownership is recommended, but not required.

Note that a subscription to S.O.B. is not required to play in a game run by flier, but that a game fee will be charged to non-subbers.

Barking Up the Wrong Tree
Fall 1257
Miller Number 2007Bpw10
Advanced Rules, Natural Disasters, Special Military Units, Conquest, Gray Press, Ultimate Victory
Deadline Winter/Spring 1258 1/25, Tuesday

Venetian ducats create a Venetian pocket in Milan's homeland while the Pope continues to maneuver north. Aragon chases the Milanese fleet and Florence hangs on.
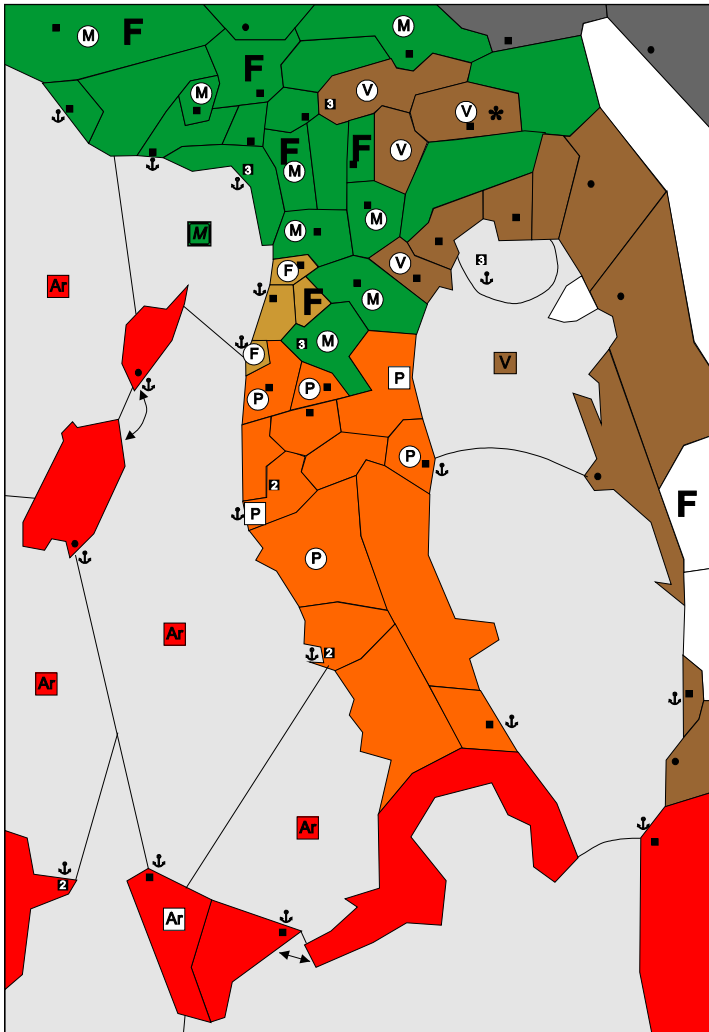
Summer 1257 Retreats   *Expenditures*

Aragon F Gulf of Lions retreats to Western Mediterranean   Venice spends 18d ducats to buy Milan A Milan.

Barking Up the Wrong Tree

○ Army □ Fleet ◇ Garrison ◆ Autonomous Garrison ◈ Besieged Garrison

Orders

ARAGON (Scharf):	F Corsica to GULF OF LIONS, F WESTERN MEDITERRANEAN supports F Corsica to Gulf of Lions, F TYRRHENINA SEA TO LIGURIAN SEA, F GULF OF NAPLES TO TYRRHENIAN SEA, F PALERMO supports F Gulf of Naples to Tyrrhenian Sea
FLORENCE (Whyte):	A Lucca holds, A PIOMBINO holds
MILAN (Renken):	A PROVENCE holds, A Turin to TYROLEA, A Savoy to SALUZZO, A Milan to Carinthia (nsu), A FORNOVA supports A Modena, A Trent supports A Milan to Carinthia (nsu, DISLODGED, retreat Verona, garrison, OTB), A Bergamo to MANTUA, A Mantua to BOLOGNA, A FLORENCE supports A Mantua to Bologna, F (EM) Gulf of Lions to LIGURIAN SEA
PAPACY (Robles):	A Patrimony to SIENNA, A Perugia to AREZZO, A Ancona to Urbino, A Naples to CAPUA, F ROME holds, F URBINO to Bologna
VENICE (Partridge):	A MILAN supports A Carinthia to Trent, A Carinthia to TRENT, A Verona to BERGAMO, A Padua to FERRARA, F Carinthia to UPPER ADRIATIC, G Modena convert to A (DESTROYED)

Your ducats:

Press

Pope – Doge: Sorry about the confusion.

Spring 1258 Famine

Poor Year – Column Only: Cremona, Pistoia, Fornova, Turin, Bosnia, Avignon

Spring 1258 Income

Provinces and cities that are underlined do no produce income while those that are in italics could change hands depending on retreats.

Provinces

ARA	Corsica, Sardinia, Tunis, Palermo, Messina, Otranto, Durazzo	7
FLO	Lucca, Pisa, Pistoia, Piombino	3
MIL	Avignon, Swiss, Tyrolea, Carinthia, Como, Turin, Provence, Marseilles, Saluzzo, Savoy, Montferrat, Genoa, Pavia, Fornova, Parma, Cremona, Verona, Mantua, Modena, Bologna, Florence	1 6
PAP	Bari, Salerno, Aquila, Naples, Capua, Rome, Patrimony, Sienna, Arezzo, Perugia, Spoleto, Ancona, Urbino	1 3
VEN	Milan, Trent, Bergamo, Ferrara, Padua, Treviso, Friuli, Carniola, Croatia, Dalmatia, Ragusa, Albania	1 2

Seas

ARA	Gulf of Lions, Western Mediterranean, Tyrrhenian Sea, Gulf of Naples	4
MIL	Ligurian Sea	1
VEN	Upper Adriatic, Venice	2

Cities

ARA	Corsica, Sardinia, Tunis (2), Palermo, Messina, Durazzo	7
FLO	Lucca, Pisa, Piombino	3
MIL	Avignon, Swiss, Tyrolea, Turin, Marseilles, Saluzzo, Savoy, Montferrat, Genoa (3), Pavia, Cremona, Mantua, Modena, Bologna, Florence (3)	1 6
PAP	Bari, Naples (2), Rome (2), Sienna, Arezzo, Perugia, Ancona	9
VEN	Milan (3), Trent, Ferrara, Padua, Treviso, Carniola, Croatia, Dalmatia, Ragusa, Albania, Venice (3)	1 5

Totals

Variable income die roll was 5.

Country	Variable	Provinces	Seas	Cities	Gross
ARAGON:	4	7	4	7	22
FLORENCE:	4	3	0	3	10
MILAN:	7	16	1	16	40
PAPACY:	5	13	0	9	27
VENICE:	4	12	2	15	33

Your ducat total:

Game Summary

|	1250	1251	1252	1253	1254	1255	1256	1257	1258
Ara	3	3	4	5	5	5	6	6	6
Avi	4	5	6	7	5	4	2	0	0
Flo	3	4	5	6	7	5	5	5	3
Gen	3	3	3	0	0	0	0	0	0
Mil	3	6	6	7	8	10	12	15	15
Pap	3	4	4	4	4	5	5	5	7
Ven	3	4	4	7	9	11	11	9	11

Bolognese
Summer 1051
Miller Number 2010?????
Advanced Rules, Special Military Units, Conquest, Gunboat, Gray Press, Ultimate Victory
Deadline for Fall 1051 1/25, Tuesday

Sieges spring up throughout the north as the Holy Roman Empire, Papacy, Pisa, and Venice all some. The Normans take out a second Muslim army and the Byzantines take out a Lombard army.

Bolognese
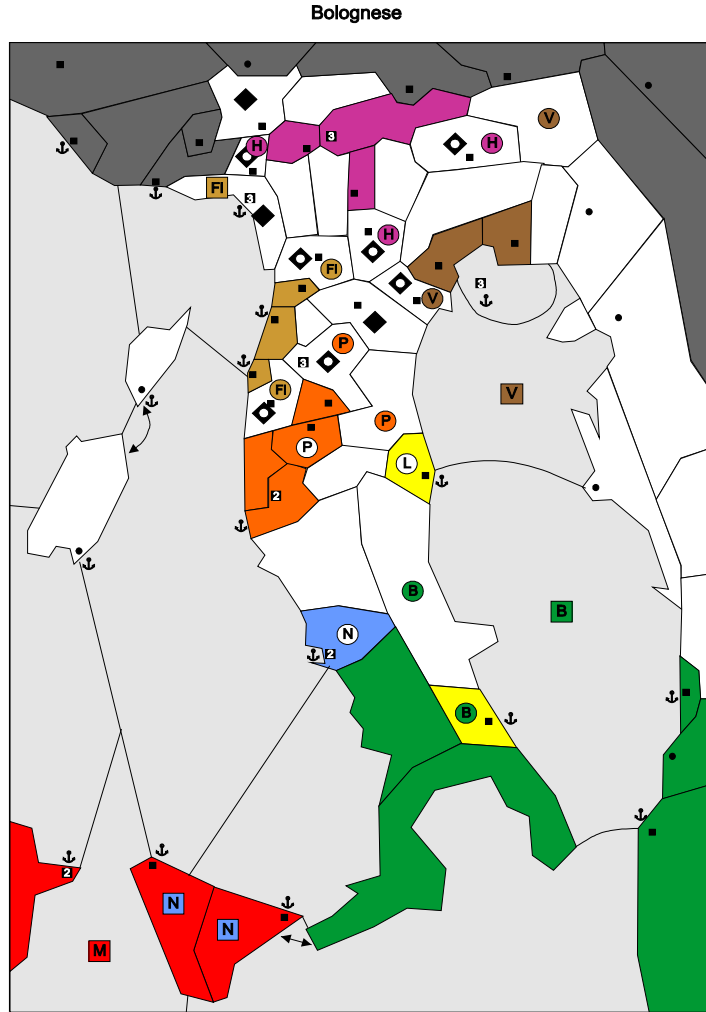
○ Army □ Fleet ◇ Garrison ◆ Autonomous Garrison ◈ Besieged Garrison

Orders

Byzantines □:   A AQUILA supports A Salerno to Bari, A Salerno to BARI,
                       F LOWER ADRIATIC supports A Salerno to Bari
Holy Roman Empire □:   A MONTFERRAT besieges, A TRENT besieges, A MANTUA
besieges

Normans □:   A NAPLES holds, F Gulf of Naples to MESSINA, F PALERMO
supports F Gulf of Naples to Messina

Papacy □:   A Rome to PERUGIA, A Perugia to URBINO, A FLORENCE
besieges

Pisa □:   A MODENA besieges, A SIENNA besieges, F Ligurian Sea
to GENOA

Venice □:   A Verona to CARINTHIA, A FERRARA besieges, F UPPER
ADRIATIC supports Lombard A Ancona

Muslims: A Messina holds (Dislodged, retreats OTB), F CENTRAL
MEDITERRANEAN holds

Lombards: A ANCONA holds, A Bari holds (Dislodged, retreats
OTB)

The box will be checked for the country you are playing. Your ducats:

Press

Holy Roman Empire – All: What's happening? Our peaceful game isn't any more?

Normans – Pope: Absolutely.

Normans – Byzantines: Peace?

Pisa – Holy Roman Empire: The maritime Republics of Pisa and Genoa worked always together for the prosperity of own sailor and insular citizens, so it appears very strange the interest on their provinces from the mountain populations of HRE. Genoa is under Pisa influence, sorry. Or HRE intend to exchange cities of Turin and Montferrat, near his own provinces, with Genoa harbour? Or instead does HRE speak about peace but prepare an armed assault to coastal populations? In this last case, we are ready to wait the invaders.

Pisa – Venice: Dear Doge, it seems that HRE wants all North for him: now Genoa, Mantua and Trent, and after? He does not speak about Turin, Como, Montferrat, Bergamo, Fornovo, Parma and Carinthia, that probably he considers own properties. Should you agree that HRE have all provinces quoted before, from Genoa to Carinthia? Really I don't think this a good begin for us two with a so big neighbor in few turns. Please, you should consider with great attention the situation in your northern rear, before to go to south.

Pisa – Papacy: I completely agree with your thoughts. I shall remain where you can see actually from Genoa to Sienna, if you remain in yours. On the other hand, HRE has bad intention on my provinces of influence. Bologna is for you, but I ask that Pistoia remains free, for the moment. Please, you are free to comment or suggest changes to my proposal as you wish, we can agree.

Robover
Turn 18
Turn 19, 1/25 Tuesday

Program Robots

Narbot and Protomax will shut down after this turn.

Robot	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
DizzyBot	Move 3 (820)	Rotate Left (130)	*Move 1 (650)*	*Move 1 (580)*	*Move 1 (500)*
Slambot 9000	U-Turn (20)	Move 2 (760)	U-Turn (10)	Rotate Right (400)	Move 1 (620)
Jeeves	Move 3 (830)	Rotate Left (410)	Move 1 (610)	Rotate Left (370)	U-Turn (30)
THX 1139	Move 3 (810)	Rotate Right (100)	Move 2 (700)	Move 2 (680)	Rotate Left (310)
Dalekbot	Move 1 (530)	Rotate Right (180)	Move 2 (670)	*Rotate Right (320)*	*Move 2 (750)*
Narbot	Move 1 (520)	Move 3 (840)	*Rotate Right (340)*	*Rotate Left (110)*	*Rotate Left (170)*
100% Robotomy	Rotate Right (160)	Move 1 (510)	Rotate Right (80)	Move 3 (800)	Move 1 (640)
Protomax	*Move 1 (550)*	*Rotate Right (240)*	*Rotate Left (210)*	*Rotate Left (270)*	*Move 2 (710)*

Locked registers are in italics.

Phase 1

Jeeves dashes ahead 3 to I9, DizzyBot dashes ahead 3, running into the wall at L5, THX 1139 dashes ahead 3, hitting the wall at D5, Protomax moves ahead 1 to I3, DalekBot moves ahead 1 to K3, Narbot moves ahead 1 to I7 (flag 1 touched and archive relocated), 100% Robotomy rotates right to face east, and Slambot 9000 makes a U-turn to face south. The conveyor belt moves Dalekbot to K2 and rotates it to face north. Narbot shoots Protomax, locking register 3.

Phase 2

Narbot dashes ahead 3 to I4, Slambot 9000 moves ahead 2 to B5 (flag 2 touched and archive relocated), 100% Robotomy moves ahead 1 to D1, Jeeves rotates left to face north, Protomax rotates right to face east, Dalekbot rotates right to face east, DizzyBot rotates left to face north, and THX 1139 rotates right to face south. The conveyor belt moves Dalekbot to J2. Jeeves shoots Narbot, locking register 4, and Narbot shoots Protomax, locking register 2.

Phase 3

THX 1139 moves ahead 2 to D7, Dalekbot moves ahead 2 to L2, DizzyBot moves ahead 1 to L4, Jeeves moves ahead 1 to I8, Narbot rotates right to face east, Protomax rotates left to face north, 100% Robotomy rotates right to face south, and Slambot 9000 makes a U-turn to face north. DizzyBot shoots Dalekbot, Narbot shoots DizzyBot (register 5 locked), Jeeves shoots Narbot (register 3 locked), and 100% Robotomy shoots THX 1139.

Phase 4

100% Robotomy dashes ahead 3 to D4, THX 1139 moves ahead 2 to D9, DizzyBot moves ahead 1 to L3, Slambot 9000 rotates right to face east, Jeeves rotates left to face west, Dalekbot rotates right to face south, Protomax rotates left to face west, and Narbot rotates left to face north. DizzyBot and Dalekbot shoot each other (DizzyBot's register 4 locked, Dalekbot's register 5 locked), Narbot shoots Protomax (register 1 locked), and 100% Robotomy shoots THX 1139.

Phase 5

Dalekbot moves ahead 2 to L4, pushing DizzyBot to L5, Protomax moves ahead 2 to G3, 100% Robotomy moves ahead 1 to D5, Slambot 9000 moves ahead 1 to C5, DizzyBot moves ahead 1 to L4, pushing Dalekbot to L3, THX 1139 rotates left to face east, Narbot rotates left to face west, and Jeeves makes a U-turn to face east. DizzyBot and Dalekbot shoot each other (DizzyBot's register 3 is locked and Dalekbot's register 4 is locked), Slambot 9000 shoots 100% Robotomy, and 100% Robotomy shoots THX 1139.

Cleanup

Nothing happens.

Notes

Thanks to Andy Lewis for his unused standby orders for Narbot.

Players

#	Player Name	Robot Name	Color	Options	Position	Flags	Lives	Damage
1	Dave Partridge	DizzyBot	Blue	Crab Legs, Conditional Program	L4>N	1	2	7
2	Bill Scharf	Slambot 9000	Pink		C5>E	1, 2	1	0
3	Chris Geggus	Jeeves	Yellow		I8>E	1, 2, 3	3	1
4	Dave Hooton	THX 1139	White	Double-Barreled Laser, Radio Control, High-Power Laser	D9>E	1, 2	2	3
5	Andy York	Dalekbot	Silver		L3>S	1	1	6
6	Ward Narhi	Narbot	Red	Fourth Gear	I4>W	1	3	7
7	Michael Longdin	100% Robotomy	Dark Green	Scrambler	D5>S	1, 2	1	1
8	Cary Nichols	Protomax	Green	Pressor Beam, Fire Control	G3>W		2	9

Your Program Cards:

Husky
Turn 8, Phase 2
Turn 8, Phases 3 through 5, 1/25 Tuesday

Players

Order	Player Name	Company Name	Color	Power Plant 1	Power Plant 2	Power Plant 3	Cities	Money
5	Michael Longdin	100% Power Mad	Green	04 Coal 2→1 (2)	24 Trash 2→4	30 Trash 3→6	9	106
4	Dave Hooton	Volkisch Tzapverein (VolT)	Orange	25 Coal 2→5 (2)	22 Eco X→2	32 Oil 3→6 (3)	10	125
3	Dave Partridge	Spewing Massive Olid Gasses (SMOG)	Red	15 Coal 2→3 (2)	27 Eco X→3	33 Eco X→4	10	118
1	Andy York	Deutsches Elektrisch Arbeit Direktor (DEAD)	Yellow	21 Hybrid 2→4 (1O, 1C)	20 Coal 3→5	29 Hybrid 1→4 (1O)	12	78
2	Brad Martin	Renewable Energy Matters (REM)	Blue	10 Coal 2→2	28 Nuclear 1→4 (1)	16 Oil 2→3	11	107

Phase 2, Power Plant Bidding

DEAD opens the bidding on power plant 20 at 20 and gets it for 31, discarding power plant 11. Power plant 19 is drawn.

REM passes

SMOG passes

VolT passes

100% Power Mad passes

Power plant 42 goes to the bottom of the deck and is replaced by power plant 36.

Power Plant Market
Current Market

14 Trash 2→2	17 Nuclear 1→2	18 Eco X→2	19 Trash 2→3

Future Market

23 Nuclear 1→3	31 Coal 3→6	34 Nuclear 1→5	36 Coal 3→7

Fuel

Price	1	2	3	4	5	6	7	8	10	12	14	16
Uranium					1	1	1	1	1	1	1	1
Trash				2	3	3	3	3				
Oil			2	3	3	3	3	3				
Coal			2	3	3	3	3	3				

Pateel
Turn 6 Funeral Commission through Parade
Turn 6 Special Influence Declaration Phase, 1/25 Tuesday

Funeral Commission

BBC declares 1 IP each on Talksalott and Strychnin. Wasolin is acting Foreign Minister and nominates Schukrutoff. Talksalott, Strychnin, and Nikotin all vote no. Nomination fails and Wasolin ages to 54. Nominates Nikotin, and the nomination succeeds with only 2 no votes (Talksalott and Strychnin). Zapadniye Front declares 9 IP on Nikotin. Niewitko ages to 75, and Nikotin ages to 62.

Replacement Phase

Talksalott advances by age to Defense Minister. M advances by age to Industry Minister and O to Sport Minister. V, W, and Y advance by age to Candidate.

Politburo

Office	Policitian	Condition	Influence
Party Chief	Turi Nikotin (R)	62, ?	**10+ (ZF)**
KGB Head	Lech Schukrutoff (B)	76, +, ?	
Foreign	**Petr Niewitko (D)**	75, ?, weak	**1 (PaH)**
Defense	Antonj Talksalott (J)	67	**1 (BBC)**
Ideology	Victor Wasolin (Z)	54, ?	**5 (KMFC)**
Industry	Sergei Eatstumuch (M)	64	
Economy	Mikail Strychnin (T)	77, +	**1 (BBC)**
Sport	Oleg Satin (O)	62	

Candidates: P, U, V, W, Y

Intrigue Cards

Rehabilitation Phase

Strychnin rehabilitates F and I, aging to 77.

Parade Phase

Nikotin waves.

Special Influence Declaration Phase

Karl Marx Fan Club, Finlandia, Blshevics Born in Calabria, The California Connection, People are Heros, Zapadniye Front

People: F, I
Siberia: L (68), X (61, ++), N
Kremlin Wall: A, E, S, K, H, G, C, Q

Players

Player	Faction Name
Bob Robles	Karl Marx Fan Club
Ward Narhi	Finlandia
Pasquale Giovine	Bolshevics Born in Calabria
Mike Scott	The California Connection
Bill Scharf	People are Heroes
Brad Martin	Zapadniye Front

Undeclared Influence

Frontier Dog
Turn 13
Turn 14, 1/25 Tuesday

Segment 1

Old Man:	Card 1 – Advance (straight ahead to C21), turn 1 of 2
Shaggy:	Delay
Banker:	Card 10 – Jab (do nothing, target Shaggy), turn 1 of 2
Smith:	Delay
NCO:	Delay

Segment 2

Old Man:	Card 1 – Advance (straight ahead to C21), turn 1 of 2
Shaggy:	Card 5 – Cock/Aim/Shoot (aim at F18), turn 1 of 2
Banker:	Card 10 – Jab (do nothing, target Shaggy), turn 2 of 2
Smith:	Delay
NCO:	Card (3) – Turn (ahead left to face H17), turn 1 of 1

Segment 3

Old Man:	Card 8 – Load (C36c, first third of a shell), turn 1 of 3
Shaggy:	Card 5 – Cock/Aim/Shoot (aim at F18), turn 2 of 2
Banker:	Card (8) – Head Out, turn 1 of 2
Smith:	Delay
NCO:	Card (8) – Head Out, turn 1 of 2

Segment 4

|	
Old Man:	Card 8 – Load (C36c, first third of a shell), turn 2 of 3
Shaggy:	Card 6 – Cock/Aim/Shoot (aim at F18), turn 1 of 2
Banker:	Card (8) – Head Out, turn 2 of 2
Smith:	Delay
NCO:	Card (8) – Head Out, turn 2 of 2

Segment 5

Old Man: Card 8 – Load (C36c, first third of a shell), turn 3 of 3
Shaggy: Card 6 – Cock/Aim/Shoot (aim at F18), turn 2 of 2
Banker: Card (3) – Turn (ahead right to face G19), turn 1 of 1
Smith: Card (3) – Turn (ahead right to face E17), turn 1 of 1
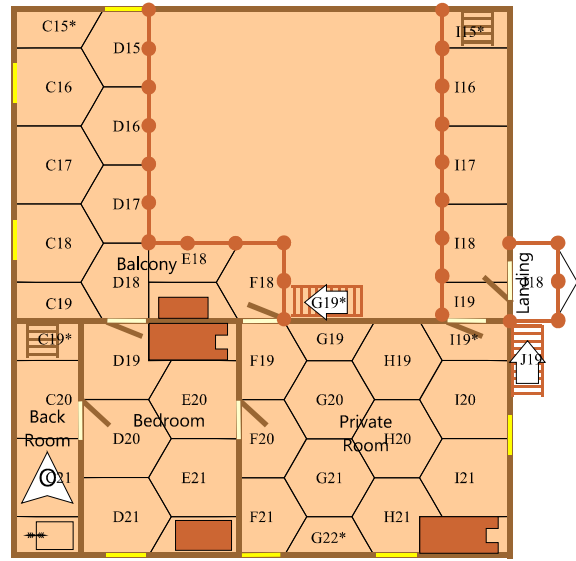**NCO:** Pass

End of Turn

Smith loses 2 delay points, NCO loses 1 delay point, Shaggy loses 1 delay point. At the start of Turn 14, Smith draws cards 64, 23, and 71, for the SERIOUS 3, resulting in 4 delay points. The Smith is unconscious.

Frontier Dog
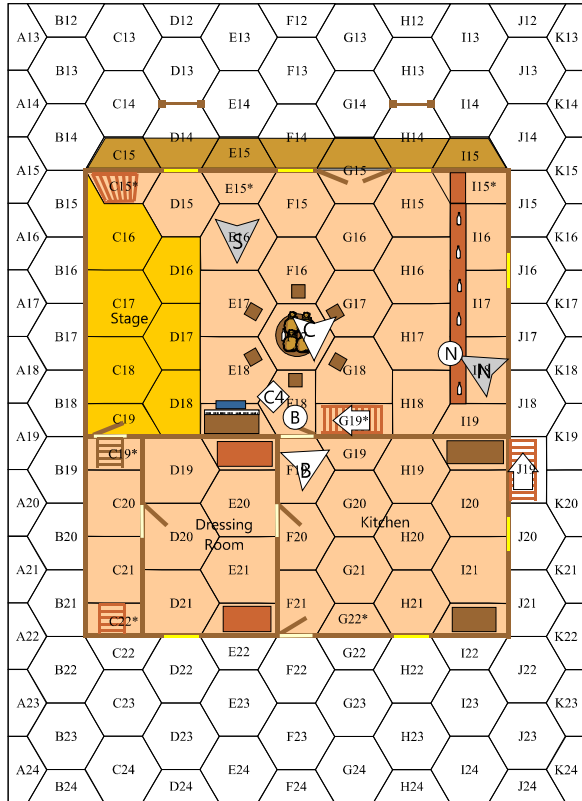
Frontier Dog Second Story

Westerners

Side	Player	Character	Location	Bonus Cards	Skills	Delay	Endurance	Comments
A	Paul Bolduc	Old Man (O)	UC21>UC20	5, 7, 8	BR +1		25	
B	Andy Lewis	Shaggy (C)	F17>F18				20	4 AIM points at F18
C	James Pratt	Banker (B)	F19>G19				20	HEAD in F18
D	Mike Scott	Smith (S)	E16>E17	8	BR +2	N/A	0	SERIOUS 3, UNCONSCIOUS
E	Chris Geggus	NCO (N)	I18>H17	9	BR +1		16	DOWN, HEAD in H17

Weapons

Character	Holstered	Gun Hand	Other Hand	Both Hands	Ammo
Old Man	Knife	Empty	Empty	C36c, cocked	C36c: △△△△↗⊗
Shaggy	Knife	C45, cocked	Empty	Empty	C45: OO⊗⊗⊗⊗
Banker	None	SW45, cocked	Empty	Empty	SW45: OOOOOO
Smith	Knife	C45c, cocked	Empty	Empty	C45c: △△△△△△
NCO	SBR	C41, cocked	Empty	Empty	C41: OOO⊗⊗⊗

Procyon
Turns 18.1 through 20.1
Turns 20.2 through 22.2, 1/25 Tuesday

Turn 18

1st: Andy Lewis (Humans/Mystery Machine 5) Rolls Used: 2 3 5
Jump Start to TeleGate 5 – Space Station.
Sells Pedegree Bolts for $200 (from the cup: Bionic Perfume at 1a). Buys Shuttlestop.

2nd: Paul Bolduc (Dell/Not for Hire) Rerolls the 2, becomes a 5. Rolls Used: 1 * 3
Ice Station (p) – A – R - Y.

3rd: Bob Robles (Eeepeeep/Bender's Freedom Brigade) Rolls Used: 3 3 5
Asteroid City West.
Sells Mulch Wine for $60 (from the cup: Finest Dust at 4a). Sells Mulch Wine for $60 (from the cup: Chicle Liquor at 7a). Barters Scout for $30

credit, and uses it plus $90 to buy a Clipper. Buys Immortal Grease for $50.

4th: Andy York (Qossuth/Qossuth Entrepreneur Division) Rolls Used: 2 3
Ice Station(s) – Ice Station(p) – A – R - Y.

5th: Chris Geggus (Niks/Ganymede Enterprises Going South) Rolls Used: 5 6
Jewel Port(s).
Trades in IOU for $80 credit and buys the Factory and Jellybeast Landing port for $220.

6th: Dave Partridge (Whynoms/Venus-Orion Oligarch Merchantile) Rolls Used: 3 4
Ice Station(p) – A – (R) – (Y) – B – (R) – (Y) – A – TeleGate 3 – TeleGate 2 – NC2.

Turn 19

1st: Andy Lewis (Humans/Mystery Machine 5) Rolls Used: 2 3 3
Jump Start to TeleGate 2 – NC2 - Shuttlestop.
Sells Chicle Liquor for $90 plus $120 demand (from the cup: Finest Dust at 4a and Demand for Pelts at 6). Buys Designer Genes for $60.

2nd: Paul Bolduc (Dell/Not for Hire) Uses Mulligan Gear: 2 becomes 1, Rolls Used: 6 * 3

Y – B – R – Y – A – Jellybeast Landing(p).
Sells Psychotic Sculpture for $250 (from the cup: Demand for Wine at 5). Buys Bionic Perfume for $80 and a shield for $60. GEGS gains $39 in port commission.

3rd: Bob Robles (Eeepeeep/Bender's Freedom Brigade) Rolls Used: 2 4 4 5
Asteroid City West – TeleGate 1 – TeleGate 5 – Space Station.

Sells Immortal Grease for $100 plus $50 demand (from the cup: Voll Silk at 1b and Demand for Genes at 10).

4th: Andy York (Qossuth/Qossuth Entrepreneur Division) Rolls Used: 4 5 Y – B – R – Y – A – TeleGate 3 – TeleGate 4 – Paintfall(o) – Paintfall(s).
Barters Spy Eye for $50 credit and buys the Factory for $150.

5th: Chris Geggus (Niks/Ganymede Enterprises Going South) Rolls Used: 1 6 Jewel Port(s) – Jewel Port(o) – (R) – B – Y – NC6 – Cobble Port(p).
Sells Shining Slime for $200 (from the cup: Rock Videos at 4b). Sells Immortal Grease for $100 plus $100 demand (from the cup: Mulch Wine at 3

and Visible Holes at 4c). Buys Servo-mechanism for $200 and picks up Fare to Base. MM5 gains $60 in port commission.

6th: Dave Partridge (Whynoms/Venus-Orion Oligarch Merchantile) Rolls Used: 3 3 NC3 – A – Whale Port(o) – Open Port.
Sells Psychotic Sculpture for $250 (from the cup: Demand for Wine at 5).
Sells Psychotic Sculpture for $250 (from the cup: Demand for Spice at 4b).
Sells Psychotic Sculpture for $250 (from the cup: Melf Pelts at 5). Buys 3 Mulch Wine for $60.

Turn 20

1st: Andy Lewis (Humans/Mystery Machine 5) Rolls Used: 2 4 4 Jump Start to TeleGate 4 – Paintfall(o) - Paintfall(s).
Sells Designer Genes for $120 (from the cup: Chicle Liquor at 7a). Buys Voll Silk for $140.

Current status:

1a (Nillis): 1 Bionic Perfume, Guard Plants

1b (Volois): 4 Voll Silk, Canned Traits

2 (Graw): 6 Space Spice, 2 Demand for Designer Genes (+$40), Demand for Impossible Sculpture (+$90)

3 (Niks): 2 Demand for Space Spice (+$60)

4a (Dell): Demand for Mulch Wine (+$60), 6 Finest Dust

4b (Humans): 4 Demand for Space Spice (+$40), 4 Rock Videos, Demand for Bionic Perfume (+$60), Gate Lock Relic

4c (Wraiths): Demand for Bionic Perfume (+$60), Demand for Voll Silk (+$60), 4 Visible Holes

5 (Shenna): 4 Melf Pelts, 2 Demand for Finest Dust (+$50), Pet Monsters, 2 Demand for Mulch Wine (+$40)

6 (Yxklyx): Fare to 4b ($120), Demand for Visible Holes (+$70), Demand for Melf Pelts (+$50)

7a (Zum): 6 Chicle Liquor, 3 Demand for Finest Dust (+$50)

7b (Eeepeeep): Demand for Immortal Grease (+$50), 2 Demand for Finest Dust (+$50), 1 Servo-mechanism

8 (Whynoms): 5 Impossible Furniture, Demand for Chicle Liquor (+$60)

9a (Chola): 1 Demand for Chicle Liquor (+$60), 1 Demand for Immortal Grease (+$50)

9b (Wollow): 4 Megalith Paperweight, Demand for Impossible Furniture (+$70), Fare to 5 ($110)

10 (Qossuth): Demand for Designer Genes (+$60), Infinite Puzzles

Base: Fare to 4a ($140), Fare to 9a ($110)

Basset
Turn 11
Turn 12, 1/25 Tuesday
Commander Actions

MMC opens the bidding on an Outpost at 100 and gets it (Or2, Wa6, Wa7, Wa7, Wa7, Ti7, Ti11, Ti12, Mi16, HE discount, Ec discount). Moves a population factor from an or factory to the new titanium factory.

Lowreyville opens the bidding on Scientists at 40 and LGM gets it for 60 (Or4, Wa10, MWa, Mi16). Opens the bidding on Ecoplants at 30 and Cosmic Nomads gets it for 35 (Wa4, Wa4, Wa6, Wa6, Wa7, Wa8). Opens the bidding on the second Ecoplants at 30 and gets it (MWa). Buys a titanium factory (Or4, Or4, Ti11, Re11) and 2 population factors (Ti12)

Little Green Men passes.

ShaggyMobile opens the bidding on a Outpost at 100 and gets it (Or3, MWa, MWa, Ti7, HE discounts). Moves a population factor from an ore factory to the new titanium factory.

HOBO buys a research factory (Wa5, Wa5, Wa5, Wa8, Re9) and a population factor (Wa10).

HBDC passes

BarterTown buys a titanium factory (Wa5, Wa6, Ti8, Ti11) and 2 robots (Or3, Wa7, Ti11).

Cosmic Nomads buys 2 population factors (Or4, Wa6).

The Players

	Outpost Name	Commander	Factories	Upgrades	VP
1	MMC	Eric Brosius	OrF, **OrF, WaF, WaF, WaF, TiF, TiF, TiF, TiF**	HE, No, 2OL, Ec, Ou	31
2	Lowreyville	Michael Lowrey	**OrF, OrF, WaF, WaF, WaF, WaF, TiF, TiF, TiF, TiF**	No, HE, Sc, Ou, Ec	29
3	ShaggyMobile	Andy Lewis	OrF, OrF, **WaF, WaF, WaF, WaF, TiF, TiF**	2HE, Wa, 2Ou	21
4	Little Green Men	Dave Partridge	**OrF, OrF, WaF, WaF, WaF, WaF, WaF**	No, Ec, Wa, OL, Sc	20
5	HOBO	Dave Hooton	OrF, OrF, **WaF, WaF, WaF, WaF, ReF, ReF**	No, DL, Wa, La	17
6	BarterTown	Andy York	OrF, OrF, WaF, **WaF, WaF, WaF, TiF, TiF,** *TiF, TiF, TiF*	HE, Ro	17
7	Cosmic Nomads	Cary Nichols	**OrF, OrF, WaF, WaF, WaF, WaF, WaF**	2DL, No, Wa, Ec	17
8	HBDC	Kevin Wilson	OrF, OrF, WaF, **WaF, WaF, WaF, WaF, ReF**	2DL, Wa, La	14

HBDC is Heavenly Bodies Development Corporation. MMC is Mud Mining Corporation.   HOBO is High Orbit Biological

Available Upgrades

New Arrivals: Laboratory, Robots, Moon Base, Ecoplants, Scientists

Upgrade	Minimum Bid	Available	Not Yet Delivered
Scientists (Sc)	40	1	2
Orbital Lab (OL)	50	0	2
Robots (Ro)	50	1	3
Laboratory (La)	80	3	0
Ecoplants (Ec)	30	1	0
Outpost (Ou)	100	1	0
Space Station (SS)	120	0	6
Planetary Cruiser (PC)	160	0	6

Upgrade	Minimum Bid	Available	Not Yet Delivered
Moon Base (MB)	200	1	5

Production Cards

Lowreyville, LGM, and HBDC took MegaWater cards. MMC and Lowreyville took MTi cards.

Hunter

Turn 8, Phases IV – VI, Turn 9, Phases I - III
Turn 9, Phases IV – VI, Turn 10 Phases I - III, 1/25 Tuesday
Turn 8

Operations

Red (Nichols) gains $130 in passenger revenue.

Orange (Hooton) operates #47 ($40, 3 coal) and #57 ($20, depletes), delivers 2 lumber from Boulder to Denver for $400, and collects $20 in passenger revenue.

Green (Longdin) operates #108 ($40, 1 copper), #116 ($60, 2 lumber), #109 ($20, 2 copper), delivers 3 copper from Lordsburg to El Paso for $1200, collects $60 in passenger revenue.

Brown (Partridge) operates #25 ($60, 4 gold), #68 ($20, 2 coal), #26 ($40, depletes), receives $270 in passenger revenue.

Blue (Scharf) does nothing.

Aqua (Brosius) operates #119 ($40, 4 coal), delivers 1 coal from Cuba to Santa Fe for $120, collects $90 in passenger revenue, and buys a 15 train for $120.

Determine Price Changes

Gold: +2 to $250   Copper: -1 to $120   Silver: Remains at $400

	Denver	Salt Lake City	Pueblo	Santa Fe	El Paso
Lumber:	-2 to $120	Remains at $300	+3 to $120	+2 to $80	+2 to $200
Coal:	Remains at $100	+2 to $60	+3 to $80	Remains at $120	+1 to $140

Turn 9

Move Prospectors and Surveyors

Red (Nichols) surveys Antonito to Lumberton and prospects #63.

Orange (Hooton) surveys Leadville to Aspen and Leadville to Buena Vista, prospects passenger line 8.

Green (Longdin) surveys Carizozo to White Oaks and Torrance to Willard, prospects the deck.

Brown (Partridge) surveys Elk Springs to Craig and Grand Junction to Delta, prospects passenger line 11.

Blue (Scharf) no surveying, prospects the deck.

Aqua (Brosius) surveys Cuba to Blanco, no prospecting

Dispute Resolution

Green draws claim #50 (Silver at Silverton) and Blue draws claim #86 (Coal at Canon City) and each has first right of refusal. No disputes. Red spends $440, Orange spends $960, Green spends $280, Brown spends $510, Blue spends $0, and Aqua spends $160.

The Players

Player	Color	Starting Location	Money	Trains	Snowplows	Personnel
Cary Nichols	Red	Denver	$670	9, 15		S, S, P
Dave Hooton	Orange	Denver	$220	9	+2	S, S, P
Michael Longdin	Green	El Paso	$1,890	9, 15		S, S, P
Dave Partridge	Brown	Salt Lake City	$715	9, 24		S, S, P
Bill Scharf	Blue	Pueblo	$1,280	9, 15, 24		S+1, S, P
Eric Brosius	Aqua	Santa Fe	$40	9, 15		S, S, P

Purchased Claims

#	City	Owner	Type	Goods	Operation
63	Lumberton	Red	Lumber	N	$50
47	Ouray	Orange	Silver	4	$40
108	Lordsburg	Green	Copper	7	$40
99	White Oaks	Green	Gold	6	Depleted
107	Santa Rita	Green	Copper	6	Depleted
116	Pinos Altos	Green	Lumber	2	$30
102	Hillsboro	Green	Silver	1	Depleted
109	Pinos Altos	Green	Copper	3	$20
35	Heber City	Brown	Silver	3	Depleted
25	Bingham	Brown	Gold	6	$60
68	Scofield	Brown	Coal	10	$20
26	Marysvale	Brown	Gold	1	Depleted
92	Raton	Blue	Coal	3	Depleted
49	Silverton	Blue	Silver	3	Depleted
120	Cuba	Aqua	Coal	4	Depleted
106	Cuba	Aqua	Copper	1	Depleted
119	Farmington	Aqua	Coal	4	$40

#	Type	Route	Payoff	Owner	Notes
11	B	Salt Lake City – Grand Jct.	$140	Brown	Discard when 20 is taken. Good for $140 toward card 20 or 21
6	A	Santa Fe – Albuquerque	$90	Aqua	

Available Claims

#	City	Type	Claim	Operation
113	Porter	Lumber	$60	$30
69	Scofield	Coal	$40	$30
115	Paxton Springs	Lumber	$100	$40
60	Pagosa Springs	Lumber	$40	$20
58	Dolores	Lumber	$140	$40
31	Cripple Creek	Gold	$320	$80
76	Craig	Coal	$80	$20
50	*Silverton*	*Silver*	*$100*	*$50*
86	*Canon City*	*Coal*	*$40*	*$20*

Claims in italics are under first right of refusal.

Purchased Passenger Lines

#	Type	Route	Payoff	Owner	Notes
3	A	Denver – Colorado Springs	$50	Red	
5	A	Denver – Pueblo	$80	Red	
1	A	Denver – Boulder	$20	Orange	
9	B	Denver – Leadville	$120	Orange	
8	A	Denver – Leadville	$260	Orange	Discard after 4 Leadville depletions
4	A	El Paso – Deming	$60	Green	
2	A	Salt Lake City – Provo	$20	Brown	
16	B	Salt Lake City – Grand Jct.	$250	Brown	Discard when 22 is taken. Good for $250 toward card 22

Available Passenger Lines

#	Type	Route	Payoff	Cost	Notes
14	B	El Paso – Albuquerque	$220	$405	
21	C	Salt Lake City – Colorado Springs	$600	$930	
13	B	El Paso – Santa Fe	$140	$320	
10	B	Denver – Aspen	$130	$250	
12	B	Pueblo – Grand Jct.	$150	$310	Discard when 20 is taken. Good for $150 toward card 20 or 21
23	C	Salt Lake City – Santa Fe	$900	$1340	
23	C	Salt Lake City – Santa Fe	$900	$1340	
7	A	Pueblo – Santa Fe	$120	$280	

Available Trains

Type	# Available	Cost
9	0	$80
15	2	$120
24	6	$200.00

Available Snowplows

Type	# Available	Cost
Die +2	2	$40
Die +3	4	$80.00

Boston Terrier
Turn 8
Turn 9, 12/14 Tuesday

Planning

French maintain 2 ships ($8) for $8.

Spanish maintain 6 ships ($24) and buys 5 soldiers ($50) for $74.

Dutch maintain 3 ships ($12), buy 1 ship ($12) and 4 soldiers ($40) for $64.

English maintain 5 ships ($20) and buy 6 soldiers ($60) for $80.

Swedes maintain 4 ships ($16) and buy 3 soldiers ($30) for $46.

Portuguese maintain 4 ships ($16) and buy 3 soldiers ($30) for $46.

Outbound Naval Movement

French Move to C: 3, 3, 4, 5. No losses.

Spanish Move to U: 2, 4, 5, 5. No losses.

Dutch Move to J: 2, 4, 4, 6. No losses.

English Move to U: 1, 3, 6, 6. No losses. Drops off 4 colonists and 6 soldiers. Move to M: 1, 3, 5. Loses 1 ship.

Swedes Move to Y: 1, 1, 2, 2, 4. Loses 2 soldiers and 2 colonists.

Portuguese Move to X: 1, 2, 2, 4, 5. Loses 1 soldier.

Mining

Swedes mine 1 gold in D and loot 3 gold in Y (city depletes). French mine 1 gold in C. English mine 1 gold in M. Portuguese mine 1 gold each in X and loot 4 gold in T.

Discovery

No discoveries.
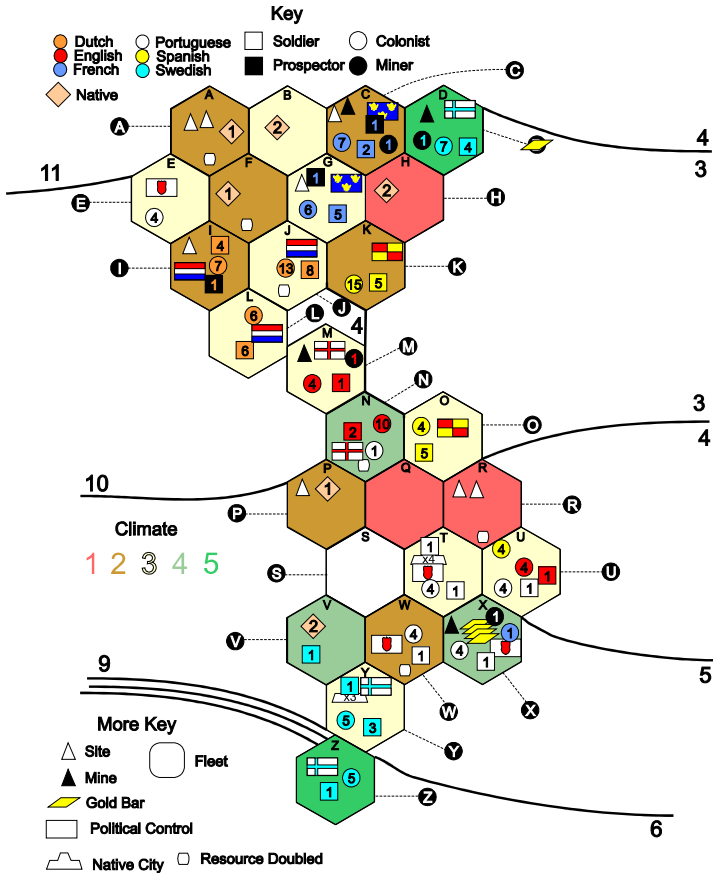
Land Movement

French move 1 gold from C to fleet and 4 colonists from fleet to C.

Spanish move 5 soldiers and 4 colonists from fleet to U.

Dutch move 2 colonists and 1 soldier from J to I, 3 soldiers from L to I, and 4 colonists and 4 soldiers from fleet to J.

English move 1 gold bar from M to fleet, 4 colonists and 6 soldiers from fleet to

U.

Key

- ● Dutch ○ Portuguese □ Soldier ○ Colonist
- ● English ○ Spanish
- ● French ○ Swedish ■ Prospector ● Miner
- ◇ Native

11

Climate

1 2 3 4 5

10

9

More Key

- △ Site
- ▲ Mine
- ▱ Gold Bar
- ▭ Political Control
- ⌂ Native City
- ◯ Fleet
- ▢ Resource Doubled

Swedes move 3 gold from Y to fleet, 1 gold from D to anchorage dot, 2 soldiers and 5 colonists from Y to Z, 1 soldier from Y to V (it's a climate 4 area with 2 natives), 2 colonists and 1 soldier from fleet to Y, and 1 soldier from fleet to C. **Portuguese** move 1 gold bar from X to fleet, 3 gold bars from T to X, 3 colonists and 1 soldier from X to W, 1 colonist from Y to T, 1 colonist from T to W, and 4 colonists and 2 soldiers from fleet to X.

.Players

Country	Player	Money	Available Soldiers	Ships	Colonists
English	Andy York	$698	10	4	6
French	Andy Lewis	$480	8	2	4
Swedes	Dave Partridge	$597	3	4	4
Spanish	Bob Robles	$674	5	4	4
Dutch	Dave Hood	$832	3	2	4
Portuguese	Non-Player	$1,013	6	4	4

S.O.B.

Combat

Spanish attach the English in U. Spanish lose 3 soldiers, English lose 2 soldiers. **English** attack Spanish and Portuguese in U: Portuguese lose 1 soldier, Spanish lose 2 soldiers, and English lose 1 soldier. **Portuguese** attack the English in U. English lose 2 soldiers. **Portuguese** attack French in X. Portuguese lose 1 soldier and the French lose 3 colonists.

Native Combat

Swedes: 1 native and 2 soldiers killed in Z. **Portuguese:** 1 native killed in W.

Native Uprisings

Climate is a 3. No uprisings

Survival

Climate is a 6.
No losses.

Political Control

Portuguese lose political control over U and gain political control over X, and W. Swedes gain political control over Z.

Homebound Naval Movement

French: Dice: 2, 5, 5, 6. No losses.
Spanish: Dice: 1, 2, 5, 6. Loses 2 ships.
Dutch: Dice: 1, 2, 5, 6. Loses 2 ships.
English: Dice: 3, 4, 5, 6. No losses.
Swedes: Dice: 1, 1, 4, 5, 6. No losses.
Portuguese: Move to X: 2, 3, 4, 5, 6. No losses.

Income

French: Political Control: $120, Gold: $40, resources: $42.
Spanish: Political Control: $120, resources: $69.
Dutch: Political Control: $160, resources: $117.
English: Political Control: $120, Gold: $40, resources: $84.
Swedes: Political Control: $160, Gold: $120, resources: $51.
Portuguese: Political Control: $200, Gold: $40, resources: $60.

Turn 10 Initiative

English, Portuguese, Spanish, Dutch, French, Swedes
Portuguese attitude is (dr = 11 + 1) Balancing.

Dogbreath
Epoch III Empire Selection
Epoch III Celts, Macedonia, Maurya, and Han Dynasty, 1/25 Tuesday

Time Traveler (Anderson) gives to Great Explorers Grabbing Samples
Royal Manticoran Historical Society (Wilson) gives to Arachnids
Arachnids (Bolduc) gives to Marching Through the Ages
Marching Through the Ages (Lewis) gives to Royal Manticoran Historical

Society
Great Explorers Grabbing Samples (Geggus) gives to Time Traveler
The Questioner (Partridge) keeps

Players

Player Name	Player Faction Name/Color	Empire Strength Points	Victory Points
Dave Anderson	Time Traveler (orange)	10	19
Kevin Wilson	Royal Manticoran Historical Society (purple)	12	27
Paul Bolduc	Arachnids (blue)	12	26
Andy Lewis	Marching Through the Ages (red)	12	20
Chris Geggus	Great Explorers Grabbing Samples (yellow)	14	31
Dave Partridge	The Questioner (green)	19	25

Positions

SUMERIANS: Capital and three armies Lower Tigris.

Arachnids: NILE KINGDOM: Army, city, and fort Upper Nile. SCYTHEANS: Army and Monument Tarim Basin, armies Caucuses, Western Steppe, Turanian Plain, Persian Salt Desert.

Time Traeler: MINOANS: Army, Capital, and fort Crete. CHOU DYNASTY: Army and Capital Wei River, army, city, and Fort Yellow River, army and Fort Irrawaddy, armies Yangste Kian, Szechuan, Ganges Delta.

Marching Through the Ages: INDUS VALLEY: Army and Capital Lower Indus, army Western Ghats. ASSYRIA: Armies Eastern Anatolia, Western Anatolia, Palestine.

Royal Manticoran Historical Society: Fleet Red Sea. CARTHAGINIA: Army, Capital, and Monument Shatts Plateau, army and Monument Nile Delta, armies Libya, Nubia, Southern Iberia.

The Questioner: Fleet Eastern Mediterranean. SHANG DYNASTY: Armies Great Plain of China, Chekiang, Si-Kyang. PERSIA: Army, Capital, and Monument Persian Plateau, army, city, and Monument Middle Tigris, Upper Tigris, army and city Levant, armies Zagros, Hindu Kush, Upper Indus, Western Deccan, Eastern Ghats.

Great Explorers Grabbing Samples: Fleets Western Mediterranean, Black Sea. ARYANS: Armies Persian Plateau, Ganges Plain, Eastern Deccan. GREEK CITY STATES: Army, Capital, and Monument Morea, armies Pindus, Balkans, Danubia, Central Europe, Baltic Seaboard.

Epoch III Empire   Event Cards

Plantation Dog
Turn 5
Turn 6, 1/25 Tuesday

Andy L. selects the Builder, gaining 1 doubloon, and building a Coffee Roaster (1 Quarry, Builder bonus, 4 doubloons), Paul passes, Chris passes, Richard builds a Small Indigo Plant (1 Quarry, 0 doubloons), and Andy Y. builds a Small Indigo Plant (1 doubloon).

Paul selects the Trader, receives 1 doubloon, and trades the Indigo for 2 doubloons, Chris passes, Richard passes, Andy Y. trades Sugar for 2 doubloons, and Andy L. passes.

Chris selects the Craftsman, taking 2 Indigo and 2 Corn, Richard gets 1 Coffee and 1 Corn, Andy Y. gets 2 Sugar, Andy L gets 2 Corn, and Paul gets 1 Indigo.

Richard selects the Mayor, placing colonists on the Quarry, Indigo plantation, and Small Indigo Plant, Andy Y. places colonists on the Sugar Mill and a Sugar plantation, Andy L. places colonists on 2 Corn plantations, and moves the colonist from the Hacienda to the Storehouse, Paul places colonists on a Quarry and an Indigo plantation, and moves a colonist from the Construction Hut to the Indigo Plant, and Chris places a colonist on the Indigo Plant.

Andy Y. selects the Captain, receiving 1 doubloon, and ships 1 Corn on Ship 2 for 2VP, Andy L. ships 3 Corn on ship 2 for 3VP (Ship 2 sails), Paul ships 1 Indigo on Ship 1 for 1VP, Chris ships 4 Indigo on Ship 1 for 4VP (Ship 1 sails), Richard passes, and Andy Y. ships 3 Sugar on Ship 3 for 3VP. Chris and Richard each discard 1 Corn.

The Players

Player Name	Role	Plantations	Buildings	San Juan	Doubloons	Stored Production	VP
Paul Bolduc	Trader	**Indigo**, **Indigo**, **Quarry**, **Quarry**, **Quarry**	Connection Hut, **Indigo Plant (2)**, Small Sugar Mill		5		1
Chris Geggus	Craftsman	**Indigo, Quarry**, **Tobacco, Corn**, Sugar	**Indigo Plant (2)**, **Aquaduct**, **Black Market**		1	1 Corn	5
Richard Weiss	Mayor	**Indigo, Coffee**, **Quarry, Corn**, **Quarry**	**Small Market, Coffee Roaster (1)**, **Small Indigo Plant**		0	1 Coffee	
Andy York	Captain	Corn, **Sugar**, **Sugar**, Tobacco, **Sugar**	**Sugar Mill (3)**, Small Sugar Mill, Small Indigo Plant		3		9
Andy Lewis	Builder	**Corn**, Coffee, Coffee, Indigo, **Corn**, **Quarry**, **Corn**, **Corn**	Hacienda, **Storehouse**, Coffee Roaster		2		4

Player in bold is the Governor for next turn. Plantations and buildings in bold are manned. Buildings that can be manned by more than one colonist will have the number manning them in parentheses after the building name.

Available Items

Colonists: Supply: 49   Colonist Ship: 10   **Trading House:** Indigo, Sugar   **Victory Points:** 103

Cargo Ships: Ship 1 (capacity 6):   Ship 2 (capacity 7):   Ship 3 (capacity 8):5 Sugar

Commodities

Corn: 10   **Indigo:**   10   **Sugar:**   5   **Tobacco:**   9   **Coffee:**   8

Buildings

Column 1	Column 2	Column 3	Column 4
Small Indigo Plant (1d, 1VP) (x2)	Indigo Plant (3d, 2VP)	Tobacco Storage (5d, 3VP) (x3)	Guild Hall (10d, 4VP)
Small Sugar Mill (2d, 1VP) (x2)	Sugar Mill (4d, 2VP) (x2)	Coffee Roaster (6d, 3VP)	Residence (10d, 4VP)
	Hospice (4d, 2VP)	Factory (7d, 3VP)	Fortress (10d, 4VP)
	Guesthouse (4d, 2VP)	Lighthouse (7d, 3VP)	Customs House (10d, 4VP)
	Office (5d, 2VP)	University (8d, 3VP)	City Hall (10d, 4VP)
	Large Market (5d, 2VP)	Harbour (8d, 3VP)	Cloister (10d, 4VP)
	Church (5d, 2VP)	Library (8d, 3VP)	Statue (10d, 8VP)
Forest House (2d, 1VP)	Trading Post (5d, 2VP)	Specialty Factory (8d, 3VP)	
	Small Wharf (6d, 2VP)	Union Hall (9d, 3VP)	
Small Warehouse (3d, 1VP)	Large Warehouse (6d, 2VP)	Wharf (9d, 3VP)	

Roles

Builder, Captain, Craftsman, Mayor, Prospector (1d), Prospector (1d), Settler (1d), Trader

Plantations

Quarry, Forest (x12), Indigo, Indigo, Sugar, Coffee, Sugar, Coffee

Discard Pile: Tobacco, Tobacco, Indigo, Indigo, Indigo, Indigo, Tobacco, Tobacco, Coffee, Indigo, Coffee

Pedagoguery

The first stars to form after the Big Bang are a matter of great interest and some speculation to astronomers. Typically referred to as Population III stars for obscure historical reasons, these stars were massive, in excess of 200 times the mass of our sun. However, there is the possibility that a different type of star was the first type to form, one that got its energy from a very different source than a typical star.

During the early universe, dark matter dominated. Its gravitational influence dictated where regular baryonic matter collected. Dark matter also potentially has an interesting property. According to some theories, dark matter is its own antiparticle. Therefore, if two dark matter particles collide, they annihilate, releasing large amounts of energy since they are so massive. If this is an accurate property of dark matter, then it is possible that the very first stars would have been powered by the annihilation of dark matter, rather than nuclear fusion. How would such stars have looked?

Typical Population III stars would have had somewhere between 200 and 1000 solar masses, surface temperatures higher than 100,000K, and luminosities in tens of millions times that of our sun. Even so, they would have been relatively compact – with radii about one tenth of an astronomical unit (a.u.). This is still quite large by the standards of main sequence stars today. The sun, for example, has a radius of about 0.009 a.u. A red supergiant like Betelguese, by contrast, has a mass of about 15 suns, a radius of about 10 a.u., a surface temperature of about 3500K, and a luminosity 100,000 times that of our sun.

Contrast this with a star powered by the annihilation of dark matter. Such a power source is much more efficient than nuclear fusion. When fusing four hydrogen nuclei into one helium nucleus, about 4% of the mass is converted into energy. By contrast, in dark matter annihilation, nearly 100% of the matter is converted to energy. (Some of the annihilation products could include standard particles like electrons and such.) As such, a dark matter star would contain between 1000 and 10,000 times the mass of our sun. The evolution would be somewhat arrested since the efficient energy source would stop the star from further contracting at a very early stage. Thus, they would be huge, ranging between 1 and 30 a.u. in diameter. At the largest, that would extend out to the orbit of Neptune from the sun's location. Because they are so large, however, they would not be as hot as a Population III star, a mere 5000K, about the same temperature as our sun. However, because they are so large, they would have tremendous luminosities – as much as a billion suns.

Dark matter powered stars would potentially last for millions of years, depending on the local density of dark matter. Eventually, however, the local density would fall below a critical threshold, and depending on how large the star is, its evolution would take one of two paths. For the lighter stars, normal stellar evolution would resume, and nuclear fusion would resume and they would take the normal path of a Population III star – that is, a brief, bright life ending in a supernova and a black hole. More massive dark stars would skip the nuclear fusion step and collapse straight into supermassive black holes.

This theory solves a puzzle. Quasars, which are the ultra bright centers of active galaxies, exist very early in the life of the universe. In order to be so luminous, they must be powered by supermassive black holes, and the standard way for such holes to form through Population III stars takes too long. The most massive dark stars provide a way for such massive black holes to form earlier.

Dark stars are quite speculative, but there could be evidence of their existence. Such stars would be quite noticeable provided we have a telescope sensitive enough in the far infrared, where their light would be shifted. Unfortunately, the James Webb Telescope, which will be launched in a few years, will not quite be sensitive enough, but some future telescope will probably be. Secondly, experiments at the Large Hadron Collider in Geneva will hopefully provide us with clues as to the nature of dark matter. Such clues can potentially rule out the types of dark matter that would allow such stars. Finally, there is a small, but non-zero chance that such a star could exist to this very day. Provided it had enough dark matter, there is no limit to how long such a star could shine. Clearly there isn't any such star close by – we would have noticed, but the telltale properties of such a star would stand out if one were found.

Next time, how to deflect an asteroid.

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Standbys

Anybody who gets onto my standby list automatically receives one free issue of *S.O.B.* In addition, if you actually submit standby orders, you get another free issue. So, let's get those people standing by. The current standby list is:

Machiavelli (gunboat and regular): Steve Koehler, Bill Scharf, Bob Robles, Mike Scott, Ward Narhi, Paul Bolduc, Pasquale Giovine, Andy York, Cary Nichols, Lee McConnell, Dave Partridge, Dale Horsely, Brad Martin **Dune:** Steve Koehler, Paul Bolduc, Kevin Wilson, Ward Narhi, Andy York, Cary Nichols, Bill Scharf, Dave Partridge, Brad Martin **New World:** Andy York, Bill Scharf, Cary Nichols, Dave Partridge, Brad Martin **Merchant of Venus:** Paul Bolduc, Carrie Lewis, Bob Robles, Andy York, Cary Nichols, Dave Partridge **Outpost:** Michael Lowrey, Kevin Wilson, Andy York, Cary Nichols, Bill Scharf, Dave Partridge, Brad Martin **History of the World:** Andy Lewis, Paul Bolduc, Kevin Wilson, Chris Geggus, Andy York, Cary Nichols, Dave Partridge, Brad Martin **Stellar Conquest:** Paul Bolduc, Kevin Wilson, Andy York, Cary Nichols, Dave Partridge, Brad Martin **Liftoff!:** Dennis Cain, Andy York, Cary Nichols, Bill Scharf, Dave Partridge, Brad Martin **Age of Renaissance:** Bob Robles, Michael Lowrey, Cary Nichols,Dave Partridge, Michael Longdin, Brad Martin **Kremlin:** Andy York, Andy Lewis, Pasquale Giovine, Cary Nichols, Bill Scharf, Dave Partridge, Michael Longdin, Brad Martin **Silverton:** Cary Nichols, Bill Scharf, Dave Partridge, Brad Martin, Andy York, Eric Brosius **Settlers of Catan:** Michael Lowrey, Chris Geggus, Cary Nichols, Dave Partridge, Brad Martin, Andy York **Gunslinger:** none **Industrial Waste:** Michael Longdin, Brad Martin **Puerto Rico:** Brad Martin, Andy York **Power Grid:** Brad Martin, Andy York **Robo Rally:** Andy York

Standby Calls

None this issue!

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