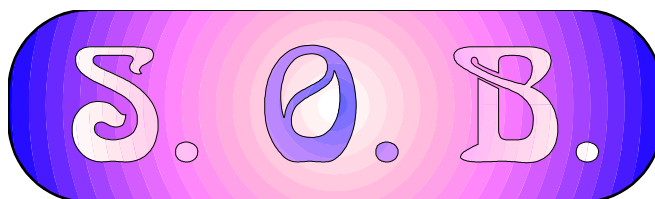


Number 163



July/August, 2010

Notes from Hades

Sometimes, my travel comes in clumps. Such was the case in June. At the beginning of June, I went to Berlin. This time, I was able to see Checkpoint Charlie. It was one of the primary entry points to the U.S. sector of Berlin from the Soviet sector. Right before the wall fell, it was huge, with multiple roads coming to it and several booths. It has been restored to a condition much earlier than that, where it was just a single shack on the street. They had actors dressed in U.S. Army and Red Army uniforms, each carrying the appropriate flag, stationed in front of it, and there was quite a lot of historical information in the area. For instance, I learned that where the Wall used to stand, they have put a double row of cobblestones. So, as you walk around the city, if you see such a row of cobblestones cutting through a street, you know that the Wall used to be there. I was also able to go up in the Berlin Tower. It looks like a giant spike on which a golf ball has been impaled about one third of the way down. It offers an incredible view of the city, and something that struck me when I was there is how flat the land around Berlin is. No mountains or even hills were visible in any direction.

Like they did the last time we met in Berlin, our hosts took us on an outing. This time, it was Dresden. Dresden was the seat of the Electors, and later the Kings of Saxony, before the unification of the German states. It was also the famous site of a firebombing by the RAF during World War II. Many of the buildings still show signs of the event. Much of the historical downtown area was destroyed, and later rebuilt. Pieces of architecture that survived, or which were reused, are blackened to one degree or another. Newer pieces are easily distinguished by their light color. The overall effect is an interesting irregular pattern of light and dark on many buildings. Two items were the highlights of the trip. The first was the Schloss, the former palace of the Saxon kings, which has been turned into a museum. Some incredible pieces were there, the highlight of which was a miniature reproduction of the birthday party of a Mughal emperor (the son, in fact, of the one who built the Taj Mahal), done up entirely in precious metals and stones. An incredible piece of work that was about four feet across. The other place we visited was the Frauenkirche, which has been described as the Lutheran St. Peters. It is large, but not as large as you would expect, and it was only rebuilt in the early nineties. There was little incentive, or money, in East Germany to rebuild religious centers, no matter how historic.

No sooner did I return from Berlin, than I had to go to Paris. This time, I was able to take some time out to see the Musee D'Orsay, which is where the impressionist paintings are displayed. Monet, Renoir, Gauguin, Van Gogh, and many others. In many ways, it was a nicer museum than the Louvre. Less overwhelming.

This issue, we see the completion of both Machiavelli games. Congratulations to Mike Scott and Berend Renken for their victories. Next issue, Bolognese and Purebred will start.

The next deadline is **Tuesday, August 17 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.

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Game Openings

Bolognese. Machiavelli. Gunboat. Have 5, will take up to 3 more. You are signed up: ☐. **Starts next issue!**

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. **Starts next issue!**

Golden Retriever. Seafarers of Catan. Have Chris Geggus, Dave Partridge, Dave Hooton, Mike Scott. Will take up to 2 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 Eric Brosius, Dave Partridge, and Dave Hooton, Paul Bolduc, will take up to 2 more.

Wish List

Kremlin. Will start after Pateel ends. Have Walt O'Hara, Mike Scott, Bob Robles. Will take up to 3 more.

Outpost. Will start after Basset ends. Have Eric Brosius, Andy York, Andy Lewis, Dave Hooton, Dave Partridge, will take up to 5 more.

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. Will take up to 8.

Machiavelli. This game will start after the second Machiavelli game finishes. 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.

S.O.B. is a zine of unusual postal games, and anything else I feel like including. Your publisher is:

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On the Web at: <http://www.sob-zine.org>

Subscriptions cost \$2.50 per issue (\$3.75 overseas).

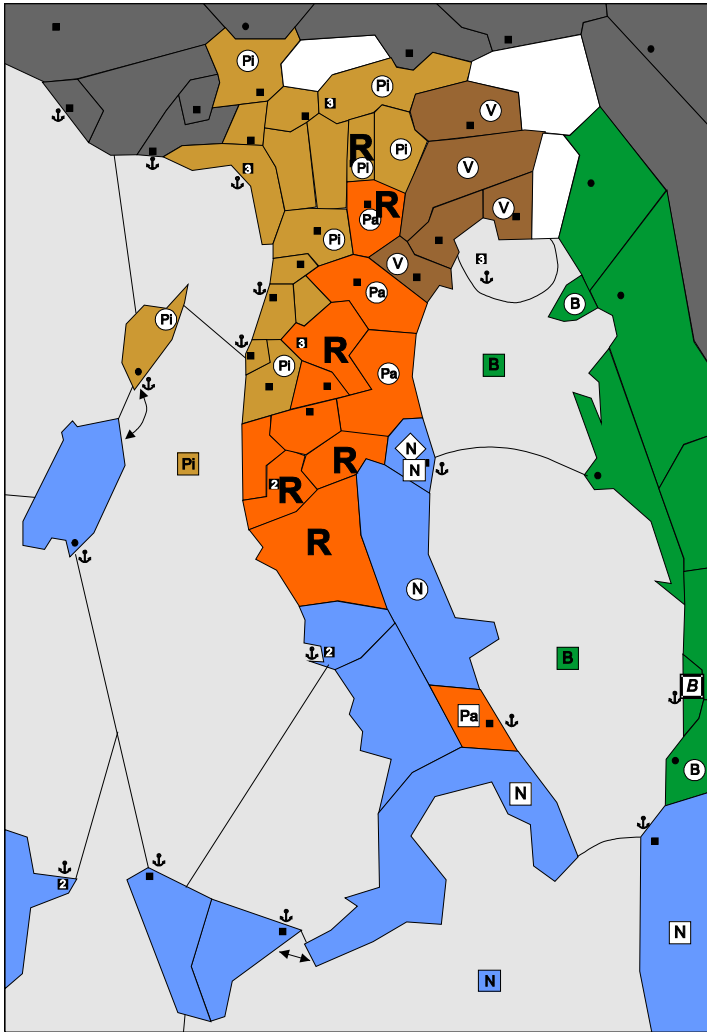
Dog Park

Fall 1057

Miller Number 20077Apw10

**Advanced Rules, Natural Disasters, Special Military Units, Moneylenders, Conquest, Gray Press, Ultimate Victory
Deadline for End of Game Statements 8/17, Tuesday**

In the south, the Byzantines, Normans and Pope all manage to stalemate one another, while in the North, Venice uses a Papal rebellion to aid his entry into Ferrara, while Pisa quietly picks up one more city.

Dog Park

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

Outstanding Loans

Spring 1058: 15 ducats due from the Byzantines (10 borrowed).
Summer 1058: 17 ducats due from the Byzantines (11 borrowed).

Orders

BYZANTINES (Giovine): A Croatia to ISTRIA, A ALBANIA to DURAZZO, F LOWER ADRIATIC supports A Albania to Durazzo (cut), F (EM) RAGUSA supports F Lower Adriatic, F UPPER ADRIATIC supports F Lower Adriatic

NORMANS (Horsley): A AQUILA supports F Ancona, F ANCONA supports F Otranto to Lower Adriatic, F OTRANTO to Lower Adriatic, F IONIAN SEA supports F Durazzo, F DURAZZO supports F Otranto to Lower Adriatic (cut), G ANCONA supports F Ancona

PAPACY (Roalstad): A MANTUA to Ferrara, A BOLOGNA holds (Rebellion suppressed), A URBINO holds (Rebellion suppressed), F BARI supports Norman F Otranto to Lower Adriatic

PISA (Scott): A MILAN supports A Bergamo, A BERGAMO supports A Milan, A TURIN holds, A PARMA to CREMONA, A MODENA to Mantua, A CORSICA holds (Rebellion suppressed), A SIENNA holds (Rebellion suppressed), F LIGURIAN SEA to TYRRHENIAN SEA

VENICE (Wilson): A TRENT supports A Treviso to Verona, A VERONA to Mantua, A PADUA to FERRARA (Rebellion liberated), A TREVISIO to Verona

Press

The Pope: How dare these Heretics challenge the Pope's Rights to Rule. The streets will run with their blood for short sightedness.

Notes

And with that, Pisa now controls 12 cities, thus fulfilling the victory conditions for the game. Congratulations to Mike Scott on his victory!

Game Summary

	1051	1052	1053	1054	1055	1056	1057	1058
Byzantines:	3	6	7	7	7	8	6	6
Holy Roman Empire:	3	6	6	6	4	3	0	0
Muslims:	3	3	0	0	0	0	0	0
Normans:	1	2	5	5	6	6	7	7
Papacy:	3	5	6	7	7	6	8	7
Pisa:	3	5	7	7	7	9	11	12
Venice:	3	4	5	4	4	4	3	4

Barking Up the Wrong Tree

Fall 1256

Miller Number 2007Bpw10

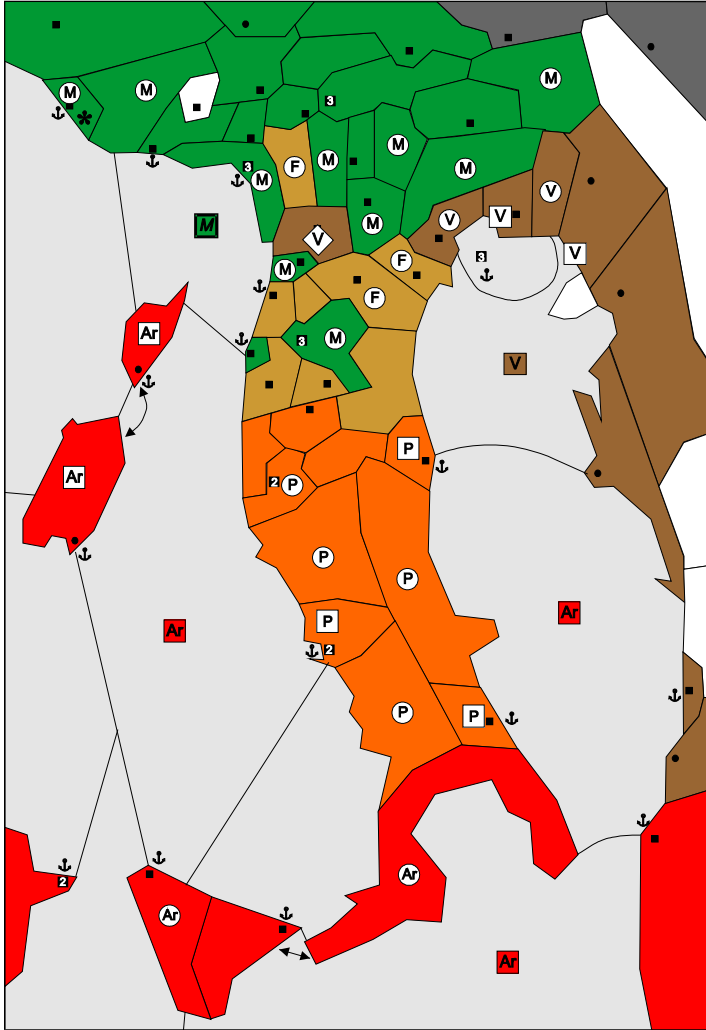
Advanced Rules, Natural Disasters, Special Military Units, Conquest, Gray Press, Ultimate Victory
Deadline for End of Game Statements 8/17, Tuesday

Milan completes the elimination of Avignon, and continues to advance against Florence and Venice. Aragon and the Pope remain deadlocked.

Summer 1256 Retreats

Milan retreats A Mantua to Fornova

Barking Up the Wrong Tree



Tyrrhenian Sea, F SARDINIA supports Corsica to Tyrrhenian Sea, F TYRRHENIAN SEA to Gulf of Naples, F IONIAN SEA supports F Durazzo to Lower Adriatic, F Durazzo to LOWER ADRIATIC

AVIGNON (Nichols): A Marseilles to Avignon (DISLODGED, retreat garrison, OTB)

FLORENCE (Whyte): A Modena to FORNOVA, A FERRARA supports A Bologna to Mantua, A BOLOGNA to Mantua

MILAN (Renken): A Avignon to MARSEILLES, A PROVENCE supports A Avignon to Marseilles, A Genoa to LUCCA, A Fornova to GENOA, A MANTUA supports A Verona, A PARMA supports A Mantua, A BERGAMO supports A Mantua, A VERONA supports A Mantua (cut), A CARINTHIA supports A Verona, A Pisa to FLORENCE, F (EM) LIGURIAN SEA transports A Genoa to Lucca

PAPACY (Robles): A Rome holds, A CAPUA holds (u), A AQUILA to Naples, A SALERNO to Otranto, F ANCONA to Lower Adriatic, F BARI supports F Ancona to Lower Adriatic (cut), F NAPLES to Gulf of Naples

VENICE (Partridge): A PADUA to Verona, A FRIULI holds (u), F CARNIOLA supports A Friuli, F UPPER ADRIATIC to Lower Adriatic, F TREVISO supports A Friuli, G MODENA supports Florence A Modena hold (nso)

Press

Florence: Damn, the inevitability of demise in a central position...

Pope – All: That green monster is pretty scary!

Notes

Regardless of where Avignon retreats, he will no longer control any of his home cities and will thus be eliminated. In addition, Milan now controls 15 cities (regardless of where Avignon retreats), and thus wins the game. Congratulations to Berend Renken on his victory.

Game Summary

	1250	1251	1252	1253	1254	1255	1256	1257
Aragon:	3	3	4	5	5	5	6	6
Avignon:	4	5	6	7	5	4	2	0
Florence:	3	4	5	6	7	5	5	5
Genoa:	3	3	3	0	0	0	0	0
Milan:	3	6	6	7	8	10	12	15
Papacy:	3	4	4	4	4	5	5	5
Venice:	3	4	4	7	9	11	11	9

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

Orders

ARAGON (Scharf): A PALERMO holds, A OTRANTO to Bari, F CORSICA to

Robover

Turn 13

Turn 14, 7/6 Tuesday

Program Robots

Slambot 9000 reappears facing north and THX 1139 reappears facing west and discards Brakes. Ward Narhi has NMRed, and Narbot's orders have been determined randomly.

Robot	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
DizzyBot	Rotate Right (280)	Back Up (480)	U-Turn (60)	Move 1 (580)	Rotate Right (100)
Slambot 9000	Move 1 (610)	Move 1 (660)	Rotate Left (310)	Move 2 (730)	Rotate Right (340)
Jeeves	Rotate Left (390)	Move 1 (590)	Back Up (470)	Back Up (450)	Rotate Right (240)
THX 1139	Move 1 (490)	Rotate Right (120)	Rotate Right (140)	Rotate Left (90)	Rotate Left (70)
Dalekbot	Rotate Left (210)	Move 1 (650)	Move 2 (760)	Move 1 (560)	Move 1 (540)

Robot	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
Narbot	Move 2 (720)	Rotate Right (320)	U-turn (20)	Move 2 (740)	<i>Rotate Left (170)</i>
100% Robotomy	Move 2 (710)	Rotate Right (420)	Rotate Right (260)	Move 1 (510)	<i>Rotate Right (220)</i>
Protomax	Rotate Left (130)	Rotate Right (180)	Move 3 (830)	Move 1 (630)	Rotate Right (80)

Locked registers are in italics.

Phase 1

Narbot moves ahead 2 to J5, 100% Robotomy moves ahead 2 to B5, pushing Jeeves to A5 and touching flag 2 (archive relocated), Slambot 9000 moves ahead 1 to F5, THX 1139 moves ahead 1 to F7 (archive relocated), Jeeves rotates left to face east, DizzyBot rotates right to face east, Dalekbot rotates left to face south, and Protomax rotates left to face west. The conveyor belt moves Dalekbot to I11 where the gear rotates it to face west. 100% Robotomy fires at Jeeves, and Jeeves fires the Mini-Howitzer at 100% Robotomy, pushing it back to C5. The Mini-Howitzer is now discarded, since its ammo is exhausted.

Phase 2

Slambot 9000 moves ahead 1 to F4, Dalekbot moves ahead 1 to H11, Jeeves moves ahead 1 to B5, DizzyBot backs up to H7, 100% Robotomy rotates right to face north, Narbot rotates right to face east, Protomax rotates right to face north, and THX 1139 rotates right to face north. The conveyor belt moves Dalekbot to I11 and the gear rotates it to face north. THX 1139 shoots Slambot 9000 and Jeeves shoots 100% Robotomy.

Phase 3

Protomax dashes ahead 3 to D10, Dalekbot moves ahead 2 to I9, Jeeves backs up to A5, Slambot 9000 rotates left to face west, 100% Robotomy rotates right to face east, THX 1139 rotates right to face east, DizzyBot makes a U-turn to face west, and Narbot makes a U-turn to face west. DizzyBot and THX 1139 shoot each other and Jeeves shoots 100% Robotomy (register 5 locked).

Phase 4

Narbot moves ahead 2, hitting the wall at I5, Slambot 9000 moves ahead 2 to D4, Protomax moves ahead 1 to D9, DizzyBot moves ahead 1 to G7 (archive relocated), Dalekbot moves ahead 1 to I8, 100% Robotomy moves ahead 1 to D5, Jeeves backs up into the wall, and THX 1139 rotates left to face north. DizzyBot shoots THX 1139, Dalekbot shoots Narbot (register 5 locked), and Protomax fires its Pressor Beam at 100% Robotomy, pushing it to D4 and pushing Slambot 9000 to D3.

Phase 5

Dalekbot moves ahead 1 to I7, touching flag 1 (archive relocated), Slambot 9000 rotates right to face north, Jeeves rotates right to face south, 100% Robotomy rotates right to face south, Narbot rotates left to face south, DizzyBot rotates right to face north, Protomax rotates right to face east, and THX 1139 rotates left to face west. The pusher pushes Narbot to J5. 100% Robotomy shoots Protomax.

Cleanup

DizzyBot is repaired one point and has Crab Legs installed, THX 1139 is repaired one point has a High-Power Laser installed, Dalekbot is repaired one point (register 2 unlocked).

Notes

Since the only standby I have for Robo Rally is already in the game, **I am having an open call for a standby for Narbot. If I do not receive a standby, and Ward NMRs again, the position will be eliminated.**

Players

#	Player Name	Robot Name	Color	Options	Position	Flags	Lives	Damage
1	Dave Partridge	DizzyBot	Blue	Crab Legs	G7>N	1	2	3
2	Bill Scharf	Slambot 9000	Pink		D3>N	1	1	4
3	Chris Geggus	Jeeves	Yellow		A5>S	1, 2	3	3
4	Dave Hooton	THX 1139	White	Double-Barreled Laser, Radio Control, High-Power Laser	F7>N	1	2	3
5	Andy York	Dalekbot	Silver		I7>N	1	2	7
6	Ward Narhi?	Narbot	Red	Fourth Gear	J5>S		3	5
7	Michael Longdin	100% Robotomy	Dark Green	Scrambler	D4>S	1, 2	1	5
8	Cary Nichols	Protomax	Green	Pressor Beam	D9>E		2	1

Your Program Cards:

Husky

Turn 6, Phase 2

Turn 6, Phases 3 through 5, 8/17 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	24 Trash 2→4	30 Trash 3→6	4	75
3	Dave Hooton	Volkisch Tzapverein (VolT)	Orange	25 Coal 2→5	22 Eco X→2	32 Oil 3→6 (1)	5	80
4	Dave Partridge	Spewing Massive Olid Gasses (SMOG)	Red	13 Eco X→1	27 Eco X→3	33 Eco X→4	4	84

Order	Player Name	Company Name	Color	Power Plant 1	Power Plant 2	Power Plant 3	Cities	Money
1	Andy York	Deutsches Elektrisch Arbeit Direktor (DEAD)	Yellow	21 Hybrid 2→4	11 Nuclear 1→2	29 Hybrid 1→4 (10)	7	54
2	Brad Martin	Renewable Energy Matters (REM)	Blue	10 Coal 2→2	28 Nuclear 1→4 (1)		6	90

Phase 2, Power Plant Bidding

DEAD opens the bidding on power plant 21 at 21 and gets it, discarding power plant 7. Power plant 15 is drawn.

REM passes (none of his preferred power plants is available)

VoIT passes (none of his preferred power plants is available)

SMOG passes

100% Power Mad passes

Power Plant Market

Current Market

12 Hybrid 2→2

15 Coal 2→3

17 Nuclear 1→2

23 Nuclear 1→3

Future Market

31 Coal 3→6

34 Nuclear 1→5

35 Oil 1→5

37 Eco X→4

Fuel

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

Pateel

Turn 4 Funeral Commission through Parade

Turn 5 Cure through Health, 8/17 Tuesday

Funeral Commission

Foreign Minister Shootemdedsky nominates Palavarian as Party Chief. TCC and Finlandia get into an influence bidding war on Zenjarplan and Nikotin, ending with Finlandia declaring 8 IP on Zenjarplan and 7 IP on Nikotin, and TCC declaring a total of 9 IP on Zenjarplan and 8 IP on Nikotin. Palavarian and Shootemdedsky vote yes, Goferbok, Wasolin, Zenjarplan, and Nikotin vote no. Nomination fails and Shootemdedsky ages to 73. Shootemdedsky next nominates Zenjarplan. Shootemdedsky, Zenjarplan, and Nikotin vote yes, Palavarian, Goferbok, and Wasolin vote no. Nomination fails and Shootemdedsky ages to 74 and ascends to Party Chief.

Politburo

Office	Policitian	Condition	Influence
Party Chief	Nikolai Shootemdedsky (H)	81, ?, ++	3 (Fin)
KGB Head	Diwan Palavarian (G)	84, ?, +	6 (PaH)
Foreign	Petr Niewitko (D)	73, weak	
Defense	Alexej Goferbok (C)	75, strong	1 (TCC), 1 (PaH), 9 (KMFC)
Ideology	Victor Wasolin (Z)	52, ?	5 (KMFC)
Industry	Tigran Zenjarplan (Q)	70	3 (BBC), 8 (Fin), 9 (TCC)
Economy	Lech Schukrutoff (B)	75, strong	
Sport	Turi Nikotin (R)	60, weak	8 (TCC) , 7 (Fin), 2 (ZF)

Candidates: I, J, T (67), M, N

Intrigue Cards

Replacement Phase

Shootemdedsky promotes D to Economy Minister (aging to 75). Niewitko becomes Foreign Minister by age. B becomes Economy Minister by age. J, T, M, and N become Candidates by age.

Rehabilitation Phase

Shootemdedsky rehabilitates P and ages to 79.

Parade Phase

Shootemdedsky attempts to wave (dr = 13) and fails, aging to 81.

People: O, P, U, V, W, Y

Siberia: L (68), F, X (61, ++)

Kremlin Wall: A, E, S, K

Notes

Many thanks to Andy York for his unused standby orders.

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 8

Turn 9, 7/6 Tuesday

Segment 1

Old Man: Card (3) – Turn (left to face D19), turn 1 of 1
Shaggy: Card (3) – Turn (left to face F15), turn 1 of 1
Banker: Card 5 – Cock/Aim/Shoot (aim at F19), turn 1 of 2
Smith: Delay
NCO: Delay

Segment 2

Old Man: Card 1 – Advance (ahead left to D20), turn 1 of 2
Shaggy: Card 5 – Cock/Aim/Shoot (aim at N), turn 1 of 2
Banker: Card 5 – Cock/Aim/Shoot (aim at F19), turn 2 of 2
Smith: Delay
NCO: Card 1 – Advance (straight ahead to H18), turn 1 of 2

Segment 3

Old Man: Card 1 – Advance (ahead left to D20), turn 1 of 2
Shaggy: Card 5 – Cock/Aim/Shoot (aim at N), turn 2 of 2
Banker: Card (3) – Turn (straight ahead), turn 1 of 1
Smith: Delay
NCO: Card 1 – Advance (straight ahead to H18), turn 2 of 2, 2 delay points gained, plus cards 105 and 85 drawn resulting in 3 more delay points.

Segment 4

Old Man: Card 2 – Run (ahead right to C21), turn 1 of 2
Shaggy: Card 6 – Cock/Aim/Shoot (aim at N), turn 1 of 2
Banker: Card 6 – Cock/Aim/Shoot (shoot at O), turn 1 of 2
Smith: Delay
NCO: Delay

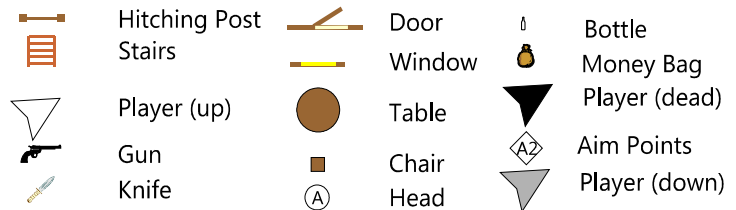
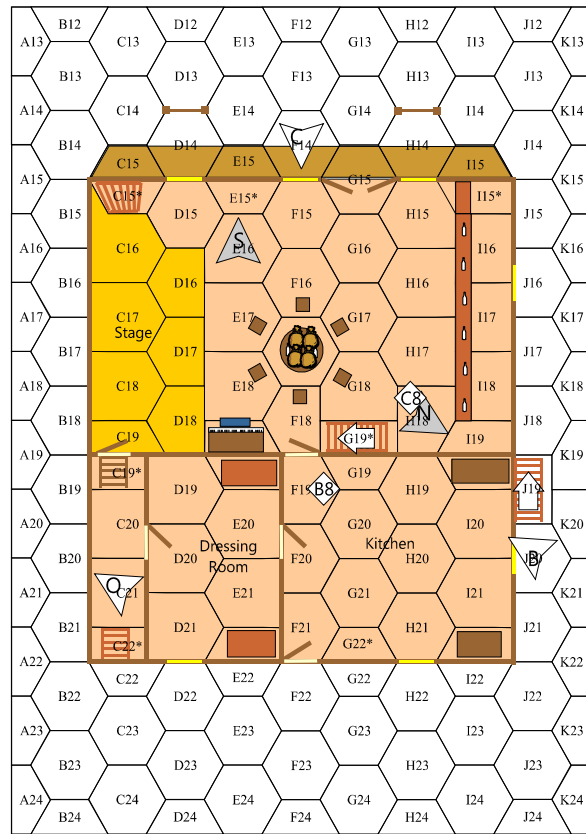
Segment 5

Old Man: Card 2 – Run (ahead left to C21), turn 2 of 2
Shaggy: Card 6 – Cock/Aim/Shoot (aim at N), turn 2 of 2
Banker: Card 6 – Cock/Aim/Shoot (shoot at O), turn 2 of 2, does nothing
Smith: Card (3) – Turn (ahead left to face E15*), turn 1 of 1
NCO: Delay

End of Turn

Smith loses 2 delay points, NCO loses 3 delay points. At the start of Turn 4, Smith draws cards 98, 57, and 31, for the SERIOUS 3, resulting in 1 delay point and LOSE AIM.

Frontier Dog



Westerners

Side	Player	Character	Location	Bonus Cards	Skills	Delay	Endurance	Comments
A	Paul Bolduc	Old Man (O)	C21>B20	5, 7, 8	BR +1		25	
B	Andy Lewis	Shaggy (C)	F14>F15				20	8 AIM points on N
C	James Pratt	Banker (B)	J20>I20				20	8 AIM points at F19
D	Mike Scott	Smith (S)	E16>E15*	8	BR +2	3	8	SERIOUS 3, DOWN
E	Chris Geggus	NCO (N)	H18>H19	9	BR +1	3	16	DOWN

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: ○○○⊗⊗⊗
Banker	None	SW45, cocked	Empty	Empty	SW45: ○○○○○○
Smith	C45c, Knife	Empty	Empty	Empty	C45c: △△△△△△
NCO	SBR	C41, uncocked	Empty	Empty	C41: ○○○⊗⊗⊗

Turns 10.3 through 11.3

Turns 11.4 through 13.4, 8/17 Tuesday

JellyBeast Landing(s).

3rd: Bob Robles (Eeepeep/Bender's Freedom Brigade) Rolls Used: 2 4 6

Galactic Base – NC6 – TeleGate 6 – Space Station Planet.

Delivers Fare for \$110 (from the cup: Immortal Grease at 6).

4th: Andy York (Oossuth/Oossuth Entrepreneur Division) Rolls Used: 4 * 3

B – Poisonport(o) – R – B – Y – B – R – B – Y – R20 – Open Port.

Sells Rock Videos for \$200 (from the cup: Bionic Perfume at 1a). Buys Melf Pelts for \$50.

5th: Chris Geggus (Niks/Ganymede Enterprises Going South) Rolls Used: 3 4

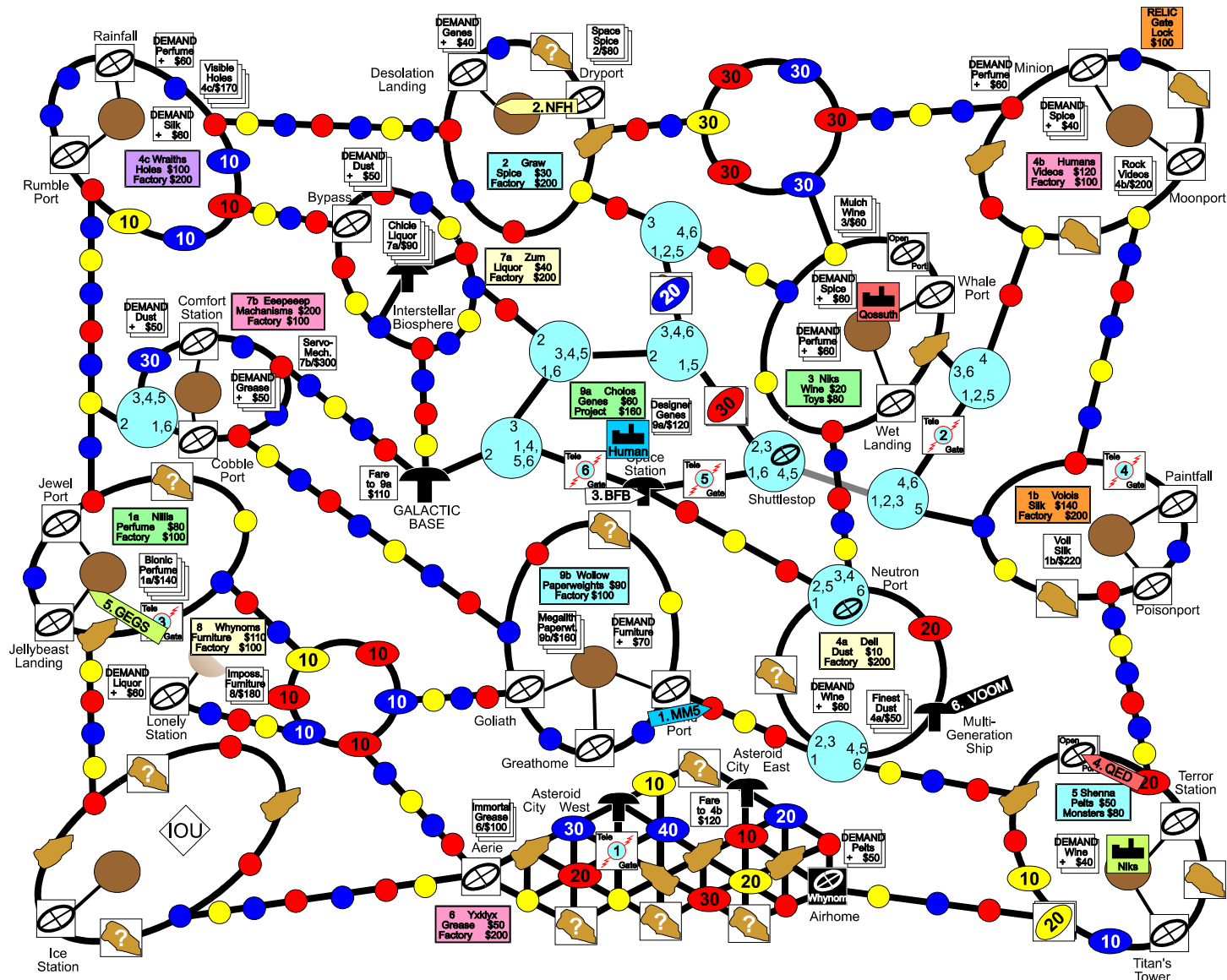
Y10 - B - (R) - B - ? (it's TeleGate 3) - A - Jellybeast Landing(o) -

Discovers Vollois (from the cup: Demand for Wine at 5, Demand for Pelts at 6, Demand for Pelts at 6, and Space Spice at 2). Sells Megalith Paperweight for \$160 (from the cup: Voll Silk at 1b). Buys Bionic Perfume for \$80.

6th: Dave Partridge (Whynoms/Venus-Orion Oligarch Merchantile) Rolls
Used: 2 3 6

Paintfall(s) – Paintfall(o) – TeleGate 4 – TeleGate 6 – Space Station Planet – (R) – Y – (R) – NC6 – (R20) – Multi-Generation Ship.

Sells Scout for \$30 and buys Merchantman for \$280.



Turn 11

1st: Andy Lewis (Humans/Mystery Machine 5) Rolls Used: 1 1 2

Multi-Generation Ship – NC1 – R – Y - R.

2nd: Paul Bolduc (Dell/Not for Hire) Rolls Used: 5 * 3

**Rainfall(s) – Rainfall(o) – B – R – Y – B – R – B – Y – B – R – Desolation
Landing(o) – Desolation Landing(s).**

Discovers Graw (from the cup: Demand for Perfume at 3, Designer Genes at 9a, Finest Dust at 4a, Fare to 9a at Base). Sells Megalith Paperweight for

\$160 (from the cup: Rock Videos at 4b). Uses IOU to buy Space Spice and picks up Fare to 10.

3rd: Bob Robles (Eeepeeep/Bender's Freedom Brigade) Rolls Used: 3 4 6
Space Station Planet.

Sells Chicle Liquor for \$90 plus \$60 demand (from the cup: Demand for Wine at 5 and Demand for Genes at 2). Buys 2 Designer Genes for \$120.

Notes

Since all but one of the cultures have been discovered, I will start running two turns per issue.

Current status:

1a (Nillis): 4 Bionic Perfume

1b (Volois): 1 Voll Silk

2 (Graw): 4 Space Spice, 2 Demand for Designer Genes (+\$40)

3 (Niks): 2 Demand for Space Spice (+\$60), 3 Mulch Wine, 2 Demand for Bionic Perfume (+\$60)

4a (Dell): 3 Finest Dust, Demand for Mulch Wine (+\$60)

4b (Humans): 3 Demand for Space Spice (+\$40), 2 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): 2 Demand for Mulch Wine (+\$40)

6 (Yxklyx): 3 Immortal Grease, Fare to 4b (\$120), 2 Demand for Melf Pelts (+\$50)

7a (Zum): 5 Chicle Liquor, Fare to 4c (\$110), 3 Demand for Finest Dust (+\$50)

7b (Eeepeeeep): 3 Demand for Immortal Grease (+\$50), 2 Demand for Finest Dust (+\$50), Servo-mechanism

8 (Whynoms): 2 Impossible Furniture, Demand for Chicle Liquor (+\$60)

9a (Chola): 2 Designer Genes, Demand for Chicle Liquor (+\$60)

9b (Wollow): 2 Megalith Paperweight, Demand for Impossible Furniture (+\$70)

10 (Qossuth): Demand for Designer Genes (+\$60), 4 Psychotic Sculpture

Base: Fare to 9a (\$110)

1. Mystery Machine 5 **\$330**
Scout
12: 1 3 5 //13: 2 2 5
Hold1 Hold2 Hull
Immortal Grease 6/\$100
Fare to Base \$180
Shield (\$60)
Cholos \$200
RELIC Jump Start \$120

2. Not for Hire **\$268**
Needle
12: 5 5 // 13: 2 2 (use 1*3)
Hold1 Hold2 Hull
Space Spice 2/\$80
Fare to 10 \$120
7b \$100
RELIC Mulligan Gear \$120

3. Bender's Freedom Brigade **\$470**
Scout
12: 3 5 6 // 13: 4 6 6
Hold1 Hold2 Hull
Designer Genes 9a/\$120
Designer Genes 9a/\$120
7a \$80
RELIC Switch Switch \$100

4. Qossuth Entrepreneur Division **\$310**
Needle
11: 4 5//12: 6 6//13: 1 6 (use 1*3)
Hold1 Hold2 Hull
Melf Pelts 5/\$110
Fare to Base \$180
4a \$60
Niks \$200
RELIC Spy Eye \$100
Shield (\$60)

5. Ganymede Enterprises Going South **\$110**
Scow
11: 1 2 3 4 // 2 2 3 5 (use 2)
Hold1 Hold2 Hold3 Hold4 Hull
Bionic Perfume 1a/\$140
Fare to Base \$140
Red Wine (\$120)
6 \$100
1a \$80
Shenna \$100

6. VOOM **\$184**
Merchantman
11: 2 5 6 // 12: 1 5 6 (use 2)
Hold1 Hold2 Hold3 Hold4 Hull
Red Wine (\$120)
Airhome \$200

Basset**Turn 7****Turn 8, 8/17 Tuesday**Commander Actions

Lowreyville buys a titanium factory (MWa) and a population factor (Or3, Wa8)

MMC buys a titanium factory (Or2, Or4, Wa5, Wa5, Wa7, Wa7) and moves a population factor from an ore factory to man it.

Cosmic Nomads buys a water factory (Or3, Wa4, Wa5, Wa9) and moves a population factor from an ore factory to man it.

Little Green Men buys a water factory (MWa) and a population factor (Or2, Or3, Or5)

HOB0 buys a population factor (Wa5, Wa5) and mans the ore factory

ShaggyMobile opens the bidding on Heavy Equipment at 30 and gets it (Or3, Wa5, Wa5, Wa6, Wa6, Wa7, Wa8).

HBDC buys a water factory (Or3, Or3, Wa6, Wa8) and a population factor (Or4, Wa6).

BarterTown buys a titanium factory (Wa7, Wa7, Wa8, Wa8) and moves a population factor from an ore factory to man it.

The Players

	Outpost Name	Commander	Factories	Upgrades	VP
1	Lowreyville	Michael Lowrey	OrF, OrF, WaF, WaF, WaF, WaF, TiF	No, HE	11
2	MMC	Eric Brosius	OrF, OrF, WaF, WaF, WaF, TiF, TiF	HE, No	10
3	HOB0	Dave Hooton	OrF, OrF, WaF, WaF, WaF	No, DL, Wa	9
4	Cosmic Nomads	Cary Nichols	OrF, OrF, WaF, WaF, WaF, WaF	2DL, No	9
5	Little Green Men	Dave Partridge	OrF, OrF, WaF, WaF, WaF, WaF, WaF	No	9
6	ShaggyMobile	Andy Lewis	OrF, OrF, WaF, WaF, WaF, WaF	2HE, Wa	8
7	HBDC	Kevin Wilson	OrF, OrF, WaF, WaF, WaF, WaF	2DL, Wa	8
8	BarterTown	Andy York	OrF, OrF, WaF, WaF, WaF, WaF, TiF	HE	7

HBDC is Heavenly Bodies Development Corporation. MMC is Mud Mining Corporation. HOB0 is High Orbit Biological

Available Upgrades

New Arrivals: Laboratory, Laboratory, Orbital Lab, Outpost, Ecoplants, Scientists

Upgrade	Minimum Bid	Available	Not Yet Delivered
Warehouse (Wa)	25	2	0
Scientists (Sc)	40	1	5
Orbital Lab (OL)	50	1	4
Robots (Ro)	50	0	5
Laboratory (La)	80	2	3
Ecoplants (Ec)	30	1	4
Outpost (Ou)	100	1	4

Production Cards

Lowreyville, LGM, and ShaggyMobile took MegaWater cards.

Hunter

Turn 4, Phases IV – VI, Turn 5, Phases I - III

Turn 5, Phases IV – VI, Turn 6, Phases I - III, 4/13 Tuesday

Turn 4Operations**Red** (Nichols) buys claim #30 for \$80, operates #30 (\$30, depletes), gains \$130 in passenger revenue.**Orange** (Hooton) receives \$20 in passenger revenue.**Green** (Longdin) operates #108 (\$40, 3 copper), #99 (\$50, depletes), and #107 (\$50, 1 copper), delivers 3 copper from Lordsburg to El Paso for \$600.**Brown** (Partridge) operates #25 (\$60, 2 gold) and #68 (\$20, 3 coal), delivers 3 gold from Bingham to Salt Lake City for \$900, gains \$20 in passenger revenue.**Blue** (Scharf) operates #92 (\$40, 3 coal).**Aqua** (Narhi) operates #106 (\$30, 2 copper).Determine Price Changes

Gold: -1 to \$275

Copper: Remains at \$200

Silver: Remains at \$180

	Denver	Salt Lake City	Pueblo	Santa Fe	El Paso
Lumber:	+2 to \$80	+1 to \$160	+2 to \$80	+1 to \$40	+2 to \$120
Coal:	+1 to \$100	Remains at \$60	+1 to \$60	Remains at \$80	+2 to \$80

Turn 5Move Prospectors and Surveyors**Red** (Nichols) surveys Trinidad to Raton, prospects the deck**Orange** (Hooton) surveys Dillon to Leadville, prospects the deck.**Green** (Longdin) surveys El Paso to Alamagordo and prospects #116.**Brown** (Partridge) surveys Ouray, UT to Rangely and Thistle to Price, prospects

the deck

Blue (Scharf) surveys Trinidad to Raton, prospects the deck**Aqua** (Narhi) surveys San Ysidro to Cuba, prospects passenger line 6.Dispute Resolution

Red draws #49 (Silverton silver), Orange draws #102 (Hilsboro silver), Brown draws #93 (prospector killed in cave-in), and Blue draws #58 (Dolores lumber). Red, Orange, and Blue have first right of refusal to be exercised at the beginning of next turn on their respective claims. Red and Blue have a dispute over the Trinidad to Raton line. Red dr = 4, Blue dr = 9. Blue wins, surveyor becomes +1. Red spends \$0, Orange spends \$160, Green spends \$240, Brown spends \$340, Blue spends \$120, and Aqua spends \$260.

The Players

Player	Color	Starting Location	Money	Trains	Snowplows	Personnel
Cary Nichols	Red	Denver	\$470	9, 15		S, S, P
Dave Hooton	Orange	Denver	\$360	9		S, S, P
Michael Longdin	Green	El Paso	\$1,170	9, 15		S, P
Dave Partridge	Brown	Salt Lake City	\$1,275	9		S, S
Bill Scharf	Blue	Pueblo	\$440	9, 15		S+1, S, P
Ward Narhi	Aqua	Santa Fe	\$50	9		S, S, P

Purchased Claims

#	City	Owner	Type	Goods	Operation
47	Ouray	Orange	Silver	N	\$40
108	Lordsburg	Green	Copper	8	\$40
99	White Oaks	Green	Gold	6	Depleted
107	Santa Rita	Green	Copper	4	\$50
116	Pinos Altos	Green	Lumber	N	\$30
35	Heber City	Brown	Silver	3	Depleted
25	Bingham	Brown	Gold	0	\$60
68	Scofield	Brown	Coal	3	\$20
92	Raton	Blue	Coal	13	\$40
120	Cuba	Aqua	Coal	4	Depleted

#	City	Owner	Type	Goods	Operation
106	Cuba	Aqua	Copper	2	\$30

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	
4	A	El Paso – Deming	\$60	Green	
2	A	Salt Lake City – Provo	\$20	Brown	
6	A	Santa Fe – Albuquerque	\$90	Aqua	

Available Claims

#	City	Type	Claim	Operation
109	Pinos Altos	Copper	\$80	\$20
113	Porter	Lumber	\$60	\$30
119	Farmington	Coal	\$80	\$40
115	Paxton Springs	Lumber	\$100	\$40
63	Lumberton	Lumber	\$160	\$50
60	Pagosa Springs	Lumber	\$40	\$20
26	Marysville	Gold	\$120	\$40
57	Boulder	Lumber	\$40	\$20
49	<i>Silverton</i>	<i>Silver</i>	<i>\$140</i>	<i>\$40</i>
102	<i>Hillsboro</i>	<i>Silver</i>	<i>\$100</i>	<i>\$40</i>
58	<i>Dolores</i>	<i>Lumber</i>	<i>\$140</i>	<i>\$40</i>

Claims in italics are under first right of refusal.

Available Passenger Lines

#	Type	Route	Payoff	Cost	Notes
8	A	Denver – Leadville	\$260	\$500	Discard after 4 Leadville depletions
9	B	Denver – Leadville	\$120	\$230	
13	B	El Paso – Santa Fe	\$140	\$320	

Available Trains

Type	# Available	Cost
9	0	\$80
15	3	\$120
24	8	\$200.00

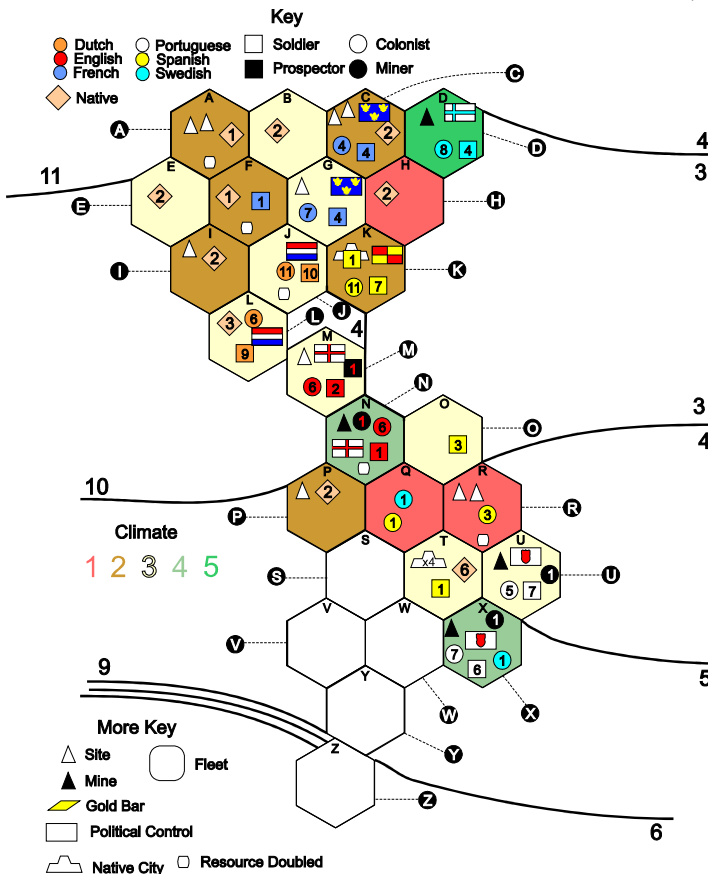
Available Snowplows

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

Boston Terrier

Turn 5

Turn 6, 7/6 Tuesday

Planning

Dutch maintain 4 ships (\$16) and buy 4 soldiers (\$40) for \$56.

Portuguese maintain 4 ships (\$16) and buy 5 soldiers (\$50) for \$66.

French maintain 3 ships (\$12), buys 1 ship (\$12) and 4 soldiers (\$40) for \$64.

English maintain 4 ships (\$16) and buy 2 soldiers (\$20) for \$36.

Swedes maintain 4 ships (\$16) and buy 4 soldiers (\$40) for \$56.

Spanish maintain 4 ships (\$16) and buy 4 soldiers (\$40) for \$56.

Outbound Naval Movement

Dutch Move to J: 2, 3, 5, 6. No losses.

Portuguese Move to U: 2, 4, 5, 6. No losses.

French Move to C: 1, 3, 5, 6. Loses 1 ship containing 1 colonist and 1 soldier.

English Move to N: 1, 1, 6, 6. Loses 1 soldier and 2 colonists.

Swedes Move to X: 1, 5, 5, 6. Loses 1 soldier and 1 colonist.

Spanish Move to K: 3, 4, 6. No losses, drops off 4 colonists, moves to O: 5. No losses.

Mining

Spanish loot 2 gold in K. English mine 1 gold in N. Portuguese mine 1 gold in U.

Discovery

Swedes discover a mine in D. Portuguese discover a mine in X.

Land Movement

Dutch move 6 colonists and 8 soldiers from J to L, 4 colonists and 4 soldiers from fleet to J.

Portuguese move 1 gold bar from U to fleet, 2 colonists and 4 soldiers from U to X and 3 colonists and 5 soldiers from fleet to U. Colonist in X mines.

French move 3 colonists and 3 soldiers from C to G, 1 soldier from E to F, and 3 colonists and 3 soldiers from fleet to C.

English move 1 gold bar from N to fleet, 5 soldiers and 4 colonists from N to M, and 1 soldier and 4 colonists from fleet to N.

Swedes move 1 colonist from O to Q, 3 colonists and 3 soldiers from fleet to X.
Spanish move 2 gold bars from K to anchorage dot, 2 soldiers from Q to T, 4 colonists from anchorage point to K, and 4 soldiers from fleet to O.

Combat

Portuguese attack Swedes in X: Portuguese loses 3 soldiers and Swedes lose 7 soldiers and 6 colonists.

Native Combat

French: 1 soldier and 1 native killed in G. **English:** 3 soldiers and 2 natives killed in M. **Spanish:** 2 natives and 1 soldier killed in O, 2 natives and 1 soldier killed in T. **Portuguese:** 3 natives and 1 soldier killed in X.

Native Uprisings

Climate is a 1. Uprising in C (1 colonist killed).

Survival

Climate is a 6.
 No losses.

Political Control

Dutch gain political control of L, **English** gain political control of M.

Homebound Naval Movement

Dutch: Dice: 1, 2, 4, 6. No losses.

Portuguese: Dice: 3, 3, 5, 5. No losses.

French: Dice: 1, 2, 3, 5. No losses.

English: Dice: 3, 3, 4, 5. No losses.

Swedes: Dice: 2, 2, 4, 6. No losses.

Spanish: Move to K. Dice: 1. Lose 2 ships. Picks up gold. Dice: 2, 4, 5. No losses.

Income

Dutch: Political Control: \$90, resources: \$56.

Portuguese: Political Control: \$90, Gold: \$40, resources: \$24.

French: Political Control: \$90, resources: \$22.

English: Political Control: \$90, Gold: \$40, resources: \$36.

Swedes: Political Control: \$60, resources: \$20.

Spanish: Political Control: \$60, Gold: \$80, resources: \$36.

Turn 6 Initiative

Dutch, Spanish, French, Portuguese, English, Swedes

Portuguese attitude is (dr = 10 + 1) Balancing.

Players

Country	Player	Money	Available Soldiers	Ships	Colonists
English	Andy York	\$233	14	4	3
French	Andy Lewis	\$133	9	3	4
Swedes	Dave Partridge	\$97	12	4	4
Spanish	Bob Robles	\$348	9	2	4
Dutch	Dave Hood	\$168	3	4	4
Portuguese	Non-Player	\$165	7	4	5

Dogbreath

Epoch I Babylonians, Shang Dynasty, Aryans

Epoch II Empire Selection, 8/17 Tuesday

Royal Manticoran Historical Society (Wilson) BABYLONIANS: Army and Capital Middle Tigris (Sumerian army retreats to Lower Tigris), army Zagros (vs. Hittites; B: 5, 4; H: 3, 3; wins), Eastern Anatolia (vs. Hittites; B: 4, 2; H: 4; B: 6, 6; H: 1; wins, Capital reduced to city), Levant (vs. Egypt; B: 6, 2; E: 3; wins). Builds monument Middle Tigris. Points: Dominance in Middle East (4), 1 Capital (2), 1 city (1), and 2 Monuments (2) for 9 points.

The Questioner (Partridge) SHANG DYNASTY: Army and Capital Yellow River, army Great Plain of China, Chekiang, Si-Kyang. Points: Dominance in China (2) and 1 Capital (2) for 4 points.

Great Explorers Grabbing Samples (Geggus) Plays Allies. ARYANS: Army Turanian Plain, Tarim Basin, Hindu Kush, Upper Indus, Ganges Valley, Persian Plateau, Eastern Deccan. Builds Monument Tarim Basin. Points: Dominance in India (2), presence in Middle East (2) and China (1), 1 Monument (1) for 6 points.

Players

Player Name	Player Faction Name/Color	Empire Strength Points	Victory Points
Kevin Wilson	Royal Manticoran Historical Society (purple)	4	9
Andy Lewis	Marching Through the Ages (red)	4	6
Dave Anderson	Time Traveler (orange)	4	5
Dave Partridge	The Questioner (green)	4	4
Paul Bolduc	Arachnids (blue)	5	13
Chris Geggus	Great Explorers Grabbing Samples (yellow)	5	6

Positions

SUMERIANS: Capital and three armies Lower Tigris.

Arachnids: EGYPT: Army, Capital, and Monument Nile Delta, Nubia, Libya.

Time Traeler: Fleet Eastern Mediterranean. MINOANS: Army, Capital, and fort Crete, army Western Anatolia.

Marching Through the Ages: INDUS VALLEY: Army and Capital Lower Indus, army Persian Salt Desert, Western Deccan, Western Ghats.

Royal Manticoran Historical Society: BABYLONIANS: Army, Capital, and Monument Middle Tigris, army, city, and Monument Eastern Anatolia, armies Zagros, Levant.

The Questioner: SHANG DYNASTY: Army and Capital Yellow River, armies Great Plain of China, Chekiang, Si-Kyang.

Great Explorers Grabbing Samples: ARYANS: Army and Monument Tarim Basin, armies Turanian Plain, Persian Plateau, Hindu Kush, Upper Indus, Ganges Plain, Eastern Deccan.

Epoch II Empire Draw

Event Cards

Plantation Dog

Turn 1

Turn 2, 8/17 Tuesday

Turn 1

Paul selects the Builder and builds a Construction Hut (1d, with 1d discount from Builder), Chris buys an Indigo Plant for 3 doubloons, Richard buys the Small Market for 1 doubloon, Andy Y. buys a Sugar Mill for 4 doubloons, Andy L. buys a Hacienda for 2 doubloons.

Chris selects the Settler and takes a Quarry, Richard takes a Coffee plantation, Andy Y. takes a Sugar plantation, Andy L. takes a Coffee plantation, and Paul takes an Indigo plantation

Richard selects the Mayor and places colonists on the Small Market and Coffee plantation, Andy Y. places a colonist on the Corn plantation, Andy L. places a colonist on the Hacienda, Paul places a colonist on the Construction Hut, and Chris places a colonist on the Indigo Plant.

Andy Y. selects the Craftsman, and produces 2 corn. No other production is possible

Andy L. selects a Prospector, gaining 1 doubloon.

The Players

Player Name	Role	Plantations	Buildings	San Juan	Doubloons	Stored Production	VP
Paul Bolduc	Builder	Indigo, Indigo	Connection Hut		3		
Chris Geggus	Settler	Indigo, Quarry	Indigo Plant (1)		1		
Richard Weiss	Mayor	Indigo, Coffee	Small Market		3		
Andy York	Craftsman	Corn , Sugar	Sugar Mill		0	2 Corn	
Andy Lewis	Prospector	Corn, Coffee	Hacienda		3		

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: 84 Colonist Ship: 5 **Trading House:** Empty **Victory Points:** 122
Cargo Ships: Ship 1 (capacity 6): Ship 2 (capacity 7): Ship 3 (capacity 8):

Commodities

Corn: 8 **Indigo:** 11 **Sugar:** 11 **Tobacco:** 9 **Coffee:** 9

Buildings

Column 1	Column 2	Column 3	Column 4
Small Indigo Plant (1d, 1VP) (x4)	Indigo Plant (3d, 2VP) (x2)	Tobacco Storage (5d, 3VP) (x3)	Guild Hall (10d, 4VP)
Small Sugar Mill (2d, 1VP) (x4)	Sugar Mill (4d, 2VP) (x2)	Coffee Roaster (6d, 3VP) (x3)	Residence (10d, 4VP)
	Hospice (4d, 2VP)	Factory (7d, 3VP)	Fortress (10d, 4VP)
Aqueduct (1d, 1VP)	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)
Black Market (2d, 1VP)	Church (5d, 2VP)	Library (8d, 3VP)	Statue (10d, 8VP)
Forest House (2d, 1VP)	Trading Post (5d, 2VP)	Specialty Factory (8d, 3VP)	
Storehouse (3d, 1VP)	Small Wharf (6d, 2VP)	Union Hall (9d, 3VP)	
Small Warehouse (3d, 1VP)	Large Warehouse (6d, 2VP)	Wharf (9d, 3VP)	

Rolls

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

Plantations

Quarry (x7), Forest (x12), Indigo, Indigo, Indigo, Tobacco, Sugar, Coffee

Discard Pile: Tobacco, Tobacco

Pedagoguery

The defining issue in 21st century physics is the incompatibility between general relativity and quantum mechanics. General relativity rules on large scales while quantum mechanics rules on the scales of molecules, atoms, and smaller scales. Given the weakness of gravity as a force, it plays almost no role on such small scales – with one exception. There is a place where the issues of general relativity and quantum mechanics come together, and that is in a black hole.

Black holes are fundamentally constructs of general relativity. They are a place where matter has attained infinite density, forming a singularity surrounded by an event horizon. However, the fact that a singularity exists points to the fact that the theory is incomplete. It was Stephen Hawking who first applied some principles of quantum mechanics to black holes, and he discovered something unexpected – black holes evaporate due to quantum effects.

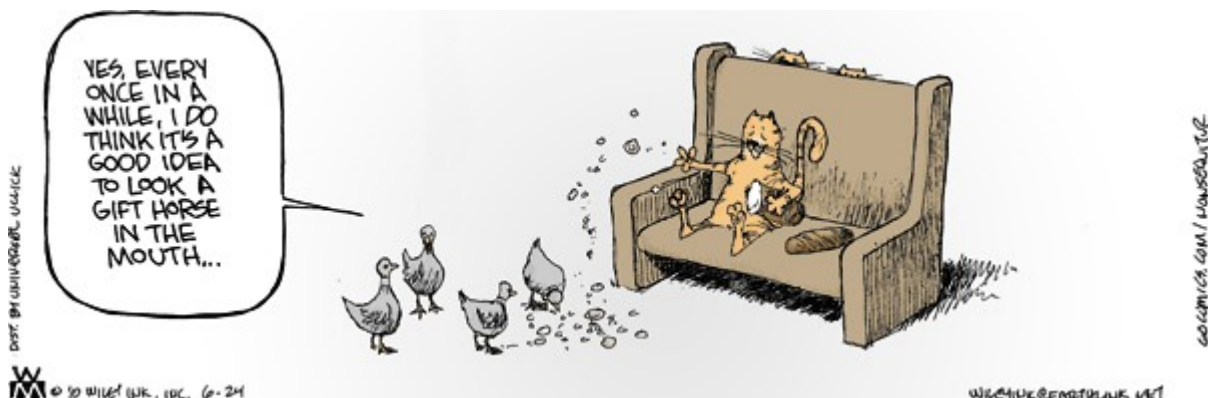
To explain why this happens, we need to understand the effects of one of the fundamental principles of quantum mechanics: The Heisenberg Uncertainty Principle. It states that for a particle, there are certain pairs of values that you cannot know to an arbitrary level of certainty. For example, you cannot know both the position and the momentum of a particle at the same time. The more you know about its position, the less you know about its momentum, and vice versa. Another such pair of values is time and energy, and this applies to an empty region of space as well as to a particle. As a result, you cannot know the total energy of a region of space at a given instant of time, and the smaller the region of space, the greater the uncertainty. As a result, you get “virtual particles”, particles that appear, separate, come back together, and annihilate with each other within such a short span of time that they cannot be directly observed. Their effects can be

charged ones. The net effect is a cloud of negative charge surrounding the particle. This cloud is not enough to fully cancel out the positive charge of the particle, but it does partially cancel it out. Interestingly, mass works the same way, in that around every mass in empty space, there is an effective cloud of negative mass, produced by the curvature of spacetime. This negative mass produces a repulsive gravitational force. How would this effect influence the collapse of a black hole?

As particles fall together in the collapse of a stellar core, they start to slow as they enter each others' clouds of negative mass. If the vacuum polarization effect is large enough, then fall would continue to slow until it stopped. The result would be a black star, which is a star that would have many of the properties of a black hole as seen from the outside, but which would be solid, with a material surface. They would be extremely dim due to the redshifting of the light they emit. The temperature of the star would match the predicted Hawking temperature of a black hole of a similar mass, thus as you got deeper into the star, it would get hotter. Information would be retained in the structure of the star, and in theory it could be observationally determined, thus no information loss. The only question is whether the vacuum polarization effect is large enough to cause this arrested collapse.

This is not the only theory being developed to reconcile the issues of quantum mechanics and general relativity in the realm of black holes, and the others involve their own exotic physics. Only further observation and experimentation will be able to resolve them.

Next time, out sun's long lost siblings.



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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

Open Call for Narbot in Robover