

Now in Color

Number 25

Notes from Hades

hat's right. I recently made the investment in a color printer (an HP DeskJet 660C, for those of you who care). Ever since I started publishing, I have wanted to do my maps in color, and with the prices dropping the way they have recently, I decided that the time was now. What better way to celebrate the 25th issue?

The Runestone Poll results are out. One thing that struck me immediately, was the tremendous drop in participation. Last year, 51 zines made the main list. This year, only 30 made it. While there have been a lot of folds in the last year, less than half of the zines that were on last year's list but missing from this year's are listed as folds in the last Zine Register. I also heard that the number of votes received is the lowest total since the second year of the poll. I certainly hope that this is not an indication of an overall decline in the hobby. Anyway, I would also like to thank those of you who did vote and who put me at 11th overall in the GM poll. Also, congratulations to Doug Kent, whose zine Maniac's Paradise finally unseated Perelandra in the zine poll.

The level of interest in History of the World has been phenomenal. Since the last issue, I have received seven sign ups for the new game opening. So, here is the deal: I will start a new game immediately, and open a second game, which will start as soon as "Fenris Wolf" ends. Preference will be given to those not already in the new game.

Jason Wilke is going to be spending a year in Germany starting next month. During that time, he will be unable to continue his zine Won if by Land, so it will be put on hiatus for he duration. I will be taking over his Machiavelli games until he gets back, so don't be surprised next issue when two new Mach games suddenly appear. In that issue, I will be reprinting the turns he will be printing on his last 1995 issue, and from then on, the deadlines will follow my standard schedule.

I have been toying with the idea of running Columbia's EastFront/WestFront series by mail. That is the WWII wooden block game along similar lines to their game Napoleon. Would there be any interest? I could run it with as many as 6 players, but I want to know how much interest there is before I go to all the work of doing the maps.

The next gaming generation continues to grow. Congratulations to Steve and Valerie Koehler on the birth of their son James Michael on July 1st.

This issue's deadline will be on Friday, September 8 at 5:00 pm Pacific Time.

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"Proteus" "Canis Major"

Midway Campaign Stellar Conquest 1500 Oct 25 Turns 21, 22

None at this time.

<u>Game Openings</u>

Wish List

Time Agent is a game pitting six different races against each other with the object of becoming the dominant race in the galaxy. This is achieved through manipulating past events more to your liking and then when you have arranged things to suit you, preventing others from undoing your work by reversing time travel itself. It will be run by filer. Have Sean Cousins and Chris Hurley. Need 4 more.

Slapshot is a tongue-in-cheek card game about hockey. This will be run by Andy Lewis. Have Chris Hassler, need 7 more.

Machiavelli. With the completion of "Pack of Curs" I will open up another Machiavelli game. I am going to try the 9-player Genoan variant with plague, famine, and unlimited special military units, to the Advanced game victory conditions. Have Bob Robles, Dave Anderson, Ward Narhi, Kevin Wilson, need 5 more.

Outpost. This game will start up as soon as the current one finishes. It will use the Expert Rules, which alter the sequence of play a bit. Anybody who signs up will be provided with the details of the differences. Have Andy Lewis, Dave Anderson, and Dan Eisenhut, need 7 more.

History of the World. This game will also start up when the current one finishes. Preferences will be given to those not already in "Mongrel". Have Debbie Osborne and Kevin Kinsel, need 4 more.

Die Macher is a game of German elections. This one will begin after "Mailman's Bane" ends. Have Andy Lewis, need 3 more.

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: Chris Hassler a.k.a. Cerberus 631 Candia Circle La Habra, CA 90631 Phone: (714) 773-0940 CompuServe: 70514,37 Subscriptions cost \$1.00 per issue (\$1.50 overseas).

August, 1995

Flier Games

Howling at the Moon The S.O.B. Letter Column

Bob Robles

More mouthing off: How about them UC regents? What a show-get me a barf bag. Even Governor Wilson bothered to show up for the meeting to disband affirmative action programs. What does everybody else think? Could it be that ALL of us are where we now are PURELY on merit? All of those who think so, raise your right hand (Seig Heil!). I thought the best suggestion for retaliation came from someone who REALLY understood how the admissions process works: all blue chip athletes in money sports (read black football and basketball players) should refuse to attend UC schools. How fast do you think affirmative action would be restored to UC campuses? [Looks like Wilson has found his Crusade for the Presidential election. It was only a matter of time.]

Ward Narhi

Well the Waco hearings have come to a close and the Repub witch hunt has proven fruitless. All the conspiracy theorists are unhappy that the trilateral commission wasn't in on it with Clinton. I agree that it should be investigated as it is disturbing to see the government use such force against its own but in this case it was justified. I don't have much sympathy for the cult. Now the Repubs can turn their attentions to Whitewater and see if something sticks there. Again, I think they will be disappointed.

On another note, what do you think about all the hub-bub about the conceal carry laws? Considering a recent ruling saying the police are not obligated to protect the citizen one must ask, "Then who's responsibility is it?" I submit that it is the individual's responsibility. This makes me sad to say as I used to be pro-gun-control.

[My question is, if the police are not obliged to protect citizens, what exactly is their job?]

Doghouse / MGN# O/B/8/ABC/3 Spring 1458 Deadline/Summer 1458 9/8 Friday

Venice turns his attention toward the Pope but is thwarted in his invasion attempt, which nonetheless leaves a Papal army stranded amidst famine. Turkish money convinces Neapolitan sailors to give up the fight, driving the Neapolitan government into exile in Spain. Florence continues to pursue a policy of inaction, while the Papal net closing round is broken by plague. Milan girds for a defense of the homeland only to receive a helping hand from above.

Fall 1457 Retreats

French A2 retreats OTB (NRR). Milan A2 retreats to Montferrat.

<u>Builds</u>

Venice gave 4 ducats to France and 3 ducats to Naples. Naples gave 2 ducats to Venice.

		Treas	Cost	Rem
Flo	Maintains all, no new builds	11	3	8
Fra	Maintains A3 Savoy and A4 Swiss, no new builds	12	12	0
Mil	Maintains A2 Montferrat, A3 Genoa, builds G1 (Elite Mercenary) Pavia	22	18	4
Nap	Maintains F1 Palermo	9	6	3
Pap	Maintains all, builds A3 (Elite Mercenary) Perugia	20	12	8
Tur	Maintains F2 Messina, F3 Durazzo, F5 Ionian Sea, build F1 Tunis	30	12	18
Ven	Maintains A2 Mantua, A4 Cremona, A5 Albania, A6 Pistoia, F1 Upper Adriatic, F2 Lower Adriatic, builds A1 (Elite Professional) Tyrolea, A3 Dalmatia, F3 Venice	48	36	12

Expenditures

Milan spends 3 ducats for famine relief in Montferrat. The Turks spend 12 ducats to disband Naples F1 Palermo.

Orders FLORENCE: A2 PISA holds (York) A3 (EM) Savoy to TURIN FRANCE: A4 (EM) Swiss supports A3 (Wilke) MILAN: A2 Montferrat to PAVIA (Scharf) A3 (EP) GENOA holds G1 (EM) PAVIA supports A2 No units, OUT! NAPLES: (Koehler) PAPACY: A1 FLORENCE holds (Hurley) A2 URBINO to Ancona A3 (EM) Perugia to SIENNA F1 Tunis to Western Mediterranean TURKS: (Lewis) F2 Messina to PALERMO F3 DURAZZO holds F5 IONIAN SEA SUPPORTS F3 A1 (EP) Tyrolea to MILAN VENICE: (Anderson) A2 Mantua to BOLOGNA A3 DALMATIA to Ancona A4 Cremona to PIANCENZA A5 Albania to RAGUSA A6 (CM) PISTOIA to Pisa F1 UPPER ADRIATIC transports A3 to Ancona F2 LOWER ADRIATIC to Ionian Sea F3 Venice to VENICE LAGOON

<u>Spring 1458 Famine Losses</u>

Papal A2 Urbino

Summer 1458 Plague

Bad Year: Romagna, Hungary, Urbino, Piombino (Autonomous garrison dies), Treviso, Como, Marseilles, Carinthia, Ferrara, Milan (Venice A1 dies), Florence (Papal A1 dies), Otranto, Corsica



<u>Press</u>

Naples - Board: This has got to be the WORST played game I have ever been in. My own play is included in that statement. Congrats, Dave, but we did practically give this one to you.

Turkey - World: Huh excuse me, where is the pressure on Venice?! Turkey - Naples: I don't think that it will be quick enough for you.

"Rude Dog"



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



<u>Rude Dog / MGN# O/B/8/CH/1 - Gunboat</u> <u>Spring 1456</u> <u>Deadline/Summer 1456 9/8 Friday</u>

A new king ascends to the throne of Naples just in time to see his fleets defeated by the Turks and the Venetians. France and Milan continue to tussle in the North, with a Venetian army set to enter the fray. Austria circles the wagons and prepares for an all-out defense of the capital. The Pope, meanwhile, retakes lost territory and prepares to challenge Venice at sea.

Fall 1455 Retreats French A2 retreats to Swiss Naples A2 retreats OTB Naples F3 retreats OTB **Builds** Tres Cost Rem Aus Maintains A1 Austria, builds G1 (Elite 9 9 0 Mercenary) Austria Fra Maintains all, builds A4 (Elite Mercenary) 24 21 3 Avignon Mil Maintains A1 Milan, A2 Genoa, A3 32 24 8 Montferrat, A6 Turin, builds A5 (Elite playing. Mercenary) Pavia, G1 (Elite Mercenary) Milan (imp., cannot switch units in same province, maintains original G1 at 6 ducats) Maintains all, builds A2 Naples 17 15 2 Nap Pap Maintains all, builds A4 Arezzo, G1 28 18 10 Ancona Tur Maintains all, build G1 Durazzo 23 18 5 Ven Maintains all, builds A5 Treviso 35 24 11

<u>Orders</u>

Austria():	A1 Austria holds
	G1 (EM) AUSTRIA supports A1
France():	A1 Savoy besieges (DISLODGED, retreat Saluzzo, OTB)
	A2 Swiss supports A4
	A3 Sardinia to PROVENCE
	A4 Avignon to Turin
	F1 Western Tyrrhenian Sea to EASTERN GULF OF LYON
	F2 WESTERN GULF OF LYON transports A3
Milan():	A1 Milan to Сомо
	A2 GENOA SUPPORTS A3
	A3 Montferrat to Savoy
	<u>A5 (EM) PAVIA to Turin</u>
	A6 Turin to Tyrolea (DISLODGED, retreat Saluzzo, Montferrat,
	<u>OTB</u>)
	G1 MILAN converts to A4
Naples():	A1 AQUILA supports A2
	A2 Naples supports A1
	A3 Salerno to BARI
	F1 Ionian Sea to Durazzo (DISLODGED, retreat Palermo, Otranto,
	<u>OTB)</u>
	F2 Lower Adriatic supports A3 (DISLODGED, retreat Otranto,
	Herzegovina, Albania, OTB)
Papacy():	A1 PISA support A4
	A2 Florence to BOLOGNA
	A3 Spoleto to Tivoli
	A4 Arezzo to Sienna
	F1 Ancona to Romagna
	G1 Ancona converts to F2
Turks():	A1 Bari to Salerno (DISLODGED, retreat Otranto, OTB)
	A2 Albania to Ragusa

	F1 Durazzo to Ionian Sea
	F2 BAY OF TUNIS SUPPORTS F1
	F3 Palermo to MESSINA
	G1 DURAZZO converts to F4
Venice():	A1 Croatia to SLAVONIA
	A2 TRENT besieges
	A3 (EM) Carinthia to Tyrolea
	A4 CARNIOLA SUPPORTS A1
	A5 Padua to Ferrara
	F1 Dalmatia to Lower Adriatic
	F2 UPPER ADRIATIC SUPPORTS F1
TC ·1	

If you are in the game, a red check will appear next to the country you are

<u>Notes</u>

Note that if you have a unit in a home city during a production turn, your options for that city are either to maintain the existing unit or to do without altogether. You may not disband the existing unit and build a different unit in its place. Also note that the displaced Neapolitan fleet in the Ionian Sea may not retreat to the Gulf of Naples because of the hostile fleet (at least I assume it's hostile) occupying Messina. Finally, we have a new Neapolitan player.

<u>Press</u>

Austria - World: My game is over. Thanks for help World.

France - GM: What, no famine? Exactly who are you and what have you done with Chris Hassler?

France - Milan: Actions speak louder than words and I'm hearing you loud and clear.

France - Venice: My compliments on how well you are stringing Milan along. He has no idea what direction you'll be heading once Austria is gone.

Meanwhile, he's leaving you alone while you are occupied with Austria. I will, of course, provide a second front when you swing to take him out.

Milan - All: Any other press from me this season is not mine -- it's a bunch of hooev!

Borgia - Doge: And once Austria disappears what will all those northern troops do next?

Borgia - Mouth: See above press.

Pope - France: I wish you luck versus the mouth. I assume you won't be attacking me anymore.

Pope - Mouth: Interesting that for all your chicken little imitations about the power of the Papacy, you grossed an equivalent amount! What a blowhard!

Pope - Ottoman: OK Turk, it looks like you can handle Naples on your own now.

Papacy - Turk: It sure would be easier coordinating with you if you weren't so quiet.

Venice - Milan: The move to Tyrolea is not meant to threaten Milan. Tryrolea is both French and an Austrian city.

Venice - Turkey/Naples: The fleet in the Lower Adriatic can be hired. It could either support Naples Army Salerno -> Bari or support Turk Army Bari. Send your votes in Ducats. Highest bidder wins. Don't bid and your NOT a friend of Venice.

Cerberus - Turkey/Naples: Hey, what's a little extortion among friends?

Mailman's Bane Turn 6 Conferences, Cabinet, and Coalitions Deadline for Turn 6 Media Tokens and Campaign Days: 9/8 Friday

Players

Conferences

None

Player:

Cabinet

Grüne sends his Hinterbäkler (300 DM) to Rheinland-Pfalz, where he doubles NATO JA.

CDU sends his Generalsekretär (500 DM) to Rheinland-Pfalz, where he buys a Grüne media token (800 DM to Grüne)

FDP sends his Generalsekretär (500 DM) to Rheinland-Pfalz, to increase his vote share by 5.

FDP CDU Grüne Bill Scharf **Player:** Dave Anderson **Player:** Sean Cousins Player: Campaign Days: 11 Campaign Days: 15 Campaign Days: 14 Campaign Days: 5 Media Tokens: Media Tokens: Media Tokens: Media Tokens: 1 3 3 **Conferences:** None **Conferences:** Special **Conferences:** None **Conferences:** Platform: Freugeutliche Platform: <u>Umweltshutz</u> Platform: Marktwirtschaft Platform: Gewerkschaft NATO JA Atomkraft JA Grundordnung Atomkraft JA Steuersenkung NEIN Steuersenkung NEIN 35-Stunden-Woche NEIN 35-Stunden-Woche NEIN 35-Stunden-Woche NEIN

§218 JA

Player order for turn 5 is: Grüne, CDU, FDP, SPD Your Available Ministers:_

NATO JA

§218 NEIN

Your Available Cash:__

§218 JA

Rheinland-Pfalz				
	CDU	Grüne	FDP	SPD
Campaign Days	4	0	1	4
Vote Share	10	40	11	5
Media Tokens	2	1	0	2
Trend	0	+2	-1	+1
Issues: NATO JA	* 2			
35-Stunden-Woche NEIN				

Steuersenkung NEIN Atomkraft NEIN 4 - 9 Mandate Range:

Grüne and SPD have a coalition

A		
Steuersenkung JA (x2)	Atomkraft NEIN (x3)	Media Tokens
35-Stunden-Woche JA	Marktwirtschaft (x2)	Party Bases
NATO NEIN (x3)	35-Stunden-Woche NEIN	Votes
Freiheitliche Grundordnung	§218 JA (x2)	Issues: Atomk
NATO JA	Umweltshutz	JA.

Provinces

Niedersachsen				
	CDU	Grüne	FDP	SPD
Campaign Days	0	0	0	6
Vote Share	1	8	0	4
Media Tokens	0	1	0	3
Trend	-1	+1	-1	+1

NATO JA **Issues:**

Steuersenkung JA 35-Stunden-Woche JA Mandate Range: 6 - 11

Bonn CDU Grüne FDP SPD 2 0 2 0 23 32 24 36 659 1635 1154 1583

raft JA (x3), §218 JA, Steuersenkung NEIN (x2), NATO

Cabinet (cont.)

SPD sends his Hinterbänkler (300 DM) to Rheinland-Pfalz, where he increases his vote share by 5. FDP sends his Hinterbänkler (300 DM) to Rheinland-Pfalz, to increase his vote share by 5.

Coalitions

SPD

0

Atomkraft JA

NATO JA

§218 JA

Special

Steuersenkung NEIN

Andy Lewis

SPD forces a coalition with Grüne.

<u>Dog Breath</u> Turn 15 Deadline for Turn 16 Commander Actions: 9/8 Friday

Commander Actions

Last Chance Cafe (Lewis) opens the bidding on a Planetary Cruiser at 160 and BarterTown gets it for 178 (Wa8, Ti9, Ti9, Re11, Re11, Ti12, MWa, MTi, MTi). Opens the bidding on a Space Station at 120 and NODNOL gets it for 158 (Or1, Wa5, Re12, Re14, Re16, Mi17, Mi17, Mi18, Mi19, Mi19, Mi20). Opens the bidding on an Orbital Lab at 50 and gets it for 65 (Or2, Or4, Wa4, Wa6, Wa6, Ti8, Ti8, Ti10, Mi17). Buys a titanium factory (MWa) and a robot (Ti12).

BarterTown (York) moves one population from an ore factory to man the Planetary Cruiser.

New Earth (Scharf) buys a robot (Or4, Or4, Or4) and discards Or1, Or4.

Dealer's Den (Anderson) buys a research factory (Wa7, Wa9, Re15) and four population factors (MTi).

Basset Base Beta (Koehler) buys a titanium factory (Or3, Or3, Or3, Wa7, Wa7, Wa7) and two population (Or5, Wa5, Ti10)

Fangland (Kinsel) opens the bidding on a Laboratory and gets it for 100 (Or1, Or2, Ti7, Ti8, Ti8, MWa, MTi). Buys a population factor (Or5) and mans the research factory.

NODNOL (Eisenhut) buys population factor (Re10) and mans the Space Station. **Interstellar Mining and Pizza Delivery** (S. Cousins) buys titanium factory (MTi) and 4 robots (MTi).

The	<u>Commanders</u>	

	The Commanders					
Order	Outpost Name	Commander	Factories	Upgrades	VP	
1	BarterTown	Andy York	OrF, OrF, WaF, WaF, WaF, WaF, TiF, TiF, TiF, TiF,	HE, No, Ou, La, Ec,	51	
			TiF, TiF, ReF	PC		
2	Last Chance Cafe	Andy Lewis	OrF, OrF, WaF, WaF, WaF, WaF, WaF, WaF, TiF,	No, HE, Ro, Wa,	42	
			TIF, TIF, TIF	30L, 2Ec		
3	Dealer's Den	Dave Anderson	OrF, OrF, WaF, WaF, WaF, WaF, TiF, TiF, TiF, TiF,	No, HE, Ro, Wa, Ou,	37	
			TiF, ReF, ReF	La		
4	Fangland	Kevin Kinsel	OrF, OrF, WaF, WaF, WaF, WaF, TiF, TiF, TiF, TiF,	No, HE, 2Wa, Ec,	36	
			ReF	Ou, La		
5	Basset Base Beta	Steve Koehler	OrF, OrF, WaF, WaF, WaF, TiF, TiF, TiF, TiF, TiF, TiF,	No, HE, Wa, Ou	34	
			TIF, TIF, TIF, TIF			
6	New Earth	Bill Scharf	<u>orF,</u> OrF, WaF, WaF, WaF, TiF, TiF, <u>TiF</u> , <u>TiF</u>	HE, No, 2Wa, Ro,	34	
				OL, SS		
7	NODNOL	Dan Eisenhut	OrF, OrF, WaF, WaF	6DL, 2Sc, 3OL, SS	33	
8	Interstellar Mining and Pizza	Sean Cousins	OrF, OrF, WaF, WaF, TIF, TIF, TIF, TIF, TIF, TIF, TIF	DL, HE, No, Ro	25	
	Delivery					

Existing cards:

Available Upgrades

New arrivals: Planetary Cruiser, Space Station, Outpost, Laboratory			
Upgrade	Minimum Bid	Available	Not Yet Delivered
Scientists (Sc)	40	0	5
Robots (Ro)	50	3	0
Laboratory (La)	100	1	3
Ecoplants (EP)	30	0	3
Outpost (Ou)	100	1	2
Space Station (SS)	120	1	4
Planetary Cruiser (PC)	160	1	5
Moon Base (MB)	200	1	6

<u>rades</u>

<u>Income</u>

New cards: _____

Mega Water recipients: Last Chance Cafe, BarterTown, Dealer's Den, Fangland

Mega Titanium recipients: Last Chance Cafe, BarterTown, Dealer's Den, Basset Base Beta (2), New Earth, Fangland, Interstellar Mining and Pizza Delivery

<u>Notes</u>

Dan Eisenhut is now the player of record for NODNOL. Also, it seems the information I sent out at the start of this game had an error. It listed Nodules as increasing population limits by 5, instead of 3 as it should be. As a result of that, I made other errors regarding Andy Lewis's moves earlier. Anyway, to make a long story short, for the duration of this game, Nodules increase population limits by 5 instead of 3.

"Fenris Wolf"

Epoch V Seljuk Turks and Mongols and Epoch VI Empire Selection

Deadline for Ming Dynasty, Timurid Emirates, Incas & Aztecs, Ottoman Empire, and Portugal: 9/8 Friday

Purple People Eaters (C. Cousins) plays Disaster in Eastern Ghats. Monument destroyed, Capital reduced to a city. FUJIWARA: Army and Capital in Hokaido, fleet Sea of Japan, army Great Plain of China (vs. T'ang, F: 5, 3; T: 5, 4; F: 4, 3; T: 2, 2; wins). SELJUK TURKS: Army Turanian Plain (Aryan army retreats to Hindu Kush), Western Steppe (vs. Huns, S: 3, 1; H: 1, loses), army Western Steppe (vs. Huns, S: 2, 2; H: 6; loses), army Western Steppe (vs. Huns, S: 3, 1; H: 2; wins), army Dniepr, army Baltic Seaboard (vs. Anglo-Saxons, S: 3, 1; A: 4; loses), army Baltic Seaboard (vs. Anglo-Saxons, S: 6, 4; A: 6; S: 6, 3; A: 1; wins), army Central Europe (vs. Holy Roman Empire, S: 5, 2; H: 6; loses), army Central Europe (vs. Holy Roman Empire, S: 5, 3; H: 6; loses), army Central Europe (vs. Holy Roman Empire, S: 5, 3; H: 5; S: 4, 3; H: 2; wins, Capital reduced to a city), army Lower Rhine (vs. Holy Roman Empire, S: 3, 2; H: 2; wins), army Danubia. Points: Dominance in Northern Europe (4), North Africa (4), and Middle East (4), Presence in Eurasia (1), Southern Europe (2), and China (3), one Capital (2), four cities (4), three Monuments (3), two Seas (2) for 29 points.

Wesley Crusher Returns (Anderson) plays Crusade. Army Palestine (vs. Arabs, C: 6+1, 5+1; A: 6, 6; wins, city and fort established), Balkans (vs. Byzantines, C: 4+1, 2+1; B: 4, 2; wins, Constantiople sacked, reduced to city), Shatts Plateau (vs. Vikings, C: 5+1, 1+1; V: 6, 4; loses). MONGOLS: Plays Leader. Army in Mongolia, Manchurian Plain, fleet Sea of Japan (vs. Purple People Eaters, W: 6, 4, 1; P: 1; wins), army Great Plain of China (vs. Fujiwara, M: 6, 5, 3; F: 6, 1; M: 3, 2, 1; F: 1, 1; wins), Chekiang (vs. T'ang, M: 5, 4, 2; T: 1; wins), Yellow River (vs. Han, M: 5, 4, 1; H: 2+1; wins, city eliminated), Wei River (vs. Sung, M: 6, 2, 1; S: 51; wins), Si-Kyang (vs. Khmers, M: 6, 5, 3; K: 1; wins), Mekong (vs. Sung, M: 4, 4, 3; S: 4, 3; M: 6, 3, 2; S: 6, 2; M: 5, 4, 4; S: 5, 3; M: 3, 1, 1; S: 4, 4; loses), Mekong (vs. Sung, M: 3, 3, 2; S: 6, 3; loses), Mekong (vs. Sung, M: 4, 4, 1; S: 5, 2; loses), Mekong (vs. Sung, M: 5, 1, 1; S: 5, 2; M: 5, 2, 2; S: 5, 3; M: 3, 2, 2; S: 5, 1; loses), Mekong (vs. Sung, M: 4, 3, 2; S: 4, 3; M: 5, 2, 1; S: 6, 1; loses), Mekong (vs. Sung, M: 4, 1, 1; S: 5, 4; loses), Mekong (vs. Sung, M: 6, 5, 3; S: 4, 1; wins (finally), city eliminated), Yangtse Kian (vs. Sung, M: 4, 3, 1; S: 3; wins), Szechuan (vs. Sung, M: 5, 5, 3; S: 1; wins, Capital reduced to city), Taurim Basin (vs. Sung, M: 3, 3, 3 -Ghengis dies!, S: 6, loses), Taurim Basin (vs. Sung, M; 5, 3; S: 4; wins), Turanian Plain (vs. Seljuk Turks, M: 6, 3; S: 5; wins). Builds Monument in Chekiang. Points: Control of China (9), Presence in India (3), Southeast Asia (2), Middle East (2), Eurasia (1), North America (1), and Southeast Europe (2), two Capitals (4), four Cities (4), one Sea (1), six Monuments (6) for 35 points.

Epoch VI

Quantum Coyotes keep. Olde Sea Dogge gives to the Flintstones.

Purple People Eaters gives to Olde Sea Dogge.

Wesley Crusher Returns keeps. Hellfighters gives to Purple People Eaters. The Flintstones give to Hellfighters.

Players

Player Name	Player Faction Name	Empire Strength Points	Victory Points
Kevin Kinsel	Quantum Coyotes	39	104
Murray Cowles	Olde Sea Dogge	43	95
Caleb Cousins	Purple People Eaters	48	103
Dave Anderson	Wesley Crusher Returns	49	96
Andy Lewis	Hellfighters	50	83
Chris Geggus	The Flintstones	56	119

Final Positions

Purple People Eaters (C. Cousins) Fleet in Red Sea. ARABS: City, Monument, and army in Middle Tigris, City and army each in Lower Tigris and Arabian Peninsula, Monument and army in Zagros, one army each in Levant, Persian Salt Desert, Nile Delta, Libya, Upper Tigris, Nubia, and Southern Iberia. FUJIWARA: Capital and army in Hokkaido. SELJUK TURKS: City and army in Central Europe, one army each in Western Steppe, Dneipr, Baltic Seaboard, Lower Rhine, and Danubia.

The Flintstones (Geggus) Fleet in Bay of Bengal. ROMANS: Army and City in Pindus, one army each in Western Iberia, and Western Anatolia. CHOLA: Capital, army, and Monument in Eastern Ghats, army each in Western Ghats, Western Deccan, Upper Indus, Lower Indus.

Olde Sea Dogge (Cowles) Fleets in Black Sea, Eastern Mediterranean, and South China Sea. NORTH AMERICAN MIGRANTS: One army each in West Indies and Great Plains. BYZANTINES: One army each in Crete and Morea. SUNG DYNASTY: Army each in Irrawaddy and Malayan Peninsula.

Wesley Crusher Returns (Anderson) Fleet in Sea of Japan. MAYANS: Army, Capital, and fort in Central America. GUPTAS: Capital and two armies in Eastern Deccan, City and army in Ganges Delta, one army in Ceylon. CRUSADERS: City, fort and army in Palestine, city and army in Balkans.

MONGOLS: City, monument, and army in Szechuan, army and monument each in Taurim Basin, Wei River, Yangtse Kian, Chekiang, and Great Plain of China, army each in Mongolia, Manchurian Plain, Yellow River, Si-Kyang, Mekong, and Turanian Plain.

Quantum Coyotes (Kinsel) ARYANS: 3 armies in Hindu Kush. NILE KINGDOM: Army, City, and Fort in Upper Nile. MAURYANS: Army in Ganges Valley. KHMERS: One army in East Indies. HOLY ROMAN EMPIRE: Monument and army in Southern Appenines, one army each in Northern Gaul, Western Gaul, Central Massif, Northern Appenines, Dalmatia. Hellfighters (Lewis) Fleets in North Sea and Atlantic Ocean. SYTHEANS: Army in Persian Plateau. CIVIL WAR: One army in Pyrenees. HUNS: Two armies in Northern European Plain, one army each in Eastern Steppes, Caucuses, and Eastern Anatolia. VIKINGS: One army each in Scandinavia, Shatts Plateau, Appalachia, Albion, Highlands.

Your event cards are:___

Epoch VI Empire

Your Empire is:

<u>''Mongrel''</u> Gamestart Deadline for Epoch I Empire Selection: 9/8 Friday

<u>Players</u>

Player Name	Player Faction Name	Empire Strength Points	Victory Points
Dan Eisenhut	?	0	0
Chris Hurley	?	0	0
Kevin Wilson	?	0	0
Andy Lewis	?	0	0
Dave Anderson	?	0	0
Murray Cowles	?	0	0

Initial Positions

SUMERIANS: Capital and 2 armies in *Lower Tigris*, I army each in *Middle Tigris* and *Zagros*.

Your event cards are:____

Epoch I Empire Draw

Your Empire is:

Prairie Dog Turn 10 Deadline Turn 11: 9/8 Friday

	Segment 1			Segment 4			
Andy:	Delay		Andy:	Delay			
John Her	ry:	Delay	John Hei	nry:	Delay		
Ronnie:	Card 2 1	Run, ahead right (to H16), segment 1 of 1	Ronnie:	Card 1	Advance, ahead left (to G16), segment 1 of 2		
Laundry	Boy:	Card 9 Draw and Cock (bottle to gun hand), segment 1 of	Laundry	Laundry Boy: Card (6) Throw (bottle at Ronnie), segment 1 of 2			
		3					
					Segment 5		
		Segment 2	Andy:	Delay			
Andy:	Delay		John Hei	nry:	Delay		
John Hen	ıry:	Delay	Ronnie:	Card 1	Advance, ahead left (to G16), segment 2 of 2, draws 2 delay		
Ronnie:	Card 10	- Jab (at Andy), segment 1 of 2			cards, 1 point.		
Laundry	Boy:	Card 9 Draw and Cock (bottle to gun hand), segment 2 of	Laundry	Boy:	Card (6) Throw (bottle at Ronnie), segment 2 of 2,		
		3			BODY, LIGHT 3 (2 delay points, WILD SHOT)		
		Segment 3			End of Turn		
Andy:	Delay		Andy los	es 4 delay	points.		
John Her	ry:	Delay	John Her	nry loses 3	delay points.		
Ronnie:	Card 10 -	Jab (at Andy), segment 2 of 2, BE becomes SIDE, STUN 1	Ronnie le	oses 2 dela	y points.		
		(5 delay points)			Start of Turn 11		
Laundry	Boy:	Card 9 Draw and Cock (bottle to gun hand), segment 3 of	Andy gai	ns 1 delay	point from wounds.		
		3	John Hei	nry gains 1	l delay point from wounds.		

	Westerners								
Side	Player	Character	Location	Bonus Cards	Skills	Delay	Endurance	Comments	
А	Dave Anderson	Andy (A)	G16 > F16	4, 6, 9	None	5	15	SERIOUS 1 DOWN	
В	Steve Koehler	John Henry (J)	E18 > D18	5, 6, 8, 9	Brawling +2	3	31	GUN ARM 1 SERIOUS 2 LEG 4 DOWN	
С	James Pratt	Ronnie (K)	G16 > F15	5, 8	Brawling +2	1	13		
D	Paul Bolduc	Laundry Boy(L)	I15* > H15	1, 4, 5, 6, 7	Brawling +2	0	18		



Canine **Turn 3 Bidding to Combat** Deadline Turn 3 Combat: 8/4 Friday

Key

Spice Blow

Debbie BENE GESSERIT Steve Koehler Worm in Hagga Basin (6 spice destroyed)! Nexus occurs. Second worm may be placed at the discretion of the Fremen player. Osborne Bill Scharf Fremen Paul Bolduc <u>Press</u> Chris Hurley HARKONNENS Dave Anderson

BGs to Lansraad: Oh you'll rue the day when you attacked the peace-loving BG's! And your little dog too!

Notes

Since I have not heard from Ray Carpenter, Debbie Osborne is now the Atreides player of record.



Final Positions

	<u>I that I Ostitons</u>
Atreides:	6 tokens Arrakeen, 6 tokens Rock Outcroppings (14), 8 tokens
	off-planet
Bene Gesse	erit: 1 token Arrakeen, 1 token Sietch Tabr, 13 tokens off-planet, 5
	tokens in the tanks
Emperor:	20 tokens (5 Elite Sadaukar) off-planet
Fremen:	5 tokens (1 Fedaykin) in Habbanya Ridge Sietch, 4 tokens Sietch
	Tabr, 4 tokens (1 Fedaykin) Funeral Plain, 7 tokens (1 Fedaykin) in
	the tanks

Guild: 5 tokens Tuek's Sietch, 15 tokens off-planet

<u>Errata</u>

Players

It was pointed out to me that Arrakeen was in storm, therefore the Emperor could not have shipped down there. As a result, the combat in Arrakeen has been canceled, and the Bene Gesserit token that accompanied the Emperor is still in orbit, reducing the number of BG tokens in Cielago North to 2.

Bene Gesserit plays Truthtrance on the Lansraad: "Do you have a projectile weapon?" The answer is yes.

Carthag

The Bene Gesserit Voice the Lansraad not to play a projectile weapon.

Andy Lewis

ATREIDES:

Emperor

LANSRAAD

Guild

	Lansraad	Bene Gesserit
Leader	Earl Viaconte (5)	Wanna Marcus (5)
Weapon	Jubba Cloak	None
Defense	Shield	None
Dialed	3	1
Spice Spent	3	0
Total	8	6

The Lansraad are victorious. 3 Bene Gesserit and 3 Lansraad tokens go to the tanks, and the Lansraad discard the Jubba Cloak.

Cielago North

The Bene Gesserit Voice the Lansraad not to play a projectile weapon.

	Lansraad	Bene Gesserit
Leader	Baron Moat	(6) Lady Fenring (5)
Weapon	None	None
Defense	Shield	None
Dialed	2	1
Spice Spent	2	0
Total	8	6
The Langrand are victorious		2 Bene Gesserit and 2

Lansraad tokens go to the tanks.

Spice Collection

Atreides:	2 spice (Arrakeen)
Fremen:	6 spice (Funeral Plain)
Guild:	1 spice (Tuek's Sietch)
Lansraad:	5 spice (2 Carthag, 3 Cielago North)

Turn 4

<u>Storm Movement</u>

The Storm moves 2 sectors to sector 12. (Turn 5 storm movement is: _) Harkonnens: 7 tokens off-planet, 13 tokens in the tanks

Lansraad: 12 tokens off-planet, 2 tokens Carthag, 1 token Cielago North (3), 5 tokens in the tanks.

Your	spice:
Your	cards:

Anubis

Turn 4 Land Movement through Homebound Naval Movement Deadline Turn 5 Planning through Outbound Naval Movement: 9/8 Friday

English and Dutch campaigns against the natives prove costly, while the Portuguese fare better. The Dutch continue to expand their control in the New World, while the English start mining operations. The Swedes quietly start expanding. Journeys home are uneventful.

T 1 M	
<u>Lana Movement</u>	Land Movement

French: NMR. All units hold.

Swedes: Move two soldiers and two colonists from O to N. Four soldiers and four colonists move from anchorage dot to O

Dutch: Move two soldiers and four colonists from anchorage dot to L.

- **Portuguese:** Move two soldiers from R to U. Four soldiers and four colonists move from anchorage dot to R.
- **English:** Move three soldiers from K to H (2 climate area with two natives). Moves two soldiers and four colonists from anchorage dot to K.

Native Combat

French:	None.
Swedes:	None.
Dutch:	Two soldiers are killed.
Portugues	e: Two natives are killed.
English	Two soldiers and one native are killed

Native Uprisings

Climate is a 6. No uprisings.

<u>Survival</u>

Climate is a 4. French: Lose 1 soldier Area Y. Swedes: Lose one soldier in Area N. Dutch: Lose one colonist in Area L. Portuguese: Lose one soldier in Area U. English: Lose 1 colonist in Area K.

<u>Political Control</u>

The Dutch gain political control in Area L and the English in Area K.

Homebound Naval Movement

French:	None.
Swedes:	Dice: 1, 2, 5. No losses.
Dutch:	Dice: 1, 1, 2, 6. No losses.
Portuguese:	Dice: 3, 5, 5, 5. No losses.
English:	Dice: 2, 4, 6. No losses.

<u>Income</u>

Political control:	\$40, resources:	\$16
Political control:	\$40, resources:	\$22
Political control:	\$60, resources:	\$17
Political control:	\$40, resources:	\$8
Political control:	\$40, resources:	\$3
	Political control: Political control: Political control: Political control: Political control:	Political control: \$40, resources: Political control: \$40, resources: Political control: \$60, resources: Political control: \$40, resources: Political control: \$40, resources:

Will Kevin Kinsel please submit standby orders for the French!

<u>Players</u>									
Country	Player	Money	Available Soldiers	Ships	Colonists				
Dutch	Dan Eisenhut	\$92	15	3	4				
English	Sean Cousins	\$68	21	3	4				
French	Jeremy Gerson?	\$127	17	4	4				
Portuguese	Bill Scharf	\$52	17	4	4				
Swedes	Andy Lewis	\$111	14	4	4				

<u>Notes</u>



Dog Food Turn 2 Deadline Turn 3: 9/8 Friday

<u>Errata</u>

I mistakenly allowed Basset Imports, Ltd. to pick up a fare before movement. Since this is illegal, the fare was never picked up and is still at Galactic Base.

1st:	Chris Geggus (Qossuth/Rockville Emporium) Rolls Used: 3 * 3	4th:	Andy Lewis (Humans/Cash & Carrie) Rolls Used: 3 3 4
	Dryport(o) - A - Y - R - B - R - Desolation Landing (o) -		Open Port - Space Station Planet - ? (It's a yellow 10 penalty
	Desolation Landing (s)		marker) - NC4 - NC4 - ? (It's an Open Port) - NC4 - R - Y - ? (It's
	Discovers Niks (out of the cup pops Designer Genes at 9a, Demand		an Open Port, again) - Y
	for Pelts at 6, Servo-Mechanisms at 7b, Demand for Grease at 7b).	5th:	Pete Gaughan (Whynoms/Appaloosa Limited Produce
	Buys one Mulch Wine for \$20.		Organization) Rolls Used: (5 * 2) 3
2nd:	Dan Eisenhut (Dell/Naga Trading Corp) Rolls Used: 4 5		Dryport(o) - ? (It's a yellow 30 penalty marker) - B - Desolation
	Interstellar Biosphere.		Landing(0) - R - B - Y - B - R - B - Y - R - B - Rainfall
	Uses IOU and \$20 to buy an Agent.		Observes
3rd:	Steve Koehler (Eeepeeep/Basset Imports, Ltd.) Rolls Used: 4 *	6th:	Eddy Mattei? (Niks/Beagle Boys Enterprise) Rolls Used: 1 2 6
4			Interstellar Biosphere
	Cobbleport(s) - Cobbleport(o) - R - B - R - B - Y - B - R - Galactic		NMR.
	Base.		



Goods and Demands in undiscovered cultures:

1a (Nillis): two Bionic Perfume

1b (Volois): two Voll Silk

3 (Niks): two Mulch Wine, Demand +\$60 for Perfume,

4b (Humans): three Demand +\$40 for Space Spice, one Rock Videos

5 (Shenna): Nothing

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

<u>Notes</u>

Will Paul Bolduc please submit standby orders for Beagle Boys Enterprise!

- 7a (Zum): three Chicle Liquor, one Demand +\$50 for Finest Dust
- **7b (Eeepeeep):** one Fare to Base for \$110, three Demand +\$50 for Immortal Grease, three Servo-Mechanism
- 8 (Whynoms): Nothing
- 9b (Wollow): one Megalith Paperweight
- 10 (Qossuth): one Fare to Base for \$150, one Demand +\$60 for Designer Genes

<u>Press</u>

ALPO to Merchants: We happily distribute merchandise anywhere in the known universe, with special discounts for slaughterhouses and processing plants!

1. Beagle Boys Enterprises \$115 Sports Scout 2. Rockville Emporium \$100 Torch Scout 3. 1. Beagle Boys Enterprises \$115 Sports Scout 3. 100 Size (Times 3) 3. Hold1 Hold2 Hull Hull Hold1 Hold2 Hull Finest Dust 4a/\$50 So So So So Fin Dust	Naga Trading Corp \$99 Scow Scout 3: 2 3 3 4 (use 2) Rocket Scout Hold1 Hold2 Hull Finest Dust Designer FARE 9a/\$120 2 \$160	5. Cash & Carrie \$130 Normal Scout 3: 1 2 3 Hold1 Hold2 Hull Space 2/\$80 Space 2/\$80	6. A.L.P.O. \$90 Fast Scout 3: 2.6 (Double one) Hold1 Hold2 Hull
--	---	---	---

<u>Trivia Quiz</u>

You get 2 points for a solo answer, 1 point for sharing the correct answer with one other person, and $\frac{1}{2}$ point for sharing the answer with two or more people. Every 10 points earns you a free issue. And so, without further ado, the answers to last issues questions:

Q1. In order from hottest to coolest, what are the stellar spectral classifications? A1. The spectral classes are:

	-						
0	Blue	Once-ionized helium lines either in emission or absorption Strong UV continuum					
п	Dlue						
в	Blue-	Neutral neitum lines in absorption					
	white						
А	White	Hydrogen lines at maximum strength for A0 stars,					
		decreasing thereafter.					
F	Yellow	Metallic lines become noticeable.					
	white						
G	Yellow	Solar-type spectra. Absorption lines of neutral metallic					
		atoms and ions grow in strength					
Κ	Orange	Metallic lines dominate. Weak blue continuum.					
М	Red	Molecular bands of titanium oxide noticeable.					
R	Red	Rich in carbon compounds					
Ν	Red	Rich in carbon compounds					
S	Red	Rich in heavy elements.					
-							

The last three are more subtypes of class M, and are frequently not included in the list.

Andy Lewis and Dan Eisenhut each receive 1 point.

Q2. Define a "parsec."

A2. A parsec is a unit of distance equal to about 3.26 light years. It came about because the way in which distances to nearer stars are measured uses a phenomenon called parallax. This is the apparent shift in position of an object relative to more distant background objects when viewed from two different positions. In the case of astronomy, two observations of a star are taken, each six months apart. You now have two observations taken from positions 2 AU apart, and simple geometry will yield a reasonably accurate figure for the distance of the star given the parallax angle, or the shift in the star's position. A parsec, then, is the distance at which a star will have a **par**allax of one arc **sec**ond. Andy Lewis, Paul Bolduc, and Dan Eisenhut all receive ½ point.

Q3. In 1054 AD, Chinese astronomers recorded the appearance of a new star bright enough to be visible even during daylight. What is that object now?

A3. The object observed was a supernova in the constellation of Taurus. It is now visible as the Crab Nebula.

Paul Bolduc, Kevin Kinsel, Bob Robles, and Dan Eisenhut each receive ½ point. Q4. On average, how long does it take a photon to travel from the center of the sun to its photosphere?

A4. Due to the high density of material at the Sun's core, on average a photon can only travel about half a centimeter before it hits an atom and gets deflected. As a result, photons have to do what is termed a "random walk" out of the core, with each leg being only 0.5 cm. As a result, on average it takes a photon about 30,700 years to reach the photosphere.

No correct answers.

Q5. What is the Hertzsprung-Russell Diagram?

A5. The Hertzsprung-Russell diagram is a diagram which plots stellar luminosity against surface temperature. Luminosity is the vertical axis (increases going up) and temperature is the horizontal axis (increases to the left). When stars are plotted on this diagram, most stars fall along a band from the upper left to the lower right edge of the graph. This band is called the Main Sequence. Paul Bolduc, Kevin Kinsel, and Dan Eisenhut each receive ½ point.

Current Scores

Andy Lewis	61/2	Dan Eisenhut	5
Jeremy Gerson	3	Kevin Wilson	3
Chris Geggus	21/2	Kevin Kinsel	21/2
Paul Bolduc	11/2	Steve Koehler	11/2
Bill Scharf	1	Bob Robles	1
Dave Anderson	1/2	Caleb Cousins	$\frac{1}{2}$
Ward Narhi	1/2	Debbie Osborne	$\frac{1}{2}$

New Questions

Topic: Classic Cinema (courtesy of Chris Geggus)

1. Why was the Alexander Korda classic I Claudius never finished?

- 2. Name the star of the silent 1926 version of Ben Hur.
- 3. On which book was D.W. Griffith's 1915 film *Birth of a Nation* based?
- 4. What was Willis J. O'Brien's main contribution to the 1933 film King Kong?
- 5. In Chaplan's The Kid of 1921, who played the kid?

Pedagoguery

The creation of the universe has always been a subject of some interest in all cultures, even back the first human civilizations. Why else would so many mythologies include a creation myth? With the dawn of the scientific age, however, the realm of the beginning of the universe started to shift from the domain of philosophy and religion to that of science.

In the early years of this century, it was commonly accepted that the universe was static: It was neither expanding nor contracting and had neither a beginning nor an end. The first indication that this may be wrong occurred when Einstein was writing his General Theory of Relativity. When he worked out the equations, he found that a static universe was not a possible solution. Troubled by this, he introduced the so-called Cosmological Constant into the equations, a decision he was later to regret. The Cosmological Constant, in simple terms is a repulsive force that acts only a very large distances. It could be used to balance the pull of gravity at shorter ranges and provide for a static universe.

The idea of a static universe was killed once and for all when astronomers started taking spectra of other galaxies. They found something curious. Spectral lines in these galaxies were almost universally shifted toward the red end of the spectrum. According to Special Relativity, this would signal that these objects were traveling away from us. In a static universe, you would expect to see as many red-shifted galaxies as you would blue-shifted, in other words, about as many galaxies would be traveling toward us as away. This was not true however, and it gave the first conclusive proof that the universe was expanding.

The idea of a static universe would not die, however. It was simply modified to become the Steady State theory. In this theory, the universe is infinite in extent and ever expanding, with hydrogen atoms spontaneously being created in space. The universe could be kept going on as little as one hydrogen atom per second per cubic light year. In this way, the universe would always remain exactly as we now see it, always expanding, but with new stars and galaxies constantly being created in the space between galaxies.

The Steady State theory had some problems, however. The first of these can demonstrated with a thought experiment which was first devised by Johannes Kepler in 1610. It is called Olbers' Paradox. Let us take a universe that is infinite in extent, with stars uniformly distributed throughout. If we lived on a planet somewhere in that universe, and at night we looked at the sky, everywhere we looked our line of sight would eventually intersect the surface of a star. Although the light from each individual star may be feeble, there are an infinite number of them, and therefore it is easy to determine that the night sky would be infinitely bright. If you take into account that closer stars would block farther stars, then the brightness of the night sky is reduced to the luminosity of an average star. Obviously, we do not observe this phenomenon. The only way to resolve this paradox is to assume that the universe had a finite beginning, and therefore the light from more distant stars has not yet had time to reach us.

The second nail in the Steady State coffin was driven home in 1965. By then, a rival theory, the Big Bang theory, had been devised. The Big Bang theory stated that the universe began at a finite in the past with a tremendous explosion. The universe in the early stages was very hot, and it should be possible to observe the photons that were around at that time, even though they would have cooled off considerably. This was done in 1965 by Arno Penzias and Robert Wilson of Bell Labs. They were testing out a new radio antenna and wherever they pointed it in the sky they picked up the microwave radiation. This was dramatic validation of the Big Bang theory, and proved the final evidence to disprove the Steady State theory.

Now that we have established that the universe had a beginning, what was it like? There is a limit right now to how far back we can go. That limit arises because of the lack of a quantum theory of gravity. All gravitational theories we have, up to and including General Relativity, treat space as a continuum. In the early universe, we cannot make that assumption. Therefore, using certain fundamental aspects of General Relativity and quantum mechanics, we can determine that the earliest time at which our current theories can tell us anything meaningful is 1.35×10^{-43} seconds after the Big Bang. This time is called the Planck time. Before this time, space-time was not even remotely smooth. Wheeler has speculated that it might have a foamlike consistency, which would mean that the shortest path from point A to point B would not only not be a line, it might not exist at all.

After the Planck time, the space-time itself was undergoing rapid expansion. So rapid was this expansion that the virtual particle/antiparticle pairs that are constantly being formed in any vacuum were being rushed apart before they could annihilate. In this way, matter was created out of the force of the expansion of space-time. At very early times, the particles so created could be very massive, much more massive than protons and neutrons. As time passed, and the expansion slowed, the more massive particles could no longer be created, and so the particles would annihilate with the antiparticles. Eventually, the expansion would fall below the threshold where even the lightest particles could be created and we would be left with only radiation; the product of all those particle/antiparticle annihilations.

There is one major problem with this scenario: If matter and antimatter were created in equal amounts, how could there be any leftover matter? Observations of the universe indicate that there had to be some asymmetry in the production of particles in the early universe. The asymmetry is very small, one part in a billion. In other words, for every billion particles of antimatter created, one billion one particles of matter would be created. How is this possible? To resolve this questions we have to look at symmetries. There are three basic symmetries in physics. These are termed C, P, and T. The C symmetry states that in any particle interaction, if you were to reverse the charges of the particles involved, the interaction would not change. P symmetry makes the same claim with respect to spatial orientation: reversal of direction. The T symmetry reverses time. As early as 1957, certain interactions were shown to violate P symmetry. Further experimentation has shown that the only symmetry that is in all cases true is the combination of C, P, and T. How does this apply to the problem at hand? Well, if you were to reverse the charge on an electron, you would have a positron, which is antimatter. Therefore, a violation of C symmetry in the early universe can produce excess matter.

By the time we get to 10^4 seconds after the Big Bang, things have settled down a bit. At this point, the expansion energy of the universe becomes too low to permit production of proton/antiproton and neutron/antineutron pairs. Protons and neutrons are still kept in equilibrium by the presence of large numbers of positrons which are still being produced.

By the time the universe is around 1 second old, election/positron pair production stops, electrons and positrons annihilate, and neutrinos "decouple" from ordinary matter. This means that they no longer interact with the matter of the universe. This has an important impact. Without the presence of positrons and neutrinos, neutrons start to decay into protons. The half life of this reaction is 10 minutes, but long before that can happen, they combine with protons to form deuterium nuclei. This reaction only starts when the universe is around 100 seconds old. Before that time, it is far too hot for this reaction to be stable. As more deuterium is produced, it tends to react very quickly to eventually form helium, so that by the time the universe is several minutes old, about one quarter of the mass of the universe is made up of helium.

Well, that's all the space I have for this time. Next time, I will talk about the lifetimes of stars. And no, I don't mean Hollywood.

The 1995 Runestone Poll Main List entries finishing at or above average

Zines

(30 on main list)

RK	Zine Name	Votes	Score
1	Maniac's Paradise	26	9.558
2	Perelandra	27	8.966
3	CDD Medical Journal	14	8.419
4	Rambling WAY	21	8.348
5	Ramblings by Moonlight	18	8.337
6	The Abyssinian Prince	19	8.316
7	Costaguana	26	8.048
8	off-the-shelf	16	7.679
9	Making Love in a Canoe	14	7.418
10	Metamorphosis	16	7.346
11	Zero Sum	14	7.319
12	Hoodwink	12	7.208
13	The Tactful Assassin	11	7.049
14	Cheesecake	16	6.761
15	Carolina Cmd & Comntry	14	6.752

All the zines listed above finished above average.

The 15 zines that finished below average are not listed here.

To order the 1995 Runestone Poll publication, send \$5.00 to Eric Brosius, 41 Hayward St., Milford MA 01757.

We will mail the publication later in the year when we have finished compiling it.

Subzines

(15 on main list)

Rk	Subzine Name	Votes	Score
1	Historical Spotlight	6	8.405
2	By the Waters of Babylon	9	8.282
3	Steve's Spot	6	7.401
4	Plausible Paraphernalia	9	7.357
5	Sandy's Slapshot	8	7.149
6	WAYwords	6	6.933
7	The Unzine Voice	9	6.885
8	It's Me Again	14	6.810

All the subzines listed above finished at or above average. The 7 subzines that finished below average are not listed here.

GMs

(24 on main list)

Rk GM Name

Votes Score

1	Andy Lischett	8	9.440
2	Steven Glasgow	5	8.848
3	W. Andrew York	11	8.471
4	Pete Gaughan	8	8.440
5	Stven Carlberg	8	8.378
6	Mike Gonsalves	8	8.298
7	Jim Burgess	10	8.007
8	Eric Ozog	7	7.591
9	Michael Lowrey	8	7.582
10	Tom Howell	7	7.543
11	Chris Hassler	5	7.384
12	Conrad von Metzke	12	7.110

All the GMs listed above finished above average. The 12 GMs that finished below average are not listed here. S.O.B.

A	<u>d</u>	<u>dr</u>	es	ses

		Auuresses		
David Anderson "Snoopy"	Murray Cowles	Chris Hurley "Jackal"	Ward Narhi "Dogbert"	Phil Spera
287 Florawood	6 Chafford Gardens	8 Cascada	2241 Front Street	2 Sibley Lane
Waterford, MI 48327	West Horndun	Rancho Santa Marguerita, CA	Cuyahoga Falls, OH 44221	East Haven, CT 06512
(810) 683-3274	Brentwood, Essex	92688	r2wen@vm1.cc.uakron.edu	Quillup@aol.com
	CM13 3NJ UK	74631.3142@compuserve.com	(216) 923-0748	
Paul Boldoc	100431.70@compuserve.com	(714) 589-5777		Roy Vij "Metallic Dog"
203 Devon Court			Debbie Osborne	12571 Camus Lane #2
FWB, FL 32547-3110	Dan Eisenhut "Naldo"	Kevin Kinsel "El Coyote"	170 Gale Blvd. #104	Garden Grove, CA 92641
p.bolduc1@genie.geis.com	22800 Eriel Ave.	21561 Oakbrook	Melvindale, MI 48122	(714) 373-9288
(904) 863-9081	Torrance, CA 90505-3011	Mission Viejo, CA 92692		
		k.kinsel@geis.com	Thomas Pasko	Brendan Whyte
Tom Butcher	Pete Gaughan	(714) 458-0819	73 Washington St.	96 Waiatarua Rd,
17402 Matinal Rd. #5322	1236 Detroit Ave. #7	(714) 830-2939	Bristol, CT 06010	Remuera, Auckland 5, New
San Diego, CA 92127-1387	Concord, CA 94520-3651			Zealand
	gaughan@netcom.com	Steve Koehler "Devil Dog"	James Pratt "Falcon"	
Ray Carpenter	(510) 825-2165	2906 Saint Field Place	939 Asbury St.	Jason Wilke "Rock-it Man"
195 Hartford Road #30C		Charlotte, NC 28270	San Jose, CA 95126	2042 Dalton Ave.
New Britain, CT 06053	Chris Geggus "Davey Boy	YXHY13C@Prodigy.com	(408) 294-6446	Deltona, FL 32725
yxhy13d@prodigy.com	Smith"	(704) 544-2849		wilke@suvax1.stetson.edu
(203) 826-7194	10 Talbrook, Brentwood		Bob Robles "Howler"	(904) 789-7764
	Essex, CM14 4PY UK	Andy Lewis "Marmaduke"	67 Tara Rd.	
Dean Cochran "Fang"		102 Corn Tassel Ct.	Orinda, CA 94563	Kevin Wilson
9812 Luders Ave.	Jeremy Gerson	Rehoboth Beach, DE 19971	76350.2203@compuserve.com	373 Gateford Dr.
Garden Grove, CA 92644	2550 W. 225th Pl.	a.lewis16@genie.geis.com	(510) 254-6354	Ballwin, MO 63021
(714) 537-0453	Torrance, CA 90505	(302) 227-5551		kevin_wilson.mmi@notes.worl
			Bob Rutherford "Chili Dog"	dcom.com
Caleb Cousins	Ken Goldstien "Dealer Dog"	Michael Lowrey	140 S. Morrissey Ave. #17	(314) 391-9865
96 Cedar St. #4	7667 Kittyhawk Ave.	6503 Four Winds Dr. Apt. D	Santa Cruz, CA 95062	
Bangor, ME 04401	Los Angeles, CA 90045-1733	Charlotte, NC 28212-3749	(408) 425-7536	Andrew York "Greyhound"
(207) 941-8568	(310) 641-2309		rcubed@netcom.com	P.O. Box 2307
		Edoardo Mattei		Universal City, TX 78148-
Sean Cousins	Tom Howell "Whippet"	Viale Sartorio, 95	Bill Scharf "Doge"	1307
96 Cedar St. #4	P.O. Box 1450	00147 - Roma, Italia	4814 Walnut Grove Ave.	73210.3053@compuserve.com
Bangor, ME 04401	Port Townsend, WA 98368-	Ed.Mattei@agora.stm.it	Rosemead, CA 91770	(210) 658-6066
(207) 941-8568	0036		(818) 286-4428	
	off-the-shelf@pt.olympus.net			
	(206) 379-9697			
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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, lets get those people standing by. The current standby list is:

Machiavelli (gunboat and regular): Steve Koehler, Andy York, Bill Scharf, Bob Robles, Jason Wilke, Kevin Kinsel Dune: Steve Koehler, Paul Bolduc, Debbie Osborne, Kevin Wilson New World: Dan Eisenhut, Kevin Kinsel Merchant of Venus: Andy York, Paul Bolduc, Dan Eisenhut, Debbie Osborne Die Macher: Andy York Outpost: Andy York, Dave Anderson, Roy Vij, Dan Eisenhut, Michael Lowrey History of the World: Andy Lewis, Dan Eisenhut, Paul Bolduc, Kevin Wilson Stellar Conquest: Andy York, Paul Bolduc, Dean Cochran Gunslinger: Paul Bolduc

Standby Calls

Kevin Kinsel for the French in "Anubis" and Paul Bolduc for Beagle Boys Enterprise in "Dog Food"