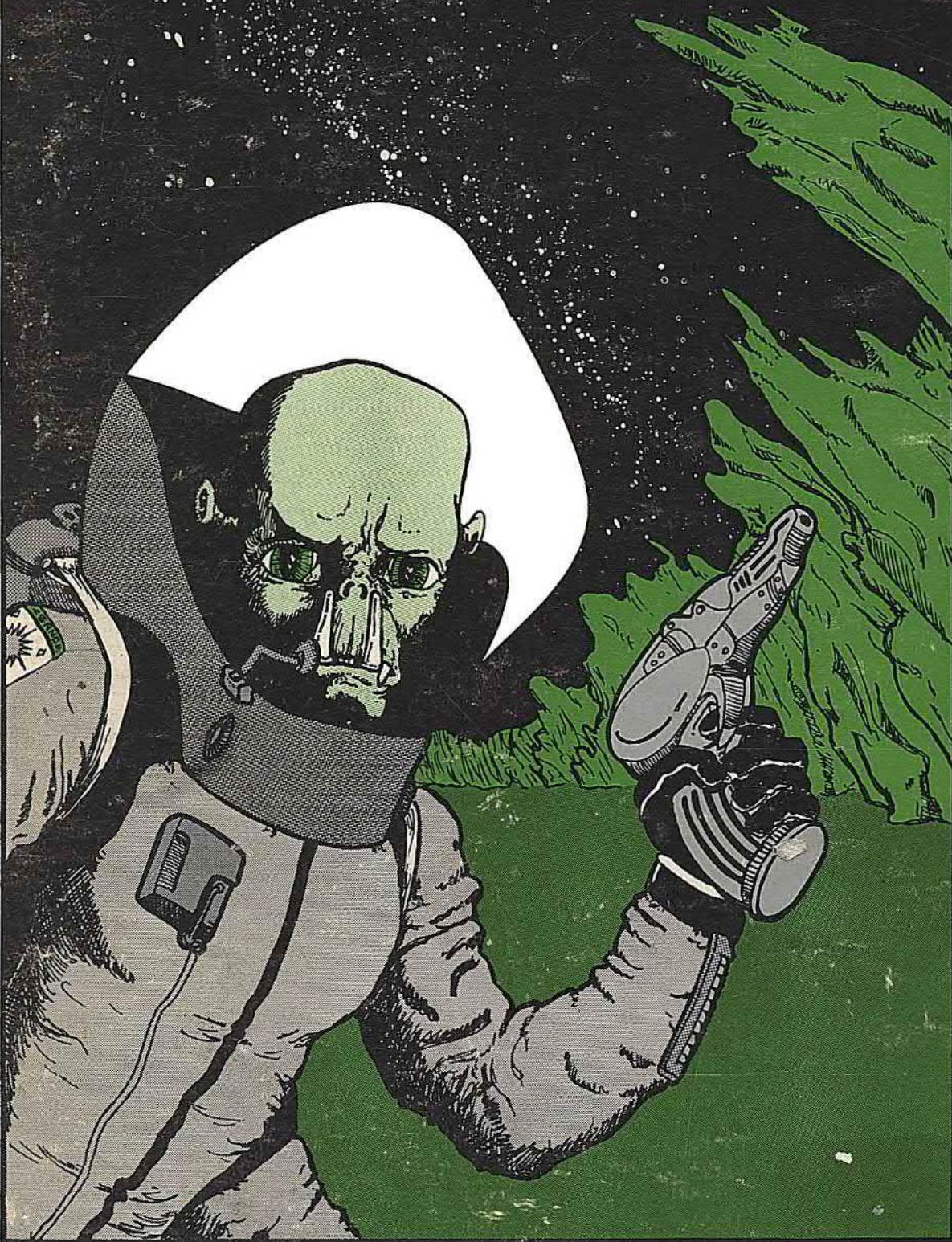


ALIEN
RACES
GUIDE
TO
SPACE
FAREERS



Alien Races is usable with
SF role playing games such as
Traveller, Space Patrol
Space Quest, etc

 Phoenix Games

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Spacefarers Guide to Alien Races

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Introduction

As life arose on the many scattered planets of the galaxy, and thinking races began to ponder the problems of life and existence, one of the most recurrent questions was the problem of the shape of intelligent life. Was there life on other worlds? If there was, was this life of the same shape as our own? How could it be of the same shape when environments varied so much? These questions and many others kept scientific communities busy and thinking for many years, until finally contact was made across the gap of interstellar space, and the questions were answered.

Nature, acting through blind evolution, had evolved many different ways for a race to solve the problems inherent in its environment. Not all races were human, with specialized limbs and multiple sense organs. In fact, not all races were humanoid at all. Similar problems existed on different planets and environments, but the possible solutions were numerous.

In the long-forgotten Forerunner cultures, vast amounts of cross-breeding, colonization, and possibly even genetic engineering went on, leaving the stars strewn at random with an incredible profusion of races. Scattered across the galaxy were separate pockets of one race or another, and with the collapse of the Forerunner culture, these pockets of civilization began again to evolve in specialized and unique ways. Colonies that were planted on marginal worlds began to adjust, and eventually adapt to their different environments, leading to the creation of many races that were only similar. On other planets, stresses of one kind or another led to a total changeover from one kind of mental structure to another, which in turn totally changed the civilization of that race.

Then again, there were multi-racial worlds like the La Hurnx Worlds, with their incredible multiplicity of races on each planet living in a tight, interconnected network of ecology and civilization. New languages had to be created to deal with translations from one language into another, and new concepts entered the minds of cultures. All of these forces, and many more, contributed to the gradual but total change of the ancient Forerunner worlds and their races into a much larger group of races and cultures.

This incredible profusion of races and cultures, while it is respons much of the trade and all of the great religions, philosophies, and scientific advances of our Second Empire, also causes many problems. For example, many scientists are very interested in determining the race of the first star-farers, and the home planets of each race. The races that controlled the First Empire are fairly well known, and most of them are still in existence, but nothing at all is known about the Forerunner Races. The Forerunner Races could even be the same race that controlled the First Empire, that mysterious race of "Masters" that was never seen, nor depicted in any representation. Determining the homes of the many intelligent races in our galaxy is no easier, as over the centuries of drift, exploration, mutation and adaptation, these different races have multiplied into thousands more. In several cases, the home worlds have been identified, but in the vast majority of cases there is no idea at all even of where to begin looking.

One thing that all the intelligent races known to the Second Empire, or to the Empire of Cavoral, is the Techspeak. This language has existed unchanged at least from the origin of the First Empire, and possibly from the Forerunner cultures. It is a unique language in that it may be spoken by every race known. Naturally, cultural concepts are very difficult to translate in a language designed to hold the cultures of thousands of different races, and the Techspeak breaks down in many areas such as religion, philosophy, and several indefinable topics. Techspeak, or Teek as it is more commonly called, has no written form, and exists only as a set of coded binary pulses which can be transmitted in any mutually understandable medium. For example, between the *mmMm*m (Peterkasa's Rocks) and a human being, the mode of communication is through direct pulses of telepathic energy, while the conversations between a human and a K'Zimm could be held in simple audio modulation of the atmosphere, coded sound.

Fortunately, there is an organization that helps in this field of translating, and it has a very good record of successes. This organization is the famous UTS, or Universal Translating

Service, which was started in the Second Empire and has flourished under both Imperial and private support ever since. The basic concept of the UTS is that it is impossible truly to understand an alien culture unless one actually lives in it, and to further this goal they purchase embryos from the markets and raise them in two cultures simultaneously. Naturally, it is very difficult for an alien actually to partake of a totally different life-form's civilization, but in most cases these children are capable of conversing in both languages, and of translating concepts much more efficiently than can be done with Techspeak.

Indentured to the UTS for life, these professional translators are protected and cared for by the UTS, and have only rarely been granted freedom. There are usually several of them available at all class A starports, and at all Traveller's Aid facilities. Rates are not low, the standard being CR 75,000 per day, but they do insure against possible monetary losses due to incorrect translation. In addition, the UTS will transport a needed translator for the flight ticket plus CR 250,000. These translators are often found on exploratory ships, and have helped to penetrate the paranoid reactions of newly discovered cultures. Thus far, the reputation of the UTS is unsullied by any hint of illegality or breach of contract.

Translators are often not enough, though, as new races may be discovered, or new cultural variants of already-known races. These special cases require the services of the UTS in another capacity, that of cultural evaluators. In order to evaluate a new culture, the UTS utilizes a complex computer facility which occupies most of an Astrolab starship. In the space of one year, usually, it can provide enough cultural referents to make translation of potentially dangerous terms fairly safe. The final option, which can only be used if there is a proclaimed emergency, is to raise a child in two cultures simultaneously under the influence of ultra-drugs, which allow the child to mature in weeks. Unfortunately, this also causes his death a short time later, and also the deaths of the sets of parents that raise him in this speeded-up world. The slow-down procedure, to make him understandable, is what usually causes his death.

The many different races that make up the Second Empire cause several major difficulties in the construction of starports. If a starport is designed for human beings of the standard type, it will be hard put to maintain a Prontexi safely. Likewise, a room that will hold a Rappi comfortably will hardly hold a K'Zimm as well. Due to the incredible diversity of the various races, the starport holding companies have had to make several allowances.

The easiest way to handle the problem is to maintain a number of multi-environment rooms on hand at all times, and have a versatile computer available to set up and control the conditions inside these rooms. Unfortunately, these multi-environment rooms, while theoretically identical to the natural habitat of a race, are generally described as being offensive and often even harmful. The recorded ideas of what a race likes and does not like only rarely agree with the actual habits of that race. For example, there is the case of the ambassador from the Second Empire to the AA worlds, who was put up in an environment room until suitable quarters could be constructed. The atmosphere inside the multi-environment room was perfect according to the computer, but the ambassador and his staff were rendered useless by the fractional carbon monoxide component in it.

The ideal method for the starports, and also for the ultra-rich hotels, to quarter their alien guests in style is to set up an actual environment, firmly supported by both technological methods and ecological life chains. This costs immense amounts of power, space and money, but since the visitors are generally rich and very powerful, the cost is worth it. Usually, this extremely rare method of maintaining a guest is only used by governments or large corporations, although several of the largest hotels have quarters designed for a select group of races that are very common in their sectors.

Fortunately, there are several companies that specialize in the construction and maintenance of these micro-environments, as they are called. Bonded for their reliability, these companies insure completion by a specific date, and also that the race will find the quarters to its liking.

Several fortunes have been made and lost on the needs of this very specific and very expensive occupation. When officials of a particular visiting race need quarters in a hurry for a high-ranking guest, they turn to one of the established firms, and pay immense amounts of money for their micro-environment. In turn, the company uses its computers and memory banks to determine what materials are needed, then puts out a priority search call on the networks, sometimes even over the FTL radio networks. In a short time, the needed materials start arriving, and the company pays exorbitant prices for them without a murmur. At the conclusion of the contract, the purchasing group pays the construction company in full, often with a bonus for rapid completion. The interests of both parties are protected by a registered contract that places an upper limit on the construction costs, and then guarantees satisfaction to the purchaser.

However, there are often times when an exotic-atmosphere race must be ferried through a starport, for a short time. Unless the individual has personal environment equipment, it is likely that he will have to rent a general transport environment capsule. These capsules come with very low-power movement ability, widely variable internal artificial gravity, and varying kinds of internal support systems. Generally, these capsules are designed merely to maintain the atmosphere they are charged with through chemical catalytic means, not actually replace it. These capsules are not usable for periods beyond several days, as the catalysts become used up, and the environment gradually dies.

Environment capsules are available in most class A and B starports for the rental price of one thousand credits per day, although significantly larger races will have to purchase special environmental containers. These larger races can require containers costing up to two hundred thousand credits per day, if extra environmental alteration is needed, like ultra-high or ultra-low temperature.



How To Use This Book

In order for this book to be really useful to the role-playing hobby, the races listed should be usable in any role-playing game, not just Traveller. In addition, it would be very difficult to fit different races into the Traveller system, because the rolls for the human race are set at two dice each, which means that the only way to get different abilities for other races is to increase the number of dice, making them stronger than humans. It seems more reasonable that the human race should be in about the middle of any spectrum, in all of its abilities. In addition, a being with a tendency of strength would get no benefit in a situation where he had to roll his saving throw, as he would have the same chance of making his roll as any other race. A different system, then, is needed.

There is a way to solve this problem, and it is a way that allows any other game system to use the book as well. The major drawback is that it requires slight changes in all of the rules. On the other hand, it does have certain advantages. For one thing, it gives an automatic number for the saving roll percentages in any characteristic. In addition, it makes it possible to tell at a glance the varying strengths and weaknesses of different races, and to rank a player against another instantly.

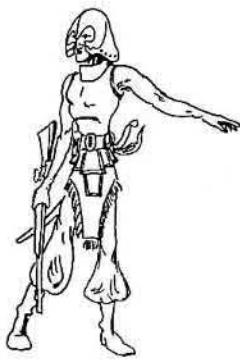
To utilize this system, the player first rolls up his character normally under whatever set of rules he is using. In Traveller, for example, all characteristics would be rolled up using two dice. The values would be the values for that character compared to other members of his own race, and also provide a nice bell-shaped probability curve. The next step is to turn to the chart for converting from Traveller to this system, and compare the listed values for that race to the die rolls. The chart will provide a number between 0 and 1,000 for all characteristics, which gives the rating on an absolute scale of all the races. In addition, this number is easily converted to a percentage roll for saving throws by dropping the final digit. All enlistment rolling, and similar rolling required by the Traveller rules, is done using the original two-dice rolls, as it is assumed that all characters will enlist in a military service of their own race or one close to it. After the character is mustered out, these original rolls do not need to be used again, because now the character is comparing himself to all the races in the galaxy, not merely to others of the same race.

The major difficulty lies in the fact that many of the combat systems used subtract hits from characters in such a fashion that it would take almost forever to kill a character that had, for example, 500 hit points. This problem, and several others, are mentioned and solved with each chart. The charts included are two-dice (used for Traveller), three-dice (used for Space Patrol and for Dungeons & Dragons®), and finally a variable dice table that is used for Space Quest. In addition, the listed values for each race make it possible to fit them into any new system that may come onto the market.

There are a number of characteristics that should remain constant among all races. These include such things as intelligence, luck, charisma, education, and social status. naturally a moderator may wish to modify some of the racial values, depending on the situation in his own particular galaxy.



RACIAL PARAMETERS



Racial Characteristics Comparison Chart

This lists all races, and compares their rolled characteristics on a universal scale.

RACE	STR	DEX	CON	SPD	PSI	EMP	RACE	STR	DEX	CON	SPD	PSI	EMP
Human	300	300	300	300	300	300							
1	325	450	300	300	75	300	51	600	300	475	425	225	475
2	350	50	325	450	375	525	52	575	275	475	325	350	225
3	525	250	450	225	175	525	53	300	300	300	300	300	425
4	425	300	325	400	375	425	54	500	725	525	325	300	425
5	625	325	375	275	125	125	55	350	600	75	325	200	25
6	450	300	500	525	100	150	56	—	—	800	—	800	50
7	300	300	300	300	300	525	57	300	350	300	300	125	175
8	250	350	275	375	350	500	58	350	300	350	300	300	300
9	175	375	200	300	350	450	59	400	300	350	275	300	300
10	475	300	450	350	225	375	60	425	225	300	250	425	25
11	525	225	450	300	300	350	61	400	350	300	300	300	450
12	350	425	500	225	75	775	62	250	325	225	300	75	75
13	425	275	625	400	425	625	63	125	625	225	550	125	725
14	275	300	225	325	300	125	64	600	800	650	125	250	275
15	—	—	800	—	225	400	65	350	350	350	425	300	250
16	550	300	475	225	250	425	66	425	125	375	450	325	575
17	350	150	300	275	300	300	67	450	450	300	175	375	400
18	225	550	250	550	175	200	68	250	500	300	325	300	250
19	325	325	300	300	400	400	69	275	450	375	425	300	125
20	500	300	200	250	300	125	70	400	200	200	350	175	425
21	225	625	425	125	—	75	71	400	425	400	275	350	325
22	—	—	—	—	—	—	72	250	400	350	125	600	450
23	525	200	425	225	100	75	73	300	300	225	400	325	275
24	1/2con	225	625%	425	675	725	74	800	525	675	425	300	125
25	250	450	325	275	300	325	75	250	300	275	425	450	325
26	25	525	100	500	325	650	76	625	150	575	325	300	125
27	—	—	625	—	800	425	77	325	300	325	450	300	400
28	200	450	200	375	325	375	78	125	200	300	350	150	75
29	150	175	350	325	525	725	79	425	325	450	775	325	100
30	525	325	475	425	675	300	80	—	800	—	25	300	300
31	475	300	450	350	25	25	81	—	—	650	800	425	675
32	25	—	800	25	300	25	82	50	700	75	725	225	300
33	100	350	125	75	300	225	83	225	350	300	325	400	225
34	525	550	475	300	300	275	84	425	350	300	300	300	300
35	725	425	750	225	50	125	85	325	250	325	325	250	125
36	325	300	250	350	300	325	86	200	300	350	325	275	450
37	600	300	600	200	200	200	87	750	300	625	350	50	25
38	25	—	225	50	625	650	88	450	525	—	325	300	150
39	525	450	475	400	300	150	89	125	300	150	400	125	475
40	425	450	325	400	225	50	90	—	—	—	—	—	—
41	325	300	350	275	300	525	91	675	225	525	500	125	150
42	400	225	800	300	275	425	92	250	400	325	275	325	275
43	425	25	450	500	425	400	93	475	225	375	300	425	150
44	50	600	800	300	450	350	94	125	375	225	425	450	625
45	—	—	200	625	800	50	95	300	300	300	300	275	475
46	225	500	225	425	400	325	96	100	375	625	350	425	225
47	300	325	275	400	300	525	97	325	275	350	425	300	225
48	325	425	250	325	250	375	98	225	425	300	500	625	325
49	350	475	300	250	325	575	99	400	300	400	300	425	125
50	625	700	800	525	25	75	100	425	225	450	375	325	125

Race	Planet	Atmosphere	Hydro. %	Gravity ≤
15 Cren'la	MVTSA	any/none	< 5	any
16 Dasorim	VT	OX	>40	3.3
17 Diomedesian	VTS	OX	5-95	1.2
18 Drk'tt'k	VT	Chlrine	25-95	1.8
19 Ehlain	TS	OX	5-95	1.8
20 Enpitesi	V	OX	5-90	2.5
21 Eyrindel	TS	OX or CO2	5-95	3
22 Fan'k	any	any	any	any
23 Faract	J	Hydrogen	5-95	8
24 Flume	MVTSJP	any	any	any
25 Fulaa	VTJ	Meth/Ammia	> 40	5
26 Fuzzy	TS	OX	5-95	1.2
27 Galtim	TS	Meth/Amm	5-95	4
28 Garvian	VT	OX	5-95	1.2
29 Giannan	VT	OX	> 40	5
30 Girin	TS	OX	5-95	4
31 Guerr	J	Hydrogen	> 5	5
32 Harundali	J	Hydrogen	any	any
33 Havansian	VT	OX	30-95	2
34 Horrim	TS	OX	5-95	1
35 Hullar	VTS	OX	5-95	4
36 Hydorian	VT	OX	> 40	5
37 Hyne	VT	OX	5-95	4
38 Impe	VTS	OX	5-95	1.2
39 Ishtari	TS	OX	5-95	3
40 Jagananda	VT	OX	15-95	3
41 Janin	VT	OX	15-95	1.6
42 Jollersi	MVT	CO2	< 95	3.5
43 Jontarou	TS	OX	5-95	2.5
44 Jymm	VTS	OX	> 40	5
45 Kapli	J	Hydrogen	any	any
46 K'zimm	T	OX	10-95	1.8
49 Laoni	VT	OX	15-95	1.6
48 Lartosi	VT	Chlorine	15-95	2
49 Ler	TS	OX	5-95	2.2
50 Libauri	VTS	OX	5-95	5
51 Lithard	VT	OX	40-95	1.2
52 Lithian	VT	OX	30-95	2.2
53 Lushori	TS	OX	5-95	1.5
54 Mertnerite	TS	Chlorine	10-95	2.5
55 Mesklin	J	Hydrogen	5-95	20
56 ♫mmMm♪m	MVTSA	none/any	none/any	none/any
57 Molinger	TS	OX	5-95	2
58 Montid	TS	OX	5-95	1.8
59 Moremite	TS	OX	5-95	2.4
60 Nevian	VT	OX	> 40	5
61 Nilsi	VTS	OX	5-95	2.2
62 Niondite	S	OX	5-95	1.4
63 Norstel	TS	CO2	5-95	1.4
64 Olenter	MTS	CO2	5-95	2
65 Osnomian	TS	OX	> 5	1.6
66 Otter	VT	OX	> 40	3
67 Paknii	TS	OX	5-95	3.2
68 Pa-Liinan	TS	OX	5-95	1.4
69 Parotnian	J	Hydrogen	> 5	6
70 Pilosian	TS	OX	5-95	1.2
71 Praxim	TS	OX	5-95	1.8
72 Prontexi	M	none	< 100	1
73 Rappi	VT	OX	> 50	1.2
74 Raslet	V	CO2	> 50	5
75 Replus	VTS	OX	5-95	1.2
76 Rigellian	TS	OX	5-95	3
77 Sander	TS	OX	5-60	1.6
78 Saplot	VT	OX	15-95	1
79 Sheel	TS	Chlorine	5-95	2
80 Shen	MVTS	OX or CO2	5-95	8
81 Srill	MA	zero	zero	.3
82 S'Shula'a	TS	Meth/Amm	20-95	1.2

Race	Planet	Atmo.	Hydro. %	Grav. ≤
83 SThori	VT	Chlorine	5-95	1.5
84 Tpictyl	VTS	OX	5-95	3
85 Tran	S	OX	5-95	1.6
86 Trayle	VT	OX	> 40	5
87 Trident	VT	OX	> 40	5
88 Twormin	P	any/none	any/none	any/none
89 Uluv	any/none**	(OX)	(5-95)	(.2)
90 Vontor	any/none**	any/none	any/none	(30)
91 Valerian	TS	OX	5-95	4
92 Vermal	VTS	Meth/Amm	> 40	12
93 Vulkshappi	VT	OX	> 40	5
94 Welcyksi	TS	CO ₂	5-95	4
95 Wibb	VTS	OX	5-95	2.5
96 Wunner	VT	Chlorine	5-95	1.4
97 Yaman	VT	OX	5-95	1.6
98 Yiktori	TS	OX	5-95	1.4
99 Zhan	VT	OC	5-95	1.8
100 Zortanclian	VT	OX	15-95	2.6

* Always occurs with another race.

** Must be technological civilization only.



Conversion Tables for Characteristic Names

This table shows how to find the listings for special characteristics inside the book. Since each set of rules calls the abilities and skills of a character by a different name, this page shows what they are in each system.

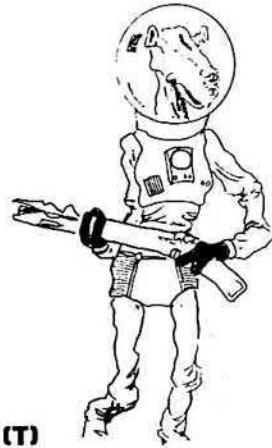
Traveller	Space Patrol	Space Quest	Alien Races
Strength	Strength	Physical Power	Strength
Dexterity	Dexterity	Coordination	Dexterity
Endurance	Constitution	Vitality	Constitution
	Mentality	PSI	PSI
		Speed	Speed
		IQ	IQ
		Empathy	Empathy

Race Location Chart

This lists the seven different planet types and for each gives the possible non-technological races that may live there. If a civilization is high-technology, it can live in environments outside its racial parameters.

A planet may have more than one race living on it. Roll percentile dice: a roll of 00-03 equals two races living on one planet, and a roll of 04 means three races living on one planet.

In addition to native races, there may be alien bases. If a planet has been rolled to have a race but none will fit the parameters of the planet, then roll a random hi-technology base.



Mercury Type Planet (M)

Atmosphere	Race
None/Trace	Prontexi Srell
Any/None	Cren'la ◊mmMm◊m
Any	Flume
CO ₂	Jollersi Olenter Shen
Argon	Aouliio Argentin
Oxygen	Shen

Venus Type Planet (V)

any/none	Cren'la ◊mmMm◊m	
any	Flume	
CO ₂	Belshorim Jollersi Raslet Shen	
Argon	Argentin	
Meth/Ammonia	Fulaa Vermal	
Chlorine	Drk'tt'k Lartosi Sthori Wunner	
Oxygen	AA Akwaieri Albazaran Argan Astran Atnshean Carsei Dasorim Diomedesian Enpitesi Garvian Gianiyen Havansian Hudlar Hydorian Hyne Impe Jaganda Janin Jymm	Laoni Libauri Lithard Lithian Akwairi Albazaran Argan Arzorian Astran Athshean Brunhraggi Carsei Chelki Comparn Dasorim Diomedesian Ehlain Eyrindel Fuzzy Garvian Giannan Girin Havansian Horrim Hudlar Hydorian Hyne Impe Ihtair Jagananda Janin Jontarov Jymm K'zimm Laoni Ler Libauri

Terran Type Planets (T)

Atmosphere	Race	
any/none	Cren'la ◊mmMm◊m	
any	Flume	
CO ₂	Eyrindel Jollersi Norstel Olenter Shen Welcyksi	
Meth/Ammonia	Fulaa Caltim S'Shula'a Vermal	
Chlorine	Drk'tt'k Lartosi Mertnerite Sheel Sthori Wunner	
Oxygen	Human AA Akwairi Albazaran Argan Arzorian Astran Athshean Brunhraggi Carsei Chelki Comparn Dasorim Diomedesian Ehlain Eyrindel Fuzzy Garvian Giannan Girin Havansian Horrim Hudlar Hydorian Hyne Impe Ihtair Jagananda Janin Jontarov Jymm K'zimm Laoni Ler Libauri	Lithard Lithian Lushori Molinger Montid Moremite Nevian Nilsi Osnomian Otter Paknii Pa-Liinan Pilsian Praxim Rappi Replus Rigelian Sander Saplot Shen Tpietyl Trayle Trident Valerian Vulkshappi Wibb Yaman Yiktori Zhan

Mars Type Planet (S)

Atmosphere	Race	
any/none	Cren'la XmmMmmXm	
any	Flume	
CO ₂	Eyrindel Norstel Olenter Shen Welcyksi	
Argon	Aouliio	
Meth/Ammonia	Galtim S'Shula'a	
Chlorine	Mertnerite Sheel	
Oxy	Human AA Arzorian Brumhragei Carsei Chelki Compran Diomedesian Ehlain Eyrindel Fuzzy Girin Horrim Hudiar Impe Ishtari Jontarou Jymm Ler Libauri	Lushori Molinger Montid Moremite Nilsi Niondite Osnomian Paknii Pa-Liinan Pilosian Praxim Replus Rigellian Sander Shen Tpietyl Tran Valerian Wibb Yintori

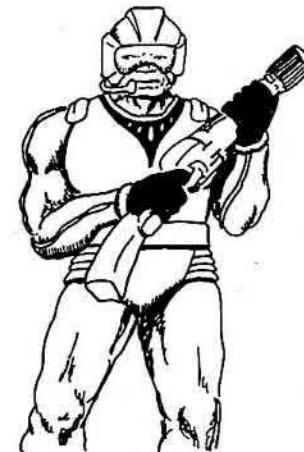
Asteroids (A)

Atmosphere	Race
none	Cren'la XmmMmmXm Srill
any	Flume
Meth/Ammonia	Rulaa Vermal
Hydrogen	Faract Guerr Marundali Kapli Mesklin Parotnian

Jupiter Type Planet (J)

Pluto Type Planets (P)

any/none	Twormin
any	Flume



Racial Parameters Chart

This chart lists the conditions under which a given race can live. It lists the upper and lower limits for hydrography and gravity, the atmosphere, and the possible planet types. With this chart, it is very easy to determine if a given race can function in a particular environment.

Naturally, this does not take special things like pressure and poisonous trace elements into account.

Race	Planet	Atmo.	Hydro. %	Grav. ≤
0 Human	TS	OX	5-95	1.5
1 AA	VTS	OX	5-95	1.2
2 Akwairi	VT	OX	>40	5
3 Albazaran	VT	OX	25-80	1.2
4 Aouliio	MS	Argon	<30	2
5 Argan	VT	OX	40-60	3
6 Argentin	MV	Argon	5-95	2.8
7 Arzorian	TS	OX	5-95	1.5
8 Astran	VT	OX	30-70	1.3
9 Asthshean	VT	OX	5-95	1.2
10 Belshorim	V	CO ₂	5-95	3.2
11 Brumhraggi	TS	OX	5-95	3
12 Carsei	VTS	OX	>40	5
13 Chelki	TS	OX	5-95	2.5
14 Compran	TS	OX	5-95	1.2

Space Patrol Conversion Chart

To utilize this chart, first choose a race from the book. Then, using the standard three-dice system, roll up all characteristics for your character. Using the listed values from the book of your race for each characteristic, find the number that is equal to or lower than it on the left vertical line of the chart. Then search across the top line until you find the roll that your character has. The intersection of these two lines will be the 0 to 1000 score for that characteristic. The characteristics of Luck and Charisma are not listed, and should be referenced on the 300 column for all races. To determine hits taken by standard rules multiply the number of damage points taken by 100, and subtract normally. All saving rolls should be done using the 0 to 100 scores after this point, or by converting them to percentage rolls.



3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
25	26	29	34	43	57	77	100	125	149	172	192	206	215	221	223	225
50	51	54	59	68	82	102	125	150	174	197	217	231	240	246	248	250
75	76	79	84	93	107	127	150	175	199	222	242	256	265	271	273	275
100	101	104	109	118	132	152	175	200	224	247	267	281	290	296	298	300
125	126	129	134	143	157	177	200	225	249	274	292	306	315	321	323	325
150	151	154	159	168	182	202	225	250	274	297	317	331	340	346	348	350
175	176	179	184	193	207	227	250	275	299	322	342	356	365	371	373	375
200	201	204	209	218	232	252	275	300	324	347	367	381	390	396	398	400
225	226	229	234	243	257	277	300	325	349	372	392	406	415	421	423	425
250	251	254	259	268	282	302	325	350	374	397	417	431	440	446	448	450
275	276	279	284	293	307	327	350	375	399	422	442	456	465	471	473	475
300	301	304	309	318	332	352	375	400	424	447	467	481	490	496	498	500
325	326	329	334	343	357	377	400	425	449	472	492	506	515	521	523	525
350	351	354	359	368	382	402	425	450	474	497	517	531	540	546	548	550
375	376	379	384	393	407	427	450	475	499	522	542	556	565	571	573	575
400	401	404	409	418	432	452	475	500	524	547	567	581	590	596	598	600
425	426	429	434	443	457	477	500	525	549	572	592	606	615	621	623	625
450	451	454	459	468	482	502	525	550	574	597	617	631	640	646	648	650
475	476	479	484	493	507	527	550	575	599	622	642	656	665	671	673	675
500	501	504	509	518	532	552	575	600	624	647	667	681	690	696	698	700
525	526	529	534	543	557	577	600	625	649	672	692	706	715	721	723	725
550	551	554	559	568	582	602	625	650	674	697	717	731	740	746	748	750
575	576	579	584	593	607	627	650	675	699	722	742	756	765	771	773	775
600	601	604	609	618	632	652	675	700	724	747	767	781	790	796	798	800
625	626	629	634	643	657	677	700	725	749	772	792	806	815	821	83	825
650	651	654	659	668	682	702	725	750	774	797	817	831	840	846	88	850
675	676	679	684	693	707	727	750	775	799	822	842	856	865	871	873	875
700	701	704	709	718	732	752	775	800	824	847	867	881	890	896	898	900
725	726	729	734	743	757	777	800	825	849	872	892	906	915	921	923	925
750	751	754	759	768	782	802	825	850	874	897	917	931	940	946	948	950
775	776	779	789	818	832	852	875	900	924	947	967	981	990	996	998	1000
800	801	804	834	843	857	877	900	925	949	972	992	1006	1015	1021	1023	1025

Traveller Conversion Chart

To utilize this chart, first choose a race from the book. Then, using the standard two-dice system, roll up all characteristics for your character. Using the listed values from the book of your race for each characteristic, find the number that is equal to or lower than it on the left vertical line of the chart. Then, search across the top line until you find the roll that your character has. The intersection of those two lines will be the 0 to 1000 score of that characteristic. The characteristics of Intelligence, Education, and Social Status are not listed; these are rolled on a standard column of 300 for all races. To determine hits taken according to standard Traveller rules, multiply all damage rolls by 100, and subtract normally as in the standard rules. All enlistment, service, and mustering out rolls are done using the original 2-to-12 rolls. After that point, all saving rolls are done using percentile dice, or 0 to 1000 dice.



	2	3	4	5	6	7	8	9	10	11	12
25	30	42	58	80	108	141	168	192	208	219	225
50	55	67	83	105	133	166	194	217	233	244	250
75	80	92	108	130	158	191	219	242	258	269	275
100	105	117	233	155	183	216	244	267	283	294	300
125	130	142	158	180	208	241	269	292	308	319	325
150	155	167	183	205	233	266	294	317	333	344	350
175	180	192	208	230	258	291	319	342	358	369	375
200	205	217	233	255	283	316	344	367	383	394	400
225	230	242	258	280	308	341	369	392	408	419	425
250	255	267	283	305	333	366	394	417	433	444	450
275	280	292	308	330	358	391	419	442	458	469	475
300	305	317	333	355	383	416	444	467	483	494	500
325	330	342	358	380	408	441	469	492	508	519	525
350	305	367	383	405	433	466	494	517	533	544	550
375	380	392	408	430	458	491	519	542	558	569	575
400	405	417	433	455	483	516	544	567	583	594	600
425	430	442	458	480	508	541	569	592	608	619	625
450	455	467	483	505	533	566	594	617	633	644	650
475	480	492	508	530	558	591	619	642	658	669	675
500	505	517	533	555	583	616	644	667	683	694	700
525	530	542	558	580	608	641	669	692	708	719	725
550	555	567	583	605	633	666	694	717	733	744	750
575	580	592	608	630	658	691	719	742	758	769	775
600	605	617	633	655	683	716	744	767	783	794	800
625	630	642	658	680	708	741	769	792	808	819	825
650	655	667	683	705	733	766	794	817	833	844	850
675	680	692	708	730	758	791	819	842	858	869	875
700	705	717	733	755	783	816	844	867	883	894	900
725	730	742	758	780	808	841	869	892	908	919	925
750	755	767	783	805	833	866	894	917	933	944	950
775	780	792	808	830	858	891	919	942	958	969	975
800	805	817	833	855	883	916	944	967	983	994	1000

Space Quest Conversion Chart

This chart is slightly different from the other two, as Space Quest uses a different system to roll up characteristics. Instead of using a fixed number of dice, Space Quest uses a variable number to determine the ratings of each character. To utilize this chart, first choose a race from the book. Next, compare the listed value for each characteristic of that race to the chart. Taking the number that is smaller than or equal to it, read over to the number of dice used for that skill in that race. Using this number of dice, roll up normally.

Note: This chart converts Races characteristics to Space Quest characteristics.

Race Characteristic	# of Dice
80	1
160	2
240	3
320	4
400	5
480	6
560	7
640	8
720	9
800	10

Human

The human race needs little explanation to the average reader, as most of the inhabitants of this part of the Second Empire are human, but for those that have never seen one, here is a description. It is a bipedal life-form, equipped with two limbs at the base designed only for fairly slow motion. The torso contains all of the major life-support organs, and also an internal support skeleton that supplies a base for the musculature.

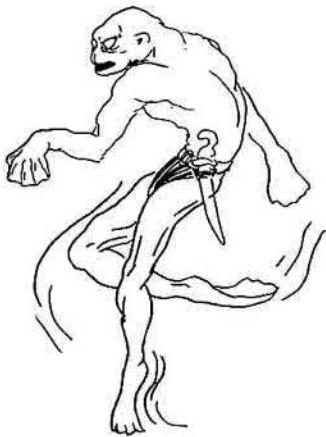
At either side of the torso is a limb that is similar to the lower support limb, except that it is much smaller and has finer control. In addition, the five digits are longer and are capable of very fine movements. Four fingers and an opposable thumb allow much pressure with control. The sensory organs are located on a head, that is placed on top of the main torso and is rigidly constrained as to its movements. These sense organs include taste, smell, hearing, and most important for this race, vision. The senses of touch and temperature sensation are distributed all over the body surface. In most cases, the senses related to psionics are entirely atrophied and unusable, but there are several notable exceptions with superb psionic abilities.

The apparent color of these beings ranges from a pure white to pinkish-white, and red (the color of their blood), and also ranges from light tan through brown to black. Several recent genetic mutations include purple skin, greensh skin, and varying forms of hair cover. Note that unlike most races, these many differences are still interfertile. It is difficult to explain the continuous fighting between these various minor groups, each claiming that it is somehow superior, as their physical and mental abilities are essentially equal. Nonetheless, several of the most violent and destructive of the human wars have been caused or prolonged by this division of one race into many.

Politically and socially, the human race is one of the most prolific in the galaxy. In its written history, it has tried almost every known form of government, ranging from total dictatorship to total anarchy, and each of these forms has on occasion worked well, only to fall to a new form when the public tired of the current craze. Social methods of rearing children, controlling populace, and controlling crime have also gone through incredible changes, with many often fantastic methods being used, successfully, to accomplish the desired ends.

The human mind is perhaps one of the most productive of the minds in the known galaxy. Where other minds may be superb in particular fields or areas of study, the human being is able to spread over many different disciplines, and is capable of a peculiar ability called genius, that allows the individual to make intuitive connections normally beyond the capability of this logical race. Other intuitive races in the galaxy are generally incapable of using logical thought to solve problems, but the human being can often use both, though he does not use either very well.

Even on the original planet of the human race, there were approximately three thousand different languages. Not dialects, but different languages. Currently, most of these languages are still spoken, although most of the human race is also fluent in Techspeak, fortunately. The human race, one of the higher controlling races under the Masters of the First Empire, spread across the known galaxy, and can be found on almost all planets of their type, which is Terran with approximately 1.0 gravity and oxy/nitrogen or oxygen/inert atmospheres. Humans require vast amounts of water for their life method to operate at efficiency.



AA



Used intensively by the Masters of the First Empire as laborers and miners, the AA resemble the ant more than any other creature. After the fall of the First Empire, it was unclear to other races whether the AA knew of the fall, and indeed, whether or not they were intelligent. At last, after almost a century of continuing to produce their usual quotas, the AA suddenly showed individual desires, and rapidly expanded to become an independent race of many accomplishments. Theoreticians claim that the sudden growth of intelligence was due to the breeding of a species of AA capable of planning and leadership. This is borne out by the ability of the AA to create sub-races whenever they wish to.

Equipped with a low, four foot tall body and ten multi-jointed legs, the AA is almost impossible to knock over. Its eight foot length rises to a height of about six feet at the head, and the four antennae rise another four feet when vertical. External chitin makes its appearance almost mechanical. The reflective ability of the chitin is very high, allowing the AA to tolerate high degrees of heat. Huge, multi-faceted eyes are capable of scanning the world in many colors, and are also much more sensitive in the infra-red range of light than the eyes of man. In color, most AA are either black, red, or brown, but other minor races have been reported on distant worlds.

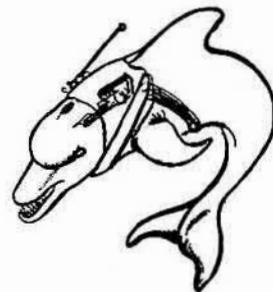
The particulars of the AA differ with the specific function that the individual AA is designed to perform. The workers, who are always female, are equipped with large rear digging legs, and an extra set of dexterous arms near the mouth. This breed, the most common of all of the AA, is unable to feed itself. A second sub-race is the warrior class, which did not appear until the fall of the First Empire. This sub-race has a very long set of mandibles which are capable of crushing light steel. In addition, warriors are capable of controlling bleeding at once in any area of the body.

Cities of the AA were originally underground, but with the growth of technology and the discovery of new worlds, a new type of AA, the artisan, made its appearance. This type of AA can produce vast quantities of an epoxy-type material that it shapes into the desired form and then hardens with another internally produced chemical. Using artisans, the AA have expanded onto the surface of many of their worlds, building vast complexes of tunnels and chambers. The well-protected breeding chambers and other important facilities are still located below ground, but much of the population lives above ground now.

Mentally, the AA are totally logical, and are incapable of understanding humor, although most of them will intensively quiz a visitor to try to understand it. Only active nobles (always male) are seen outside the hive on independent errands, and only active males are seen on starships without an escort of both workers and warriors. The usual AA ship carries several active males, and hundreds of warriors and workers. The facilities for genetically altering new births are apparently directly controlled by a special class of nursery workers, who take orders directly from the queen or her nobles. This class of nursery workers can, by creating internally and injecting a chemical, cause a direction of desired mutation to appear. By selective breeding and culling, the nursery workers can create a desired mutation, usually within four to five generations. The final generation is created to be genetically stable and infertile, but a sample of the gene plasm is returned to the queen, and after that point she can lay any number of eggs for that specific sub-race.

All of these sub-races, and many sub-races that are too rarely seen to be worth describing (such as messengers, fliers, nobles, and queens) share a common trait of communicating through the use of complex and so far untranslatable radio waves. The radio broadcasts occur simultaneously over a set of channels very near to each other, and present technology is incapable of matching the sensitivity needed to decipher these transmissions. Fortunately, all of the worker class can understand and converse in Techspeak, although they usually call a noble and let him do the talking.

Akwairi



The Akwairi are very rarely seen in any sector of the Second Empire, primarily because they lack manipulative organs of any kind. This means that they cannot move objects except by pushing them. However, they are prized for their ability to maneuver in the ocean, and to work with native ocean life.

Originally a genetic experiment to recreate an extinct race, the Akwairi are thought to be identical to their original forebears, the ancient Dolphin. Ranging in length from eight to twenty feet long, the Akwairi is an air-breathing mammal that is fish-shaped. The skin of the Akwairi is a smooth but very tough grey hide, that exudes a film of oil to reduce water friction. A single blow hole is found on top of the head, and the mouth narrows down into a long pointed beak that is lined with rows of teeth.

Navigation and communication are both carried out through the use of sonic pulses that can travel for miles under water. Echoes of these pulses provide important data, and they are modulated for communication. The speech of the Akwairi is almost entirely in the upper registers of the supersonic range, but they are capable of producing middle-register sounds to utilize Techspeak.

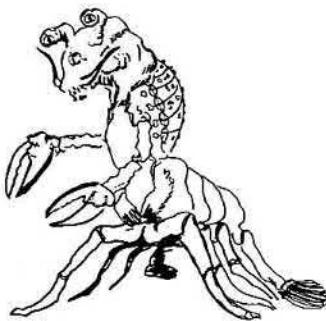
The usual social group is the herd, which is made up of a loosely connected group of about thirty adults, and up to fifteen immature Akwairi. This herd can range over the entire sea area of a planet, travelling as it desires. Adult Akwairi eat many pounds of fish in a year, so that they usually move to new areas every day. With their rate of speed, though, they can cover an immense area with very little effort, and can often hang around a specific area for months.

The primary weapon of the Akwairi, both in personal defense against the other inhabitants of the sea and against each other, is the ram. With the full weight of an adult Akwairi driven at full speed, the kinetic energy expended in ramming is immense. It has been known literally to crush other fish, and even to penetrate steel shells.

The average lifespan of an Akwairi is many hundreds of years, probably due to the continuous buoyancy of the water that he lives in. In general, the Akwairi die either from gradual loss of control of internal organs, or, more likely, from the sudden onslaught of a predator or natural disaster. The young, raised from infancy by their parents and the social group, are sent eventually to the Disseminator. This immensely aged Akwairi is found in a well-protected area, usually entirely surrounded by massive reefs of coral. He is cared for and protected by a group of adults that have had this occupation for the known history of their race, passing the duty on to their children. The Disseminator is much larger than the other Akwairi, probably due to the length of his life, and he knows by heart all of the tales of his race.

It is reported, but not reliably, that the Disseminators of the home world can remember back to the origin of their race as a genetic experiment during the First Empire. This would mean that they are several thousand years old, an age that seems a little large even for this race. More likely, argue the scientists of the University of Zacania, is the possibility that new Disseminators have been raised and trained, and these new Disseminators have been told the stories of their creation and early life.

Now found on many water planets across the Second Empire, the Akwairi remain a race almost entirely uninterested in the material side of life. The money that they earn from helping survey or fishing parties is usually spent to furnish transportation for a group of Akwairi to another planet, to start a colony there. They are often found in a sharing relationship with the Hydorians, and these two races make an effective and efficient team on new worlds.



Albazaran

The Albazaran is rarely seen off his own planets, as he does not feel at ease without wide expanses of natural mud surrounding him. However, his presence is often felt, as the Albazarans control much of the licit drug business in the Second Empire. It is unclear why they should hold so much control, but they do, and they maintain their near-monopoly on many of the major drugs tightly.

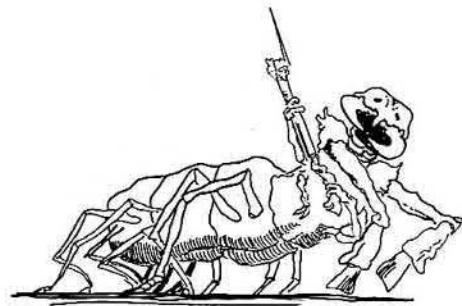
The basic shape of the Albazaran is that of a common lobster, except that it stands about nine feet tall at the head, and is about thirty feet in length. The multi-plated, jointed exoskeleton is a bright crimson in color, shading toward a pink on the underside. The fleshy parts around the head and the joints between the plates are colored a light yellow. Albazaran is equipped with three eyes, the largest of which is mounted in the center of the forehead, and is used primarily for close-up work. The other two, mounted on movable one foot tentacles, are good for either distance or close-up viewing. The ten legs that are mounted under the exoskeleton are equipped with a variety of hooks and barbs that will snag on almost any surface, and the rear two are equipped with broad, paddle-shaped appendages that can dig rapidly in the soft mud that covers the Albazaran home worlds.

There are two sexes of Albazarans, and they are an egg-laying race. The eggs, when laid, are protected from all harm by both parents, and one of the pair actually sits on them during the entire gestation period of eight months. When the eggs hatch, the parents will raise the brood of fifteen to twenty young for at least fifteen years before they can be called adult. The average Albazaran mates for life, and usually only raises one brood during this life.

The entire surface of the Albazaran home world is a massive mud-flat. Having originally evolved on the wide mud-flats around their stagnant oceans, the Albazaran have modified their planets to produce the maximum number of mud-flats. On the older worlds, the entire planet is nothing but a large expanse of red mud. The office buildings and homes of the Albazarans are built down into the mud, and are usually reinforced inside to prevent them from collapsing. Quarters for offworlders are also constructed underground, but instead of expecting offworlders to use the standard mud slides for transportation, they have put in a complex system of sub-surface transport tubes that connect all of the off-world facilities—the starports, the warehouses, the production facilities, and the office and living quarters.

There is no crime on any Albazaran world; at least, there is none committed by any Albazaran. They are incapable of comprehending the idea of taking something that belongs to someone else, perhaps because of their custom of granting any desire that is expressed by a guest. Naturally, the guest obeys certain rules of propriety, but in general there is nothing that belongs to a single Albazaran that he will not give as a gift to a guest.

In addition, there is only one form of identification used by the Albazarans. They wear no clothing or jewelry, but they do practice inserting complex designs into their carapaces. These designs are usually composed of carved and inset metal, stone and gemstones, and often take come decades to finish completely. They may be worked on at intervals during the entire life of the individual. These patterns are complex and highly individual, so that they are accepted as a reasonable and effective method of identification for an Albazaran. If a pattern is removed, the carapace scars, and cannot be made to look as it did originally. This means that the patterns cannot be removed under any conditions, only made more complex. The degree and complexity generally indicates the rank of the individual in the social and power structure.



Aouliao

The Aouliao are quite common on the inter worlds of Second Empire stars. The First Empire used them often as miners on Mercury type worlds, utilizing their ability to withstand great heat and low atmospheric pressure. Unfortunately, they suffer from a difficulty that requires them to be protected from the ultraviolet radiation, but when protected from this radiation, they can survive quite happily in the harsh environment of the closest planets to the stars.

With their extremely long bodies and low build, and their multiple legs, the Aouliao resemble most the Terran centipede. Generally they range in length from six feet to twelve feet for adults, and the usual width is about two feet. The entire body is made up of segments, each of which controls four legs, with two on each side of the low body. The body will grow a new segment at the tail end each year for the individual's entire adult life. All sensory equipment is located at the head of the Aouliao, with the exception of its low-frequency natural radio communication organs, which are located in a horizontal stripe down the entire length of the body. Good only over short distances, these electric messages cannot be translated by computer because of the complexity of the coding system used by the Aouliao.

At the head of the Aouliao is also located an assortment of manipulative organs, two of which are designed specifically for digging, even in hard rock. These organs, if broken or damaged, will grow back quickly. Near them are located a set of four very delicate manipulators that can handle even the finest movements, and these are not replaceable should damage occur. In addition, to either side of the Aouliao's mouth is located a set of horizontal mandibles, that are naturally razor sharp, and will regrow if damaged or broken off. There are poison glands that supply a fast-acting nerve poison to these mandibles, and it is fatal to most species.

In color, the Aouliao range from white to grey, with an occasional black showing up. In all cases, the exoskeleton is extremely shiny, and reflects most of the light that falls on it. The sight of brilliantly reflecting Aouliao clambering up sheer cliffs or hanging upside down is a sight that many species find beautiful, and tourist facilities often exist as much to watch the Aouliao as to see the local sights. In anything less than one gravity, they can crawl across the ceiling of almost any building.

Their cities are generally impossible for other races to examine, as they are constructed entirely underground, and the tunnels average two feet in diameter. Two Aouliao can pass each other in these tight tunnels merely by one crawling on the ceiling while the other passes beneath. Large caverns hollowed out at the core of their cities supply the meeting rooms and the facilities for raising and training the young. Aouliao mate for life, and if one of the mated pair dies, the other generally retires from the world and enters one of the many religious sects dedicated to the worship of the sun. These sects control almost all of the decisions of the hive, and their members are dedicated to the welfare of the hive, but not to the welfare of the race as a whole.

Prospective visitors to even the above-ground offworld quarters should note that the Aouliao are basically incapable of vision without very bright sunlight, and that even these offworld quarters are brilliantly lit. While the temperature of the offworlders' quarters is kept at a reasonable level, the general temperature of the Aouliao hives is about 300 degrees Farenheit. The Aouliao can survive for several years in lesser temperatures, down to 40 degrees F. Below that point, it is impossible for them to survive. Even at 80 or 90 degrees, special clothing and high protein intake is needed to maintain life.

While the Aouliao is dedicated to the welfare of the hive, he does not care about the lives of individuals from the hive, unless their loss exceeds some sort of understood limit. An Aouliao will calmly stand and watch a fellow Aouliao die when he could have been saved. This relatively callous reaction may be due to the fact that the Aouliao can raise an adult in two years, and they can raise literally millions at a time if needed. usually, the population growth is kept at a preset replacement rate, which refills casualties and provides a slow but steady growth rate to fill new areas and provide competition for the entire hive.



Argan

The Argans are rarely found off their home planets, and even more rarely encountered in space. They claim that the emptiness of space disturbs them deeply in a psychic sense, and can lead to death if continued too long. However, they maintain an active interest in galactic affairs, and are active traders in all types of goods. They are willing to share their planets with other races, and live in peace with several different races on most of their planets.

The Argan is shaped like a large barrel, with a small head containing the sensory apparatus on top, and eight legs underneath. The head has eyes as the main sensory organs, extending all the way around the top of the head. There is a secondary row of ears, but these are not very sensitive, and vision remains the main sense. With their 360 degree vision, and very accurate depth perception, Argans are capable of detecting movement, and enemies, at great distances.

The entire body of the Argan is covered with a short coat of fur, which is usually a light blue, although greens sometimes occur. The limbs below the main body are capable of being used for walking, swimming, or manipulating objects. The Argan, when necessary, can stand still on three limbs, and use the other five for whatever else he may be doing.

The Argans are thought to be immortal, although they neither confirm nor deny this. What is known for sure is that they are very long-lived, and that every ten years they spin a complex cocoon and sleep for about a standard week. At the end of this time, they emerge with lighter fur, and most obvious signs of decay or damage are missing. Often, actual new body parts are grown to replace those lost in battle or to accident. These cocoons are perhaps the most valuable export of the Argan worlds, as they are impossible to duplicate, and are constructed from a thermo-flourescent fabric that is almost indestructable by normal means.

The main pursuit of the Argan is music. Each Argan is capable supporting himself through the investment of several hours a week of solitary fishing in the oceans that cover their worlds, and the rest of this time is spent producing or listening to music. Each Argan is capable of playing at least eight or nine instruments, and several of them can play dozens of instruments superbly. Often, an Argan will sit in solitary study, attempting to master a new instrument or to create a new melody of a particular nature.

This tendency toward solitary study is perhaps the most obvious feature of the Argan race. The only thing that can stir them to take action against other beings is invasion of their privacy. The only recorded incidents of violence between Argans and the other races sharing their planets is when the privacy of the Argans was invaded, either intentionally or by accident. In fact, it is an unproven rumor that the Argans maintain this privacy even among themselves, and that no baby Argan has ever been seen.

The favorite area for the Argan to live is in the massive tidal flats that dot the seacoasts of their planets. Most of these are artificially created, but in the thousands of years since their construction, they have become inseparable from the natural environment. Vast numbers of ruined buildings, usually covered by the ever-present coral growths, are found in these tidal flats, and the Argans find these decaying but still-sturdy structures beautiful. Most of them are hundreds of years old at least, and all are built out of thick, rough-hewn stone of monstrous proportions.

The only time that an Argan will help a neighbor or intrude on his privacy is when one of them is menaced by a natural disaster, or a large wild animal, such as the packs of Hydra that the Argans insist on carrying with them to all newly colonized planets. In packs, this animal is capable of killing full-grown Argans in minutes, and often does so, in spite of the stone buildings.



Argentin

In spite of their peculiar color and appearance, the Argentin are often used as initial exploratory forces, because of their immunity to disease and their advanced healing and reflex rates. Created toward the end of the First Empire by genetic manipulation, this race has colonized many worlds that were thought to be literally impossible to live on. As these worlds are generally constructed out of very heavy metals and special alloys, which the Argentin have unlimited access to, the race is very rich, and quite powerful in Second Empire politics.

Originally derived from standard human genetic material, these Argentin are physically similar to their forebears. However, the construction of their bodies and the chemicals used in them are entirely different. The skin, first of all, is a reflective golden-bronze. The body hair is a rigid copper-colored fiber, almost like wire. Internally, the construction of the body tissue has been altered so that the nerve tissue transmits impulses about 25% faster than in average human beings. In addition, the tissue itself is much less susceptible to physical damage. The body's defense mechanisms, such as the lymphatic system and the white blood cells, have been strengthened so that there has never been a recorded incident of an Argentin getting sick through anything other than physical damage or collapse of some kind. Biological invasion by hostile bacteria, fungus, viruses, or parasites is unknown.

Even in the event of physical damage or physical collapse of some kind, the tissues of the Argentin are capable of healing roughly six times as fast as a human being's. A cut or abrasion can heal in minutes, and a more complex wound will heal incredibly fast as well. This advanced healing rate requires intake of vast amounts of food, but the home worlds of the Argentin are well-supplied with protein in various forms, and imported systems of food production are being added to increase the available protein.

Due to a low ratio of population to surface area on their planets, most of the Argentin are still nomadic. There are several exceptions to this, such as the port facilities and the central government that interfaces all internal citizens with the Second Empire, but in general most of the population is scattered over the face of their planets. Communicators, though, are a standard item, and a nomadic tribe that detects an off-world landing party or mining base will contact the central government at once. Usually they will then attempt to eliminate the party by themselves, as this results in their being allowed to retain all off-world equipment captured, plus a head price of CR 10,000 for each illegal off-worlder captured or killed. Mining facilities that are allowed by the government are always staffed by Argentin, and have plenty of official protection available.

The favorite weaponry of the Argentin is the bow and arrow, or the sword, but their favorite method of transportation is a simple linear suspension sled. Due to the massive amounts of metal in the soil, a linear suspension sled will work without any laid rails or baseplates. This allows the Argentin to roam all over the face of their worlds at high speed without having to lay rails or construct roadways, having only to punch a few passes through the mountains.

Other races are extremely rare on Argentin worlds, except those that can withstand the average 150 degree Farenheit temperatures and the constant intense radiation from blue-white giant stars. In addition, the primary atmosphere constituent is argon, with only trace amounts of other gasses, usually not enough for other races to breathe. On the other hand, the Argentin that leave their home worlds must maintain their body temperature or they begin to suffer loss of various internal organs, and gradually die of starvation or dysfunction.



Arzorian

Arzorians share most of the niches that standard human beings have carved out for themselves in the Second Empire. They are mentioned in the surviving records of the First Empire for as long a period as humans, and apparently were used for much the same things by the Masters of the First Empire. During the final days of the First Empire, though, they lost most of their colonies and homeworlds, and only in the last few thousand years have they expanded to anything like their previous domain.

They stand about seven feet tall, and this height is increased by the addition of two six-inch ivory horns that jut out from the upper forehead and curve up and over the dome of the head. The horns are generally quite sharp, and are capable of dealing out severe damage to anything they butt. The entire body is lean and thin, and the muscle cords and tendons are plainly visible. Arzorians are entirely hairless; their skin is a mixed, complex pattern of red and yellow. The pattern of each individual being is unique and often recorded by the government.

As their planets are usually mostly arid desert, the Arzorians are capable of surviving on extremely small amounts of water. Their bodies waste only a fraction of the amount that a normal human's does, and they are immune to the effects of the ultraviolet rays of the sun. They have the sensitive sense of smell of a desert animal that sometimes has to sniff out water buried under sand, and they are very good at tracking by scent.

With the advent of Second Empire technology, the basic pattern of their planetary ecology was changed, so as to increase the size of the temperate grasslands and decrease the size of the deserts. This allowed the expansion of the grassland animals and the immediate expansion of the population of Arzorians.

The mental attitude of the Arzorian is centered on respect for the warrior. The rite of manhood is a duel to incapacitation or surrender by two males, using horns and hands. This respect for the effective warrior carries over into everyday life. A human being, or alien of any kind, that refuses to kill or fight is rarely talked to unless absolutely necessary. Entire races have been denied entry onto Arzorian worlds because of inability to take the life of a fellow sapient.

The main occupation of the Arzorian countryside is support of the cities and governmental centers, which is accomplished through the use of extensive herding and grazing. The herding is handled by the highest class of warriors, who consider that only a warrior may touch a herded food animal, and only a male warrior, at that. Each warrior swears oaths of respect and obedience to the clan totem, which is usually an animal spirit, and he will give his life to protect this totem. He may not, however, give his life to save the life of a fellow totem-brother.

A severe problem for the central government of Arzorian worlds is the constant knife-feuds that erupt between families. These can start as simple arguments, and end as massive wars involving thousands of combatants on each side. They have several times involved other worlds, and have resulted in the extermination of several family groups.

However, in spite of these problems, the Arzorians that leave their homeworlds seem to be as balanced as other Second Empire races, and they interact well in the Empire centers. The Arzorians are coming into increased use in the military branches of various governments, especially as key members of mercenary contingents. Their strong empathy and occasional flashes of psionic ability often help their employers far beyond the apparent worth of their bodies and physical powers.



Astran

The Astran is a late arrival on the galactic scene, discovered in the centuries since the Interregnum. It is not known whether that race was controlled by the First Empire, but the planets they have been discovered on are certainly within the limits of the First Empire's domination. In addition, both the large number of artifacts found on their planets and the massive number of legends about the Masters indicate that they were once very well connected to the First Empire. These legends, as usual, do not reveal anything about the physical shape or size of the Masters of the First Empire.

The Astran stands about four feet tall, and is shaped very much like a human being. He is entirely covered with a curly coat of long, silky hair, usually light brown or grey. With advanced age, this coat becomes gradually greyer, and then turns to white. The eyes of the Astran are his most arresting feature, since they are about twice as large as a human being's. This allows the Astran to function very well at night, and also under water, where he spends much of his time. Although the Astran is an oxygen-breathing mammal, his lungs are adapted to maintain life for long periods under water, and Astran culture has generally developed along the continental coasts, with constant exposure to the sea an integral part. There are no visible ears, and this causes difficulties for the Astran in locating atmospheric sound. In the water, however, his ears are efficient and very useful. The hands are equipped with three fingers and an opposing thumb, with a small amount of webbing between the digits, and the feet also have webbing, for ease in swimming. The entire appearance of the Astran is a compromise between retaining human shape and still being able to function as well as possible under the sea. Since the Astran race matures on the seacoast, with exposure to both the sea and the land, the muscles are capable of supporting and moving the Astran efficiently in both environments.

The key words in describing the mentalities of the Astran are curious, trusting and claustrophobic. They have an insatiable curiosity about almost everything, and it is not uncommon to find an Astran spending his entire life pursuing a particular problem, or a particular study. The trust is evident in the continuing ability of the Astran to fall into the schemes of outworlders, in spite of the government's attempts to warn them. Apparently, the Astran's capacity to believe that someone is lying is weak, and in fact very few of the Astrans will ever lie, preferring to avoid answering at all.

The government is still a fairly primitive one, made up of a set of compromises between the original clan patriarch system being used when they were discovered by the Second Empire, and the newer, imported planetary systems of government. At the moment, each small family clan pays attention only to its patriarch, and all patriarchs across the planet are members of a large clan that pays homage only to their elected patriarch. This means that, in effect, the entire planetary population is one large family, which makes several of the older laws very difficult to enforce. For example, there is a law against the first son of any family marrying anyone from the same clan, or any sort of relative. In addition, it is legal to kill someone from out of one's clan, but it is a capital offense to kill someone with family connections.

A further problem in the case of the Astrans is that they are projectively telepathic within their own race. This means that any individual can, when he wishes to, project directly into the mind of another of that race. Only rarely in history has this ability been useful in contacting other races, and it seems to follow no consistent wavelength, but rather to vary widely with the two individuals involved. It is useful, however, in relations within the Astran society, and many of their laws and social acts involve the use of this faculty.



Athshean

The Athsheans were certainly a part of the First Empire, but it is not clear what purpose they accomplished for the Masters. They are smaller and weaker than other races sharing the same planetary type, and they possess no apparent special powers such as telepathy or empathy that could make them valuable. Scholar Sh'Fenn of the University of Zecania has advanced the theory that they were in fact the Masters of the First Empire, but others refuse to accept this, citing the rarity of the race, and the fact that its physical size falls around the lower limit possible for the Masters, as determined by surviving equipment that was known to have been used by them. The Athsheans, naturally, agree with the majority, and claim to have no knowledge of the Masters that other races do not share. It is true that no artifacts have ever been found on Athshean worlds.

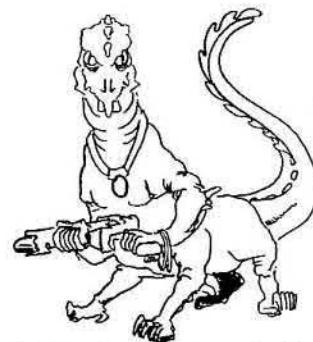
The Athsheans are basically humanoid in shape, standing three to three and a half feet tall. They are covered with long fur over the entire body, which is green on the front, and shades to whitish on the rear and back. The green coloration comes from chlorophyll that is trapped inside the hair cell material, but it seems to have no function in the life-processes of the Athshean, and no chlorophyll can be detected inside the Athsheans' body cells. They are equipped with four fingers and a thumb on each hand, and these digits are also extremely well adapted for climbing trees. Each digit has a long talon, and a small sucker-like area that can support several pounds. Athsheans rarely climb trees, but will do so in times of need. The Athsheans are a carnivorous race, but will only kill animals that are small and common, such as various forms of birds, insects, and small mammals. When faced with the possibility of starvation or killing a large animal for food, many Athsheans are unable actually to make the mental decision to kill the large animal, and starve to death.

Athsheans are tightly bonded to their deep forests, in a strong emotional and physical way. They become uneasy and sometimes violent when taken out of their forests for an extended period of time, and can only be calmed down by a visit to a deep, quiet forest like the ones that cover most of their homes worlds.

Aggression inside the community is channelled by a unique method of singing out frustrations, somewhat similar to the concept of the "primal scream" practiced by several of the human psychologists in the Second Empire. However, unlike his human counterparts, the Athshean is able to release totally all his frustration.

The forest environment, and to a lesser extent the environment of the entire planet, is seen as a single construct, and is treated as almost holy. A person, either alien or Athshean, that alters this environment to any great degree is considered a god. Godship carries only an increased degree of deference in conversation and an acceptance that the individual in question has a right to be somewhat eccentric in his actions.

The entire society is run by a system of matriarchal rulers, who maintain communication with each other through an unknown method. Each matriarch controls a single village, which may consist of up to several thousand Athsheans in a single location. With an increase in the size of the community, the amount of technology used, produced, and sold increases as well. However, the largest known Athshean-populated city on any world is a single community of one hundred thousand that is spread over an area of about a hundred square miles, connected by advanced computer-directed transit cars, each of which is free, and has no roof or sides, merely low safety rails. The cars are directed and guided by sub-surface rails that carry information to and from the central computer. The entire system was purchased from and installed by a multi-stellar corporation.



Belshorim

Fairly common toward the galactic center, the Belshorim occupy primarily Venus-type planets with carbon-dioxide atmospheres. Since the temperature on these planets is usually around three hundred degrees Fahrenheit at a minimum, there is generally little competition from other races for these planets. The Belshorim, in spite of their bizarre social structure, are capable of functioning capably in this environment, and are interested in selling merchandise to off-world companies like almost any other race.

The Belshorim are a reptilian race, generally around twenty feet in length, although the length of the tail can vary from four to ten feet between individuals. Their skins, unlike most of the other reptilian races, are smooth and only lightly pebbled. Their long, low-slung bodies are supported on six stubby limbs that are capable of being used as either feet or hands. Each of these six limbs is equipped with a set of five long, many-jointed fingers and a single thumb. When being used as feet, the fingers are folded up, away from the ground, and the calloused palm is used as the walking surface. The backs of the Belshorim are constructed out of a peculiar material that protects their spinal cords, but allows them to bend into very tight figures, and to turn in very small spaces.

The sense organs of the Belshorim are not located entirely on the head, as in most other races. The head holds the mouth, the nose, and the primary sense organs, the infra-red eyes; but there is an additional organ running down the entire flank of each individual. This organ, which usually only occurs on lower animals, detects electric current flow, and can detect electricity and living animals at distances up to about eight feet, depending on the conditions.

In color, the females are generally reddish, with orange underparts, while the males are a darker red, almost brown all over. Usually only the females are seen, as the Belshorim female eats the male after fertilization. The males are not taught any sciences, and little else except the rules they must live and die by. The females, on the other hand, enter any scientific or artistic discipline that they wish to, and are allowed to leave the home planet if they desire.

The civilization exists primarily underground, due to the high-speed winds and the acid rains that sweep the planet. The Belshorim are fairly immune to both of these, but the imported and home-made technology that their civilization is based on is not. The huge underground warrens are lit with a common fungus that radiates in the ultraviolet spectrum, and the warrens are interwoven with thousands of wandering and unlabelled tunnels. Belshorim, from birth, are trained to wander these tunnels until they know their entire city complex by heart. They are incapable of finding their way in new complexes that they visit, and must hire professional guides.

The governing structure is of course all female, as only females are given the training and education that permits them to make intelligent decisions. Government is a large body of officials chosen from among the highest-scoring females in the planet-wide intelligence tests. These individuals, when acting as the governing body, do not have to justify their activities to anyone, and are capable of taking major decisions on their own without consulting the population. On occasion, these decisions have gone so far as to assign millions of the population to a new colonization venture, or to commit the entire world to a stellar war.

It is interesting to note, though, that in spite of this separated ruling body, the Belshorim are expanding quite rapidly, and seem to have no problems in their society that they do not realize and either accept or work around.



Brumhraggl

The Brumhraggl, so often seen in the common entertainment dramas as a race of lovable and clowning teddy bears, are actually not like that at all. True, they have a strong sense of humor, and love to pull practical jokes on people, but their culture is a strong, vital one that is dedicated to respect for the individual. Commonly used as footsoldiers by many of the worlds in the Second Empire, the Brumhraggl are excellent fighters in times of fighting, but have terrible discipline during peacetime.

Humanoid in appearance, the Brumhraggl has a thick pelt of dark brown or black fur. This is quite long, and is a valuable aid in defense against physical weapons of all kinds. A smaller number of Brumhraggl have silver fur, but this breed is quite uncommon, and is usually seen only on extremely cold worlds. Underneath this protective layer of hair, the bear-like Brumhraggl carries a thick layer of fat. In addition to protecting him from impact and from the usual cold of his environment, this layer of fat assists the Brumhraggl in living through periods of no food, such as the four-month rite of passage that each adolescent Brumhraggl must undergo.

Each large, clumsy-looking paw is actually capable of a fair amount of dexterity, and also has large, non-retractable nails that are capable of cutting oak, especially when driven by the power of the nine foot Brumhraggl's muscles. Unlike his apparent relative, the Terran bear, the Brumhraggl does not hibernate during the winter, but rather must continue to eat and function normally.

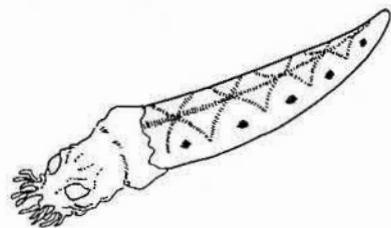
While his sense of smell is quite well developed, and his ears are very sensitive to faint sounds, his eyes are very poor for anything farther away than several hundred feet. With the aid of common contacts, the Brumhraggl is capable of seeing great distances, though still not well in dark.

Each Brumhraggl is loyal only to itself and to its mates and children. The Brumhraggl marriage custom is usually for life, but there is no limit to how many husbands or wives a Brumhraggl may have. Children are born in pairs, usually a male and a female, which are raised together by the entire family group. A male is especially protective of the others in his group.

Each Brumhraggl is very conscious of his "face," his respect. If another insults him, it is possible that a fight would result, but the more common result would be a response by the insulted that cast doubts on the ability of the insultor to know the truth or to be competent to tell it. Verbal battles of all kinds are common, and the Brumhraggl delights in telling tall stories and outright lies designed to support whatever point of view he wishes to uphold. In addition to their predilection for verbal battles, the Brumhraggl males have a desire to practice the practical joke. They will go out of their way, often to great expense and sometimes to personal risk, to set up a complex and subtle joke on a fellow male.

Usually these jokes are harmless and slightly ego-bruising, but occasionally a joke is arranged that is apparently intended to result in the maiming or death of a particularly unliked rival. In arguments, and in practical jokes, it is interesting that the Brumhraggl always leaves his opponent a safe way out, if only he can find it. In verbal attacks, no Brumhraggl would ever force his opponent to publicly admit his error, else he would probably be called out to physical combat.

A highly individualistic culture, the Brumhraggl are still capable of effective government by ruling clan, and they can unite effectively and immediately behind the ruling clan in times of need or danger. They favor the natural in their culture, and tend to avoid unnecessary technology at all times. Visitors to a Brumhraggl world should be prepared to walk.



Carsei

The Carsei are a very slowly-reproducing race, and until recently they did not possess space travel, so that they are still rarely spotted inside the Second Empire. However, their empathic abilities make them much in demand, and aid has been given to them to foster new colonies and to bring them into the Empire. Only two homeworld colonies have so far been found inside the area of space explored by the Second Empire.

Physically, the Carsei consists of a squidlike being set into a long, slightly curving shell. The fleshy part of the Carsei usually projects to the back when in motion in its watery world. The head consists of two large eyes that are capable only of detecting differences in light, and a large mouth that is used for both protein intake and propulsion. Below this mouth is a cluster of eighteen palps that are equipped with different tips, some of them suckers, others manipulative, still others pointed weaponry.

The shell of the Carsei takes up most of its size, and weight. The majority of the Carsei's body is contained inside this shell, and both the body and the shell continue to grow throughout the lifetime of the individual. The shell cannot be removed without killing the Carsei, as much of his internal support is provided by it. The shell has no spiral shaping, but a slight curve up along the vertical axis of the body is common. In color, the Carsei have black or purple fleshy parts, and the shells range through the entire spectrum, from pure white, to mottled or speckled designs, to stripes, and any combination of designs and colors.

Propulsion is accomplished through the use of the mouth, and its large, sensitive tongue. The Carsei takes in water and pulses it out at high velocity, directing its flow with the tongue. This allows the Carsei to move rapidly through the water, but requires it always to look the other way when in motion. Fortunately, it is almost impossible for the Carsei to break its shell on impact under water, and there are few predators capable of breaking it either.

The only senses that the Carsei possess are weak vision, superb pressure sensors that detect nearby movement, and their famous empathic ability. Through the use of this empathic ability they can detect the emotions of almost any animal, even simple constructions like coral or kelp. This allows them to travel in safety through packs of killers, as they are aware of whether or not the killer animals are hungry. In addition they can detect the emotions of any intelligent being, even those that have strong telepathic blocks. This allows them to judge the trustworthiness of many beings, and also to act as judges of honesty in the many diplomatic dealings common to the Second Empire.

The society of the Carsei is a strict hierarchy of nobility, with the varying ranks dependent on their superiors for their very lives. At the top of the social structure is the hereditary king, and his immediate family. The line of succession passes from the king to a new individual that the priests feel is the rightful son of the king. It is generally impossible to tell the ancestry of a young Carsei, as they are laid as eggs on the ocean floor, but the royal line has a dominant gene that causes a particular mottling around the lip of the shell, and this pattern is detected by the priests when an heir is needed.

Curiously enough, the Carsei have a passion for music, which is interesting as they have no ears. Their method of hearing it is to play a piece of music, and empathically share the senses of a listening lower animal that is trained to appreciate music. Scientists of the Second Empire have claimed that it is impossible for any trained animal to be able to judge music critically, but repeated tests have shown that while individual tastes exist, these trained animals can determine a well-executed, error-free performance, and will often single out pieces that are considered to be the finest examples of music ever composed.



Chelki

Originally a minor slave race to another, now extinct race in the First Empire, the Chelki broke from their bondage and existed in secret, protected colonies through the fall of the First Empire. Unfortunately, they do not possess any information about the Masters of the First Empire, other than the commonly available myths and legends. Interestingly, several of the Chelki are actually old enough to remember the fall of the First Empire, and they have added to the historical records of the Second Empire.

There are several differing sub-species of Chelki, but the most commonly seen is the full male, or activated male. This being weighs about eight hundred pounds, most of which is concentrated in the huge, barrel-shaped body. Beneath the body are four massive legs that support its weight without giving much speed. In the center of the body, on top, the sensory organs and all the manipulative organs are found. There are two very long arms, each ending in a hand with three fingers and a thumb. The head, not including the brain, grows from the same mound, and includes a cluster of eyes and the ears, nose and mouth, all facing in a single direction, mounted on a long neck that can rotate over two hundred degrees. The entire body is covered with short, multi-colored hair, which becomes longer at the belly and legs, almost hiding the long toes that are at the base of the legs.

There are several other species of Chelki, including the active female that never leaves the home colony, the technician, the worker, and the warrior. Each of these is determined at birth by the injection of specifying hormones into the bodies of neuter "ambions." The hormones can cause the undefined ambion to assume either sex, and any of the several subspecies. In general, when seen in public, the full male is accompanied only by warriors and technicians, although a second, young full male is often seen.

The warriors are similar to the full males, except that they are much faster, and generally weigh a thousand pounds. The other types of Chelki are all smaller, generally five or six hundred pounds each. The females, immobile after reaching maturity, may reach several thousand pounds, but most of this weight is additional egg production and child-rearing equipment. Since most of the current Chelki colonies have evolved out of previous underground slave colonies, they still maintain a protective secrecy about the locations and defenses of their worlds.

The entire civilization of the Chelki is geared to the survival of the race, and then the survival of the hive, and lastly the survival of the individual. At least once, the Chelki have sacrificed an entire hive to protect the security of the race, and uncountable times they have sacrificed other groups of Chelki to protect the hive. But the only time that the Chelki race was in danger of extinction, the entire race of slaves revolted and managed to free one full male with several ambions. This full male started the present colonies of Chelki, but discovered shortly that the entire Chelki race outside his own secret colonies had been totally destroyed.

The Chelki are vegetarians, and have an uncanny skill at understanding a new and different ecological system. They are capable of entering a previously unknown system and understanding it totally within a few short months. This ability allows them to land a colony ship on an empty planet and have a functioning colony within a few years. The Chelki, with their strong accent on race survival, have been steadily planting colonies throughout the galaxy, and are suspected to have launched expeditions across the enormous distances to neighboring star groups, and even to other galaxies.



Compran

The Compran race, famous in the early legends of the First Empire, were rapidly superceded by other more dangerous races in their occupation as warriors. Nonetheless, several civilizations still fear these golden men as symbols of total destruction, a feeling left over from that time and kept alive and powerful through constant retelling of ancient histories and mythologies. On their home planets, they have become locked into a fairly primitive culture, and seem to be unwilling to change either their culture or their approach to the rest of the Second Empire appreciably.

The Comprans are humanoid in appearance, with the usual two arms and two legs, but instead of standing five or six feet tall, they rise to a height of almost nine feet. Their extreme thinness accentuates their height, making them appear almost skeletal by human standards. The skin is always a constant bright gold color, and does not change with increased amounts of ultra-violet radiation, like other human races. With age, though, the golden color fades to be replaced by a more sedate dark yellow that does not reflect light like the youthful gold.

Their primary failing is in the field of vision. Their other senses are roughly equivalent to the average humanoid's, but their vision is only capable of detecting motion at a distance, and to detect any specific colors or shapes, the eyes must be within ten feet of the object. However, the Compron sense of distance is much more accurate than other races', and even with very little information available to him through his eyes, a Compron can usually pinpoint the source of a movement to within centimeters, even over a distance of a kilometer. This feature contributed to their efficiency as fighting troops.

The cultural set now prevalent over the Compron worlds causes them to attack immediately any moving object within vision range that cannot be identified as Compron and friendly. This is due in part to the rarity of food animals on their planets prior to the rediscovery of space travel, but also seems to be a left-over reaction from the events of the end of the First Empire, when the race apparently suffered a sort of mass psychic shock, and became fixed in their mental outlook toward the galaxy.

Each local area has its own specified hunting regions, although these are being phased out as the more flexible Compron leaders begin to accept modern food production facilities. Each area is controlled by a tribe, with complex family relationships between each member. Each tribe in turn is controlled by a chief who is elected by right of battle, and each tribe may have family connections to other tribal groups nearby. Usually, though, the related tribes are separated by vast distances, such that each tribe is generally surrounded by enemies.

In spite of its apparently primitive culture and weaponry, the Compron race still maintains a wide variety of First Empire artifacts in working condition, which are extremely difficult to examine. These artifacts, most of which are weapons, are easily capable of defending their planets from invasion or colonization by other races. In addition, there has been a gradual softening of the fixed mental attitude on several of the smaller planets, and this has resulted in a gradual influx of off-worlders and off-world ideas and technologies. It has not resulted in the export or even examination of any of the artifacts, but there is little doubt that the Second Empire will eventually achieve access to them, and add them to its armory.

Utilizes host life forms

Cren'la

The Cren'la, like the ~~YmmMm~~, are an immobile race of mineral creatures. However, unlike the ~~YmmMm~~, the Cren'la can manipulate their environment through physical means, and it is this feature that caused them to be kept hidden by the Imperial Intelligence Office for so many years. As top-secret IIO operatives, the Cren'la were responsible for much of the expansion and consolidation of the Second Empire during the Wars of Reunification.

The Cren'la is a simple iron-based life-form that takes the appearance of a small cubical crystal about a quarter of an inch in size. The color is usually a deep red, due to oxidation, although there is generally no water on their home planets. They are capable of maintaining their surface and of controlling oxidation, but this requires a great deal of energy and control, leaving them little energy or time for other pursuits.

The Cren'la have no unusual psychic or empathic abilities, unlike so many of the other immobile races. In the case of the Cren'la, a different evolutionary approach prevailed. Each Cren'la is capable of creating and maintaining a complex metallic string that is grown and directed magnetically to the brain of an animal of some sort. After a period of sensing the areas of the host's brain, the Cren'la is able to control the animal entirely. This does not work when the animal is intelligent, as it is generally able to defeat the Cren'la by simple surgery. The Cren'la utilizes several methods to enter the bodies of prospective hosts, including self-injection and being swallowed, but the most common method is to have another Cren'la insert the new one.

Most Cren'la now live inside bodies of whatever type they currently like, and change at intervals, although it takes about a year to adapt to a new body and begin actively to control it, and sometimes longer to begin to utilize its sensory inputs.

Considering that the Cren'la have no telepathic abilities, it is amazing that they have managed to become intelligent at all. They are incapable of communicating except through the use of another animal, and on the world where they originally evolved, there were no forms of animal life. When there is no access to animals, the Cren'la usually extend their microscopic iron strings from place to place, tying their community together into a mutually-aware set of individuals. They are then capable of communicating instantly, by using "thought" alone. This, however, is not telepathy, and cannot be used to contact another individual unless that individual is prepared to spend years allowing himself to be "wired" into the network.

Cren'la philosophers are renowned throughout the galaxy for their deep studies in all phases of existence and thought. The Cren'la are interested, more than almost anything else, in understanding the ability of some of the luckier races to utilize their own bodies to move, rather than depending on the bodies of others. There is a terrible strain on most of the Cren'la, morally, concerning their use of other bodies, particularly when those bodies are accidentally those of other intelligent races. Even after the mistake is discovered, the mind of the original body is destroyed, and all the Cren'la can do is remain inside and use it, or else retreat and waste the entire process.

Now that the ability of the Cren'la to inhabit other bodies has become common knowledge, the intelligence and security forces of most of the worlds have learned how to detect Cren'la invasions, and are prepared to remove invading Cren'la before they can begin to extend their control networks. When the information first became known, the number of Cren'la discovered in various occupations was immense, as they accidentally infested explorers of their worlds, and then dropped seed crystals onto the ground to be picked up by others. The Cren'la, when it takes over a body, also takes over its memories.



Dasorim

The Dasorim are a race that has continuously remained out of the flow of Second Empire civilization. Their reasons are unknown, and they refuse to discuss them, but there are still occasional individuals that leave the Dasorim systems to explore the galaxy. These individuals claim that the events of the fall of the First Empire were enough to restrain the Dasorim from ever again attempting to compete in the galactic community. They remain on their worlds, and trade at will, but try to be inoffensive.

The Dasorim stands about seven feet tall, and weighs some five hundred pounds. The body, while basically human in shape, has several differing features. The shoulders are extremely well developed, and slope downward much more than the human's. The arms, equipped with the same sort of manipulative organs as the human, are half again as long, and have an extra joint. The entire body is covered with a green hide, totally hairless, that is very thick and difficult to cut. Immediately below this hide is a thick layer of fat which keeps the Dasorim well-insulated and also makes him relatively impervious to physical damage.

The Dasorim are an air-breathing race, but due to their continuing existence in the sea, they have the ability to hold their breaths for at least forty-five minutes, and they can propel themselves very fast under water with their webbed feet and hands. The layer of fat that protects them from physical damage also makes possible their peculiar system of mass transit, which is a system of tubes pumping water under tremendous velocity. The Dasorim are able to enter and exit these rapid flows of water without trouble, whereas the same pressures would crush a human being in seconds unless he was protected by pressure diving gear, and well-padded too. These tubes cover all the major cities, and much of the countryside.

There is a hereditary power elite among the Dasorim that is responsible for all decisions, and this power elite has not changed families for many hundreds of years. This is because the entire ruling family controls itself, and polices its own members, even to the extent of killing an ineffective ruler and replacing him with a more useful one. There is no apparent homage given to the ruling family, merely an acceptance of the fact that this particular family's job is to maintain the growth and safety of the race and the planet.

The two main drives of the race are to breed, and to increase the size of the family as much as possible; but there is a restraining factor that will not allow a new birth unless the family and their environment can support it well. This leads to a continuing need for new lands to live in, and also for new worlds to colonize. These worlds are always previously uninhabited, and well away from the power concentrations of other races. The Dasorim race has perfected the use of power to accomplish almost everything necessary for life, and therefore they will seek radioactives and other energy sources at all times.

Note that the Dasorim live in a "water" that is made up of copper sulphate, which is poisonous to human beings even in small doses. This is a relatively common type of ocean water, and occurs on many planets, but it is different enough that other races tend to avoid these planets, allowing the Dasorim to use them freely. The Dasorim, on the other hand, can survive quite well in other waters, for example natural salt water or fresh water. They are unable to swim in waters that contain large amounts of iron salts, though, as this is a mild narcotic to them.

Profit-seeking individuals that have tried to blackmail the Dasorim by using their fear of the galactic marketplace have discovered that they know their own minds, and are unwilling to be used in this way. Such attempts may result in the death of the individual, or merely the finding of a new supplier for his product.



Diomedesian

The Diomedesians are a recently discovered race that is becoming increasingly visible in Second Empire starports and worlds. They are one of the most effective of the flying races when it comes to carrying weight. They are capable of carrying great loads under one gravity, in a high-density atmosphere, and for jobs that require a minimum of equipment or a maximum of stealth they are ideal.

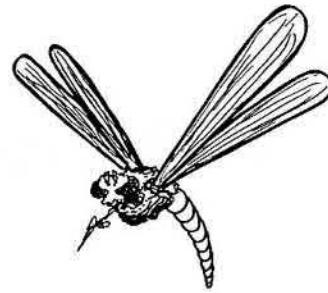
The main body of the Diomedesian is otter shaped, a tubular body narrowing at both ends. They stand about five feet tall when at attention, but usually curl slightly so that their average height is around four feet. When extended, their brown batlike wings cover a span of almost thirty-six feet, and they are capable of moving the Diomedesian at great speeds. A tail protrudes high on the back, and folds down in flight to provide an effective rudder for steering. Hidden just below the wings, and generally invisible, are two arms, with four fingers and a thumb each. They are primarily designed to be used while in flight, but they can do some light work when the wings are folded. The four rear legs are bent backwards, making a standing Diomedesian appear to be kneeling. They allow a very powerful take-off kick that propels the Diomedesian into the air easily. These rear feet are also equipped with long talons that are designed to grab prey from the air and hold it. The facial features include a blunt muzzle full of short, stubby, sharp teeth, and a black nose between two large yellow eyes. The entire head is movable on a long, one foot neck that allows the Diomedesian to turn his head completely around.

The Diomedesian eats almost everything on his home planets, but is often incapable of handling off-world food. This is due to his planet's peculiar chemistry, which intrudes large amounts of trace chemicals into everything. Apparently, when the Diomedesian encounters unknown trace elements, his body suffers an intense allergic reaction.

The primary social structure of the Diomedesian is still the flock, and each is capable of distinguishing a member of his own flock from another, even though he may not have met either before, and there are no discernable physical markings. When asked about this ability, the Diomedesians cannot explain it, but claim that it is some sort of subconscious ability they have always had. Each flock ranges in size from twenty thousand individuals to several hundred thousand. Each claims a massive area as its hunting domain, and defends it from invasion by other flocks. There is always a major, nontechnological war in progress somewhere on their worlds, and these wars are always fought with axe and knife, in the air. If either side brings in advanced weapons, the other flocks on the planet ally at once and destroy it. This continuous fighting rarely changes the flocks' feeding areas for any length of time, but it is a time-honored method of keeping the excess population under control. There is no method of birth control that can be used successfully by the Diomedesians, and the population would rise to fatal levels rapidly if allowed to.

There are several cities that have come into existence with the creation of a stellar trading system. These cities supply facilities to off-worlders, and also a single meeting point for traders and merchants of all races. There is a strongly enforced peace inside these cities, and off-worlders are generally safe within its confines. If they should leave the cities, however, they are in the same danger as any other nonflock Diomedesian—usually a death sentence, without lots of back-up.

In addition to their cities of open-topped buildings and aerial highways, the Diomedesians utilize ocean-going ships that are quite fast, and designed to be more ocean-going roosts than actual ships. They have cargo holds and rigging, but there are no cabins at all. The crew and the passengers both roost in the rigging, hunting their own food in the ocean on the way. Off-world passengers are likely to have a lot of trouble utilizing this method of travel.



Drk'tt'k

The Drk'tt'k (pronounced "dirk-tick," as nearly as humans can pronounce it at all) are a fairly recent race on the galactic scene. Only discovered in the latter times of the First Empire, this race had little to do with the First Empire, although once conquered they spread rapidly to other available worlds from the one they had been confined to. At the time of their discovery, they had still been unable to perfect the warp drive, and were trapped in a fairly small and lonely system.

In appearance quite similar to the Terran dragonfly, the Drk'tt'k is a striking sight under almost any light, even the light of his favorite red dwarf star. About six feet long, the Drk'tt'k has a long pendulous body flanked on either side by eight legs and two wings. In addition, he has two small manipulative arms near his head. The wings are collapsible, and range from four feet each folded to about fourteen feet each when extended to flying position. The exterior chitin of the Drk'tt'k is quite durable, and can be regrown in large patches if the tissue underneath is relatively undamaged.

The color of the Drk'tt'k ranges through orange and red to yellow. In all cases the chitin is a bright, metallic shiny surface, although family designs may be inlaid into the thorax. Two large, multi-faceted eyes at the front of the body reflect all light, and are independently movable. These eyes are extremely good at detecting and tracking movement, but have no color perception at all.

In flight, which is the usual method of movement, the Drk'tt'k are extremely noisy, but as most of them are effectively deaf this has little effect on them or on their prey—generally the smaller insects that they cultivate to live around their cities. Situated in swamps, these cities feature no shade, much semi-stagnant water, and thousands of water-dwelling insects of all kinds. Ranging in size from microscopic to four feet long, these insects are armed with a variety of poisons and irritants.

The culture of the Drk'tt'k is entirely centered around the adult, as the Drk'tt'k does not become intelligent until it reaches the tenth year of its life. Each Drk'tt'k female, when pregnant, lays her eggs in the water near the city, and then leaves the eggs. Shortly, the eggs hatch to spawn aquatic carnivorous insects about a foot long that live entirely on captured prey. After the tenth year, these larvae (now about three feet long) leave the water and spin a cocoon on the nearby dry land. Six months later, the cocoon breaks to reveal a three-foot Drk'tt'k, barely intelligent. This infant is claimed by watching adults, and taken to the city where it is raised and educated.

Drk'tt'k buildings are basically two walls and a roof. This is to allow the wind free passage, and also to allow the Drk'tt'k easy take off and landing. Relatively impervious to wind, rain and sand, the Drk'tt'k ignore almost all weather conditions. In general, the Drk'tt'k do not like to do anything at night, and are most active during the hours of full sunlight.

The society of the Drk'tt'k is entirely controlled by a hereditary caste of rulers, who are marked genetically with dominant yellow banding on the thorax section. These rulers have never been overthrown, although specific members have been killed or have retired, it is interesting to note that the survival rate for these royally banded infants is much higher than for others, a fact that has no explanation. The Drk'tt'k will also give their lives if asked by a person in power, even in an apparently useless cause. During the conquest of the Drk'tt'k home world during the First Empire, this fact caused the Empire many losses, as the Drk'tt'k warriors would assault positions that no sane warrior would even consider attacking. Unfortunately, the Drk'tt'k are often able to press home these attacks through weight of numbers. Short maturation time allows the expenditure of warriors at a prodigal rate.



Ehlain

The Ehlain are still few in number, as they were only recently discovered on a single planet. Naturally, they have since expanded to many other worlds, but they are still rare in Second Empire starports. They are in great demand as first-in scouts and planet busters, because of their alliance with two breeds of intelligent, telepathic animals. These animals are never found away from the side of an Ehlain, and so are considered to be in a sort of symbiotic relationship with the Ehlain, rather than separate races.

The Ehlain are human to the limits of classification. This discovery stunned scholars, until the ruins of Forerunner civilization were discovered on Ehlai. Overlying the Forerunner remains were traces of the more recent First Empire civilization. Both of these civilizations had apparently been destroyed totally, leaving the Ehlain to rise from total savagery over and over. The Ehlain are totally interfertile with the prime human race, and their mental attitudes and thought processes are also basically identical with the human.

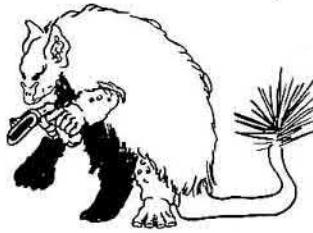
There is one interesting anomaly in the Ehlain culture. This is the persistent rumor of an immortal, or rather a group of immortals. These are apparently normal Ehlain that discover in the course of their lives that they are unkillable except by energy or oxygen starvation. Wounds given this supposed sub-race are healed almost instantly, though at a large cost in stored energy. Recoveries from direct hits into the heart have been reported, although none have been reported for strikes into the brain.

This group of immortals is scattered over the entire planetary surface, and they are held in veneration wherever they appear. However, they are not always in positions of power or control, and many, in fact, are not members of the expanding seacoast society at all, preferring to live in the plains areas with the still more primitive horse-barbarians. Of this Immortal group, which is a very low percentage of the population, none has ever consented to be examined by Second Empire medical or research personnel.

The aspect of the Ehlain that is of most practical use to the Second Empire involves one of the large plains tribes, which has just succeeded in forming the first large-sized government on the Ehlain planet. This tribe of horse-riding men has formed strong bonds with two other groups of telepathic beings. The first of these races is the horses that they ride. Superficially similar to the normal, unintelligent horses that roam the planet, they tend to be a little larger, with much larger hooves, and they are at least as intelligent as a human. However, they have no apparent desire to live without the companionship of the humans they have attached themselves to.

The second race to ally with the Ehlain is a species of very large plains cat. Usually a tawny color, these cats weigh about two hundred pounds each. They are also intelligent, and have, like the horses, decided to join forces with the Ehlain tribe and forego any expansion on their own. Both of these decisions may be due to the fact that neither of these two races has any manipulative organs, which severely limits the degree of civilization they can attain by themselves.

An Ehlain male of this favored tribe usually undergoes a mutual choosing process at his adulthood, and is allied with a horse and a plains cat, usually for life. These companions will leave him if ordered, for long periods of time, but will much prefer to stay with their chosen human. This combination of three races, each with different skills and strengths, makes an ideal team for field work, where advanced technology cannot be used. Such teams are responsible for scouting and clearing several planets for the Second Empire in the short centuries the Ehlain have been members of it. In addition to the work they are doing for the Second Empire, the Ehlain are also in wide use by the various companies that are interested in deep space exploration, as self-supporting scout groups that can enter an unknown world and return a report on its potential profitability to the company.



Enpitesi

During the Interregnum, the Enpitesi carved out a very large empire, using primarily their own natural weaponry. Unlike the other races, the Enpitesi have natural weaponry that is superb, and effective over distance. When the arts of weaponry were in disuse, and natural weaponry was the only available method of defeating an opponent, the Enpitesi came into their power. After the mass use of firearms and laser weaponry became commonplace, the Enpitesi fell into oblivion, as they had not learned to utilize these "degrading" weapons, and trusted in the invincibility of their own natural equipment.

Physically, the Enpitesi resemble low quadrupedal mammals such as are common to most Terran type planets. They are covered with thick coats of fur, usually black or grey, and at the rear of their bodies they have long tails with barbs. The head of the Enpitesi is quite close to the ground, and is capable of raising itself up only a few feet. This severely limits the distance vision of the Enpitesi. For that reason, their eyes have evolved to be best at distances of up to a few dozen yards, but become rapidly useless beyond that short distance. The large ears at either side of the pointed head are quite sensitive, and are used for detecting distant noises.

The feet are jointed, and consist of a large pad for walking, surrounded by eight digits for additional control. The front two appendages have slightly modified digits, longer and much more agile than the rear ones, and it is these that are used for manipulation. When the front manipulative digits are being used, the Enpitesi usually rocks backward on its haunches, which makes it impossible for it to move while holding anything in two hands. If a device is capable of being held in only one hand, it is possible for the Enpitesi to travel slowly and inefficiently on its remaining three legs.

The weapon of offense that allowed the Enpitesi to set up their small (by today's standards) empire was their tail. This appendage is generally about six feet long, and has a set of sharp barbs at the tip. When released, and thrown just by the tail, these barbs can travel several hundred feet, and penetrate several inches of wood at that distance. When the entire body is used in the throw, the Enpitesi is capable of throwing these barbs for five hundred feet, although he ends up off balance and unable to throw again for a moment.

The barbs have small flanges at their bases, and the heads are split and grooved so that they are extremely difficult to remove. This allows the Enpitesi not only to puncture its prey (or enemy), but also to weigh it down with barbs that will catch on surrounding objects and make it very difficult for the stuck creature to move quickly. Since the Enpitesi grows these barbs at the rate of one every week or so, and can carry up to a hundred of them at a time, to be released either separately or en masse, he is obviously a deadly soldier in battlefields where weapons with greater range are not used.

The government of the Enpitesi is based on the fact that any Enpitesi is at least as capable of running the government as any other. For this reason they have no elections, but rather rotate the occupations involved in government amongst the entire population. Government is seen as a chore, taking time away from other more enjoyable things, and few if any Enpitesi are interested in staying on past the time when they can leave. However, if the populace is sufficiently upset by a leader's actions, that leader is put to death, and the next leader on the list is advanced to the head position. This makes for interesting times when the Enpitesi are involved in a losing situation, such as a defeat in battle, as the commanding general is usually killed, leaving the victors to deal with untrained leaders for negotiation of surrender terms.



Eyrrindel

The Eyrrindel are one of the two intelligent plant races known to exist in the galaxy. Specialists in exobiology at the University of Zacaania find it difficult to believe that either of these evolved at all, and claim that they must have been artificially created by the Masters of the First Empire for their own purposes. However, none of the remaining records from that time reveal any knowledge of either of the two races, and their origin is still in doubt. No home worlds have ever been satisfactorily identified as theirs, although they occur on many worlds now. None of the other plant forms on these worlds appear to have any of the same characteristics as these races, and no records from any source reveal any similar plants in the known galaxy.

The Eyrrindel are not only intelligent plants, but are also walking plants. Physically, the Eyrrindel resemble young trees of standard type, except that they stand about eight feet tall, and have smaller branches with leaves extending all the way to the ground. Movement is accomplished through the use of root clusters, that can be removed from the earth and used as walking limbs. All manipulation is also accomplished in this way, using smaller limbs scattered at random throughout the body of the Eyrrindel. These manipulative limbs can be grown by the Eyrrindel in whatever quantities he desires, and in any location, over a period of a few weeks. The feet, as well, can be grown.

Sensory information is received through a single type of sense organ, a complex bud-like structure that has evolved a crude form of vision. These "eyes" can detect movement easily, and color, but detail below a critical limit is impossible to make out due to the construction of the eyes, which use smaller, individual binary cells. Their vision roughly corresponds to that of a human being with 20/400 vision. However, on their world, it is sufficient for safety.

The Eyrrindel use a thick sap inside their bodies for transporting protein to the various parts of the body, and most of the structural needs are filled by the hard exoskeletal bark. If this bark is shattered or cut, the Eyrrindel can collapse, although it generally will not die. After several weeks, the bark covering will grow back, and the Eyrrindel will be able to walk again. In conditions of extreme cold, the sap is likely to become solid, and the Eyrrindel is unable to avoid going into hibernation. However, when the temperature rises the Eyrrindel is able to move much faster than usual, so long as it does not exceed the boiling point of its sap, which is 236 degrees Farenheit.

Reproduction among the Eyrrindel is accomplished through budding, which results in the germination of a small seed. The seed remains inactive until fertilized by another Eyrrindel. Since there is only one sex, any two individuals are capable of producing viable offspring. For this reason, and because they can create any number of seeds desired, the Eyrrindel can colonize a planet in a very short period of time.

The Eyrrindel have no interest in off-world affairs as a race, and only interested individuals concern themselves with anything not relating to the immediate continuance of the world as they know it. Since the only things that an Eyrrindel needs are sunlight, water, and a patch of mineral-rich earth, they have little interest in other luxuries. Nonetheless, a market has been created in minor things like birds to nest in their branches, which gives them a sort of pleasure, and such medical supplies as insect controlling chemicals and fungus control agents.

The Eyrrindel, through their complex root systems, and also through their ability to design and grow roots of new types, make superb analytical chemists. They can analyze even minute quantities of an unfamiliar chemical, and although they cannot produce it, they can easily determine its physical makeup. This knowledge is sufficiently precise to program advanced production machinery to produce the desired chemical.

Utilizes host life forms

Fan

The Fan are a very difficult race to deal with intelligently because of their inability to think when in their own form. The Fan must live in hosts, and unless the host is intelligent, the Fan cannot communicate. Even if the host is intelligent, the Fan assumes the mental attitudes of the host, and is therefore impossible to analyze by itself.

The Fan have no discrete physical shape, as they are always found inside other animals. The Fan is a system of nervous tissue that incorporates several complex endocrine glands, chemical manufacturing facilities, and a "mind." It enters a new host body with the help of the previous host, instinctively searching for the most psychically active mind that it can find. Once the Fan is inside the new body, it begins to replicate most of the nervous tissue of the host, and to center itself in unused portions of the intestine. Mental contact is made after all these adjustments have taken place (usually without the knowledge of the host animal).

The Fan, upon making contact with the animal's mind, promptly gets the entire mind into its own, and becomes a mental duplicate of the host. If the host is intelligent, the Fan's nerve replication allows it to double its psychic and empathic powers. In addition, the Fan is capable of assisting the host body in repairing wounds, disease and ageing, and even in modifying the host body. This last is possible only when the Fan (meaning also the host) is accomplished in the medical sciences for his particular race. The famous University of Zacaania scientist Anita LaFarge managed to locate a Fan; since she is a skilled medical doctor, she has equipped her body with many survival alterations, including two hearts, stronger bones, more responsive and powerful muscle tissue, and faster reflexes. In addition, she is capable of producing any desired hormone within her own body on demand, through the abilities of the Fan that lives inside her.

For reasons unknown, it is apparently impossible for the Fan to duplicate itself. However, it is possible for the Fan to live for several weeks inside a decaying body, and this time is usually enough to locate the body of a scavenger or some other wandering beast. In the usual case, a Fan inhabiting an animal host invades the body of its killer when that killer eats the tissue of the host animal. The lower limit for the size of a Fan seems to be around one fluid ounce, which is incredibly small for its abilities.

The demand for Fan far exceeds the supply, and the prices offered for one are immense. The highest prices come from the Empire, and may include a lifetime allowance and the rank of a noble. Unfortunately, the Fan is impossible to detect in unintelligent animals, and exceedingly difficult to detect in intelligent beings if they do not want to be detected. The only method of detecting one in an intelligent being is to examine the possible host for unusual physical alterations, and even then the alterations may be from a minor mutation. A second possible way is to question the host telepathically or under drugs, but even this method is sometimes doubtful, as the Fan itself can neutralize truth drugs if given enough time and training in advance. For example, a man who is familiar with the chemical composition and effects of the various truth drugs would be able to defeat them easily if he had the help of a Fan to control his body reactions and generate antidotes to the drugs. It would then be trivial for him to lie convincingly and inform his captors that he had no Fan in his body.

Nonetheless, it is suspected that the Emperor has perfected a way of detecting Fan inside other beings, and is using his ability to collect Fan from all sources to support himself, his heirs, and his loyal supporters and defenders. It is interesting to note that the current Emperor has lived for over two hundred years without showing any of the various signs of anagathic drug addiction.

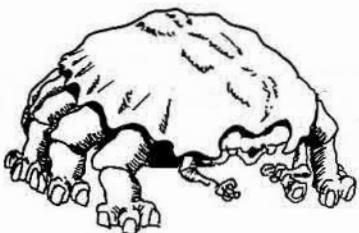


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Faract

Many references to the Faract are found in the ancient histories of the First Empire, but due to the planets that they function on, they are seldom seen today. Generally, they are mentioned as being garrison troops on high-density worlds, usually with high gravity as well. Their primary breathing gas is hydrogen, which is available in large quantities on most of the large worlds in the galaxy, but due to their relatively small population growth in proportion to available terrain, they are not common.

About three feet tall, the Faract resembles most the Terran crab. It ranges in length from six to ten feet, with the average size about eight feet. The shell is almost circular, with a slight flattening at the front where the manipulative, sensory and intake organs are located. The Faract has five legs on each side of the shell, which are of two pieces each. These legs can move only very slowly, but are capable of withstanding great stress. Each foot is equipped with a set of immovable claws that dig into and grab onto any available surface, an evolutionary response to the generally high winds on gas-giant planets.

At the front of the shell are located the two small manipulative organs, which can reach about two feet, each with a three-fingered hand at the end. The Faract is equipped with two breathing systems, which allow it to extract hydrogen from the atmosphere or from beneath the surface of the liquid. The Faract is equipped with only molar teeth, which it uses to crush to powder anything edible that it finds. While it is not equipped with eyes, the Faract is capable of functioning in almost any environment due to its superb radar sense. It is capable of discerning objects as small as one inch at a distance of a hundred meters, accurately and repeatably.

In color, the Faract ranges from light to dark blue, with the fleshy parts usually being a dark green. The lower section of the legs may be black or dark blue.

Infant Faract have the same shape as their adult parent, but are generally only eight inches in diameter. At successive intervals during its life, the Faract will secrete a chemical internally that allows its shell to soften and expand with the addition of new shell material. This generally occurs every year, and lasts for about a week.

All Faract are of the same sex, or rather of two sexes. Each is capable of both fertilizing and being fertilized, so that both parents become pregnant and lay eggs. These eggs are laid in immense quantities, and are generally not claimed by any particular set of parents, but rather raised by the state through the parentage of paid workers. Usually all of the eggs are kept and raised, but in lean or difficult times there is apparently no moral sanction against destroying the eggs prior to hatching.

The civilization of the Faract is surprisingly like that of human beings, with many different occupations available to each individual, and a sort of free-enterprise system flourishes on their planets. Each Faract has a small area of land that is marked in some normally-indetectable way that seems to involve the use of the radar sense, and these markers will stop almost all others from entering that area. The amount of personal property owned varies, and may or may not be strongly protected, depending on the philosophy and wealth of the owner. Families do not exist, although any number of individuals may band together into a clan to provide protection and support for each other. These clans rule most of the planet, and any number of clans may give allegiance to a larger clan, so that the entire planet is generally divided into three or four opposing clans, each of which has sub-clans under its control. These clans often war with each other for control, but these wars are quick and fought with traditional rules that keep loss of life and property to a minimum. Only rarely will non-combatants lose their lives due to these conflicts.

Flume

The Flume is a fairly widespread race that appears in many different planetary environments. In the galactic mythologies, they are commonly depicted as the helpers of the Tpietyl, and rarely appear by themselves. More than any other race, they are willing to live among aliens, and enclaves of them may be found on practically all of the Second Empire planets. They do not conflict with the natives of most worlds, and usually exist in a sort of mutual toleration.

A Flume is in fact a groupmind being, which can have up to five hundred separate life-units in its body. The life-unit is actually a sphere of faintly glowing gasses about a foot in diameter, held in place by an intense electric field. In space, or in low-pressure atmospheres, the Flume will lose its ability to hold shape, and explode. Light is constantly generated by the Flume, which can control the wavelengths that it transmits, but cannot "turn off" the light. Usually the illumination is very dim, but for short periods of time it can produce bright radiation. A Flume has never been reported to have produced coherent light (laser) radiation.

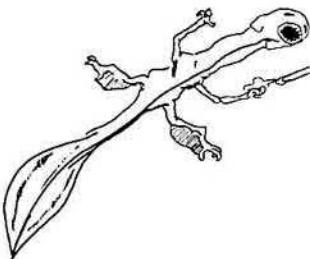
Reproduction occurs directly as a result of the amount of food available to the Flume. If ultraviolet energy is available, the Flume will increase its units by five percent each solar year. When the size of the parent body reaches five hundred units, the Flume splits into ten smaller individuals that are automatically hostile to each other, and that promptly head in different directions. Many times during the almost endless lifespan of the Flume, it will meet and interact with another Flume (never one of its offspring or brothers). At this time, the two or more Flume apparently exchange genetic material in the form of electrical pulses for a period of up to thirty hours, and then proceed.

Due to its non-material nature, the Flume is sensitive to only a few weapons. Among these is a sudden drop or increase in pressure. This can be caused by explosives such as hand grenades, or by any shock-wave producing device. Another method of damaging a Flume is through the use of coherent radiation in almost any wavelength, such as a laser beam, or a tightbeam microwave. The only known exception to this is in the frequency of ultraviolet light, which causes the Flume to multiply rapidly, but which also keeps it so busy that it cannot do anything else.

In the event that a member life-unit of a Flume is destroyed, then the entire life-form will freeze in place for about twenty standard seconds before it can make another movement. The Flume communicates among its parts by what amounts to telepathy, and also uses this ability to talk to other races. For control of its environment, the Flume uses a delicate magnetic telekinetic force, which grows in strength directly in proportion to the number of life-units in the Flume. Intelligence is also a function of the number of member life-units.

Individual life-units may be sent out from the main body of the Flume to a maximum distance of about fifty yards. The units maneuver by floating in the planetary atmosphere, and by utilizing the magnetic field of the planet to propel themselves. In spaceships, a synthetic magnetic field must be provided to enable the Flume to propel themselves, but they can use their telekinetic force to move short distances if needed.

The Flume's usual level of mental activity, according to the Flume themselves, is that of a vegetable. When exposed to ultraviolet radiation, they find it pleasurable simply to drift along in blissful unconsciousness, letting the life-units absorb the radiation in primitive delight. This philosophy of life has evolved into several notable schools of thought among their more active thinkers, but the majority of the Flume population merely exists, drifting and not thinking at all.



Fulaa

The Fulaa are a bit of an anomaly in the annals of the University of Zecania, as they exist in two physically identical types, one of which is only found on the planet of Vermal, Sector 2:61. This restricted type is physically the same as the other Fulaa, but the entire species has no intelligence. However, the two branches of the race are completely interfertile. Fulaa off this planet are as intelligent as any other race, and there is no acceptable explanation as to why the race should have a sub-type that is incapable of thought. The University of Zecania has advanced the theory that the Fulaa were created from the unintelligent race found on Vermal by the Masters of the First Empire, for their own purposes, and then forgotten.

Physically similar to the Vermal, the Fulaa are different in several respects. The body is built around the same shape, a modified cylinder. At the head of this cylinder is a flush-set head with optical sensors and a huge, gaping mouth set with rows of teeth. Where the Vermal is an omnivore, the Fulaa is a voracious carnivore. In addition, the intelligent species of Fulaa, although they live in the same murky ammonia seas that the Vermal do, possess color vision. There seems to be no evolutionary reason for this, and the University of Zecania has used this fact to support its hypothesis of artificial evolution.

The rear of the body fans out into the same sort of wide, flat tail that the Vermal have, and it is also hairless. The remainder of the body of the Fulaa is covered with a short coat of black fur, which shades to white underneath. The tail moves in a vertical pattern for propulsion, rather than the Vermal style of side-to-side movement. It does, however, possess the same sensory equipment as the Vermal, a complex of sound receptors centered on both flat surfaces of the tail.

The manipulative organs of the Fulaa are somewhat better than the organs of the Vermal. There are two sets of identical arms sprouting from the center of the body section. Each arm ends in a small hand with three fingers and a thumb, and the arms are fully articulated to allow movement in any direction. The rear set of arms has an additional flange along its outside surface that acts as a fin for directional steering.

The Vermal have three sexes, but the Fulaa have only the more common two. Each Fulaa mates for life with a member of the opposite sex, and they generally produce a whelp every four years. If one of the members of the mated pair is lost, the other member will not take a second mate, even for pleasure. Young are raised by both parents, and trained in the laws of the Fulaa, which are the prime socializing force. Each Fulaa has a superb memory, and is capable of reciting his genealogy, the history of the Fulaa, and anything else of import for hours on end, if asked.

Culturally, the Fulaa are organized somewhat more normally than the Vermal. Each family group of Fulaa is responsible for itself only, and works within a capitalistic system to support the government and the society, as well as the individual. An elected senate controls the internal and external affairs of the Fulaa, and this senate is answerable to the people for its actions every two years, when senators are reelected or evicted by vote. Each Fulaa, however, balances his need for personal protection against the greater need of the race, and is prepared to give up personal needs for the race.

In combat equipment, the Fulaa have developed a wide arsenal of weapons that are designed to operate in a liquid. In general, these weapons use electricity as the killing agent, with the current passed along a single directed wire, but there are several self-propelled projectile weapons as well.



Fuzzy

Originally found only on their single home planet, the so-called Fuzzies have spread rapidly to other planets, and have adapted very quickly to off-planet technology. They are often found in teams with other races, their small size and high dexterity making them valuable companions for many missions.

Vaguely man-shaped, the Fuzzy stands about two feet tall, and is covered with a thick pelt of curly tan or golden hair. Generally, it weights only fifteen to twenty pounds, which severely limits the amount of strength it can apply in a given situation. The head is very round, and has all of the sensory organs on the front, except for the ears, which are located at either side of the head.

The Fuzzy is omnivorous, and is capable of eating almost anything in the known galaxy, except for foods containing heavy metals. Its favorite food is a home-grown delicacy, a type of land crawfish called prawns, but Fuzzies that have left the homeworld have discovered rapidly that there are other types of food as good. Most of their food, however, contains large amounts of titanium, and the Fuzzies are capable of detecting very minute amounts of this metal in food. They relish its taste, and they will usually carry a metallic powder with them, to sprinkle on food as seasoning.

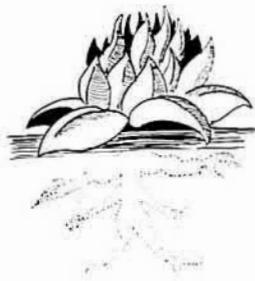
The Fuzzies have a virtual monopoly on the sale of sunstones, of all sizes and qualities. Sunstones are small opalescent stones that glow in various colors when exposed to the heat of a body. They range in price from 400 to 50,000 credits. Usually, any Fuzzy seen off-planet will be carrying a sunstone on a necklace; they are all registered with the Second Empire, and are very hard to fence inside the Empire. In addition to the sunstone, the Fuzzy usually carries a small club, with a hitting knob on one end and a blade on the other. These clubs are handed down from one generation to another, family heirlooms from a time when they were needed for survival.

There is no apparent social structure on Fuzzy worlds, and usually these worlds have other races on them as well. The Fuzzies, with their slow rate of reproduction (usually only one child per couple per ten years), are able to function with a very simple government. This is based on the concept of a trust-group. A trust-group is a group of Fuzzies that have come to trust each other, both in fact and in theory. This trust can be the result of almost any number of different actions, and can apply to members of other races.

A given Fuzzy does not automatically trust the trusted Fuzzies of a member of his own trust-group. The trust-group is an indistinct concept, and it is possible to argue that the entire Fuzzy race is a single trust-group. All decisions are carried out by the majority vote of a trust-group, and if all members of the race do not get a chance to vote, it appears to make little difference. All of the Fuzzies are characterized by a lack of ability to plan for the future, except in the most simple and survival-oriented terms.

Many Fuzzies have taken to carrying various amounts of deadly poison, or small killing weapons. This is to prevent the continuous loss of group members to various underworld groups that sell the fur for high prices. The government casts a stern eye on beings who kill inside the bounds of the Second Empire, but in cases where a motive of physical damage or kidnapping can be shown, the Empire is usually willing to forget the offense.

Due to their small size, and their high dexterity, the Fuzzies have large contingents with most of the companies in the Second Empire. This is because much of the controlled machinery and craft belonging to these companies can be run more cheaply by a small driver than a human sized one. In addition, when in space, constraints of size and food become very critical, and their small size can mean the difference between accomplishing a mission and failing.



Galtim

The Galtim, despite their immobility, are a valued race to the Second Empire. They are the most powerful telepaths known, and are naturally loyal to the Empire, since they are militarily weak, and the Empire defends their planets. The Galtim are second of the two intelligent plant races known to exist in the galaxy, and the University of Zacaia specialists in exobiology argue over how such a race could have come into existence. Since none of the other plants on their few home worlds resembles them even slightly, it is apparent that they were planted there by someone, either the Masters of the First Empire or the Forerunner civilizations.

The Galtim are a very simply constructed race. They exist in two main parts, an above-surface and a sub-surface part. The sub-surface part consists of a large set of tubers that store protein and water against the chronic periods of drought. These tubers are, unfortunately, very nutritious and tasty to all kinds of animals. The only defense the Galtim have is to use their telepathic powers to steer away interested animals, but this costs them a lot of energy, and in drought conditions, when their energy is most needed, the animals are also most interested in reaching the roots.

Above ground are the leaves for catching sunlight, which form a large, almost spherical ball. This ball approaches ten feet in diameter, and changes form according to the light available. During night, which is generally quite cool on those desert worlds, the Galtim curls up into a tight ball to maintain warmth. During the day, the Galtim spreads its leaves wide to catch the maximum amount of sunlight. Specialized leaves near the base of the plant are designed to capture moisture from the air in the dawn hours, and this moisture is sufficient to support the plant.

The inside of the Galtim is generally occupied by a number of symbiotic animals that the Galtim allows to share its warmth and protection. In return, these animals carry seeds of the Galtim from one plant to another, and are responsible for the birth of new Galtim. A young Galtim consists of a simple seed that is carried on the body of one of the symbiotes until it is fertilized by another Galtim. At that point, it becomes mentally active, and begins to communicate with the society of Galtim. When the host animal dies naturally, the Galtim expands quickly to encase the body in an airtight, very durable sack. This sack is usually enough to protect the body from scavengers, and when the Galtim is set up, it begins to modify itself to utilize the protein provided. The sub-surface root system is constructed, and protein and minerals from the host animal are stored there to be used as needed. Within the space of a few weeks, a dead host can be converted into a Galtim with a diameter of a foot or so.

More than anything else, the Galtim require magnesium for sustaining their psychic powers. Without magnesium, which is depleted in the natural environment, the Galtim gradually lose their telepathic abilities and become prisoners within their bodies, until they either die or find new magnesium sources. This fate of being isolated from all communication often results in the death or insanity of the Galtim. Now that the Empire has taken a direct hand in the care and protection of the Galtim, this happens very rarely, and the Galtim are being cultivated in the most desirable conditions under sponsorship of the Empire.

Colonies of Galtim require only two for a genetic mix, as the number of variables involved are few and the genetic inbreeding involved with only two parent plants is minimal. This has allowed the Empire to expand their crops of Galtim to a safe number, and to spread their colony worlds across space to insure against the loss of this fascinating race.



Garvian

The Garvian home worlds are few, and generally quite poor. Their starships, though, are the envy of the Second Empire. The entire wealth of the most powerful families on Garv and its sister planets is spent on constructing and maintaining vast fleets of trading vessels that ply the spacelanes inside the Second Empire. In general, the Garvians prefer to stay inside the protected Empire areas, and leave the more dangerous reaches of the galaxy to other, more adventurous companies.

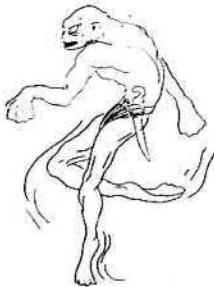
Another of the very common humanoid races that infest this area in the galaxy, Garvians stand about four feet tall, and generally weigh only ninety pounds under a standard gravity. Their bodies are completely covered by a short coat of very fine grey fur, which makes their thin, long arms and legs look slightly more full. Each arm has three fingers and a thumb, and the arms are extremely flexible, allowing them a range of movement far above that of the average human being's. The eyes are large, and pale green, and are sensitive to bright light and especially to ultraviolet radiation.

The Garvian angers very easily, and can nurse a grudge for a long time, but this failing is balanced by the strength of his sense of duty to the family and the race, and also by the inviolability of the blood brother oath that binds many of the higher officials together. A blood brother oath applies only to the two individuals partaking of it, but this naturally has an effect on the entire family group of both individuals, and tends to link them together. Their habit of nursing a grudge for a long time, plotting bizarre and extravagant revenges, and often passing the grudge onto their offspring is responsible for much of the bad feeling that accompanies the Garvians on their tours of the Empire.

The Garvians also possess a symbiotic life-form that makes them very useful to medical groups. This life-form is a one pound ball of undifferentiated protoplasm, which can arbitrarily create whatever biological organs it needs at the time. It can create wings, eyes, teeth and mouths, legs, and anything else desired. Generally, though, these symbiotes are covered in pink fur, and have no other features at all. They have several other interesting abilities, though. First of all, they can produce antibodies to almost any biological invasion, and these antibodies are generally useful to all human and humanoid races of proto-simian descent. In addition, when in close proximity to their masters, they give them vastly increased empathic abilities, allowing them to sense the emotions and general attitudes of others nearby.

Most Garvians have one symbiote, usually a fission-offspring from the symbiote of the individual's father. If a Garvian should lose his symbiote, he usually becomes very tense and irritable until a replacement is provided. However, it appears that the symbiotes have no actual physical need for the Garvians, or vice versa.

The Garvian home planets are ruled by a strict plutocracy, which means that the families with the most money make the rules, and also pay to have them enforced. Due to the Garvians' strong sense of duty to race and family, the family that is in power tends to take its job seriously, and generally does a good job, until its available cash falls below the level of another family's, and then the government shifts. Only once in the written history of the Garvians has a family used its power to suppress the citizenry and increase its wealth. In this case, the other families allied after a short time, and crushed the first. The honor of the offending family was totally destroyed by this incident, and it died out some years later, in disgrace.



Giannan

Another of the genetic mutations which arose during the First Empire, the Giannan race occurred primarily by accident. After the accidental crash-landing of a humanoid colonization ship, the early Giannans were forced to find some way to escape the high-intensity radiation bombardments coming from the small hot star their planet circled. A solution was finally found in the deep oceans of the planet, and through the use of gene-modification equipment on board, and the recognition of useful wild variants caused by the star's radiation, the race was soon transformed. Because of this transformation, and the general uselessness of the planet and star system, they were left alone during the fall of the First Empire, and survived untouched. However, their technology was entirely lost with the move to a sub-surface environment.

The Giannans still resemble their human forebears, in that they have two legs and two arms, centered around a human trunk. However, these arms and legs have been subtly restructured to enable the Giannans to swim and maneuver efficiently underwater. The hands and feet have all but lost individual digits, and are now a single sheet of bone-reinforced webbing. The hands retain enough digits to grasp and hold tools, but are not capable of a powerful grip. The entire body is covered with a thick skin, and beneath this is a thick layer of fat that protects against temperature change. The color of the skin is generally a light violet, but it can range into purple.

Giannan muscles are not designed for walking on land, but they can do so under pressing necessity. The usual method is crawling, unless the individual has undergone intensive training and muscle-building programs. Usually, Giannans are seen in the Second Empire only on anti-gravity rafts or inside environmental chambers. In normal air, their skin begins to dry and crack quickly, and this can lead to death by external bleeding. In addition, the lungs are not well-protected against the dryness of the air, and they will soon dry out and begin to hemorrhage.

Giannans have the ability to tap ancestral memories for several generations back, until the genetic "noise level" becomes too great. This has enabled them to establish long lines of descent that maintain power or skills through much longer periods of time than other races can ever hope to achieve. This system is effectively a method of increasing the amount of information storage space available to each individual, and increasing his access to it.

A second, partially intelligent race shares the Giannans' worlds with them, but does not share their interest in technology. It is a race of large aquatic turtles, usually twenty to thirty feet long. They have a dark upper surface and a light lower surface, with a large set of horny plates protecting the vertebrae. They are carnivorous, and use their massive beaks and razor-sharp front talons to catch small fish for food.

In general, the Giannans are individualists, with little government or social cooperation between groups. Each group centers around a single ocean "tree" that extends from the bottom of the ocean to the surface, and they will defend this food-area against outsiders. With their discovery by the Second Empire, though, the Giannans have discovered the uses of a single unified world government, and are attempting to organize one so as to be better able to purchase off-world technology.

In addition to their ability to access ancestral memories, the Giannans communicate with each other and with the intelligent turtles through a fairly well developed telepathic sense. Other psionic abilities are rare in their culture, but have occurred. Unlike many of the other telepathic races, the Giannans are capable of teaching this ability to others who possess a minimum of telepathic ability but insufficient knowledge or experience to use it properly.



Girin

Well-represented in the various armed forces of the Second Empire, and in its far-flung exploration forces, the Girin are one of the most vigorously expanding races in the Second Empire. Their worlds accept new technologies very quickly, and they apparently have little difficulty in throwing out a previous cultural norm to allow the influx of new ideas and races from other worlds.

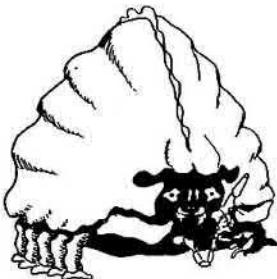
The Girin are roughly humanoid in appearance, but rather than being descended from one of the various groups of simians, the Girin trace their ancestry to a line of ursine animals. They are about five feet tall at the most, and tend to be extremely round. This is due not to useless fat, but rather to bands of muscle designed to help them in their high-gravity environments. The skin ranges in color from a light grey-green to a dark green. In general no notice is taken of skin color, but an occasional individual is born with black skin (a rare, recessive trait) that causes him to be revered as a probable descendent of one of the many warrior-heroes of their distant past. These rare individuals are seldom significantly different from other Girin, but there have been notable exceptions—black-skinned Girin capable of feats of mental prowess far beyond the abilities of their peers.

Most of the race is able either to teleport material to a limited extent, or to use telekinesis over short distances. In addition, all but a handful are able to speak telepathically with each other or with other telepaths of any race. Wide ranges of ability are represented in the Girin, naturally, including individuals who are capable of teleporting a mass of several tons for a distance of several miles. In addition, a rare ability allows a "linker" to join the powers of two or more minds for greater power and control in teleporting or telekinesis.

The government of the Girin worlds is usually through a royal family. This family practices inbreeding, and its members are therefore either extremely powerful in the telepathic and other psionic abilities, or else effectively mutes, barely able even to be heard by their fellow Girin. For this reason the usual Girin monarch, whether male or female, is willing and anxious to hear about and purchase off-world technologies to bolster the strength of the ruling family.

The usual item that is teleported is wind from other locations, using the coriolis effect of the planet to give it the desired velocity and direction. This free wind allows planetary boats, and balloons and gliders, to move almost anywhere they desire to, with no expenditure of electrical energy, as with other races. For this reason, the Girin race is one of the few races that has a glut of available energy, and they can afford to support a variety of fairly useless and wasteful equipment purely for comfort. Any new device that is marketed will probably sell several hundred thousand copies to the Girin worlds, even if it is totally useless.

In combat, their ability to teleport troops and wind becomes a deadly weapon, and for this reason the Emperor of the Second Empire has signed strong treaties with the Girin that prohibit them from using their teleportational powers en masse as weapons of war without his permission, except in defense of their lives or worlds. However, the Girin still have many uses for their psionic abilities, especially in companies that explore distant worlds, and cannot spare much room for landing craft. The Girin, with rests, can literally lower a glider from orbit to deep in the atmosphere of a planet, allowing it to land like a normal glider. This means a vast savings in tonnage and expense, that can then be spent on other equipment for the exploring ship. Unfortunately, this same ability can be used to penetrate the radar defenses of a planet for the landing of spy or saboteur groups, and this has become common inside the Empire.



Guerr

The Guerr, like the Faract, are a crablike race that thrive under conditions that would kill an average Terran instantly. Due to their extreme strength, and lack of imagination, they are primarily used for simple mining operations, and only rarely used for complex tasks requiring judgement of unknown factors. In spite of the similarity between this race and several others listed herein, there is no genetic similarity, and these races find each other repulsive.

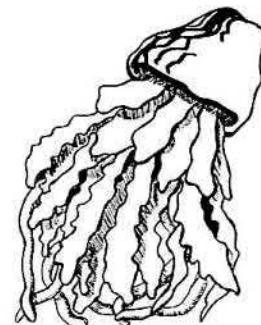
In basic form, the Guerr are crab-shaped, except that the top of the shell is not flat, as in the standard crab. Instead it rises to a large peak, increasing the protected volume several times. This internal space is used primarily for protein and energy storage, against times of drought or famine. The hard shell totally encloses the Guerr, and even has a set of blinders that extend over the eyes, to protect them from any damage. This limits the vision of the Guerr to what is directly in front of them, and they are incapable of seeing to the side unless they literally rotate the entire body.

For movement, the Guerr utilize a complex system of flat legs that are totally under the body. These fourteen legs move in a sort of rowing pattern, passing over and under each other, to propel the Guerr along very slowly. In the shallow liquid of its homeworlds, the Guerr is able to use this same motion to propel it along at a reasonable rate of speed. The manipulative organs are contained in a single jointed arm that is attached just under the eyes and mouth, and is usually carried out of sight under the main body. This arm can extend to about six feet, doubling the length of the body, and has a two-fingered, one-thumbed hand at the end. The digits, while they have fleshy tips, are entirely encased in shell, and are fairly impervious to any sort of damage.

The Guerr grade themselves according to the color of their shells, and this color seems to be a non-genetic variable, as succeeding generations rarely bear any similarity to their ancestors. Shells are graded according to their reflectivity in the infrared spectrum, which is the only spectrum the Guerr can see. At the top of the social pyramid is the individual with maximum radiation and reflectivity in the infrared spectrum, and the lowest, "pariah" class is almost totally non-emitting in the infrared.

The gradations of the race into social classes is very important, as the entire race is very aware of these distinctions. The spoken language is roughly the same for each of the classes, but it has important changes depending on whether one is talking to an equal, an inferior, or a superior. Incorrect use of language, whether too "high" or too "low," can result in a challenge to a duel to the death by the offended individual. Usually, though, due to the age of the civilization, this never happens except when the offender is attempting to instigate a duel, in which case the other may claim not to be mortally offended.

Mentally, the Guerr have severe conceptual problems that prevent them from utilizing new inventions and technologies as fast as other races do. If a Guerr has not seen an item before, or if he is being asked to judge it from a picture or description, he will be unable to imagine it at all, and will be unable to learn how to use it. In order for new devices to be introduced into the culture, a young Guerr must be raised in proximity to a device, at which point he is capable of showing others how to use it by rote. As long as another is seen doing something, there seem to be few blocks to other Guerr learning to do it. Occasionally rare individuals emerge who are geniuses, and create new devices, but none have appeared in the last several centuries.



Harundali

The Harundali have only been contacted on a single planet deep inside the Empire of Cavoral, in the area claimed by the Brotherhood of Tarl. Other races have been contacted psychically on other Jovian type planets, but due to the immensity of those planets and the difficulties in entering their atmospheres, the Harundali remain one of the few Jovian races that can communicate with citizens of the Second Empire.

The planet of Harundal is composed at least ninety percent of hydrogen, with fractional traces of other elements at the small dense core. For all practical purposes, the entire atmosphere is hydrogen. The life processes of the Harundali appear to use this available hydrogen in a controlled atomic reaction to produce vast amounts of energy, which they use to capture other elements and bond them into their body structures.

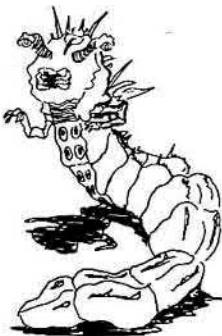
The physical shape of the Harundali is that of a jellyfish, with a translucent dome above that maintains internal hydrogen at the desired pressure to raise or lower the Harundali in the atmosphere. Below this single dome is a large set of hanging curtains, which are roughly ten times as long as the dome. These fine, filmy curtains are used to strain the atmosphere for matter that can be used by the Harundali, including other life-forms. The Harundali have no other external features, and very little on the inside, either. They utilize psionic energy in a limited way to manipulate their environment. When they were contacted by exploration teams from the Second Empire, it was discovered that they were good at electron-level manipulation and at reception of telepathy, but that they could not project at distances greater than a few yards.

It is still unknown how the Harundali multiply, or even if they do. Harundali are seen in many different sizes, ranging from a few inches in height, to the average size of several yards, up to a few individuals measuring twenty yards. As the size of the individual increases, his ability to manipulate his internal pressure increases, and older individuals often seek denser atmosphere for more food.

Their mental outlook on life is totally unknown. A few individual Harundali have expressed interest in joining the various expeditions launched by the Empire of Cavoral, but the majority of the race remains on their single planet. It is not known whether the Harundali are individuals, or some form of group mind, as they have no individual names. A single Harundali is incapable, apparently, of understanding the difference between the concepts of "I" and "we," and usually refers to all individuals by a term which reads "the Harundali" or "the Human," without recognizing the individual name of the contacting telepath. They are capable, however, of recognizing that a particular telepath has been contacted before, and will not assume that a transfer of information has occurred between interviewers unless they are told that the new individual remembers the old information.

They appear to have no governmental system at all, or even any method of affecting their environment except on an electronic level. However, it has been suggested that the Harundali share a subconscious group mind, which allows them always to have the same opinions, and share the same information, without negating the sense of individuality. Different Harundali have been found to share the same new information at the same time when widely separated from each other, and when being monitored by telepaths. When asked where the new information originated, the Harundali reply that it was always there. They are apparently incapable of comprehending time flow concerning events, and cannot accept the fact that new information possesses a certain starting point of existence. In their relationships with off-worlders, as well, they are incapable of keeping track of time, and may respond to appointments too soon or years late, depending on personal quirks.

The Harundali, despite the difficulty of incorporating them into the culture of the Second Empire, seem to be worth the effort. They are capable of doing incredible things with hydrogen, of creating and controlling both fission and fusion in microscopic volumes, and of producing several forms of metallic hydrogen that cannot even be analyzed, only used in advanced technologies.



Havansian

The Havansians as a race are very ill-adapted for space travel. Their non-supported bodies can withstand only small gravitic stresses, and they are incapable of using flying craft without anti-gravity stressors unless they are flown very, very carefully. Gravity forces above two gravities will almost always destroy a Havansian. However, they are capable of climbing any surface that does not slide out from under their suckers, and they have therefore become useful for many functions inside the Empire.

Resembling huge caterpillars, the Havansians have been found on many worlds that possess light gravity and lots of water. They generally range from four to ten feet in length, and are usually about a foot in diameter. The entire base of the body is composed of suckers of various sizes, and each can be controlled separately by the Havansian. At the front of the tubular body is the sense organ cluster; this contains a set of vision organs mounted on six-inch movable stems, and a superb hearing organ that is mounted flush with the top of the Havansian. Immediately below the eyes, a large mouth equipped with jutting pincers is always chewing, whether or not there is anything in it. The mouth is immobile except for this chewing, and movement of the head is accomplished through movement of a length of the body.

To the rear of the head section, on either side, a single very thin arm is folded up vertically. This arm, which is equipped with three fingers and a thumb, has a great deal of dexterity, but is very weak. Since they are located on opposite sides of the body, the two arms are incapable of ever touching each other, or of grasping the same object easily. Since the eyes are mounted on stalks, it is possible for the Havansian to observe the actions of its separate arms even though they cannot reach the front of the body.

The Havansian is capable of eating anything that it can fit into its mouth, and if something will not fit the Havansian possesses a set of cutting pincers that will make it fit. In addition the Havansian sees no moral difficulties in eating anything, other races and other Havansians not excluded. This has resulted in several misunderstandings between the Havansians and other races, but on the whole problems are avoided by making sure that the Havansian is kept well-fed. Naturally, being an intelligent race, the Havansians will not attack an individual who is capable of killing them, but a sleeping or unconscious alien is another matter.

The government of the Havansians is a modest form of the democratic ideal, mixed with strong doses of capitalism. Each Havansian considers himself the best in everything, and will be sure to tell others of his opinion. When he makes an error, the Havansian will invariably blame it on enemies, or a hidden factor that he was unaware of. He is incapable of understanding that the error may have been his own. This leads to what other races perceive as a severe persecution complex among the Havansians, though of course it is quite natural for them. The average Havansian is likely to assume that his "friends" are out to destroy him, and will take any action to avoid this that he deems necessary.

Another trait of the Havansians that has caused problems in their relations with other races is their handling of death. They see death as something inevitable, and they feel the best thing that can happen to a dead individual is to be eaten by someone that sincerely respects him. Funerals are literally feasts, with the grieving relatives sharing the body of the deceased for dinner. This trait, while not actually contrasurvival, has offended enough of the more sensitive races in the galaxy to make virtual pariahs of the Havansians, reinforcing their feelings of persecution even more.



Horrim

Horrim are prized by the mercenary groups of the Second Empire for their size and their fearsome appearance, which is sometimes sufficient to overawe an enemy into surrendering at once rather than resisting. But in reality they are no more dangerous than any other humanoid being, and a good deal less dangerous than many. Nonetheless, many nobles of the Empire prefer to use Horrim as ceremonial bodyguards, simply for their visual appeal. The size of the Horrim makes them good bodyguards in any case.

Humanoid in appearance, the Horrim stand over ten feet tall, with a maximum height of twelve feet. They have ears on stalks at either side of the head, and their mouths have long fangs growing from the upper and lower jaws. Projecting over three inches, these fangs are capable of piercing thin steel, and are used for offense and defense. Instead of the single pair of upper arms that the average humanoid possesses, the Horrim have two pairs of arms, mounted directly above one another. This makes their torsos very long, compared to human torsos, but the dexterity and strength of the Horrim are legendary.

The entire body of the Horrim is covered in a thick, oily, dark green skin that is immune to most damage, due to its toughness and the layer of fat directly underneath it. Females tend to be slightly lighter in color, and usually are eight to ten inches shorter than the males. At the top of the head, instead of hair, the Horrim has a thickly based crest that extends some inches down his back. This crest is usually orange, and is the pride of the Horrim: to lose one's crest in battle or through disease is the ultimate dishonor.

Due to their immense size, the Horrim are usually found only on low-gravity planets, but several Horrim colonies have turned up over the last years of explorations, some of which are inhabited by Horrim capable of functioning on standard one-gravity planets. These tend to be slightly shorter than their low-gravity relatives, usually standing only nine feet tall at most, but they are built more massively.

The Horrim are an egg-laying race, and their social structure revolves around this fact. Each family grouping, containing eight to a hundred members, has a particular location that is used for incubation of the eggs, and this location is at the protected center of the group. Members will protect this area more than they will protect other areas of their environment, as long as there are eggs in it. The average incubation period of Horrim eggs is eighteen months, during which time they are constantly tended and protected by the older Horrim.

Each family group has a head of family chosen by popular consent, and this head is privy to the monthly council of family heads that is held in each area. From these councils, in turn, a representative is chosen to attend the yearly meeting at the capital, where area representatives discuss matters of planetary import. This rigid social system allows for a rapid spread of governmental orders, and also encourages support of the government by the descending ranks of officials. Each official, in times of need, can call on his immediate superior for help, or if necessary, on his counterpart in another area, who can call on his own superior. In this way, the higher ranks are protected from abuse by the lower, and the lower are assured of a champion if the upper ranks should abuse them.

Each Horrim is trained in the use of the spear from birth, and is capable of using it as a spear, a cavalry-stopping pike, or a quarterstaff. This seemingly useless weapon is carried by almost all Horrim off-planet, as a staff is legal on almost all worlds, and in the hands of a trained Horrim it becomes a deadly instrument of offense and defense. The Horrim love weaponry, especially hand weapons, and study and practice with all the weapons they can locate. Many of the finest weapons trainers are Horrim, and some of the finest gladiators known have been Horrim.



Hudlar

Another race that is in demand for deep-space construction work, and also for work on airless worlds, is the Hudlar. With their incredible skin, they are capable of surviving vacuum for several hours, which is enough time to finish most jobs. There are severe problems in keeping a Hudlar well-fed, and this usually necessitates the construction of a high-pressure feeding facility and living quarters for them.

Physically, the Hudlar is one of the most imposing land animals in the Second Empire. It stands about ten feet tall, and is proportionately long and wide. Weighing some two and a half tons, the Hudlar often requires special flooring just to be able to use standard facilities. The massive, block-like body is equipped with six very short, stubby legs that are immensely strong. At the front of the Hudlar is a small head with infrared sensors and a set of eight trunk-like manipulators. These manipulators are about twelve feet long, and are capable of both fine movement and great strength. The entire body is encased in a thick, flexible, grey skin that is practically impervious to everything. This skin is also the Hudlar's feeding organ. On their home planet, and on others where they have modified the ecology to fit, the atmosphere is a soup of floating microscopic animals. The Hudlar actually absorb this protein directly through their skins, under the tremendous pressure, and don't even have a mouth for eating other, larger protein sources.

When Hudlar are fed off-planet, the thick protein soup must be sprayed onto their skin under high pressure. After the high-pressure protein spray has been allowed to sit for several hours, a followup spray of high-pressure sand or water must follow to remove all of the particulate matter. If this matter is not removed, the Hudlar may begin to suffer from loss of protein-ingesting skin area, and starve to death. Leftover food can also result in various kinds of fungus infections that are painful, but rarely fatal, to the Hudlar. On the home planet, this cleaning is taken care of by the high-velocity winds that are common.

The society of the Hudlar is highly stratified. Advancement requires both personal ability to carry out the job, and the vote of the peer group. Each group of Hudlar elects an individual to the next higher level of government, then that level of government elects the next higher, and so on, until the planetary council of eleven members is elected. In general elections are held every three years, but the planetary council can call for an election in any part of any level at any time.

This structure tends to make the response time of the government very quick, as the responding level is usually tied directly to the next lower level, and is also very close to parts of the next higher level. A common desire for good government and efficiency is found on all levels of the government, and with the periodic purges of inefficient executives, the government remains a very effective, responsive organization.

On the individual level, the Hudlar tend to have few laws, and those chiefly regard the right of private ownership. This right is enforced by government police, but most other laws are left to the citizenry to handle. This system works, primarily because the Hudlar are almost impossible to kill without advanced weapons, and most gunpowder weapons and all laser weapons are unusable in the thick, wind-whipped atmospheres of the Hudlar home worlds. An adult Hudlar can tear steel with his manipulators, but it is very difficult for one of them to hurt another, due to their incredible skin. This almost total anarchy on the surface results in a great many differing types of individuals on each Hudlar world, and visitors can expect some very peculiar encounters. In general, the government protects off-world visitors from dangerous Hudlar, but the government will not worry about the foolhardy or provocative aliens who insist on bothering native Hudlar. They will, however, return the remains to the alien's homeworld, and usually pay for the funeral ceremony.



Hydorian

A common sight in the trading centers of the Second Empire, the Hydorian is usually seen lying down on an anti-gravity lifter, inside a plastic shell holding his life-giving sea water. These containers, interestingly enough, have no complex filtering equipment, only a device to keep the water oxygenated. Commonly seen on mining worlds with water surfaces, or at mining centers for research and production of all types, the Hydorian is a respected member of the Second Empire, in spite of his physical weaknesses.

Human in size and basic shape, the Hydorian has gills circling his neck just below the ears. In addition, a cutting fin trails down the rear surfaces of his arms, legs and back. The feet are broad, and very large. The shoulders are exceedingly sloped, and are designed, like the rest of his body, for maximum streamlining.

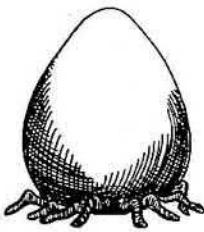
The fascinating thing about the Hydorians is that they do not eat, and in fact do not have the ability to chew or swallow. By direct filtration of sea water through their gills, the Hydorians extract both oxygen and hydrogen, which are then used for both food and breathing. The mouth of the Hydorian is only used to produce the ultrasonic shrieks and whistles by which they communicate. The waste products are a continuous stream of microscopic carbon dioxide particles that exude from the back fin of the Hydorian. This ability to survive and flourish just on the oxygen and hydrogen in water allows the Hydorians to colonize otherwise barren worlds, and mine them efficiently. They can even break down water directly into oxygen and hydrogen, though this process expends almost as much energy as it gains.

Hydorian civilization flourishes in the extensive coastal shallows of their home planets, and there are many colonies springing up on other worlds. It is possible for the Hydorian to explore deeper waters by using a complex, artificial pressure equalizing system, but usually deep mining and exploration is undertaken by other, better-suited races.

In spite of the advent of technology, the Hydorians still have a primarily nomadic culture, the basic social unit being the extended family group. This generally includes a mated pair or two, and a number of aged and immature members. Each extended family group has ties to a larger clan structure, and this clan structure maintains a complex of buildings and facilities for training the young in the laws and in the skills needed to live, and for placing adult members and their families off-planet.

There are no facilities for maintaining the lives of sick or damaged individuals, and an individual who cannot keep up with the nomadic group he or she belongs to is left behind. It is possible that a clan group will ask an individual to let the clan support him in his infirmity, but unless the individual is extremely important to the race or to the clan, this is very unlikely. Often when this is asked, the individual in question will refuse the offer of assistance, and swim off into the depths of the ocean to die, anyway.

Out of water, the Hydorian's muscles are incapable of supporting his weight, and only rarely in the history of the race has a Hydorian stood unassisted on land. In the water, the Hydorian can use its muscles to good effect, and usually overpower other races, but these muscles are not designed or supported to hold the weight and stresses of a standing Hydorian without the help of water. Hydorian starships are usually constructed off-planet, and bought by the Hydorians. They are entirely filled with water, and this liquid cushioning allows the ships of the Hydorians to use accelerations that would crush many other races instantly.



Hyne

The Hyne are often used as fighter pilots, because of their ability to withstand immense accelerations. Although they appear human, their bodies are much more durable than human bodies, able to withstand accelerations that would kill humans in seconds. With the introduction of artificial gravity units small enough to fit inside tiny fighters, they are gradually being replaced by smaller races with faster reflexes, but the Hyne once flew most of the fighter craft of the Second Empire.

Physically, the Hyne resemble the human race, but there are internal differences that separate the two races. Where the human race has its internal support structures built out of a calcium stone compound, the Hyne's internal supports are constructed out of a form of metal, mostly iron. This has both advantages and disadvantages. First of all, the iron skeleton is able to withstand much higher accelerations, and will give more under sudden stresses. In addition, where a calcium bone will shatter under stress, the iron bones of the Hyne will merely deform, and can be repaired later unless they deform enough to actually kill the Hyne. However, a Hyne six feet in height will usually weight some eight hundred pounds, whereas a human of the same proportions will only weigh two hundred pounds. Also, the Hyne carry so much metal around inside them that it is very difficult for them to remain hidden on the battlefield, or to penetrate any sort of security setup. Usually, they are required to submit to body searches to verify that they are not carrying any hidden metallic weapons.

The food that the Hyne must eat in order to build and maintain this internal iron skeleton contains large amounts of metallic iron, as would be expected. However, this means that they are incapable of sharing their food with most other races, as it would poison them.

Mentally, the Hyne are roughly the same as the human race, with only minor differences. For example, the Hyne tend to be a very outgoing race, in terms of displaying their emotions. When angry, they will resort to personal violence quite easily, since among their own race this seldom results in permanent damage. Among other races, naturally, the Hyne can easily kill or maim those they attack, and they are forced to keep themselves under tight control at all times. However, when two or more Hyne meet each other, they generally greet each other physically, using forces and strains that would kill a human being in seconds. This makes it fairly difficult to imitate a Hyne, even with advanced technology.

Their social system is based on the use of violence as the primary social control. Anyone that is known to be partaking in activities that are dangerous or harmful to the race or the planet is mobbed by his fellow citizens, and is forced to live out the rest of his life with his iron skeleton twisted and misshapen. While this does not kill the individual, and rarely inconveniences him, twisting of sufficient force is almost impossible to repair, and thus the criminal is marked for life. The Hyne have been a technological culture for thousands of years, and their system of government reflects this fact. There is no longer any sort of tribal or clan structure, but rather a simple ascending power structure that becomes more powerful and less numerous at each higher level. The highest controlling level is the Council, which is composed of five members. Advancement is through a variety of methods, just like advancement in the various human power structures inside the Second Empire.

The Hyne are capable of eating foods that do not contain the usual amounts of iron for long periods without ill effects, but must stay away from foods containing any magnesium or mercury, as these chemicals alloy with their skeletons, and cause the bone-growth mechanisms of their bodies to go wild, growing masses of iron at random places on their bodies. Fortunately, the Hyne can taste either of these two metals in the smallest quantity, and so avoid them.



Impe

The Impe have been well-known within the galaxy for all of recorded history. Their activities are chronicled in the surviving annals of the First Empire, and even some of the few records of the Forerunner civilizations that have been recovered have mentioned them. Never in any of these records have the Impe been found to be involved in any sort of political or power struggles, except as bystanders. As bystanders, though, they have seen almost every royal court and focus of power in the known galaxy, and have been privy to most of the councils of the powerful.

The Impe have no manipulative organs, and this makes them a fairly ineffective race on the galactic scene. However, they have developed an ability by which they can cause other races to aid them whenever possible. In return for aid, the Impe will mentally activate the pleasure centers of whatever individual is aiding them. This direct stimulus of the pleasure centers is apparently done unconsciously by the Impe, and it seems to work only over short range, and on one individual at a time.

Physically, the Impe resemble small eggs, approximately eight inches in diameter. In color, the Impe range through a variety of metallic hues, from blues and greens, through yellows, and into deep reds. Occasionally, an Impe is seen that has swirls of several different colors. The color of the Impe seems to reflect the telepathic wavelength that the Impe can communicate on, and each different color tends to work best with a different race. Interestingly enough, there are several colors that correspond to no known race, implying that there are many more uncontacted races in the galaxy.

The Impe reproduce themselves by simple budding, although this requires the meeting and prolonged contact of two or more Impe. The young Impe is usually only an inch in diameter, and is incapable of utilizing his short-range telepathic powers except within his race until he is two inches long. The average life-span of an Impe is twenty years, although this can be and usually is extended by anagathics.

Impe feed through a tiny mouth located at the larger end of the body. This mouth is equipped with a set of spines that inject a liquifying chemical into the prey; the Impe then drinks up the liquified protein easily. In general, the Impe takes its small animal prey by using low-power ecstasy transmissions to attract them, and then a concentrated burst to kill them.

Since the Impe possess only a limited form of movement, and no manipulative organs, their culture is lacking in most of the material things that signal intelligent life. However, the Impe have a complex and very active mental society that has worked out many of the physical properties of the universe without ever being able to affect them directly. As a philosophical exercise, the Impe have done work in almost all of the sciences, and their store of knowledge is very deep. Never, however, have they used this knowledge to construct advanced items of technology, even through the use of other, manipulative races.

In spite of this failing, the Impe are able to do complex and very useful work on research problems of all kinds, especially in the University of Zecania where they are protected from theft by Imperial security forces. Several times, when they were kidnapped, the Impe used their psionic powers to kill or disable the kidnappers at once. Naturally, the Imperial court has large numbers of Impe, both for use as advisors to the various governing bodies and as courtesans to the nobles. Occasionally, the Impe are given to specific individuals, which is considered a very high reward. At rental facilities, a single encounter with an Impe usually costs fifteen thousand credits, and may cost much more depending on the skill of the particular Impe, and the duration of the contact. This contact does not seem to be physically addicting, but there is little question that it is habit-forming. Various public groups have campaigned against the Impe, but there is no legal ground for taking action against them.

Ishtari



The Ishtari were originally a minor slave race under the old Paknii Empire, but after the Wars of Reunification, and their conquest by the Second Empire, they became much more widely seen. Now, with many colonies and major worlds, the Ishtari are as common in Second Empire starports as almost any other race.

The Ishtari is basically centauroid in shape, with a long, vaguely bull-shaped body and four legs ending in large, padded feet. Over the massive front legs, a small hump contains a set of powerful muscles, while in the rear the muscles are supported by a wide pelvis. At the front end of the body is a small humanoid torso extending upward. This torso has two normal arms, and is surmounted by a fairly humanoid head. The arms end in three-fingered hands, each with a single thumb. The face is only roughly human in appearance, with a single large, flaring nostril surmounted by large, single-colored eyes. In the males, the entire eye is blue, while in the females it is gold.

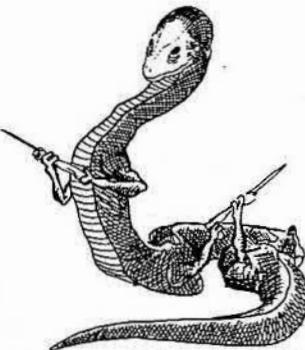
The color of the body varies, but in general the pelt is a light green, and the exposed skin areas such as the arms and the head show black skin. The long mane that extends from the head down the back of the neck, to the tail, is a reddish-brown. The long and whiplike tail is the same reddish-brown. The males are clearly larger than the females, although usually only by a few inches. In weight, though, the males exceed the females by a large margin. Male bones and muscle tissues are much more compact, while the female's body is lighter, designed for running and evading predators. Naturally, with their four feet, they are extremely difficult to knock over. Their dexterity and speed of reflexes are much higher than most races'.

The mental attitude of the Ishtari can only be described as Machiavellian. They respect strength, and wit, and cunning, and admire individuals with the skills to get rich and to remain that way. Their goals are fairly simple, and they make no attempt to hide them from others: they want to become rich, or occasionally merely powerful. This does not mean that they have no code of honor, as they have a very strong moral sense, and rarely if ever break their given word.

The usual form of government, at least on worlds where there is sufficient population and power base to need one, is an open democracy, elected head to carry out the orders of the senate. The chief and the elected senate work closely in general, but in controversial issues it is common for them to attack each other verbally until the populace takes a hand and votes directly to determine a specific course of action. If this vote is against the chief, he is usually replaced at once by a newly elected chief, while if it goes against the senate, it is common for the senators to be replaced by their provinces at the earliest opportunity. This is not a mandatory replacement, but rather a recognition of the fact that these elected officials do not seem to be in touch with the wishes and thoughts of the people.

Since the average lifetime of an Ishtari approaches four hundred standard years without the use of anagathics, it is quite common to see the same names and power cliques orbiting around the power positions. Usually, there are two or three contending power structures, and it is very difficult for a new Ishtari to penetrate this system and enter the power structure on his own. Whenever a particular government is given a vote of no confidence, one of the other well-known, experienced governments usually wins the following elections, because their wealth and contacts overpower any new individuals seeking the positions.

Jagananda



The Jagananda have only recently been contacted by the far-flung scout corps of the Second Empire. In a previously unexplored cluster of the galaxy, several planets of Jagananda were located, tied together by advanced technologies into a single socio-political entity. Due to an early misunderstanding, the first scout ship was eliminated, but later contacts by well-armed military vessels broke down the barriers of prejudice and allowed the formation of a trade and mutual defense treaty. The root of the trouble, apparently, lay in the fact that the most common and dangerous predator on those planets was roughly similar to the Terrans that happened to be manning the original scout ship.

In physical appearance, the Jagananda is similar to the common snake. There are several major differences, though. For starters, the Jagananda is usually over thirty feet long, with an average diameter of three feet. At four different places on his body the Jagananda has a set of manipulators sprouting, at opposite sides of the body. These manipulative organs, which are generally kept folded up next to the body, are formed more or less like the arms of the human race. They are long, multi-jointed arms with a maximum extension of about five feet, and have a complex of digits of various sizes and types at the end. While they are incapable of lifting much weight, they are very dexterous, and the Jagananda is capable of curling its body into a tight circle to allow several of these arms to grasp the same heavy object.

The entire body of the Jagananda is covered with a thick coat of scales, each of which is generally an inch in size. They range in color from blue, through blue-green, and into dark green. In all cases the Jagananda is banded with a complex and unique series of bands, which are of slightly different colors. This banding is used by the Jagananda for purposes of identification, as their eyes are capable of discriminating minute color differences, and of passing this information on to the brain. Their vocabulary is rich in color words, and they have the ability to see and record color differences down to within three angstroms.

The mind of the Jagananda is a strange one, compared to the more usual type of mind represented by the human being. Each Jagananda can only see the use of actions that will help it, and the concept of altruism is entirely unknown to them. However, the concept of an individual helping the society is well-known, because they feel that if the society and the government are well-run, then the life of each individual will be better. This results in a dedication to the government as an entity, but not in dedication to the life of the individual. For this reason, it is very unusual to see a Jagananda working on any sort of medical service, rescue mission, etc. Unless the people to be repaired or rescued are vital to the government or the individual Jagananda, none will put himself in jeopardy to save a stranger.

The government of the Jagananda is of course centered around this same attitude. No individual is interested in accepting a government position, but if he shows enough aptitude in it, then he will be forced by public acclaim to take the nearest post. If he shows that he has additional capabilities, then he is forced to rise to the next. Since each Jagananda bows to the will of the masses, and then strives to do the best job possible, this style of government results in the best possible beings running the society. The only time when an individual can escape being drafted into a position of power is when he can show that his contributions to the society will be greater if he is allowed to continue his current activities. Usually, this plea only applies to scientists involved in important research, but it has occasionally allowed individual professions to escape the draft.

As mentioned before, the Jagananda throws himself entirely into the performance of his duties when he is convinced of the necessity of his doing so, for either his own aid, or the aid of the entire society. This means that the individuals with the highest ability are always found in the appropriate positions, and this means that every occupation has the best possible efficiency, and that all occupations tend to be better run overall than similar occupations inside the Second Empire. For example, Jagananda pilots could run rings around the skilled pilots of the scouting group.



Janin

The Janin are almost entirely controlled by the Second Empire, because of their ability to control weather under certain conditions. Under the Articles of Empire, the Janin ability is considered a dangerous ability, and they are "guided" by the Empire to prevent this being used as a weapon of war. Several times, though, the Second Empire has used them to cause particular weather patterns on hostile worlds, as an efficient way of disciplining a recalcitrant planet. The knowledge that an off-worlder can trigger a rapid ice age is enough to cause most races to think twice about offending the Second Empire. Fortunately, the individual Janin that are capable of manipulating the weather are few.

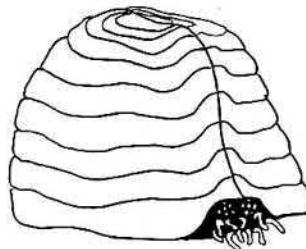
The Janin are humanoid in shape, but are extremely long-lived compared to average human beings. In addition, there are several minor differences. They are totally hairless, and their skin is a mottled greenish color, which makes them very difficult to see when in their native forests. The ears, which are the primary gatherer of long-distance information, are very large and movable. They are capable of detecting very small noises at great distances. The eyes are modified to be used primarily in the forest, which is very dark. At dusk and evening, their eyes function well even outside the forest, but in total darkness or sunlight they are close to blind. Without exception, the Janin are totally herbivorous, refusing to eat animal protein under any conditions.

The Janin have a psychic link to their forests, and will refuse to leave them for any period of time. Prolonged absence, in most individuals, results in gradual loss of appetite, and increasingly violent episodes of senseless anger. With time, these episodes or the lack of protein kill the individual. However, even a short time spent inside a home forest, or one similar to it, will enable him to return to normalcy.

The most fascinating thing about the Janin is that until a short time ago, they were extinct. During the final wars that destroyed the First Empire, and either eliminated the Masters or destroyed their power, the Janin realized that they would not survive the coming destruction. Utilizing a technology totally incomprehensible to the Second Empire, they placed the memories of their entire race into artificial constructions, and infused them with a peculiar property that enables them to "infect" new individuals who fit certain limits of race, mentality, and physique. The new material surfaces in the individual, generally destroying his previous mentality, and then initiates a gradual physical change in the individual, leading to his total transformation into a Janin, with Janin genetic material.

The quantity of these artifacts is very small, compared to what there should be, and scholars are concerned as to whether more will turn up on other inhabited planets. It is interesting to note, though, that of all the Janin that have come into existence by this method, none has admitted to being anything other than a common citizen in the past. None of them know anything about the plans of the Janin government at that time, or the technologies used in creating the artifacts.

The entire race has an intense symbiotic relationship with their huge trees. They live inside them, hibernate in them through the winter season, and drink their sap as an additive and restorative. With the advent of Second Empire technology, they first figured out a way to keep their trees awake through the winter, then a way to feed themselves during winter. Now, of course, almost the entire race remains awake throughout the winter, and continue their usual pursuits.



Jollersi

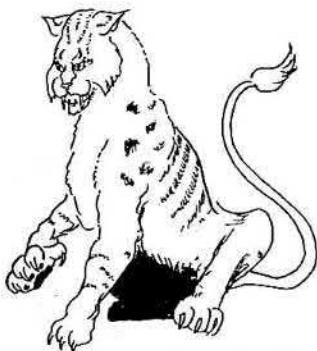
The Jollersi have been known for many years, but only recently have they begun to be seen inside the Second Empire. Records indicate that they were once an unintelligent race, but that they had intelligence thrust upon them by the Masters of the First Empire, for their own purposes. No records remain to indicate exactly why this race was created, but the time of their creation indicates that they may have been created too late, as the fall of the First Empire happened at about that time. The University of Zecania, however, has recently declassified information that reveals that at least one Forerunner artifact was designed specifically to be used by a being of the exact physical type of the Jollersi. Since they were definitely created by the Masters, this correspondence of physical types is seen as significant, and it is suspected that the Masters were trying to recreate the lost race of the Forerunner civilization.

The Jollersi are massive hemispherical beings that move along on hundreds of tiny, unjointed feet. The only visible part of a Jollersi is the large, rounded back that is made up of hundreds of overlapping, semicircular bands. These bands overlap each other about fifty percent, and are immune to almost every known weapon except energy weapons and physical forces exceeding thousands of pounds per square inch. A head is located at each end of the armored body, with a cluster of eyes and a large mouth. Around the mouth is a fringe of manipulative tentacles, which are capable of exerting about two hundred pounds of force in unison. The brain of the Jollersi is located inside the body section, leaving only the easily-regrown external organs vulnerable to damage. In length, the Jollersi approach some ten feet, by about four and a half feet high. The manipulative tentacles have a maximum range of about three feet.

When threatened by a sufficiently dangerous enemy, the Jollersi is capable of rolling up his body until the only part available to the enemy is the armored back and sides. This protection, although immobilizing, allows the Jollersi to defeat all of the physical enemies that occur on his home planets.

There are two sexes of Jollersi, but the reproduction process requires several dozen of each sex to be present. This is apparently a mental problem, as there is no physical difficulty in any two individuals mating. However, in the Jollersi culture, a mass meeting is required, and this means that the adult population tends to group itself into large, multi-family groups that act within the society as individuals. Each family member dedicates itself to the continuation and safety of the group. In space ships run by Jollersi, the entire crew represents a single family group, and is usually the entire population of that group. The entire extended family, including children and immobile elders, is maintained by the starship crew, and all are given some task to do to assist the running of the starship.

Within their government, the Jollersi maintain this same grouping by families. Each different social department or governmental department has a single family group running it, and they are loyal to the group first, and their job second. However, since each particular group has been entrusted with a particular occupation, and will be disgraced and possibly killed if they fail in it, the impulse of the family group is usually to do the job in the best possible way. This results in a government made up of family groups all trying to balance personal desires against the fulfillment of their governmental functions. As might be expected, the Jollersi moral structure has no prohibition against bribery, or gift-giving of any kind, in order to sway the actions of others. This attitude has resulted in several bad incidents within the Second Empire, as Jollersi traders attempted to buy their way out of trouble, but newer educational techniques have been used to inform the later generations that their own morals must be replaced by the morals of the Second Empire when within it.



Jontarou

It has been discovered in the last few centuries that the Jontarou, once known only as a rather attractive type of large cat, is actually an extremely intelligent being. The reason they were filed away as mere hunters was that their culture does not use tools or artifacts of any kind. Since their acceptance by the Second Empire, the Jontarou have expanded into many regions, drawn by a strong sense of adventure and curiosity.

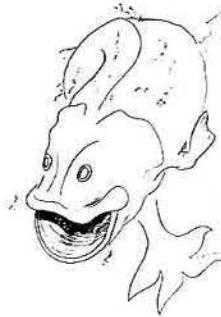
Physically, the Jontarou are still very close to their racial ancestors—large, carnivorous cats. They are covered in a long coat of bronze or brown fur, and weigh in at about four hundred and fifty pounds for the males, and about three hundred and fifty for the females. They are about eight feet in length, not counting the long tail. At the base of each foot, in addition to the long claws used for disembowelling prey, is a set of extremely powerful sucker-pads that can support up to three quarters of the animal's weight on a glass wall. This figure varies for different surfaces, but the Jontarou are often able to leap up seemingly unclimbable barriers. Their other main offensive weapon is the canine teeth, which are three inches long, and are capable of penetrating two inch oak board. The eyes of both sexes are bright phosphorescent green, and are capable of superb low-light vision. The heads of both sexes are white in color, and the female of the species has a small pompon on top that apparently serves no purpose at all.

The main defensive weapon of the Jontarou is their ability to modify their coloration instantly to match their background. This makes them almost impossible to see, and allows them to hunt any prey at any time. The smallest discrete patch of color they are able to form is approximately a half-inch square. It is this ability that has made them invaluable to commando teams, and to Empire scouting ships. Even in movement, they are exceedingly difficult to spot.

The Jontarou are a very slowly reproducing species, and restrain their population growth so as not to exceed the available animal life. Since they do not practice any sort of raising of food animals, all food is obtained by hunting, and this requires a good understanding of the environment and of the need for balance between the prey and the hunter. They enjoy hunting so much that they actually seek hunters from other worlds, to play a sort of fatal hide-and-seek. Since their discovery by the Second Empire, they have begun to make prospective hunters sign documents of non-responsibility, to protect them from Empire legal action. In the rare event that an off-worlder kills his hunter, he is allowed to remove the head for mounting if he desires. The only weapons allowed to the visiting hunters are non-projectile weapons; edged weapons such as swords and spears are allowed. Any use of a projectile weapon or an energy weapon will result in the immediate death of the hunter, either by telepathic blast or by the more mundane method of dropping a bomb on him.

The Jontarou are highly telepathic among themselves, and carry on all their conversations in this way. In general, they are only capable of reading or sending to rare individuals of other races, who have the ability to monitor unusual frequencies of telepathic broadcast. The incidence of other psionic abilities is low in this race, but almost every Jontarou is capable of using telepathy over long distances, both receiving and sending, to another Jontarou.

There is no form of government at all, merely individuals who have decided to set up whatever programs they feel necessary. For example, the few aircraft that carry bombs were bought and maintained by a Jontarou who made a lot of money off-planet working for the Second Empire, and decided to make it possible to enforce the ban on projectile and energy weapons.



Jym

The Jym, although certainly an intelligent race, are almost never seen in the starports of the Second Empire. This is because of their immense size, and also because they have very little interest in leaving their home planets. In spite of the fact that they are capable of running starships, and of handling technology, they persist in the simple ways of their ancestors, utilizing no technology or equipment. However, they understand both the theory and practice of modern science very well, and even produce theories and ideas that advance those sciences.

The Jym are a fish-like race, but breathe oxygen from the atmosphere rather than removing it from the water. They appear to be mammals, although they do not bear their young live or suckle them. Their massive, two hundred foot long bodies are capable of swimming at speeds of up to eighty miles per hour with the aid of a huge, double-fluked tail. Steering with small fins located at several places on their bodies, the Jym can execute turns in only three hundred feet at low speeds. Toward the front the body becomes very large and opens out into a gaping mouth, which is never closed. Although the Jym can literally eat anything that will fit inside its twenty foot wide mouth, their primary food is the common microscopic and small multi-cellular life that teems in their oceans. When not hungry, the Jym allows the water to return to the ocean through the massive exhaust ports that it can open along its upper neck. Although these exhaust ports appear to be gills, they are not, and merely serve to return the unwanted water to the ocean.

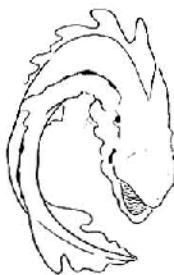
The bodies of the Jym are covered with thick layers of fat designed to withstand the massive temperature changes of their planet's water, and also to cushion them from the crushing pressures of the lower depths of the ocean. The body is generally a dark blue on top, and a lighter blue or grey on the bottom. As the age of the Jym increases, so does the amount of parasitic life that lives on the surface of his body.

It is not unusual to see a Jym with huge patches of shellfish living on his flanks, or even various forms of plant life. In general, all of these forms of life are forms that take their nourishment directly from the ocean, rather than from the body of the Jym.

In order to manipulate his environment, and to remove those plants and animals that try to infest his skin and eat it, the Jym has a tight-beam telepathic link with a group of twenty to fifty smaller organisms of various types that live within the Jym's mouth in protected areas. When the Jym feels that it needs a particular area of its body cleaned, or wishes to manipulate a piece of material, it directs one of its several animals to perform the task. The Jym is apparently incapable of contacting or controlling other animals than the ones he carries around with him. During the youth of the Jym, his mental powers are much stronger, and it is at this time that he attracts and bonds the helping creatures. When newer generations of the helper creatures are born, they are locked into the mental structure with little difficulty.

These helper creatures generally include a number of digging animals, several tentacled octopus-like animals, and a group of voracious fish that can attack and kill almost any other creatures in the sea. All are fed directly from the mouth of the Jym, from food that has been chewed and broken down already, and they rapidly lose the ability or the interest to gather food in the normal ways. When the Jym dies, of whatever causes, the helper animals cannot be picked up by any other Jym, and are also incapable of living in the open sea without the support of a Jym. They have lost the ability to survive on their own, and soon die.

There is no government in the society of the Jym, probably because only a few rare individuals have any interest either in affecting the environment or in leaving the planet. In addition, despite the many eggs they lay, the slow growth rate of the Jym and the low survival rate of the hatchlings ensure that the population of Jym on a planet never exceeds the available food supply.



Kapli

Found only in the atmospheres of Jupiter-type planets, the Kapli are very difficult to contact. Because of the atmosphere, telepathic communication must be used, and this is often difficult or impossible because of the mental attitude of the Kapli. A number of early expeditions died trying to determine if the Kapli were indeed intelligent. Success came finally when a star-class telepath managed to escape the mental blast that the Kapli sent at him. After this, the Kapli realized that perhaps these humans were intelligent after all, and they began to communicate, slowly. But it is still very difficult to find a Kapli who will not attack first and then apologize later, if caught.

The Kapli are the carnivores of their planets, and they do their job extremely well. Their sixty foot long bodies are transparent, allowing observers to see the massive jaws and internal pressure-controlling mechanisms that make up most of the body size. Shaped like a tube, the Kapli move by use of a simple jet-tube apparatus that takes in hydrogen and compresses it, releasing it out the rear of the tube at high speed. Direction is changed by inserting various flaps and covers into this airstream to direct its path. In addition, external flaps and braces allow the Kapli to take advantage of the planet's own natural air movements. The jaws of the Kapli are composed of a set of overlapping razor-sharp plates that the Kapli merely pushes through his prey. Because all life-forms in the atmospheres of Jupiter-type planets are rather in-substantial, this method works very well. The Kapli is capable of literally driving through his prey, and then turning and boring through again and again for additional protein.

The Kapli has only one physical sense that can detect the outside world, and that is the sense of air pressure on his body. This allows him to direct himself as he wishes through the massive atmosphere of his home-worlds. To hunt, and to scare or stun his prey, the Kapli has a very powerful telepathic bolt. At the slightest opportunity, he will use this bolt, and then attack with his razor plates.

Until actually contacted by a telepath, the Kapli were thought to be merely carnivores. It turned out later that they were incapable of understanding that the space vehicles used to carry the explorers were artificial. In fact, it took many years of conversation with some of the best minds of the Kapli before they could grasp the concept of "constructed." In their gaseous worlds, it is impossible to effect the construction of anything, other than naturally.

In addition to this problem, the Kapli were accustomed to using their telepathic bolt first, and investigating the remains later. When their telepath informed them that there was a source of mental energy in the atmosphere near them, they loosed their bolts at once. Since the life-form's telepathic radiation was not even close to the peculiar radiation of the Kapli, it must therefore have been food.

The difficulty in communicating with the Kapli is tied into their outlook on life. First of all, the Kapli is capable of eating at any time, and at any place, and will do so automatically unless he spends a massive amount of concentration on self-control. Secondly, the reflex of classifying everything as either Kapli or food is very strong, and if the Kapli classifies anything as food, he will attack with a mental bolt. As this mental bolt is of sufficient power to kill any but a star-class telepath, it is strongly suggested that visitors stay within the confines of the meeting places, and avoid meeting Kapli that are not capable of separating the concepts of "not Kapli" and "food." Inspite of all warnings, and the protection offered by the governments of both parties, thousands of visitors are hurt or killed by the Kapli every year on their many planets. Unfortunately, those same planets happen to be some of the most beautiful planets in the known galaxy, at least in the eyes of several of the more common races.

There is no government, and no law at all, among the Kapli. This is due to the fact that the incredible volumes of atmosphere in their worlds far exceed the number of Kapli available to inhabit them. In addition, since they possess no way of affecting their environment, there is nothing for one individual to keep from another.



K'Zimm

The K'Zimm are well-known throughout our volume of space, and probably do not need any explanation to most readers. They are known for their warlike ways, and their code of honor that is more powerful than the desire to live. The most famous of the K'Zimm warriors is, of course, M'Rral, who sacked the falling First Empire several times, and set up his own short-lived empire. Although his dynasty lasted only two centuries, the tales of his battle lust and code of personal honor have made him an almost godlike figure. Killed at last in a duel of honor, he did not live to see his empire fall to the hands of yet another marauding chieftain.

Physically, the K'Zimm are quite similar to the human race, being basically bipedal, with opposing arms and a vaguely human head. However, their racial ancestors were predatory cats rather than simians, and their racial type is still very feline. Covered in a short coat of tan or brown fur, the K'Zimm is often seen strolling dressed only in his weapons harness. Each hand has a superb set of natural retractile nails, which are kept carefully groomed. In addition to these weapons, the K'Zimm has a very good set of canine teeth, which are often used in personal combat.

The K'Zimm's sense of smell is superbly developed, and is capable of discriminating between minute differences in odor. Their eyes, very good in low-light visibility, are only adequate in bright sunlight. However, unlike human eyes, the K'Zimm eye adapts almost instantly to differing light conditions. The sense of hearing is also well-developed, and the K'Zimm can use this to additional advantage because his ears are independently movable, and can locate the source of a sound very easily. The senses of touch and taste are poorly developed, so that a K'Zimm surgeon or cook is almost never seen. Their short but curled tails are a mark of individual pride to the K'Zimm, and will always be well groomed. The length of the tail is seen as an indication of the worth of the individual.

The most fascinating thing about the K'Zimm is of course their system of honor. Each K'Zimm male is very sensitive, first to the honor of his race, then to the honor of his clan, and lastly to his personal honor. During the Interregnum, tales of K'Zimm warriors throwing their lives away in useless gestures of pride and valor were common. In almost all cases, the K'Zimm will ask an apparent insultor if he really meant to say what he said, and if the person admits it, a challenge will follow. If the insult or threat is of sufficient strength, it is possible that the K'Zimm will attack at once, instead of waiting for the usual ceremonial combat.

The structure of the society is dominated by the concept of the clan. All children, though raised by their parents, are the responsibility of the clan, and if the clan council feels that children are being raised incorrectly, it can legally take them away from their parents, and assign them to others. The clan will almost always defend one of its own against the claims of another clan, and will generally revenge the death of a clansman. All medical needs are taken care of by a clanless group called the Storm Priests, who dress in green robes.

In cases of utmost gravity, it is possible for the clan to hold a ceremony whereby a clansman is cut off from the clan, and becomes a clanless K'Zimm. In this case, other clans will also accept the fact that the individual is clanless, and will not hold the original clan responsible in any way for his actions. The different clans generally have different styles of tying the mane, ranging from pigtails and complex knots to total removal for monks of the holy orders. Criminals and clanless men have their manes shaved off at the time of their dismissal, and often keep them shaved of their own accord. It is common for an outcast K'Zimm to take his own life, although even here they prefer to die killing a clan enemy in combat, if possible.

Blood feud can result from the killing of a K'Zimm, although it is reserved for the most serious incidents. In this case, the entire clan vows to kill until the entire bloodline of the offender is extinct, even to the extinction of their own.



Laoni

The Laoni are prized throughout the Second Empire as deep-space workers, as they have no fear of falling, and therefore do not suffer from space-sickness or nausea like most other races. However, since they grow up in an almost totally forested environment, they soon get homesick to the point where they cannot remain in space any longer. To reach this point generally takes several years, and with the liberal leave policies extended to them, it may be put off for decades.

The Laoni are humanoid in shape, and have very human features. In fact, they are genetically close enough to true-human to produce viable offspring, although these offspring are infertile. The skin of the Laoni is a pale ivory, and it will burn rather than tan under direct sunlight. The eyes are very large, and gold in color. They are specifically designed for seeing in dusk, and are fairly useless in either total darkness or very bright light. In full normal sunlight, Laoni are almost entirely blind. They have an innate sense of timing that enables them to jump and fall like acrobats in the confines of their tree cities, and many of the better acrobatic troupes in the Empire are Laoni.

In addition to these other abilities, a Laoni raised on a Laoni planet will also be a superb glider pilot. With their lack of fear of heights, the Laoni use gliders and natural flying animals for most of their transportation, and by the time a Laoni is an adult, he is a better pilot than most human professionals. On the other hand, he spends most of his time flying to learn this skill. Laoni have a tendency, in spite of their use of animal flyers, to look at all transport animals as machines, and to treat them poorly, perhaps due to the ease with which such animals can be found on their worlds. The average flying animal is ridden into the ground in a few short years.

The society of the Laoni is a very rigid one, divided into specific and fixed castes. On top of the society is a caste of hereditary rulers, that has not been deposed for centuries. Below them rank the local nobles, and then the various types of artisans, soldiers, merchants, etc. At the very bottom of the social structure lie the farmers and the food-gatherers, who live primarily outside the forests, and transport the food into the cities. There have been several rebellions, but they have always been easily put down, as the city dwellers retain air superiority. The nobles have recently purchased numbers of atmospheric fighter craft capable of holding down entire provinces by themselves.

Except for the higher noble classes, the castes are not strictly hereditary, and it is possible for an individual to move from one class to another with little trouble. All that is required is that the council of that particular caste agree to the move, and a small sum be paid to the candidate's old caste for the loss of a worker. Marriage is permitted across caste lines without any great trouble, although marriages from too-disparate castes are thought a bit bizarre, and are frowned upon.

The Laoni planets all share several features, especially the impressive Laoni trees, which achieve a height of between one and two miles. Most of the Laoni society functions in these trees, and a single tree may support several city-states at different locations. The Laoni always maintain their system of individual city-states, rather than creating a more efficient worldwide government. They claim that the constant competition maintains the valor of the race, and that the Second Empire is available for spatial protection in any case. However, a number of city-states that are active in spatial trade have realized the need for an independent protective force, and are building up a first-class defensive space fleet around their planets.



Lartosi

The Lartosi are another of the few races that can be positively linked to the Forerunner civilizations. However, it looks as though the Lartosi were a very minor group within those early civilizations, and were pushed further and further from power by other, more aggressive and capable races. The Lartosi are one of the few races that had built and managed a large, expanding empire before being contacted by the Second Empire. At the time of contact, the Lartosi resorted to diplomacy first, unlike other races that resorted first to violence in the identical situation. This reasonableness on their part has allowed them to become a significant power within the Second Empire, and they have risen in a short time to a position of respect.

The Lartosi is basically human, but covered with a thick coat of fur. This fur is always bright orange, and hangs down in unruly and tangled clumps. The Lartosi have a very strong awareness of the importance of cleanliness, but they do not feel that neatness and cleanliness have to have anything in common. The Lartosi is about five feet tall when he stands erect. His limbs are very long, and each is capable of being used for motion or for manipulation. Each limb ends in a set of six fingers and a thumb, and the knuckles of each set of digits are reinforced for walking on. In addition to these digits, the Lartosi has a long, very powerful tail that is capable of performing complex manipulation. This tail, like the other limbs, is about a yard and a half long, and is capable of exerting tremendous strength at its end.

The Lartosi were originally a tree-climbing race, and still retain their ability and the claws needed to climb trees. Since they are omnivorous, they are equipped with both incisors and molar teeth, and in addition the males have a set of inch-long canines that are used for combat, when needed.

The Lartosi are capable of using and controlling any three of their five limbs, and this means that their controls and equipment are generally useless to other humanoid races with only two manipulators. In addition, their eyes are capable of seeing almost two hundred and seventy degrees of arc at once, and may be moved independently of each other. This allows the Lartosi to operate small spaceships with the most ease of any humanoid race, as they are able to use separate scanners to report the entire environment at once.

The government of the Lartosi is a roughly human type, with an elected official being responsible for a larger area of duties than the official directly below him. Each rank of officials elects the rank above, until at the highest rank there is a single ruler who is kept in office until he either resigns or is forced out. The only legal way to expel a current ruler from office is to force two votes of no confidence within a month. This allows the ruler to present a defense of his actions, and possibly to keep the second vote from going the same way as the first. If a reigning ruler is to retire early, the government is service-oriented, and gives all Lartosi succeed him, and each lower governing group elects one of its members to fill the vacated upper post.

The Lartosi are a lethargic race, and like few things better than to lie in the sun, and eat insects all day. However, they realize that in order to have the spare time to do this safely, they must create a defensible area of space, and protect it, and have an efficient form of government to do these things. Therefore each Lartosi, before reaching the age of retirement, spends as much as forty years working as the government directs, in hopes of doing something very important and being allowed to retire early. The government is service-oriented, and gives all Lartosi free education, medical care, and food. Each Lartosi, however, is required to spend up to forty years doing as the government orders. The only punishment for crimes consists of adding years of service to the standard period of work.



Ler

The Ler are another of the many genetic experiments of the First Empire, and one of the more successful ones. After the fall of the First Empire, the Ler expanded very quickly into space with the aid of their own superbly effective warp-jump drive system, which cannot even be understood by other races, and which the University of Zacaia says cannot work at all.

The Ler stands about five feet tall, and is completely covered in short, dark brown hair. The eyes are larger than a human's, with slit pupils, and they are sensitive to infrared radiation. However, Ler eyes are very weak in dim light or darkness, although the infrared sensitivity helps a great deal. Each arm has a single hand, with two thumbs and four fingers. The two thumbs are on opposite sides of the palm, making the Ler very dexterous.

It is extremely difficult for an outsider to tell the sex of a Ler, and their complex names are rarely a key to identifying them. There is no division by sex within the Ler community, however, and it seems to make no difference to them what sex any individual is. The social structure is very complex, and is difficult to explain. Basically, each group of four parents (but only two sexes) has three children, which then split into a mated pair to continue the breeding line, and a third child to intermingle with a new breeding line. The two individuals that form the new mating line are from the two different sets of parents, so that there is no danger of genetic inbreeding.

The loyalty structure within the social system is complex also, and is primarily based upon this same concept of a four-unit breeding group. Each group retains ties with all offspring, and to a lesser extent with all groups that it is related to through marriage. This results in the very tight bonding of almost the entire social group into a single unit, and incidents of internal quarrelling or violence are very uncommon.

The Ler use a base fourteen number system, and this means that their computer devices are generally not compatible with other races'. Their machinery and equipment is also difficult for others to use; indeed, it seems to be constructed to confuse the average user. There is a complex game that is enjoyed by all members of the race, although it is only played by a few small family lines. This game is called Zan, and it seems to be a simulation of life in different environments. There are complex rules that determine the growth and expansion of "lifeforms," and these rules may be changed by either of the contenders in accordance with a complex set of rules. The goal of the game, although this is very difficult to determine, is apparently either to control the spread of a life form, or to succeed in growing in spite of the opposition of the other player's environment.

The functions of the society are divided between the different family lines, called braids. Each braid has a particular function, and it has generally had that job for generations. The braids responsible for the ruling and coordination of the entire planet are also responsible for the assignment of jobs, and may also allow the formation of new braids, an event that is very rare, and usually only done after war or natural disaster has culled some of the existing braids out of existence.

There is a very common exercise among the Ler that results in their being extremely agile, dexterous and fast with their hands and feet. This exercise, basically an intensive training program that continues from birth to death, results in the Ler being able to take out almost any non-Ler being, even if the opponent is armed with laser weapons. In fact, many of the Ler are members of the Brotherhood of Unarmed Fighters, and it is claimed that the entire upper ranks of that organization are filled with Ler.

Unfortunately, there is an unofficial tendency among the Ler to consider all other races as unfit, or certainly inferior to the Ler. This results in minor border wars at times, and has caused much friction in the past.

True natural form unknown

Libauri

The Libauri are very rarely seen inside the Second Empire, because they reflexively hunt and kill other animals and beings, even when aware of the illegality involved. This leads to many unpleasant happenings, and has finally resulted in the ruling that all Libauri inside the Second Empire must be inside opaque containers, and be accompanied by a non-Libauri companion who drives the container.

It is very easy for the Libauri to fit inside these containers, because their body mass is non-organized. A typical Libauri has a mass of about two hundred pounds, and takes up about five cubic feet. It is capable of being organized into any number of different forms. This allows the Libauri to take the form of almost any other creature, which makes it very useful to the intelligence services of the Second Empire. They dislike to use Libauri agents, though, because most of them will hunt and kill rather than perform their missions.

When in a fluid, amorphous form the Libauri is able to avoid damage by almost all non-energy weapons. Lasers will damage its tissue, and electric current will almost totally destroy it, but common physical weapons have no effect. The only exception to this is when the brain center is hit, in which case the Libauri, regardless of what shape it is wearing, will die. In death, the Libauri keeps the same shape that it was last wearing. It is possible to tell a Libauri that is imitating another race, but this generally requires the use of scanning x-ray equipment or surgery to determine if the internal organs and support framework are the same as the real being has. The Libauri usually don't know much about the interiors of other bodies, and merely make the outside look identical. Note that a Libauri cannot use additional material to make itself more massive, although it can swallow air and use this to make it appear larger. This means that regardless of how large a Libauri looks, it is probably only about five cubic feet of Libauri wrapped around an empty space. Of course, some Libauri are bigger than the norm.

The Libauri multiply by direct fission, which occurs once every six or seven years. This causes the appearance of two new Libauri with half the weight of the parent. Memory clusters apparently must be split in two, so that the two new Libauri have different memories. Usually, one of them must go to training school, and learn almost everything over again. The parent Libauri places all important memories, and his ego, in one of the two offspring, and lets the other develop naturally. This means that the Libauri is effectively immortal, except for the recurrent information loss when it splits. After fifteen or twenty divisions, there is little left of the original ego or memories of the original parent Libauri. There is no feeling between the two new Libauri, and they treat each other as strangers within seconds of splitting.

Government is handled through a hereditary group of Libauri that always retains memories of how to run a planet, and memories of past decisions about the planet. This means that they have a much larger store of information to draw upon than almost any other race, and their government functions with a minimum of errors. Each Libauri is required to spend a certain amount of time doing what the government requires, which may be mining, construction, teaching, or almost any other activity. The primary occupation of the Libauri is to hunt, however, and it is to this purpose that most of the planetary money is put. Slaves of all types are purchased and trained with non-energy weapons and non-projectile weapons. Each is then allowed to attempt to escape the Libauri hunters, who use the same weaponry and rules as their prey. Survivors are granted substantial cash sums and transport to anywhere they care to go. Only rarely does this hunt result in the death of a Libauri, but when it does, that prey is usually hunted intensively by the other Libauri until the end of the hunting period, which by tradition is strictly limited and enforced.



Lithard

The Lithards are not a populous race, and are usually found only in small colonies on friendly worlds deep within the Second Empire. At the collapse of the First Empire, the Lithard home world was destroyed, and only remnants of their once-mighty population survived. Now making a comeback under the protection of the Second Empire, the Lithards have founded several colonies, and their population has reached reasonable numbers again. Colonies within the Second Empire are gradually being phased out, as conditions there are not ideal for life or reproduction for the Lithards.

Lithards come in several different colors; the most prevalent is a mottled green and gold. In physical shape, they resemble the common carnivorous dinosaurs like Tyrannosaurus Rex, standing on two massive rear legs, with two smaller manipulative arms in the front of the body. The huge tail is primarily used to maintain balance when in motion, and as a support when at rest. The Lithard's body is much lighter than the typical dinosaur's, and he has a set of usable wings that allow him to fly at altitudes up to about four hundred feet. This means that the race is hemmed in by mountains, but over coastal and ocean areas they can fly easily. In heavy wind or updraft conditions, they can rise to incredible heights, and glide down over a distance of hundreds of miles.

The Lithards have two sexes, the females being dominant. In general, the females remain inside the protected home areas at all times. They leave only rarely, for mating flights and for occasional vacations. The males are responsible for supplying the females and the offspring with food, and protection. Usually each home area holds a group of thirty of each sex, and ten young of different ages. The homes are clearly organized on strong internal loyalties, but there appears to be little friction between different homes, possibly because of the still low population.

The homes of the Lithards are always under water. They are air breathing animals, and for this reason their homes are hollowed out caverns that are above the water level, or that hold air. The water that surrounds the entrances and exits of their homes acts as a very useful screening system that frustrates most predators. There are very few predators in any ecological system that are designed to function in both environments. The typical home is organized as a complex burrow, with the most protected burrow being a sandy-floored hatchery. The females lay a single egg every other year, for most of their lives. These eggs are about nine inches in length, and are speckled blue and gold. A female is always on guard in the hatchery, and she is responsible for the safety of the eggs and for maintaining the temperature in the hatching chamber. Eggs remain unhatched for up to a full year, and occasionally an egg will wait for up to eighteen months before hatching. The newly born Lithards are incapable of doing anything, including seeing or walking. Their wings do not develop until several years have passed, when they begin to develop from folds of tissue into actual wings.

There seems to be no actual government among the Lithards. Each home unit makes its own arrangements with off-world traders, and spends its own income. There have never been any incidents of friction between different homes, except during mating flights, when males fight to escort a female to their home. This change of residence for the female only occurs during her first mating flight, and after that she is always accompanied on her mating flights only by males from her home. This method of sponsoring different females to various homes is the primary method for distributing the genetic material, and was the prime reason that the race survived at all after the fall of the First Empire.



Lithian

The Lithians are in demand for occupations demanding objectivity and a strong ethical sense; for example, judges in civilian courts, and arbitrators for the Second Empire. They are often used as front men in delicate negotiations, because of their inability to lie or knowingly promote a lie. This ability has also helped on their home planets, where they are very careful to guard against others lying or shading the truth to them. As a result they pay much more attention to the exact terms and wordings in trading contracts, and get taken less often than other races.

Physically, the Lithians resemble the Terran kangaroo, with very large rear legs for support and motion, and a tall, vertically tapering body between them. However, unlike the kangaroo, they are descended from a reptilian line. They stand about twelve feet tall, and can rise up another three or four feet on their legs. Toward the top of the body are two small arms, each equipped with four fingers and a thumb. The Lithians of both sexes have a marsupial pouch that is rarely used, except to keep a very thin storage wallet in.

The life cycle of the Lithian is centered on the oceans. The female, during a mating season and after being fertilized, travels into the ocean to give birth to a horde of small salamander-shaped offspring. These gradually develop the use of their lungs, and begin to leave the ocean for short periods after several months. When they leave the sea entirely, they change into frog-like creatures, by absorbing their tails and sprouting legs. The frog-like creatures gradually grow into adult Lithians. It is interesting to note that until a Lithian leaves the water, it has no intelligence, and survives or perishes solely on the strength of its instincts. The adult Lithians make no effort to save these early offspring, and only take any action when the entire population is threatened by a change in weather or a disease.

When the offspring leave the water, they begin to develop minds, and it is then that the adults begin to collect and train their young. They are trained in speech, thought, history, and then begin to learn whatever field of interest they wish to specialize in. The inability of the race to lie or to knowingly foster a lie is apparently a universal trait, and it does not have to be taught to the young Lithians.

Lithian civilization is based on the use of static electricity, and makes little use of electricity as we know it, and no use at all of magnetism. This means their equipment is totally different in concept than most equipment used in the Second Empire, and will sometimes work in a situation where standard equipment will fail. For example, while their communications gear is much more sensitive to weather conditions than other races', it is not affected by solar activity at all, and can continue to transmit through sunspot activity that would render standard communications gear useless.

Since the race is totally ethical, crime is not a problem, though occasional anti-social behavior occurs. If an individual is asked if he was responsible for some act, he will always answer honestly. This allows a very simple and effective government, as there is no need for extensive organizations designed to ferret out the truth. However, the forces responsible for enforcing the commands of the government are just as large and powerful as their Second Empire counterparts.

The key center of each of their cities, on the home planets, is a tree. Through the careful tending of this tree, and a thorough understanding of its life processes, the Lithians are able to send messages to any other tree of its type on the planet, and that message may be read by any individual at that location.



Lushori

The Lushori are well-known to beings who make use of the Imperial Translation Service, as they make up a good part of the Service's translators. They do not usually serve as intensely trained dual-civilization translators, but they do train individuals who wish to learn a language, and translate short, simple or technical passages from one language to another. Due to their immense store of languages, Lushori who have chosen this profession can generally pick up a usable knowledge of a new language in a mere two months.

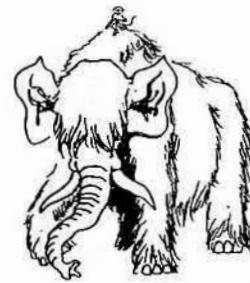
The Lushori are human beings, and share the same genetic material as the main human race. However, their skin color, which is a light red, is a dominant gene, and offspring will always have this trait. The hair varies through the same range as normal human hair, and so do eye color and the physical parameters of the body. There is a higher percentage of red-haired people in the Lushori race, but this seems to have no genetic significance.

The minds of the Lushori, on the other hand, benefit from a recessive gene that is now active in almost all Lushori. This gene gives them the ability to pick up emotions on a subconscious level, and then amplify and rebroadcast them, also on the subconscious level. This means that the mood of an individual can grow to "infect" a large group of people in a short time, leading to monstrous mobs in times of stress, and populaces of contented people in times of ease. In general, this subconscious detector will pick up and rebroadcast the strongest emotion within range, including its own. There are individuals who have the ability to choose which emotion to amplify and rebroadcast are usually picked up by one or another peace-keeping force, or occasionally an intelligence group. This ability allows the Lushori to calm rioting people, or to promote peace in fighting groups, or to cause dissension among enemy troops, all of which are highly useful abilities in the violent and unsettled Rourke's Diadem area, not to mention the Second Empire.

Each Lushori is locked into a caste at the age of twenty-five, and this choice is permanent throughout his life. Marriage is allowed outside the caste, but each caste speaks a unique language in addition to the common language, so that different castes tend to remain separate from each other. After a short period of time, the common language is almost forgotten, as it is not legal to use it to talk to a member of one's own caste. A professional caste of interpreters exists; they are capable of translating information from any of the hundreds of languages into any other, although it takes about forty-five years for an individual to become fluent in all of these languages. In general, the interpreters start in a particular area, and learn first the languages applying to that area.

The government is isolated from the wishes of the people, due to the difficulty in speaking to them, or in listening to them. After undergoing translation several times, the information content of a complaint is degraded. This means that problems that must be solved by individuals of other castes are generally not rectified until very late. A response time of several years for a simple complaint is common. This, in turn, has led to the ability of the Lushori to withstand almost any inconvenience without complaining, and to a sort of simple fatalism concerning the way of the world.

However, relations between the government and the various off-worlders are excellent, as the government is incapable of checking with its citizenry about proposed actions. This means that in this regard the response time of the government is very fast, and that off-worlders can land, sell their wares, and purchase replacements in days, instead of months, since the governmental red tape is very simple. In recent years, the government has begun quietly to combine different castes through the design and importation of special machines. The new, combined castes generally combine their two languages. The entire culture is gradually being converted into a single-language society. This process is expected to take several centuries.



Mertnerite

The Mertnerites built a large and efficient empire toward the edge of the galaxy, and when the expanding Second Empire finally contacted it, the two empires first talked, then launched a massive, all-out war for domination of that sector of space. Since the two empires had about the same technology, there was little change in boundaries, but much loss of life. Gradually, the sheer size of the Second Empire defeated the Empire of Tralock, and the Mertnerite race yielded to the governors of the Second Empire. Now, after centuries of peace, the two empires' differences are forgotten, and they have united to become a single political entity.

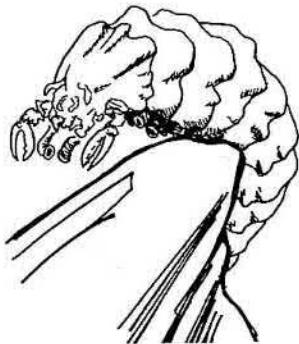
The Mertnerites are actually two life-forms living in close proximity, in a complex symbiotic relationship. The primary, intelligent life-form is a large mammal that stands about fourteen feet tall on four massive, padded feet. This animal is covered with a thick coat of green fur that hides it almost completely. At the front of the Mertnerite is a small head, equipped with large, very sensitive ears and a set of small, weak eyes. The mouth is designed to eat only vegetation, which is carried to it by the trunk. To either side of the trunk is a single tusk, capable of piercing even thick steel when driven by the mass and muscles of the Mertnerite.

However, these large quadrupeds have no manipulative organs, and by themselves they would have been unable to conquer and hold an empire, let alone build the technology to make that possible. For manipulation they use another being, a small, unintelligent animal that resembles a tiny monkey. Standing about eight inches tall, this animal is directly connected to the Mertnerite by very-short-range telepathy, and it supplies a dextrous and agile body for the use of the Mertnerite. This symbiotic relationship has been going on for thousands of years, and its origins are lost in legend, even among the Mertnerites. Rare individuals can control up to three of the smaller monkeys, but usually each Mertnerite can control only one.

In spite of his huge size and fearsome weaponry, the Mertnerite is a totally peaceful beast. The only time he will act defensively is when he is in danger of losing his life, and even then it is extremely difficult for him to actually take another animal's life. The culture makes this difficult, also, for a Mertnerite who kills is treated as a pariah by the rest of his society, and usually either leaves the society or commits suicide. This means that the war that was fought between the two empires was actually seen as necessary by the populace of the Mertnerite-controlled empire. It would have been impossible to convince them to attack and kill other intelligent beings if they did not see those beings as a direct threat to the survival of themselves, and possibly their race.

The government of the Mertnerites is modelled after the Second Empire's, as the surviving Mertnerites thought that it had been proven to be a more effective form of government than their own previous semi-democracy. Therefore, the single supreme authority on each Mertnerite planet is a hereditary ruler, and he is supported and counselled by ranks of ministers that can be changed by whim. To balance his power, this hereditary ruler has to justify himself to the representative council chosen by lot from the ranks of the entire Mertnerite society. If a ruler is given a vote of no confidence by his populace through this council, then he is expected to resign and let his heir assume the throne. Only once in recent history, on all of these planets, has force actually been used to dethrone a ruler, and in that case it was a hired force of mercenaries, rather than Mertnerites.

Due to the extremely small size of their symbiotic helpers, the Mertnerite found as surgeons. The small hands and dextrous movements of the monkeys allow them to perform extremely skillful and delicate operations, and the massive Mertnerite can be kept outside the actual operating theater. In this capacity, and in many occupations needing fine and exact movements, the Mertnerites have become a necessary commodity throughout the Second Empire.



Mesklin

Originally found only on their own anomalous world, the Mesklin have spread to other very-high-gravity worlds, both as workers and as colonizers. To them, a world with a gravity of thirty or forty standard gravities, constant over the surface of the planet, is practically heaven. They are superb workers, despite their small size. Because of the constraints of massive gravity, the maximum size of any artifact on those planets is small, including mining machinery.

In basic shape, the Mesklin is a caterpillar. He reaches a maximum length of around eighteen inches, with an average diameter of about two inches. The Mesklin body is composed of a number of small, segmented sections, each of which has a set of four sucker feet at the base. The foremost section has a wide variety of manipulative devices and organs, such as a modified set of suckers that can manipulate very small objects, a set of pincers, infrared vision receptors, short-distance radar apparatus, and a unique organ that informs the Mesklin of the local gravity of an area. This last organ is accurate to within a tenth of a percent of a standard gravity.

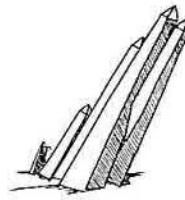
The race is bisexual, the female laying eggs and the male fertilizing them after they have been placed in a protective nest. The eggs are usually about one half inch in diameter, and are generally laid in groups of fifty or sixty. The fatality rate for young is close to ninety percent, which explains why the Mesklin do not care about their eggs at all, and why they lay so many of them. The usual reason for the death of the embryonic or young Mesklin is either the extreme gravity, or the ever-present bacteria that can attack and kill a Mesklin in seconds through a small abrasion or cut. Even in adults, small cuts and abrasions are often fatal, as when the integrity of the skin is lost, the atmospheric pressure literally forces large amounts of material into the body tissues. Usually, this material contains hostile bacteria.

The key feature of the Mesklin mentality is that, except for a few abnormal individuals, the entire race is scared of objects more than four inches in height. This is because their high gravity makes a fall of any greater distance fatal, and they have learned this over centuries of experimentation. To reflect this fact, their ocean-going vessels are thin plates of metal, that float on the incredibly dense fluid. The maximum depth of these vessels is around an inch, with the tallest riggings rising perhaps three inches.

The difference in density between the liquid and the atmosphere (which is usually methane and hydrogen) is enough that there is still a high-speed wind. This wind can approach velocities of a hundred miles an hour, and occasionally of several hundred miles per hour. It will then destroy any vessel or Mesklin in the open, as a skid of several feet is likely to result in a fatal fall.

The only place where animal life approaches any size is in the oceans, where the support of the liquid is enough to allow the growth of swimming creatures up to several hundred feet long. The animals, though, are totally incapable of extending any part of their bodies out of the water, as the loss of that supporting fluid is fatal to them. No available skeletal or exoskeletal supports would enable these creatures to survive out of the oceans.

The government of the Mesklin is very similar to other Second Empire governments, with several nations existing in relative peace. The size of the planet makes it possible for the Mesklin to live in peace with each other without any friction. It has been estimated that the home planet could easily support another several billion individuals before it became even noticeably crowded. This is due to both the immense size of the planet, and the small size of the Mesklin.



XmmMmXm (Pterkasa's Rocks)

Discovered just a few decades ago on a previously unexplored planet circling a red giant star, the XmmMmXm have astounded scientists from all over the Second Empire. Usually, the race is referred to as Peterkasa's Rocks, in honor of their discoverer, but the romanization of their own name for themselves represents a volume-changing tone of high C, with two bursts of light, the first at 5600 angstroms and the second at 2832 angstroms. This is naturally quite difficult for most individuals to duplicate, even in their minds, so they have accepted "Peterkasa's Rocks" as a race name.

The XmmMmXm are a very insignificant looking race. In fact, the expedition that discovered them was almost finished with its two-month study of the planet before the two races noticed each other. On the part of the XmmMmXm, they were not used to looking for other, off-frequency thoughts, and except for a sheer coincidence, the two races never would have heard each other thinking at all.

Physically, the XmmMmXm are merely small crystals of a dull, lead-colored glass. They range in size from microscopic to several inches across, and they often have other, smaller crystals attached to them. The structure of these crystals is unknown. The XmmMmXm do not tell, and in fact defend themselves against the investigations of others. What is known is that their atomic structure is artificially strengthened on a nuclear level, and they are immune to shocks and stresses that could crack any other material. They possess a limited form of telekinesis that allows them to travel at a rate of several feet per year over a smooth surface, but their more important psionic powers are a very strong telepathic ability that can penetrate most shields, and the ability to examine and control chemical processes on the atomic level. This enables them to produce all sorts of rare chemicals that should not exist at all, and also enables them to analyze and reproduce any substance. Unfortunately, this ability is also slow to work.

The XmmMmXm can remember back almost to the formation of their world from the solar matter that now composes their sun. Since that time, very few of them have died, although many have been taken off-planet by various races, willingly. And, of course, many new crystal matrices have matured on the bodies of their parent crystals and broken off to become independent. From information available in several places, it is apparent that the XmmMmXm were the source of the incredibly strong metal used by the First Empire for its tools, but none of the XmmMmXm presumed to have done this have ever been located. It is suspected that they were destroyed or lost in the same cataclysm that destroyed the First Empire and its Masters.

There is no form of government, because no XmmMmXm can physically own anything. However, there are advanced societies among the XmmMmXm that have developed over the millenia to discuss very specialized areas of knowledge, in a strictly philosophical way. In addition, many of the functions of sub-atomic physics are understood by Peterkasa's Rocks, and they are attempting to find some way to transmit an understanding of the unknown concepts involved to the scientists of the University of Zanaria.

The XmmMmXm, unable to use money or the things that it can buy, instead collect favors which they use to trade for information, and for rides to different places to collect more information. This also results in the expansion of the XmmMmXm race, but since they live directly off microscopic amounts of radioactives, or even solar energy, and multiply only slowly, none of the other races in the Second Empire perceive them as a threat.

They often accompany Empire expeditions, due to their powers in the field of telepathy and their ability to synthesize new substances if necessary. In addition they are able to repair damage to the incredibly sensitive monolithic circuitry of advanced electronic equipment, and also to radioactive handling gear that has developed the common microscopic stress cracks.

Molinger



The origin of the Molinger is much in debate at the University of Zecania. The race shares the genetic structure of the more common human race, but the two occur in widely different areas, and seem to have had no contact at any time. It is suggested by several specialists at the University that the human race was spread by the Forerunner civilizations that occupied at least this part of the galaxy some millions of years ago. According to surviving records, the Molinger were not created by the First Empire, and were not even contacted by them until quite late. Curiously, their few planets were passed over by the many scouts of the First Empire, and they remained unknown until contacted by accident.

The Molinger are similar to the standard human being, standing on two legs with the usual number of digits at the base. The arms, while fractionally longer in proportion than the average human's, are still well within the limits of normality for human beings. The head, however, shows the major difference, and it is not known whether this addition to the human physique is intentional or accidental. Each Molinger has a large wreath of yellow-green leaves surrounding his head, rather than hair. These leaves all belong to a single plant, which is actually rooted in the Molinger's skull. Apparently symbiotic, this plant does no damage to the host, and removes only a small quantity of protein from his blood.

The plant gives back much more than it receives. As a natural excretion, it releases a constant stream of a chemical similar to strychnine into the bloodstream. Unlike strychnine, this chemical has no bad side effects of any kind, except that it is totally addicting from a single dose. The body's demand for the chemical does not increase with time, nor does the host body develop a tolerance for it. The effect of this chemical is to increase the abilities of all the senses of the host Molinger. At all times, his senses are acting at a higher efficiency than the senses of his human counterpart. In addition, in times of severe stress, when massive amounts of adrenaline are released into the bloodstream, the plant reacts to the adrenaline and releases more of the chemical, allowing a temporary increase in the Molinger's already heightened abilities. This constant, self-supplying, self-dosing chemical has appealed to many scouts of human races, and they often allow themselves to be hosts to this plant. Unfortunately, the plant is fairly sensitive to ultraviolet radiation, and also to extreme humidity. Under conditions of ultraviolet exposure, the plant dries up, and under humid conditions the plant usually succumbs to common fungus infections that almost always kill it.

The entire culture of the Molinger is based on the warrior ethic. Each planet is controlled by a single clan, whose business it is to handle all world-affecting decisions, but which is incapable of affecting internal decisions. It is, naturally, allowed to defend itself, but all internal decisions affecting a clan, or several clans, are handled directly by the clans involved. Each clan maintains a main house, almost always constructed out of thick rock, and set into a mountain or cliff, and also a superbly trained army that varies in size with the power of the clan.

Warriors are raised from birth to become skillful in hand weapons and projectile weapons of all types, and the most skillful are taken into one of the various clans. After his adoption, the warrior will literally give his life to avoid hurting the clan in any way, or to stop someone else from damaging the clan. Their fatalism and devotion combine to make the Molingers fearsome warriors, because they will not quit unless ordered to by a duly recognized superior, even under suicidal conditions. Several of the wars fought in the Reunification and the early years of the Second Empire involved these troops, and they accounted for several of the bloodiest and most famous military actions every fought. It is interesting to note that the Molinger worlds were never conquered, but rather were asked to join the Empire, and accepted. They were assaulted several times before this, but the attacks always resulted in the total destruction of the attackers.

Montid



When the planet of Montoe was discovered by the Second Empire, many ships travelled there at once because all the early reports claimed truthfully, that all the inhabitants they had seen were youthful. The citizens of the Second Empire thought there were vast amounts of anagathic drugs available there, but later investigation revealed the truth. The Montids are only found on this one homeworld, and several minor colonies, although unconfirmed reports indicate that they may have other worlds toward the galactic core.

The Montid are humanoids, standing about five feet tall on the average. However, they tend to have well-fleshed bodies and wide bones, leading to a gross weight that is slightly greater than the average human's. Although they are physically human in every way, they have an additional organ that the normal human does not possess, and this organ is supremely useful to a technological culture. It consists of two antennae that grow from the sides of the head, very near to the ears. These antennae, although only two inches long, are capable of detecting minute changes in magnetic fields at distances of several yards, and are also capable of locating a magnetic fluctuation to within inches.

Since all electric power also causes a magnetic current to come into being around it, the Montid can detect any electrical current easily, and also passive magnetic devices. This ability makes them invaluable in troubleshooting equipment quickly, in designing new equipment, in locating special magnetic minerals, and a host of other necessary functions. In most circumstances, the Montid can also detect the electric current fields around living beings, and therefore are handy for detecting life on scouting or military missions.

The ability to detect magnetic fields, and therefore electrical fields, has shaped the entire culture and technology of the Montid race. Their machinery and equipment has no dials or meters of any kind, although it does have controls. These controls, however, are generally not labelled or numbered. Calibration is handled within the device, and the quantity that the dial or control is turned to will be obvious to the using Montid. In addition, their communications devices are designed to be used by Montids who speak into normal microphones, but listen to simple wires, with no loudspeakers attached. This makes it very difficult for anyone else in the room to hear the other end of a conversation, and also makes it impossible for anyone to identify the other party by his voice. The transmission that is detected by the Montid does not carry tonal intonations, only the rough literal and phonetic content.

There are two sexes in the Montid race, and they remain separated until they approach the age of thirty standard years. At this time, the two sexes are allowed to mingle with each other, and generally pair off into life-long partnerships. After living together for about ten years, a pair will go into isolation, and produce a single birth of a male and a female child. The couple raises these children at home for the first ten years of their lives, then both parents generally die, leaving the children to the care of the state.

The state, run entirely by adults under the age of forty and over the age of thirty, is a complex culture of itself. It is based on strict formality and differentiation of social levels, and the use of the magnetic sense to detect the many social indicators carried by each individual. An individual who does not use the properly formal and respectful mode of address to a superior can expect to be chastized, criticized, possibly even killed for his lapse. Off-worlders should invest in the services of a professional interpreter in all cases.

Moremite



The Moremites were first discovered by a minor mercenary legion that accidentally discovered the planet Morem in the star group called Rourke's Diadem. As soon as the soldiers realized the importance of their discovery, they hired a dozen Moremites as scouts, gaining the use of the Moremites' pet birds as a cheap, non-jammable method of gaining intelligence about enemy locations and movements. A simple movie camera was strapped to the legs of the pet bird, called a Bei, and the Bei was then told where to fly by its master. Until much later, no other mercenary group suspected the trick, and the Bei were observed merely as curious birds, and reported by attached telepaths to be actual animals, not robots, and unintelligent.

The Moremites themselves are basically human, except that each is about seven feet tall, and broad in proportion. The average weight of a Moremite is around three hundred pounds, for both sexes. The hair, usually a light blonde, can have other shades depending on the locale of origin.

There is no apparent feedback between the Moremite and his Bei, but they are capable of detecting each other over distances of millions of miles, and one can tell if the other is asleep, or unconscious, or dead. Measurements of the speed of information transfer have shown that it must use some sort of telepathic energy, as it is instantaneous. However, no psychics employed by the University of Zacaania have been able to detect the type of energy, or its source. Each Moremite shares a deep empathic relation with his Bei, and if his Bei is killed, the Moremite will go into severe psychic shock, possibly leading to death. Likewise, if the Moremite is dead, then the Bei will die within hours.

The Bei is a large raven, with a wingspan of about a yard. In color, it is almost always a dark blue, although black and even brown Bei are occasionally reported. Each Bei is capable of carrying about eight pounds of weight, and they can remember and execute fairly complex instructions from their masters.

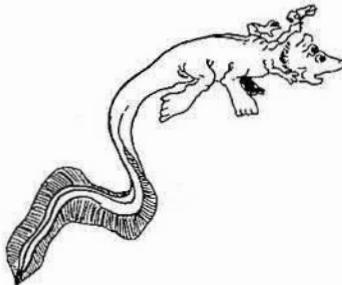
Mentally, the Moremites have a quirk that makes it difficult for mercenary groups to employ them. They are unable to kill under most conditions, and many of them are incapable of killing even in self-defense. In all cases, the Moremites are vegetarians, and will starve rather than kill or be responsible for the death of an animal, even simple animals like insects and shellfish. However, this fear of killing does not extend to germs, viruses, or bacteria. An ancient law proclaims that anything that attacks another body can be destroyed if and only if it is unicellular, as these life-forms are seen as being incomplete.

Due to this attitude, almost all the Moremite planets are covered with intensively farmed fields, usually of rice and wheat, but sometimes other grains. On one particular planet only soybeans are grown. The continuous, widespread use of cultivation has influenced the social structure of the Moremites, and one of their most important laws, after the prohibition against killing, is the prohibition against destroying planted fields. The first starship that landed on a Moremite world landed in a field to avoid landing on a house, and its crew was not spoken to by any inhabitant as punishment.

Each farming community supports itself completely, although each also tries to keep a stock of emergency materials available so that other communities in need can share. Planetary decisions are made by a council of citizens elected from the largest cities on the planet. A council typically numbers three hundred. These citizens are capable of ordering the planet to obey any law that they feel is needed, although they tend to feel that the best government is the least government.

The first thing the Moremite government did upon discovery of the Second Empire and its attitudes toward killing was to hire a good mercenary legion, and have it set up defensive systems in orbit around the planet. These systems are designed to subdue, but not kill intruders, and have worked well several times in the history of the planet.

Nevian



Inside the Second Empire, Nevians are usually seen only on board their own starships. They are a vital, expanding race, and also, their technological system is slightly different from the Second Empire's, and is not compatible with it. Nevians are often in demand, though, as overseers and problem solvers for oceanic work areas, as they combine ability to breath water, with totally logical minds.

The Nevian is basically shaped like a long tube, which flattens to a long, ribbon-shaped tail. The body has four short, stubby legs toward the head, and just in front of the forward pair of legs is a cluster of four hands, with a reach of around a foot. Each hand is equipped with three fingers and a thumb. The four feet are modified walking feet that have adapted for swimming, and while they can propel the Nevian through the water at a high rate of speed, they are extremely clumsy and painful to use on land. The Nevian's muscles are only marginally capable of supporting his weight on land, and Nevians prefer to work and live in the water at all times, although they are capable of breathing out of the water if their neck gills are kept moist. The head, which is very low and pointed, with a gaping mouth underneath, has four independent eyes on top. These eyes are capable of looking in four different directions at once, and two of them are designed to be adaptable to the surface atmosphere, rather than the different optical conditions of the ocean. All, though, can detect motion and color in either environment, and can detect danger quite well.

The major drawback of the Nevian is the fact that he is cold-blooded. This means that when out of his tropical home-waters, the Nevian must carry and artificial heat source, or risk falling into hibernation and eventual death. In the environments of other worlds, the Nevian is almost always seen with artificial heating equipment to provide heat to keep him awake. It is possible, though, for a Nevian in cold-hibernation to remain safely asleep for several weeks, although he awakes starved and must absorb much protein at once to survive.

The cities of the Nevians are constructed out of native rock, which is quarried by machinery wherever it is found. This rock is usually of a grey color, as the Nevians choose construction rock only for its durability and thickness, not for aesthetic qualities. Each building is hexagonal, and is a tower that begins on the shallow floor of the ocean and extends above the water level. The shoreline near the ocean is totally honeycombed with subsurface tunnels, and many canals on the ground level. Inland lakes and rivers also have their towers of stone, although the Nevians that live here are considered bizarre by the majority of the populace, as they live in effective solitude.

The government of the Nevians is accomplished through the solitary rule of a single dictator, who makes all decisions for the entire planet. Since the Nevians are totally logical, this dictator will make the best possible decisions for the entire planet, and his decisions will be supported by a vastly larger number of facts than are available to the layman. In the rare instances when a dictator was found to have acted in a debatable manner, he was simply executed by passing citizens, and a new dictator installed, without the knowledge of most of the populace. Unquestionably, the only reason why the system works is the fact that almost all of the Nevians are logical, and also that all are committed to the survival of the race over the survival of the individual. Private ownership is common, and there is competition between opposing companies, but when one side or the other can show a clear advantage, the other will withdraw at once without a fight. A major drain on the success of a company, though, is the tithe. All Nevians must pay a flat ten percent of their income to the government, to be spent as the government sees fit. Interestingly, none of the Nevians ever groan or complain about this, probably because they see it as a necessary cost of their society.



Nilsi

Originally thought to be a minor offshoot of the human race, the Nilsi have demonstrated enough difference to be classed as a separate race. They may have originated far in the past in the human community, but as the Nilsi themselves do not seem to have this information, and certainly the humans no longer have it, this is merely a guess. What is known is that the genetic patterns of both races are identical, and they can interbreed safely and productively.

The most common form of Nilsi seen is starports is the worker. This type can be of either sex, and is usually naked, although he may be dressed if local custom demands it. The worker is identical to the human being, except that he is usually in excellent physical condition, and is always completely hairless. Like their human counterparts, workers specialize in particular fields, and devote their energies toward particular problems. Unlike their human counterparts, though, the Nilsi workers will work on their assigned tasks or projects until ordered to stop, even if it means death.

There are many different breeds of Nilsi, and a few of these have been seen in public, and can be described. The second most common, after the worker, is the activated adult, who is fertile and has full control of his own actions. This class makes up all of the higher echelons of the Nilsi, and handles all contacts with the outside world. A second type is the genetic collector, who is merely a very attractive female who searches for good genetic material for the Nilsi to incorporate into their racial stock. Such material is usually easy to locate in the human sectors of the Second Empire. There are known to be additional types of Nilsi, such as the worker-heavy, who is very large, powerful and massive, and the researcher, who is extremely fragile but capable of total recall. There are rumors of other classes, such as the legendary fighter, and the esper, but these types have never been reliably documented.

The hive is the only important thing to the Nilsi, whether workers or the activated leaders. All will, without hesitation, lay down their lives to save the hive. They do not do this needlessly, though, and in several cases the Nilsi have fled rather than face an unstoppable destructive force. It is apparently easy for the survivors to start another hive, and the reproductive rate of the hive can be geared up to a very high level, allowing a dramatic population growth to be achieved. Usually, each hive controls and entire ecological unit, like a continent or a planet, but it is possible to find Nilsi living in cooperation with other races.

A difficulty in dealing with the Nilsi is that they have usually considered all the ramifications of their problems, and will not deal with less than the best possible solutions. This makes dealing with them as businessmen a painless but also fairly profitless procedure, although if a need can be created on a Nilsi planet, and maintained, a businessman can make millions. Usually the net result is to cause the Nilsi to create their own method of producing whatever item or material is needed, and their production facility is usually more efficient than the original process. When pressed, the Nilsi are capable of creating deadly weapons from scratch, apparently, and these weapons are generally capable of defeating the immediate threat without thought to any future uses or needs. Several times, the Nilsi have modified weapons in novel ways to totally destroy an enemy that thought he had mastered the weapons the Nilsi were using.

One habit of the Nilsi that tends to stir up bad feelings between them and their immediate neighbors is their attitude that everything that is not Nilsi is food for the Nilsi, and should be turned into usable protein at once. This results in mass slaughter of natural wildlife, and also of any animals or beings that happen to wander into their hunting areas when an activated leader is not present to control the workers. They are incapable of noticing that a visitor is intelligent, and will not hesitate to kill on sight unless restrained.



Niondite

The only time a Niondite is seen off-planet is when a queen or high-noble is travelling to the Second Empire to purchase some special item that they cannot produce. These items often include weapons expertise, and tactics. For many centuries, the different hives of Niondites have been fighting with each other, and they have actually exterminated many of their own hives. The Second Empire does not interfere because the matter is entirely internal, and also because the Niondites keep all of their conflicts confined to the surfaces of their planets, and do not involve Empire planets or citizens in their wars.

The Niondite stands about six and a half feet tall, and is very thin, usually weighing only about 150 pounds. Almost all of the Niondites seen are neutered females, usually without obvious female characteristics. These females, or drones, are neutered at birth by a simple chemical injection that keeps them non-fertile and immature physically for the rest of their lives. Basically human in shape, the Niondite has three fingers and a thumb on each hand, and usually long talons as well. The pupils of the eyes are slit vertically and are very quickly adjustable to widely differing conditions of light. The only hair on the body is the single head piece that juts upward in a large comb for another foot or so. This is kept trimmed to the correct shape for that drone's hive, and also for the particular status of that drone within the hive. A Niondite is able to tell from a single glance at a head-crest the exact hive and occupation of a drone, and usually of any other Niondite as well.

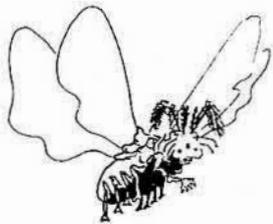
The skin color varies with the hive, and can range from pale white through pink to red, and on into brown. Each hive has a very small range of color, and there seem to be no alliances between hives of differing colors. No Niondite has ever been seen voluntarily to change his skin color, and they do not seem to darken or lighten with exposure to the sun, or with lack of exposure to it.

The production of eggs for the hive is carried on by a specialized strain of queens. These queens are immobile, and exist only to produce eggs, usually at the rate of several dozen per queen per day. A single fertilization by a male will enable the queen to produce fertile eggs for about a week. The males, with no function other than fertilizing the queen, are also immobile and blind. Each egg is subjected to chemical treatment from conception by a special class of genetic modifiers that begin to alter the embryo into whatever specialized form is required by the hive, and a full-grown adult will hatch in one to two years, depending on the type of individual required. This rapid growth is only possible because of continuous force-feeding by nurses.

There are other specialized types. The engineer can balance on almost anything, and can secrete a bonding agent from his mouth when he wants to. A second type, one that is almost never seen off-planet, is the warrior. These Niondites stand about eight feet tall, and weigh about 400 pounds. They are equipped with jutting fangs and their hands and feet have long, razor-sharp claws.

Each hive looks out only for itself, even when faced with a threat to the entire planet. The only thing that saved the Niondites from invasion during the Interregnum was the fact that even a conquered hive would die to the last Niondite trying to repel the invaders, rather than bow to them. Warfare between the hives is continuous, and a favored trick is to steal another hive's needed raw materials and food with lightning fast raids. This food and raw materials is never destroyed, merely carried to the new owner's home facility.

Of late, the Niondites have discovered the possibilities of collecting materials off-planet, and now ships of theirs are setting up mining facilities on other worlds. Often these worlds are inhabited, and the only way to remove a Niondite facility is to destroy it. They do not seem to accept that any other being should have equal rights to mineral deposits, and do not hesitate to utilize physical force to take and hold a mineral facility.



Norstel



According to surviving records, the Norstel are one of the only races the First Empire encountered that was actually able to give them a fight. It is unclear exactly where this occurred, but the end result was the almost total elimination of the Norstel race, and the scattering of the remnant throughout the known galaxy, in an effort to restrain their power as a race. The solution worked very well: the power of the Norstel was completely shattered, and they have never since created any sort of multi-world empire, except for trade and defense agreements with one of the several empires now in existence.

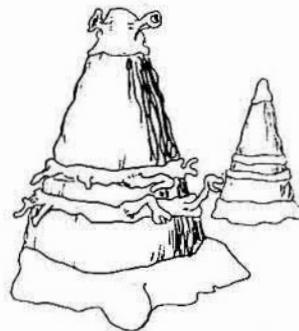
The Norstel are ill-designed for combat. They are about a yard long, and are constructed out of a very soft protein, covered in hard chitin. Each is equipped with a set of four large multicolored wings that lightly propel it through the air. The body of the Norstel is a thin cylinder about three inches in diameter, tipped at the front end by a small head. This head is almost completely lost under the mass of a set of huge plumed antennae that are sensitive to empathic radiation. Under the antennae is a set of three eyes, capable of telescopic vision when working in unison. Below the body is a set of eight thin legs, each equipped with a single claw that is capable of hanging onto almost any surface.

The manipulative organs of the Norstel are located on the lower side of the body, just back of the head. When extended, the two arms reach to just in front of the eyes, and the four-fingered, single-thumbed hands can be watched by any one of the three eyes. The eyes are good for distant vision when used in unison, and separately they can be used for close-up vision. It is impossible for a Norstel to see at intermediate distances, from eight feet to a thousand feet, without the aid of artificial vision equipment. However, when utilizing either close or long range vision, the eyes of the Norstel are superior to those of most other races, and their abilities in close work are superb.

As mentioned, the other sense of the Norstel is their empathic detection. Norstel are capable of monitoring and to some extent controlling the emotions of almost any animal. Many races, in spite of intelligence (which gets in the way of empathic radiation), can also be either monitored or controlled by the diminutive Norstel. This ability was all-important in ensuring the survival of the race until it began to utilize technology and control its environment.

The Norstel loves to live in close proximity to thousands of others of its kind. Generally, they all live in a single large city that holds several million Norstel. Cities are constructed by the Norstel using a technology that is still totally incomprehensible to the scientists of the University of Zecania; it involves controlling the growth of crystals through some empathic process. As we understand empathy, it cannot work on non-living things, but the Norstel are nonetheless able to control and shape the growth of their artificial crystals to form kilometer-high buildings of a single crystal. These large cities of tall towers have thousands of minarets of all sizes, and interlocking bridges. All the buildings are constructed to the size of the Norstel, with only the upper areas being used. The lower several hundred meters are composed of solid crystal, and that foundation material sinks down into the soil of the planet until it meets and interlocks with the roots of all of the other crystal towers. Therefore, in spite of their immense height, the towers are almost immune to being toppled by natural force, even earthquakes. The average size of one of these cities is eight to ten kilometers in diameter.

The government of the Norstel is strictly controlled by the individuals with the highest aptitudes. Each Norstel, at the time of his adulthood, is given a battery of tests that determine his most efficient use, and each Norstel is content to take this decision as true and work at the indicated occupation for the rest of his life. In the rare event that a Norstel finds the assigned task to be uninteresting or repellent, he is allowed to take the test again. If the results are the same, he is given a starship ticket to the Second Empire and expected not to return.



Olenter

The Olenter are thought by University of Zecania researchers (Professor Starymaples, department chairbeing) to have controlled one of the largest and most powerful of the Forerunner civilizations. Not only do the physical parameters fit, but the legends of hundreds of different planets tend to support this theory. The Olenters have no clues in their own racial legends, but they are scattered over most of the area that the Forerunner civilization once controlled. In addition, the First Empire seem to have agreed with this theory: much of their research effort concerning the Forerunners was dedicated to investigating the Olenters, with an eye toward finding their home planet and discovering why they vanished so suddenly.

Physically, the Olenters are quite simple. A single cone of protein is all that is visible to the unaided eye, and the entire cone is a single dead-white color. The surface of the cone is lumpy, and there are a number of milky-white bands encircling it. The lowest of these touches the ground all the way around the base, and is capable of moving the Olenter along at a good rate of speed with a sort of humping motion. The second and third band are located about a third of the way up the surface of the cone. Each of these bands is an area of undifferentiated protoplasm, capable of being formed into any shape the Olenter desires. They are incapable of extending from the body more than fourteen inches, but within that limit almost any shape or organ can be formed.

The last milky band encloses the entire upper eight inches of the cone. This layer is also of undifferentiated protoplasm, and is capable of forming the same types of organs as the lower bands are. Usually, though, due to its height, this area is reserved for organs of vision and hearing. The Olenter is capable of modifying these areas quite quickly, usually taking on the order of five minutes to build a particular organ, and less than thirty seconds to reabsorb it. All protein intake is handled through the milky white bands, including the lower band that is responsible for the motion of the Olenter. Protein is not eaten, but rather absorbed.

The Olenters have no particular talents in psionics or empathic abilities, but the entire race seems to have an uncanny ability to understand the workings of electrical devices of all kinds. They are the primary researchers into the monolithic electronic circuits that make up so many of the devices in use today, and it was an Olenter scientist who discovered how to rebuild FTL radios from the fragments recovered from the rubble of a First Empire military base, thus greatly hastening the expansion of the Second Empire.

The mental attitude of the Olenters seems peculiar to the minds of most races of the Second Empire. The Olenters have a deep belief in the total predestination of all things, and while this does not interfere with their attempting to cheat fate, as it were, it does allow them to accept almost any calamity calmly and logically. This balance of mind, in turn, allows them to react to disaster at full efficiency, and usually to salvage something from it. The human being, except for occasional bursts of genius, tends to run along at much less than theoretical efficiency, and is easily disheartened by disaster.

Due to the construction of their bodies, the Olenters are very difficult to kill. Their bodies are well protected, and if a weapon happens to hit the Olenter on one of the bands of malleable protoplasm, the damage is instantly absorbed and repaired. This malleability also applies to their controls and equipment, each control surface being designed for a minute controlling organ. Entire computers can be controlled from a tiny control surface only a quarter of an inch square. Naturally, this tends to make it difficult if not impossible for other races to utilize their equipment, especially their complex and expensive monobloc computers, which tend to be the best available, excepting those of the Second Empire government and military.



Osnomian

With his intense love of jewels and of weaponry of all kinds, the Osnomian may be found in almost any locale. If a trader, his stock of jewels will generally be the most complete around, though his prices may be a bit high. If a warrior, his skill in blade and unarmed combat will be high, and his skill in modern energy and projectile weapons will be still higher, compared to the average N.P.C. Using a combination of mated-pair and clan-family systems, the Osnomians have managed to produce a vital culture that is expanding into the Galaxy very quickly.

Very similar to Terrains in physical structure, the Osnomian reveals a few minor variations. The hair is always solid black, even in aged beings. The eyes are always yellow, and the skin is always a light olive green. Almost without exception, any Osnomian encountered will be in superb health and physical fitness.

They are seldom seen wearing much clothing when on the surface of one of their planets, as the surface temperature is generally around one hundred degrees Farenheit. Both sexes wear large amounts of worked metal set with jewels, and carry several different types of weaponry. The metal cloth that they weave is very flexible, beautiful, and in demand in the rest of the Galaxy.

All construction on the planet is of metal, with almost no stone at all being used. Lately, stone and natural rock have begun to be used in home construction, but this is still fairly rare. Cities are arranged in enclaves that are the living areas of particular clans, and within each area may exist thousands of small, single-family dwellings. Each family unit looks after itself, and is unwilling to draw upon the power of the clan unless forced to, or unless it encounters a danger to the clan. Each clan group elects a person (of either sex) to serve as head of the clan, and his decisions are final. If this person commits a serious error, that is not caused by outside, unknown influences, he will usually commit suicide. Interestingly, if anyone in the government commits an error, the chain-of-causation for that error may cause the entire government to commit suicide, or at least that part of it in a direct line up from the guilty individual. The reasoning is that the guilty individual was chosen by his superiors, and therefore they share the blame if he fails in his job. Coupled with this extremely dangerous method of government is the fact that Osnomians are raised from birth to excell in all things, and not to lie or violate any societal rules. Since the punishment for violation of many rules is death, the average Osnomian is very, very law-abiding, and also very loyal to his clan.

This race practices eugenic culling, which means that any individual found to be either physically or mentally unfit (not just different) is killed. If the head of the clan orders, the selected individual can merely be sterilized permanently. This has resulted, over the centuries, in the creation of a race free from almost all forms of hereditary disease and malformation. Resistance to common diseases is very high, as is resistance to infection, tooth decay, and the common cold. The usual method of execution for an unfit individual is simple death by a pistol or rifle, but the individual in question, if adult, can request that the head of the government fight him in a duel to the death. If the unfit individual wins, then he may appeal his case to the next head of the clan, and usually wins. Duelling is almost always done with swords, and is controlled by a set of complex rules determining the time per round, and the medical treatment allowable between rounds.

The planetary government is composed of clan heads that are interested first in the continuation of their clans, and then in the continuation of the race. However, even if the clan heads do not like each other, there have been several instances where an invader has found that clan differences can be temporarily forgotten in minutes, and the entire power of the planet mobilized effectively under the control of a single warleader. These warleaders are very rare, but when they hold their positions, they have never been known to act in any other interest but the protection of the entire world.



Otter

As is indicated from the name, the Otters are not an independently evolved race, but rather were artificially modified from a non-intelligent race. Their size, reflexes, and intelligence were genetically changed by the Masters of the First Empire, and have remained stable since then. It is not known why this race was created, as none of the planets that they are found on have anything especially useful, and certainly nothing that could not be better collected by a land-based animal, than a primarily water-based animal such as the Otter.

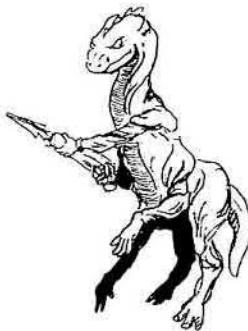
The Otter remains physically identical to its unintelligent parent race, with the exception that the average length for this race is seven to eight feet, with the other dimensions expanded as well. The long, tubular body is set quite low to the ground, and is held up by four stubby but powerful feet that are equipped with long claws for digging and combat, and also are broad enough to propel the Otter through the water at a high rate of speed. The primary power for movement in the water comes from the large, ribbon-like tail that swings back and forth under the control of the massive muscles that center around the Otter's rear legs. By using his rear legs and tail for speed and power, and his front legs for steering, the Otter can match the maneuverability of many totally water-based races.

However Otters are air-breathing, and can drown like any other race if denied oxygen. Their lungs are designed more efficiently than the lungs of the human race, so that the Otter can stay under water for longer periods of time, but they still require breathable oxygen. The sensory organs, clustered on the pointed head, are designed to be useful in both environments. The eyes are the primary sense, followed closely by the ears.

The Otters are a live-bearing race, with the female carrying the young for approximately eight months, then bearing them in a protected dry area that the male generally guards. The young, until the first year of age, are blind, and incapable of any but the simplest movements. After the first year, the change in the infants is sudden, and by the end of the second year, they are about four feet long, and are swimming and climbing wherever their parents go. Their lung capacity is still small, but during this period, until their sixth year of life when they become adults, they follow the mother at all times, and are trained intensively in survival and non-technological sciences.

At the end of the sixth year, with the emergence into adulthood, the Otter chooses which of the professions he wished to pursue, or decides merely to remain with the majority of the Otter race as they wander in the oceans of their worlds. Since all of the Otter-colonized worlds also have large floating islands of moss that congest the oceans, the Otters are capable of ranging the deep sea without any difficulties. When tired (even though they usually sleep on top of the ocean) they can simply climb onto one of many islands and rest. It is even possible for these Otters to live their entire lives without ever seeing stable, dry land, although this is increasingly rare. With the advent of Second Empire technology, increasing numbers of Otters are leaving the old wandering lifestyle and entering the stellar community.

When decisions are necessary, it is very difficult to locate any sort of governing structure in the Otter social setup. Apparently, any adult is considered to have the ability to deal with any problem, or at least is expected to be able to locate another individual with expertise in that field. There is a small class of wandering "wise men" who seem to handle most of the major decisions on their own authority, and only later report on their decisions to others of their profession.



Paknii

The Paknii are a common race that live in large colonies all over the known galaxy, as they were much used by the Masters of the First Empire. Approximately three feet tall, and humanoid in shape, they share many planets with the human race.

Although they are humanoid, there are several important peculiarities. First, the Paknii has six major limbs instead of four. These six limbs, arranged around a tubular and reptilian body, are split into two functions. The rear two, which are the largest, are always for walking or running. The medium-sized middle pair is used either for additional support and speed, or for gross control of objects. The upper pair, the lightest, is almost never used for motion, but is reserved for fine control of objects. Each limb is equipped with three fingers and a thumb, all with four joints and semi-suction tips. The second major difference is that the Paknii has a stubby tail used for balance and water storage.

The head of the Paknii holds all of the sensory organs, including the brain, and is equipped with a blunt muzzle and multiple rows of teeth used for catching small animals and masticating vegetables. Like humans, they are omnivores. Although the race is warm-blooded, they prefer to live in constant sunlight.

In color, the race varies from light grey to blue to light brown. There is no apparent social significance attached to this color variation, and there is no color change between the sexes. Both sexes have a tall crest on the head, and half-way down the neck, but only the male has an additional set of bright red wattles below his chin. The skin is formed of small scales, which are constantly shed and replaced. There is no shedding of the whole skin, as in some reptilian species.

Note that the only native armament available to this race is the teeth, as the semi-suction fingers are too soft for assault. The rear legs are equipped with an efficient set of digging spurs, but these are not of any use defensively.

The Paknii is an egg-laying race, and the egg-carrying and laying is done by the female of the race. The female carries the eggs until they are about two weeks from hatching, at which time she can barely move, and must be cared for by the male. The egg-laying site is a burrow off of the main burrow, usually in sand, and the male will die to defend this burrow from any intruders, even other members of his family. During this two-week period the female and the male are both nourished by the stored protein and water in their tails.

The entire dwelling is constructed under the surface, in clay, soil or sand. There are many surface entrances, and also many traps and deadfalls. Drainage is handled through a clever set of water channeling traps and tubes. In larger, multi-family dwellings, such as the cities, the entire tunnel complex is moved into an artificial concrete facility, but the size of the tube still remains about 3 feet in diameter. In non-technological areas, the largest group dwellings are tribes, generally of the same blood line, that share connecting emergency and transit tunnels, but have private complexes for each family group. The size of the family group varies from the initial solitary male to the mated pair, and the offspring may expand this mated pair into as many as twelve Paknii. After three or four births, the female generally becomes infertile, and both Paknii retire from the protected inner area of the group warren.

Solitary, aged individuals generally room together, and are cared for by the young of the entire warren. This race has a special caste of medical specialists that can take a blood sample from a diseased patient, usually by nipping him, and generate within their own bodies a unique antidote to that infection or disease. This does not work on cancer, or on several non-native diseases. Also, these individuals cannot heal themselves. It is impossible to tell in advance if a particular offspring has this ability, and at the rite of adulthood each is given a test for it. Only a few of the tested individuals pass the test, and these are forced to enter the almost holy order of healers. Healers are protected by the community, and can be of either sex. They are expected to pass their genes on to many offspring, even without the protection of marriage.



Pa-Liinan

Originally thought to be a minor offshoot of the common human race, the Pa-Liinans have finally been placed into a separate category. The research of Tamako Nishiki of the University of Zacania into genetic coding has proven that the Pa-Liinans and the human race could never have been the same race. Due to their limited numbers, the Pa-Liinans are still relatively uncommon inside the Second Empire, but because of the location of their worlds, they are quite common on the outer fringes of exploration.

The Pa-Liinans are human in proportion, but stand only about four feet tall. Each of their hands is equipped with a four-fingered, one-thumbed manipulative cluster, and each of the digits has four joints rather than the human's three. The color of the skin is always a light cream or off-white, as is the hair. The eyes are yellow, and quite large in proportion to the size of the face. These yellow eyes are extremely good in low light situations, but become effectively blind under intense or direct sunlight.

Due to their white skin and obvious adaptation for nocturnal living, the Pa-Liinans are extremely sensitive to sunlight and to radiation of all kinds. When exposed to sunlight in large doses, they invariably burn over the exposed areas of their skin, and often begin to suffer from skin cancers. However, when out of the sun, they are still able to synthesize vitamin D, which the human being is not able to do without sunlight.

Curiously, in spite of their preference for living under the ground, and in darkness, the Pa-Liinans show no fear of heights, and are able to judge distances and sizes of objects very well from extreme heights. This may be due to their traditional use of flying mammals.

The normal Pa-Liinan social system is designed around the feudal model with small independent princedoms owing allegiance to a single town ruled by a warlord who has risen to power through warfare. Each prince is allowed to pursue his own affairs, as long as they do not interfere with the safety of the realm, or its peace, or the prerogative of the warlord. With the discovery of star travel, each prince launched all the ships he could afford, and the bickering and combat was moved from the planet's surface into deep space.

On at least one Pa-Liinan planet, the peasants that support the entire economy have successfully revolted, and have installed an elected government made up primarily of religious men, with a great deal of off-world influence. This planet has combined the captured princely fleets into a single government-owned fleet that is expanding rapidly into the relative vacuum in that area of space. Independent owners, while rare, are encouraged to expand also, as long as they do not interfere with the government routes.

Many Pa-Liinans have a peculiar gem that resembles an opal, and which the University of Zacania laboratories have not been able to analyze or duplicate. This gem is available only to members of a specific religion that thrives on the home planet, and these members must make periodic religious pilgrimages to maintain the virtue of their gems. These gems produce ecstasy in the holder, and also impart an increase in endurance and disease resistance.

On all the Pa-Liinan worlds, the flying mammal used for transport and combat is common, and remains a favorite mode of transportation even with the importation of more advanced technology. The Pa-Liinans, much more so than other races, are able to enjoy flight far above the planet's surface with no safety devices.



Parotnian

The Parotnians live near the Guerr inside the Unity of Shildai, and although the two races are similar in physical appearance and mental outlook, they get along terribly. They tend to fight each other unless restrained by various peace-keeping forces. These combats are roughly even, as the Parotnians make up in speed what they lose in weight and size. Fortunately for the Unity of Shildai, the Parotnians enjoy temperatures near five hundred degrees Farenheit, while the Guerr only tolerate temperatures up to around three hundred and fifty degrees.

Like the Guerr, the Parotnians are crab-shaped, and have a carapace that covers all of the body, and protects it from damage. In the case of the Parotnians, though, the body is only about two feet long, and it is much faster-moving than the massive body of the Guerr. The Parotnian moves on six long, four-part legs that raise it about two feet off the ground, but which can be folded down to lower the body case to within a quarter of an inch of the ground. Each of the legs has complex sucker tips, and an additional set of pincers at the base, for use in holding the Parotnian steady in the high-speed winds of its world, which sometimes approach two hundred and fifty miles per hour.

The sensory organs are all contained in a fleshy head that extends out of the protective shell at the front of the body. A set of four infra-red eyes on top have excellent resolving power, and are supported by a complex ability to send out sonic waves and analyze the echoes. This ranging ability allows the Parotnian to scan the environment at distances far beyond the range of his infra-red sensitive eyes, often up to six hundred yards.

Directly below the eyes and mouth is a set of tentacles that hangs vertically down. These tentacles can extend to a distance of about a foot, and are used by the Parotnian for feeding. They are also used to hold small instruments while the legs maintain the individual's hold on the ground.

The Parotnian, like the similar race of Guerr, is incapable of utilizing his imagination at all. However, unlike the Guerr, the Parotnian is capable of learning a new technique or piece of equipment in a very short time, and they have used this ability to raise the technology of their worlds to much higher levels than those of the Guerr.

The Parotnian culture is also based on respect for social rank as the prime factor in relations with others. There are complex social rules defining exactly what different classes must say to other classes, and how they must act. These social classes are hereditary, and it is impossible for an individual to leave his social class. As the rank between two individuals increases in distance, the politeness used by the higher of the two decreases, until nobility are allowed literally to ignore peasants. In addition, the law is severely constrained by this social system, so that it is possible for a Parotnian to kill another of much lower social rank without fear of reprisal. In cases like this, the only opening for the lower class is to try to interest another person of high rank in avenging the death, for his own reasons.

Because of their social structure, the Parotnians view all other races in the same light, particularly in matters of business. A visiting Parotnian may be exceedingly offended if he feels that he is being interviewed by a lower class being. For example, for the president of a Parotnian trading house to be met by a vice-president, even for a short time, would probably be taken as an insult. Insulting a Parotnian usually results in a prompt challenge to a duel, or occasionally an immediate visit by paid killers.

In spite of their difficulties in cooperating with other races, though, the Parotnians are capable of very effective group action within their own race. Due to the reflex of unthinking response to an order from a superior, it is common for Parotnian governments to work very smoothly, and they are among the most effective forms of government in the Galaxy.



Pilosian

The Pilosian is another newcomer to the starports of the Second Empire. Only recently discovered beyond the rim of Second Empire space, the Pilosian race has been found on several planets. Others are reported still closer to the core. Usually found living in savagery, the Pilosians nevertheless have a few enclaves of civilization that escaped the general destruction at the fall of the First Empire. Several of their planets were clearly centers of First Empire civilization, as they have large ruined cities of First Empire type scattered on their surface.

With a height of about eight feet, and a set of folded wings jutting up another six feet above that, the Pilosian is a gaunt-looking creature. To intensify this appearance, the Pilosian physique is very slender, except for the breastbone and the large back muscles that enable them to fly. The wings are batlike, and when extended each is about 25 feet long. The feet of the Pilosian are designed for two purposes: to land on small objects and grasp them securely, and to hunt from the air by grasping small prey. The feet are widely maneuverable, and can easily reach the top of the Pilosian's head to scratch, or to handle controls for machinery. Each foot is equipped with prehensile toes with long claws, and a strong spur at the rear of the foot.

The sensory organs of the Pilosian are designed for maximum use during night, which means that their vision is very weak, and good only for close-up viewing, but the ears are quite large, and capable of detecting noise that most other races would not be aware of. The ears detect higher frequencies than those of human beings, and can detect ultrasonics easily. The Pilosian uses a method of ultrasonic echolocation, like the bat, to fly quickly and surely between obstacles in total darkness.

The Pilosian race has a mating season—very uncommon for an intelligent race. Every four months, the female goes into a receptive state, and during this time all the males fight for the privilege of mating with her. These combats are usually not to the death, but it happens occasionally, and the winner is not expected to pay any price for this murder of his rival. When pregnant, the female loses the ability to fly, and is protected by all the males in the group, especially the father. These mated pairs do not last longer than the infancy of the offspring, and if the mother should take a new male, then that male assumes responsibility for protecting the infants of both.

The young Pilosian is incapable of flying until about his eighth year of life, at which time the muscles in his back and chest become large enough to support him, and the muscles in his legs begin to modify. Prior to this change, the Pilosian exists solely on the ground, as a fast and very agile running animal. With the advent of the ability to fly, however, the Pilosian assumes the rights and responsibilities of an adult, and partakes of all adult functions.

The government of the Pilosians is one of almost total communism. All equipment and facilities are owned in common by all the people, and no one can claim any right over any other individual. The committee that runs the worlds, and makes all the decisions, is selected by a combined vote of the previous committee and the populace. This results in a gradual changeover of the ruling committee, but there is usually enough carryover so that the policies change only slowly. In major matters, the policy of the Pilosians has not changed for several decades, but for more minor matters the policy has vacillated depending on the current rulers. There is no place in Pilosian society for the individual who is after private ownership or private rewards, and such an individual is usually put to death. With the advent of star travel, though, the rebel is often merely exiled, and makes his way into the Second Empire or one of the other star-traveling civilizations.



Praxim

The Praxim and the human race have long had an affinity for each other, as they feature in each other's mythologies very strongly. Resembling strongly the legendary centaurs of human tales, the Praxim have many of the traits of their legendary counterparts, lending support to the idea that the two races had contact in pre-historical times. The classical human view of Praxim is of a race loyal to its own, trustworthy, and peaceful, whereas the Praxim see the human race as characterized by greed, suspicion, and war. However the two races manage to get along very well in spite of their differences.

The upper half of the Praxim body is very similar to the body of a human being, except for some minor structural changes. The shoulders are much narrower, leading to weakness in the short arms. The mouth and the jaw are longer than in the human, and the teeth are entirely molars, which limits the protein intake of the Praxim to vegetable matter. The ears, unlike the ears of the human, are tall and erect, and point almost directly forward.

The rear half of the Praxim body is similar to the body of a Terran bull, with massive shoulders and a slight hump between them. All four legs end in wide, splayed feet with hard calloused pads. At the rear of each pad is a single fighting claw about four inches long. The entire body of the Praxim, both upper and lower sections, is entirely covered by a pelt of short hair, usually brown or tan, but occasionally ranging to white, black or a rich reddish color. A short tail is used to keep the flanks in a state of constant sheen and cleanliness.

Mentally, the Praxim are not well-suited for space-faring. They are used to the wide rolling plains of their home planets, and confinement by walls of any kind distresses them intensely. However, the Praxim have solved this problem by a combination of drug treatments and the use of complex illusion-producing devices aboard their ships that project images of the plains of home. Occasionally these devices break down, leaving the Praxim in the grip of a paralytic, sometimes fatal mental breakdown. Usually, though, the Praxim will recover almost at once when on a planetary surface, and some are not affected at all.

The society of the Praxim is intensely male-oriented, unlike most of the other races that ply the spacelanes. This is attributed by the Praxim to the fact that a Praxim female carries a child for sixteen months in pregnancy, and rears him for another seventy months before he can leave her side. At the end of this rearing procedure, the female often retires, exhausted. In addition, there are obvious signs in the Praxim culture that females are seen as capable only of bearing children, even though well-meaning social scientists have pointed out that the two sexes are equal intellectually, and that equality could benefit the race very much. However, the Praxim informed these scientists that their opinions were not wanted, and have continued to keep to their own opinions. A female Praxim is almost never seen on any spaceship, unless accompanied by a large and protective escort of male Praxim.

Due to the long childbirth and rearing times, the Praxim grow in population very slowly. Their society is still centered around the plains, and it is not uncommon for the entire governing body of a world to be out of touch, roaming the plains for exercise and relaxation. Open-roofed anti-gravity fliers are now being used by many Praxim officials to maintain contact between the complex of government buildings near the spaceports and the open fields. Industrial work is done through short term use of lower class Praxim, or lately through intensive use of computers and robotic factories.

Several character traits mark the Praxim as beings of the plains, notably their total fear and distrust of any kind of open flame. In the times before their civilization had mastered fire, the grass fire was the only thing that could destroy them entirely. Most of the historical myths of their culture deal with fire as a malevolent and powerful god that must be appeased at frequent intervals. Living on the wide plains as they were, it is easy to see why this belief was common. In space, the Praxim control this feeling, but it is there, and occasionally the sight of a human being smoking will trigger an instinctive flight or combat reaction from a Praxim.



Prontexi

The Prontexi are contained within the Empire of Cavoral, but several minor colonies have been reported in the distant reaches of unexplored galactic space. Kept well-protected by the Empire of Cavoral, which uses them primarily for research into weaponry and defense, the Prontexi are the prime force allowing the Empire of Cavoral to maintain its sensitive balance of power over the warring Brotherhood of Tarl and Unity of Shildai. However, due to a request by the reigning Emperor of the Second Empire, several hundred Prontexi have been transported to a suitable Imperial world for similar purposes.

The main Prontexi world, like all of their major colony worlds, is a Mercury type planet possessing only traces of atmosphere. Generally, the sunsides of these planets have massive flows of molten metals, while the night sides are frozen. Due to tidal effects, such planets usually do not rotate. The Prontexi live in the areas of maximum sunlight, and will soon die if taken out of the incredibly bright solar illumination. Incapable of storing energy in any way, the Prontexi are able to maintain all of their energy needs, both biological and industrial, through the use of solar cells.

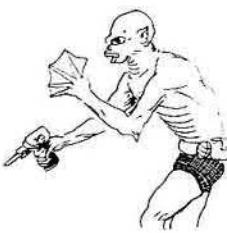
The Prontexi is quite similar to the common ant, having three main body sections. The front one carries the head and sensory equipment, the center section handles all locomotion and manipulation, and the rear section controls internal maintenance functions. The front section has two large eyes which comprise most of its bulk, capable of sight only under the intensely bright conditions on the surface of their planets. Between these two eyes is a set of antennae that can detect the temperature of any item within twenty feet to within a fraction of a degree. In addition, a mouth-like opening at the base of the front section can analyze most metals in seconds, if molten.

The second section has three legs sprouting on each side, joined at the base of the body section. The legs are multi-jointed, and can extend to several times the length of the body, which is only twelve inches long. This allows the Prontexi to climb almost any surface. It is helped in its climbing by the two small triple-pincers that extend from either side of the second section. These two pincers, though they appear clumsy, are actually capable of incredibly small and delicate movements, as well as grosser power movements.

The last section is the smallest of the three, and contains what is basically a very complex catalytic laboratory. Metabolic maintenance of the Prontexi is quite complex, chemically, as its structure is made up of complex and extremely large metallic molecules. The maintenance consists of applying continuing new amounts of needed metals to these molecular strings to maintain the delicate balance needed for life. When additional metals are needed, they are usually found within the Prontexi body, but the feet can be used to absorb needed molecules directly from the ground.

An individual Prontexi is rather dumb, with the intelligence of an insect, but they can meld their intellects into a powerful group mind. Thus, a group of sixty Prontexi within twenty feet of each other will be roughly as intelligent as a human being. There is a bottleneck in the ability of the larger mental organism to handle information flow, so that the maximum size of a single individual mind is about two hundred individuals, or roughly two and a half times as intelligent as a human being. However, different mental groupings of Prontexi can communicate with each other through telepathy, and can work in unison to solve a particular problem.

Reproduction is accomplished through a complex catalytic process which produces the single massive metallic molecule that is the key structure of the Prontexi. As this molecule drifts about on the Prontexi worlds, it is either destroyed or it picks up enough additional atoms to complete itself, and becomes an immature Prontexi. The first several years of a Prontexi's life are spent completing and enlarging its body.



Rappi

Due to their rather restrictive living conditions, the Rappi are found on only a few worlds in the Second Empire. They require almost constant moisture on their skins, and large quantities of water are needed for their style of living. However, these same conditions lead to the Rappi's mastery of low-pressure chemistry, and their race is in demand all over the galaxy for their specialized knowledge.

Physically, the Rappi are very similar to the human race. While their dexterity is slightly lower, their reflexes are slightly higher. The average height of an adult Rappi is eight feet; the normal range is from six feet to nine feet. The females are slightly smaller, usually from five feet to eight feet. Rappi possess two lower legs for walking, and two arms for manipulating. Unlike humans, Rappi have webbed fingers and toes, and can swim quite well for humanoids. The skin is a moist, soft surface, colored grey or mottled green.

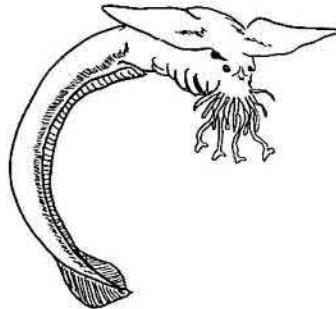
Possessed of dual breathing systems, the Rappi is capable of breathing either humid oxygen air or oxygenated water for prolonged periods. For ease of vision in these two environments, the Rappi has two eyelids, the inner of which is a lens that adjusts the eye for underwater vision. The outer lid is a simple protective cover, as in the human eye. When not in contact with the very humid atmospheres of their home planets, the Rappi must wet their skins at least every 24 hours. Either freshwater or salt-water may be used for this purpose, and the Rappi may safely drink either kind of water as well.

Almost all of the Rappi civilization is centered around water, usually in the form of a swamp or a canal system. Most of their homes are built half-immersed in water for ease in maintaining the submersion that they find desirable.

Very similar to the human being mentally, the Rappi are a live-bearing race that use a variety of different social constructions to protect the individual. On different worlds, they have used elected councils, hereditary councils, and dictatorships. In general, the average Rappi is unlikely to question the commands of authority, although the less docile Rappi are more likely to be seen on the spaceways.

Rappi cities are works of art, the layout being carefully designed to have several different levels. The lowest level is entirely immersed in water. This level generally includes all of the schools and internal government offices. The second level is a level of private homes, and the business district. This level exists half in the water, with three to four foot deep channels and canals connecting all buildings. The upper level, which was traditionally used only for pregnant females and other protected members of the race, has become the home of the elite, and also the location of most off-world facilities, such as hotels, restaurants, and external government offices.

The most striking feature of all Rappi cities is an incredible profusion of both canals and plants. Often it is impossible to see buildings or canals for the masses of creepers and algae that obscure them. Since all of this plant life, and the animals it feeds, are edible by the Rappi, it is not uncommon for a Rappi to merely step out into the street for a quick snack. General dining, naturally, is done with more specific plants and small animals, but no Rappi sees anything wrong with eating the city plant life. Due to the constant low light level in these locales, which the Rappi's eyes can easily penetrate, there have come into being large artificially lighted towns, which are designed specifically for off-world visitors.



Raslet

The Raslet occur only in the superheated waters of their Venus-type planets, and due to their size and temperature requirements they are rarely seen at Second Empire starports. However, they do travel in their own starships, and they deal with the massive trading conglomerates like other races. They have little to do with the Second Empire, except superficially, and they remain almost totally uncontrolled even within the Second Empire. No doubt this is due to the fact that there are very few of them, and that planets of their type are difficult to find, so that the Empire feels it does not need to spend as much energy watching this race as it does with others who have hundreds of bolt-holes.

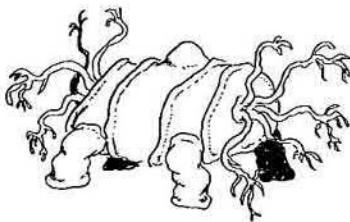
Raslets come in lengths of up to two hundred feet, and their maximum thickness is about twenty feet. In general shape, the Raslet is a long cylinder, broken at the ends. The head of the Raslet has two large fins at the top which are used to steer it underwater, and just below these are the enormous eyes, which scan the entire environment between the four of them. Designed for constant immersion and constant darkness, these eyes have no form of protective cover, and will go blind if exposed to light of surface brightness. Just below these four eyes the body splits into twenty tentacles, each covered with rows of muscle-driven suckers of various sizes.

Among these twenty tentacles are four specialized tentacles that have manipulative devices on the ends. Resembling two fingers, without a thumb, these four specialized tentacles acting in unison with a number of sucker-tipped ones can manipulate the most delicate devices very easily. Inside the protected area formed by the base of the tentacle is the mouth of the Raslet, which is fed directly by one or more of the tentacles. In addition, water is constantly pumped through this orifice from gills located between the eyes. The water is pressurized inside the Raslet and then propelled at high speed through the rear mouth, pushing the Raslet through the water at a high rate of speed.

The civilization of the Raslets is entirely constructed on the floor of the ocean, and therefore is very difficult for the average human to find. Naturally they use no lights, nor any form of fire. To find their way around, they rely on their incredibly sensitive eyes that can see in any light, no matter how weak. In addition, their eyes are sensitive to infrared wavelengths, and at those depths, anything artificial and powered will radiate fiercely in the infrared band of the spectrum. The Raslets base almost all of their civilization directly on the use of radioactives, of which most Venus-type planets have a fair amount. Due to their relative immunity to radiation, and their inability to use fire, the Raslets discovered and tamed radioactive power at a much earlier period than the human race.

The social and political structure of the Raslets is based on the fact that they multiply only very rarely. Each Raslet has a fertile period lasting only three standard years, and a gestation period of eleven standard months, thus allowing a maximum of only three births per individual. Therefore, there is much competition for the right to pass on one's genes, and this competition results in the striving of almost every individual toward the best possible results in whatever field he or she has chosen to follow. Females share this competition; they wish to be the best possible female choice when a top-notch male becomes available, thus allowing the maximum possible genetic quality for their offspring.

Female Raslets are protected by both government and individuals from any possible harm during their pregnancy, and this attitude carries over into their dealings with other races. A Raslet will find it impossible to damage a non-mature female of any intelligent race, and will never hurt or threaten a pregnant female at any time. Not only the act, but even the concept of harming a pregnant female is impossible for a Raslet to entertain.



Rigellian

A common sight among the research and military establishments of the Second Empire, the Rigellian is well-known for his superbly logical mind, and for his ability to think in three-dimensions. There is a problem motivating any Rigellian to do anything, but there are enough of them that a given job can usually find a Rigellian willing to do it.

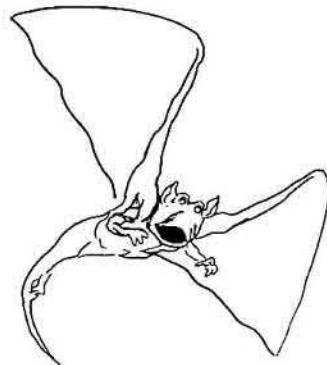
The Rigellian has a large body, shaped like an oildrum on its side. This resemblance is continued even to the support ribs, which appear on the Rigellian at frequent intervals. From the four corners of the body extend four very blocky and unjointed legs, that support the massive weight of the Rigellian with ease. At each end of the oildrum body is a cluster of tentacles, each of which splits into a number of smaller tentacles at the tip. Atop the oildrum body is a single domed protuberance with no eyes or ears. The Rigellian is totally incapable of detecting sound, unless it is of sufficient volume to resonate his body. All sensing of the external environment is done through the use of a specialized psionic sense called spatial sense. This acts to give the Rigellian a total picture of the surrounding environment, in all directions, and in all lights. It is accurate to fractions of a millimeter, and can be adjusted selectively to penetrate many non-metallic materials, and several of the lighter metals.

This spatial sense is especially useful when coupled with another ability, the Rigellians tolerance of all kinds of radiation. This allows him work in reactor areas, and in radioactive mines where the radiation would kill another race, or require costly shielding. Such work sometimes results in the contamination of the Rigellian, but they can usually be decontaminated cheaply and fairly quickly.

The mind of the Rigellian is most interesting. It is incapable of any sort of drive, or motivation. The Rigellian's sense of logic, and his ability to see the universe in three dimensions, make him a very effective research worker, but it is difficult to find a Rigellian who can actually make inductive jumps of genius. In general, they are used for the basic support work that makes up 90 percent of all research: the monotonous repetition of the same actions under slightly differing conditions many times.

In the Rigellian society, as well, a lack of drive and motivation is apparent. The society of the Rigellians can best be described as one that takes the easiest course at all times. There are no laws, no police force, and until lately, there was no military at all. Now, with the increase in offworld visitors, a defense force has been formed, but Empire appraisers are unsure of its effectiveness due to the need for rote and memorized drill rather than independant action on the part of the defense personnel.

Their philosophy of life is one of fatalism, and a disaster is often merely passed off as having been fated to happen, which results in many crimes being committed against the people of the Rigellian race. These criminals merely wait for the Rigellians to stop their immediate panic reaction, and classify their crime as a result of fate, and they can generally repeat the same crime again. Several times in the history of the Rigellian race, a mutant has appeared that is capable of great drive, and has motivated and directed the Rigellians to achieve the technological skills that they have. Without this occasional push from within, it is doubtful that the Rigellians would ever have made the investment to gain space or star travel. However, even these individuals never advocated an Empire of any sort, and the Rigellians have trouble grasping the concept of Empire.



Sander

The Sander Federation, which was actually a loose empire, was brought under the control of the Second Empire after many years of bitter fighting. Since the Second Empire wanted livable worlds, not cratered ruins, they were forced to use soldiers rather than atomic weapons. However, once the government of the Sander Federation collapsed, and their starships were smashed into scattered remnants of fleets, the ground conflicts rapidly degenerated into fierce guerrilla combat. Since the Sander were capable of hiding on their planets much more efficiently than the invaders, the conquest took many years, and resulted in an appreciation of the abilities of the Sander to hide on even the most forbidding desert in total security. They were finally defeated only through the use of many teams of psionic detection specialists.

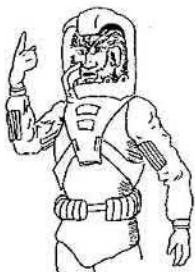
The Sander is a large, sand colored triangle of protoplasm. The color of the skin is variable across a wide range of greys, browns, and tans. Physically, the triangular shape of the Sander is made up of a six foot long tube for a body and two large flanking triangular wings. At the rear of the body is a long stinger, capable of being smashed through steel plate by the tremendous muscles of the Sander's back. The front of the Sander consists of a small set of eyes, and to either side of these are located extremely efficient ears. Below the sensory organs, taking up the entire front of the head, is a gaping mouth with a movable flap below to seal or open it.

The Sanders traditionally feed on flying insect life, but have adapted quite well to eating mammals and birds on other planets, since their molar teeth are very strong. Generally, the Sander flies through the air at evening and morning, sifting insects from the air with its net-like inner mouth. The excess air is allowed to escape through the rear of the mouth, at the base of the body.

In the harsh temperatures of the day and night on their desert planets, the Sanders use their wings to dig shallow holes under the loose sand, and sit all through this period with only the two eyes projecting above the sand. However, the Sander is capable of launching to full flight from this buried position, as many unwary Second Empire troops found out. The tail is used only as a weapon of defense in the wild, but with the advent of guerrilla war, the Sander discovered that a non-metallic, non-detectable weapon was worth much more than a technological weapon of vast firepower. Since no effective life-form detector has ever been constructed, the Sander were able to avoid satellite surveillance merely by not carrying any metal.

With the advent of technology on the Sander worlds, they began to alter their previous nomadic existence, and to concentrate in cities. These cities, though, consisted of protected areas to guard machinery and stores against the continuous wind and sand. The Sanders, in spite of the options of a technological civilization, prefer to continue living at unmarked, undeveloped locations scattered at random over the deserts. This use of unmarked and unremembered sleeping areas also results in the Sander having little use for personal possessions that cannot be carried on the body. They have little emotional attachment to any possession, and therefore the concept of theft is almost impossible to explain to them.

The government of the Sander is a lazy, sort of happy-go-lucky affair, which barely functions at all unless it is needed. When circumstances require it, each Sander takes the law into his own hands and does as he sees fit. When the situation becomes grave enough for a government to be needed, a local government is rapidly constructed, and works very well for the emergency. As the severity of the emergency increases, so does the size of the power structure that is created to deal with that emergency. In all cases, the populace obeys the directives of this government, and after the crisis is eliminated, the government disappears.



Replus

Although still slaves on their home planet, the Replus have expanded offplanet, and have several independent colonies scattered through the Second Empire and its neighboring areas. Still rare, the Replus are seen occasionally in starports, collecting money to be used to free the home worlds from the grip of their slaver overlords. The Replus, unlike many other races that exist in similar circumstances, have managed to become financially independent, mostly through their uncanny ability to calm and control all sorts of animals, an ability that is clearly psychic, but does not seem to be associated with any other psychic powers.

Approximately four feet tall, the Replus is physically very similar to the human being. The Replus stands out a little more because of its very thick coat of light blue fur, a coat that turns lighter with age, until it becomes white. In addition, the Replus has two very large, drooping ear flaps that hang down either side of its head, almost to the chin. These ear flaps are movable to some extent, and the Replus is capable of locating precisely the source of a sound.

The Replus have two sexes, and these two sexes are always equal in society, except that the young-bearing sex is required to raise and maintain the young entirely on her own. There is no permanent social bonding between any two Replus; even mated pairs are only temporary. Each Replus is primarily concerned with its own desires and needs, although if one can convince another that group action is needed, then they will join forces promptly. The young of the Replus are usually born in litters of eight to twelve, and these young share a feeling towards each other found in no other relationship that exists in the Replus society. These relatives, and no others, will show each other protection, and gift-giving, and apparent love, but these feelings are not carried on to either of the parents, or to the following children.

This sibling bonding is the primary reason that the Replus is capable of competing in Empire society at all. Almost all of the companies and businesses of the Replus are run and staffed by a single group that was born in the same litter. At the time of dissolution of the group, usually through death, the company or business is usually allowed to die. Sometimes the name of the business is continued, although the stock is sold to a new owner.

In this way, a large group of litter mates that have access to a lot of money usually form the government of a Replus community. Through the use of bribes and advertising, these governments can convince the majority of the populace to agree with them, and to pay taxes for community-wide programs such as protection from disease, running water, space defense, and similar broad-based concepts. In almost all cases, the ruling family has been the same for generations, as when the current family dies out, its offspring are in the best position to grab the facilities and money. It is bitterly contended among the scientists of the University of Zacaania, but the current consensus of opinion is that this still does not represent any form of emotional bond between parent and offspring.

Since their colonies are still few and small, the usual Replus ship seen in the Second Empire is a tramp freighter, or some other sort of ship that can be purchased cheaply and repaired by a litter-mate group. Even the ruling litter-groups do not generally own new ships, and when asked, they claim that secondhand materials accomplish the job as well and a good deal cheaper than investing money in home-run ship manufacturing facilities, which would require the full time of yet another litter-mate group. Many times offworld companies have attempted to interest the Replus in investing in plants of one sort or another, but the usual comment is that the money and personnel would be better spent elsewhere, and the Replus continue to purchase materials from offworld at relatively high prices.



Saplot

The civilization of the Saplots has fascinated scholars for many years. It is only roughly similar to the civilizations of the Second Empire, and it has produced several schools of philosophy that have taken some hold in the Empire of Cavoral. Rarely seen off their few home worlds, the Saplots do not actively seek either space travel or colonization, although records from the distant past indicate that at one time they were a spacefaring race.

Only two feet tall, the Saplot presents a startling picture with its bright green fur, which is usually an inch or so long. The basic humanoid form of the Saplot is marred by the addition of a large protruding breastbone, and the folds of yellowish-green wings draped at the sides of the body. The center finger of each hand is the main structural support for these wings, and the rear four fingers are the minor support ribs. The thumb and index finger are free of webbing, and have a long reach.

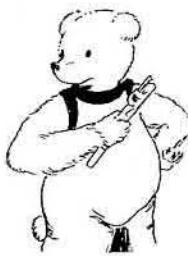
The entire body is composed of light, hollow bones, and the muscle tissue surrounding them is very weak. The only muscles that are developed to any extent are the massive wing muscles, especially across the chest and the back. The legs are rarely used for walking, as the flying membrane is attached down the entire side of the body, to the base of the feet. In flight the feet and lower legs, with their rigid, protruding vanes along the rear of the calves, are used to steer, and occasionally to control braking.

It is very common to see a Saplot land from extended flying and collapse into total agony on the ground. This is due to two things. First the Saplot can feel no pain when in the air, only euphoria. In fact, unless he has been given special training, a Saplot in flight cannot think. Second the entire Saplot race is susceptible to a vicious form of nerve cancer, which causes them severe pain when not in flight. The usual lifespan of Saplots is 40 standard years, because at this age the pain becomes totally unbearable, and they usually commit suicide by flying over the ocean until they fall and drown.

Their society is centered entirely on flight. The highest aspiration of every individual is to be flying, at all times. In flight there are no cares, no worries, no pain, no thought. Unfortunately, the society of the Saplots requires the services of many of them for tasks such as preparing food for others, raising children, and maintaining the society as a functioning whole. Therefore, the Saplot must alternate 24 hours of flight with 24 hours of service to the community, usually on the ground. Naturally, none of these grounded workers are interested in maintaining the community, only in enduring until their next 24 hour flying period.

This results in the haphazard style of life characteristic of Saplot worlds. The main buildings of the Saplot are millenia-old towers, crumbling away, each a mile tall and a half mile square at the base. Covered with vines and the remnants of thousands of generations of animals, these pylons resemble natural buttes rather than buildings, but they have all been shown to be artificial. With the extreme age of these buildings, it was not unreasonable for LaGrange and Cuth'li to assume that artifacts could be found inside them, and after a brief search they uncovered the largest cache of First Empire tools, equipment and manuals ever reported. Naturally, this resulted in a wholesale flocking of thousands of artifact hunters from all over the Second Empire to the planets of the Saplots.

While most of the Saplot planets are listed as having port facilities of all kinds, the prospective traveller should be warned that the usual state of these starports is one of total disrepair, and the bored and unresponsive Saplots can rarely be roused into helping a stranded visitor.



No identifying image available

Sheel

The Sheel were certainly very high up in the power structure of the First Empire, but they were not the Masters of the First Empire. Until recently, the race was thought to be extinct, eliminated during the Interregnum, but recent scouting missions have found colonies of high-level Sheel toward the galactic core, at distances that even the First Empire was not thought to have reached. When questioned, these Sheel worlds revealed that they were colonies formed by fleeing Sheel during the break-up of the First Empire. Thus far, they have expressed little interest in becoming allied with the Second Empire in any way, except to sign a non-aggression pact.

The Sheel are one of the most inoffensive-appearing races to human eyes, as they resemble closely a common human toy called a "teddy bear." Like teddy bears, the Sheel are rounded, and covered with short fur, and are usually only three feet tall. Their heads are rounded and sit flush on their shoulders, with no neck apparent. The claws are not designed for combat, but rather for hanging onto trees and snaring leaves from branches. In short, the Sheel appear to be one of the most harmless races in the Galaxy.

However...appearances are deceiving. The Sheel are actually one of the deadliest races yet encountered. Although their claws are designed only to snare leaves, they are able to produce an extremely dangerous poison on demand, and the speed of reflexes of the Sheel enable it to attack any animal or beast successfully, and escape any possible counterattack through the speed of its flight. The poison, which attacks the nerve cells directly, is fatal to most races within a short period of time. The few times the Sheel have been involved in combat, they won total victory. Even now there are tales told of the Sheel diplomatic corps, which could lure an enemy into relaxing, then destroy him easily, even under fire.

Mentally, the Sheel are even less like humans. The easiest way to sum up their philosophy of life is to say that they are amoral. In their view, the end always justifies the means. If an individual or a government got the idea that a particular planet should be mined, for example, they would think nothing of destroying the entire occupying race. They would, naturally, balance the possible consequences of this action against the possible gains, but in an even situation, it would be easier for them simply to poison or bomb the entire planet into a lifeless wreck.

There is only one quality that is worth having in the Sheel race, and that is the ability to succeed. It makes no difference to the Sheel how this is accomplished, as long as it is. There are no words in their language for the concepts of trust, lie, honor, duty, good or bad. The only terms used to describe actions are effective or ineffective, productive or unproductive. Naturally, this makes it very difficult for the various groups interested in talking to the Sheel to communicate on any meaningful level, particularly the various churches that are attempting to proselytize there. A concept like "love for your fellow man" can only be translated roughly into such words as "letting your fellow man live because he neither helps nor hinders you," which loses much of the meaning.

Because of the extremely effective government that the Sheel have perfected, they are some of the most capable administrators in the known galaxy. Naturally, many of their methods do not agree with the feelings of the governed, but in most races the masses have always felt somewhat out of touch with the government. The form of government advocated by the Sheel merely accentuates this distance, and puts total power into the hands of the government, with no public controls.

In no case, though, will an individual Sheel allow himself to threaten the survival of his race, though the fate of a planet might not concern him overly.

Shen

The Shen is a truly bizarre life-form. Several dozen worlds have been discovered so far that either have it or once had it. Apparently, this form of life was in existence even during the time of the Forerunner civilizations, as records surviving from that time seem to refer to it. It is not known whether the Shen possessed the same degree of intelligence at that time; they have shown a dramatic increase in intellectual powers since their discovery during the time of the First Empire.

The Shen life-form covers an entire planet. There is no such thing as a mountain, or a sea, anywhere on the planet; merely a solid grey covering that is perfectly flat over the entire surface. This grey surface is easily pierced, and the underlying material is identical, down to the bedrock of the planet. At special areas of the planet, though, the Shen has secreted its brain tissues, usually under some miles of rock, and communication with the rest of the body is accomplished through the use of its peculiarly non-specialized tissue, which is apparently capable of doing almost anything without structural change.

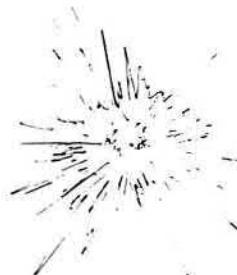
Reproduction, when it occurs (very rarely), is handled by a vast area of the skin which retracts to form a huge catapult, then springs back over a distance of some miles to throw microscopic spores high into the atmosphere, where a very few of them are carried into interplanetary and even interstellar space. The Shen does not feel any need to ensure its racial survival other than by this half-hearted, random method. When a spore lands on a new planet, it remains a small and insignificant growth on the surface for several years, storing energy and material under ground. When it has accumulated enough of both, it rapidly grows to about a mile across. After this point, the growth of the Shen is a regular square mile per day, until the entire planet is covered.

Apparently, the mind of the Shen is as malleable as its body, and it appears that the local Shen have learned science up to around technology level nine. They are very interested in radioactives, because they still do not understand them, and many of their planets do not possess any.

The Shen, by utilizing its responsive body, can create anything that it understands completely. By passing elements in molecular quantities through its body, the Shen can localize and create any number of objects using metals or other obtainable elements. Lately, some Shen have discovered how to combine hydrocarbons into plastics, and has added these to the inventory of substances it can manufacture. Unfortunately, this process is very slow, requiring much of the brain power of the Shen for a long period. The production process generally takes ten hours for a single cubic inch of material, or even longer if the material to be formed is complex.

The Shen are contactable by binary code, and are capable of decoding and transmitting it through specialized extrusions that they create and destroy at will. When sufficiently interested, and when it has enough time, a Shen can create apparently human extensibles that are capable of carrying on a conversation with a visitor. They are, however, incapable of moving out of contact with the surface of the planet, and can move only a few feet, by sliding the local piece of skin material.

When asked politely, the Shen will usually remove itself from a piece of bedrock to allow a visiting ship to land, if the ship signals from space that it is approaching. Signalling should be done through the use of wide-beam lasers, which the Shen can detect easily.



Srill

The Srill have only been encountered on three planets and four asteroid belts. This is difficult to explain, since they are an energy race, and planetary conditions make little difference to them as long as the energy input is sufficient. Their records indicate that they once had many colonies, but that they were almost totally destroyed at the time of the Forerunner civilization's collapse. The reason for this is unknown, and no records from any source shed any light on the subject.

The Srill is composed of almost pure energy inside a small lattice of iron or nickel ore. It appears as a glowing globe about ten feet in diameter, with a small open network at the center of it, about two feet in diameter. This ball of energy can range in color from transparent, through all colors of the spectrum, singly or in unison, to absolute energy-absorbing black. Srill communicate by controlling their spectral output, and have two senses. The first is a reaction of their own energy structure to incoming energy, which indicates the spectrum and energy level of the incoming energy, and allows the Srill to decide whether or not to attempt to absorb it. Most energies are absorbable, and most can be produced by the Srill. The second sense is the reaction of the iron or nickel internal skeleton to gravity waves. The Srill, through the deformation of this iron framework, is capable of detecting pieces of matter as small as an ice cube a mile distant, so long as the gravity well of that object is not masked by the larger gravity wells of other objects, like planets. Due to their internal structure, and their need to move themselves by utilizing magnetic attraction and repulsion on other iron or magnetic ores, the Srill usually occur only near surface areas where large amounts of magnetic metals are easily available.

Srill have no gender, and reproduce only rarely. When, after thousands of years, a Srill has expanded its internal skeleton almost out to the boundaries of its energy field, it organizes its internal structure to split into eight new Srill. The mind and identity of the original Srill is totally lost, and the eight new Srill are totally uninformed. They begin to learn at once, within the community of Srill, and reach their age of maturity in about three hundred years. The growth of the internal skeleton continues at a steady rate throughout the entire life of the Srill, usually around half a cubic inch each year. This material is removed by magnetic attraction from surface iron deposits, and is gradually alloyed to the main body structure by molecular welding.

The Srill must always be in bright sunlight. They are incapable of storing energy in any way, and must use tremendous amounts of energy constantly to maintain their life processes. For this reason, Srill are never found on planets with atmospheres, and are only seen in the Second Empire starports inside complex protective containers that serve to protect other beings from the deadly radiation that the Srill find necessary to sustain life. The Srill are one of the few races that can ignore radioactivity, and they could theoretically survive a nuclear explosion, as long as their internal structure was not deformed by the shock wave.

The mind and memory of the Srill is tied to its iron or nickel core, possibly through a sort of binary coding of magnetic impulses. If this internal structure is deformed or damaged in any way the Srill may die, or at least lose parts of its mind and memory, usually becoming a child Srill again except in size. The deformed structure is then capable of supporting a new personality and new set of memories, until it is deformed again.



S'Shula'a

S'Shula'a are common in this area of the galaxy. Due to their fast reflexes and high dexterity, they are in demand as starship and spaceship pilots, and for highly skilled work of all kinds. In addition, their size makes it possible to fit them into very small spaces, making them economical for many jobs.

The S'Shula'a in general appearance is like a Terran crane, with a shorter neck. The legs are very thin, and of little strength. They cannot produce much speed on the ground, and are not very capable at climbing. The wings, however, are functional, and give the species a high degree of maneuverability. Below each wing, protected by it, is a single thin arm with a six-fingered hand at the end, having four fingers and two opposed thumbs. This gives the race a very high dexterity. The wings must be either in use or slightly spread for the arms to be used, or even seen.

The feet of the S'Shula'a are the primary defensive weapon, not the bill. Designed originally for digging in light sand and soil, each toe has a long and well-supported toenail that is generally very sharp. In contrast, the bill is designed for cracking open small crustaceans and insects, and is quite blunt. In spite of the weakness of the legs, the sharpness of the claws enables the S'Shula'a to deliver severe wounds. Thus the S'Shula'a is generally able either to defend itself or to escape from attacking predators.

Each S'Shula'a has a coat of feathers that it sheds once every six months, on the average. This coat of feathers ranges in color from reddish brown to red to bright orange, depending on the home planet and climate. In general, the warmer planets seem to cause the brighter colors. All of the different types can interbreed, and the offspring follow the darker color, even if the climate indicates a different color. It takes generations for the lighter color of a local strain to eliminate the darker color of an off-worlder.

The S'Shula'a are an egg-laying race, and treat their eggs in a peculiar manner that offends many of the other races in the galaxy. After the female lays the eggs in a protected nest on a raised platform (traditionally made of mud on the seashore), both parents ignore them entirely. In the event that the young survive to hatch, the first adult of either sex that passes close enough to hear them will raise them. The mortality rate among the young is very high in primitive cultures, but since the female lays one clutch of fifteen to twenty eggs every six months, the population remains quite large. With the advent of technology, and the control of various predators, the population grew dramatically.

The S'Shula'a are a communal species. Since the offspring are usually hatched by a totally unrelated set of parents, the adult community is very conscious of its interrelation. Living in dense communities of millions, the S'Shula'a make all decisions through the election of a single official who is not allowed to carry any sort of weapon or defense. In the event that this official's decisions are not adequate, or he attempts to arm himself or protect himself from the judgement of his society, he will be killed by any member of the populace that sees him. The only reason this method of government works is that the S'Shula'a are totally devoted to the race, and when one assumes the position of ruler, he attempts to rule for the maximum good of the race. Trying to remove himself from the judgement of his peers, though, is not tolerated by their moral code, and results in immediate death.

Note that the S'Shula'a have extremely good close-up vision, and can see very well in dim light, but cannot see distant objects at all. This fact has shaped their civilization, in the sense that each community only cares about its immediate vicinity, because the S'Shula'a cannot see beyond that. This leads to total destruction of the environment when a factory or mineral mine is started, because none of the locals is likely ever to see it.



Sthori

Well known for their surprise raid on the Emperor's home world, the Sthori have since become an integral race of the Second Empire. Their microscopic vision allows them to produce many of the finest pieces of electronic equipment in the Empire. Their previous dreams of conquest have apparently been forgotten, as they amass vast power within the structure of the Empire's mercantile system.

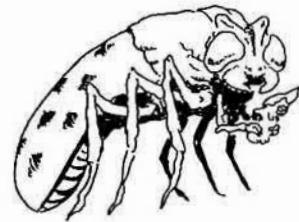
Roughly humanoid in shape, the Sthori stands about seven feet tall. The legs make up most of this height, and they are equipped with two knee joints. This makes the leg very flexible, and allows increased running speed. At the base of the legs are four-toed feet; the entire weight of the Sthori is balanced on these toes. They are very wide, and have pads along the underside. The entire body of the Sthori is covered with a layer of fine, grey-brown feathers. The color of an individual may change dramatically during different stages of his life.

The head of the Sthori is roughly hatchet shaped, with the edge facing forward. Inset into the edge are two eyes, with the upper, larger eye designed for both close and long-distance vision, and the lower, small eyes capable of only microscopic vision. This means that the Sthori is only capable of telling the distance of an object if it is in the visual range of both eyes, which means between ten and eighty feet. Both eyes are insensitive to yellow, and are quite efficient in the ultra-violet range of the spectrum. In addition, the Sthori have two ears mounted on long stems on either side of the head. These cup shaped ears are the primary sense organ, and can detect the source of a sound at incredible distances, even under noisy conditions. The Sthori also has a depressed area on top of his head that can measure the current air-pressure. This allows them to detect incoming weather patterns, and also gives warning of approaching shock waves, or anything else that would alter the surrounding atmospheric pressure. However, this same organ makes them sensitive to pressure changes, and they cannot live under conditions where the pressure is either much less or much greater than they are used to.

The Sthori are a strongly religious race, and tend to support large communities of priests serving one god or another. These gods are often consulted in matters of importance, and the statements received from the priests are treated as counsels of the highest sort. If a decision turns out to have been wrong, the god that counselled that decision is publicly chastised for not helping his worshippers, and the temple is pushed further down the list of powerful temples. The temple that offered the correct approach is given a boost in prestige and income, and this elevates it on the social ranking of the temples and their gods.

In spite of the fact that there are hundreds of these gods, the Sthori take them seriously, and will often challenge a non-believer to a duel to the death if they should be insulted. Each tribe of Sthori, while wandering on the surface of a planet on its regular nomadic route, carries with it a protector god, who is claimed to help the members of that particular tribe. In addition, rare individuals may be approached by a god personally, and be allowed to wear a nameplate for personal protection. The government exists only to serve the needs of the religious orders, and mostly exists to deal with events that occur off-planet, as the gods are all planetary gods who make no claims about the rest of the galaxy, and rarely leave the homeworlds themselves. A Sthori on a distant world may feel very vulnerable, as his gods are probably unable to hear him pray, or respond to his troubles.

The Sthori, as a race, are immune to concentrations of ultra-violet that would burn or kill most other races. This allows them to work on worlds with no protective atmospheric layers without undue hazard, and to deal more easily with atomics. They are also somewhat more radiation-proof than other races, although they still get sick or die if they absorb too much.



Tpictyl

The Tpictyl are beetle-like, and are perhaps the most common life form in galactic mythologies. In modern times, however, they are very rare. The most common form seen now is that of a beetle approximately three feet in length, and standing about two feet in height. Equipped with six long and very maneuverable legs, they are almost impossible to knock over, although they have trouble righting themselves once they are on their backs.

The Tpictyl's large multi-faceted eyes reflect the light in many colors, and are covered with a thick, clear plate. Below the eyes, two large mandibles jut out over a foot. Each is very sharp, on both its edge and its point, and quite strong. Above the eyes, located in the center of the head, is a large point of chitin, which is very heavy, but not sharp. Tpictyl rarely use this point for anything.

In color, the Tpictyl range from dull green to vivid chartreuse. Usually, each is covered with a number of brown spots, which are considered beauty marks. The eyes are the only part of the Tpictyl that does not follow this simple color scheme; they reflect all the colors around them. Due to their faceted construction, the eyes of the Tpictyl are never seen to move or blink, and it is impossible to tell what one is looking at. Also because of the faceting, they cannot read very fine detail on an object.

The civilization of the Tpictyl is very difficult to monitor, so that much of the information presented here is only obtained through hearsay and official Tpictyl releases. How much of this information is true, we have no way of knowing.

In general, the Tpictyl is a clan creature, and likes to have lots of its fellow creatures around it at all times. Each clan controls a hive that is built entirely underground, and may hold up to one million individuals. The tunnels and warrens of the hive are rarely more than two feet high, and the only illumination is from a dim type of phosphorescent fungus that grows along all exposed surfaces.

The feeding of the hive is accomplished through the use of vast rooms full of edible fungus, which is tended carefully by a hereditary caste of farmers. These farmers are usually only two feet in length, and lack the brown spots common to the free classes. The farming caste is never allowed out of the hive, and can be seen only during a mass migration or colonization. It is interesting that never in the recorded history of either Empire is mention made of a revolt among these confined members.

The method by which these caste members were chosen has been lost in the past, and only the hereditary lineages remain. All other Tpictyl are of the standard variety, although reports have been heard of a warrior breed, which is six feet in length, with much larger mandibles. These sightings have not been confirmed, but they do have supportive evidence in galactic mythologies.

In addition to their grasp of Techspeak, the Tpictyl also have a natural language in the ultrasonic registers, inaudible to the human ear. In the event that a Tpictyl is injured or in danger, it may produce an inaudible call for help, leading to the sudden appearance of thousands of hivemates.



Tran

Rarely seen inside the Second Empire because of their sensitivity to heat, the Tran are common on frigid worlds, such as cool Mars-type worlds. They are often used as garrison troops on such worlds, where their ability to survive in very cold climates helps them to get by with a minimum of equipment.

Standing about six and a half feet tall, the Tran is an outstanding example of nature's ability to fit races to any environment. The Tran is almost four feet in width, and is lightly built. The barrel-shaped chest is the most striking feature, and the legs are quite short. The feet, with three toes in front and one in the rear, are relatively inflexible. The knees, however, bend freely, and this is how the Tran is able to move himself.

The Tran homeworld is covered by vast expanses of frozen ocean, and over these the Tran move by a novel method—ice skating. The four claws on each foot are used as skates, and the rear claw acts as a brake. Large natural "wings" extend from under each arm to the base of the foot, to catch the constant wind that sweeps the surface of the planet. The Tran are able to skate at high rates of speed, and to maneuver deftly, even into the wind.

The Tran are a two-sexed race, with live-bearing females, and a basically human approach to living. The standard social group is the town, containing smaller family groups. Like humans, the Tran practice many different types of government, and the current favorite is a sort of royal dictatorship. The ruling monarch of the homeworld can trace his lineage back to the first members of the first expedition to reach the new continents on that world, an event that must have occurred in distant prehistory.

In general, the cities and fortified holdings of the Tran are built very low, and are always of stone, in spite of the availability of more durable materials. They are combed with wide streets, and the wind is allowed to blow into the city at full force and from all directions, to allow the Tran to skate the streets. Different levels are reached by ramps, and the Tran can skate up these ramps with little effort.

Inside, out of the reach of the wind, the Tran can walk slowly and rather clumsily on their feet. Lately, though, the Tran have taken to tying small repulsion units to the soles of their feet, and using wind currents to push them where they wish to go. Naturally, there is not always wind on other worlds, so that the Tran often use artificial wind-producing units on board their ships, or in their off-world living quarters.

Mentally, the Tran are much the same as the human beings. They are still ruled primarily by the profit motive, and they look after their own interest before those of the race, in most cases. There are several religions that flourish among the Tran, but none of them is especially unusual; most are variations of pantheism. Interestingly, these pantheistic religions each have a large number of converts who are called nuns or monks, and who stay in small, restricted convents of monasteries. They claim to be able to affect the judgements of their particular gods upon the affairs of the world, and they survive primarily through the donations and payments of believers. The government, with several minor exceptions, does not support these religions at all.

The government is a distant force in the affairs of the Tran, as it is difficult for the average Tran to find or contact the government. This is due to the fact that the government has placed complex communication devices far down the list of needed technology, and relies primarily on a sort of feudal structure to maintain order and peace among the Tran. This breaks down occasionally, but not often.



Trayle

The Trayle, though they appear human, are not. Genetic investigation has revealed that unlike most humanoid aquatic races, who evolved from land-based humanoids, the Trayle evolved directly into their present form from other aquatic animals. For this reason, and for several others, they cannot breathe atmosphere, but must remain submerged to breathe at all. Naturally, this makes them rather rare on Second Empire worlds, as they have to wear environment suits and artificial gravity generators, or bulky aquatic tanks, to go off-world.

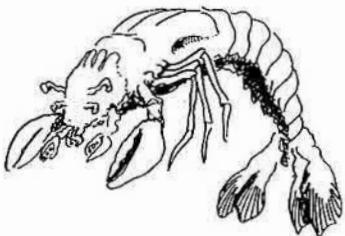
In physical shape, the Trayle are very like the mythical mermaid. They possess the upper parts of a human being, with minor alterations, and the lower parts of a fish. The head is hairless, and comes to a point on top to minimize drag in water. The eyes are much larger than the human equivalents, to facilitate vision in low-light environments, and also to correct for the distortion caused by water. These eyes are incapable of operating efficiently in a non-liquid environment, or in fluids which have optical properties much different than water. There is no nose, as constant breathing and tasting goes on through the mouth and the neck-gills.

Unlike their human look-alikes, the Trayle have very sloped shoulders. This aids their passage through the water, but also decreases their strength. The lower part of the body is a single joined tail; a continuation of the spine extends to its base. At the end, it splits into a horizontally-fluked tail. All propulsion and steering is accomplished with the use of this split-tail; the arms and hands are not used unless the individual is actually pulling himself along the ground. The entire body of the Trayle is covered with a fine set of scales that range in color from bright blue through blue-green, to a light lime color.

Mentally, the Trayle believe that all individuals in the galaxy are either irrelevant or hostile to them. They will usually merely ignore other beings, but at the slightest indication that another individual is trying to hurt him in some way, a Trayle will attack at once, and fight to the death. This led to many misunderstandings, and much bad feeling, until merchants discovered how to use the Trayle's own customs.

Once every seven standard months, all the Trayle in a certain area gather together to trade with each other, and to mate. During this time, the racial paranoia is apparently forgotten, and all the Trayle leave their weapons at home. The life-mates that individuals will defend to the death during other times of the year will be shared freely with any Trayle that expresses an interest. There are never any fights or even disagreements between Trayle during this time, even between individuals that actively hate each other at other times of the year.

There is no governmental structure per se, but during these gatherings, the nomadic Trayle decide to locate or manufacture things that the community needs, and these things are exchanged on a basis of labor expended. The same basis, with minor changes, is used to barter or buy goods from visiting off-world traders. All functions that cannot be handled during this infrequent meeting are missing in their government, and the entire responsibility for looking out for the citizenry is put directly into the hands of the citizenry. The only crime that is punishable by others is to make a hobby out of bothering others, in which case the community gets together to eliminate both the bothersome individual and his family group, except for young children which are adopted.



Trident

Only rarely seen in public due to their inability to survive out of water, the Tridents are well known to the star-faring races of the Second Empire. colonies have sprung up on many planets that support different races on the continents, the Tridents cultivating and mining the sea in exchange for materials from the land.

In physical appearance, the Tridents resemble a mix of lobster and fish. About six feet tall and thirty feet long, the basic body shape is a long cylinder. This carries the bulging eyes on their stalks in front, and sharp jaws underneath. The eyes are mounted on movable, independent stalks, two eyes on one-foot stalks, and two more on three-inch stalks. These eyes focus at different distances. The primary visual range is infrared radiation, although the inner, shorter-stalked eyes are capable of using visual light also.

Next to the mouth, on either side, are two three foot long manipulative organs, that combine selective sucker control with a powerful pincer. The entire head section is jointed onto the middle section of the body, and this center section sprouts two large pincers first, then six jointed walking legs. At the rear, a third section of the body shrinks to a small, finny tail that can propel the Trident along the ocean floor at a high rate of speed. The entire Trident is covered by a thick protective shell of black or blue chitin, that has overlapping plates for flexibility.

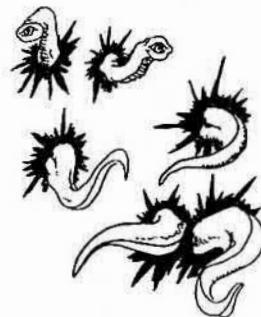
Normally basing their civilization on the ocean floor, these beings can survive down to depths of four thousand feet (on one gravity planets). The usual depth is three thousand feet for the living areas, and one thousand feet for business and production facilities. Most of the food production for the population is done through the well-regulated herding of specially grown and protected food fish, each of which weighs about two hundred pounds.

The society of the Trident is similar to the standard human society, despite the differences in environment. The primary social unit is the mated pair, which is live-bearing, and owes all allegiance to superiors and elected officials. Social protest is a powerful force among the Tridents, and often forces public decisions to be made or rescinded. Small one-family dwellings are now being replaced by massive structures that can hold thousands of Tridents.

Through the analysis of oceanic salt content and currents, the Trident is able to locate itself at once, accurately, on the floor of an ocean, if it grew up there. Even on new planets, a Trident can begin to make rough guesses as to his position within a few months. The usual way make sure Tridents can navigate on planets that are new to them is to place a set of navigational satellites in orbit, and supply every Trident with a simple receiver.

Since the Tridents breathe oxygen-enriched salt water, they cannot leave the ocean at all. On dry land, their muscles are too weak even to support them, although they can slide along for a few minutes before they die of oxygen starvation. Their ships are generally quite small, as the volume of sea water they enclose causes a dramatic increase in the mass of the ship. However, their space-only vehicles are large than almost any other race's, due to the stabilizing effect of the masses of water, and the ease of maintaining a ship in balance with water filling it. In addition, in emergencies, this interior water can be utilized by the modified engines of their ships as ionic fuel, at a reduced thrust.

The other major reason why Tridents are rarely seen in public is the fact that they are immune to radioactivity, except in very large doses, and they are often used for deep-sea mining of radioactive ores. This results in their gradual contamination, at a level of radioactivity which may be fatal to other life-forms. In any case, such levels would certainly set off the bomb-detectors at starports throughout the Second Empire and the Empire of Cavoral.



Twormin

The Twormin are perhaps the strangest race the Second Empire has ever discovered. The Twormin do not even live completely inside this cosmos. Encountered only on the frigid Pluto-type planets, the Twormin survive the extreme cold by storing most of their body matter in hyperspace, with only very tough and replaceable organs projected into realspace. Like many of the other animals that inhabit Pluto-type worlds, the Twormins' use of hyperspace is the only thing that allows them to survive at all.

The actual shape of the Twormin is only visible after death, when its mind allows the body to fall back into realspace. The only parts that are visible in the real world during the life of a Twormin are the eight eyes, which appear and disappear with bewildering rapidity, and the innumerable tentacles that do the same. The Twormin is able to regrow anything that it projects into realspace, so that if a Twormin should happen to leave an organ in the temperatures of a Pluto-type planet too long, so that it freezes and shatters, he is able to regrow it quickly.

At all times, a Twormin must have some part of his body connected to the real world. If he withdraws completely into hyperspace, he is no longer able to project any part of himself through the barrier, and spends the rest of his time in the transmundane dimensions. Occasionally, specially designed University of Zacaia robotic probe ships have managed to recover bodies of those Twormin that have been surviving in hyperspace for thousands of years. During their involuntary imprisonment, they were not aware of any passage of time, and their bodies did not age at all. Advanced methods of tissue dating show that the recovered Twormin are only decades old. Unfortunately, the recovered Twormin have all been from the period before their contact and conquest by the Forerunner civilizations, or else have proven to be uninformed citizens with little or no knowledge of galactic conditions.

Just as the Twormin is incapable of removing all of his body from the real world into hyperspace, so he is incapable of removing all of his body from hyperspace. In such a case, the Twormin is unable to return to hyperspace, and usually dies due to the effects of gravity on a body not designed for it, or merely dies of cold. Occasional Twormin that manage to survive in realspace are pitied by their race, but looked upon as idiots who received only what they deserved.

In spite of their literal otherworldliness, the culture and civilization of the Twormin is much the same as that of other races of the Second Empire. They have no need for houses, of course, but they build and produce machinery to manipulate their environment and produce food just like other races. In addition, since a Twormin cannot maneuver in the trans-M dimensions, but must rather use whatever limbs he has in realspace for movement, devices of transport are very common. These include a very efficient normal space drive, a small but well-charged battery for warmth, and a tiny space for a tentacle-tip to grasp onto. Objects cannot collide in hyperspace, since they do not even exist, in spite of the fact that the Twormin keeps most of his body there. Each hyperspace, except in complex and specialized circumstances, is different from every other hyperspace.

Due to their ability essentially to reduce their body weight to a few grams, Twormin starships have crew quarters that are almost microscopic in comparison to other races. This is very attractive to groups who want starship crew without paying exorbitant costs in mass and energy for maintaining complex quarters and life-support systems. All the Twormin need is free-floating protein, in almost any molecular format, and they can survive indefinitely. Any waste materials that the Twormin generate are expelled from their bodies in hyperspace, and therefore cease to exist as soon as they are jettisoned.



Ulliv

Although the Ulliv were once a planet-dwelling race, millenia of living in deep space have changed them almost entirely from the humanoid race they once were. The genetic material is of course still interchangeable, but the physiological body type and mental attitude are totally changed from the parent race. It is unclear when the Ulliv broke free of their planet, but there are records indicating that they did so before the time of the Forerunner civilizations. In addition, there is sufficient evidence to show that the monstrous Wanderer ships, that have never revealed the shape of their commanding race, were already in deep space when the first Ulliv ships set forth.

Originally a human race, the Ulliv, through the action of zero gravity on their germ plasm, have metamorphosed into something quite different. Now standing about twelve feet high, and exceedingly thin, they look only remotely like their ancestors. All hair is gone from the body, and the teeth are reduced to a single incisor in the center of the upper jaw, with a large bony plate on the lower jaw for it to impact against.

The muscles of the limbs, while still able to move them around in free-fall, are incapable of handling even gravities as low as .2 standard. In addition, under these gravities, the internal organs collapse, and the Ulliv dies within minutes. All Ulliv ships and colonies are either always in free-fall, or are equipped with fail-safe anti-gravity systems. Each ship is totally independent from planetary materials, containing all needed protein and air supplies, and a completely balanced ecological recycling system.

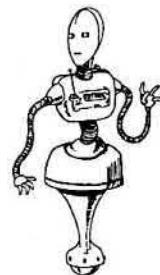
With the emergence of a new generation, new ships or colonies must be created. For this purpose asteroids are mined, or remote devices are sent down to planets to mine and refine the needed materials. With the reemergence, yet again, of a star-spanning civilization, the Ulliv have begun to exchange their knowledge and skills for materials that they desire. They have no equals in the arts of zero-gravity crystal growth, and do not share this priceless knowledge, though they sell its end-products.

To avoid internal dissension, and to relieve population pressures, a group of Ulliv will locate a large asteroid cluster, and form the material into an enclosed cylinder filled with air. When atomics are available, the rock is detonated into a spherical bubble, then cooled off and sealed. These colonies, capable of holding up to several thousand Ulliv, are then launched into space, either on steady orbits around stars for power, or into interstellar space with sufficient supplies of nuclear material.

The largest space colony recorded in the annals of the Ulliv is the Serendipity, which at the time of the fall of the First Empire was launched from the edge of the galaxy into intergalactic space. For several millenia it will travel along the strands of stars that stretch before it, and then engage a stasis device to protect it during its lonely voyage. This colony was constructed out of an entire asteroid belt over a period of three hundred years, and holds over three million individuals in a number of separate environments.

Each Ulliv is totally committed to the survival of his ship, and not at all concerned with the survival of other ships. In fact, when another ship is in difficulty, an Ulliv may just sit and watch, if he feels that the empty hulk would be worth more to him than the rewards of the survivors. This attitude has not endeared them to the races that use the starships, but since the Ulliv are perpetual wanderers, it is difficult to do anything about it. Also, under Second Empire law, deep space is no man's land, and altruism is not a universal trait.

The Ulliv have developed a sense that planet-based humans do not possess, and this ability allows them to locate mass, through an unknown process. It is useful mostly in locating each other in deep space, or in locating the ship when out for a "walk." Except in rare circumstances, the Ulliv do not use safety lines.



Uonter

Many specialists at the University of Zacaania feel that the Uonter should not even be included in a list of the intelligent races, as they are artificial creations. But such a standard could also exclude many biological races, which were created by the Masters of the First Empire. The Uonter are mechanical, not biological, and were created by one of the Forerunner civilizations. The line between biologic and mechanical life is considered to be very fine, even unnoticeable, by the Mechanists of the University, who consider all life-forms to be essentially machines in any case.

The Uonter are of varying sizes, and have vastly different capabilities. All of them have two things in common, though: their almost invulnerable synthetic armor, and their mechanical systems that never break down and seem to never need refueling. In addition, they share a highly complex coded tongue that the Second Empire's most sophisticated computers are incapable of breaking. This appears to have the highest density of any known language, carrying a maximum amount of intelligence in a minimum volume of coded pulses.

The Uonters' memories are totally blank beyond a certain distance into the past. For some reason, all Uonter were mentally destroyed at one time, erasing all previous memories, except for survival information and knowledge of the battle code. All Uonter still have large areas located inside their memory cores that are locked, and are unable to penetrate these areas in any way. These areas are triggered to antimatter bombs in such a way that even to investigate the mechanisms causes them to explode. The only information that the Uonter are able to determine is that these memory cores are still active, and that they contain sets of galactic coordinates.

Due to their almost invulnerable hulls, and their lack of need for repair, the Uonter stay outside the politics of the Second Empire, just as they stayed out of the politics of the First Empire. They wander to and fro among the stars, investigating whatever they have an urge to, and rarely if ever take any interest in starships. Occasionally, they have been known to supply a needed piece of machinery or a radio link to a stranded starship, but they generally ignore all ships entirely.

Several of the more famous Uonter ships, though, have become friendly with the planets they are in orbit around, although they will not say or do not know why they are in orbit around those particular planets. Two of these Uonter appear to be massive biological laboratories, possibly designed to seed and control the evolution of life on a previously lifeless planet. A third is sealed, and refuses to let any starship investigate it or its internal devices. This ship, when approached by a military cruiser that demanded to investigate it, opened one port for a fraction of a second, and destroyed the cruiser instantaneously. The method of destruction is unknown, although immense bursts of cosmic rays were detected at the time of the action. The last of these ships has allowed visitors on board, but keeps them from investigating what materials are hidden inside its armored walls. This fourth ship is a massive colonization ship, with stasis chambers for over four billion life-forms, each ten feet in diameter and spherical. This ship either does not know or refuses to tell what race it is waiting for, and where it is supposed to take them.

A minor clique in the University of Zacaania has advanced the theory that the Uonter actually remember back to the beginning of the galaxy and merely pretend to have lost memory at the fall of the Forerunner civilizations. This group claims that the Uonter are actually responsible for all of the life in the galaxy, and were sent from another, older galaxy, for unknown purposes. Because of the inconceivable time involved, this theory has few adherents, but they are vocal.



Valerian

An offshoot of the human race, the Valerians are well represented among professional fighters, bodyguards, and shock troops because of their massive physique and sheer physical power. During the Interregnum, when the fragmented Empire was slowly beginning to regroup, several of the smaller empires used only human troops. During this time the Valerians gained a reputation as feared and efficient fighters.

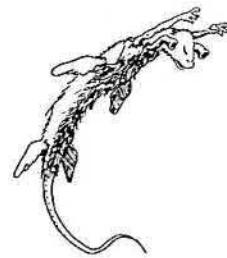
Originally of human descent, the Valerians have evolved into something quite different. The maximum height for a Valerian is five feet, but his width makes him appear fat compared to a standard human. This width is not fat, but rather a thick band of muscle evolved to move him around in the three-gravity field of his home world. His tissues are harder and denser than the body tissue of a standard human. Even under one standard gravity, a Valerian would weigh four hundred pounds. Their wrists and ankles are extremely thick, and appear to be undifferentiated from the rest of the limb.

The population of the Valerian worlds remains quite small, because it is common for a Valerian woman to have only two children during her life, due to medical problems. The surface area of the Valerian worlds is large, and the Valerians like to spread out on their worlds, which makes it almost impossible for a census taker to do an adequate job without rare and expensive orbital intelligence devices. All of the Valerian worlds are exporters of special alloys and heavy metals, and usually handle radioactives also. This means that almost any Valerian who is encountered will have some expertise in one of these fields. Valerians also export gems.

It is rare to find Valerian females off-planet at any time. Valerian females are not interested in going off-planet, and the males of the species have made a law recently that without permission of the government, a female may not leave any Valerian world. This reflects another important character trait of the Valerian mind—the ability to maintain one's own opinion tenaciously. In blunt terms, the Valerians are famous for their stubbornness. Another quality Valerians are famous for is their devotion to the defense of their home worlds. Naturally, there are oathbreakers, but they are very rare in all of Valerian recorded history. This trait, so sought after by governments, has made them an important addition to Imperial Forces.

Valerian internal government is a very cumbersome affair that consists of a large bureaucracy, larger and more cumbersome than the Imperial government. The only reason that their government is capable of responding to disasters and emergencies at all is because most Valerians are willing and likely to take the law into their own hands and resolve problems quickly by themselves. Fortunately, the average Valerian is aware of planetary laws, and he usually acts in accordance with the desires of his government.

Elections, when held, are very slow affairs. Each political party argues that its stand is the correct one, and almost never do the issues change. During a campaign, the platforms of the parties certainly never change, though after the election, the current situation may force changes. During election time, the number of newspapers published increases five-fold, and all inhabitants start reading them all. Valerians are slow to determine their stance on an issue, but once decided will not change it.



Vermal

Vermal are rarely seen inside the Second Empire, although their ships are often contacted while searching for new worlds to colonize. Due to their breathing mixture of almost pure liquid ammonia infused with methane, they are only seen inside complex, refrigerated, environmental containers. However, they are often in demand for arbitration of political and commercial disputes.

Vermal are about four feet in length, and only eight inches in diameter. Their basically tubular body is broken only at the front, for the mouth and the eyes, and at the sides, for the several swimming and manipulative appendages. The entire body is covered with thick, golden fur, and a large, very flat hairless tail completes the picture. The manipulative organs are varied in type, which is quite unusual for an intelligent race. The foremost set of organs are simple sucker appendages that can exert several dozen pounds of driving force. Directly behind these appendages is a set of normal arms that can extend forward along the plane of the body and up to thirty degrees sideways.

The Vermal's visual receptors are only sensitive to black and white, but in an ammonia atmosphere, they are adequate. The Vermal also has a large area of sound-sensitive cells on its tail that detect and locate the continuous sounds by which Vermal communicate. As is reasonable, the worst punishment that a Vermal can imagine, or that is dealt out by Vermal courts, is amputation of the tail. This isolates the individual from all communication.

The Vermal have a unique mental trait that makes them worth a great deal to other worlds inside the Second Empire. They see three sides to any issue, whereas the human mind has a strong tendency to see only two sides, a "right" and a "wrong." This allows the Vermal to decide extremely complex and touchy issues without offending either party. Several times, experienced Vermal negotiators have been called in to settle apparently insoluble problems concerning trading companies and their respective trading areas. While neither company receives an advantage over the other, both are usually satisfied with what they get.

The Vermal live inside large, living castle-like structures of coral, and constantly prune these structures to the desired shape. They are a compromise between beauty and defensibility, though these two concepts are closely linked in Vermal esthetics in any case. The coral grows approximately half an inch every twenty four standard hours, and many "gardeners" are retained to prevent the corridors and rooms from becoming unusable. This speed of growth also means that Vermal structures can expand and change rapidly, and also that they can repair damage fairly quickly, with the new structure being at least as strong as the damaged building.

The Vermal are a three-sexed race. There is a sex roughly equivalent to the male in humans, and a sex roughly equivalent to the female. The young are transferred to a neuter third sex while still embryos. They are gestated inside the third sex until birth, and parented by all three adults. This allows for more family connections between differing groups, and it is possible for the entire population of a city to be "related."



Vulkshappi

The Vulkshappi are masters of camouflage in under-sea environments. Able to blend instantly into any surface, even one with complex patterns, the Vulkshappi have been used by the Second Empire as scout and guerilla troops since the foundation of the Empire. Unfortunately, they have a tendency to forget what they are doing and revert to the wild state, hunting and surviving instead of doing whatever job they were sent to do. The only way to keep this from happening is to send along a control unit of another race (who is usually much easier to spot) and have this controller keep the Vulkshappi aware of the job at hand.

A Vulkshappi reaches his adulthood at the age of twenty, at a size of about ten feet, and keeps growing at the rate of three inches per year until his death. Since they can live to the age of four hundred years under ideal conditions, this results in remarkable differences in size between different Vulkshappi. The Vulkshappi looks like a loose bag attached to a group of tentacles. The bag of flesh has all of the internal organs inside it, unsupported, and only three eyes on the outside. The tentacles are the organs of motion, offense, defense, and manipulation all in one, and there are more than thirty of them. Each is covered with thousands of suckers of different sizes, and each is capable of twisting to almost any shape.

Since the body and tentacles of the Vulkshappi have no internal supports, the Vulkshappi is able to fit his body through relatively small holes. Any Vulkshappi can fit through a hole eighteen feet or less in diameter, even though the length of the Vulkshappi may approach several hundred feet.

The Vulkshappi are a race totally devoid of emotion, and devote full attention to whatever job they are currently doing. Unfortunately, as the age of the Vulkshappi exceeds forty years, he is more and more likely to forget what he is doing, and relapse into a sort of mindless savagery. In this state he forgets language and other matters of the intellect, until another Vulkshappi happens to come within range of his sonic pulses, at which point they both promptly "remember" what they are, and continue where they left off, if they can find their way back.

The Vulkshappi have two sexes. They reproduce by external fertilization of eggs, leaving the fertilized eggs to take care of themselves. Mortality is high, but over a thousand eggs are laid at a time, and each female may lay a clutch of eggs every year. In general, one young Vulkshappi out of every two thousand survives to reach adulthood, and this is sufficient to supply a growing population.

Due to their ability to hide easily, and tendency to forget what they are doing, many Vulkshappi have been lost on the job, and remained behind. Whenever such an incident comes to the attention of the Vulkshappi worlds, they send a group of twenty or thirty more Vulkshappi to that same world, and leave them totally alone. In this way the number of worlds with Vulkshappi colonies has been rapidly increasing.

Each Vulkshappi culture tends to create a slightly different type of government, and a slightly different type of city to maintain its technological devices in. All of these have one thing in common: multiple safety devices on everything, because of the periodic regression phenomenon. These safety devices allow the Vulkshappi to leave a thermo-nuclear mining torch burning, and return to find that it has not harmed anything.



Welcyksi

The Welcyksi are one of the few races that breathe atmospheres of almost pure carbon dioxide. Their home-worlds also have temperatures around eight hundred degrees Farenheit, which makes them unattractive to other races. Welcyksi need either high atmospheric pressure or high-speed winds to be able to breathe.

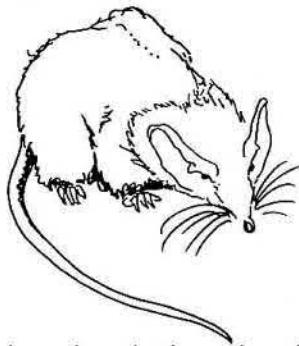
The Welcyksi are relatively small crab-shaped beings. Usually they are light red in color, with whitish-pink undersides. The fleshy parts around the mouth and the legs are black. Each of the eight legs has both a walking foot and a manipulative pincer and sucker arrangement that is quite dexterous. The breathing system is very primitive, however, and relies on high pressure to infuse available carbon dioxide into the body tissues.

The winds of their home-worlds are capable of lifting the low-built Welcyksi from the ground and destroying them. To avoid this, they have always been a ground-burrowing race, and with the discovery of technology, burrowed deeper into the earth rather than building up into the atmosphere like the human race. First used only for protecting the rare eggs that were so often destroyed by wind or rain, these burrows with their complex pressurizing devices to capture and contain the wind gradually expanded into huge hives holding thousands of individuals in comfort and safety. Transport in these small-tunnelled burrows is by linear-suspension devices that act on metal plates inset in the Welcyksi to move them at speeds up to three hundred miles per hour.

This efficient personal transport system, the pride of the Welcyksi and possibly the most effective such system in the Second Empire, is hardly designed for off-world visitors, especially considering the small size of the tunnels. The diameter of these tunnels is about four feet, which makes it difficult for any other race to enter them, even if they can withstand the pressure and the eight hundred degree heat.

The Welcyksi find it psychologically very difficult to leave their planet. It is not difficult to build an environmental system capable of supporting a Welcyksi, but it is difficult to convince their subconscious minds that they are not going to die in space. To see a sky without low-hanging cloud cover causes severe mental distortion, and sometimes insanity or suicide, in the Welcyksi. The sight of a flame burning in oxygen can cause similar reactions, or a reaction of total mesmerism, in which state the Welcyksi might walk into the fire.

Welcyksi governments are totally dedicated to the different communities that cover the surface of their planets. Each community, while rarely resorting to war for fear of creating an arms race that would end in mutual annihilation, resorts instead to complex financial plots designed to increase the independence and wealth of its own society at the expense of the others. The eventual goal is to determine the most fit community on the planet, which will be obvious when it has taken control of all the other communities. This goal is seen as a sort of holy obligation, but is also seen as being in the distant future, and is not seriously expected to happen any time soon.



Wibb

The Wibb had a major galactic empire, which the Second Empire encountered in its drive for expansion. In the case of the Wibb, the ensuing battle almost cost the Empire everything it had gained up to that point, as the two empires were extremely close in size and technical capability. What finally defeated the Wibb was the Second Empire's discovery of another race, the Cren'la. Through these mineral intelligences, the Second Empire was able to penetrate and destroy the nerve centers of the Wibb, and sabotage their plans and strategies. Now, of course, the surviving Wibb planets have been integrated into the Second Empire, and what troubles occur are minor enough to be handled by local garrison troops.

The Wibb are about four feet in length, and two feet tall. Their horizontal bodies are almost conical, pointed toward the nose. The head takes up over twenty percent of the size and weight of the body, and ends in a sharply pointed mouth with a full set of teeth. To either side of the pointed snout is a large ear, capable of hearing over long distances. A small eye sits just inside each ear. Though well protected, its cone of vision is restricted, and the Wibb must rely on constant head movements for wide-angle vision.

The head merges smoothly into the body, and the body rounds out into an ovoid. Each "corner" of the body is supported by a clawed foot, quite small, and the rear legs are much larger than the front. The Wibb is capable of standing erect on his hind legs easily, and of using his hands for manipulation. In this position, the Wibb is supported by his tail, which is generally as long as the rest of the body. In color, the Wibb range from white through grey and into black fur on top, with lighter shades on the underside. The tail and the large ears are always hairless and light pink.

The Wibb is a communal animal, and will feel very ill at ease unless he is in proximity to at least twenty other Wibb. When the two empires had just met each other, Imperial Marines boarding Wibb craft were very surprised by how many Wibb they carried. After a few incidents the Marines learned their lesson, and began boarding each Wibb ship with three or four of their own, to even the numbers of troops involved on each side.

On their home planets, the Wibb live in large cities constructed half underground. Each city holds several million individuals. A Wibb city can literally be smelled dozens of miles away. The odor is not repellent, merely the smell of furry bodies and warmth. The Wibb can actually become schizoid when this smell is removed from their environment, as they have lived with this tangible reminder of the presence of others for their entire lives. If a Wibb is faced with handling a situation by himself, he is likely to revert to childhood rather than face it. Most of the culture heroes of the Wibb are individuals that faced some crisis alone and survived. During the war with the Second Empire, only a few metals were given out for feasts of battle, but many for acts that required solitary action, such as sabotage or ambush.

Each Wibb traces his connections with all other Wibb through the genealogy of the race, which all Wibb know very well. Every Wibb, if given enough time to trace all the connections, can find his relationship to any other Wibb, using computers to retrieve data more than a few thousand years old. This information is used to grade the Wibb according to their ancestry and each ancestral line attempts to outdo and conquer the others. Individuals born of two lines are attributed to the matriarchal line. Wibb are born in litters, and litter-mates are inseparable. They are born together, live together, and die together if need be.



Wunner

The Wunner fought the First Empire very early in its existence, and they were very difficult to defeat. Apparently, the First Empire succeeded only after using biological warfare agents of various kinds, weapons that the First Empire's Masters were uniquely qualified to develop and use. The Masters of the First Empire, biological geniuses, created agents that destroyed fifty percent of the Wunner, then vanished entirely. This ploy destroyed the Wunner as a war-making race, but retained their abilities for the First Empire. Apparently, the Masters felt an abhorrence for waste of any kind, and to kill a race without need was waste of the worst type.

The Wunner evolved from insects. Adult Wunners are sixteen to eighteen feet long, immature Wunners are three feet long. This large length is even more striking when compared to the average thickness of their tubular body, which is only a foot wide. Wunners are composed of a head segment, followed by a large number of standard segments. The head segment holds vision sensors and the mouth and four manipular arms which are folded up under the chin. Each following segment contains four legs and is covered with a thick dark brown chitin plate.

The connections between plates are flexible, so Wunners can bend themselves into a tight spiral, or literally tie themselves into knots. Wunners avoid entering water, as this fills their long and complicated breathing system instantly, and causes rapid suffocation. With technological assistance, by placing the entire body of a Wunner inside an air-filled container, Wunners can venture undersea. Since all portions of their bodies are covered with air holes, no part of them can be allowed to be immersed.

Wunners live in groups of five, split between two sexes and a neuter. The neuter is armed with a set of foot long pincers at his head, and has a set of arms at the rear end of his body. Each of these five individuals comes from a different litter, and they form groups at the age of one. These groups remain unchanged throughout their entire lives, and it is very uncommon to see any Wunner without his other four mates. The neuter is specifically intended to stay with the eggs laid by the two females, and guard them. He is fed by the other four Wunner, and when the eggs are hatched he aids in training the young.

The government of the Wunner is also based on a pentad-structure, with each of the five councils being composed of twenty five representatives, and the highest council being composed of a single group of five Wunner. This group is dictatorial, and hereditary in that it may pass the rule on to one of its offspring. Since each offspring chooses a different set of mates, there is always fresh blood in the royal family, and the policies of the ruling family continue over time. With the influx of four new individuals into the royal line, new viewpoints are unavoidable, and the government tends to change as the needs of the Wunner change.

One advantage that the Wunner have that no other race has is their ability to digest anything at all, and extract some nourishment from it. While they are not able to chew rock, if they can swallow it, they will extract needed mineral and salt supplements from it. Any form of animal or vegetable matter can be eaten safely by the Wunner. They are immune to poisons that they swallow, as these are rendered harmless by their extremely efficient digestive systems.



Yaman

The Yaman, once thought to exist only on the planet of Darkover, have recently been discovered living on another planet. They practice the customs of solitude and xenophobia that their brothers on Darkover practice. The appearance of a second colony of Yaman indicates that they too were shunned by the Masters of the First Empire. It is not known how they were used by the First Empire, as there is no mention of them in the surviving records, and the Yaman themselves claim not to have any information on the subject.

The Yaman remain a mystery to the scientists of the Second Empire. Satellite observation has revealed much of their habitat and culture, but there are still large gaps in knowledge available about them. They are always seen in deep woods, and are primarily meat-eaters. Standing nine feet tall, their faces are vaguely feline, with wide whiskers and large protruding black noses. Their eyes are usually gold, although occasionally blue.

They wear tall plumes in their head hair, and this adds two feet to their height. Imperial scientists have only seen them using swords and spears, and once bows and arrows. They are intensively studied when the "ghost wind" (a pollen) blows on Darkover, which causes severe mental disorders. This pollen causes Yaman to go berserk and leave their protective forests. No females have ever been seen during the "ghost wind," and this has been connected with several of the observed facts about them to produce some good guesses as to their lifestyle and culture.

The Yaman are a live bearing race, and the females have a breeding season that lasts only several days each year, during the "ghost wind." The males that are unable to locate a female are the ones that raid into the civilized areas of Darkover. Gestation of the young takes eight months. The young are intensively cared for by the parents until the age of five, at which time they are sent into the wild. As each female conceives a child every year, this method ensures that the population does not exceed the available resources.

Government is handled by rule of the strongest. If a Yaman disagrees with the rule of another, he fights him to the death. There are no rules or quarter in the fighting. The only punishment for breaking a Yaman law is death by public attack. There appears to be no exception to this, and very few of the Yaman even make an attempt to fight back when in this situation.

Yaman houses are constructed of wood, and are basically lean-tos. The use of fire is a new art to them, and only a small class of shamans are able to use or understand fire. However, the Yaman have an incredible knowledge of wood and wood products, and are able to produce types of paper that can support tons of weight per square inch, and to use wood in ways that metal-technology civilizations cannot. Their lean-tos are capable of withstanding the direct impact of an all-terrain vehicle moving at sixty miles per hour without noticeable damage.

Their recently discovered second planet is yet too new to reveal much additional information about the Yaman, but satellite observation has already revealed that the basic societal group is the family, with extended ties being common between different families. In addition, these Yaman have mastered the art of gliding, using paper and wood gliders.



Yiktori

Yiktori, also called Thassa, are seen infrequently in the centers of the Second Empire. This is because they dislike advanced technology. Specifically, they dislike technologies that cause pollution. When seen, they are usually in the train of a noble who has bought or hired them as animal trainers.

The Yiktori are humanoid in form, although they tend to be thinner and taller than the average human. Their skin has no pores; all breathing and sweating is done through the soles of the feet and the back, which are always left bare. Their eyes are very large and totally black, and are capable of seeing in either darkness or bright light. Their eyes need a long period of adjustment, and it can blind a Yiktori to go through too sudden a change without warning. Yiktori never grow beards, and the only body hair ever seen is the mane of pure white hair that covers the head and the rear of the neck. The bushy eyebrows extend up into the scalp to meet the hair.

The hands of the Yiktori have an extra joint on each finger, and on the thumb, which gives them a much higher dexterity than human beings. Many of the children's games of the Yiktori are designed specifically to hone the reflexes and dexterity of the child. In the rare times when Yiktori and human are pitted against each other, the Yiktori is almost always the victor, unless the human manages to grab him in a hold which renders his agility useless, and the human's greater strength can take effect. Yiktori are good troops for specific military functions, such as guiding missiles through defensive fire, and directing defensive fire to destroy oncoming missiles. Their speed of reaction enables them to destroy most computer operated, remotely guided missiles.

Many Yiktori are masters of a complex psionic discipline called "moonsinging." This psionic power enables the Thassa to control animal completely, and on occasion to exchange minds with an animal, or to exchange the mind of a third party with the mind of an animal. It is strongly tied in with the psychological effect of the three moons upon the mind of the moonsinger, and on planets without three moons, the moonsinger will be at a disadvantage. There is a pseudo-legal government of Thassa psionics specialists that controls the uses of this power, and makes it very difficult for the Thassa to utilize moonsinging to transfer minds. In fact, use of the power without the advance consent of this governing body can result in death by hanging, unless a writ of allowance can be obtained, which is rarely possible.

The main government of the Yiktori is a standard structure of elected officials, each town electing its representative to a higher body, each of these electing an official to sit on the board of states, and the board of states electing a council of three to rule the world. This system is fairly bulky, and results in much infighting over distribution of favors and money, much like similar human systems of government. Each township obeys the commands of the higher government, but these commands never infringe on the ability of the town to govern itself. The laws of a town may vary widely from locale to locale, and as long as one town does not attack another, the government will not interfere.

However, outside the towns there is continuous "criminal" activity: hijacking and resale of goods, and wholesale robbery of citizens from distant towns. The only time this activity is suspended is when the biannual trade fair is held, at which time all hostile activity is punishable by death. The trade fair is where most of the social activity occurs; it is usual for citizens to marry outside their own towns.



Zhan

The Zhan are newcomers to the Second Empire. Until recently, they were confined to a few planets in a sector just outside the current boundaries of the Empire. When contacted by scouting parties, they obtained starship technologies quickly and spread throughout the Second Empire. They are now used by many of the mercenary forces of the Second Empire, and have won recognition as skilled fighters.

The Zhan is a basically human being. The only obvious differences are the color of the skin and hair, but there are other differences in physique. The hair is a mane of metallic crimson that is never cut during the lifetime of the adult male. It grows to about two feet in length, and is contained in a leather headband to keep it out of the way. The skin of the Zhan is a dark metallic bronze, and retains this color even under intense ultra-violet that would tan other races. The eyes are always a light grey, and are capable of seeing in very dim light.

The women of the race have the same features, but are kept shaved at all times. In fact, if an old or untravelled Zhan sees an off-world woman with long hair, he is likely to accost her and shave her head for her presumed owner. Naturally, this tends to irritate other races. Younger Zhan have learned that other races' habits are none of their business, and leave well enough alone.

Due to large amounts of metallic compounds in the air and water of their home planets, the bodies of the Zhan are permeated with metallic salts. These metallic compounds make their bones stronger and more resilient than those of their human counterparts, giving them relatively higher strength and constitution.

The society of the Zhan revolves around the warrior. In the social group, the power structure is based on the strongest warrior in the group. From birth, the youths are raised to be warriors, and trained in the use of the sword and the spear. Ranged weapons, such as slings, arrows, or projectile or energy weapons, are prohibited in the Zhan culture. They consider any person who uses these weapons to be either a child or a woman. In their culture, a woman is a slave, and exists only to serve the needs of the male and the state. Males who are not warriors are considered to be children, and are treated as children. A male Zhan will refuse to answer a child's question directly, but will only talk to him through an intermediary female.

The rite of manhood involves a hunt between competing males of two different tribes. These two males meet in a duel to the death, and the survivor is considered an adult. An adult Zhan considers himself capable of doing any task he can envision, but is very clever in avoiding jobs that he is incapable of completing. If a Zhan should be forced to attempt a job he cannot finish, he may well commit suicide to avoid being considered a non-warrior.

Suicide is lapped in ritual, and is performed with the dagger every adult Zhan carries. If he does not wish to commit suicide, the Zhan goes into hiding, and assumes a new name. In the future, he will avoid all places where he might meet someone who knew him under his old name. If he should meet an old acquaintance who publicly identifies him, he will be treated as a female from then on.

Supporting the warriors in their non-productive role in society are a number of lesser castes that do all the manual labor needed for running a society. The females are kept inside the home, and all farming, fishing, construction etc. is done by male slaves of lesser, hereditary castes.



Zortanclian

Most races do not like the Zortanclians. This has been established by research, and is not wholly attributable to the way they treat visitors. Apparently the Zortanclians broadcast some sort of mental radiation that causes almost every race, regardless of mental wavelength, to find them repulsive and dangerous. This may be simply a subconscious transmission of what they would like to do to the visitor. Whatever it is, the most gifted telepaths in the Second Empire cannot detect the wavelength. Records from the First Empire indicate that they felt this same revulsion, and could not analyze it. Scattered fragments from one of the Forerunner civilizations suggest that the Zortanclians were around at that time as well, and impressed those civilizations just as little.

The average Zortanclian is about eight feet long, and stands about four feet off the ground, on hairy, multi-jointed legs. His entire segmented body is covered by thick green hair. The body has three roughly spherical sections, the brain and all of the sensory apparatus being located in the foremost. This is also the smallest, merely a foot in diameter. The upper front part of this segment is covered with over twenty separate eyes, of different sizes. Each eye works in unison with its mate, and each pair is designed for a different purpose. This multitude allows the Zortanclian to scan almost all spectra, and to see a full three hundred and sixty degrees around itself.

The second section is about two and a half feet long; the eight legs are connected here. The legs, the heart and the massive muscle complexes are the only function of this section. The rear section is the largest, and is so massive and unsupported that it drags on the ground. Unlike the other sections, it is not well-protected by chitin, and has only a thin skin. This section contains all of the life-support systems except the heart, and also contains the all-important web-spinning organs.

The web-spinning organs are of primary importance in allowing the Zortanclian to feed. Most of the heavy, humid planets that the Zortanclians inhabit are covered by forests, and the Zortanclians lay claim to areas of these forests. Despite the fact that all Zortanclians are now fed by off-world food, or synthetics, they love to hunt as a pastime. The feel of capturing a struggling animal and stinging it into sleep is their highest pleasure. The venom they inject (from a stinger at the end of the third section) has no known antidote, and puts the victim into a deep sleep that lasts until death. The venom apparently acts directly on the brain, and even if the venom is removed at once from the body, the brain is totally destroyed, except for autonomous functions.

The government of the Zortanclians is much the same as many of the other governments that exist in the Second Empire. Since each Zortanclian is primarily out for himself, the government tends to be very bureaucratic, and is riddled with inefficiency. Originally made top-heavy in an effort to control internal misuse of power, the government has become an organism that exists only to serve itself. Individual Zortanclians enter the government, but initiate only an absolute minimum of programs, feeling that the inertia of the government is the safest guide. An official desires only to amass enough capital to leave his job, retire to some dark, humid planet, and hunt in peace for the remaining years of his life.

The urge to kill is strong in the Zortanclian's mind, and this makes it very difficult for the telepaths of other races to share minds with them; it would be dangerous, and might cause the entering telepath to become insane. If the entering telepath is of a non-violent race, contact could result in death.

ACKNOWLEDGEMENTS

Many of the races in this Spacefarer's Guide—forty-five to be exact—were directly inspired by works of science fiction. I am happy to acknowledge these sources, which are listed below. All are excellent resources for the SFRP gamer.

Obviously, much information had to be added, subtracted and altered to fit these races into the history of the Second Empire. You may find it amusing to try to match the books listed here with the proper races. A perfect score of forty-five (one book accounted for two races) means you should consider applying for a fellowship in Pre-Stellar Prophetic Literature at the University of Zacaania.

Adams, Robert	Coming of the Horseclans	Pinnacle 1975
Anderson, Poul	Firetime	Ballantine 1975
Anderson, Poul	War of the Wing Men	Ace 1958
Blish, James	A Case of Conscience	Ballantine 1958
Bradley, M.Z.	Hunters of the Red Moon	DAW 1973
Bradley, M.Z.	Planet Savers	Ace 1960
Campbell, John W.	The Ultimate Weapon	Ace 1966
Carter, Lin	Purloined Planet	Belmont 1969
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Chapman & Tarzan	Red Tide	Ace 1975
Clement, Hal	Mision of Gravity	Doubleday 1957
Coulson, Juanita	Singing Stones	Ace 1968
DeCamp, L. Sprague	Rogue Queen	Ace 1951
Defontenay, C.I.	Star	DAW 1975
Dickson, Gordon R.	Mission to Universe	Berkeley 1965
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Foster, Alan Dean	Icerigger	Ballantine 1974
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Fyfe, H.B.	D-99	Pyramid 1962
LeGuin, Ursula K.	The Word for World is Forest	Berkeley 1976
Lumley, Brian	Transition of Titus Crow	DAW 1975
MacApp, Colin C.	Recall Not Earth	Dell 1970
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Myers, Roy	Dolphin Boy	Ballantine 1966
Norton, Andre	Beast Master	Harcourt Brace 1959
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Nourse, Alan E.	Star Surgeon	SBS 1964
Phillifent, John T.	King of Argent	DAW 1973
Piper, H. Beam	Little Fuzzy	Avon 1962
Schmitz, James	Deomon Breed	Ace 1968
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Smith, E.E.	First Lensman	Pyramid 1966
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White, James	Hospital Station	Ballantine 1962
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Greetings, fellow sapients. I'm Professor Starymaple of the University of Zacania. I have compiled this treatise on intelligent races, and offer it for your greater edification. In it are listed most of our brother races who reside in Second Empire space. It is my hope that this presentation will promote better understanding of our fellow beings, their strengths and their weaknesses, and hasten the day when we will walk, crawl, fly and swim in greater harmony.

If you should encounter a new sapient race, or perhaps discover a hitherto unknown ability of a known race, please communicate with me care of the University of Zacania. May you learn something new every day.

—Professor Starymaple
University of Zacania
4222

Preface to Terran Edition

