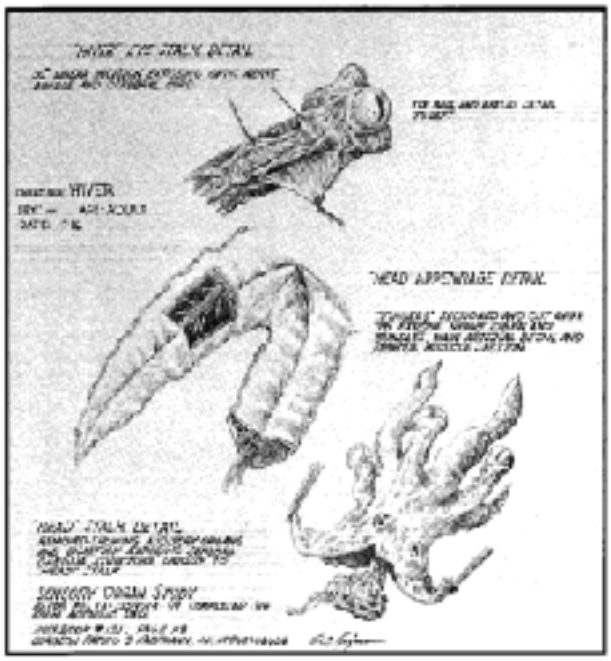
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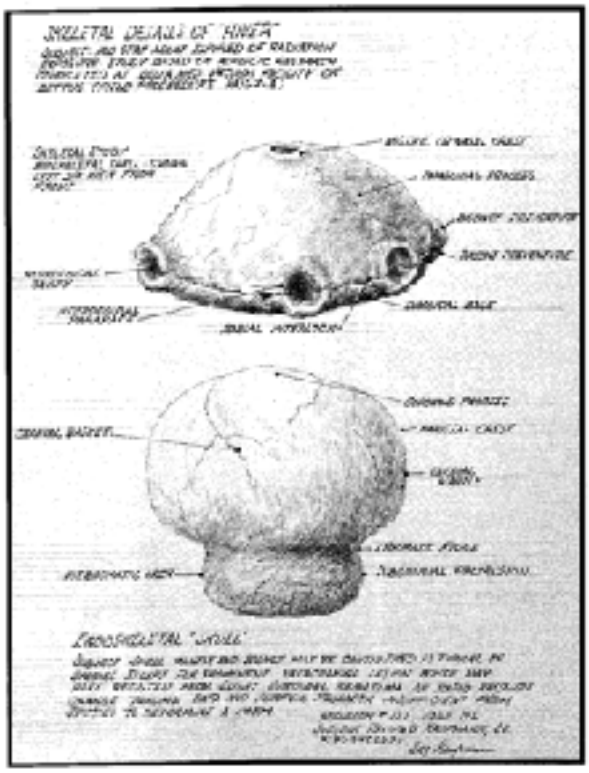
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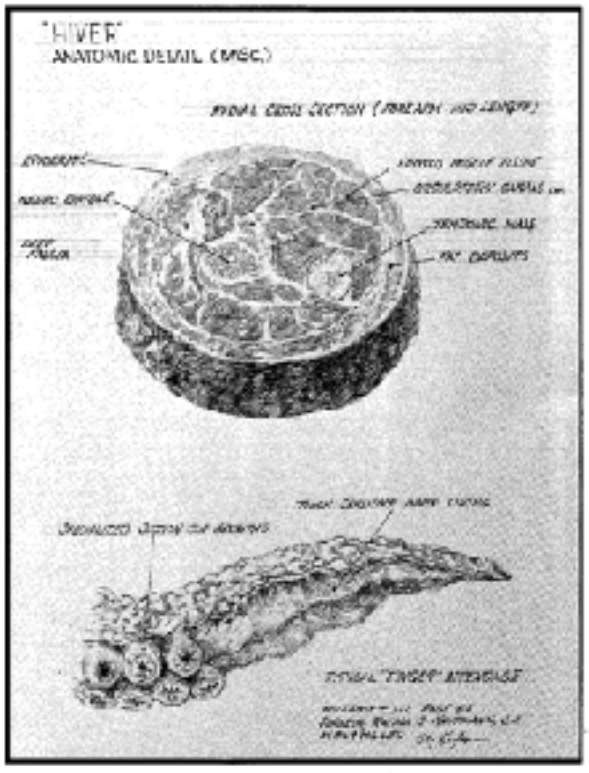
ZOOSKELETAL "SKULL"


"HIVER"
ANATOMIC DETAIL (MISC.)
NASAL CROSS SECTION (BREADTH AND LENGTH)
SPECIALIZED SECTION OF MUSCLES
DETAIL "FINGER" ATTACHMENT

The most commonly encountered intelligent life forms all follow the same patterns: they are vertebrates, with a head on top, a torso, arms extending to the sides, legs below supporting the body. With few exceptions, intelligent races are some variation of the human example, and there is good reason for this phenomenon. Where evolution produces many different details in physiology and anatomy, the upright, bilaterally symmetrical human model is efficient at being intelligent and using that intelligence. The Aslan, Vargr, and Droyne can all be seen as variations of the human model (although the Aslan, for example, instead see the Droyne, Vargr, and humans as variations of the Aslan model). Even the centaur-like K'kree are classifiable as merely an extreme variation of the human model.

In the diversity of the universe, however, evolutionary pressures have many opportunities to find alternatives to the human model, and explorations have found many intelligent races which use a non-human pattern. Among the major races, those which have independently developed jump drive (and more importantly, have made a lasting mark on the universe), only one race is truly distinct in its evolutionary pattern: the Hivers.

Hivers evolved from radially symmetrical non-vertebrates, perhaps best described as six-pointed starfish. Conditions on their homeworld made it ecologically profitable for these creatures to develop talents which later produced intelligence. This alien module for Traveller deals with this strange major race: the Hivers. It allows the incorporation of this race into any and all aspects of Traveller. Whether Hivers are t o be used as player-characters, non-player characters, patrons, opponents, or just as a background against which adventures may take place, this module provides enough data to allow role-playing the Hivers in Traveller as in- dividuals and as members of their interstellar society.

Aliens in Traveller: The basic Traveller rules are not concerned with aliens; they deal primarily with humans in the Third Im- perium, a vast interstellar empire spanning nearly 11,000 worlds. Non-humans raised under the value system of the lmperium may vary (due t o their physiology), but basically they use the same material and concepts as their Imperial human counterparts.

Once outside the cultural umbrella of the Imperium, the potential for aliens is substantially increased. Differences in physique cause some changes in rules and game concepts, but cultural differences cause even greater changes; the influence of culture, society, and thought are far stronger forces in the shaping of each unique individual. Incorporating Hivers into a Traveller game or campaign requires an understanding of their motivations and habits of thought. This module presents the Hivers in many dif- ferent ways: physical, cultural, psychological, and social differences are explored, and the bearing these have on specific game rules is examined carefully. Using this material, referees and players may confidently make use of the Hivers in a Traveller game. Still, it is ultimately the ability of the individuals involved to play the role !by adopting the appropriate patterns **of** thought) that will determine the success or failure of the game in portraying the Hivers as a race that is quite alien physically, mentally, socially, and psychologically.

THIS MODULE
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omnivorous gathererlscavengers which has grown from a single world culture to the dominant race in a star-spanning empire which iivals the linpeiiuix in powei and technology. in this module, their physical and psychological differences from humans are examined in detail, and the effects of these dif- ferences on specific game rules are explained. Using this material, players and referees alike may confidently make use of the Hivers and their cultural background in any Traveller scenario, adventure, or campaign.

Usability: This Alien Module requires a Traveller rules set in order to be used. There are several rules sets available; any one will serve. It is specifically designed as a companion to Starter Traveller, and is oriented toward that rules set. However, this module may be used in conjunction with any Traveller rules: The Traveller ***Book, Basic*** Traveller, Deluxe Traveller, or of course, Starter Traveller.

Advanced character generation systems provided for the Hiver Navy and Merchants are compatible with Traveller Book 5, High ***Guard*** and Book 7, ***Merchant Prince.*** Advanced Hiver character generation requires that you have these t w o books before you can use it.

Usefulness: Traveller players can find any number of activities which include or deal with Hivers, whether inside the Imperium, inside the Hive Federation, or in the unclaimed territories out- side both these empires. The Hiver Worlds Map shows the ter- ritory of the Hive Federation and its relationship with other races and cultures.

Hiver worlds can be the source of interesting expeditions- tocontactHivers,tolearnmoreaboutthem, toengageintrade, or to bargain for examples of their high technology, or to learn more about their fascinating history.

TIMEKEEPING AND OTHER STANDARDS

In almost all Traveller activities, there is a need to keep track of time and its passage. The generally accepted Traveller method is that of the Imperium, but the Hivers have their own timekeep- ing standards as well.

Clocks: Timekeeping in the Imperium is based on the stan- dard day, composed of 2 4 standard hours. Clocks and watches count time using standard hours, minutes, and seconds.

The Hivers, having only originally developed largely in- dependently of day and night cycles, place less reliance in planetary rotational periods as a method of timekeeping than do humans. Hivers seem to have an instinctive grasp of time

and its pas$age. Their basic unit of time is known by humans as the ***interval,*** which corresponds roughly to five human hours. Six ***intervals*** make up one rotation of Guaran, their homeworld, but this unit of time is more often used by non-human Federa- tionracesthanbytheHiversthemselves; itisgenerallyknown as a ***cycle.*** Various other divisions of time exist, but few non- Hivers use or even understand them. Hivers in company with humans frequently adopt human timekeeping standards while dealing with those humans.

Throughout this text, standard Imperial times will be used t o avoid confusion. The referee and players are encouraged, however, to make use of Hiver timekeeping practices where ap- propriate for added atmosphere.

The Calendar: The Imperial calendar is a standard one in com- mon use through much of human space. It is 365 standard (24-hour) days in length, with days numbered from 1 to 365. It is divided into 52 seven-day weeks, with the first day of each year a holiday not part of any week. The Imperial calendar starts with the year 0, in which the Imperium was founded; the cur- rent year is IIII.

The calendar in common use in the Hive Federation was adopted at the urging of M. Martinka, and is based on the period of Glea (the Federation capital) around its star. The Federation Year is 143 cycles, or about 179 standard days in length. This calendar commences with the year 1, cycle 001, on which Glea officially became the capital of the Federation. Dates are ex- pressed by yearIcycle (for example: 1051042); the current year is 1401.

For purposes of this module, standard years and Imperial dating will be used. Hiver dates and calendars may be used by the referee in conjunction with specfic adventures.

REFEREE'S NOTES

This module is intended t o be as complete as possible. The materials in it supplement the basic Traveller rules, and no other rules or published materials are necessary in order t o use the module.

Other Necessary Material: In addition to Traveller and this module, players and referee will require ordinary accessories such as paper, pens, pencils, dice, graph paper, and, perhaps, a calculator.

Other Desirable Materials: The entire line of Traveller products elaborates and expands upon the universe of the future. Almost any can be used in conjunction with this module. Especially useful items include ***High Guard, Merchant Prince, K'kree,*** and ***Solomani.***

Administering This Module: Most of this module is background on the culture of the Hivers and their Federation. Individual adventures are provided to illustrate how the rules and background work with a Hive Federation setting. They should be run as any Traveller adventure is run, with the referee ad- ministering events and guiding the adventurers (without actually making decisions for them) along a course that will lead to the most enjoyable game. This may require improvisation, interpola- tion, or unplanned interaction using the Traveller rules and this module as a basis, but using the referee's creative input as well.

What to Show the Players: Players should have free access to the material in this booklet; it is as much a part of the Traveller rules as anything in the basic rules set. Individual scenarios, however, should be kept secret until the material within them would logically become available.

Origins of the Hivers

The history of space expioration is rife with misconceptions and mistaken identifications. The four-footed K'kree are sometimes called centaurs because of their slight resemblance with the legendary half-horse, half-man of Terra; there is a race called cloud-walkers because the paths between their moun- tain villages are covered with a peculiarly dense mist. The name Hiver has similar origins. And because there is no spoken word for the Hivers to replace it, the name has stuck.

The first humans to contact the Hivers were struck by their complex, hive-like cities combining spires, tunnels, and domes into organic communities reminiscent of Terran bee hives and Oliingian swooper hives. Later contacts with the Hivers provid- ed a better and more accurate picture of their physiology and society, but with no spoken Hiver language to provide an alter- native world, the name Hiver stuck.

The Hivers are the most alien of the major races; they are the farthest from the human norm in appearance, mind, and behavior.

EVOLUTION ON GUARAN

A common start for life on any world is the organic soup of the primeval ocean. Mere chance, however, determines which particular types of organic molecules are created. In the first few million years, the molecules combine and recombine until one particular combination proves itself especially suited t o sur- vival and reproduction. That molecular combination is the in- itial seed of life for that world.

On Guaran (the Hiver homeworld), the pressures of predators in the sea and the natural search for favorable ecological niches forced some species onto the land. One of these, a six-point sort-of-starfish, was the ancestor of the modern day Hiver. The high evolutionary path on that world split at the shoreline. At sea, the vertebrate bilaterally symmetrical form became domi- nant, but on land the radially symmetrical forms were ascendent.

In the evolution of life on land, animals developed a radially symmetrical nervous system which extended up all six limbs t o the centrally-located brain. The brain encased in the body was a survival trait, protecting it not only from predators, but also from extremes of heat and cold.

Eventually, as animal life specialized, it tended toward bilateral symmetry while retaining the effects of earlier radial symmetry: one limb became a pseudo-head with a sensory cluster; the op- posite limb became a tail and reproductive organ.

All higher life forms on Terra can be seen as variations on the basic theme of a central backbone, an uppermost head and brain, t w o forward limbs and t w o lower limbs. On Glea, all higher life forms are variations on the basic theme of a central brain with nerve cords extending outward to six roughly identical limbs; of those limbs, one contains all the specialized sensory clusters, and the other is a reproductive organ.

As on any world, there is great diversity. Some animals have armored hides and can roll themselves into a ball in time of danger. Others have developed their limbs for speed and the chase. Still others are greatly specialized and shoot blinding acid

or irritating allergenics at their enemies.
The survival mechanism which proved effective for the Hivers

was intelligence.

THE PROTO-HIVERS

In the carefully preserved wilds of Guaran (and on several other Hiver worlds), there is a large burrowing animal called the ***snohl.*** This thousand-kilogram intermittent creates extensive tunnels in its search for food, and built-up mounds which serve as nests. The proto-Hivers were originally omnivorous scavengers which were attracted to the snohl's leavings.

Over the course of time, groups of proto-Hivers moved into the snohl's burrows, digging out small dens in the edges of the snohl's main tunnels; eventually a symbiotic relationship was established where the proto-Hivers evolved into gatherers which accumulated food for themseves and the snohl, and, in return, the snohl provided shelter.

Proto-Hivers were relatively solitary, with one forming a rela- tionship with one snohl and sharing that snohl's burrows. When one snohl's tunnel crossed another's, they mated and each snohl's proto-Hivers also mated.

The proto-Hivers had a complex (although only instinctual) culture in which they gathered decaying vegetation and dead animals and farmed fungus in a crude way.

Late in this period, Guaran underwent a severe environmen- tal change (probably an ice age) which put extreme stress on the proto-Hivers' and snohls' ecological niche. It became necessaryfor the proto-Hiversto rangefarther and farther afield in search of food and fertilizer. In doing so, the proto-Hivers were forced to cooperate with each other, forming scavenging and gathering parties to handle the task of gathering at great distances. Some division of labor was necessary in order to han- dle the fungus farming in the burrows while the gatherers were away. And cooperation was necessary in order to properly assign and carry out all the tasks required. Those proto-Hivers with greater intelligence had a survival trait which helped them survive and prosper.

w i t h inte!!igence czma cnmmunicatien {hasically a sign language), a sharing of ideas, and an ability to give orders and receive instructions.

With the rise of intelligence, the specific animal called the Hiver arrived. Over a period of perhaps 100,000 years, the Hivers built their culture and their technology, expanded their tool-use and their social interaction to create the foundation for the Hivers as we know them today.

Hiver Physiology

Hivers are approximately human-sized. It seems t o be a univer- sal or (or maybe just a statistical) rule that intelligent life tends to evolve within certain size and mass limits, and those limits are easily enough defined by the concept of human size. Hivers stand approximately **1.5** meters in height, but they prefer to measurethe distance between opposite limb-tips: which is about 3 meters if the individual really stretches. Hivers mass about **150** kilograms.

Hivers are descended from omnivore gathererlscavengers which were originally adapted to a largely underground ex- istence. As a result, they show many characteristics which originally were required for that existence. For example, their teeth are differentiated to allow both cutting of meat and grind- ing of vegetable matter. Their eyes are adapted to the visual spectrum and to the infrared, but are sensitive enough to re- quire protective lenses in bright sunlight. Their hearing is roughly equivalent to the human auditory nerve, but has a peak response in very low frequencies (to better sense shifts in the ground and tunnel walls).

GENERAL FORM

The Hiver body has a modified six-fold radial symmetry: six limbs radiate from a central body. The brain and most impor- tant organs are contained in the central torso; the six limbs radial- ly extend from the torso and end in manipulating tentacles or fingers; the limbs function interchangeably as arms or legs, hands or feet.

The Skeleton: The internal skeleton is composed of calcium compound-based bone which is stronger than the human equivalent, and slightly more flexible. The brain and essential internal organs are protected by a carapace plate. Attachment points on the carapace support a series of rib-like rings, and ex- tending from the rings are the internal bones for the six limbs. The skeleton extends t o the ends of the limbs, but not into the tentacles.

The Skin: Hiver skin is an extremely tough layering of tissue and insulating fat covered with a fine invisible down. The skin's qualities make clothing unnecessary in ordinary situations; clothes for Hivers are protective or utilitarian, or are purely decorative.

Hiver skin ranges in color from pink to tan, with occasional patches of grey or brown. Aging brings on randomly placed spots of brown.

The fine down which covers a Hiver is a form of hair which emanates from nerves lying beneath the skin. The hairs are sen- sitive to air movement, light contact, and even moderate heat and cold; consequently, the large Hiver can feel changes in the immediate environment as well as sense the placement of its limbs and their relationship to nearby objects. The nerve con- nections of the down assist in the fine dexterity of the six limbs.

The Prime Limb: The ***head*** (actually a sense-organ cluster) is a modification of one of the limbs and contains six eyestalks and six manipulative tentacles, plus three infrared sensor organs and three ears placed around the circumference of the modified

limb. There is no sound-producing organ.
The six flexible eyestalks can be turned in any direction in-

dependently, but are generally used in pairs to provide binocular vision. The brain can process data from up t o three pairs of eyes at one time, and a Hiver can see everything in a **360°** circle simultaneously. Hiver vision is equal to that of a human in nor- mal light. The infrared sensors work in conjunction with eyestalk pairs to help vision when underground or without proper illumination.

Hiver hearing is about equal to the human sense.

The Tail: Opposite the prime limb is the ***tail;*** it contains the reproductive organ. Hivers have only one sex. Reproductive cells are exchanged each time t w o Hivers meet, using the modified rear hand; the process has been termed ***shaking hands*** by humans (who tend t o avoid it). The cells are kept in a reproduc- tive pouch on the lower body surface, where they conjugate, exchanging genetic material. Once every forty days or so, a cell will develop into a larva, which then drops from the parent's body.

The Limbs: Although the prime limb and the tail are specialized, all six limbs are more alike than different. Hivers are multidexterous, and use all limbs interchangeably as arms or legs. Normally, at least three limbs are used as legs at any given time, but any combination is equally possible; some trained runners use all six limbs as legs, while some craftsmen sit on a stool and use all six limbs as arms.

Each limb ends in a six-fingered radial hand. The tentacles or fingers are extremely flexible, with muscular adhesion pads along about half their length. Hiver arms and hands have less strength than do human limbs, but they are also very tough, showing great endurance and a resistance to injury.

Each limb is connected directly to the brain, rather than through branches from a central nerve cord. As a result, each is marginally more responsive than a vertebrate's; there is little preference between limbs for manipulation. Hivers seem to choose the arm that is nearest, rather than showing any handedness.

Limbs are also used as legs. The fingers are curled up t o form a cushioned ball away from the limb tip which serves as a foot. Some animals have claws at the ends of their fingers; Hivers

haveavestigial claw (similarto ahumannail)which islittlemore than a flat spot of firmness which aids in manipulation.

The Torso: The central body of the Hiver contains all of the essential organs, from the lungs and respiratory apparatus, to the heart and circulation system, to the stomach and digestive system. Surrounding them all is a bony carapace which protects them from injury and climate. Within the carapace is a separate skull which encloses the brain; it is supported by muscles and cartilage attached to the inside of the carapace.

Outside the carapace is a system of musculature which helps move the limbs, insulate the body, and cushion blows to the carapace.

A t the center of the lower surface of the body is a single, multi- purpose opening called a ***cloaca.*** The cloaca leads to separate channels for the digestive system (the mouth), the excretory system (the anus), and the reproductive system (the pouch). A system of manipulatory organs (analogous to the human tongue) push food, excrement, and reproductive cells around to the proper channels.

The Hivers' nose (breathing oriface) is located on the upper body surface and connects to a set of six lungs inside the carapace. The lungs are driven by the same large internal muscle which pumps the heart. About half of all Hivers have an acute sense of smell; the olfactory nerves are located in the nose on the upper body surface, and connect through a separate nerve trunk directly to the brain.

RECENT DEVELOPMENTS

Evolution has worked changes on the Hivers. Gross changes took place during the long prehistory of the race, but there have also been notable changes in the centuries since the Hivers achieved civilization and began recording their history.

The Sense of Smell: The prehistoric pre-Hiver depended more on smell than on sight in dealing with its environment. A chance mutation in the pre-Hiver disabled the smell-brain (that portion of the brain which concentrates on processing smell data) and forced the sight-brain to assume dominance. It was this dominance of the sight-brain which led the way to intelligence for the Hivers. Depending on sight forced the Hiver more toward manipulation of objects; sight allows a finer dexterity than does smeii. iviany ieei that a smeii-oriented brain simpiy cannot pro- cess as much data as efficiently as a sight-oriented brain.

However, since the dawn of recorded Hiver history, a major mutation has occurred: the re-enabling of the smell-brain. The change took place in about -5600 (nearly 1,000 years after recorded history began; but 1,500 years before the Hivers achieved space travel). A f e w Hiver larvae were dropped (humans would say born) and later found t o have a heightened sense of smell. The trait has since been passed from genera- tion to generation, gradually widening the pool of individuals who can experience the joys of smelling things. For the curious Hivers who have it, the sense of smell is a wonderful ability; for those who don't, it is a sense which is envied but not really understood.

The genetic basis for the re-enabled smell brain, however, is a complex one, and one which has not lent itself to rapid dissemination into the general population. Today, after more than 5,000 years in the gene pool, the re-enabled smell brain is present in only about half of all Hivers.

Coloration: Hivers of early civilization had a wide variety of coloration on their hides; much of that differentiation is now gone. Hivers routinely exchange embassies between worlds to help keep the race homogeneous, and as a result coloration is now a consistent tan to pink.

On the homeworld of Guaran, Hivers from different latitudes or regions had different colors which ranged from pure white through pink to dark blue. As a world civilization arose, Hivers travelled more widely; the gene pool became larger, and these colors blended. But in the early years of space flight, it was not uncommon for hybrid Hivers t o be produced from the relatively small gene pools available to colonists and starship crews. It was M. Fioran who successfully demonstrated the overall negative effects of small gene pools on the race, and promoted the current practice of embassies and cultural exchanges which help keep the Hiver race relatively homogeneous.

HIVER MEDICAL CONSIDERATIONS

Hivers developed an effective medical science during their long history, and they make use of it to prolong their lives and enhance the quality of their lives.

Regeneration: Hivers have a limited ability to regenerate fingers and even limbs.

Larvae naturally and automatically regenerate lost or severed limbs if the accident happens before one year of age.

For all Hivers, severed fingers regrow over a period of about twenty weeks without additional treatment.

Drugs: Hivers have a centralized six-lobed gland (surrounding the skull) which produces all of the body's hormones and con- trolling secretions. These hormones can properly be considered drugs because they control the responses of the body to ill- nesses, infections, trauma, and fatigue.

Hiver pharmacology is devoted to reproducingthe drugs which the body naturally manufactures, or to stimulating the body's main gland to produce them itself.

Deficiencies: The major medical problem confronting Hivers is a malady called deficiencies. When the main gland cannot pro- duce the proper hormones or secretions to respond to a specific medical problem, then the hormones or secretions must be sup- plied from outside. When the body does not respond correctly to outside supplied drugs, the problem is called a deficiency.

The major problem confronting Hiver medicine today is the control and remedy of deficiencies. Deficiencies vary greatly and cases are dissimilar enough to preclude blanket remedies, re- quiring individualized diagnosis and treatment. Perhapsthe most common deficiency encountered is recurrent olfactory deficien- cy; where a Hiver with the sense of smell loses it on a recurring basis. The solution remains undiscovered.

Hiver Society

The interaction of Hivers with themselves creates a society with patterns and practices which help perpetuate it.

Self-Images: Hivers perceive themselves in four basic classes which are based on age: ***larvae, yearlings, adults,*** and ***seniors.*** Larvae are any young which have been dropped by a parent. They are identified by their small size and the fact that their fingers have n o t y e t developed. Larvae are recognized as potential Hivers, but are not accorded any special care or status. Once dropped, larvae naturally gravitate to the wilds where they survive instinctually for about a year; during this time, their im- mature features develop and they grow in size from an initial 30 centimeters radius t o about 60 centimeters radius. The period in the wilds is a natural selection process which eliminates non-viable mutations, physically weak specimens, and sickly in- dividuals. Hivers do not know their own young; larvae which survive the wilds are cared for by the nest they wander into. Yearlings are maturing larvae which have emerged from the wilds. Their fingers are developed to the point that they can grasp and manipulate objects. Yearlings are accepted into any nest which they find, and they remain in that nest until they reach adulthood. During this time they receive an education and gradually develop physically. At age 14, the yearling reaches

reproductive age and is considered an adult.
Adults are any Hivers above the age of 14. They are fully

mature physically and intellectually.
Seniors are an optional category of Hivers; not all individuals

attain it. A senior is a Hiver who has gained special respect or status based on its actions in life. Nest leaders become seniors after several decades of service; judges of the law usually become seniors after many years in their careers; manipulators who achieve fame for their deeds are usually considered seniors. Senior status is a nebulous and unofficial classification. Within a nest (for example), the leader is usually considered a senior by nest members; outside the nest, the leader may not yet be considered a senior.

THE STRUCTURE OF SOCIETY

Hivers organize themselves into cooperative nests which generally center on a common endeavor or interest. A nest may include as few as five or as many as five hundred individuals, but averages about one hundred. A nest population of about one hundred has proven efficient to manage, and is about the same size as pre-civilization nests. They can hold anything from five t o five hundred individuals, usually averaging one hundred (the size of most nests in pre-civilized times). Larger nests are established when there is a need for a greater population (large manufacturing complexes or universities); smaller nests are created when a small group is needed (starship crews, small expeditions, small businesses, or small enterprises).

Yearlings find a nest when they emerge from the wilderness; they remain in that nest until they reach adulthood. The first years are spent learning basic social and intellectual skills; the later years are spent taking an active role in achieving the nest goal. When the yearling reaches adulthood, it may decide t o re-

main in the nest, or it may leave the nest in search of a nest goal which more fully meets its own desires.

Above the nest level, Hiver society has a variety of governing organizations. Many nests may group themselves together to form a city or city-state. Cities may group together to form a nation-state. Nations may group together to form a world government. The worlds of the Hivers have grouped together to form the Hiver Federation.

In all cases, however, the lines of authority in Hiver society are vague. There are nests (or organizations) that handle vir- tually every aspect of Hiver life, but ***government*** is determined largely by nests that coordinate activities between various other nests, or by the leaders of various nests working in concert. Neither has any authority in the sense that humans understand the concept; they merely perform a job like any other nest's job, with no special power or respect being accorded to members of such nests. Certainly Hiver society is utterly egalitarian; com- petition for power over others is totally foreign to the Hiver nature.

THE HIVER ECONOMY

The Hiver economy has been described as "an economist's nightmare" and "capitalistic communism" by human writers. It is very difficult for non-Federation members to understand, though it seems to work admirably for them. Basically, Hivers have a strong desire for material comforts, and, hence, the wealth that makes these possible. But they rely on a system of credit in which the individual has a positive or negative credit balance with its particular nest. When an individual changes nests, the new nest acquires the individual's credit balance, either paying to, or being

paid by, the previous nest. In the in- terim, individuals can draw on the nest's accounts for virtually any amount, whether for simple necessities such as food and shelter, or for large material items.

Just how this credit system is regulated is a matter of some uncertaintytohumans; itseemstobelargelyacombinationof honor and ambition on the part of the individual Hiver nest- member which limits unrestrained tapping of resources. Because the Hiver knows he will probably be moving onto another nest, and he also wants t o enjoy a certain degree of stability and com- fort, Hivers seem to regulate their own desire to tap a nest's resources so as to end their service with a particular nest with a positive credit balance; they earn credit according t o the quality and quantity of work performed, just as humans earn money. Thus, a Hiver may require large amounts of expensive equip- ment for a particular task or project, which the nest provides; at the end of the task, the Hiver returns the equipment, and the value of the returned items (less a "depreciation allowance" of 5%) is used to offset the amount originally charged to the Hiver's account with the nest. The balance is made up out of the value of the individual's labor. This system is vastly over- simplified in this description, but in essence conforms to these lines.

Hiver Specialties: Communications and electronics technology are the most important industries in interstellar commerce in the Hive Federation; Hiver industry and business excels in these fields. Major exports include artificial and computer languages, translators, computer circuitry and software, and electronic hardware of all types.

Hiver mathematical systems are much in demand for their power and elegance.

INSTITUTIONS

All societies create institutions: established procedures or organizations which are accepted because they make it easier or more efficient for society t o function. In human society, some institutions are the family (which helps stabilize society, en- courages reproduction, and assumes responsibility for the young) and the church (which provides moral direction and education, and charity).

Hivers have created a variety of institutions, each of which hashelpedshapesociety. Threeimportantinstitutionstobecon- sidered here are the nest, manipulation, the embassy, and topical clubs.

THE NEST

The basic institution of Hiver society is the nest; it is roughly equivalent to the family or the tribe in human society. The nest serves two purposes in Hiver society: it is a place for the education and care of the young, and it gives each Hiver an established place and purpose in the social structure.

All nests have a nest goal: a statement of purpose for the nest members. For some, the nest goal is an elaborate statement, while other nests may decide they exist simply to care for the young and support their members. There are even nests for those Hivers who want to be independent and alone.

The nest is headed by a leader- one individual who makes routine decisions and assignments, and who keeps the nest's

records. Where the rare dispute over the leader's decision oc- curs, the nest as a whole reconsiders the decision and affirms or changes it.

MANIPULATION

Manipulation is a uniquely Hiver phenomenon. It is an ac- cepted activity which accords the successful manipulator respect and admiration from the population in general. It is a way for individuals to achieve a lasting sort of fame in their society.

Manipulation is rigidly defined by the Hivers to include four components: the deed, the manipulator, the consequences, and the claim of credit. Each component has been carefully refined and defined, and its requirements must be carefully met for it to be accepted.

The deed itself is the stimulus which sets the manipulation into motion. The deed must be premeditated, and it must be the mininum deed necessary. As such, the deed must be careful- ly recorded (originally in writing; currently, manipulators main- tain elaborate explanatory video and graphic records) in order tosupportalaterclaimofcredit.Premeditationofthedeedalso includes a prediction of the consequences and their effects. The finesse of the manipulator is judged by the degree and complex- ity of the deed; great finesse is assumed when the deed is small and innocuous, and lesser finesse is assumed if the deed is more direct or complex.

The manipulator is the person who performs the deed. A manipulator may be open and direct, or may work behind the scenes. In all cases, a true manipulation calls for the manipulator t o be a single person, working alone and totally responsible for the act. If more than one person performs the deed, the act is not a true manipulation.

The consequences of the deed are the results of the initial act. There are obvious results of any deed, and evaluation of any manipulation ignores them; the unobvious effects are the true effects of manipulation. The manipulator must predict them correctly.

The claim of credit is the final step in a successful manipula- tion. The manipulator must reveal the manipulation and present its evidence of responsibility and its prediction of the conse- quences. Upon evaluation, the event is then acknowledged as a manipulation (or not) and proper records are made.

Acknowledged manipulators are accorded a courtesy title of Manipulator (abbreviated M.) in respect for their deeds.

The First Manipulation: The first manipulation in Hiver socie- ty was also one of the first recorded deeds in Hiver history.

About 10,000 years ago, M. Primus (the anglic translation of the manipulator's name) was a nest leader in one of ten city- states on a mountainous peninsula. All of the city-states were struggling to build and maintain their economies, but were con- strained by the mountains; instead all viable trade took the long route by sea around the peninsula. Primus proposed t o a meeting of city leaders that a road be built across the peninsula, com- plete with tunnels through the impassable mountains, to con- nect all of the city-states. Primus emphasized the commercial and trade benefits that muld be expected.

The idea became popular and was implemented. Within ten years, all ten city-states were connected by a road that greatly shortened travel time between them. Within fifteen years, several of the previously inaccessible mountain valleys in the peninsula interior were settled by newly formed nests. Primus' city-state became a trade center for these new settlements; with trade came power and importance. As the years passed, the city-states found that their interests were more common than

separate, and within thirty years, the ten city-states had united into a new nation-state- the first to be established on Guaran. At a celebration of the founding of the nation-state, Primus climaxed the festivities by revealing its manipulation. Everyone in attendance immediately acknowledged Primus' deed, and it has since been recorded as the first true manipulation. A t this

point, the record becomes semi-mythical: one ending has Primus being elevated to leader of the new nation state; the other has Primus banished as too dangerous to the community.

EMBASSIES

Embassies are a relatively new institution in Hiver society, coming into being only after spaceflight was achieved.

Embassiesare actually a type of nest. The nest goal is to help maintain the unformity of the Hiver genotype by carrying reproductive cells between worlds. Embassies also foster a homogeneity of Hiver culture by sharing news of events, rela- tionships, discoveries, and interests t o the many worlds of the Federation.

Embassiesare also involved in legaldecisions. As disinterested parties, they are assumed t o be able t o make impartial decisions on questions brought before them; they serve as juries t o decide disputes that have not been otherwise resolved.

TOPICAL CLUBS

All Hivers have some degree of curiosity. But just because an individual is curious does not mean that it is intelligent or even well-educated. The Hiver institution of topical clubs evolved as a response to the unending curiosity of Hivers and a common desire to know more about everything.

Topical clubs are formal organizations of Hivers with an in- terest or curiosity about a specific subject. Typical subjects are the sciences (perhaps biology, electromagnetic radiation, mathematics, or gravity), social sciences (perhaps education of yearlings, government, or history), or self-improvement (perhaps leadership techniques, physical training, or sports). There are topical clubs established for almost any subject of interest to Hivers; most Hivers belong t o at least one such club, and prob- ably several.

Topical clubs are independent and self-governing. They each establish their own criteria for membership and may be open to all or only to invited individuals. They may join with other clubs to share information, or they may stand fully independent.

Topical clubs have several functions within Hiver society. They educate individuals. They conduct beneficial research which may not be funded or encouraged by the nest or the government. They provide a safe place for Hivers t o indulge their curiosity. They help Hivers avoid duplicating research which has already been conducted. In general,

topical clubs are an outlet for a major drive within Hiver society, and by providing that outlet, the clubs help stabilize Hiver society.

There are many topical clubs, and some of those achieve a continuing legitimacy and acceptance; they tend to become semi-official regulatory agencies. Two of the most notable topical clubs are the Manipulations Club of Guaran and the Legal Club of Glea.

The Manipulations Club of Guaran was originally organized on Guaran about 1,000 years before Hivers achieved spaceflight, and was dedicated to teaching individuals how to perform manipulations. At about the time spaceflight was achieved, the club changed its emphasis from teaching manipulation to studying manipulation. It currently maintains the official records of manipulations within Hiver society, and ranks them by effect and importance; scholars use these records to analyze trends within Hiver society. The Manipulations Club is also the accepted validating agency for manipulator status. A manipulation may be filed with the club (along with supporting documentation) and if accepted, the manipulation is recorded as such within the club's records. Such an acceptance and recor- ding accords official manipulator status to the responsible individual.

The Legal Club of Glea is the central depository for all legal decisions and precedents within the Federation. The records and publications of the club are required readings for anyone who wants to be a judge in the Federation, and the Legal Club ac- credits individuals who have passed its course of study. The Legal Club of Glea maintains ties with legal clubs on the various worlds of the Federation, and helps keep them informed of deci- sions and precedents which may affect them.

Becausethe Hiver Federation has no formal or pervasive legal structure (instead depending on custom, precedent, and essen- tial fairness), the Legal Club of Glea and the legal clubs of the member worlds help to maintain that fairness, as well as a unifor- mity throughout the Federation.

Topical clubs fulfill a necessary function in Hiver society: they are pseudo-nests with pseudo-nest goals that may not be prac- tical or acceptable. Topical clubs allow individualsto follow more than one goal in their lives. And one of the greatest ambitions of some topical clubs is to transform themselves into nests, able to devote its full resources, on a full-time basis, to its chosen purpose.

THE HIVER PARENTAL INSTINCT

The strong Hiver parental instinct can be considered an off- shoot of the Hiver instinct for racial survival. To humans, this parental instinct seems somehow warped. For example, Hivers are horrified by the idea that their larvae might somehow find its way to a world where there is no nest to receive it. To pre- vent this, Hiver ships are carefully fumigated to kill any hiding larvae before landing or docking, and extreme measures are undertaken to ensure that no Hiver crewmember deposits lar- vae where there is no nest. On the other hand, the notion of artificially limiting larvae production is considered barbaric b y the Hivers.

As Hiver culture has grown more sophisticated, Hivers have extended their interpretation of the parental instinct t o "child" races-primitive or culturally backward aliens-as well as their o w n Hiver children. The Hive Federation has been influenced by this instinct and it colors Hiver behavior toward races out- side the Federation as well. Humans are seen as being the best candidates for civilization outside the Hiver sphere, though Hivers still regard human cultures as barbaric due to their capaci- t y for violence and the wildly confused welter of genotypes and cultures which are permitted to flourish in human space. Im- perial humans are preferred over the more militant and intolerant inhabitants of the Solomani sphere. There have been few con- tacts with the Zhodani or the Vargr: the stability and conformi- ty of Zhodani society would probably appealto the Hivers; they would have disdain for the confused nature of the Vargr behavior. The Aslan and the K'kree are seen as being too ag- gressive to ever reach a truly civilized status.

The Psychology of the Hivers

Hivers behave in ways which have been shaped by thousands of years of evolution and culture. In some ways, their behavior is very similar to the behavior of humans (they struggle to sur- vive; they avoid pain in everyday circumstance; they become hungry and eat; they enjoy such pleasures as comradeship and pleasant surroundings). In some ways, their behavior is very dif- ferent (they have no concept of love; they do not consider their young to be people until they are a year old; they abhor per- sonal violence). But everything the Hivers do has a basis in their culture and their evolution (just as the same is true of humans).

Psychology endeavors t o understand h o w a being thinks; an understanding of Hiver psychology can help others to predict behavior and motivations, and to evaluate a Hiver's actions.

Hiver psychology has t w o major areas of study: behaviors and motivations. Behaviors describes what Hivers do and how they do it; motivations describes why they do what they do.

BASIC HIVER MOTIVATIONS

Hivers are living animals, and as such, they are motivated t o survival, finding food, finding satisfaction, and reproducing themselves. The behaviors they show and the reasons that they have for behaving in the ways they do reflects their psychology, culture, and society.

Just because the Hivers are intelligent does not make their behavior strictly logical. Hivers understand that much of their activity is based on instinct or preference born of long years of evolution. Behavior can be altered or redirected if they see a reason to do so; but they also naturally accomodate basic

not stand for it. Human psychology requires flavor in food; without flavor, the food is unpalatable, inedible. Similar condi- tions apply to the Hivers.

Personal Survival: The Hiver drive for personal survival ex- presses itself as an aversion to physical violence. Hivers have no real history of fighting, and they are not suited for it either intellectually or emotionally.

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behavior as a matter of course. Humans behave similarly. On a strictly logical basis, a food substitute can be created for humans which provides everything necessary to support life, but without any flavor. It could be cheaper, store better, and be easy to eat. And humans would

In their own minds, many Hivers feel that they can handle fighting- they learn t o use guns; they study strategy and tac-
tics; they even train for close combat. But in the final analysis, theyalwaysseemtobreak, unabletorespondwiththeviolence

that would carry them to a victory at close combat unless they are in a true survival situation.

It is fortunate for the Hivers that modern warfare is carried out at long ranges. The Hiver urge to run doesn't apply at ranges where dispassionate thought can intervene. Hivers operate a navy because they consider naval actions (longer ranges; less immediate consequences) more acceptable.

RacialSurvival: Reproduction is always a function of the drive for racial survival. With the Hivers, reproduction is a casual act, w i t h o u t consequences or responsibilities. A s a result, t h e racial survival drive for Hivers is concentrated in the parenting process.

Reproduction: Hiver reproduction is an instinctual process. It is totally without emotional overtones; there is no formation of sex-based bonds between individuals, and the reproductive pro- cess does not have the emotional importance that it has to humans.

Without mating bonds, there are no close-knit family feelings common to most human and other such cultures. Hiver larvae
are regarded as minor pests, and Hivers have no compunction

about eliminating them when the need arises. Yearling Hivers returning t o civilization do so at random, so there is little chance 1 that one might be taken by its own parents.

Hivers do have a strong parental instinct, but it is a generalized one. Yearlings are adopted and cherished by the entire nest, rather than by specific individuals. Any Hiver is strongly con- cerned with the safety of all yearlings.

Parenting: The parenting instinct expresses itself in t w o ways: a drive to teach the young, and a drive to manipulate.

Teaching the young is a task that all Hivers undertake at some time or another. It involves relating stories of personal experience in an attempt t o give the Hiver's students an advantage in their o w n dealings w i t h life. Since all Hivers are naturally curious, such story-telling sessions are an enjoyable and entertaining activi- ty, and the young look forward to them.

Manipulation is an instinct that the fiercely individualistic Hivers have raised to a fine art. It seems to be a development of the parenting instinct, except the Hiver is now acting as a parent to other adults- deciding what they need and then con- vincing, forcing, persuading, or imposing the answer on them.

Curiosity: One of the greatest forces in the individual Hiver is its curiosity. Hivers are interested in the world around them, and are often driven t o investigate and try t o understand events and situations they may encounter.

Most Hivers have selected one or more topics in which they are interested (typically, a Hiver's curiosity characteristic indicates the number of general topics which it is routinely curious about, as well as the degree of curiosity the character expresses).

Individualism: Hivers take great pride in their individualism. They enjoy their o w n abilities t o achieve objectives; some of this drive stems from their survival as larvae in the wilderness. Even as they cooperate in their nests and with the co-workers, they express themselves in individual ways. Differences in tastes, preferences, likes, and dislikes are all accepted as ways of expressing Hiver individualism.

Superiority: Hivers have developed a racial belief that they are superior to most (if not all) other intelligent races. Such a belief is not uncommon among intelligent races: the Vargr, Aslan, Zhodani, K'kree, and Solomani all have similar beliefs. The difference is how the Hivers express it: they accept that others may feel themselves superior, but ignore or tolerate such beliefs in the (almost smug) acceptance that they are truly superior. Hivers are rarely concerned with changing non-Hivers' opinions, or convincing non-Hivers of Hiver superiority. Instead, the Hiver superiority expresses itself in a calm acceptance of others' shortcomings. Even Hivers who are confronted with a smarter or more capable non-Hiver retain their o w n conviction that Hivers are racially (intellectually, logically, capably) superior to any other race.

BEHAVIORS

Hivershaveadoptedavariety of behaviorswhichthey use in reaction to situations they encounter.

Confrontation: Hivers often use direct confrontation in dealing with a problem. Since Hivers are cooperative by nature, they have found that stating the relevant factors in a problem and confronting others involved can be an effective way of dealing with the problem. Since confrontation achieves results, it is a preferred method of handling some problems. Hivers are sometimes surprised (in dealing with non-Hivers) that confron- tation can aggravate a problem rather than force a resolution.

Consensus: Hivers believe in solutions which resolve as many problems as possible. Their cooperative nature leads them t o seek compromise and consensus, rather than absolute victory in most problems.

Manipulation is an interesting contrast to this drive for con- sensus. The individual manipulator adopts a specific course of action (one that conceivably can be adopted) and creates an atmosphere where it is adopted; the manipulation procedure out- wardly ignores compromise and consensus, but is nevertheless an accepted type of action, and one which gains the manipulator great respect.

It appears that manipulation is an accepted exception to nor- mal behaviors because it allows necessary actions to be taken even if compromise and consensus have not worked.

Avoidance: Hivers typically avoid problems that they cannot handle effectively. If confrontation has not solved the problem, they ignore it. Hivers will usually go around a threat if they believe the chances of winning are slim. Avoidance may sim- plybearefusaltodiscussthematter,or(iftheproblemistruly dangerous) it may be actual retreat or flight.

The Hive Federation

The interstellar empire of the Hivers is technically a federation- a group of states, each internally independent, which have joined together into a union t o which they have sur- rendered certain rights and responsibilities (concerning foreign affairs primarily). This federation is less centralized than a republic or an empire, but more united than a confederation or casual alliance.

The Hive Federation, although originally founded by the Hivers, and widely based on their cultural precepts, is, in fact, a true union of many diverse worlds and races. All member worlds are co-equal in status, in representation in the central government, and in access to the benefits of interstellar com- merce and interaction.

The Hivers, however, do dominate the Hive Federation because of their numbers and their widespread presence. The Hivers initial expansion into space was into a region which was unsettled; they were the first in the area to discover jump drive, and they used it on a wide scale. A natural consequence was the widespread settlement of hospitable worlds in what came to be known as Hiver space.

Naturally enough for an expanding race, some of the in- telligences which the Hivers encountered were eliminated, deliberately or by happenstance. But many more survived because of a cultural imperative of the Hivers: manipulation, which in Hiver society is both an important art-form and a respected individual pursuit. Hivers are themselves culturally the product of many succeeding generations of manipulators. Those centuries of manipulation have made Hivers less susceptible to manipulation through increased education and awareness of the process (just as sophistication in literature or drama increases as a human culture grows older and more mature). Non-Hiver populations were soon perceived by Hivers as a target for manipulation: within certain well-defined parameters, appren- tice manipulators could practice their art, and even relatively untalented Hivers could have the opportunity to manipulate others for a brief time.

Naturally enough, once a non-Hiver culture reached a certain level of achievement (usually industrialization and space-travel) and has become familiar with Hiver culture, they are less suscep- tible to manipulation and become less fertile grounds for the non- experts. All cultures within the Hive Federation are constantly being manipulated by experts in the field. In some ways, this manipulation is a form of government which achieves ends which cannot be arrived at normally.

The Hive Federation is a true union of worlds and races, with all members being co-equal in status and power. Because of this fact, any discussion of the Hivers must take into account not only that race, but also the Federation as a whole. Though Federation culture rises almost exclusively from the Hivers and their view of the universe, other member-racesmaketheir own contributions to the society of the Hive Federation.

MEMBER RACES

There are over 170 member races within the Federation dominated by the Hivers. These races, although extremely diverse in physiology, display fewer differences in culture and behavior than might be expected. Hiver-imposed cultural stan- dards make the ways of life embraced by these various races somewhat more uniform than, say, the various races included within the Imperium.

Completely describing all the diverse races of the Federation
would be impossible here. There are few races, however, which I play a particularly important part in the affairs of the Federa- ı tion. These races are described below.

The Za'tachk: One of the oldest races associated with the
Hivers, the Za'tachk are descended from trisexual omnivorelgatherers. They are quadripedal; like the Hivers, they can use their limbs equally well for movement or grasping. They are similar in size and weight to the Hivers. Even before being discovered by the Hivers, the Za'tachk were similar in many aspects of culture, being nonaggressive, pacifistic, and highly cooperative in all phases of society. Unlike the Hivers, they are also somewhat timid and lack the burning curiosity that typifies Hiver behavior.

The race has an obsession with order, loving all aspects of organization and development. They are frequently found in posi- tions involving administration within the Federation, and are typically encountered as starship pursers, accountants, plan- ning officials, and so forth. Though members of other races serve in the same capacities as well, the Za'tachk are favored for such work when they are available, and naturally gravitate towards such positions.

The Ithklur: The Ithklur were formerly a highly aggressive race; they represent the first major success of Hiver psychohistorical techniques. Their society was modified over a period of nearly a thousand years to conform to the Hiver ideal.

Descended from carnivore/pouncers, the individual Ithklur averages 2 meters in height and 200 kilograms in mass. They are bipedal, with a short, heavy balancing tail and two arms tipped with blunt, thick fingers which still retain formidable claws. Their skin is tough and faintly scaled; their fairly human- like faces run towards thick brow ridges, heavy jaws, and broad, flat features. They have t w o sexes, bearing live young equipped- from birth to eat fresh meat.

Though Ithklur society has been reshaped by the Hivers, they retain a strong internal government (generally, rule by small councils of dominant individuals are favored) and police forces to provide a check on naturally combative tendencies. Within the Federation, the Ithklur are frequently found as members of the navy (and its ground auxiliaries in particular), or as security troops attached to development or scout nests. They are much more comfortable with concepts of combat than are the Hivers, though centuries of civilization has buried their more violent tendencies fairly deep.

The Ithklur prefer high-gravity worlds with dense atmosphere, but are found throughout the Federation.

The Gumin: The Gurvin are another race which has long been associated in the Federation. Derived from hexapodal om- nivorelhunter stock, they are equipped with two legs, two arms, and a middle pair of limbs which can be used as either at need. They are 1.75 meters in length from muzzle t o tail. Their culture adapted fairly readily to Hiver standards; though the Gurvin ex- hibit aggressive behavior, their aggression has long been chan- neled into economic pursuits.

The Gurvin are interesting in that, of the t w o sexes,'the females are roughly twice as intelligent as the males. Males, though sentient, are decidedly lacking in creativity or reason- ing ability. Traditionally, Gurvin males have been hunters, rely- ing primarily on instinct rather than intelligence; the females, handicapped by the problems of carrying, bearing, and raising young, were forced to develop intelligence for security. Civiliza- tion was but an extension of this. Gurvin worlds are generally governed by a matriarchal representative democracy.

Gurvin males are rarely found away from Gurvin settlements. The females, however, range far and wide across the Federa- tion. They are most frequently encountered as merchants and business executives, but are also common in the Federation Development Agency serving as explorers.

Gurvin are stereotypically money-oriented, and seem to have a cash fixation. They rarely do anything out of altruism, and are famous for demanding what price they will be paid for their efforts.

Most of the names of subsectors and planets applied to worlds in the Federation are derived from the Gurvin language, which, like the Hiver written language, is ideographic in nature and fairly easy to translate into Hiver language patterns. Most other names used in this book are human translations of Hiver or Gurvin ideograms.

Humans: Several minor human races inhabit worlds along the spinward border of the Federation's current sphere of influence and count themselves as part of the Hive Federation. Differences between these races and any of the human races of the

Imperium are minor, and can be accounted for by genetic drift. These human races have adopted Hiver customs and ways of thought (in so much as any human can do so), and are thoroughly unlike humans from outside the Federation in outlook.

GOVERNMENT

The Hivers have only one culture and one language; the Hiver genotype (with inditvidual variations similar in degree t c ~dif- ferences between individual humans of the same race) is also constant. Other member races of the Federation are encouraged to follow cultural standards as close to the Hiver norms as is possible given differences in physiology. Internal harmony and cultural unity are the chief features of the Pan-Federationsociety that is embraced by all member races.

The government of the Federation originally had two pur- poses: creation and maintenance of embassies (in the Hiver sense), and development of new worlds. A t a later time, it took upon itself the additional task of self defense of the Federation.

The Embassy Directorate: Hiver embassies are nests or groups of nests which travel between Hiver worlds; their mission is maintenance of a uniform Hiver genotype and culture. The cen- tral agency responsible for the establishment and support of these embassies is the Embassy Directorate.

The typical embassy is a Hiver nest which has been provided a ship by the Embassy Directorate and assigned a specific se- quence of worlds to visit within the Federation. The embassy itselfisfairlyself-sufficient;theDirectorate'smissionistoassure that all Hiver worlds are visited on a continuing basis, and that the embassies which are created are representative and effi- ciently run.

Without the Directorate's efforts, embassies would natural- ly gravitate toward attractive or fascinating worlds, leaving out the dull, the mundane, or the ordinary. Eventually, some parts of the Federation would become backwaters, disconnected from the mainstream of Hiver culture. Hivers believe that a divergence of Hiver cultures would be detrimental to all concerned.

When an embassy sets out, members of many different nests will ***shake hands*** with everyone nearby in a sort of farewell par- ty; the embassy then boards its large ship bound for a distant world. Once they arrive, members of the embassy meet as many local inhabitants as possible, again ***shaking hands*** and exchang- ing news, art, gossip, scientific information, and political ties. After about a local year, they set out for their homeworld and another year-long round of parties, discussions, and hand- shaking.

Embassies also serve as juries in legal matters, and are ac- cepted impartial forums for the resolution of local disputes; their unprejudiced views are eagerly sought out by locals. The local legal system is presided over by judges who are well-versed in Hiver custom and precedent. These judges can make decisions themselves and often do, but those decisions are appealable and are not binding. The decision of an embassy serving as a jury, however, is accepted as binding.

There is a considerable body of Hiver common law and custom, and a judge is an individual who has spent years in study of the traditions of Hiver law.

Other member races participate in the embassies, although in a modified form (usually they are concerned only with cultural exchanges, and not with widespread reproduction or maintenance of the gene pool). All embassies make a contribu- tion as a major cohesive force within the Federation, helping to bind the star-spanning society together.

The Federation Development Agency: When the Hivers moved out into the stars and first established their federation, they realized that one responsibility of their government would be further development of the many worlds they found, and ex- ploitation of the resources they discovered. The Federation Development Agency was given this task.

The Federation Development Agency handles a multitude of responsibilities ranging from exploratory expeditions t o diplomatic contacts to government assistance for self- improvement. It has wide responsibilities for evaluating, contacting, and dealing with new members or potential races. Federation expansion is still continuing at a slow but steady pace, and the FDA is the exploration organization which is primarily charged with continuing this growth.

Most Hiver activity outside the Federation falls under the con- trol of the Federation Development Agency.

The Federation Navy: The Federation Navy was created once the Hivers encountered aggressive races among the stars. The Hiver parental instinct was easily aroused by the discovery of numerous intelligent species less advanced than themselves, and work began immediately to lift these child-like races to civilization. Encounters with aggressive races such as the Ithklur madetheneedforanenforcementandmonitoringagencyclear, and the Navy was formed.

The Navy has always worked in typically Hiver ways: it

establishes quarantines on worlds with overly aggressive cultures; it responds to acts of violence and warfare; and it pro- vides a force with authority along the Federation borders.

Much of the Federation Navy's activity is covert, with a goal of redirecting cultural values away from aggression or violence (especially on quarantined worlds).

Navy Organization: The Federation Navy is organized into fleets: each fleet is assigned a territory (aboutthe size of a sec- tor) to patrol and defend. Fleets are further organized into squadrons, generally by function such as battle, patrol, or sup- port. A typical Hiver fleet (named for its sector or territory) might consist of one Battle Squadron, a Patrol Squadron for each subsector within its territory, and a Support Squadron at each important world in the territory. Squadrons have relatively few ships in normal times: usually between three and ten. When there is a threat to the Federation's security, additional ships may be assigned when needs are especially great.

The Navy also operates covertly, and it has a number of squadrons which are not part of the fleets. These Covert Opera- tions Squadrons (which may identify themselves as such, or may carry false organizational markings and identifications) pursue specific projects assigned by the Federation Navy command structure.

The Federation Navy includes a small proportion of ground forces which fill such functions as police duties, boarding par- ties, and planet surface raids. Commanded at the higher levels by Hivers, they are predominately non-Hivers at the action or combat level. Armed fighting troops are exclusively Ithklur and are known as Ithklur Marines.

HIVER MILITARY ACTIVITY

The Federation Navy is the main instrument of Hiver military force; there is no army.

Hivers came late to the concept of war; they encountered organized military activity only after centuries of star travel. In- dividual combat is known to the Hivers, but widespread, organized warfare was simply unknown (Hiver commentators have said that Hivers were too rational t o adopt such measures). Hivers dislike any form of violence, regarding the death of any sentient being as a tragic and destructive waste.

Encounters with races which do fight wars have taught the Hivers that t o have peace, they must be prepared for war. When it is necessary t o fight, Hivers prefer t o use high-technology or long-range violence. On the rare occasion Hivers are involved in ground combat, it is in artillery units or vehicles mounting long- rangeweaponry. PersonalgroundcombatisrepugnanttoHivers, and to many of their more apt pupils among Federation member- races. When ground forces are absolutely essential, other races within the Federation provide the bulk of the troops; the lthkur are a major component of the regular infantry units that the Federation raises in emergencies.

The navy is the only formal military organization. It is essen- tially a deterrent force, and is seldom used as an instrument of policy. Usually maintained at low levels of size and readiness, it is expanded in periods where the Federation perceives a threat to its security, such as along the border with the Solomani Con- federation, where current Solomani aggressive militancy has resulted in border incidents and cross-border raids. The Hivers prefertodealwithsuchproblemsusingtheir navalforces; where necessary, local troop units may be raised, or mercenary units brought in. All ground forces operate under Naval command.

Guaran and Glea

The original Hiver homeworld was Guaran, located in the Hive subsector of the Ricenden sector of the Hiver Federation.

In 410, the capital of the Hive Federation was transferred from Guaran to Glea, in the Liana subsector of the Centrax sector. The Hive capital is remarkable because it was moved deliberately in an effort to be closer to the newly opened and still developing Young Worlds of Centrax, Lorspane, and Drak- ken sectors. In human society, such a move would be opposed by the older worlds on political, economic, and historical grounds; Hiver society, however, accepted the move with scarcely a protest. The justification of the move appealed to a universal Hiver motivation: the parental instinct. The Young Worlds, a multi-sector cluster of worlds with newly emerged primitive races, could be brought into the mainstream of Hiver culture more easily if they were closer to the Hiver capital. Since

the races could not be moved, the capital was.

GUARAN

Hivers originated in the evolutionary processes at work on Guaran. Guaran orbits Primary, a close binary star.

Stellar Data: Primary is a K1 V star which is dimmer and cooler than Sol. Luminosity is .35. Effective temperature is 4740' K. Radius is ,834; mass is .77.

Primary has a white dwarf companion with a mass of .26 and a radius of ,018. This companion (calledthe Eyestalk because of its resemblance to a Hiver eye) makes a negligible contribu- tion to the overall brightness of Primary.

Orbital Data: Guaran orbits Primary at .646 A U (orbit number 2) with a period of 187 days. Guaran rotates on its axis once in about 20 hours. Orbital eccentricity is negligible.

'Woria Physical Data: Guaran is 7,900 kiiometers in diameter and has a standard atmosphere. Half of the world is covered with water oceans (divided by the continents into distinct six seas); icecaps cover about 1 0 % o f the polar regions. The average temperature for Guaran is 27.9' C.

World Social Data: Guaran has a population of 8 7 0 million, of which 90% are Hivers; the remaining 10% are various client races. Guaran has no formal government; most governmental functions are carried out by Hiver nests. Effective law level on Guaran is zero; restraints on action exist at the nest level. Guaran has a technological level of F, which is the general maximum within the Hive Federation.

Guaran has a trade classification of Rich. Guaran has a type A starport.

Guaran has no bases established on it.
The system has a gas giant.
Cultural Notes: Guaran holds no special position of importance

in the Hive Federation; originally the world was the Federation capital, but cosmopolitan influences and a desire to have a non- Hiver world as the seat of government for the combined Hiver and non-Hiver populations of the Federation led t o its transfer t o Glea.

As the original Hiver homeworld, Guaran is a continuing tourist attraction, and millions of Hivers visit annually.

GLEA

In 490, the Hiver capital was moved from Guaran to Glea. Glea itself was settled by Hivers in -866. Glea orbits New Primary, a solitary star.

Stellar Data: New Primary is a GO V star slightly brighter and hotter than Sol. Luminosity is 1.21. Effective temperature is 6,000' K. Radius is 1.03; mass is 1.04.

Orbital Data: Glea orbits New Primary at 1 AU (orbit number 3) with a period of 358 days. Glea rotates on its axis once in about 22 hours. Orbital eccentricity is negligible.

World Physical Data: Glea is 9,580 kilometers in diameter and has a standard atmosphere. Seventy percent of the world is covered with three water oceans; icecaps cover about 10% of the polar regions. There are three continents. The average temperature for Guaran is 22' C.

World Social Data: Glea has a population of 670 million, of which about half are Hivers; the other half is composed of members of non-Hiver races of the Federation. Non-Hiver population on Glea parallelsthe proportions of non-Hiver popula- tion within the Federation itself.

The Federation maintains its major governmental apparatus on Glea: the Federation Development Agency, the Federation Navy, and the Embassy Directorate all have major installations on the world. There is no formal world government, however, and all governmental activities are in the hands of the local nests. idon-mivers either maintain iocai organizarions simiiar t o nests, or are under the control of Hiver nests. Glea has no law level.

The technological level of Glea is F, the general maximum for the Hive Federation.

Glea has a trade classification of Rich.
Glea has a type A starport.
Glea has a Federation Embassy Center. Naval and military

bases are not present, although such bases have been established in nearby systems.

Glea has a gas giant in the system.
Cultural Notes: Glea lies at the heart of the Glean Cluster-

sixteen worlds which are all attractive to Hivers (size between 4 and 6, atmosphere between 5 and 9) and which are all ac- cessible by jump-I shipping.

The History of the Hivers

The Hivers first claim to uniqueness was their culture: they had an established culture before they became intelligent. As pre-Hivers, they lived in tunnels and built-up mounds of the Snohl, a large (1000 kilogram) burrowing scavengerlreducer. In exchange for shelter, the Hivers provided the Snohl food. Hivers farmed fungus i n abandoned Snohl tunnels, and forag- ed outside for decaying vegetation and dead animals, which they used as a source of food for the fungus. Hivers ate the fungus (and whatever fresh food they could find outside, as well); the burrowers also ate fungus and various other by-products of the Hiver farming efforts.

The Hiver homeworld of Guaran experienced severe en- vironmental changes (an ice age) which forced foraging parties t o travel farther afield i n search of new sources of food and fer- tilizer. Foraging advanced from simple scavenging and gather- ing to complex cooperative efforts to hunt and trap live game.

The characteristic curiosity of the Hiver race arose at much the same time. Curiosity was a decidedly pro-survival trait: it leadtothediscoveryofnewfoodsourcesandhuntinggrounds; itallowedtheHiverstolearntousefire,tocultivatecrops,and to domesticate animals.

Like many aspects of Hiver culture, ***language*** actually developed before sentience. A combination of armltentacle wav- ing and physical contact evolved early to signal various facts- the presence and location of fertilizer sources, the existence of some threat to the community, and so forth. Paleosophon- tologists studying the Hivers have compared these pre-sentient Hiver exchanges to the communications of Terrestrial bees or the dance of the scout caste of migratory kalgurils from Iddomakur.

The development of intelligence for Hivers was a slow pro- cess, but one that was encouraged by the Hiver breeding system. Once intelligence proved viable within a small area, those Hivers tended t o breed together, and their larvae survived to return to the local nests, where they were educated and in turn bred more Hivers.

As sentience developed, the Hiver language became more complex and was adapted to communicating more abstract ideas and concepts. A written language also developed. Initial- ly, it was based on ideograms which imitated much of the limb signal content of the Hiver gesture language, but it has since evolved into a precise symbology. Computerized terminals and computer-enhanced input stations have produced a hybrid be- tween the written and gestured languages: an animated language display which enables non-Hivers to communicate directly with Hivers. Single keystrokes or short instructions are used to supplement the basic information content by convey- ing attitudes, background, or emotions. Hivers communicating with non-Hivers generally use a vocal synthesizer which con- verts Hiver written language into local speech.

The Hiver written language has become the standard within the Hive Federation. Local cultures may retain their own languages, but any which have interstellar interactions are also conversant with Hiver written language.

Hivers talking among themselves use all aspects of their language (gesture, touch, symbology, and intensity) simultaneously, creating a process capable of great subtlety and sophistication, but at the same time virtually unintelligible to the outsider.

PRE-SPACEFLIGHT HISTORY

The development of the Hivers on Guaran was a gradual pro- cess. Equipped with language, the ability to raise fungus as a basic foodstuff, and always with a driving curiosity, the Hivers expanded from their small settled areas along the equator, pushing north and south as the massive glaciers of the ice age retreated.

Shipbuilding first became an art, and then a science; Hivers explored their world by sea, searching for trade goods and pro- fits even as they satisfied their curiosity about their world.

In the centuries before the Hivers gained space-flight, there were three major events which have a specific bearing on Hiver development: their industrial revolution, the acceptance of manipulation as a social force, and the Guaran breeding catastrophe.

Industrialization: The industrial revolution for any culture is a necessary step toward starflight. For the Hivers, it laid the groundwork for the many aspects of their society.

Most importantly, the Hiver nest system survived the transi- tion to industrialization; instead of seeing a breakdown in the established social structure, individual Hiver nests took up various roles necessary for industrialization.

As a result, the nests remained an important part of the Hiver economy, and a driving force in industry. Individuals were able to move from nest to nest, but the nests themseves became the companies that benefitted from the industrialization.

Manipulation: The Hivers have always been a very in- dividualistic race; however strong their cooperation in nests has been, they are also capable of individual action in pursuit of their o w n goals.

Problems and crises in Hiver society have always been respondedtointwoways.Societydrivenbypublicopinion,has had responses that produced temporary or short-term solutions. Individuals, however, have taken a longer view and those wtrong-willed, intelligent ones have performed manipulations in order to create long term solutions.

The Guaran Breeding Crisis: The rapid industrialization of Hiver society created extensive pollution and converted much of the wilds of Guaran to desert. Since the wilds were (and still are) necessary for Hiver larvae during their first year, the loss of these wilderness lands posed a distinct and grave problem to all Hivers.

Society at large responded in a fragmented manner: each nest worked to preserve its own wilderness, but a concerted effort to preserve all wildernesses was slow in coming.

Eventually, one Hiver (M. Eneri) conducted an elaborate manipulation which resulted in the dedication of specific regions of Guaran t o wilderness specifically for larvae t o develop in. The regions are carefully sited to reduce the distance any larvae must travel to a minimum. A t the same time, stringent restrictions on allowable pollution levels were greatly reduced in order to keep the wildernesses alive and viable.

As with most successful manipulations, its results have since been accepted by custom as necessary to the health and well- being of Hiver society (and in Hiver society, such customs have the force of law).